Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Main report and annexes

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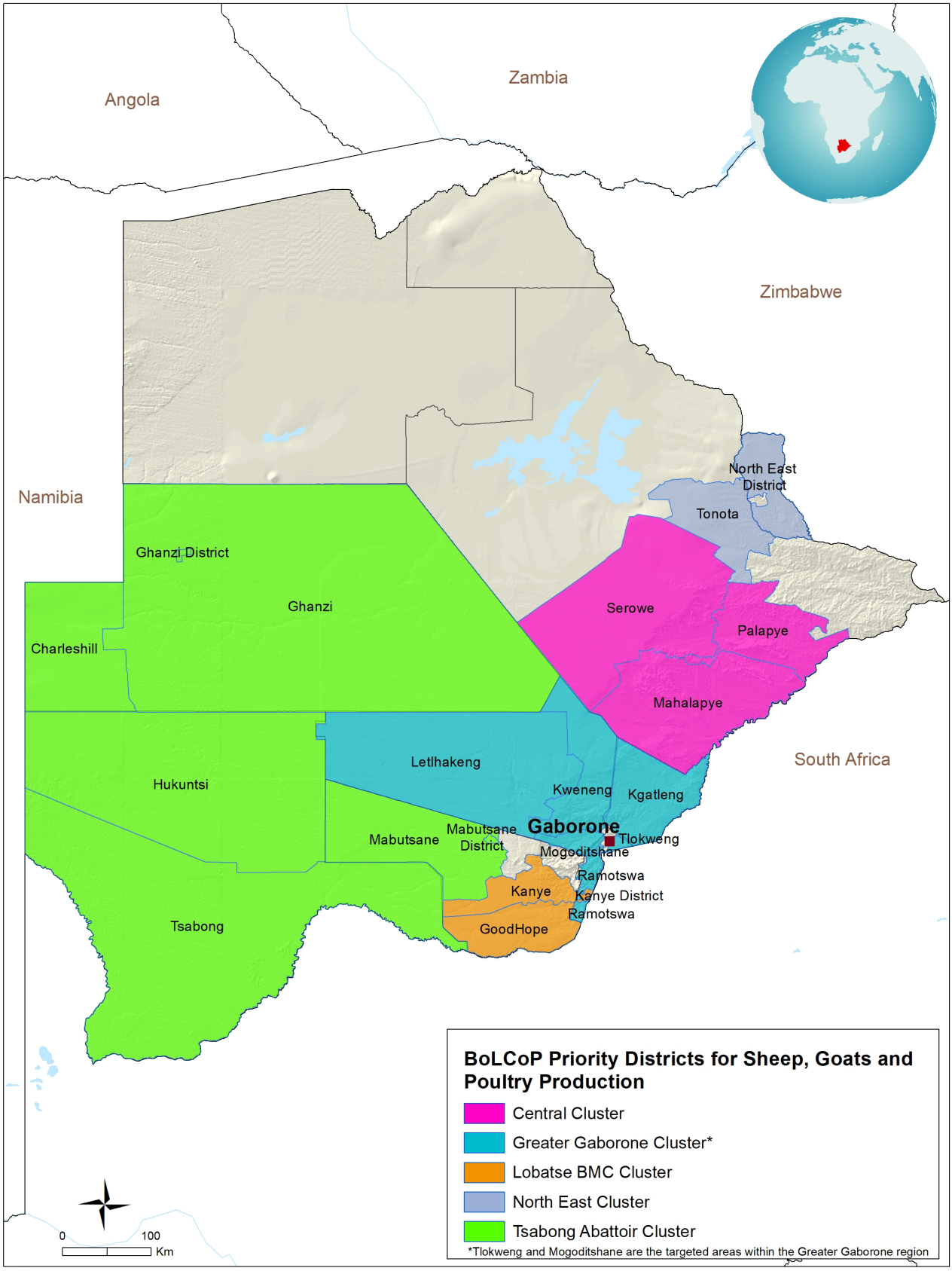
Map of the Project Area



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Map compiled by IFAD | 04-09-2025

Abbreviations and Acronyms

ACC	Adaptation to Climate Change
AF	Adaptation Fund
ASSP	Agricultural Services Support Project
AWPB	Annual Work Plan and Budget
BAITS	Botswana Animal Identification & Traceability System
BAMB	Botswana Agricultural Marketing Board
BDIH	Botswana Digital and Innovation Hub
BIDPA	Botswana Institute for Development Policy Analysis
BITC	Botswana Investment and Trade Centre
BIUST	Botswana International University of Science and Technology
BMC	Botswana Meat Commission
BOBS	Botswana Bureau of Standards
BoLCoP	Botswana Livestock Commercialisation Project
BoTC	Botswana Trade Commission
BUAN	Botswana University of Agriculture and Natural Resources
BTC	Botswana Telecommunications Corporation
CBO	Community-Based Organisation
CEDA	Citizen Entrepreneurial Development Agency
COI	Core Outcome Indicator
COSOP	Country Strategic Opportunities Programme
CPE	Country Programme Evaluation
CPI	Corruption Perception Index
CPIA	Country Policy and Institutional Assessment
CSA	Climate-Smart Agriculture
CSN	Country Strategy Note
CSO	Civil Society Organisation
DAPH	Department of Animal Production and Health

DDC	District Development Council
DVS	Department of Veterinary Services
EMPs	Environmental Management Plans
ENRM	Environmental and Natural Resource Management
ERTP	Economic Recovery and Transformation Plan
ESMP	Environmental and Social Management Plan
FPIC	Free, Prior, and Informed Consent
GABS	Government Accounting and Budgeting System
GALS	Gender Action Learning System
GBV	Gender-based Violence
GCF	Global Climate Fund
GEF	Global Environment Facility
GHG	Greenhouse Gas
GoB	Government of Botswana
GRM	Grievance Redress Mechanism
HH	Household
ICARDA	International Centre for Agricultural Research in the Dry Areas
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
IOE	IFAD Independent Office of Evaluation
IP	Implementing Partner
IPRM	Integrated Project Risk Matrix
ISM	Implementation Support Mission
KM&C	Knowledge Management and Communication
LA	Loan Agreement
LEA	Local Enterprise Authority
LSF	Lobu Smart Farm

M&E	Monitoring and Evaluation
MFI	Microfinance Institution
MoCWBE	Ministry of Child Welfare and Basic Education
MoET	Ministry of Environment and Tourism
MoF	Ministry of Finance
MIRA	Meat Industry Regulatory Authority
MIS	Management Information System
MoLA	Ministry of Lands and Agriculture
MoLGTA	Ministry of Local Government and Traditional Affairs
MoU	Memorandum of Understanding
MoTE	Ministry of Trade and Entrepreneurship
MoYGA	Ministry of Youth and Gender Affairs
MSMEs	Micro-, Small-, Medium-Sized Enterprises
NAIP	National Agricultural Investment Plan
NARDI	National Agriculture Research Development Institute
NDB	National Development Bank
NDC	Nationally Determined Contribution
NDP12	National Development Plan 12
NGO	Non-Governmental Organisation
NPC	National Planning Commission
NRM	Natural Resource Management
NST	National Transformation Strategy
OAG	Office of the Auditor General
O&M	Operations and Maintenance
ORMS	Operational results Management System
PCR	Project Completion Report
PEEPA	Public Enterprises Evaluation and Privatisation Agency

PEFA	Public Expenditure and Financial Accountability
PFI	Partner Financial Institution
PFM	Public Financial Management
PIM	Project Implementation Manual
PMO	Project Management Office
PMU	Project Management Unit
PMT	Project Management Team
PP	Procurement Plan
PPRA	Public Procurement Regulatory Authority
PSC	Project Steering Committee
PTCC	Project Technical Coordination Committee
PwD	People with Disability
RADs	Remote Area Dwellers
RDC	Rural Development Council
RIMS	Results and Impact Management System
RTA	Reimbursable Technical Assistance
RTCs	Regional Training Centres
SADC	Southern African Development Community
SECAP	Social, Environmental, and Climate Assessment Procedures
SIFB	Small-stock Industry Federation of Botswana
SOEs	State-Owned Enterprises
SSTC	South-South and Triangular Cooperation
SWC	Soil and Water Conservation
TA	Technical Assistance
ToC	Theory of Change
ToR	Terms of Reference
UB	University of Botswana

UMIC	Upper-Middle Income Country
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
USD	United States Dollar
VC	Value Chain
VCA	Value Chain Activities
WOAH	World Organisation of Animal Health
WTO	World Trade Organisation
YDF	Youth Development Fund

In line with IFAD mainstreaming commitments, the project has been validated as:

☑ Be gender transformative ☑ Be youth sensitive ☐ Be nutrition sensitive ☐ Prioritize persons with disabilities ☐ Prioritize indigenous peoples ☑ Include climate finance ☑ Build adaptive capacity

Executive Summary

Project in Brief – The Botswana Livestock Commercialisation Project (BoLCoP) seeks to 'contribute to the Government of Botswana's objective of inclusively and sustainably improving productivity and commercialization of the small livestock subsector'. The Project Development Objective (PDO) is to "enhance the incomes and resilience of rural households through more inclusive, sustainable and technology-driven small livestock value chains. It is an eight-year Project with a budget of a total cost is USD 94.6 million of which the International Fund for Agriculture Development (IFAD) would provide a loan of USD31.52 million under the Borrowed Resources Allocation Mechanism (BRAM). The Ministry of Lands and Agriculture (MoLA) will be BoLCoP's Lead Implementing Agency.

Political and Economic Context – Botswana is widely considered to be a stable democracy, underpinned by strong institutions. It holds the record of being Africa's longest-standing multiparty democracy, with the Botswana Democratic Party (BDP) consistently dominating general elections[1]. However, in 2024, the country underwent landmark elections, where the governing Umbrella for Democratic Change (UDC) unseated the BDP, which governed the country for 58 years. Botswana's economy is characterized by limited economic diversification, dominated primarily by diamond mining which provides 90% of Botswana's export revenues[2]. However, the country's GDP contracted by 3% in 2024[3], primarily due to the weak global diamond market. In 2024, Moody's forecasted that Botswana's debt burden will increase from 27 percent of GDP at the end of 2024/2025 to 40% of GDP at the end of 2025/26, further changing the country's outlook from stable to negative. In 2025, the fiscal deficit for the year is expected to reach 9.2% of GDP[4]. These challenges further compound an unemployment rate of 27.6%, with youth unemployment higher at 34.4% and a poverty rate of 13.7% (around 358,000 people) under the USD 2.15 poverty line[5].

Poverty Profile – According to the Sustainable Development Report, Botswana's progress on SDG 1 is stagnating, with a poverty rate of 21.37% under the USD 3.00 poverty line and 27% under the USD 3.65 a day[6]. When considering poverty rates under the UMIC poverty line of USD 6.85, 61.5% of the population fall below this line, further reinforcing the challenges the country is facing with eradicating poverty[7].

Food and Nutrition Security – Botswana faces persistent challenges related to food and nutrition security, largely due to semi-arid climatic conditions, dependence on food imports, and limited agricultural productivity. While the country has achieved relative food availability at the national level through imports, household-level food access and dietary diversity remain a concern, especially in rural areas with rising food prices and climate shocks further exacerbating vulnerability. Botswana faces high climate vulnerability, with major risks including land and rangeland degradation from overgrazing, biosphere formation around water points, poor water retention in sandy Kalahari soils covering over 70% of the country, erratic rainfall ranging from under 127 mm in the southwest to 500 mm in the northeast, and over 95% dependence on groundwater for agriculture.

Environment and Climate Change – The country faces high climate vulnerability with major environment and climate-related risks including: a) land and rangeland degradation resulting from overgrazing; b) the formation of trampled or Sacrifice zones (zones of compacted soil and vegetation loss), particularly around communal water points; c) poor water retention and increased runoff in sandy Kalahari soils covering over 70% of the country; d) erratic rainfall ranging from under 127 mm in the southwest to 500 mm in the northeast, and over 95% dependence on groundwater for agriculture. Rainfall has declined over the past 30 years, with fewer rainy days and greater variability, trends expected to intensify under climate change—projected to reduce annual precipitation by 2–7% at 1 °C warming and 5–12% at 2 °C, lengthening dry spells and warm periods while increasing flood risk. These shifts threaten rainfed agriculture and livestock systems, reducing pasture regeneration, straining water resources, and heightening food insecurity. The 2023 ND-GAIN Index ranks Botswana 83rd globally, with a score of 49.1, a vulnerability score of 0.432, and a readiness score of 0.415[8], reflecting moderate adaptive capacity but significant exposure to climate hazards.

Rationale for IFAD Involvement – Botswana has a high incidence of food insecurity and multidimensional poverty[9], unemployment, and inequality – including gender inequality[10]. These inequities have a disproportionate impact in rural areas. Furthermore, the country is highly vulnerable to climate variability and change, notably droughts, due to its dependence on rain-fed agriculture. Hence, the Government is committed to a reform agenda that aims at catalysing greater socio-economic progress. The agricultural sector, particularly the small livestock sector[11], has been identified as a strategic economic diversification priority for Botswana that can bolster food security, commercialisation (including exports) and poverty reduction for men and women. Small livestock in Botswana are less resource-and emission-intensive than its well-established cattle sector, providing a natural pathway for increased economic gains, climate resilience, and poverty eradication in rural communities. Accordingly, GoB invited IFAD to steer the needed interventions.

IFAD has considerable ability in the region with regard to supporting poor rural people increase their incomes, diversify their livelihoods, and participate in decisions that shape their lives. The Fund also has specific experience in the small livestock sector in Botswana through its technical support to the Government on the development of the Botswana Small stock Sector Strategy and the delivery of the Lobu Smart Farm Project through a reimbursable technical assistance initiative financed by the Government and the United Nations Economic Commission for Africa (UNECA). IFAD will also draw on achievements and lessons learned from livestock projects across the East and Southern Africa, as a means of further integrating specific approaches that can respond to the needs of the country.

Project Area – BoLCoP's geographical targeting strategy focuses on 21 districts with: a) high concentration of small livestock and value chain actors – this ensures critical mass for value chain development and economies of scale; b) Agroecological suitability for small livestock production – based on climate resilience, grazing conditions, and land-use potential; c) Potential for commercialisation

of the subsector – BoLCoP's primary focus is commercialisation and this criterion ensures that the selected focal areas offer opportunities for achieving that objective with a particular focus on backward and forward market linkages; d) Availability of BoLCoP's target groups – this ensures that the Project reaches out to its target beneficiaries, including subsistence farmers (micro-scale), semicommercial farmers; emerging commercial farmers and SMEs; and e) Potential for accessing rural finance facilities – this ensures the availability of demand for inclusive financial services for value chain actors; this is one of BoLCoP's target outputs. A total of 19 of the 21 districts were grouped into five clusters as follows: Greater Gaborone Cluster (Molepolole, Mogoditshane, Ramotswa, Kgatleng, Tlokweng, Letlhakeng); b) Lobatse BMC Cluster (Good hope and Kanye); c) Tsabong abattoir Cluster (Tsabong, Ghanzi, Charleshill, Hukuntsi, Mabutsane); d) Central cluster (Mahalpye, Palapye, Serowe); e) North East and Tonota Cluster; and f) Boteti (part of both Central and North East clusters). In addition to the five clusters, BoLCoP will focus on Ngamiland region's two districts of Northwest and Okavango. Interventions in this region will exclusively as a source market for surrounding districts, given its high tourism potential.

Target Group – BoLCoP will directly reach 50,000 households (equivalent to about 200,000 people), the majority being rural poor or vulnerable smallholder farmers, existing/emerging commercially oriented farmers, and/or remote area communities[12] who will be supported to meaningfully participate in the target value chains. Direct beneficiaries will be selected from the following broad socio-economic groups: a) subsistence farmers (micro-scale) (20%, 10,000 HHs); b) semi-commercial farmers (small-scale) (60%, 30,000 HHs); c) emerging commercial farmers (medium scale) (15%, 7,500 HHs); and d) small and Medium Enterprises ((SMEs), on-farm and off-farm SMEs)) (5%, 2,500 HHs).

Targeting Strategy – BoLCoP will use a tailored and inclusive approach by linking beneficiary outreach with thematic priorities based on need, potential, and to enhance equity. Key mechanisms will include: a) Tailored Pathways – BoLCoP will offer differentiated packages (inputs, finance, training, infrastructure) matched to producer typologies; b) Women Empowerment – BoLCoP will prioritize outreach strategies targeted at women smallholder farmers through enhanced leadership and participation in producer groups, and through inclusive extension support in priority value chains; c) Youth Inclusion – Focus on improving youth's access to productive resources, providing tailored skills training, provision of subsidized input packages, agri-business incubation, investment in youth-centred digital technologies, youth employment opportunities, etc.; d) Family Farming Approach – Support family farming as a key strategy to reduce rural poverty and enhance food security; e) Household Methodologies– Integrating the Gender Action Learning System (GALS). Among other objective, the methodology will be adapted to address GBV and HIV/Aids, identified as common social risks; f) Cluster-based Approach – Support for strengthening producer cooperatives and input/output hubs in high-density livestock zones; g) Nutrition-sensitive approaches: promote household dietary diversity, especially for children and female-headed households through small stock and poultry products; and h) Climate-resilient Targeting – Integrate climate vulnerability mapping and climate-smart agriculture practices into beneficiary selection to prioritise communities and households most exposed to drought, heat stress, and land degradation. This will ensure that interventions (e.g., input provision, training, infrastructure support) are tailored to build adaptive capacity, reduce climate risks, and enhance resilience of production systems in the face of increasing climatic variability.

Project Outcomes – BoLCoP's interventions will seek to sustainably address the identified challenges limiting the performance of the small livestock subsector in the target districts with a deliberate focus on ensuring that different target groups including women, men, and youth equitably participate in and benefit from project opportunities. The following are the *expected* outcomes: a) Outcome 1: Increased Climate-Resilient Small Livestock Production and Productivity; b) Outcome 2: Strengthened and Inclusive Small Livestock Value Chains; and c) Outcome 3: Enhanced Enabling Environment for Improved Small Livestock Development.

BoLCoP Components – The Project comprises the following components:

1. **Component 0: Response to Emergencies and Disasters (RED)** – BoLCoP will facilitate the setting up of mechanisms for the project to swiftly cope with sudden disasters that negatively impact the project area and beneficiaries. The shocks may include drought and flood-related emergencies, and livestock disease outbreaks.
2. **Component 1: Increased Climate-Resilient Small Livestock Production and Productivity** – This component seeks to facilitate increased production and productivity of small livestock thereby contributing to better incomes for the target group; it would also contribute to food security, climate resilience and dietary diversity.
3. **Component 2: Strengthened Small Livestock Value Chains** – This component will improve functioning of the target climate-smart value chains – goats, sheep and poultry. For goats and sheep, the focus will be on meat production whilst on poultry it will be on both broiler and layers; and
4. **Component 3: Enhanced Enabling Environment for Improved Small Livestock Development** – This will be a cross-cutting component servicing the technical components and facilitating pathways for BoLCoP's effective and efficient implementation.

Project Costs and Financing Plan – The estimated costs for BoLCoP, including base costs and price contingencies are estimated at USD 86.84 million. The overall investment costs have been estimated at USD75.3 million (88% of base costs), and recurrent costs at USD10.05 million (12% of base costs). Price contingencies have been estimated at USD1.3 million. BoLCoP will be financed as follows: a) IFAD-13 Borrowed Resources Allocation Mechanism (BRAM) for a total of USD31.52 million (36% of the total cost); b) Global Environment Facility (GEF) for a total of USD 5 million (6%) (the entry into pipeline process has commenced). The process is expected to be completed and funds made available by the third quarter of 2027. Implementation of the GEF-funded activities should start by the first quarter of 2028. This timing is consistent with the disbursement profile used in the BoLCoP COSTABs which projected the GEF funds to be available for disbursement the first quarter of 2028; c) Adaptation Fund (AF) for a total of USD 20 million (23%). The AF funds are also expected to be available for disbursement by the first quarter of 2028, at the latest; d) Government of Botswana counterpart funding estimated at USD5.088 million (6%); e) beneficiary contributions (in-kind) and SSTC grant is estimated at US$ 1.75 million (USD1.5 million and USD0.25 million, respectively) (2%). The Project is being designed with a financing gap of USD23.48 million (27%) to be filled with additional BRAM funds or from other external sources. Parallel financing will be provided by the NSO (US$10M) and through the EU funded DeSIRA+ grant that will support integrated livestock and horticulture systems leveraging on BoLCoP investments and beneficiaries.

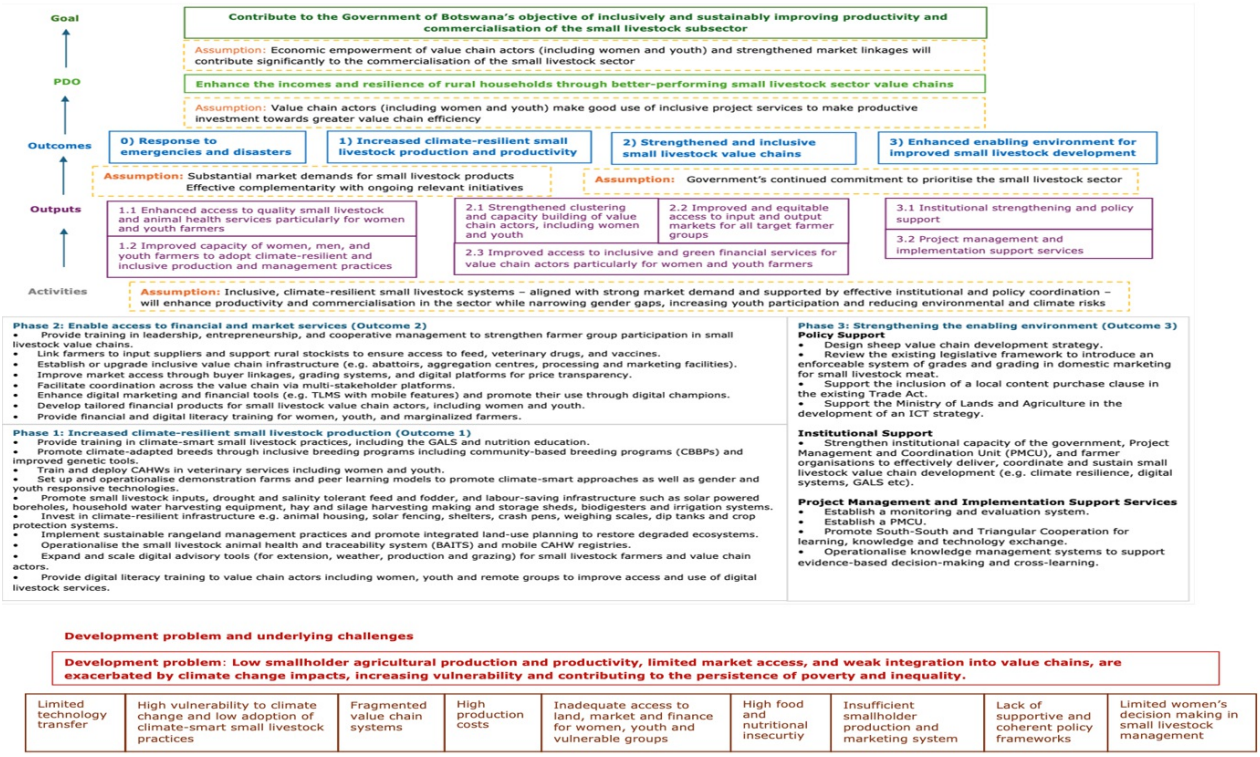
Implementation Arrangements – BoLCoP's implementation will be mainstreamed into the GoB system, both at national and district

levels. The Ministry of Lands and Agriculture will serve as BoLCoP's lead implementing agency. However, MoLA will delegate the day-to-day operation of the Project to a National Project Management and Coordination Unit (NPMCU) reporting directly to MoLA's Permanent Secretary. A NPMCU will be established comprising a team of officers either recruited through a competitive process or seconded to the NPMCU by GoB on a fulltime basis to fully focus on Project implementation. A Project Steering Committee, under the chairmanship of the MoLA Permanent Secretary, will be set up to provide overall policy and strategic guidance to the Project. A Project Technical Committee will be part of the oversight function and will be co-chaired by the Director of Animal Production and the Director Veterinary Services. The PTC will be composed of Directors of the relevant departments in the key ministries involved in the Project's implementation.

Implementation Readiness – The Project Delivery Team (PDT) has taken the following steps to address potential start-up delays: a) preparation of a draft AWPB, the associated Procurement Plan and a draft PIM as part of the design process; b) preparation of job descriptions for all the different PMCU positions; and c) a commitment by the IFAD Country Office to provide the needed support and guidance to the GoB Inter-ministerial BoLCoP Reference Group in their effort to ensure BoLCoP's timely delivery.

To address potential accessibility challenges in the 21 targeted districts, BoLCoP will adopt alternative approaches such as mobile service units, digital platforms, and radio to deliver advisory support; work through local organizations and producer associations to extend outreach; establish cluster-based service delivery for remote villages; and strengthen partnerships with private providers and decentralized service hubs to ensure consistent access to inputs, services, and markets despite poor road networks. Finally, BoLCoP will leverage synergies with the Village Connectivity Programme to advance digital extension services, online livestock market places, financial inclusion, livestock traceability, and improved access to inputs and buyers.

Theory of Change



Chapter 1: Context

1.1 Project in brief

1. The Botswana Livestock Commercialisation Project (BoLCoP) seeks to 'contribute to the Government of Botswana's (GoB's) objective of inclusively and sustainably improving productivity and commercialization of the small livestock subsector'. Its duration is set for 8 years with a total cost of USD 86.84 million. BoLCoP is expected to directly benefit 50,000 households (equivalent to about 200,000 people). The GoB has appointed the Ministry of Lands and Agriculture (MoLA) as BoLCoP's Lead Implementing Agency.

1.2 National or Regional Context

2. ***Political Context*** – Botswana is widely considered to be a stable democracy, underpinned by strong institutions. It holds the record of being Africa's longest-standing multiparty democracy[13]. In 2024, the Umbrella for Democratic Change (UDC) unseated the Botswana Democratic Party, which governed the country for 58 years. The new administration has promised an

array of reforms, notably diversifying the economy, lowering the unemployment rate, and reforming an array of social programmes[14].

3. ***Economic context*** – The discovery of one of the world's largest diamond deposits has turned Botswana into one of the fastest growing economies. The proceeds from diamond mining have been used for infrastructure and human development, with basic services, such as electricity, water and sanitation rolled out to a wider segment of the population. As per capita income has grown rapidly over the last three decades, from USD 2,427 in 1989 to about USD 7,696 in 2024,[15] the country has transformed from an underdeveloped country to an upper-middle income country (UMIC), with the aspirations of becoming high income by 2036.

4. However, Botswana's economy is characterized by limited economic diversification, dominated primarily by diamond mining which provides 90% of Botswana's export revenues[16]. However, the country is experiencing a short to medium term economic downturn. The country's GDP contracted by 3% in 2024[17], primarily due to weak global diamond markets. In 2024, Moody's forecasted that the debt burden will increase from 27 percent of GDP at the end of 2024/2025 to 40% of GDP at the end of 2025/26, further changing the country's outlook from stable to negative. In 2025, the fiscal deficit for the year is expected to reach 9.2% of GDP[18].

5. Moreover, the unemployment rate stands at 27.6%, and the country ranks in the top ten most unequal countries globally, with its Gini index over 30% higher than the average for UMICs[19]. This necessitates targeted interventions amongst resource poor communities, coupled with intentional strategies to diversify the economy.

6. ***Poverty*** – According to the Sustainable Development Report, Botswana's progress on SDG 1 is stagnating, with a poverty rate of 21.37% under the USD 3.00 poverty line and 27% under the USD 3.65 a day[20]. When considering poverty rates under the UMIC poverty line of USD 6.85, 61.5% of the population fall below this line, further reinforcing the challenges the country is facing with eradicating poverty[21]. As of 2022 and based on the national poverty line, urban poverty stood at 4.7% and 25.4% in rural areas, underscoring the disparity between the rural and urban areas of the country[22].

7. ***Food Security and Nutrition*** – Both undernourishment and food insecurity are high in Botswana. Between 2021 and 2023, the prevalence of moderate or severe food insecurity in the total population stood at 55.4%, whereas the prevalence of undernourishment stood at 22%[23]. With a global hunger index ranking of 90 out of 127 countries, Botswana has a score of 20.7, equating to a level of hunger that is serious[24]. The sustainable development report notes that Botswana's SDG2 score is decreasing, with respect to the prevalence of undernourishment; the country is ten times above its long-term objective of 2.5% undernourishment. Also, heavy reliance on food imports adds additional vulnerability to food security.

8. ***Challenges and Opportunities in the Agriculture Sector*** – Botswana's agricultural sector has seen a steady decline in its contribution to the overall structure of the economy[25]. However, it is still seen as a sector that is critical for employment, food security and rural livelihoods. An estimated 25% of the country's total workforce is employed in the sector, with smallholder farming serving as the engine of employment. Livestock farming serves as the pillar of the sector, contributing an estimated 80% of agricultural GDP[26]. Botswana's reliance on food imports is a significant challenge, with the value of imported to locally produced food standing at a 3:1 ratio[27]. The dependency on food imports underscores the country's vulnerability to global market fluctuations, as well as to climate-related events.

9. In terms of access to finance for the agriculture sector, many value chain actors are financing their investments from four principal sources in the following order of relative importance – government subsidies and grants, own savings, subsidized/concessional loans from the Government, and from a few commercial loans. The main government financing programme that covers the livestock sector is the Thuo Letlotlo Livestock Management System (TLMS). However, TLMS has not yet been implemented, though farmers have a high expectation of how it will assist them financially, leading to financial access as envisaged. Meanwhile, the existing rural financing programmes (see Technical Note 1, Annex 12) have been observed to be underperforming, characterized by : a) inefficient use of grants and matching grants; b) very high non-performing loans; c) very risk-averse value chain actors who have very low appetites to take up loans but have a high preference for subsidies and grants; and d) limited ability and capacity by government agencies administering the funds to effectively monitor and follow up on beneficiaries, leading to the high default rates. Also, women, youth, and People with Disabilities (PwDs) face additional barriers due to lack of appropriate collateral, such as land.

10. ***National Strategies*** – Botswana's Vision 2036 anchors the long-term ambition of the country, which is to be a high-income country by 2036. Central to this is an agricultural sector that is commercially viable, technologically driven, and inclusive. The country is in the process of finalizing its twelfth National Development Plan (NDP12) (2025-2030), which will commence towards the latter part of 2025. The plan will focus on economic diversification and fostering private sector-led job creation. This will require productivity gains in non-mining sectors, most notably, the agricultural sector. Botswana is in the process of updating its Agriculture Sector Policy (ASP): Turning Culture into Business - 2025, with an advanced draft circulated for discussion. The draft policy centres on: a) climate smart, science driven agriculture; b) expanding access to finance and insurance; c) strengthening land tenure and water rights; d) supporting the development of inclusive agricultural value chains; e) incentivizing agri-tech start-ups and entrepreneurship; f) ensuring the inclusion of women and vulnerable groups; and g) promoting sustainable practices that regenerate soil. BoLCoP seeks to contribute to all these focal areas.

11. ***Key actors and institutional arrangements*** – Within the GoB, IFAD's main institutional partners are the Ministry of Finance, Ministry of Trade and Entrepreneurship, the Ministry of Local Government and Rural Development, the Ministry of Nationality, Immigration and Gender Affairs, the Ministry of Environment and Tourism and the MoLA. MoLA is the lead entity in the agricultural sector, providing policy formulation, agricultural promotion, and extension services. The departments of animal production and veterinary services stand as key departments that underpin the small livestock sector in the country. The staff from these departments are spread across the country, although an analysis has found that there is limited staff outreach in rural areas, in addition to capacity limitation at different levels. While BoLCoP seeks to augment some of the limiting capacities, the Project's successful implementation will necessitate greater collaboration across ministries and administrative units.

1.3 Strategic Alignment

12. BoLCoP is aligned with Botswana's long term development aspirations articulated in Vision 2036; it has been formally included in the NDP12 which puts particular emphasis on diversifying the economy in an inclusive and sustainable manner.

13. BoLCoP aligns with the: a) National Transformation Strategy (2023-2030); b) NDP12; and c) ASP-2025. BoLCoP is designed to contribute variously to the operationalisation of all these national policies/strategies, putting particular emphasis on the small livestock subsector.

14. The Project is aligned with the new 2025-2027 Country Strategy Note's (CSN), contributing directly to Strategic Objectives 1 and 2 of improved smallholder farming systems and stronger and more inclusive commercialisation of agricultural value chains. BoLCoP will contribute to sustainable development goals (SDGs) 1 (end poverty), 2 (end hunger), 5 (Gender Equality), 8 (Decent Work and Economic Growth), 13 (Climate Action), and 17 (Partnership for Sustainable Development).

15. BoLCoP complements current and pipeline initiatives in the livestock sector, notably the Conservation International's "Ecosystem-Based Adaptation and Mitigation in Botswana's Communal Rangelands" Project financed by the Green Climate Fund and the potential investment from the World Bank focused on the red meat value chain. In addition, ongoing interventions by the United Nations Food and Agriculture Organisation (FAO) and the United Nations Development Programme (UNDP) on the national fodder production strategy[28] and the drylands support intervention[29] will allow for BoLCoP to scale up fodder production practices and equally support conservation practices in targeted districts.

1.4 Portfolio and Lessons Learned

16. ***Portfolio*** – IFAD has supported two sovereign investments in Botswana. The Arable Lands Development Programme (ALDEP), 1981-1992, and the Agricultural Services Support Project (ASSP), 2010-2018. Since then, there has been a small Reimbursable Technical Assistance (RTA) intervention in the small stock value chain[30] (2021-2023), followed by another RTA through a UN-to-UN contribution from the United Nations Economic Commission for Africa (UNECA) to IFAD to fund the Lobu small stock farm project (2022-2024). Over the past four years, IFAD has deepened its understanding of the small livestock sector in Botswana and has become a trusted partner of the Government. The recent track record in the small livestock sector alongside the renewed trust with the GoB has made BoLCoP a strategic priority for the country.

17. BoLCoP is also being designed in parallel with the first ever non-sovereign operation (NSO) for Botswana, with a local commercial bank. The NSO will complement BoLCoP by financing bankable Micro, Small and Medium Enterprises (MSME) that can create backward linkages within the targeted value chains under BoLCoP. The NSO will further deepen liquidity within the agricultural sector and serve as a catalytic tool in structuring market relations which contribute towards greater commercialisation.

18. ***Lessons Learned*** – BoLCoP builds on the following lessons from ASSP, the RTAs, and a CSN completion review.

19. Lessons related to implementation delays and other project implementation issues:

    - *Poor Government Ownership Negatively Affects Implementation Effectiveness and Sustainability* – Previous projects were characterized by a lack of consistent government ownership; this did not only affect effective implementation but also sustainability of the interventions. There was also a case with the Piloting Agricultural Productivity Enhancement Project (PAPEP) which was designed by IFAD but not eventually endorsed by the Government. To address that aspect, GoB was fully involved in the entire process of problem identification, concept note preparation and designing of BoLCoP. The Government and its national and district institutions (ministries and parastatals) were engaged and variously consulted during the entire process. In addition, an inter-ministerial reference team was established by the Government during the design of BoLCoP to ensure compliance with government requirements;
    - *Weak PMUs and Start-up Delays are a Hindrance to Effective Project Implementation:* ASSP was hampered by start-up delays and an under capacitated PMU structure three years into project implementation. To that effect, BoLCoP's design has proactively taken deliberate steps to address the two challenges. Such steps include: a) preparation of the terms of reference (ToRs) to be used to recruit Project staff; b) extensive discussions between the design team and the Project's lead implementing agency on the need to ensure recruitment of the best available talent for coordinating Project implementation; c) facilitating the GoB to ensure that factors that contribute to delayed start-ups are adequately addressed. For details on all these aspects, refer to Section 3.10: Implementation Readiness of this report. While taking these additional steps to ensure timely start-up, the project duration has been set at eight years to allow sufficient time for effective implementation;
    - *Lengthy Procurement Processes Affect Timely Activity Implementation* – Previous interventions were hampered by lengthy procurement processes and this negatively affected effective Project implementation. This was attributed to several factors, including capacity of the staff and institutions involved in the provision of those projects' procurement function. To ensure that capacity limitations do not affect BoLCoP implementation, the design team undertook a procurement assessment of the key national and district institutions that will be involved in Project implementation. Some of the identified gaps are being addressed while others will be addressed during BoLCoP implementation. The design team also proactively engaged GoB's procurement regulatory authority to discuss the provision of BoLCoP's procurement function. It was agreed that the authority will further identify key issues prior to Project implementation and IFAD will facilitate the process of addressing the issues. In addition, the BoLCoP staff will all receive targeted procurement training and support in the first six months of Project start-up;
    - *Poor M&E Systems Make it Difficult to Effectively Monitor Progress* – ASSP was characterized by weak M&E systems and, by extension, poor data collection, analysis and reporting. This made it difficult to progressively assess performance. To address that gap, adequate resources have been allocated to the provision of the M&E and knowledge management (KM) functions. In addition, both M&E and KM will be guided by BoLCoP-specific M&E and KM strategies and the associated action plans to ensure effectiveness. Also, all the associated staff at the national and district levels will be provided with the needed capacity building to enhance their collective skills. Digital M&E systems will also be rolled out to better ensure that there is a robust

system in place;
- *Challenges in the Provision of the Financial Management (FM) Function Lead to Inefficiency*– Lessons from prior IFAD-supported Projects in Botswana suggest that the following aspects would need to be closely monitored during implementation: a) weaknesses in budget execution and funds flow; b) limited FM capacity at the district level; c) asset management; d) procurement-related delays affecting financial execution; e) inadequate internal controls in grant/subsidy disbursement; f) poor audit follow-up culture; g) need for dedicated FM staffing in MoLA; and h) importance of coordination between technical and FM teams. Capacity building interventions have been included in the design to address identified gaps. The other challenges will be closely monitored during supervision/implementation support Missions to ensure a conducive environment for effective Project implementation.

20. *Other key lessons include:*

- *A Focus on Gender and Social Inclusion is Key to Ensuring an Inclusive Development Agenda* – Previous IFAD-supported interventions did not have a concrete social inclusion thrust and, therefore, the resultant benefits were not inclusive. To that effect, BoLCoP is both youth sensitive and gender transformative with clear pathways for both groups. The social inclusion focus of BoLCoP will ensure that Project interventions are well anchored in the target communities;
- *Focusing on Climate Hazards is Key to Effective Project Implementation and Sustainability* – IFAD's previous interventions did not pay the needed attention to Botswana's climate vulnerability; this affected the likelihood for sustaining the successful interventions. In recognition of the need to support the country's climate vulnerabilities, BoLCoP has climate financing and about 45% of the Project's resources from IFAD will go towards addressing climate adaptation, resilience building and mitigation issues; and
- *Lack of a Structured Value Chain in the Small Livestock Subsector Lead to Uncoordinated Interventions*– IFAD's aggregated knowledge of Botswana's small stock sector has revealed that the lack of a targeted set of policies coupled with a bias towards the cattle sector has created an unstructured value chain. Therefore, future interventions must coordinate and structure the market as a means of developing the wider value chain and allied supply chains.

1.5 Rationale and IFAD's comparative advantage

21. Despite its UMIC status, Botswana still has a high incidence of food insecurity and multidimensional poverty, particularly in rural areas[31], unemployment, and inequality – including gender inequality[32]. Furthermore, the country is highly vulnerable to climate variability and change, notably droughts, due to its dependence on rain-fed agriculture.

22. The agricultural sector, particularly the small livestock subsector[33], has been identified as a strategic economic diversification priority for Botswana that can bolster food security, commercialisation (including exports) and poverty reduction for men and women. Domestic and export market opportunities have been identified but are not appropriately exploited as they require compliance to specific market requirements. Small livestock in Botswana are less resource-and emission-intensive than its well-established cattle sector, providing a natural pathway for increased economic gains, climate resilience, and poverty eradication in rural communities.

23. IFAD has considerable ability in the region with regard to supporting poor rural people to increase their incomes, diversify their livelihoods, and participate in decisions that shape their lives. The Fund also has specific experience in the small livestock subsector in Botswana through its technical support to the Government on the development of the Botswana Small stock Sector Strategy and the delivery of the Lobu Smart Farm Project through an RTA. IFAD will also draw on achievements and lessons learned from livestock projects across the East and Southern Africa region, as a means of further integrating specific approaches that can respond to the needs of the country. The proposed value chain interventions under component 2 are aligned with IFAD's pro-poor VC guidelines.

Chapter 2: Project/Programme Description

2.1 Theory of Change

24. The Theory of Change (ToC) for BoLCoP addresses key challenges hindering the commercialisation of Botswana's small livestock sector, including low productivity, weak market access, and vulnerability to climate change impacts. Underlying causes include limited adoption of climate-smart technologies, weak access to veterinary and extension services, fragmented value chains, high production costs, limited infrastructure, food and nutrition insecurity and inadequate access to land, finance, and markets. These constraints disproportionately affect women, youth and vulnerable groups.

25. The ToC addresses these constraints in a comprehensive and integrated manner seeking to simultaneously strengthenboth production and marketing systems . The ToC is structured around three interlinked outcomes: a) Increased climate-resilient small livestock production and productivity; b) Strengthened and inclusive small livestock value chains; and c) Enhanced enabling environment for small livestock development. A cross-cutting emergency response component (RED) is also embedded throughout to address the increasing frequency of climate-related shocks and disasters.

26. The design recognises the interdependencies between all three outcomes.Specifically,as a value chain project, focus shall be on market led production support. Significant progress in improving climate-resilient livestock production (Outcome 1) is a necessary for achieving sustainable commercialization through value chain development (Outcome 2).

27. For Outcome 1, the Project will focus on increasing small livestock productivity and resilience by: a) Enhancing access to animal health services and small livestock inputs, drought and salinity tolerant feed and fodder, and labour-saving infrastructure, such as

solar powered boreholes, particularly for women and youth; b) Promoting climate-smart practices and adapted breeds through inclusive, community-based breeding programmes, including training in GALS and nutrition education; c) Training of community animal health workers (CAHWs) in veterinary services; d) Investing in climate-resilient infrastructure, such as animal housing, water harvesting systems, and rangeland restoration; and e) Expanding access to digital advisory services and digital literacy to value chain actors. These investments will stabilize production, reduce climate-related risks, and build household capacity to participate in formal markets.

28. For Outcome 2 the Project is enhancing Market Participation building on the production gains achieved under component 1. in Phase 1. Activities will concentrate on integrating smallholders into competitive and inclusive value chains. Key interventions will

29. include: a) Strengthening farmer clustering and cooperatives; b) Upgrading inclusive value chain infrastructure (e.g., slaughter slabs, cold chains, aggregation centres); c) Expanding access to finance and digital tools tailored to smallholder needs; d) Facilitating market linkages, grading systems, and digital platforms for price transparency; and e) Supporting multi-stakeholder coordination platforms for value chain governance.

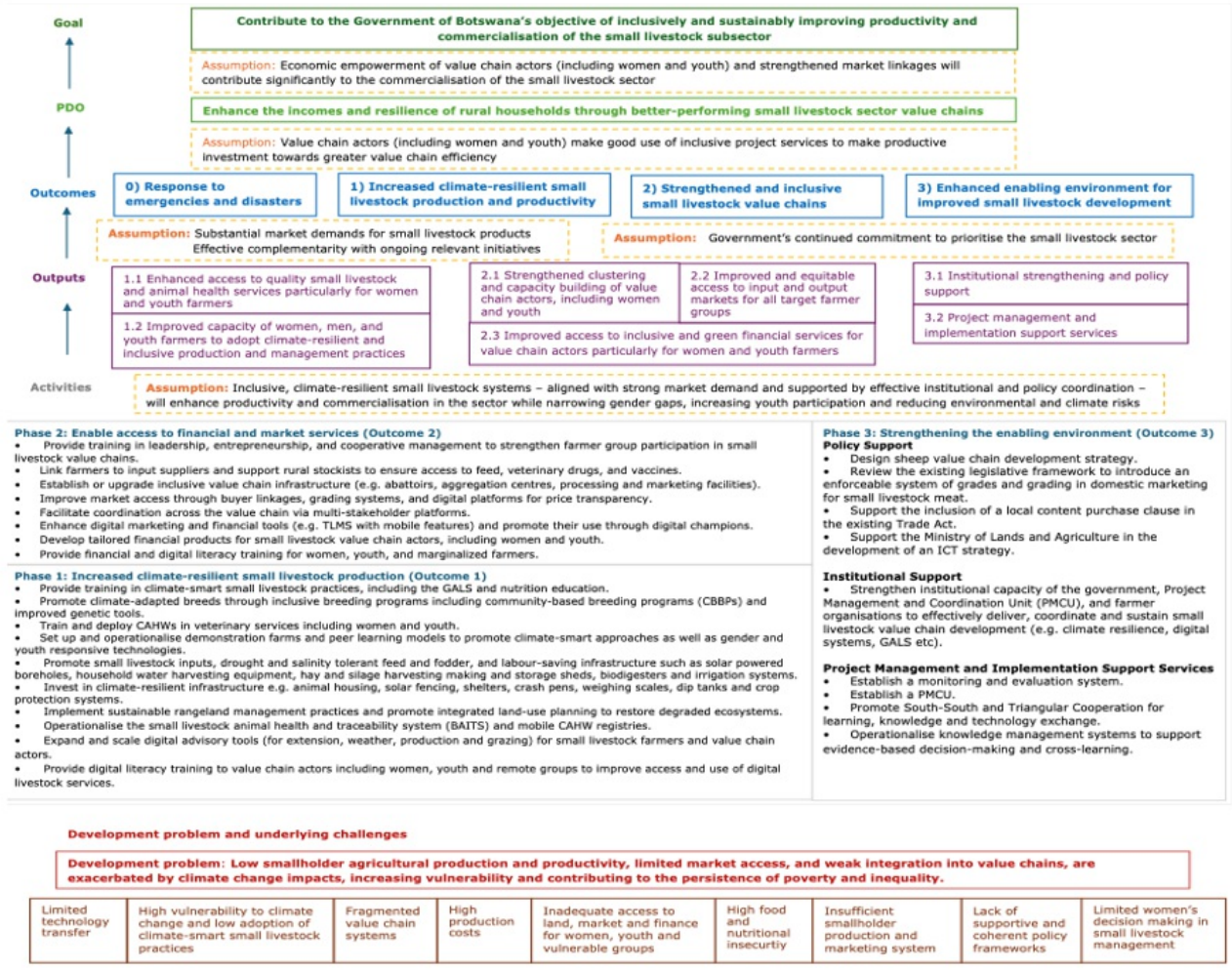
30. For Outcome 3: Strengthening the Enabling Environment ,interventions will be undertaken throughout the Project to ensure long-term sustainability. It will focus on: a) Institutional capacity building for government and farmer organizations; b) Policy and regulatory reforms (e.g., sheep value chain strategy, grading systems, local content clauses); c) ICT strategy development for the Ministry of Livestock and Agriculture; and d) Effective Project management, M&E, and knowledge sharing systems. These activities provide a more supportive and coherent enabling environment for inclusive small livestock development.

31. The RED component is integrated across outcomes to enhance preparedness and responsiveness to droughts, disease outbreaks, and climate shocks.

32. The approach adopted will generate the desired transformative shift, aligning BoLCoP's outputs with its development goal. These outputs include: a) Enhanced access to quality small livestock and animal health services, particularly for women and youth farmers; b) Improved capacity of women, men, and youth farmers to adopt climate-resilient and inclusive production and management practices; c) Strengthened clustering and capacity building of women, youth, and other value chain actors; d) Improved and equitable access to input and output markets for all target farmer groups.; e) Improved access to inclusive financial services, particularly for women and youth farmers; and f) Institutional strengthening and policy support, and Project management and implementation support services.

33. The cumulative result is a livestock sector that is more inclusive, productive, and resilient to climate change. The TOC guiding BoLCoP emphasizes environmental sustainability, gender equality, and youth empowerment. The ToC assumes that inclusive, climate-smart practices and improved ecosystem governance will enhance productivity, market access, and gender equity, while reducing vulnerability to climate impacts.

Figure 1: BoLCoP Theory of Change



2.2 Targeting Strategy

34. ***Geographic Intervention Area*** – BoLCoP will focus on 21 priority districts identified through a data-driven selection process aligned with IFAD's strategic targeting principles. A total of 19 of the 21 districts were grouped into five clusters as follows:

    - Greater Gaborone Cluster (Molepolole, Mogoditshane, Ramotswa, Kgatleng, Tlokweng, Letlhakeng); Lobatse BMC Cluster (Good hope and Kanye);
    - Tsabong abattoir Cluster (Tsabong, Ghanzi, Charleshill, Hukuntsi, Mabutsane); Central cluster (Mahalpye, Palapye, Serowe); North East and Tonota Cluster; and Boteti (part of both Central and North East clusters).

35. In addition to the five clusters, BoLCoP will focus on Ngamiland region's two districts of Northwest and Okavango.Interventions in this region will exclusively be on market linkages, given its high tourism potential.

36. The overallselection of the districts is based on a combination of key criteria and rationale discussed with GoB and other stakeholders (please refer to Annex 14: Technical Note 3):

    - *High concentration of small livestock and value chain actors* – this ensures critical mass for value chain development and economies of scale;
    - *Agroecological suitability for small livestock production* – based on climate resilience, grazing conditions, and land-use potential;
    - *Potential for commercialisation of the subsector* – BoLCoP's primary focus is commercialisation and this criterion ensures that the selected focal areas offer opportunities for achieving that objective with a particular focus on backward and forward market linkages;
    - *Availability of BoLCoP's target groups*– this ensures that the Project reaches out to its target beneficiaries, including subsistence farmers (micro-scale), semi-commercial farmers; emerging commercial farmers and SMEs; and
    - *Potential for accessing rural finance facilities* – this ensures the availability of demand for inclusive financial services for value chain actors; this is one of BoLCoP's target outputs.

37. These districts also span a diversity of agroecological zones and livestock production systems, enabling BoLCoP to pilot and

scale context-specific support packages. For instance, the dry western regions, such as Ghanzi, Hukuntsi and Tsabong, are suitable for extensive pastoral systems, while the Central region districts offer opportunities for semi-intensive production

38. At pre-implementation stage, the targeting strategy will address the challenge of sparse populations by using data-driven mapping to identify geographic areas with high livestock potential and prioritizing sub-village or ward-level clusters based on human and animal populations and production viability.

39. ***Target Population and Beneficiaries*** – The target population of BoLCoP includes smallholder farmers engaged in goat, sheep, and poultry production, as well as key value chain actors, such as traders and processors, who are essential for developing sustainable markets and driving small stock commercialisation. BoLCoP will directly reach 50,000 households (equivalent to about 200,000 people[34], the majority being rural poor or vulnerable smallholder farmers, existing/emerging commercially oriented farmers, and/or remote area communities. Direct beneficiaries will be selected from the following broad four socio-economic groups:

    - Subsistence farmers (micro-scale) (20%, 10,000 HHs);
    - Semi-commercial farmers (small-scale) (60%, 30,000 HHs),
    - Emerging commercial farmers (medium-scale) (15%, 7,500 HHs); and
    - Small and Medium Enterprises (SMEs) (on-farm and off-farm SMEs) (5%, 2,500 HHs).

40. Below is a description and key characteristics of the identified farmer groups:

Table 1: Description and Key Characteristics of the Identified Farmer Groups

CATEGORY	DESCRIPTION	KEY CHARACTERISTICS	SPECIFIC CHALLENGES FACED
Subsistence Farmers (Micro-scale)	Farmers primarily producing for household consumption	Small herd size (below 100), mixed crops and livestock, limited market engagement	Low productivity, limited assets, poor market access due to infrastructure and distance, and lack of credit or insurance.
Semi-Commercial Farmers (Small-scale)	Farmers with some market orientation	Moderate herd size (100-400), some mechanization, part-time off-farm income	Limited technical knowledge, inadequate access to veterinary services, feeds, water, and extension support, and vulnerability to climate risks.
Emerging Commercial Farmers (Medium-scale)	Transitioning from smallholder to full-time commercial	Medium herd size (400-800), use of improved breeds, access to input markets, participate in cooperatives	Insufficient capital, lack of advanced training, difficulty meeting export standards and limited market competitiveness and bargaining power.
Small and Medium Enterprises (SMEs) (On-farm and off-farm SMEs)	Fully market-oriented, high investment with backward linkages with the farmers (producers) in categories 1, 2, & 3	Large herd size (above 800), access to finance, fenced ranches, export compliant	High operational costs, limited finance, weak linkages with producers/processors, limited managerial and technical skills and challenges in supply consistency, quality, and demand.

Drawing on IFAD's principles of poverty alleviation, gender equity, youth empowerment, and climate resilience, the targeting strategy will further prioritize three specific marginalized beneficiary groups:

- Women small-holder farmers, who are often excluded from formal markets (form 40% of total project outreach);
- Youth aged 18–35 showing strong entrepreneurial interest but facing barriers to entry (form 30% of total project outreach); and
- Vulnerable groups (persons with disabilities, persons living with HIV/Aids and remote area communities) (form 5% of total project outreach).

Targeting Mechanism – BoLCoP will use a tailored and inclusive approach by linking beneficiary outreach with thematic priorities based on need, potential, and to enhance equity. Key mechanisms will include:

- *Tailored Pathways* – BoLCoP will offer differentiated packages (inputs, finance, training, infrastructure) matched to producer typologies;
- *Women Empowerment* – BoLCoP will prioritize outreach strategies targeted at women smallholder farmers through enhancing their leadership and participation in producer groups, and through inclusive extension support across identified priority value chains;
- *Youth Inclusion* – Focus on improving youth's access to productive resources, providing tailored skills training, provision of subsidized input packages, agri-business incubation, investment in youth-centred digital technologies, youth employment opportunities, etc.;

- *Family Farming Approach* – Support family farming as a key strategy to reduce rural poverty and enhance food security;
- *Household Methodologies*– Integrating GALS. Among other objective, the methodology will be adapted to address GBV and HIV/Aids, identified as common social risks;
- *Cluster-based Approach* – Support for strengthening producer cooperatives and input/output hubs in high-density livestock zones;
- *Nutrition-sensitive approaches* – promote household dietary diversity, especially for children and female-headed households through small stock and poultry products; and
- *Climate-resilient Targeting* – Use climate vulnerability mapping to prioritise communities most exposed to drought, heat and land degradation.

This targeting approach ensures that interventions address both social equity and economic potential within Botswana's small livestock sector. By addressing the underlying barriers and scaling inclusive models, BoLCoP will foster a more equitable and productive sector that delivers benefits for all.

2.3 Project/Programme Objectives

41. ***Project Goal*** – BoLCoP's goal is to *'contribute to the Government of Botswana's objective of inclusively and sustainably improving productivity and commercialization of the small livestock subsector*'.

42. ***Project Development Objective (PDO)*** – The Project Development Objective (PDO) is to '*enhance the incomes and resilience[35] of rural households through more inclusive, sustainable and technology-driven small livestock value chains*'.

    - ***Outcomes*** – BoLCoP's interventions will seek to sustainably address the challenges limiting the performance of the small livestock subsector in the target districts with a deliberate focus on ensuring that different target groups, including women, men, and youth equitably participate in and benefit from Project opportunities. The following are the *expected* outcomes:
    - Outcomes 1: Increased Climate-Resilient Small Livestock Production and Productivity;
    - Outcomes 2: Strengthened and Inclusive Small Livestock Value Chains; and
    - Outcomes 3: Enhanced Enabling Environment for Improved Small Livestock Development.

43. In line with IFAD's mainstreaming commitments, BoLCoP intends to: a) be gender transformative; b) be youth sensitive; c) include climate finance; and d) build adaptive capacity.

44. BoLCoP will be implemented over an eight-year period; this duration includes the time up to completion followed by six months for administrative closure.

2.4 Component, Sub-component and Activities

45. **Components** – BoLCoP components and respective activities are well integrated with sequential and/or simultaneous implementation. Following below is a summary of the BoLCoP planned interventions by component/subcomponent. Details of how the interventions will be implemented, when and by whom are presented in the PIM.

46. **Component 0: Response to Emergencies and Disasters (RED)** – Botswana is a country with high rainfall variability with 70% of the country having desert conditions (Kalahari Desert). It is also negatively impacted by climate change in the form of increased drought intensities and frequencies, heat waves, floods and disease outbreaks. BoLCoP will facilitate the setting up of mechanisms to mitigate and manage shocks that negatively impact small livestock, such as floods, drought-related emergencies, and livestock disease outbreaks. This will also include financing post-disaster recovery and associated services.

47. The activation of the RED component will follow an official government request to IFAD and be based on the following triggers: a) official declaration of emergency, extreme weather events, natural disasters (particularly drought and floods), and/or livestock disease outbreaks by the relevant government authorities; and b)) when assessments conducted by local authorities, NGOs, or community-based organizations identify more than 50% damage loss to livestock assets linked to the emergency.

48. **Component 1: Increased Climate-Resilient Small Livestock Production and Productivity** – This component facilitates increased production and productivity of small livestock thereby contributing to better incomes, food security and nutrition. The component's objectives will be achieved through two subcomponents.

49. ***Sub-component 1.1: Enhanced access to quality small livestock, and animal health services*** – This sub-component seeks to support climate-resilient production and productivity enhancement in the small livestock sector, ensuring the active participation and equitable benefit of the target group through the following interventions.

50. *Enhance availability of small livestock breeds adapted to the local environment* – this will be done through: a) conservation and improvement of indigenous animal genetics; b) judicious use of pure breeds; c) crossbreeding and development of composite breeds; and d) accelerate multiplication of adapted breeds through Artificial Insemination (AI) and Multiple Ovulation Embryo Transfer (MOET). BoLCoP will also institute community-based breeding programmes (CBBPs) that promote equitable participation in breeding, selection, and decision-making processes, thereby promoting equal opportunities and benefits across the value chain.

51. *Comprehensive capacity-building package to small livestock producers for efficient and climate-smart production and management* – BoLCoP will introduce farmers to practices that improve fertility, growth rates and carcass quality while reducing emissions (especially methane), pressure on rangelands, and vulnerability to climate shocks. Capacity building will be undertaken at specialized training centres and by service providers, with backstopping and demonstrations on farmers' fields. This will include exposure to basic principles of husbandry practices that reduce stress levels in livestock and promote feed and

water efficiency. The Project will also support and make use of e-extension services to disseminate small livestock production messages and incorporate nutrition education to enhance awareness of dietary diversity and the macro and micronutrient benefits of animal-sourced foods, such as meat, milk and eggs to encourage self-consumption amongst producers and contribute to better nutrition outcomes at the household level. The training approach will be inclusive, addressing specific knowledge gaps, constraints, and learning preferences of different groups have limited access to extension services.

52. *Support for improved livestock healthcare* – BoLCoP will capacitate and equip Community Animal Health Workers (CAHWs) to deliver effective and inclusive animal health and production services to small livestock farmers. District veterinary officers will also be capacitated to offer effective animal health services to small livestock producers.

53. *Infrastructure investments* – interventions will include support towards rehabilitation and/or construction of: a) solar-powered boreholes and other water infrastructure, including irrigation that reduces the labour burden on women and girls (the availed water will support animal drinking, forage production and, where applicable, domestic use); b) forage planting, management, harvesting and processing equipment; c) animal handling facilities and shelters at household level with priority for women-headed households and vulnerable groups; d) animal health infrastructure; and e) feed processing equipment, biogas digesters, and oxidation pond systems for sustainable waste management and energy generation. Community/cluster level infrastructure, such as boreholes and dip tanks, will be owned by designated local authorities who will delegate their day-to-day management to community-led committees who will collect user fees to fund repairs and maintenance. In addition, BoLCoP will deploy predator proof bomas, solar electric fencing, and arable field protection systems in districts facing high human–wildlife conflict. Cofinancing from the Adaptation Fund is anticipated to support the development of climate-resilient water infrastructure, including drip irrigation systems, solar-powered water pumps, and water storage solutions. The project will also build synergies with the planned IFAD DeSIRA+ project funded by the EU to enhance efficient water use practices, agro-ecological practices such as manure use and community-based rangeland management in integrated small livestock and horticulture systems.

54. ***Sub-component 1.2: Improved capacity of farmers to adopt climate resilient production and management practices***– This sub- component aims at making the target beneficiaries more resilient to environmental and climatic challenges. Planned activities are presented below.

55. *Enhanced access to feed and fodder* – Adopt climate resilient practices and technologies that enhance feed availability, avail fodder varieties adapted to semi-arid conditions and feeding packages that tap into indigenous plants. Fodder will be grown under climate smart agriculture (CSA) methods (such as mulching, intercropping, conservation agriculture, crop rotation, integrated crop-livestock management, agroforestry, improved grazing, and improved water management) and conserved as silage and hay, enabling each farmer to have adequate feed for the dry season and critical periods. Prioritize women and youth cooperatives in the cultivation and marketing of drought-resilient forage species and fodder processing. This will include pilots of innovative fodder production techniques supported by the Adaptation Fund, for example testing perennial sorghum and pulses, ultra-efficient irrigation systems such as sub-surface drip irrigation.

56. *Dedicated community-based rangeland management* – The Project will promote community-level assessments of feed and fodder balances to improve management of rangeland with better alignment between availability of resources and animal requirements, as well as measures such as rotational resting, coupled with rangeland rehabilitation measures, land-use planning at community level for sustainable water use and environmental safeguards. Producers will be actively engaged in the planning, implementation, and monitoring of these activities, to ensure their knowledge, priorities, and needs are reflected. These activities will also receive the support of the IFAD grant CAPEO (Capitalising on Earth Observation data in support of IFAD operations) with long term satellite imagery for rangelands monitoring.

57. *Digital Rangeland and Advisory Tools* – BoLCoP will enhance climate resilience by introducing the integration of localized weather forecasts, seasonal advisories, pest alerts, and rangeland indices into mobile platforms (**Short Message Service** (SMS), Unstructured Supplementary Service Data (USSD), WhatsApp), in partnership with the Department of Meteorological Services and service providers. Current services are largely manual, depending on volunteer collection, and disseminated through radio and social media. The Project will also explore satellite-based monitoring and mobile geo-tagging tools to support sustainable grazing plans and climate-smart land use decisions. Further, BOLCOP will benefit from capacity building and tools for remote sensing information about pasture and rangelands status and degradation/restoration trends over time in partnership with CAPEO.

58. *Digital Extension and Animal Health Services* – BoLCoP will work with the GoB and service providers to scale e-extension through SMS and Interactive Voice Response (IVR) modules, pilot Artificial Intelligence (AI) tools for disease diagnostics, and introduce a mobile CAHWs registry App to enhance outreach. It will also enhance BAITS to include small livestock, enabling digital registration, tracking, and health records, with mobile access and training. Partnerships with BUAN, NARDI, and *Agritech* service providers will support system integration and capacity building. The Project will identify viable off-grid energy solutions – such as solar- to enable digitalisation in remote settings, with a subset of these adopted/financed based on cost-effectiveness, reliability, and ease of maintenance. The design and dissemination of these tools will be gender-sensitive, ensuring that women, men, and youth, with limited access to smartphones, literacy, or digital skills, can equitably receive and use the information.

59. **Component 2: Strengthened and Inclusive Small Livestock Value Chains** – Taking advantage of increased small livestock production and quality under Component 1, this component will support improved functioning of the target value chains. Domestic production from the small livestock sub-sector meets only about 20% of national demand of the sector products. The national deficit is covered by imports from neighbouring countries. There is also a growing demand for small livestock meat products in the SADC region, Asian markets and some European countries. To meet this growing demand, local producers need to increase production, engage in value-addition/further processing of products and satisfy traceability, health, and safety requirements of foreign markets.

60. BoLCoP will identify actual and viable output markets for the targeted value chains (meat for goats and sheep, and poultry for

meat and eggs). This would be followed by producer identification and linkage to the existing markets. They would then be supported to meet the market requirements of the identified markets. For goats and sheep, the focus will be on breeder stock and meat production whilst on poultry it will be on both broilers and layers.

61. ***Sub-component 2.1: Strengthened clustering and capacity building of value chain actors*** – This sub-component aims at improving organisation of farmers within the target value chains. The services of competent service providers will be secured to promote organisation of farmers and build capacities of clusters. The following interventions are planned.

62. *Support to Farmer Organisations* – This will focus on regional and national organisation of farmers for improved interest representation and service delivery. The following national level farmer organisations have been identified: a) National Small Stock Federation; and b) Botswana Poultry Producers Association. The Project will provide support in member mobilisation (farmer associations and cooperatives) to further accommodate BoLCoP target beneficiaries, capacity building in leadership, book keeping, accounting, accountability mechanisms, entrepreneurship, governance, lobbying and advocacy and organisation of annual general meetings and legal registration. BoLCoP will also provide support for the day-to-day running of the National Small Stock Federation, ensuring that it becomes professionalised and develops sustainable service delivery systems. At district levels, the project will strengthen existing farmer cooperatives and associations linked to the apex bodies mentioned above.

63. *Cluster Building* – This is a local market organisation activity targeting individual farmers. The activity will support organisation of local farmers into clusters (up to 20 farmers in proximity of each other) for the purpose of accessing inputs and/or output markets, ensuring that women and marginalized groups are also supported to join and gainfully participate. The clusters will be plotted based on criteria such as distances to each other, access to value chain infrastructure e.g. abbatoirs, markets etc., human and animal populations, etc.

64. ***Sub-component 2.2: Improved access to input and output markets*** – This sub-component seeks to address challenges faced by farmers in accessing inputs (especially feed, fodder and medicines) and output markets. A priority under BoLCoP will be the establishment of formal market structures between producers, abattoirs and off-takers (supermarkets, hotels/restaurants and institutional buyers, etc.). Some export market opportunities have been identified for goats, but these remain largely unexploited. Operationalising the Government sponsored Tsabong multi-species abattoir in the Kgalagadi region represents a unique opportunity to exploiting export market opportunities. The following are the planned activities.

65. *Access to Input Markets* – This will involve aggregating demand for inputs, identify suppliers and negotiate terms and organise logistics for acquisition of such inputs. Training and capacity building is planned to build knowledge in product handling and storage to ensure safe handling of inputs, including chemicals as well as home production of feeds. BoLCoP will also seek to build a commercial cluster-focused agro-dealer network. There are limited local input suppliers in remote areas and limited stock, especially of concentrate feed, drugs, and vaccines. The Project will provide support to local input 'stockists' by providing training and linkages with wholesale suppliers.

66. *Access to Output Markets*- This intervention will lead to a mutually beneficial outcome between buyers, on the one hand, and producers on the other hand. This will involve the following:

67. *Aggregation and Collective Marketing* – Activities will include: a) supporting clusters to undertake local aggregation of produce for sale to market intermediaries and off-takers; b) facilitating business relationships with abattoirs, wholesale outlets and other off-takers like school feeding programs, army through contract arrangements, ensuring that producers, including women and youth are connected to reliable markets.

68. *Support for Market Transparency* – BoLCoP will invest in measures to improve market transparency. It will make investments in the: a) development of market information systems; and b) establishment of inclusive physical and digital Value Chain Platforms that bring together all stakeholders within each value chain.

69. *Marketing Infrastructure* – The Project will support investments required by clusters for effective aggregation. This includes establishment of goat and sheep market pens/yards, complete with watering facilities (including through upgrading existing cattle sales pens) and the appropriate ablution facilities for workers as well as storage facilities for clusters involved in joint procurements of inputs. Management of market pens/yards will be the responsibility of Local Authorities that shall collect user fees and their maintenance. Community level infrastructures such as warehouses and aggregation centres will be managed by farmers associations that will receive capacity building for their sustainable management. Beneficiaries will be involved in participatory business planning to ensure they are aware of the cost of these investments as well as maintenance costs so that they have the elements to understand the cost implications for their production Additional infrastructure to support value addition is also planned under the Adaptation Fund. Infrastructure planning will follow a value chain approach, ensuring alignment with the needs of users and guided by a rapid infrastructure needs assessment conducted at the start of the Project and updated annually.

70. *Support to Value Chain Actors* – The Project will adopt a value chain approach in supporting market actors and seek to broker win-win relationships between producers and market intermediaries. Specifically, the Project will seek to build partnerships among the diverse actors along the value chains, based on complementarities and on mutual interests and benefits. BoLCoP will also provide targeted support to SMEs interested in making investments that increase demand for small livestock. These include butchers, abattoirs and processors of emerging by products (e.g. hides and skins). The strategy will be to engage a competent business development service provider to provide business development support and facilitate linkages to finance and other required services allowing them to start and grow their businesses.

71. *Support for increased participation of women and youth in the small livestock sector* – BoLCoP will target women and unemployed rural youth willing to start small livestock-based enterprises The support package will include intensive tailored technical and business management support, provision of start-up capital for investment and initial working capital, and linkages to financial service providers for co-financing opportunities. The Project will leverage the incubation work currently carried out by

LEA and work with relevant service providers to address challenges, such as limited business skills and access to resources (including access to land).

72. ***Sub-component 2.3: Improved access to inclusive financial services for value chain actors*** – BoLCoP in its effort to structure and commercialize the sector, will need to de-risk investments in the targeted value chains and support government efforts in the efficient administration of financing to the small livestock sub-sector. As outlined further in the Technical Notes 1 & 2 in Annexes 12 and 13, this sub-component aims to complement the other Project activities by addressing access to finance constraints for beneficiaries—with tailored options for each of the four targeting categories—thus enabling them to invest further in activities of relevance to the other sub-components with a primary focus on climate resilient practices such as improved water management and use of solar energy. The following are the planned activities*:*

73. *Demand and supply segmentation analysis*: BoLCoP will partner with the National Development Bank (NDB) to undertake a detailed demand and supply segmentation analysis after project start-up to qualify and quantify the differentiated financial needs of the four categories of the selected value chain actors (as categorized in the Targeting Strategy above). IFAD will be closely engaged with this process.

74. *Financing through a blended Line of Credit (LoC):* Informed by the demand and supply analysis, in order to inject capital into the sector a blended[36] sovereign LoC will be set up at and be managed by the NDB. The blended LoC will be capitalized with resources from (i) the Project (approximately US$5m) and (ii) the TLMS Program (an amount still to be determined)[37]. With regards to the targeting categories, the key target of the blended LoC will be semi-commercial farmers (small-scale). To avoid overlaps, emerging commercial farmers (medium scale) will be financed by referring them to NSO LoC as described below.

75. *Connection to NSO-supported Commercial Bank:* An IFAD supported US$10M NSO with a local commercial bank is planned for approval at the same time as BoLCoP; the NSO is a subordinated loan priced at market terms, designed with a 100% leveraging factor over the seven-year loan tenure. The NSO has earmarked US$5.2M from its own LoC (as part of its matching contribution) to finance BoLCoP beneficiaries. For synergies and linkages, BoLCoP will identify a pipeline from the four targeting categories—especially emerging commercial farmers (medium scale), and small and medium enterprises (SMEs)—that would qualify for commercial lending and recommend them for the NSO financing. Referrals to the NSO bank will also be made for larger commercial farmers with backward and forward linkages (including tripartite off-taker arrangements) to beneficiary producers.

76. *Connection to Government grant and e-voucher schemes:* To support the most vulnerable groups—namely the targeting category of subsistence farmers (micro-scale)—BoLCoP will also connect these farmers to the Government-financed TLMS to receive grants and matching grants[38]—in addition to the funds provided directly to the TLMS for the BoLCoP LoC. Moreover, Working with SmartBots and service providers through the EU/GoB-funded ExtoPay Digital Transformation Initiative, BoLCoP will digitize producer payments and rural financial services and upgrade TLMS e-vouchers to be more accessible and inclusive. ExtoPay will provide low-cost rails that work both offline and online (USSD, agent-captured offline transactions, QR ExtoCards; biometric for merchants), addressing Botswana's limited payment switch infrastructure. A closed-loop pilot will scale to open-loop interoperability with national rails and bank APIs; a regulated bank will custody client data and funds. Priority targeting will reach women, youth, and vulnerable/marginalized groups.

77. *Partnering with existing Financial Risk Management Programmes:* BoLCoP, in collaboration with NDB, will support existing financial risk management programmes especially, the sovereign and non-sovereign agricultural insurance underwriters and potentially existing/well-performing partial credit guarantee funds (PCGFs) that cover the small livestock sector.

78. *Technical assistance (TA):* This will involve capacity building to NDB to ensure they can effectively manage the LoC and provide long-term (post-project) support to financial inclusion of the agriculture sector.

79. **Component 3: Enhanced Enabling Environment for Improved Small Livestock Development** – This will be a cross-cutting component servicing the technical components and facilitating pathways for BoLCoP's effective and efficient implementation. It has two sub-components.

80. ***Sub-component 3.1: Institutional Strengthening and Policy Support*** – This sub-component will have a dual focus: institutional strengthening and policy support. The sub-component will seek to facilitate the process of ensuring that a supportive policy environment is put in place for effective activity implementation during and after BoLCoP implementation.

81. *Institutional Strengthening* – Informed by a needs assessment conducted during the design, the Project will improve capacities of those institutions that will be responsible for overseeing and/or implementing Project activities. While some support is to be provided through the technical Project components, this sub-component will support: a) capacity building of the PMCU and district implementation teams in value chain development Provision has been made for the recruitment of a fulltime value Chain Specialist as part of the PMU staff that will be responsible for planning and monitoring of value chain development interventions. This will be complimented by the recruitment of business development service providers responsible for specific elements of the programme including cluster/farmer organisation development and BDS support to SMEs. Short term technical assistance will also be mobilised in the initial stages to support planning and roll out including development of scope of work for technical service providers and their recruitment and training of district implementation teams. Staff capacity building will also be provided on social inclusion aspects for effective BoLCoP coordination; Other capacity building interventions will include a) Logistical and technical support at the district level to facilitate planning, coordination, monitoring and reporting of BoLCoP activities; b) SECAP training and institutionalization of climate/environmental risk screening within MoLA, district technical teams and producer organisations; c)) strengthening of district-level monitoring of project implementation as well as capacity building for early warning systems; and d training and equipping CAHWs to increase outreach in the villages. A more detailed capacity needs assessment will be undertaken as part of early BoLCoP activities to identify additional capacity gaps; the information will be used to prepare an institutional capacity development plan whose implementation will be funded by BoLCoP.

82. *Policy Support* –The following policy-related constraints to small livestock farmer integration in value chains have been identified:

a) absence of an enforceable system of standards and grades in small livestock meat marketing; b) an import regime that crowds out local production; and c) lack of a policy framework to guide the development of the sheep value chain. To that effect, BoLCoP will support the following interventions to complement the impact of the technical Project components:

- *Small Livestock Meat Grading System* – The country currently has a legislative framework with provision for a system of grading for small livestock meat. However, the marketing system continues to be largely informal thus creating an environment that does not provide incentives for market actors to apply a grading system in small livestock meat trading. BoLCoP will facilitate the process of introducing a formal marketing system for small livestock where payments to producers will be based on a system of grades that would reward for quality. The Project will support the relevant institutions in reviewing the existing regulatory provisions and introduce an enforceable system of grades and grading in domestic marketing;
- *Introducing a Requirement for Minimum Local Content* – The country is a member of the Southern Africa Customs Union (SACU), and this allows for free flow of goods and services between member states. A challenge is that agriculture production and productivity between Botswana and South Africa, its neighbour, is not at the same level; this makes unit cost of imported agricultural products cheaper than locally produced products. The Government is currently studying options for introducing a minimum local content requirement to boost local trade. The Project will undertake an assessment of the potential impacts of such a policy move and advise the Government to make an informed policy decision. BoLCoP will then support the relevant government departments (e.g. BoTC) in undertaking such policy reviews as will be considered necessary; and
- *Sheep Value Chain Development Strategy* – The Project will support formulation of the strategy and investment plan. This will include the: i) provision of specialized expertise; ii) collation of data and evidence; and iii) support to inclusive stakeholder consultation processes.

83. The key policy interventions will be implemented in partnership with the following government parastatals: a) Business Botswana – which is responsible for policy advocacy and coordination of the private sector players in the country; b) Botswana Trade Commission – responsible for ensuring fair trade and tariffs coordination as well as representing the country in the Southern Africa Customs Union, where Botswana is a member; c) Botswana Trade and Investment Center – Responsible for market related coordination, sourcing markets, coordinating partners, reporting on market trends and policy coordination; and d) Botswana Institute of Development Policy Analysis – the agency is responsible for conducting research and policy related analysis to inform government and other stakeholders on appropriate policy positions, based on empirical evidence.

84. ***Sub-component 3.2: Project Management and Implementation Support Services*** – Details about this sub-component are provided below in Section 3.1: Organisational set-up and Governance.

2.5 Sustainability, Scaling Up and Exit Strategy

85. **Sustainability** – BoLCoP is designed to achieve sustainable benefits across the five dimensions of sustainability as follows:

- *Socio-Economic Sustainability* – By enhancing access to climate-resilient infrastructure, financial services, productive assets, and strengthened skills and capabilities, the Project will support long-term income diversification, job creation, and improved food and nutrition security, that is expected to continue post-project. Capacity-building for producer organisations, grazing committees, and smallholder enterprises will strengthen local ownership and ensure continuity beyond the Project's lifespan. Furthermore, BoLCoP will integrate sustainability into institutional frameworks and district planning processes, laying a strong foundation for long-term, inclusive rural development.
- *Institutional Sustainability* – The GoB has targeted the small livestock sector as one of the avenues to contribute to diversification of the country's economy. Therefore, the Government is very committed to the BoLCoP outcomes and the continuation of the successful interventions after Project implementation. Planned capacity building interventions, which will be informed by an institutional and systems capacity needs assessment (to be taken during the first Project Year) at different levels, will enhance the capacities of those institutions responsible of coordinating and/or implementing Project activities during the Project's lifespan; the same institutions will have the capacity to support continuation and/or scaling up of successful interventions.
- *Farmer Institutions* The strengthening/formation and registration of farmer organizations with proper governance structures as well as providing the necessary capacity building and linkages with service providers, will enhance their sustainability. To ensure sustainability, it will be critical that the farmer organisations are financially viable and have a sound understanding of the cost and their obligations to sustain the project's outcomes. The engagement of the target smallholder livestock farmers through public and private extension providers present in their communities will improve the quality of trainings and ensure localization of knowledge and skills contributing to better accessibility post-BoLCoP. The capacity of beneficiary institutions to manage infrastructures is an important element of the sustainability strategy. Beneficiaries will be involved in participatory business planning to ensure they are aware of the cost of these investments as well as maintenance costs so that they have the elements to understand the cost implications for their production.
- *Technical Sustainability* – The Project will provide tailored technical support to the target farmers and their groups, national and district government staff and institutions that will be directly involved in BoLCoP implementation, and key actors along the targeted value chains. Technical support will include trainings and capacity building on good husbandry practices, Natural Resources Management and Climate Change aspects, post-harvest management, operation and management of the Project-provided infrastructure and provision of supportive equipment.
- *Environmental/Climate Change Sustainability* – The Project will promote rangeland regeneration through climate-smart practices, such as rotational grazing and agroforestry systems, providing a blueprint for communities to sustainably access natural resources, helping reduce land degradation and improve soil health. It will support the removal and utilization of invasive Prosopis species for charcoal and briquette production, creating green energy alternatives and reducing pressure on native vegetation. Infrastructure will be climate proofed and low carbon, solar-powered, water efficient boreholes, shaded ventilated holding areas; energy-efficient cold chains; wastewater recycling; and abattoir upgrades for heat-stress management, water reuse and by-product valorization (e.g., biogas/compost), advancing Botswana's low-emission, climate-resilient pathway. Strong emphasis is placed on strengthening institutional capacity and gender-responsive capacity building of producers for climate adaptation and natural resource management in the ESCMP.

- *Financial Sustainability* – Several value chains were initially considered by the design team, including piggery, apiculture, goats, sheep, and poultry. These were subjected to a financial viability and sustainability assessment, focusing on profitability, affordability, and the potential for continuity beyond project/government support. Based on the analysis, piggery and apiculture were dropped due to limited evidence of sustained profitability. There were no strong indications that these enterprises could remain viable once external support ends. Goats, sheep, chicken layers, and broilers, however, demonstrated strong performance across key financial indicators. These value chains showed solid Internal Rates of Return (IRRs), positive Net Present Values (NPVs), and Benefit-Cost Ratios (BCRs); refer to the below table. More importantly, they proved to be affordable for smallholders and youth, with loan repayment potential within a three-year period, making them suitable for access to financial services The selected value chains meet the criteria for financial profitability and long-term sustainability, justifying public investment. Other value chains, such as piggery and apiculture, may still be considered under complementary initiatives as further analysis continues. The summary findings are presented hereunder.

Indicators	Livestock - Goat & Sheep (22 heads unit)	Poultry - Layers (150 birds unit)	Poultry - Broilers (200 birds unit)
IRR	30%	71%	50%
NPV @9% (BWP)	444,079	99,976	46,820
BCR	1.92	1.72	1.37

86. **Scaling-up** – BoLCoP's scaling up agenda will primarily be driven by the Government's commitment to spread efficiency gains in the small livestock sector to other parts of the country. The Project will be implemented in 21 of the country's districts. It is highlighted that, within BoLCoP's focal districts, implementation will be in selected sub-districts. To that effect, BoLCoP implementers will document the lessons learnt and best practices during its implementation to inform the successful scaling up of the interventions to other parts of the country, either by GoB or its other development partners. More specifically, the lessons around the Project's innovative features (refer to the innovation section below) will help guide GoB or its other development partners in deciding the scaling-up agenda. The opportunity presented by the small livestock subsector to diversify the country's economy makes it better positioned for scaling up successful interventions.

87. **Exit Strategy** – The Project is a, *de facto,* community-led intervention. Using the bottom-up approach, BoLCoP will be reaching out to the target communities, working with/through district extension agents, in the process of AWPB preparation, overseeing activity implementation and in monitoring implementation progress. The Farmer owned organisations will be actively involved the planning of the various interventions, receive capacity building that will enable them to manage infrastructures, provide production and marketing services to their members . Thus, they will be able to continue serving members after the Project's seamless exit. BoLCoP's implementation approach through existing government institutions at the national and, particularly, district levels imply an inbuilt exit strategy. Under Sub-component 3.1, capacities of the respective government institutions will be variously strengthened to ensure effectiveness. In addition, farmers and their organisations will receive support aimed at strengthening their capacities to serve their members and promote their interests. This will be a strong pillar of the exit strategy.

88. Strong market linkages are an effective way of establishing long-lasting business ties. Market linkage and business orientation are a key consideration of the Project under Component 2. If the forward and backward linkages to be established between the target beneficiaries and off-takers and agro-dealers, respectively, prove to be mutually beneficial, they will form a basis for sustainability and exit of the Project.

89. Also, BoLCoP will facilitate the establishment of value chain transaction platforms and support their respective operationalisation up to the point of them being able to stand on their own. In the process, the platforms will bring farmers/producers and key stakeholders together to promote business linkages, financial inclusion and achieve financial independence for the farmers and major actors. Once properly established and operational, these platforms have been proven to be good exits and sustainability strategies.

90. **Innovation** – The following are considered key innovative features of the Project: a) capacitation of small livestock producers to select breeding and productive traits from their own flocks through community-based breeding programmes (CBBP); b) piloting the use of artificial insemination (AI) in improving small livestock breeds and the logistics of delivering an AI service to smallholder farmers in their remote areas; c) introduction of rangeland/natural resource management and rehabilitation to communal grazing areas, including digital tools such as the Feed Balance Sheet and remote-sensing monitoring with the CAPEO grant, plus targeted drone (UAS) pasture and degradation mapping to inform grazing plans, in addition to rapid damage and disease-risk scans d) community-led briquette and charcoal production from the invasive Prosopis plant to provide green energy and improved natural resource management; e) solar-powered, community-managed desalination units for livestock in arid zones; f) predator-proof kraals with multi-layer fencing and deterrents to reduce human-wildlife conflict; g) deploying mobile-enabled Livestock Management Systems (LMS) that support herd performance monitoring, breeding records, and animal health tracking; g) expanding e-extension services via USSD, IVR and CAWHs mobile registry app; h) integrating digital climate advisory tools to enhance early warning and rangeland management as well as the use of a digital GHG emissions reporting tool (GLEAM-i); and i) introduce ExtoPay for low-cost digital payments and e-vouchers (offline/online) to widen access to inputs/services, streamline producer payments, and boost inclusion.

91. *CAHWs Outreach Support* **-** BoLCoP will use mobile units, radio, and digital platforms, and equip CAHWs with an offline-first app to register households/herds, record treatments, and flag disease risks. Data syncs to the MIS for targeted SMS/USSD e-extension, enabling timely support and organized outreach.

2.6 Project financing

92. **Project Costs** – The estimated costs for BoLCoP, including base costs and price and contingencies are estimated at USD 86.84 million. The overall investment costs have been estimated at USD75.3 million (88% of base costs), and recurrent costs at USD10.05 million (12% of base costs). Price contingencies have been estimated at USD1.3 million.

93. **Component/Sub-component Allocation** – Component 1: Increased Climate-Resilient Small Livestock Production and Productivity has been allocated USD 42.11 million (49%). Component 2: Strengthened Small Livestock Value Chains has been allocated USD 23.26 million (27%). Component 3: Enhanced Enabling Environment for Improved Small Livestock Development accounts for USD 20.45 million (23%). The project has been designed with a Response to Emergency and Disaster (RED) component to mitigate unforeseen risks related to climate change and weather shocks with an allocation of USD1 million. The summary of project costs by component and expenditure categories is presented in the table below.

Table 3: Project costs by Components/Sub-components and Financier

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Components by Financiers
(US$ '000)

	IFAD 13 BRAM		Financing Gap		GEF		Adaptation Fund		SSTC Grant		Government		Beneficiaries (In-Kind)		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
A. Increased Climate-Resilient Small Livestock Production and Productivity																
Enhanced Access to Quality Feed, Fodder and Animal Health Services	6,283	28	8,341	38	-	-	4,989	23	-	-	1,961	9	643	3	22,216	26
Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practice	3,940	20	1,749	9	4,750	24	6,913	35	-	-	1,692	9	857	4	19,901	23
Subtotal	10,223	24	10,090	24	4,750	11	11,902	28	-	-	3,653	9	1,500	4	42,117	49
B. Strengthened Small Livestock Value Chains																
Strengthened Clustering and Capacity Building of Value Chain Actors	3,017	64	1,488	31	-	-	-	-	-	-	229	5	-	-	4,734	6
Improved Access to Input and Output Markets	5,950	49	4,463	37	-	-	810	7	-	-	940	8	-	-	12,163	14
Improved Access to Inclusive and Green Financial Services For Value Chain Actors	2,607	41	2,762	43	-	-	1,000	16	-	-	-	-	-	-	6,369	7
Subtotal	11,574	50	8,713	37	-	-	1,810	8	-	-	1,170	5	-	-	23,267	27
C. Enhanced Enabling Environment for Improved Small Livestock Development																
Institutional Strengthening and Policy Support	2,562	39	636	10	-	-	2,970	46	250	4	95	2	-	-	6,513	8
Project Management and Implementation Support Services	6,761	49	3,441	25	250	2	3,318	24	-	-	171	1	-	-	13,942	16
Subtotal	9,323	46	4,077	20	250	1	6,288	31	250	1	266	1	-	-	20,455	24
D. RED (Lumpsum to be allocated incase of emergency)	400	40	600	60	-	-	-	-	-	-	-	-	-	-	1,000	1
Total PROJECT COSTS	31,520	36	23,480	27	5,000	6	20,000	23	250	0.3	5,088	6	1,500	2	86,838	100

Table 4: Project Costs by Categories of Expenditure and Financier

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Expenditure Accounts by Financiers
(US$ '000)

	IFAD 13 BRAM		Financing Gap		GEF		Adaptation Fund		SSTC Grant		Government		Beneficiaries (In-Kind)		Total		For.	Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
I. Investment Costs																			
A. Civil Works	5,560	22	7,422	29	-	-	8,915	35	-	-	2,734	11	721	3	25,352	29	2,262	20,356	2,734
B. Equipment and Materials	4,471	49	2,112	23	-	-	1,607	17	17	0.2	1,015	11	-	-	9,221	11	821	7,386	1,015
C. Goods, Services and Inputs	5,169	29	3,510	20	4,750	27	2,400	14	-	-	1,098	6	779	4	17,706	20	1,290	15,319	1,098
D. Technical Assistance	5,334	48	2,380	21	-	-	3,030	27	112	1	241	2	-	-	11,098	13	1,020	9,837	241
E. Training	5,021	60	2,532	30	-	-	730	9	121	1	1	-	-	-	8,405	10	776	7,629	1
F. Line of Credit	2,250	45	2,750	55	-	-	-	-	-	-	-	-	-	-	5,000	6	-	5,000	-
Total Investment Costs	27,806	36	20,706	27	4,750	6	16,682	22	250	0.3	5,088	7	1,500	2	76,781	88	6,168	65,526	5,088
II. Recurrent Costs																			
A. Salaries and Allowances	2,508	36	2,148	30	250	4	2,158	31	-	-	-	-	-	-	7,065	8	-	7,065	-
B. Operations and Maintenance	1,206	40	626	21	-	-	1,160	39	-	-	-	-	-	-	2,992	3	-	2,992	-
Total Recurrent Costs	3,714	37	2,774	28	250	3	3,318	33	-	-	-	-	-	-	10,057	12	-	10,057	-
Total PROJECT COSTS	31,520	36	23,480	27	5,000	6	20,000	23	250	0	5,088	6	1,500	2	86,838	100	6,168	75,583	5,088

Table 5: Project Costs by Component/Subcomponent and by Year

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Project Components by Year -- Totals Including Contingencies
(US$ '000)

	Totals Including Contingencies								
	2026	2027	2028	2029	2030	2031	2032	2033	Total
A. Increased Climate-Resilient Small Livestock Production and Productivity									
Enhanced Access to Quality Feed, Fodder and Animal Health Services	621	2,183	7,023	6,061	3,949	1,321	985	76	22,216
Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practice	218	722	4,866	4,817	4,793	3,133	874	478	19,901
Subtotal	839	2,905	11,888	10,878	8,742	4,454	1,858	554	42,117
B. Strengthened Small Livestock Value Chains									
Strengthened Clustering and Capacity Building of Value Chain Actors	477	804	538	558	784	558	538	477	4,734
Improved Access to Input and Output Markets	770	2,025	2,160	2,104	1,653	1,543	1,299	610	12,163
Improved Access to Inclusive and Green Financial Services For Value Chain Actors	365	379	1,543	538	782	754	1,004	1,004	6,369
Subtotal	1,612	3,208	4,241	3,201	3,219	2,855	2,841	2,091	23,267
C. Enhanced Enabling Environment for Improved Small Livestock Development									
Institutional Strengthening and Policy Support	801	472	3,554	745	465	253	138	84	6,513
Project Management and Implementation Support Services	2,758	1,386	1,523	1,663	1,869	1,530	1,626	1,587	13,942
Subtotal	3,559	1,858	5,077	2,408	2,334	1,783	1,764	1,671	20,455
D. RED (Lumpsum to be allocated incase of emergency)	-	-	200	200	200	200	200	-	1,000
Total PROJECT COSTS	6,010	7,971	21,406	16,686	14,496	9,292	6,663	4,316	86,838

94. **Project Financing/Co-Financing Strategy and Plan** – BoLCoP will be financed as follows: a) IFAD-13 Borrowed Resources Allocation Mechanism (BRAM) for a total of USD31.52 million (36% of the total cost) ;b) Global Environment Facility (GEF) for a total of USD 5 million (6%) (the entry into pipeline process has commenced). The process is expected to be completed and funds made available by the third quarter of 2027,. Implementation of the GEF-funded activities should start by the first quarter of 2028. This timing is consistent with the disbursement profile used in the BoLCoP COSTABs which projected the GEF funds to be available for disbursement the first quarter of 2028; c) Adaptation Fund (AF) for a total of USD 20 million (23%). The AF funds are also expected to be available for disbursement by the first quarter of 2028, at the latest. Again, the timing is consistent with the BoLCoP COSTABs; d) Government of Botswana counterpart funding estimated at USD5.088 million (6%); e) beneficiary contributions (in-kind) and SSTC grant is estimated at US$ 1.75 million (USD1.5 million and USD0.25 million, respectively) (2%). Parallel financing will be provided by the NSO (US$10M) and through the EU funded DeSIRA+ grant that will support integrated livestock and horticulture systems leveraging on BoLCoP investments and beneficiaries.

95. The Project is being designed with a financing gap of USD 23.48 million (27%) to be filled with additional BRAM funds or from other external sources as may be identified during implementation. While it is highly unlikely that this gap will not be filled, the

financing plan will be reviewed at the MTR and, when necessary, adjusted to ensure that the effective implementation of the Project and achievement of the broad development objectives will not be affected should the funds not materialize.

96. The summary of the financing plan is presented in the table below.

Table 6: Financing Plan

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Financing Plan
(US$ '000)

	Foreign	Local	Total	Percent
IFAD 13 BRAM	2,084	29,437	31,520	36
Financing Gap	1,560	21,920	23,480	27
GEF	475	4,525	5,000	6
Adaptation Fund	1,568	18,432	20,000	23
SSTC Grant	25	225	250	0.3
Government	-	5,088	5,088	6
Beneficiaries (In-Kind)	150	1,350	1,500	2
Total	5,862	80,976	86,838	100

2.7 Economic and Financial Analysis

97. The BoLCoP Economic and Financial Analysis (EFA) has been conducted using a cost-benefit approach, comparing *"With Project (WP)" and "Without Project (WoP)"* scenarios at both household and Project levels. Representative household models have been developed for the selected small livestock value chains (goats, sheep, layer chicken, and broiler chicken). The analysis has been done in constant 2025 prices for inputs and nominal prices for outputs to reflect actual market prices and account for commercialization effects. The cash flow is projected over a 20-year period, using a discount rate of 8.6%[39] . Financial prices have been adjusted to economic values using standard conversion factors.

98. *Project Benefits* – BoLCoP is expected to deliver clear, and measurable benefits. These include increased production and productivity, driven by better access to quality livestock and animal health services, adoption of climate-resilient practices, use of drought-tolerant forages, and improved grazing, housing, animal handling systems and access to inclusive finance. Farmers will also benefit from premium prices through stronger market access and commercialization of targeted value chains. Benefits from premium prices are reflected in the enterprise models used for the Project's analysis. These benefits will lead to higher incomes.

99. Other benefits that have not been quantified at this stage include key environmental improvements, such as restored grazing land, reduced pressure on water sources, and enhanced biodiversity. The introduction of inclusive and sustainable infrastructure, such as solar-powered boreholes, predator-proof kraals and biogas digesters, alongside improved waste management, will contribute to both climate adaptation and mitigation.

100. *Target Group* – The project aims to directly reach 50,000 households, classified into 4 broad socio-economic groups as presented in the table below. This translates to approximately 200,000 individuals, based on an average household size of four. Most beneficiaries will be rural poor or vulnerable smallholder farmers, emerging or existing commercially oriented producers, and remote area communities. These groups will be supported to actively and meaningfully participate in the targeted value chains:

BoL-CoP Target Outreach 50,000 Household (200,000 Individuals)

Category	Number	%	Description
Subsistence Farmers (Micro-scale)	10,000	20%	Farmers primarily producing for household consumption with the following characteristics: . Small herd size . Mixed crops and livestock . Limited market engagement
Small-Scale Commercial Farmers (Small-scale)	30,000	60%	Farmers with some market orientation with the following characteristics . Moderate herd size . Some mechanization . Part-time off-farm income
Emerging Commercial Farmers (Medium scale)	7,500	15%	Farmers transitioning from smallholder to full-time commercial with the following characteristics: . Medium herd size (Use of improved breeds . Access to input markets . Participate in cooperatives
Small and Medium Enterprises ((SMEs), on-farm and off-farm SMEs))	2,500	5%	Fully market-oriented, high investment withbackward linkages with the farmers (producers) in categories 1, 2, & 3 with the following characteristics: . Large herd size . Access to finance . Fenced ranches . Export compliant
Total	**50,000**	**100%**	

Economic Results – BoLCoP is projected to yield a baseline Economic Rate of return of 32% with a positive Net Present Value of

USD280 million, equivalent to BWP 3.92 billion (I US$ <>14BWP). The overall benefits cost ratio is computed at 6.3. Quantifiable benefits have been discounted over a period of 20 years, including 8 years of project implementation period using a rate of 6%[40]. The detailed economic analysis is presented in the EFA annex 4

101. *Results of Sensitivity Analysis* – The sensitivity analysis shows the Project remains economically viable under all tested scenarios. A 20% increase in costs and a 20% decrease in benefits result in ERRs of 29.0% and 28.5%, with positive NPVs of US$269 million and USD213 million, respectively. In contrast, a 10% and 20% increase in benefits raises the IRR to 33% and 34%, with NPVs of USD313 million and USD346 million. Even with a one- or two-year delay in benefits, the IRRs remain positive at 27.9% and 24.8%. Additional analysis excluding the financing gap shows the Project remains viable, with an IRR of 31% and a positive NPV of USD194 million. These results are broadly consistent with the baseline, as reduced costs lower household coverage, leaving overall economic returns largely unchanged. The summary sensitivity matrix is presented in the table below:

Sensitivity analysis matrix				
	%	IRR	NPV (US$'000)	Link between EFA and IPRM
Base Scenario		32%	280,046	
Decrease of Project benefits	-10%	30.1%	246,694	Climate, social, and economic challenges that are likely to reduce the benefits communities gain from the project by disrupting farming activities, limiting access to markets, and making rural livelihoods more vulnerable
	-20%	28.5%	213,342	
	-30%	26.6%	179,989	
Cost Increase	10%	30.3%	274,698	Rising input costs from macroeconomic shocks and inflation (e.g. fuel, feed, veterinary supplies) increase project expenses and reduce financial returns.
	20%	29.0%	269,351	
	50%	26.2%	255,203	
Delay of benefits	1 Year	27.9%	196,201	Staffing gaps, high turnover, and short-term contracts can slow project implementation and delay delivery of benefits. Delays in planning and misaligned budgeting can slow down project activities and delay the delivery of benefits
	2 Years	24.8%	196,201	
	3 Years	22.0%	159,175	
	4 Years	19.6%	125,072	
Increase of benefits	10%	33.0%	313,398	Investments in climate-smart technologies, improved market access, inclusive value chains, and targeted support for women and youth that are expected to enhance productivity, increase incomes, and amplify project benefits across rural communities.
	20%	34.3%	346,750	
Financing Gap		31.1%	194,087	If the financing gap is not covered

Chapter 3: Organisation and Management

3.1 Organisational set-up and Governance

102. BoLCoP's implementation will be mainstreamed into the GoB system, both at national and district levels.

103. *Lead Implementing Agency (LIA)* – The MoLA will serve as BoLCoP's lead implementing agency, including for the RED component, if activated. However, MoLA will delegate the day-to-day operation of the Project to a National Project Management and Coordination Unit (NPMCU) reporting directly to MoLA's Permanent Secretary.

104. *National Project Management Coordination Unit (NPMCU)* – A NPMCU will be established comprising a team of officers either recruited through a competitive process or seconded to the NPMCU by GoB on a fulltime basis to fully focus on Project implementation. The following is the NPMCU composition: a) Project Director; b) Monitoring and Evaluation and Knowledge Management Specialist; c) Financial Management Specialist; d) Procurement Specialist; e) Livestock Specialist; f) Agribusiness and Marketing Specialist; g) Gender, Youth and Social Inclusion Specialist; h) Environmental Management, Climate Change and Social Safeguard Specialist; i) M&E/KM Assistant; j) Accountant; k) Procurement Analyst; l) Project Assistant; and m) Drivers. Detailed Terms of Reference/Job Descriptions are presented in the PIM. The NPMCU will be located in Gaborone and will be housed by GoB as part of its counterpart contribution to BoLCoP. The Project will avail the NPMCU will the equipment, including logistical, needed for effective coordination of Project activities. It will also strengthen staff capacity to address any identified gaps and equip the NPMCU with the needed skill sets to effectively coordinate all BoLCoP aspects.

105. The NPMCU will have to coordinate BoLCoP implementation with those ministries and other government bodies whose mandates directly relate to the Project's development objective (refer to the section on PSC below). In addition, the Project will recruit qualified service providers, where needed and following appropriate procurement procedures, to facilitate activity implementation. Service providers could be other government ministries/parastatals, farmers organizations, civil society organisations, private sector stakeholders, research organizations, etc.

106. The NPMCU responsibilities will include: a) availing a conducive environment for Project activities, including the multiple partnerships required for effective implementation; b) coordinating the implementation of Project activities in line with the Annual

Work Plans and Budgets (AWPBs) approved by the Project Steering Committee (PSC) and provided with a 'No-Objection' from IFAD; c) development of operational strategies and establishment of effective tools for BoLCoP implementation; d) ensuring effective and efficient financial and administrative management of Project resources, preparation of AWPBs, mobilisation and coordination of implementation partners; e) monitoring, evaluation, knowledge management, learning and reporting implementation progress; and f) provision of the procurement function. The Project Director will ensure that NPMCU staff work in an integrated approach with the objective of exploiting existent complementarities and synergies for effective activity implementation.

107. *Project Steering Committee (PSC)* – A PSC, under the chairmanship of the MoLA Permanent Secretary, will be set up to provide overall policy and strategic guidance to the Project. The other members will be Permanent Secretaries from ministries whose mandates have a direct linkage to the effective implementation of the Project. These include Ministry of Finance, Ministry of Environment and Tourism; Ministry of Local Government and Traditional Affairs; Ministry of Water and Human Settlement; Ministry of Trade and Entrepreneurship; Ministry of Youth and Gender Affairs; District Commissioners of the participating districts, and representatives from the Botswana Meat Commission, LEA, and other government parastatals that will play a critical role in BoLCoP implementation. The NPMCU will serve as a secretariat to PSC with the Project Coordinator being its secretary.

108. The main responsibility of the PSC will be to ensure successful implementation of the Project. The PSC tasks will include policy and strategic guidance on the BoLCoP focus, priority setting and institutional strengthening to ensure that the Project achieves its objective and contributes to the higher-level sector policy and strategic goals. This will necessitate reviewing Project progress against targets, assessing management effectiveness, appraisal of annual performance and recommending renewal of contracts of PMCU staff, deciding on corrective measures where appropriate, identifying lessons learned and good practices, approving AWPBs and Procurement Plans.

109. *Project Technical Committee (PTC)* – The PTC will be part of the oversight function and will be co-chaired by the Director of Animal Production and the Director Veterinary Services. The PTC will be composed of Directors of the relevant departments in the key ministries involved in the Project's implementation. Its responsibility will be to: a) provide technical guidance of the Project; b) update the PSC on partnerships with stakeholders within the government to advance operational/coordination issues related to the Project; d) coordinate with technical counterparts of other government agents; e) update their respective mother institutions on any progress and challenges and plans of the Project; f) provide operational guidance to Project quarterly and annual progress reports and work plans; and g) participate in periodic monitoring of the Project in the participating districts.

110. *At District Level* – A District Project Management and Coordination Unit (DPMCU), headed by a dedicated District Project Coordinator, will be established in each participating district and will be responsible for the day-to-day implementation of Project activities. The DPMCU will comprise staff seconded from the districts on a fulltime basis; this will enable the staff to fully focus on implementing BoLCoP activities. Composition of the DPMCU will seek to mirror the NPMCU for technical positions.

3.2 IFAD Supervision

111. *Supervision* – The Project will be jointly supervised by IFAD and GoB to assess achievements and generate/distil/elaborate lessons learned and, when required, provide implementation support with the objective of ensuring effective Project implementation and increase the likelihood of achieving the target objective. Missions would be fielded at least once every twelve months. However, and depending on the extent and quality of implementation progress, implementation support Missions would be fielded as frequently as warranted by conditions on the ground so as to address any emergent issues that may have the potential to negatively impact BoLCoP implementation. The composition of the supervision/implementation support Missions would be influenced by the issues identified as needing redress.

112. *Mid-Term Review (MTR)* – An MTR will be undertaken halfway through BoLCoP implementation. The MTR will be preceded by a midline survey which will be commissioned by the NPMCU and undertaken by a qualified service provider. IFAD will be involved in reviewing and provision of a No Objection for the midline survey ToRs. Findings of the midline survey will be used to inform the MTR process.

113. *Project Completion Plans* – IIFAD will lead and coordinate the undertaking of the Project Completion Review; the review will be done after Project completion but before Project closure. GoB will play an active role in the process. The process will cover the elements described in the general conditions of the Financing Agreement as described in the 2023 PCR guidelines. The completion review will be preceded by an end-line survey which will be commissioned by the NPMCU and undertaken by a qualified service provider. IFAD will be involved in reviewing and provision of a No Objection for the end-line survey ToRs. Findings of the end-line survey will be used to inform the Project Completion Report.

3.3 Planning, Monitoring and Evaluation

114. ***Planning*** – BoLCoP's Logical Framework will form the basis of the Project's annual planning, budgeting, and monitoring and evaluation (M&E). Planning and budgeting will be fully integrated into GoB's systems and guided by the AWPB, ensuring alignment with national priorities and enhancing coordination across administrative levels. The PMCU will draw on implementation experience to refine approaches through internal reviews, workshops, community feedback, outcome surveys, monitoring data, and evaluations. Insights from these processes will support adaptive planning to enhance impact and sustainability.

115. The AWPB will be developed jointly by the PMCU, implementing partners, and M&E and Knowledge Management (KM) teams, following Botswana's livestock sector planning structures at village, district, and national levels. At the village level, Village Development Committees (VDCs), Community Animal Health Workers (CAHWs), and farmers will work with the district livestock extension officers to identify issues and submit proposals to District Development Committee (DDC) M&E units. District Livestock and Veterinary Officers will implement approved activities, with data contributing to District Development Plans (DDPs). District

M&E teams will monitor animal health, extension services, and infrastructure such as quarantine stations, dip-tanks, and communal kraals. District plans will be consolidated by the PMCU into BoLCoP's AWPBs, which will be reviewed by stakeholders and approved by the PSC. The AWPBs will guide implementation, procurement, and monitoring, ensuring alignment with Project goals, available resources, and mainstreaming themes (climate resilience and social inclusion).

116. ***Monitoring and Evaluation System (M&E)*** – BoLCoP's M&E system will follow a structured, participatory, and results-based approach aligned with IFAD's Core Outcome Indicator (COI) guidelines. Managed by the PMCU, it will coordinate data collection, analysis, and reporting through a Management Information System (MIS). Routine monitoring will be conducted by partners and field staff using standardized tools and regular reporting. Gender-sensitive indicators have been prioritized in the Logical Framework to track equitable progress for women, youth, and marginalized groups.

117. A baseline study will be conducted in the first year to establish reference values for key outcome and impact indicators, including income, employment, access to services, and empowerment. Indicators will be disaggregated by sex, age, and household type. A midline survey will be completed and approved two months before fielding of the MTR mission. Also, an end-line survey will be completed and approved two months prior to the PCR Mission. The findings of the midline and end-line surveys will be used to inform the MTR and PCR reviews, respectively. For the timing of the MTR and PCR, refer to Section 3.2: IFAD Supervision. The midline and end-line survey will be complemented by Annual Outcome Surveys (AOS') and thematic assessments to inform policy dialogue and scaling strategies. AOS' will be undertaken annually after the MTR. All evaluations will follow IFAD methodologies, including counterfactual-based approaches where feasible. The M&E budget will cover the baseline, midline, and end-line surveys, MIS development, training, and evaluations. Evaluations will be coordinated by the PMCU with technical support from suitably qualified service providers to ensure rigor and credibility. It should be noted that the baseline, midline and end-line surveys will comply with the IFAD'sCOI survey requirements.

118. All data will feed into the MIS, enabling real-time tracking and visualization. The M&E team will conduct spot checks and audits to ensure data quality and compliance with IFAD's reporting standards, including the mainstreaming themes. M&E outputs will inform Project management, strategic oversight, and policy engagement while enabling learning and upscaling opportunities.

119. The system will use both digital and paper-based tools to improve data accuracy and efficiency. Field data will be collected via mobile devices using platforms, such as Open Data Kit (ODK) or KoboToolbox, allowing offline collection and later synchronization.

120. A centralized, cloud-hosted MIS will manage data entry, validation, tracking, and reporting. Its development will be coordinated by the PMCU using suitably qualified IT consultants; the contract would include staff training to ensure appropriate usage and sustainability. The system will align with government platforms to support integration and post-Project use.

121. BoLCoP will address M&E gaps in MoLA, particularly in digital tools, outcome analysis, and coordination. Capacity building will include training on M&E concepts, indicator development, and digital systems aligned with IFAD standards. The Project will also promote harmonization through inter-agency coordination, technical support, training manuals, refresher courses, and peer learning forums.

122. The PMCU will prepare semi-annual and annual implementation progress reports for submission to the Government, through the PSC. Once approved by the PSC, the reports will be shared with IFAD for review and provision of No Objection. Annual performance will be measured against AWPB targets.

123. A detailed coverage of the BoLCoP planning and M&E processes and procedures are presented in the PIM.

3.4 Knowledge Management and Country Level Policy Engagement (CLPE)

124. ***Knowledge Management (KM)***– BoLCoP will integrate a comprehensive KM framework aligned with its M&E system to support adaptive management, institutional learning, and evidence-based policy and decision-making. A Monitoring and Evaluation and Knowledge Management Specialist, supported by implementation partners, will coordinate KM activities, with the MIS serving as the central platform for data storage, tracking, and dissemination.

125. Knowledge will be generated through systematic analysis of monitoring data, impact assessments, thematic studies, and beneficiary feedback. It will be disseminated through digital platforms, learning events, policy briefs, case studies, toolkits, and stakeholder networks. The Project will promote inclusive and gender-disaggregated learning, using tools such as MIS, Geographic Information Systems (GIS), and South-South Triangular Cooperation (SSTC) to enrich its knowledge base and foster innovation.

126. SSTC will be a key pillar of BoLCoP's KM strategy, supported by a regional SSTC grant. This will be integrated across all Project components to support rural communities and government institutions through knowledge exchange, technical assistance, and policy dialogue. The SSTC activities will be funded through BoLCoP budget and the IFAD SCALE grant, which promotes regional and international learning on small livestock among IFAD projects in Botswana, Lesotho, Zambia, Bolivia, and Brazil. Under Component 1, BoLCoP will target key knowledge gaps, including: a) rangeland restoration and breed improvement (South Africa, Namibia); b) climate smart grazing models (Lesotho and Zambia); and c) enhanced fodder production (Brazil). Under Component 2, the target will be on value chain strengthening in areas such as: a) cooperative development (Brazil); b) capacity building from seconded Brazil experts; c) digital traceability and automated marketing technologies (India, Indonesia etc); and d) commercialisation and value addition (Bolivia). Under Component 3, SSTC will provide technical assistance for MIS development for small-livestock data and policy dialogue, advisory support and guideline development for an ICT strategy (Brazil, India and others). Addressing these gaps will strengthen operational effectiveness and inform broader policy and programming.

127. BoLCoP will produce a range of knowledge products, including policy briefs to support reform and dialogue, case studies and field stories documenting innovations and lessons, and data-driven reports from monitoring and impact evaluations. Operational

guidance will be synthesized from quarterly reviews, stakeholder interviews, and learning exchanges. Applied research in partnership with academic institutions will deepen understanding in areas such as climate resilience, indigenous knowledge, and digital innovation in livestock systems. In addition, the GLEAM-i assessment will be made available to inform the national GHG emissions inventory and the Nationally Determined Contributions, including for methane reporting.

128. These KM efforts will directly contribute to the implementation of IFAD's CSN, enriching the national knowledge pool with practical evidence and supporting policy engagement through actionable insights. BoLCoP will strengthen institutional capacity at all levels by enabling stakeholders to learn, adapt, and scale successful approaches, thereby contributing to long-term sustainability and institutional development.

129. To ensure knowledge reaches the right audiences and maximizes impact, BoLCoP will use a range of dissemination methods. Policy dialogues and technical roundtables will engage policymakers and development partners. Learning events, study tours, and exchange visits will support horizontal learning among implementers, extension agents, and producer groups. A KM Portal, integrated into MoLA's digital platforms, will serve as a central repository accessible to government, private sector, and civil society. Periodic newsletters will target grassroot actors, such as farmer groups and cooperatives, while BoLCoP's contributions to IFAD's knowledge platforms will share lessons across peer projects and global networks. Two-way communication channels will be institutionalized to ensure local and indigenous knowledge informs both Project implementation and policy dialogue, promoting inclusive, participatory knowledge sharing.

130. ***Country Level Policy Engagement (CPLE)*** – KM outputs will directly inform both Project design and national policy dialogue by identifying and addressing systemic challenges in the small livestock sector. Planned policy-related interventions will focus on strengthening regulatory frameworks to improve small livestock production and commercialization. Consultations with stakeholders, along with the Theory of Change and the Integrated Policy and Results Matrix (IPRM), identified key policy priorities in the small livestock subsector, prompting the design of BoLCoP to respond to strong demand for knowledge and support at both policy and operational levels. In coordination with key stakeholders, including the Ministry of Agriculture, the project has prioritized four critical areas: (1) development of a comprehensive sheep value chain strategy to enhance productivity, market access, and competitiveness; (2) review and strengthening of the legislative framework to introduce an enforceable meat grading system for small livestock, essential for quality assurance, transparency, and consumer confidence; (3) advocacy for a minimum local content requirement in the sector to promote domestic value addition, reduce import reliance, and boost rural economies; and (4) support to the Ministry of Livestock and Agriculture (MoLA) in formulating an ICT strategy for improved data and service systems. BoLCoP will provide technical inputs, conduct feasibility studies, and engage stakeholders throughout these areas to ensure alignment with IFAD's Country-level Policy Engagement (CLPE) principles, fostering inclusive, evidence-based, and results-oriented policy development.

3.5 Target group engagement

131. The Project is responsible for ensuring effective stakeholder engagement throughout the Project cycle. Consultations began at the PCN stage and will continue through implementation. BoLCoP will actively involve the intended beneficiaries in the development process, ensuring that the processes are effective, inclusive, accessible, clear, fair, transparent and sustainable. The engagements will support formal communication channels for target groups and other stakeholders that encourage participation at all stages of each intervention. The engagements are embedded in the design of each intervention. They involve ascertaining that the opinions, views and needs of key stakeholders, including target groups (women, ethnic groups, youth) are recorded, verified, analysed, considered, and reflected in the intervention cycle.

132. The first step of stakeholder engagement was conducted at concept note and design stages through two in-country missions and a wide range of consultations with public line agencies, rural communities, CBOs, NGOs/CSOs, private sector entities, development partners, research and academia institutions, etc. The views and opinions collected during the design phase have been reflected in the PDR and its appendices.

133. Field engagements focused on raising awareness, assessing farmers' readiness to participate in a loan-based project, and gathering input on preferred implementation modalities. While initial reluctance to join associations was noted due to past experiences of mistrust, stakeholders ultimately recognised the benefits of group-based approaches and agreed to organise into clusters or associations for easier coordination and support.

134. ***Community Level Engagements*** – In the initial stages, the Project will apply Free, Prior and Informed Consent (FPIC) to ensure that the communities are willing to participate and have all the information necessary to take collective, informed decisions. The Project will build on the existing, contextually relevant governance structures, such as the traditional/village level authorities, the Chief (Kgotla) and the Village Development Committees. The community-based planning process will involve all interested persons in the community (women, ethnic groups, youth, People with disabilities, existing CBOs, village authorities and others) with active participation of district line agencies.

135. The communities will identify opportunities and social, environmental, and climate risks. They will receive essential information that allows them to take investment decisions as well as steps and procedures for implementation. Village agriculture technician, veterinary workers, Operation and Maintenance (O&M) committees, etc., will be identified. The engagement will include CBOs and other private entities (buyers, service providers, equipment and inputs suppliers, financial institutions, other Project teams, etc.) to facilitate business relationships between CBOs, farmer clusters, and other value chain actors.

136. ***Feedback Loops*** – Both qualitative and quantitative information and data will be collected and documented through formal channels at each level. At individual/household level, the Project will register each beneficiary in the M&E database. At CBO level, planning, implementation, monitoring, and evaluation stages will involve formal channels to collect, document, analyse, validate, and address feedback from the CBO committees and their members.

137. At farmer cluster level, community mobilizers will transmit information from the Project to the target communities and from the communities to the Project team. They will use ICT to transmit this information. Baseline, midline and end-line surveys will be used to collect and analyse information and provide feedback loops for Project stakeholders to provide views and opinions at key stages of the Project cycle.

138. ***Grievance Redress*** – Grievances may arise at any stage of the value chain. The Project Delivery Team has developed a Grievance Redress Mechanism (GRM) outlining the process for grievance redress; this is included in the PIM. The GRM consists of three parallel systems: a) a community-based system; b) the BoLCoP formal system; and c) the IFAD Complaints procedure. Stakeholders generally prefer the community-based system as it resolves disputes faster and has the advantage of being available locally.

139. The GRM can manage different types of complaints and grievances coming from target communities and beneficiaries. It is important to highlight that this includes any situation of sexual harassment (SH)[41] and sexual exploitation and abuse (SEA)[42]affecting community members, beneficiaries or workers involved with the Project in which the perpetrator of such occurrences is someone working or representing BoLCoP.

3.6 Strategic partnerships

140. The Project will be implemented in coordination with ongoing projects and programmes funded by the GoB, and its other development partners that support thematic areas related to its development This will not only enable exploitation and taking advantage of any existent synergies but would also explore the possibility of co-financing. Some of the potential partners include: a) African Development Bank[43]; b) European Union[44]; c) GCF-Conservation International[45]; etc. Details of those and other partners are presented in Annex 1: Key Files (Table 3: Complementary donor initiatives/partnership potential). In addition, BoLCoP has identified partners willing to co-finance and amplify the resultant impact. These include the Global Environment Fund and the Adaptation Fund with preliminary focus on climate resilient food, water systems as well as the emergency fund. During the course of Project implementation, IFAD and GoB will continue to identify other partners willing to contribute to the achievement of BoLCoP's development objective or to scale up its achievements.

3.7 Financial Management

141. The Ministry of Land and Agriculture (MoLA), as Lead Project Agency, will oversee the financial management of the project through a dedicated Project Management and Coordination Unit (PMCU). Leveraging experience from past IFAD and ongoing EU-funded projects, MoLA will manage budgeting, disbursement, monitoring, and financial reporting. The World Bank also uses the country systems on staffing, budgeting, flow of funds, financial reporting and external audits. These pillars are said to be strong, although there were some weaknesses that has been noted with planned mitigation is the detail FM risks assessments document.

142. The PMCU would release funds against approved Annual Work Plans and Budgets (AWPB), prepared in line with IFAD and Government of Botswana regulations, and endorsed by the Project Steering Committee prior to IFAD's no-objection. Participating districts will follow standardized financial management procedures outlined in Implementation Manual (PIM), which requires IFAD's no-objection as a disbursement condition. Disbursement modalities include advance withdrawals to designated USD accounts and, exceptionally, direct payments with prior IFAD Finance Officer approval. Each financier will operate a separate designated account to avoid commingling, while government contributions will be disbursed through a bank account under the TSA from MoLA. In-kind contributions will be tracked by the PMCU, and the AWPB will delineate financing sources by activity.

143. Qualified, full-time finance staff who would be either seconded or competitively recruited will manage the accounting functions using the GABS/IFMIS accounting system. The GABS will be used for recording financial transactions, and the finance team will produce analytical reports by components, categories, financiers, and accounting period by quarter, annual and cumulative inception to date. Regular field visit for financial monitoring of participating districts by the project accountant to ensure compliance with project reporting requirements and capacity building on weaknesses. Regular analytical financial reports and quarterly Interim Financial Reports (IFRs) will support both disbursement and monitoring. Field-level financial oversight will be reinforced through district visits and capacity-building support.

144. Internal audit will be conducted by a dedicated internal auditor staff, in collaboration with MoLA's internal audit manager. External audit will be conducted by the Supreme Audit Institution of Botswana, guided by IFAD's audit standards, ensuring adequate coverage of funds and risk areas. Audit reports will be submitted within IFAD's required timeliness of 6 months after the end of fiscal year. To safeguard fiduciary integrity, IFAD's Anti-Corruption Guidelines will be enforced, with mechanisms in place to prevent fraud, mis-procurement, and abuse of authority. These include annual audits, strong FM procedures, regular IFRs, internal audits, grievance redress mechanisms, and IFAD's independent reviews. The overall FM risk is rated moderate, with mitigation measures embedded in implementation. Risk ratings will be revisited during supervision based on ongoing assessments. Details of FM arrangements are in Annex 7.

145. The mission did not note any exceptions to the general conditions that should be brought to the attention of senior management of PFM.

3.8 Procurement

146. Public procurement in Botswana is governed by the Public Procurement Act (PPA) of 2021, the Public Procurement Regulations (PPR) of 2023 and the Public Procurement Operations Manual (PPOM) of 2024, supplemented with periodic circulars. The Act has established an oversight body, the Public Procurement Regulatory Authority (PPRA) and procuring entities responsible for management of procurement activities, evaluation and monitoring of the performance of contracts in accordance with the Act.

147. The procurement assessment revealed that overall procurement risk is Moderate. The procurement regulatory framework is well structured with an Act, Regulations and Operations Manual with their precedence firmly established. However, some gaps were observed including: the time for submission of bids for international competitive bidding (ICB) and national competitive bidding (NCB) not in compliance with IFAD Procurement Guidelines; NCBs restrict participation only to bidders domiciled in Botswana; and the national standard bidding documents (SBDs) are not in full compliance with IFAD guidelines, including the SECAP requirements.

148. Procurement under the BoLCoP will be conducted in accordance with the National Procurement Framework to guide the processes and the governance structures, while the IFAD project Procurement Guidelines[46] and SBDs shall be used in lieu of National Framework in the gaps identified.

149. The procurement assessment also confirmed that MoLA has the key procurement structures as required by the Act, consisting of the Accounting Officer (PS), the procurement oversight department, the procurement and project management department, ad-hoc Evaluation Committee, the user Departments, and other appropriate structure necessary.

150. MoLA, as the Lead Implementing Agency (LIA), will be responsible for BoLCoP's procurement management through the BoLCoP's procurement activities will be carried out at two levels. All high-value and complex procurement activities will be coordinated by the PMCU at the Ministry while low value and locally available goods, works and services shall be procured at the district level. Detailed procurement arrangements will be provided in the PIM and the Project Procurement Arrangement (PPA) letter.

151. MoLA will competitively hire/second a dedicated procurement team consisting of an experienced Procurement Specialist and a Procurement Analyst at the PMCU; the required skills, qualifications and experience will be defined in the PIM. At the District level, the MoLA has procurement personnel for each of the departments (i.e., animal production, veterinary services, crop production, and corporate services) each reporting to their respective District heads of department. Each district will second procurement personnel to manage the BoLCoP procurement at the district level. IFAD will invest in capacity building for the PMCU and district procurement personnel seconded to the Project.

152. During implementation of the BoLCoP, all Ministry agencies that will be identified with procurement responsibilities in the Project will be assessed on their procurement systems and capacity, necessary mitigation measures shall be proposed accordingly.

153. The BoLCoP procurement planning, implementation and the IFAD prior review and No Objection shall be routed through the IFAD's Online Procurement End-to-End (OPEN) system, which enforces a step-by-step documentation of the workflow for the entire procurement process. Each procurement entity in BoLCoP will have a sub-profile in OPEN to facilitate transmission of procurement actions for prior review by IFAD. Management of contracts shall be carried out through the contract monitoring tool (CMT) in the OPEN.

154. IFAD will organize the necessary in country procurement training at the beginning and throughout the Project implementation for all stakeholders involved in BoLCoP procurement. The training will be on IFAD procurement requirements, including preparation of specifications and terms of references, bidding documents, evaluation of bids/proposals and contract management. In addition, procurement staff competitively hired or seconded for BoLCoP shall be provided with training through the IFAD funded procurement capacity building program (BUILDPROC) delivered by the International Training Centre of the International Labour Organization (ITCILO).

3.9 Risks and Risk Management

155. The design team identified some potential risks that could have a negative impact on BoLCoP’s implementation and its development objective. This section describes selected risks and the associated mitigations measures that are included in the PDR. A more detailed account of the risk profile is presented in Annex 10: Integrated Project Risk Matrix (IPRM), the SECAP Review Note (SRN) and Environmental and Social Management Framework (ESCMF) A summary of selected risks is presented below:

156. Prolonged droughts affecting water availability for livestock and communities, with women and girls disproportionately affected, as they bear responsibility for water collection. Mitigated through solar-powered boreholes, fodder reserves, and climate-resilient breeds;

157. Invasive species (Prosopis) degrading pasture and groundwater. Addressed via community-led harvesting and processing;

158. Human–wildlife conflict, particularly in Ghanzi, Kweneng West, and Kgalagadi. Mitigations include electrified kraals, herding improvements, and partnership with the Department of Wildlife and National Park (DWNP);

159. Climate change-related infrastructure failures (e.g. evaporation pond leakage, borehole breakdowns). Mitigation includes climate-proof designs, maintenance funding, and environmental screening under the ESMF;

160. Weak institutional capacity for environmental governance. Addressed through staff deployment, Training of Trainers (ToTs), and decentralised planning tools, with active involvement of women and youth in governance structures and decision-making processes; and

161. Capacity gaps and high staff turnover at the district level for financial management, delays in the budget approval process, and potential disbursement bottlenecks if Project funds are not fully aligned with national budget systems. Mitigations include strengthen staffing by recruiting qualified FM personnel at both PMCU and district levels, align Project budgeting with national processes through timely submission of AWPBs and adherence to budget circulars; and improve financial reporting by training staff on IFMIS use and IFAD reporting standards, digitizing records, and ensuring consistency in document retention.

3.10 Implementation Readiness

162. The Project Delivery Team (PDT) has taken the following steps to address potential start-up delays: a) preparation of a draft AWPB, the associated Procurement Plan and a draft PIM as part of the design process; b) preparation of job descriptions for all the different PMCU positions; and c) a commitment by the IFAD Country Office to provide the needed support and guidance to the GoB Inter-ministerial BoLCoP Reference Group in their effort to ensure BoLCoP's timely start-up.

163. In addition, GoB has established an Inter-ministerial BoLCoP Reference Group which worked with the IFAD PDT during the design process. The same group will continue to work with IFAD to facilitate an orderly and fast implementation start-up.

164. Given that understanding of the design package has, previously, been an issue that contributed to start-up delays, the PDT will work together with the BoLCoP Inter-ministerial Reference Group and coordinate the undertaking of multiple and staggered start-up workshops (a national one in Gaborone and the others in the participating districts), during the first six months of the Project, where the design of the Project will be unpacked.

165. It should be highlighted that no BoLCoP funds can be spent if not included in the GoB annual budgets passed by Parliament. To that effect, and in anticipation of BoLCoP being approved by the December 2025 IFAD Executive Board and the associated receipt of the first disbursement, GoB proactively included the equivalent of about USD 5 million in the 2026/27 budget for BoLCoP specific activities. This would allow the Government to receive and use BoLCoP funds after signing of the agreement.

166. Also, GoB has committed to, proactively, undertake the following: a) identify the BoLCoP office space; b) finalise the BoLCoP Job Descriptions for the competitive recruitment and identification of the appropriate GoB staff for secondment to PMCU staff and ensuring their smooth onboarding; and c) identification of signatories (ID and signature specimen). This would give BoLCoP a head-start by the time the financing agreement gets signed.

167. The BoLCoP PDR will be subjected to a review and approval process by IFAD and GoB. The Table below provides an indication of the different review and approval stages for the PDR. The Country Director will ensure close liaison with the Government during the review process, especially on those dates that require their direct participation.

Table 7: BoLCoP Design Finalisation Timeline

Technical meeting 2: RD, TD, CD, PTL	11th August 2025
PDR submission to Directors (ESA, PMI, ECG)	15th August 2025
Pre-DRM Technical QE meeting	22nd August 2025
Submission of PDR package for RD clearance	28th August 2025
Off-line clearance by ESA RD	29th August 2025
Deadline for PDR submission for DRM (in ORMS)	1st September 2025
DRM meeting	26th September 2025
DRM approval (receipt of DRM DM)	3rd October 2025
PDR+PR submission to ESA RT	6th October 2025
Transmission of comments by RT	7th October 2025
PDR+PR submission for RD clearance	8th October 2025
Offline clearance by RD	9th October 2025
Submission for QAS final desk review & OPR validation (in ORMS)	9th October 2025
QA approval date (QAG desk review, end date) GRIPS	16th October 2025
Final submission in ORMS	17th October 2025
PDR endorsed in ORMS (DR endorsed)	20th October 2025
PR/PM submission in Scriptoria	21st October 2025
SEC due date (Scriptoria)	23rd October 2025
Negotiations completed GRIPS	27th November 2025
EB date GRIPS	11th December 2025

Footnotes

[1]Bertelsmann Stiftung, BTI 2024 Country Report — Botswana. Gütersloh: Bertelsmann Stiftung, 2024.

[2]https://thedocs.worldbank.org/en/doc/bae48ff2fefc5a869546775b3f010735-0500062021/related/mpo-bwa.pdf

[3]Ibid.

[4] World Bank (2025). The World Bank - Botswana. Accessed:

[5]Ibid.

[6]World Bank. 2022. Inequality in Southern Africa: An Assessment of the Southern African Customs Union.

[7]Ibid

[8] ND-GAIN Index

[9]African Union. 2023. Dakar 2: Botswana Country Food and Agriculture Delivery Compact.

[10]World Bank. 2023. Botswana: Systematic Country Diagnostic: At a Crossroads Reigniting Efficient and Inclusive Growth.

[11]Small stock refers to goats and sheep while small livestock is inclusive of goats and sheep, pigs, poultry and apiculture.

[12]Remote Area Communities refer to indigenous people/communities

[13] Bertelsmann Stiftung, BTI 2024 Country Report — Botswana. Gütersloh: Bertelsmann Stiftung, 2024.

[14]Economist Intelligence Unit. 2025. One Click Report: Botswana https://viewpoint-eiu-com.ifad.idm.oclc.org/analysis?utm_source=pdf-report&utm_medium=One click%20report%20:%20Botswana&utm_campaign=cover-page-link.

[15]https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=BW

[16]https://thedocs.worldbank.org/en/doc/bae48ff2fefc5a869546775b3f010735-0500062021/related/mpo-bwa.pdf

[17]Ibid.

[18] World Bank (2025). The World Bank - Botswana. Accessed:

[19]International Bank for Reconstruction and Development.2025. Macro Poverty Outlook for Sub-Saharan Africa: Country-by-country analysis and projections for the developing world.

[20]World Bank. 2022. Inequality in Southern Africa: An Assessment of the Southern African Customs Union.

[21]Ibid

[22] Statistics Botswana (2024). Advancing Botswana Poverty Estimates; Introducing the Survey of Well-Being Via Instant and Frequent Tracking (SWIFT).

[23]FAO (2024). Suite of Food Security Indicators. Accessed at: https://www.fao.org/faostat/en/#data/FS

[24]Global Hunger Index. 2024. Botswana. https://www.globalhungerindex.org/pdf/en/2024/Botswana.pdf

[25] Botswana's agricultural sector has experienced a steady decline in contribution to GDP over the last 40 years. It accounted for 42.7% of GDP at independence in 1966 but now contributes less than 2% to GDP.

[26] African Union. Dakar 2: Botswana – Country Food and Agriculture Delivery Compact. 2023

[27] Government of Botswana. National Agriculture Sector Policy: Turning Culture into Business. 2025 (*draft)*

[28]World Bank. 2023. Botswana: Systematic Country Diagnostic: At a Crossroads Reigniting Efficient and Inclusive Growth.

[29]https://www.clgf.org.uk/default/assets/File/Country_profiles/Botswana.pdf

[30]This intervention was known as the competitiveness reinforcement initiative (CRI).

[31]African Union. 2023. Dakar 2: Botswana Country Food and Agriculture Delivery Compact.

[32]World Bank. 2023. Botswana: Systematic Country Diagnostic: At a Crossroads Reigniting Efficient and Inclusive Growth.

[33]Small stock refers to goats and sheep while small livestock is inclusive of goats and sheep, pigs, poultry and apiculture.

[34]Assumes an average household size of four people.

[35]BoLCoP includes climate resilience.

[36] Definition of Blending: Combining concessional finance from donors or third parties alongside DFIs' normal own account finance and/or commercial finance from other investors, to develop private sector markets, address the Sustainable Development Goals (SDGs), and mobilize private resources.

[37] MoLA has allocated around US$15m to the TLMS system for loans and grants. The NDB will manage around US$7.5 million of these funds for TLMS loans, and once confirmed, NDB will provide confirmation of the amount to be allocated to the BoLCoP LoC. It is expected that the allocated loans and grant amounts are targeting 15 sub-sectors within the livestock sector including small stock, poultry and cattle.

[38] For further information on this scheme, refer to "*Thuo Letlotlo Livestock Management System (TLMS) Guidelines Version 1, 2024*", Ministry of Livestock and Agriculture (MoLA), Republic of Botswana

[39]https://tradingeconomics.com/botswana/bank-lending-rate

[40] https://www.worldgovernmentbonds.com/country/botswana/#google_vignette

[41]SH is defined as “any unwelcome sexual advance, request for sexual favour or other verbal, non-verbal or physical conduct of a sexual nature that unreasonably interferes with work, alters or is made a condition of employment, or creates an intimidating, hostile or offensive work environment.”

[42]SEA is defined as “sexual exploitation and abuse of beneficiaries in the context of IFAD’s operations in the field: any actual or attempted abuse of a position of vulnerability, differential power, or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of others (sexual exploitation); the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions (sexual abuse).”

[43]Public Procurement Technical Assistance Project (*Technical assistance intervention)*

[44]Support to Digital Transformation in Botswana

[45]Ecosystem-Based Adaptation and Mitigation in Botswana’s Communal Rangelands

[46]Any reference to IFAD Project Procurement Guidelines also includes the IFAD Procurement Handbook. Ensuring that applicable procurement rules are consistent with IFAD’s Project Procurement Guidelines is mandatory; the Handbook is used as a guidance document for the borrower/recipient. The regulations set out in these Procurement Arrangements supersede the Handbook in case of conflict. For both the Guidelines and the Handbook, the latest version shall always apply.

Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Annex 1: Key Files

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
Report No.	7326-BW

East and Southern Africa Division
Programme Management Department

Annex 1: Key Files

Table 1: Rural poverty and agricultural sector issues (key file table 1)

Priority area	Affected groups	Major Issues	Actions needed
• **Rural poverty and food insecurity**	• Rural dwellers, especially smallholder farmers in rural settlements and villages. • Women headed households[3334]. • Youth.	• 16.1% of the population is considered to live under the poverty line. It is estimated that 13.5% that of the population lives in a situation of extreme poverty. • Rural poverty is more acute with 26.8% of rural people being economically poor[35] and 68% multidimensionally poor[36]. • But it is estimated that almost 50% of the population faces severe or moderate food insecurity[37]. • Food security and multidimensional poverty data sheds light into different dimensions of poverty that economic data alone cannot show. • Poverty and food insecurity are primarily caused by reliance on agricultural activities affected by the compounding effects of climate change and underdeveloped agricultural value chains.	• 75,000 of households to be targeted by BoLCoP will be rural smallholder households either living under the poverty line or vulnerable to poverty and / or affected by food insecurity. • 30% of beneficiaries will be youth (youth sensitive Project). BoLCoP will encourage and facilitate male and female youth access profitable and sustainable self and wage employment opportunities. • 40% of all beneficiaries will be women. Special attention will be placed on young women (see above) and women headed HHs given the extremely high rate of HHs led by women. • The Project will offer packages support access and sustainable engagement of the different Project target groups.
• **Low production and productivity.**	• (Subsistence and commercially active) smallholder farmers who are poor or vulnerable to poverty. • Youth and women.	• Poor HHs and those vulnerable to poverty practice small-scale, water constrained, and weather affected income generating activities, generally without being part of existing value chains. These HHs (including women) often receive social protection support from the government and benefit from remittances from Tswana in cities or abroad. • Youth and women often lack access to opportunities and assets / products / upskilling opportunities to improve existing or engage in more commercially oriented activities in agricultural value chains. • Small-stock investments have been made by the government to assist destitute HHs through social protection and poverty eradication programmes. Operating in isolation, without being part of a larger value chain limits production, productivity, access to market and profitability. • Large cohort of older farmers (46% over the age of 60).	• Integration of poor smallholder HHs and smallholder HHs vulnerable to poverty in target value chains. • These HHs will be offered comprehensive technical, business management and social risk management packages; and will be linked to markets and other players in target clusters. • Technical (production related support) will integrate measures to address climate change and environmental degradation. • Access to fenced areas for controlled breeding and management.

		• Declining to stagnant national flock size over past 30-years (goats down to c. 1.2 million from 2.6 million, sheep down to c. 250,000 from 490,000) • Low productivity - Birth rates: sheep 56%, goats 69%; Mortality rates: sheep 12%-16%, goats 17%-24%; theft sheep 3%, goats 5%; low offtake: sheep: 3%-6%; goats: 6%-11%. • Slaughter facilities. Access limited, slaughter slabs without supportive cold chain system. • Logistics. Large distances to urban markets, inadequate smallstock vehicles. • Unskilled herders, often migrant workers from neighbouring countries. • 95% of flocks held in communal areas with unfenced land	
• **Social risks**	• Migration: rural community dwellers. • HIV and AIDS: the entire population, with women and especially women headed households being most at risk out of the general population. • GBV: particularly women in all socio-economic strata and place of residence[38]. • Malnutrition: primarily women, infants and children who face the highest poverty levels.	• Migration: High dependence rates and dependence on small-scale agriculture encourage men and youth migration to more urbanised areas. Conversely, rural areas have seena high influx of unskilled labour, especially from Zimbabwe. • HIV and AIDS. Botswana has the third most serious HIV epidemic worldwide with 20.8% of 15-49-year-olds infected by HIV. Women are disproportionately affected[39]. The risk of acquiring HIV increases for women progressively through their reproductive life with 52% of women aged 45-49 being HIV positive[40]. • GBV[41] affects primarily women and has a structural relation with HIV acquisition[42]. The possibility of GBV at HH level (triggering or exacerbating it) can condition women´s decisions in various spheres of life – including in relation to economic opportunities. • Malnutrition: food security data indicates that acute situations of limited access to food can be common in situations of stress. Long term malnutrition in children can hamper cognitive development.	• Integrate measures for the Project and beneficiaries to manage these social risks, including: a) Rendering Project opportunities appealing for youth to retain them in rural areas and encourage them to engage in agricultural activities (small livestock value chains). b) Delivering a social risk management empowerment package to all smallholder farming / entrepreneurial HHs targeted by the Project through an adaptation of the Gender Action Learning System (GALS). The delivery of the package would be merged to all business management / financial literacy types of activities offered to smallholder farmers. c) Integrating discussions about these social risks, their causes and mitigation measures at targeted cluster level. d) Making the Project´s GRM widely known and accessible to all social groups in target communities; highlighting the Project´s stance of sexual harassment (SH) and sexual exploitation and abuse (SEA). e) Malnutrition: It is important that Project beneficiaries understand the basics of nutrition to ensure adequate nourishment of their children. Basic nutrition education will be

			integrated in the holistic empowerment package to be offered to smallholders and micro-entrepreneurs.

Table 2: Organisational capabilities matrix (key file table 2)

Organisation	Strengths	Weaknesses	Opportunities	Threats
Ministry of Finance	**High credibility and authority** • As the designated ministry for national economic issues including budget and planning it is a very strategic partner to coordinate well with. • Offers guidance on the country's current priorities and economic status and assist in steering focus where most needed	**Mandate focus driven** • Because more financially/return driven may tend to lose track of other factors that come to play when it comes to programming	**Key parastatals under its belt** • Financial institutions and those in policy are under this key ministry e.g. Bank of Botswana, National Development Bank, Botswana Savings Bank, Statistics Botswana, BIDPA, etc. as such able to make influential recommendations.	**Bias towards its mandate** • Mandated to make decisions and guide for the country's economic growth there is bound to be some bias towards what brings speedy results than slow returns
Ministry of Lands & Agriculture	**Leadership buy-in** • There is strong and positive energy from ministry management particularly the ministry to ensure delivery of the Project that is bound to push for efficiency **Countrywide Footprint** • It has the technical capacity and current leadership buy-in **Possess influential networks** • Parastatals under this ministry and other associated stakeholders in the agricultural sector have the potential to ensure successful Project s because of the existing skills sets e.g. NARDI	**Leadership gaps** • There are leadership voids particularly in the department of animal production where the Project will be implemented hence there is no clear buy-in at departmental level where the technocrats are placed. **Lack of coordination with partners** • The ministry is not in touch or does not have a good relationship due to bad communication either with other ministries or potential stakeholders to collaborate with	**Focal point for land issues** • Land issues are very critical for agricultural activities (esp. for women and youth) as such having the ministry mandated with land issues will ensure speedy and perhaps even more coordinated work on such issues compared to previously when land portfolio was under aa a different ministry	**Competing mandate and under resourced** • Managing competition of land activities that are not necessarily agriculturally based will pose a challenge as the ministry is not necessarily capacitated particularly budget wise to also take up this mandate.

Ministry of Environment & Tourism	**Reference point for environment and climate issues** • Lead and advise on environment issues and cut cross sectors on environment and climate issues in the country	• As complementing ministry in most Project s its mandate less known **Limited resources** • They do not have a budget to come up with strategies that will go a long way in contributing to the sector e.g. in fodder production, they wish to have an Agro Forestry Strategy	**Accredited authority** • Due to being a climate funding authority, it is a credible national focal point **Aligned initiatives** • The ministry is looking into interventions in the smallstock sector that could be beneficial coming from the environment side e.g. greening the livestock sector and a focus on renewable energy	**Less known as key player** • Less considered an authority because of its little visibility
Ministry of Local Government & Traditional Affairs	**Strong community links and structures** • More in touch with communities • Has more structures at community level/district/village for wider reach	1. **Non-existent targeted budget** • No implementing budget of its own particularly for implementation of programmes	2. **Cross cutting inter-ministerial/sectoral link** • Secretariat to the Rural Development Council (RDC) where all government and private sector players meet to discuss issues of national interest	3. **Less visible as a key player** • Less considered a key player by ministries although at the heart of communities
Ministry of Nationality, Immigration and Gender Affairs.	**Clear mandate to promote gender equality and social inclusion.** • Lead and advice in addressing disparities in access to livestock resources, markets, and services.	**Limited sector-specific experience** 4. Budget and staffing limitations also hinder extensive field engagement, monitoring, and support	**Strategic Entry Point for Gender programming** 5. Women are significantly involved in small stock production (especially goats)	**Weak coordination and synergy with other ministries** 6. Particularly in addressing social inclusion initiatives.
Food and Agriculture Organization (FAO)	**Existing in-country engagements** • Existing synergies with Ministry of Lands & Agriculture and Ministry of	7. **Budget constraints** • Does not have a strong footprint/programming in the country due to financial constraints	8. **Targeted programming** • Already playing in the 9. food security space and having worked with the ministry	**Competitive landscape** • Competitive with other UN/Rome based agency hence wants to stand out in its in-country programming

	Environment on Project s will ease collaboration		of lands and agriculture it remains a strategic partner	
Botswana University of Agriculture and Natural Resources (BUAN)	**Diverse in its programming** • Progressive in its thinking through commercialization programmes and aligning with currents needs of the sector • Rich curriculum with hands on, on-farm training	10. **Lacking in digitalization expertise** • Not equipped with personnel or expertise on technology transfers even as a learning institution	11. **Strengthening extension services** • Looking at diversifying to being more accessible and relevant to fill current gaps that exist in the agricultural sector e.g. extension programmes and use of graduates for mentorship programme	12. **Not in sync with like-minded partners** • More seeking recognition than aligning itself as complementing stakeholder 13.
NARDI	**Government support** • Well equipped with personnel, resources and networking across sectors thus capable of tapping on more resources as a parastatal	**Weak stakeholder engagement** • No synergies with other complementing stakeholders	**Sound research expertise** • Existing research work to greatly contribute in the smallstock sector i.e. fodder production, nutrition	**Weak collaborative efforts** • Doing work similar to other organizations but not collaborating well hence working in isolation
UNRCO	**Government Linkages** • Well-connected and versed on current government initiatives **Reputable entity** • As the coordinating office for the UN family, it boasts credibility	**Limited resources** • Does not have a budget for programming as it is more on technical assistance	**Mobilization capabilities** • Due to networking abilities and its systems in place such s UN Cooperation Framework and existing activities in place, it will be beneficial to leverage on such platforms for increased research/knowledge	14. **Delays due to government transition** • Unable to get through/connect well with the current administration
SmartBots	**Government support**	**Government Dependency**	**Extensive network**	15. **Wider mandate**

	• As a government ICT reference point, it is supported with the necessary resources to implement its programmes **Wider coverage** • It covers countrywide internet connectivity across sectors as such very important partner **Experience in sector** • As previously involved in the Lobu Farm Project they are a strategic partner in the smallstock sector	• This may hinder its ability to spread its wings in its area of focus due to depending on resources mostly availed by government	• Due to its mandate, it has experience with local, regional and international partners and able to mobilize resources as previously with the Lobu Farm Project	• Their mandate is wider hence may hinder their influence and contribution
BDIH	**Experience in digitalization** • As national reference point for digitalization issues it is highly reputable • It is a good reference point due to previous works especially in the agricultural sector e.g. Modisar, a livestock management and tracking system	**Mandate not clearly visible** • Although with a cross-cutting mandate on technological issues BDIH is mostly underplayed and not fully utilised for its mandate	**Innovator database** • BDIH has a great pool of innovators to pick from for technological solutions across sectors	**Competing entity** • It is in competition with other innovation entities also under government
BITRI	**Research and Innovation** • It is well resourced both even in financial backing and expertise	**Overlapping mandate with other entities** • Its mandate overlaps with that of other entities in the	**Broad mandate** • Its focus on research and development on broad thematic areas such as	**Not agriculture sector focused** • It is an innovation entity for all sectors as such

	Inter organizational collaborations • There is great collaboration with BUAN especially on staff secondment	same innovation space hence my not offer unique solutions	natural resources and materials and climate change will be of great benefit as well as technologies in the areas of energy and information systems	might not give its all to the requests made
Business Botswana	**Multi-sectoral engagement** • Its membership in the private sector is multi sectoral as such it is easy to mobilize for networking and engagement	**Limited Financial Resources** • Sole dependency on its members may constrain its ability to function especially that some sectors are more resourced than others hence will have an upper hand	**Increased Partnership advancements** • Because of its private sector representation, the Public Private Partnership (PPPs) could be explored better	**Competition sub-sectors in the agricultural space** • Many players in the agricultural sector and some sub-sectors do not have strong representation e.g. the smallstock sector vs the crops sector
National Planning Commission (NPC)	**Coordinating role** • Its role in planning for the economy across sectors and aligning with current country needs will assists in more focused programming. This is after merging all critical entities under the Office of the President e.g. the National Strategy Office (NSO), Government Implementing Office (GICO), Vision 2036, and the Finance Planning Unit to come up with NPC	**Lacking in capacity** • It requires to be well capacitated especially because of its wide mandate and particularly when dealing with the private sector which will require a regulatory framework	**National priority delivery mandate** • It is mandated with the delivery of the country's Vision 2036 as well as the monitoring and evaluation role for government departments	**Inefficient due to limited resources** • With its mandate wide and critical, it requires to be funded not just through government coffers

Table 3: Complementary donor initiatives / partnership potential (key file table 3)

Donor/Agency	**Project**	**Geographical Area**	**Remarks**
AfDB	• Zambezi Integrated Agro-Commercial Development Project (*Technical Assistance Intervention)*	• Pandamatenga	• Ongoing (*completion scheduled for May 2025*) • Exploring key value chains i.e., maize and sunflower which could serve as raw material for animal feeds required under BoLCoP.
AfDB	• Public Private Partnership Capacity Strengthening Project (*Technical assistance intervention)*	• National	• Ongoing (*completion for November 2025)* • Lessons learned from the Project can inform the institutional ambitions and narrative in BoLCoP, especially those that concern partnerships between public and private sector
AfDB	• Public Procurement Technical Assistance Project (*Technical assistance intervention)*	• National	• Approved (completion in December 2027). • Linkages between this Project and the procurement workstream under BoLCoP have already been identified and linkages on a coherent procurement approach that will facilitate Project implementation are required.
European Union	• Support to Digital Transformation in Botswana	• Countrywide	• Ongoing • The aim of the intervention is to ensure a digital ecosystem is established in the country. • BoLCoP can leverage the existing work undertaken and build on critical digital services that show potential for scalability and replicability in the small livestock sector.

Donor/Agency	Project	Geographical Area	Remarks
GCF-Conservation International	• Ecosystem-Based Adaptation and Mitigation in Botswana's Communal Rangelands	• Ngamiland, Bobirwa, Kgalagadi	• Ongoing (*completion scheduled for 2030)* • The Project is a livestock intervention and there are lessons to be learned primarily due to the underlying overlaps. • The Project also has a strong environmental lens in a district that is a potential BoLCoP site (Kgalagadi), therefore, overlaps with the herding for health model can be sought for improved rangeland management. • The Project also has the ambition of branding meat and facilitating a market premium that can incentivise farmers – it is envisaged that synergies will be sought between both Project s on the commercialisation pathway established.
IFAD	• Non-Sovereign Operation with a local commercial bank.	• Countrywide	• The Project will be going to the September Executive Board for approval. • A concerted focus between BoLCoP and the NSO will be established where finance will be channelled to MSME's with catalytic potential i.e., feed producers who can bring down the cost of inputs for farmers.
GEF-UN FAO	• Integrated Sustainable and Adaptive Management of Natural Resources to Support Land Degradation Neutrality and Livelihoods in the Miombo-Mopane Landscapes of North-east Botswana	• Chobe	• Ongoing GEF Financed intervention implemented by FAO. • Focused on sustainable land management interventions which could be replicated and scaled up under the BoLCoP, especially where there is a natural resource management focus.

Donor/Agency	Project	Geographical Area	Remarks
UN FAO	• Development of National Fodder Production Strategy (Technical Assistance)	• National	• Ongoing (completion in 2025). • Findings from the strategy could feed into BoLCoP as fodder is a critical input in driving greater livestock development.
World Bank	• Pipeline intervention in the red meat value chain	• Sites to be determined	• Pipeline intervention which is still being negotiated. • The intervention will have a robust focus in the red meat (cattle) value chain. • Discussions already ongoing with respect to joint synergies around common policy areas coupled with financing for relevant public goods that allow for greater commercialisation across the small livestock and red meat sectors.
UNDP	• Managing the Human-Wildlife Interface to Sustain the Flow of Agro-Ecosystem Services and Prevent Illegal Wildlife Trafficking in the Kgalagadi and Gantzi Drylands	• Gantzi and Kgalagadi	• Ongoing intervention implemented by UNDP. • Synergies will be explored as the Project operates within a prospective target site (Kgalagadi). • Lessons attained from conservation practices will also be analysed for scalability and replicability under the BoLCoP.
UNDP	• Support to Economic Diversification and Inclusive Growth in Botswana	• Countrywide	• Ongoing intervention. • The intervention had a concerted focus on developing a supplier enterprise development pathway programme. • There are existing discussions on how to link some of the existing enterprises supported under this Project to the BoLCoP
UNDP	• Promoting Production and Utilisation of Biogas from Agro-Waste in South-Eastern Botswana	• Southern Districts	• Closed. • Lessons can be learned with respect to the uptake of biogas and whether it is a technology that can be promoted under BoLCoP.

Table 4: Target group typology, priority needs and potential response (key file table 4)

Typology	**Poverty level and causes[1]**	**Coping strategies**	**Priority needs**	**Support from other programs**	**Potential response[2]**
Extremely poor HHs (13.5%)	• Poorest HHs in the country. Many of these are in rural areas, headed by women, a person with disability (PWD) or an older person. • Causes: Labour shortage often combined with high dependency ratios, and rain fed agricultures in harsh environmental conditions.	• Dependence on government or others (remittances, charity). • Can go several days without eating. • Could include transactional sex – among young women who have difficulties in accessing opportunities and women headed HHs (WHH) with children under their care. • Taking children out of school due to distance and cost. • Not using healthcare when far from home.	<u>Improving existing self-employment activities</u>: • Access to land[3]. • Women´s personal safety in farms[4]. • Access to updated technical information. • Linkage to other relevant value chain players in their communities.	• Poverty eradication programme. • Social Protection Programme for the permanently destitute HHs.	• Support HHs already engaged in or interested in engaging in small-stock production to be able in target communities to benefit from extension and other empowering measures to improve the benefits associated to their engagement in these activities.

[1] The highest levels of inequality and poverty are found in the southwestern district of Kgalagadi and Southern district, followed by the southern district of Kweneng[1] (Source: UNDP, 2021. Inequality in Botswana: An Analysis of the Drivers and District Level Mapping of Selected Dimensions of Inequality). Drivers of inequality include place of residence (urban / rural), education level, economic / livelihood activity, gender of the head of household, and size and value of landholding.

[2] This table outlines key programmatic responses to specific target groups. However, BoLCoP will also integrate measures at management level such as having a staff member responsible for targeting, gender and social inclusion; ensuring that the MEL system captures information on all social and target groups so that operational strategies can be fine tuned when relevant and reporting, and training for all staff on socially inclusive targeting, gender and social risk management.

[3] Botswana has a rich array of land areas and management frameworks, namely, Tribal Land (71%), Freehold Land[3] (3%) and State Land (25%)[3]. Some areas are continuously subjected to existing and the desire to expand economic interests (tourism, conservation, cattle ranching, etc.). In addition, human-wildlife conflict is common in the (primarily) western animal migration corridors.

[4] Sexual violence to women in isolated farms, was referred to during the mission as a phenomenon that is pushing women out of farming.

Poor HHs (approx.10%)	• Some of these HHs have subsistence livelihood strategies, others are economically active. • HHs in this category are primarily farmers living in rural communities and urban villages. • These HHs are often led by a woman who has young dependants. • Causes: Dependence on rain fed agriculture in harsh environmental conditions. Low profitability of IGA, dependence on subsidies and temporary social protection; and low adaptive capacity to internal and external shocks.	• Migration of males to more urbanised areas. • Reduction in food consumption, for some of the HHs in this category, meaning they can go without food for several days. • Could include transactional sex – among young women who have difficulties in accessing opportunities and women headed HHs (WHH) with children under their care. • Taking children out of school due to distance and cost. • Not using healthcare when far from home.	<u>Development of self-employment opportunities</u>: • Access to capital investment. • Mindset shift from government reliance to self-reliance. • Development of technical, marketing and personal management skills. • Linkages to other value chain players. <u>Access to wage employment opportunities in target value chains</u>: • Awareness of opportunities. • Skills. • Linkages to relevant players. • Right mindset. • Career guidance.	• Social Protection programme for temporary destitute HHs. • Poverty eradication programme. • Access to Tuo Letlotlo programme.	<u>Promoting inclusive self-employment opportunities:</u> • Offering more profitable opportunities to HHs without labour shortages to graduate out social protection into autonomous economy. • Develop and make available suitable financial services. • Upskilling. • Personal empowerment, including setting goals and planning with self-leadership to attain them. • Facilitate market access directly and/or supported by appropriate digitisation technologies, certification and clustering strategies. • Develop appropriate marketing models <u>Facilitating access to wage employment opportunities</u>: • Upskilling to respond to the specific needs of the labour market at present. • Soft skills to enter the labour market. • Linking to potential employers. • Career development advise. <u>Facilitate access to land</u>

Typology	Poverty level and causes[1]	Coping strategies	Priority needs	Support from other programs	Potential response[2]
					• Identify potential production areas. • Engage with Land Boards for rights of access to land that can be fenced for controlled breeding and management
HHs vulnerable to poverty (approx. 30%)	• HHs in this category are economically active and have usually more than one income stream. However, these HHs have limited assets to withstand an internal or external shock, which can result in depleting existing assets to smooth consumption. • These HHs provide services to others and / or participate in the informal sector. • Causes: low education level, unfavourable dependency ratio, low financial and social capital.	• Migration. • Sale of assets in the face of shock. • Reduction in food consumption in times of reduced income, compromising nutrition.	• Upskilling to access wage and self-employment opportunities. • Linkages. • Diversification of IGA to spread risk of shocks. • Goal setting towards employment growth and asset accumulation.	• Access to Tuo Letlotlo programme	• Same as for poor HHs.

Typology	Poverty level and causes[1]	Coping strategies	Priority needs	Support from other programs	Potential response[2]
Economically stable HHs (approx. 50%)	• Owners of businesses and civil servants. • Stable and profitable IGA. • Have a broad asset base. • Most present in cities and towns.	• Engagement in new economic activities. • Use of savings. • If needed, dispose of least valuable asset to meet costly unexpected needs.	• Engagement in the small livestock value chain if not already participating. • Access to loans. • Linkages with other value chain players. • Meeting employment needs with skilled workers.	• Access to Tuo Letlotlo programme.	• Engagement in rural ecosystem for wage employment with a focus on youth (to express needs, provide inputs into training schemes and provide industry-based practical experience). • Develop financial services of interest to investors in supported value chains. • Facilitate development of agribusiness and agri-processing opportunities (chevon, lamb, leather, wool, goat milk derived products – cheese, lotions, soaps)
WHH (44.4%)	• High poverty levels. • Causes: high dependency ratios, low education level, lack of access to assets (including land), sexual violence in isolated farms, HIV positive (could encounter periods of illness).	• Reduction in food consumption, at times without food for days. • Could include transactional sex – especially if they have children under their care. • Taking children out of school due to distance and cost. • Not accessing healthcare when far from home.	• Opportunities to improve IGA. • For WHH with underaged children at home, this should be home-based, as possible. • Skills. • Linkages. • Personal empowerment support to shift mindset and self-leadership to achieve goals and plan.	• Accelerating Women´s Owned Micro Enterprises.	• Same as for poor HHs. • In addition: a. Ensuring that mechanisms are found to minimise and address situations of GBV in farming activities. b. Ensuring that women participate meaningfully in Project related decision-making processes and groups.

Typology	Poverty level and causes[1]	Coping strategies	Priority needs	Support from other programs	Potential response[2]
Youth[5]	• Rural youth are among the poorest social groups in Botswana. • They have low participation in the agricultural sector as it is associated with poverty and struggle. • Causes: Youth have difficulty in accessing land[6], financial products, have low skillsets and participation in target value chains.	• Migration. • Engagement in illegal activities. • Engagement in informal sector activities with poor working conditions, remuneration and lack of stability and potential for progression. • Reduction of food intake.	• Access to land. • Access to instruments to acquire assets (financial services). • Awareness of emerging opportunities in target value chains vis-à-vis current options. • Skills. • Linkages. • Participation in decision making processes.	• Graduates can access the Youth Development Fund.	• Same as for poor HHs, but ensuring it integrates robust youth mobilization strategies, mentoring and follow up; as well as integration of youth in Project related decision-making processes and groups.
PWDs[7]	• HHs with a person with disability tend to be poor or vulnerable to poverty. • Low school completion rates. • High levels of unemployment[8]. • Causes: lack of intentional integration of PWDs in the economy with targeted interventions.	• HHs in which a PWD lives could use the strategies described above, depending on the level of poverty they face.	• Upskilling. • Access to economic opportunities. • Confidence building for PWDs and their carers.	• Social protection	• BoLCoP will identify opportunities for PWDs across supported value chains. • Integration of PWDs in BoLCoP as beneficiaries in their own right if they are able to perform economic activities offered. • For those that are not able, indirect targeting, that is, offer opportunities to those the PWD depends on and give them priority in beneficiary selection.

[5]Botswana´s national youth policy of 2010 defines youth as being people aged 15-35.
[6] UNDP, 2021. Inequality in Botswana: An Analysis of the Drivers and District Level Mapping of Selected Dimensions of Inequality.
[7] According to the 2022 census there are approximately 29,000 people with disabilities (PWDs) across the country. The most common impairments being eyesight related and walking impairments, followed by cognitive and hearing & speaking impairments. Source: Statistics Botswana, December 2023. Population and Housing Census 202: Key Demographic and Socio-Economic Indicators.
[8] It is estimated that only 60% of PWDs have ever attended school and 70% are unemployed. Households with a members affected by a disability tend to poorer. Young women with disabilities face the difficulties faced by youth, by women and by PWDs. Source: UNDP, 2021. Inequality in Botswana: An Analysis of the Drivers and District Level Mapping of Selected Dimensions of Inequality.

Table 5: Project actors and roles (key file table 5)

Outcome / Component	Activity	Principal institution(s) involved	Supporting institution(s)	Other Possible Partners in Execution
Enhanced access to quality breeding animals, quality feed, fodder and animal health services	• Improved access to adaptable genetics • Establish fodder production • Establishment of community animal health worker programme	• National Agriculture Research Development Institute (NARDI) • Lobu Smallstock Farm (LSF) • Botswana University of Agriculture and Natural Resources (BUAN) Centre for In-service and Continuing Education • Department of Veterinary Services (DVS), Ministry of Lands and Agriculture (MoLA)	• MoLA • Department of Animal Production and Health (DAPH) • MoLA • Rural training centres (RTCs) • Input suppliers • Botswana Agricultural Marketing Board (BAMB)	• Smallstock Industry Federation of Botswana (SIFB) • Stud breeders offering training • Local Enterprise Authority (LEA) • Value chain actors
Improved capacity of farmers to adopt climate resilient production and management practices	• Capacity building of livestock producers • Introduce adaptable varieties of fodder • Establish fodder production • Make climate information available Introduction of Ecological Outcomes Verification (EOV) protocol support capacity to assist farmers adopt regenerative agriculture production systems.	• NARDI • MoLA • Department of Meteorological Services	• MoLA • Ministry of Environment & Tourism (Green Climate Fund (GCF)/Adaptation Fund Focal Points) • Conservation International	• Value chain actors • Cellular network providers-Mascom/Orange/Be Mobile • Farmer Chat • Savory Institute and Olive Leaf Foundation
Strengthened clustering and capacity building of value chain actors	• Establish clusters of small livestock farmers • Capacity building of farm business organisations (FBOs) • Business Development Support to value chain actors (VCAs)	• DAPH Smallstock Unit • SIFB	• LEA • MoLA • Rural Development Council • Contracted Service Providers	• Various Farmers/Breeders Associations • Input suppliers • International Fund for Agricultural Development (IFAD) experts

Outcome / Component	Activity	Principal institution(s) involved	Supporting institution(s)	Other Possible Partners in Execution
Improved access to input and output markets	• Information collection and dissemination • Market research • Commodity aggregation • Market linkage facilitation • Capacity Building of all value chain actors • Introduction of geographic Indicator (GI) certification	• Botswana Meat Commission (BMC) • Ministry of Trade and Entrepreneurship (MoTE) • LEA • Input suppliers • Business Promotions	• Botswana Investment and Trade Centre (BITC) • Contracted non-state service providers • MoLA • Business Botswana • National Development Bank (NDB) • NSO • Ministry of Entrepreneurship	• Botswana Trade Commission (BoTC) • Cell phone service providers • Consumers • Processors • Traders in live animals • Hospitality sector • Retailers
Improved access to inclusive financial services for value chain actors	• Establish funding for start-ups and expansion of enterprises for value chain actors • Tap onto existing funding and or collaborate with accredited institutions	• Ministry of Environment & Tourism (MoET - GEF) • NDB • NSO • Citizen Entrepreneurial Development Authority (CEDA), Youth Development Fund (YDF) • Ministry of Finance (MoF)	• Conservation International • Private Banks • Financial institutions • IFAD • GCF, GEF, AF • Ministry of Youth and Gender Affairs (MoYGA)	• MoF - GCF • MoET • Climate Finance
Development and operationalization of national policies, strategies, regulations, etc.	• Align with current country priorities • Review of national policies • Craft appropriate livestock policies that are aligned to the current and future livestock realities	• MoLA • Meat Industry Regulatory Authority (MIRA) • Farmer Associations & Advocacy Groups • Attorney General Chambers	• National Planning Commission (NPC) • Botswana Institute for Development Policy Analysis (BIDPA) • Business Botswana • BITC • Statistics Botswana • Ministry of Local Government and Traditional Affairs (MoLGTA)	• BIDPA • Public Enterprises Evaluation and Privatisation Agency (PEEPA) • World Trade Organisation (WTO) • Southern African Development Community (SADC) • Ministry of International Affairs • World Organisation of Animal Health (WOAH)

Outcome / Component	Activity	Principal institution(s) involved	Supporting institution(s)	Other Possible Partners in Execution
Effective institutional arrangements established	• Develop appropriate institutional arrangements • Ensure composition of inter-ministerial team • Establish strong Project management office embedded within MoLA	• MoLA • MIRA • BUAN • NARDI • Botswana Bureau pf Standards (BOBS) • SmartBots	• Rural Development Council (RDC) • Ministry of Higher Education • Ministry of Child Welfare and Basic Education (MoCWBE) • University of Botswana (UB) • Botswana Institute for Technology Research and Innovation (BITRI) • Botswana International University of Science and Technology (BIUST)	• BIDPA • Research Institutions • Academic Institutions • Think tanks (Local, Regional, International)
Digitization of the small livestock sector	• Introduce traceability system for small livestock	• MIRA • SmartBots	• WOAH • BMC/Botswana Animal Identification & Traceability System (BAITS) • MoLA • Digital technology suppliers	• Botswana Digital and Innovation Hub (BDIH) • Botswana Telecommunications Corporation (BTC) • Mascom • Orange • Huawei • Traceability/Visibility Service providers (e.g. VirtualRouteZ, SourecMap, FibreTrace)

IFAD
Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Annex 2: Logframe

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
Report No.	7326-BW

East and Southern Africa Division
Programme Management Department

Botswana Livestock Commercialization Project

Logical Framework

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outreach	1 Persons reached by project-supported activities				Project Reports	Annually	PCMU	Small livestock producer groups will be willing to registered and engage in services provided or supported by the project. Average household size of 3.3 derived from the 2022 Statistics Botswana population census at: https://www.statsbots.org.bw/average-household-size.
	Males (number)		21000	30000				
	Females (number)		14000	20000				
	Young (number)		10500	15000				
	Not Young (number)							
	Non-Indigenous people (number)							
	Total number of persons receiving services (number)		35000	50000				
	Male (%)		42	60				
	Female (%)		28	40				
	Young (%)		21	30				
	1.a Corresponding number of households reached				Project Reports	Annually	PCMU	
	Women-headed households (number)		10500	15000				
	Households (number)		35000	50000				
	1.b Estimated corresponding total number of households members				Project Reports	Annually	PCMU	
	Household members (number)		140000	200000				
Project Goal Project Goal Contribute to the Government of Botswana's objective of inclusively and sustainably improving productivity and commercialisation of the small livestock subsector.	Households reporting an increase in income				Project and Government Reports, Impact Assessments, COI surveys	Baseline, Mid-Term, Completion	PCMU	Direct beneficiary HHs are reporting an increase in income and are able to attribute it to project interventions.
	Households (number)		20000	40000				
	Households (%)		40	80				
	Total number of household members - Number of people (number)		80000	160000				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Development Objective Enhance the incomes and resilience of rural households through more inclusive, sustainable and technology-driven small livestock value chain.	2.2.1 Persons with new jobs/employment opportunities				Project and Government Reports, Impact Assessments, COI surveys	Baseline, Mid-Term, Completion	PCMU	CI 2.2.1: New full-time jobs will be created thanks to project activities since project start-up, either as independent individuals (self-employed) or as employees of micro, small and medium-sized enterprises. Jobs created within farmers' organizations that received project support will also be included, but temporary jobs created for a limited once-off period will be excluded. CI 2.2.2: Rural enterprises supported through the project, whether formal or informal will see an increase in profit due to project interventions. SF.2.1: The main services delivered by the public/private entities supported by the project will adequately meet target groups' productive/business/employment and livelihood needs. Mandatory IFAD Indicator for the LF. S.F.2.2: Interventions will create an environment where households that participate in project-supported groups/organizations will report influence over decisions taken in the project-supported. Mandatory IFAD Indicator for the LF.
	Males (number)		2500	6000				
	Females (number)		1500	4000				
	Indigenous people (number)		90	200				
	Young (number)		3000	7000				
	Total number of persons with new jobs/employment opportunities (number)		4000	10000				
	Persons with disabilities (number)		140	300				
	2.2.2 Supported rural enterprises reporting an increase in profit				COI survey at Baseline, mid & end line survey, programme reports	Baseline, Mid-Term, Completion	PCMU	
	Number of enterprises (number)		20000	35000				
	Percentage of enterprises (%)		40	70				
	SF.2.1 Households satisfied with project-supported services				COI survey at Baseline, mid & end line survey, programme reports	Baseline, mid-term, completion	PCMU	
	Household members (number)		72000	180000				
	Non-indigenous households (number)							
	Non-women-headed households (number)							
	Households (%)		36	90				
	Households (number)		18000	45000				
	SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers				COI survey at Baseline, mid & end line survey, programme reports	Baseline, mid-term, completion	PCMU	
	Household members (number)		40000	160000				
	Non-indigenous households (number)							
	Non-women-headed households (number)							
	Households (%)		40	90				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Households (number)		18000	45000				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outcome Outcome 1. Increased Climate-Smart Small Livestock Production	1.2.4 Households reporting an increase in production				COI survey at Baseline, mid & end line survey, programme reports	Baseline, mid-term, completion	PCMU	CI 1.2.4: Households will receive project-supported activities (e.g. trainings, input provision, and climate-smart practices CI 3.2.2: Project beneficiaries will be trained in environmentally sustainable practices and/or the management of climate-related risks, and will claim that: (a) they have fully mastered these practices; and (b) they are now routinely using these technologies and practices. I.E.2.1: IFAD's empowerment indicator is an index that IFAD has developed building on the project-level Women's Empowerment in Agriculture Index (pro-WEAI) developed by IFPRI, OPHI and USAID. Similarly to the pro-WEAI, IE2.1 reflects a framework of empowerment23 in which empowerment is a process of change on the interrelated dimensions of resources, agency, and achievements. This indicator focuses on measuring agency, i.e. the ability of individuals, who were unable to do so previously, to make strategic choices. (Malapit, et al, 2019). IFAD's empowerment indicator aims at measuring individuals empowerment in the communities where IFAD's projects are implemented, in the domains relevant to IFAD's operations. IE 2.1 includes 10 out of the 12 dimensions for the pro-WEAI, focusing on those IFAD can influence through its supported activities. Each dimension is mapped to one of three domains of empowerment: intrinsic agency (power within), instrumental agency (power to), and collective agency (power with) which are linked
	Total number of household members (number)		40000	160000				
	Households (%)		25	80				
	Households (number)		10000	40000				
	3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices				COI survey at Baseline, mid & end line survey, programme reports	Baseline, mid-term, completion	PCMU	
	Total number of household members (number)		80000	160000				
	Households (%)		40	80				
	Households (number)		20000	40000				
	3.2.1 Tons of Greenhouse gas emissions (tCO2e) avoided and/or sequestered				FAO GLEAMi Assessment	Ex-Ante (baseline), Ex-Post (endline)	FAO, IFAD	
	Hectares of land (ha)		0	0				
	tCO2e/20 years (number)		0	35.71				
	tCO2e/ha (number)		0	0				
	tCO2e/ha/year (number)		0	0				
	IE.2.1 Individuals demonstrating an improvement in empowerment				COI survey at Baseline, mid & end line survey, programme reports	Baseline, mid-term, completion	PCMU	
	Total persons (%)		6	20				
	Total persons (number)		3000	10000				
	Females (%)		3	10				
	Females (number)		1500	5000				
	Males (%)		3	10				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Males (number)		1500	5000				to the definition of empowerment.
Output Output 1.1. Enhanced access to quality feed, fodder and animal health services	1.1.3 Rural producers accessing production inputs and/or technological packages				Project M&E	Annual	PCMU	CI 1.1.3: Small livestock producers will receive support to access production inputs (stocked livestock, veterinary medicines) or technological packages (animal health and artificial insemination kits) thanks to project interventions. Such inputs or technological packages and options will be provided on a free basis, or against some beneficiary contribution. Project stakeholders will be willing to colloborate in improving and operationalizing the national small livestock breeding plans.
	Males (number)		12000	30000				
	Females (number)		8000	20000				
	Young (number)		6000	15000				
	Indigenous people (number)		400	1000				
	Total rural producers (number)		20000	50000				
	Persons with disabilities (number)		700	1500				
	Number of small livestock national breeding plans improved and operationalized (breeding and multiplication of preferred small livestock breeds)				Project M&E	Annually	PCMU	
	Small Livestock Breeding Plans - Number (number)		1	1				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Output Output 1.2. Improved capacity of farmers to adopt climate-resilient production and management practices	3.1.1 Groups supported to sustainably manage natural resources and climate-related risks				Project M&E	Annual	PCMU	CI 3.1.1: Beneficiaries are provided with capacity building and equipment to sustainably manage natural resources and adapt to climate change. CI 3.1.2: Households will receive advice regarding expected climate impacts on livestock to enable better decision-making as to the type, timing and location of agricultural practices and to prevent, reduce and/or manage risks. This indicator will referr to climate information services provided through extension workers, disaster preparedness or response teams, community volunteers or community leaders. Among modern communications media, only the recipients of SMS messages (USSD) is accepted. Persons reached through mass media (radio or television) will not to be reported under this indicator. CI 3.1.3: Groups (whether formally registered or not) will be involved in the management of natural resources (rangelands, pastures, etc.) for livestock production
	Total size of groups (number)		14000	20000				
	Groups supported (number)		350	500				
	Males (number)		7000	10000				
	Females (number)		7000	10000				
	Young (number)		3500	5000				
	Indigenous people (number)		180	400				
	Persons with disabilities (number)		280	600				
	3.1.2 Persons provided with climate information services				Project M&E	Annual	PCMU	
	Males (number)		15000	30000				
	Females (number)		10000	20000				
	Young (number)		7500	15000				
	Indigenous people (number)		400	1000				
	Persons provided with climate information services (number)		25000	50000				
	Persons with disabilities (number)		700	1500				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outcome Outcome 2. Strengthened small livestock value chains	2.2.6 Households reporting improved physical access to markets, processing and storage facilities				Project M&E	Annual	PCMU	CI 2.2.6: Beneficiary households interviewed will claim that, as compared to the pre project situation: (a) they can now more easily access the livestock required market, processing or storage facilities; and that (b) these facilities are fully functional. CI 1.2.5: Beneficiary households interviewed will state that they are fully satisfied with and are using the financial products and services facilitated by the project, in order to invest in a productive or income-generating activity (i.e. as opposed to being used for consumption or other non-productive purposes). CI 2.2.3: Surveyed small livestock producers' organizations will have established contractual or other types of arrangements with other value chain stakeholders and/or public entities, with project support. This will include upstream and downstream arrangements (e.g. input provision or selling arrangements) and partnerships with public and/or private entities.
	Size of households (number)		80000	160000				
	Households reporting improved physical access to markets (number)		20000	40000				
	Households reporting improved physical access to processing facilities (number)		20000	40000				
	Households reporting improved physical access to storage facilities (number)		20000	40000				
	Total households reporting improved physical access (number)		60000	120000				
	1.2.5 Households reporting using rural financial services				Project M&E	Annual	PCMU	
	Total number of household members (number)		100000	200000				
	Households (%)		50	100				
	Households (number)		25000	50000				
	2.2.3 Rural producers' organizations engaged in formal partnerships/agreements or contracts with public or private entities				Project M&E	Annual	PCMU	
	Percentage of POs (%)		25	60				
	Number of POs (number)		2	3				
	Total number of POs members (number)		10000	20000				
	Women PO members (number)		3000	10000				
	Men PO members (number)		7000	10000				
	Young PO members (number)		2500	4000				
	Indigenous people PO members (number)		180	400				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Persons with disabilities PO members (number)		280	600				
Output Output 2.1. Strengthened clustering and capacity building of value chain actors	2.1.3 Rural producers' organizations supported				Project M&E	Annual	PCMU	CI 2.1.3: First-level groups of small livestock producers, whether formally registered or not, will be newly formed or created, or strengthened with project support during the considered period, in order to enhance agricultural, livestock or fishery production, processing or marketing, and provide services to their members. These rural producers' organizations will be distinguished from groups formed to manage natural resources. CI 2.1.1: Rural enterprises will access business development services promoted by the project during the considered period. Rural enterprises are structured businesses that have a well-defined physical location, normally with legal status, a bank account and some employees. They will include pre-entrepreneurial activities such as self-employment initiatives, and microenterprises with semi-structured activities. Both formal and informal enterprises will be considered, only upstream and downstream activities (processing, marketing) are to be included but production activities are excluded.
	Total size of POs (number)		10000	30000				
	Rural POs supported (number)		10	15				
	Males (number)		7000	20000				
	Females (number)		3000	10000				
	Young (number)		2500	4000				
	Indigenous people (number)		180	400				
	Persons with disabilities (number)		280	600				
	2.1.1 Rural enterprises accessing business development services				Project M&E	Annual	PCMU	
	Rural enterprises (number)		35	70				
	Policy 2 Functioning multi-stakeholder platforms supported				Project M&E	Annual	PCMU	
	Number (number)		2	3				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Output Output 2.2. Improved access to input and output markets	2.1.6 Market, processing or storage facilities constructed or rehabilitated				Project M&E	Annual	PCMU	Market, processing or storage facilities will be fully constructed or rehabilitated by the project during the considered period. Market facilities are the structures used to sell produce, such as market places and shading structures. Processing facilities include equipment and machinery that are used for the transformation where value is added. Storage facilities include structures used for mid- to long-term storage or preservation of produce. The facilities may be on-farm storage structures or village/community facilities.
	Total number of facilities (number)		95	191				
	Market facilities constructed/rehabilitated (number)		12	24				
	Processing facilities constructed/rehabilitated (number)		8	16				
	Storage facilities constructed/rehabilitated (number)		75	151				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Output Output 2.3. Improved access to inclusive and green financial services for value chain actors	1.1.5 Persons in rural areas accessing financial services				Project M&E	Annual	PCMU	CI 1.1.5: Cost of accessing finance remains affordable for small producers and other value chain stakeholders; No extremely negative price fluctuation in the market. Direct beneficiaries will access a financial product or service specifically promoted/supported by the project and its partner financial service provider (FSP), at least once during the considered period (annual reporting). Digital technologies will be used to facilitate beneficaries to access to financial services such as e-insurance through an e-voucher system. Digital technologies being developed by the project to link small livestock producers to VC actors and facilitate payback of loans through participating financial institutions will be enhanced and operationalized by the project. CI 1.17: Individuals in rural areas will receive capacity-building from the project, during the considered period, enabling them to acquire the knowledge, skills and confidence to make responsible financial decisions or handle household economics and investments more effectively. Financial literacy programmes usually cover topics such as basic numeracy training, budgeting, saving or credit management.
	Total number of accesses to financial services (number)		25000	50000				
	Women in rural areas accessing financial services - savings (number)		10000	20000				
	Young people in rural areas accessing financial services - savings (number)		7500	15000				
	Men in rural areas accessing financial services - savings (number)		15000	30000				
	Indigenous people in rural areas accessing financial services - savings (number)		400	1000				
	Total persons accessing financial services - savings (number)		25000	50000				
	Persons with disabilities in rural areas accessing financial services - savings (number)		700	1500				
	Persons in rural areas accessing financial services - BoLCoP LoC/ NSO credit				Project M&E	Annual	PCMU	
	Men in rural areas accessing financial services - NSO credit (number)		400	800				
	Women in rural areas accessing financial services -NSO credit (number)		100	200				
	Young people in rural areas accessing financial services - NSO credit (number)		50	100				
	Indigenous people in rural areas accessing financial services- NSO credit (number)		10	20				
	Total persons accessing financial services - NSO credit (number)		500	1000				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Persons with disabilities in rural areas accessing financial services - NSO credit (number)		15	30				
	Total persons accessing financial services - LOC through BoLCoP credit (number)		9500	19000				
	Men in rural areas accessing financial services - LOC through BoLCoP credit (number)		7600	15200				
	Women in rural areas accessing financial services - LOC through BoLCoP credit (number)		1900	3800				
	Young people in rural areas accessing financial services - LOC through BoLCoP credit (number)		950	1900				
	Indigenous people in rural areas accessing financial services - LOC through BoLCoP credit (number)		190	380				
	Persons with disabilities in rural areas accessing financial services - LOC through BoLCoP credit (number)		285	570				
	Grants Disbursed to Small livestock Groups				Project M&E	Annual	PCMU	
	Groups (number) (number)		100	200				
	Group members (total number) (number)		5000	10000				
	Female group members (number) (number)		2000	4000				
	Male group members (number) (number)		3000	6000				
	Youth group members (number) (number)		1500	3000				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Total value of grants disbursed (USD) (number)		9000	18633				
	Persons with disabilities (number) (number)		150	300				
	Indigenous people (number) (number)		100	200				
	MSEs Financed				Project M&E	Annual	PCMU	
	MSEs (total number) (number)		40	90				
	MSEs with Female lead (number) (number)		18	36				
	MSEs with Youth lead (number) (number)		15	30				
	Total value of financing to MSEs (USD) (number)		5000	1000				
	1.1.7 Persons in rural areas trained in financial literacy and/or use of financial products and services				Project M&E	Annual	PCMU	
	Males (number)		15000	30000				
	Females (number)		10000	20000				
	Young (number)		7500	15000				
	Indigenous people (number)		400	1000				
	Persons in rural areas trained in financial literacy and/or use of financial products and Services (total) (number)		25000	50000				
	Persons with disabilities (number)		700	1500				
Outcome Outcome 3. Enhanced enabling environment for improved small livestock development	Policy 3 Existing/new laws, regulations, policies or strategies proposed to policy makers for approval, ratification or amendment				COI survey at Baseline, mid & end line survey, programme reports	Baseline, mid-term, completion	PCMU	
	Number (number)		1	3				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Output Output 3.1.Institutional Strengthening and Policy Support	Policy 1 Policy-relevant knowledge products completed				Project M&E	Annual	PCMU	Policy analyses, research papers, working papers, studies, strategies, pieces of legislation, by-laws or other policy-related material produced as part of the project's policy goals will be developed.
	Number (number)		1	3				
Output Output 3.2. Project Management and Implementation Support Services	Policy 2 Functioning multi-stakeholder platforms supported				Project M&E	Annual	PCMU	Platforms/groups/round tables involving different grass-roots rural producers, private sector partners, local service providers, local government representatives; central government; and/or financial institutions that have been supported during the considered period (annual reporting) with the objective of entering into policy dialogue and improving the rural investment environment. This includes new platforms/forums created during the considered period, as well as existing ones that have received support during the same period.
	Number (number)		3	8				

IFAD
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Botswana Livestock Commercialization Project

Project Design Report

Annex 3: Project Cost and Financing

Mission Dates:	07-19 July 2025
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Project No.	2000005356
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East and Southern Africa Division
Programme Management Department

Annex 3: Project Cost and Financing

Introduction: This annex provides information on the assumptions made to estimate Project costs and presents the resultant summary and detailed cost tables for Botswana Livestock Commercialisation Project (BoLCoP) including the financing plan, prepared using the COSTAB software.
The detailed costs tables per component includes: (i) physical quantities phased by year, unit costs in US$ and (ii) the total project costs including contingencies (in US$).

I. Methods and Assumptions

A. Summary of the Project Background

The project has been designed with a goal to "contribute to the Government of Botswana's objective of inclusively and sustainably improving productivity and commercialization of the small livestock subsector''. The Project Development Objective (PDO) is "enhance the incomes and resilience of rural households through more inclusive, sustainable and technology-driven small livestock value chains".

The project development objective will be achieved through the effective implementation of three interlinked components: I. Increased Climate-Resilient Small Livestock Production and Productivity; II. Strengthened Small Livestock Value Chains; & III. Enhanced Enabling Environment for Improved Small Livestock Development

II. Assumptions

B. Price Contingencies, including inflation and exchange rates

Price contingency allowances have been included to account for expected increases in project costs. These reflect anticipated changes in unit prices of inputs, inflation, and exchange rate fluctuations. For the BoL-CoP, the input currency is US$. A price contingency rate of 2% has been applied. The exchange rate used during project design is 1 US$ = 14 BWP. All assumptions have been entered into the COSTAB software to calculate the total project cost.

C. Project Start and Duration

BoL-CoP will be implemented over a period of eight years. The Project start would be during the first quarter of 2026 to 2033.

III. Project Costs and Financing:

D. Project Costs

- The estimated costs for BoL-CoP, including base costs and price & contingencies are estimated at US$ 86.838 million. The overall investment costs have been estimated at US$75.6 million (88% of base costs), and recurrent costs at US$10.05 million (12 per cent of base costs). Price contingencies have been estimated at US$1.13 million.

- **Table 1: Project costs by component/sub-component: Base costs and contingencies**

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Components Project Cost Summary

	(BWP '000)			(US$ '000)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
A. Increased Climate-Resilient Small Livestock Production and Productivity								
Enhanced Access to Quality Feed, Fodder and Animal Health Services	282,612	28,352	310,964	20,187	2,025	22,212	9	26
Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practice	241,683	24,372	266,054	17,263	1,741	19,004	9	22
Subtotal	524,294	52,724	577,018	37,450	3,766	41,216	9	48
B. Strengthened Small Livestock Value Chains								
Strengthened Clustering and Capacity Building of Value Chain Actors	63,196	2,570	65,766	4,514	184	4,698	4	5
Improved Access to Input and Output Markets	152,697	15,531	168,229	10,907	1,109	12,016	9	14
Improved Access to Inclusive and Green Financial Services For Value Chain Actors	89,167	-	89,167	6,369	-	6,369	-	7
Subtotal	305,060	18,101	323,161	21,790	1,293	23,083	6	27
C. Enhanced Enabling Environment for Improved Small Livestock Development								
Institutional Strengthening and Policy Support	82,511	7,974	90,485	5,894	570	6,463	9	8
Project Management and Implementation Support Services	189,041	6,140	195,181	13,503	439	13,942	3	16
Subtotal	271,552	14,115	285,667	19,397	1,008	20,405	5	24
D. RED (Lumpsum to be allocated incase of emergency)	14,000	-	14,000	1,000	-	1,000	-	1
Total BASELINE COSTS	1,114,906	84,940	1,199,846	79,636	6,067	85,703	7	100
Physical Contingencies	4,028	375	4,402	288	27	314	9	-
Price Contingencies	10,457	1,033	11,490	747	74	821	9	1
Total PROJECT COSTS	1,129,391	86,347	1,215,738	80,671	6,168	86,838	7	101

- **Table 2: Project costs by expenditure categories: Base costs and contingencies**

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Expenditure Accounts Project Cost Summary

	(BWP '000)			(US$ '000)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
I. Investment Costs								
A. Civil Works	318,555	31,213	349,768	22,754	2,229	24,983	9	29
B. Equipment and Materials	117,445	11,473	128,918	8,389	820	9,208	9	11
C. Goods, Services and Inputs	220,877	17,189	238,065	15,777	1,228	17,005	7	20
D. Technical Assistance	140,695	14,240	154,935	10,050	1,017	11,067	9	13
E. Training	106,535	10,826	117,361	7,610	773	8,383	9	10
F. Line of Credit	70,000	-	70,000	5,000	-	5,000	-	6
Total Investment Costs	974,108	84,940	1,059,048	69,579	6,067	75,646	8	88
II. Recurrent Costs								
A. Salaries and Allowances	98,910	-	98,910	7,065	-	7,065	-	8
B. Operations and Maintenance	41,888	-	41,888	2,992	-	2,992	-	3
Total Recurrent Costs	140,798	-	140,798	10,057	-	10,057	-	12
Total BASELINE COSTS	1,114,906	84,940	1,199,846	79,636	6,067	85,703	7	100
Physical Contingencies	4,028	375	4,402	288	27	314	9	-
Price Contingencies	10,457	1,033	11,490	747	74	821	9	1
Total PROJECT COSTS	1,129,391	86,347	1,215,738	80,671	6,168	86,838	7	101

E. Project Financing

- BoL-CoP will be financed as follows: a) IFAD-13 Borrowed Resources Allocation Mechanism (BRAM) for a total of US$31.52 million (36% of the total cost) ;b) Global Environment Facility (GEF) for a total of US$ 5 million (6%); c) Adaptation Fund for a total of US$ 20 million (23%); d) Government of Botswana counterpart funding estimated at US$5.088 million (6%); e) beneficiary contributions (in-kind) and SSTC grant is estimated at US$ 1.75 million (US$1.5 million and US$0.25 million, respectively) (2%).
- The Project is being designed with a financing gap of US$23.48 million (27%) to be filled with additional BRAM funds or from other external sources as may be identified during the course of implementation. The summary of the financing plan is presented in the table below.

Table 3: Financing Plan

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Financing Plan
(US$ '000)

	Foreign	Local	Total	Percent
IFAD 13 BRAM	2,296	29,224	31,520	36
Financing Gap	1,654	21,826	23,480	27
GEF	475	4,525	5,000	6
Adaptation Fund	1,568	18,432	20,000	23
SSTC Grant	25	225	250	0.3
Government	-	5,088	5,088	6
Beneficiaries (In-Kind)	150	1,350	1,500	2
Total	6,168	80,671	86,838	100

- **Component/Subcomponent Allocation:** Component 1: Increased Climate-Resilient Small Livestock Production and Productivity has been allocated US$ 42.11 million (49 percent). Component 2: Strengthened Small Livestock Value Chains has been allocated US$ 23.26 million (27 percent). Component 3: Enhanced Enabling Environment for Improved Small Livestock Development accounts for US$ 20.45 million (23 percent).
- The project has been designed with a Response to Emergency and Disaster (RED) component to mitigate unforeseen risks related to climate change and weather shocks with an allocation of US$1 million. The summary of project costs by components and expenditure categories is presented in the table below.
- **Table 5: Project costs by components/sub-components and financier**

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Components by Financiers
(US$ '000)

	IFAD 13 BRAM		Financing Gap		GEF		Adaptation Fund		SSTC Grant		Government		Beneficiaries (In-Kind)		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
A. Increased Climate-Resilient Small Livestock Production and Productivity																
Enhanced Access to Quality Feed, Fodder and Animal Health Services	6,283	28	8,341	38	-	-	4,989	23	-	-	1,961	9	643	3	22,216	26
Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practices	3,940	20	1,749	9	4,750	24	6,913	35	-	-	1,692	9	857	4	19,901	23
Subtotal	10,223	24	10,090	24	4,750	11	11,902	28	-	-	3,653	9	1,500	4	42,117	49
B. Strengthened Small Livestock Value Chains																
Strengthened Clustering and Capacity Building of Value Chain Actors	3,017	64	1,488	31	-	-	-	-	-	-	229	5	-	-	4,734	6
Improved Access to Input and Output Markets	5,950	49	4,463	37	-	-	810	7	-	-	940	8	-	-	12,163	14
Improved Access to Inclusive and Green Financial Services For Value Chain Actors	2,607	41	2,762	43	-	-	1,000	16	-	-	-	-	-	-	6,369	7
Subtotal	11,574	50	8,713	37	-	-	1,810	8	-	-	1,170	5	-	-	23,267	27
C. Enhanced Enabling Environment for Improved Small Livestock Development																
Institutional Strengthening and Policy Support	2,562	39	636	10	-	-	2,970	46	250	4	95	2	-	-	6,513	8
Project Management and Implementation Support Services	6,761	49	3,441	25	250	2	3,318	24	-	-	171	1	-	-	13,942	16
Subtotal	9,323	46	4,077	20	250	1	6,288	31	250	1	266	1	-	-	20,455	24
D. RED (Lumpsum to be allocated incase of emergency)	400	40	600	60	-	-	-	-	-	-	-	-	-	-	1,000	1
Total PROJECT COSTS	31,520	36	23,480	27	5,000	6	20,000	23	250	0.3	5,088	6	1,500	2	86,838	100

- **IFAD Financing:** The available IFAD financing of US$ 31.52 million will be spread among the three components and the various activities. The component 1 will account for US$ 10.22 million (32 percent); component 2 US$ 11.57 million (37 percent); component 3 US$ 9.3 million (30 percent); and component 4 US$ 0.4 million.
- **Table 4: Allocation of IFAD Costs Across Component/Sub-components**

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Components by Financiers
(US$ '000)

	IFAD 13 BRAM	
	Amount	%
A. Increased Climate-Resilient Small Livestock Production and Productivity		
Enhanced Access to Quality Feed, Fodder and Animal Health Services	6,283	61
Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practices	3,940	39
Subtotal	10,223	32
B. Strengthened Small Livestock Value Chains		
Strengthened Clustering and Capacity Building of Value Chain Actors	3,017	26
Improved Access to Input and Output Markets	5,950	51
Improved Access to Inclusive and Green Financial Services For Value Chain Actors	2,607	23
Subtotal	11,574	37
C. Enhanced Enabling Environment for Improved Small Livestock Development		
Institutional Strengthening and Policy Support	2,562	27
Project Management and Implementation Support Services	6,761	73
Subtotal	9,323	30
D. RED (Lumpsum to be allocated incase of emergency)	400	1
Total PROJECT COSTS	31,520	100

- **Expenditure categories:** The project expenditure categories (investment and recurrent) comprise the following: a) Civil Works; b) Equipment and Materials; c) Goods Services and Inputs; d) Technical Assistance; e) Training and d) Line of Credit. Recurrent costs categories

include Salaries and Allowances and Operations and Maintenance. The overall recurrent costs are 12% of the total Project (US$10.05 million). For IFAD financing, recurrent costs are 12% which is within acceptable limits. The summary of costs by expenditure categories and disbursement by semester is presented in the tables below.

Table 5: Project costs by expenditure categories and financiers.

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Expenditure Accounts by Financiers
(US$ '000)

	IFAD 13 BRAM		Financing Gap		GEF		Adaptation Fund		SSTC Grant		Government		Beneficiaries (In-Kind)		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
I. Investment Costs																			
A. Civil Works	5,560	22	7,422	29	-	-	8,915	35	-	-	2,734	11	721	3	25,352	29	2,262	20,356	2,734
B. Equipment and Materials	4,471	49	2,112	23	-	-	1,607	17	17	0.2	1,015	11	-	-	9,221	11	821	7,386	1,015
C. Goods, Services and Inputs	5,169	29	3,510	20	4,750	27	2,400	14	-	-	1,098	6	779	4	17,706	20	1,290	15,319	1,098
D. Technical Assistance	5,334	48	2,380	21	-	-	3,030	27	112	1	241	2	-	-	11,098	13	1,020	9,837	241
E. Training	5,021	60	2,532	30	-	-	730	9	121	1	1	-	-	-	8,405	10	776	7,629	1
F. Line of Credit	2,250	45	2,750	55	-	-	-	-	-	-	-	-	-	-	5,000	6	-	5,000	-
Total Investment Costs	27,806	36	20,706	27	4,750	6	16,682	22	250	0.3	5,088	7	1,500	2	76,781	88	6,168	65,526	5,088
II. Recurrent Costs																			
A. Salaries and Allowances	2,508	36	2,148	30	250	4	2,158	31	-	-	-	-	-	-	7,065	8	-	7,065	-
B. Operations and Maintenance	1,206	40	626	21	-	-	1,160	39	-	-	-	-	-	-	2,992	3	-	2,992	-
Total Recurrent Costs	3,714	37	2,774	28	250	3	3,318	33	-	-	-	-	-	-	10,057	12	-	10,057	-
Total PROJECT COSTS	31,520	36	23,480	27	5,000	6	20,000	23	250	0	5,088	6	1,500	2	86,838	100	6,168	75,583	5,088

Other Summary Tables

Table 6: Project costs by disbursement semesters and Government cash-flows.

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Disbursements by Semesters and Government Cash Flow
(US$ '000)

	Financing Available							Costs to be Financed Government		
	IFAD 13 BRAM	Financing Gap	GEF	Adaptation Fund	SSTC Grant	Beneficiaries (In-Kind)		Project		Cumulative
	Amount	Amount	Amount	Amount	Amount	Amount	Total	Costs	Cash Flow	Cash Flow
1	2,828	-	-	-	-	4	2,832	3,005	-173	-173
2	2,828	-	-	-	-	4	2,832	3,005	-173	-346
3	3,746	-	-	-	2	21	3,769	3,985	-216	-562
4	3,746	-	-	-	2	21	3,769	3,985	-216	-778
5	4,815	-	113	5,131	14	116	10,190	10,703	-513	-1,291
6	4,815	-	113	5,131	14	116	10,190	10,703	-513	-1,804
7	2,535	2,083	485	2,398	40	204	7,745	8,343	-598	-2,402
8	2,535	2,083	485	2,398	40	204	7,745	8,343	-598	-3,000
9	1,618	2,744	733	1,390	26	198	6,709	7,248	-539	-3,539
10	1,618	2,744	733	1,390	26	198	6,709	7,248	-539	-4,079
11	145	2,865	747	425	30	138	4,350	4,646	-296	-4,374
12	145	2,865	747	425	30	138	4,350	4,646	-296	-4,670
13	53	2,455	271	340	14	49	3,181	3,331	-150	-4,820
14	53	2,455	271	340	14	49	3,181	3,331	-150	-4,971
15	20	1,594	151	315	-	20	2,100	2,158	-59	-5,029
16	20	1,594	151	315	-	20	2,100	2,158	-59	-5,088
Total	31,520	23,480	5,000	20,000	250	1,500	81,750	86,838	-5,088	-5,088

Table 7: Project costs by Component/Sub-component and Year.

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Project Components by Year -- Totals Including Contingencies
(US$ '000)

	Totals Including Contingencies								
	2026	2027	2028	2029	2030	2031	2032	2033	Total
A. Increased Climate-Resilient Small Livestock Production and Productivity									
Enhanced Access to Quality Feed, Fodder and Animal Health Services	621	2,183	7,023	6,061	3,949	1,321	985	76	22,216
Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practice	218	722	4,866	4,817	4,793	3,133	874	478	19,901
Subtotal	839	2,905	11,888	10,878	8,742	4,454	1,858	554	42,117
B. Strengthened Small Livestock Value Chains									
Strengthened Clustering and Capacity Building of Value Chain Actors	477	804	538	558	784	558	538	477	4,734
Improved Access to Input and Output Markets	770	2,025	2,160	2,104	1,653	1,543	1,299	610	12,163
Improved Access to Inclusive and Green Financial Services For Value Chain Actors	365	379	1,543	538	782	754	1,004	1,004	6,369
Subtotal	1,612	3,208	4,241	3,201	3,219	2,855	2,841	2,091	23,267
C. Enhanced Enabling Environment for Improved Small Livestock Development									
Institutional Strengthening and Policy Support	801	472	3,554	745	465	253	138	84	6,513
Project Management and Implementation Support Services	2,758	1,386	1,523	1,663	1,869	1,530	1,626	1,587	13,942
Subtotal	3,559	1,858	5,077	2,408	2,334	1,783	1,764	1,671	20,455
D. RED (Lumpsum to be allocated incase of emergency)	-	-	200	200	200	200	200	-	1,000
Total PROJECT COSTS	6,010	7,971	21,406	16,686	14,496	9,292	6,663	4,316	86,838

Table 8: Project costs by Expenditure Categories and Year.

Botswana

Botswana Livestock Commercialisation Project (BoLCoP)

Expenditure Accounts by Years -- Totals Including Contingencies

(US$ '000)

	Totals Including Contingencies								
	2026	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
I. Investment Costs									
A. Civil Works	639	2,094	7,313	6,740	5,121	1,716	1,278	451	25,352
B. Equipment and Materials	2,027	984	2,263	1,788	1,267	549	342	-	9,221
C. Goods, Services and Inputs	398	1,136	4,057	2,943	3,702	3,336	1,495	641	17,706
D. Technical Assistance	774	1,319	3,969	1,754	1,103	922	733	523	11,098
E. Training	884	1,150	1,973	1,631	1,223	688	484	372	8,405
F. Line of Credit	250	250	500	500	750	750	1,000	1,000	5,000
Total Investment Costs	4,971	6,933	20,076	15,356	13,166	7,961	5,332	2,986	76,781
II. Recurrent Costs									
A. Salaries and Allowances	664	664	956	956	956	956	956	956	7,065
B. Operations and Maintenance	374	374	374	374	374	374	374	374	2,992
Total Recurrent Costs	1,038	1,038	1,330	1,330	1,330	1,330	1,330	1,330	10,057
Total PROJECT COSTS	6,010	7,971	21,406	16,686	14,496	9,292	6,663	4,316	86,838

Appendix A: Detailed Cost Tables

Sub-Component 1.1: Policy and Institutional Strengthening

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 1.1. Policy and Institutional Strengthening

Detailed Costs		Quantities									Unit Cost	Totals Including Contingencies (US$ '000)								
	Unit	2026	2027	2028	2029	2030	2031	2032	2033	Total	(US$)	2026	2027	2028	2029	2030	2031	2032	2033	Total
I. Investment Costs																				
A. Enhance availability of small livestock breeds																				
Improvement of small livestock genetic resources /a	Lumpsum	0.1	0.2	0.2	0.15	0.15	0.1	0.1	-	1	300,000	30	60	60	45	45	30	30	-	300
Judicious use of pure breeds	Animals	100	250	250	200	200	-	-	-	1,000	500	50	125	125	100	100	-	-	-	500
Set up AI programme	Lumpsum	-	0.2	0.4	0.4	-	-	-	-	1	300,000	-	60	120	120	-	-	-	-	300
Multiplication of climate-adapted breeds	Animals	-	200	300	400	500	500	500	-	2,400	250	-	50	75	100	125	125	125	-	600
Sire exchange programme	Animals	-	-	100	200	400	500	500	-	1,700	250	-	-	25	50	100	125	125	-	425
Set up community-based climate resielient breeding progra	Farmer groups	-	0.1	0.2	0.2	0.15	0.15	0.1	0.1	1	300,000	-	30	60	60	45	45	30	30	300
Subtotal												80	325	465	475	415	325	310	30	2,425
B. Comprehensive capacity-building package to small l																				
Training of trainers (ToT)	Session	4	5	2	1	-	-	-	-	12	12,000	48	60	24	12	-	-	-	-	144
Small livestock management - sheep, goats, and poultry	Session	15	20	40	30	15	-	-	-	120	2,000	30	40	80	60	30	-	-	-	240
Husbandry and record keeping	Session	15	20	40	30	15	-	-	-	120	2,000	30	40	80	60	30	-	-	-	240
Breeding and reproduction	Session	15	20	40	30	15	-	-	-	120	2,000	30	40	80	60	30	-	-	-	240
Livestock handling	Session	15	20	40	30	15	-	-	-	120	2,000	30	40	80	60	30	-	-	-	240
Animal health management, incl. flock health calendar	Session	15	20	40	30	15	-	-	-	120	2,000	30	40	80	60	30	-	-	-	240
Feeds + feeding management, incl. feedlotting	Session	15	20	40	30	15	-	-	-	120	3,000	45	60	120	90	45	-	-	-	360
Equiping training centres /c	Lumpsum	1	2	2	1	-	-	-	-	6	220,000	251	502	502	251	-	-	-	-	1,505
Subtotal												494	822	1,046	653	195	-	-	-	3,209
C. Support for improved livestock healthcare																				
Capacitate district veterinarians	Lumpsum	-	2	4	4	2	-	-	-	12	15,000	-	30	60	60	30	-	-	-	180
Equiping animal production + health extension staff	Staff	-	10	30	20	-	-	-	-	60	5,000	-	57	171	114	-	-	-	-	342
Equiping community animal health workers (CAHWs)	Staff	-	30	60	60	30	-	-	-	180	2,000	-	68	137	137	68	-	-	-	410
Training of extension staff (district and village level) /d	Session	-	2	6	4	-	-	-	-	12	3,000	-	6	18	12	-	-	-	-	36
Training of CAHWs /e	Session	-	30	60	60	30	-	-	-	180	2,500	-	75	150	150	75	-	-	-	450
Disease monitoring, surveillance and diagnostics	Lumpsum	-	0.2	0.3	0.1	0.1	0.1	0.1	0.1	1	250,000	-	50	75	25	25	25	25	25	250
Subtotal												-	286	611	498	198	25	25	25	1,668
D. Small livestock Infrastructure investments																				
Solar powered water pumps and related infrastructure /f	Number	-	-	8	7	5	-	-	-	20	80,000	-	-	730	638	456	-	-	-	1,824
Drip irrigation kits for forage /g	Hectare	-	-	80	80	50	-	-	-	210	3,000	-	-	274	274	171	-	-	-	718
Irrigation infrastructure for forage/feeds production /h	Hectare	-	-	50	50	25	-	-	-	125	4,400	-	-	251	251	125	-	-	-	627
Solar-powered processing machines	Number	-	-	15	15	-	-	-	-	30	2,000	-	-	34	34	-	-	-	-	68
Rainwater harvesting systems	Number	-	-	20	20	-	-	-	-	40	5,275	-	-	120	120	-	-	-	-	241
Small-scale water storage & wastewater reuse systems	Number	-	-	30	31	-	-	-	-	61	11,000	-	-	376	389	-	-	-	-	765
Climate-resilient innovations pilots /i	Number	-	-	2	2	-	-	-	-	4	50,000	-	-	116	116	-	-	-	-	233
Forage harvesting equipment /j	Number	-	50	100	100	100	150	100	-	600	3,000	-	171	342	342	342	513	342	-	2,052
Silage making consumables - drums	Number	500	1,500	2,000	2,000	1,000	1,500	1,000	500	10,000	5	3	9	11	11	6	9	6	3	57
Farm level animal handlig infrastructure. - pens, sheds, fow	Number	20	50	100	300	200	200	130	-	1,000	1,925	44	110	219	658	439	439	285	-	2,195
Crush pens/dip tanks - community/cluster level /k	Number	-	5	15	20	20	-	-	-	60	44,000	-	251	752	1,003	1,003	-	-	-	3,010
Feedlots/fowl runs - cluster level /l	Number	-	5	15	20	20	-	-	-	60	20,000	-	114	342	456	456	-	-	-	1,368
Feed processing equipment /m	Number	-	-	1	1	1	-	-	-	3	100,000	-	-	114	114	114	-	-	-	342
Additional AF Financing for Green Livestock Infrastructure	Lumpsum	-	-	1	-	-	-	-	-	1	1,200,000	-	-	1,200	-	-	-	-	-	1,200
Subtotal												47	654	4,882	4,407	3,112	960	633	3	14,699

Continuation

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 1.1. Policy and Institutional Strengthening

Detailed Costs		**Quantities**									**Unit Cost**	**Totals Including Contingencies (US$ '000)**								
	Unit	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**	**(US$)**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
I. Investment Costs																				
E. USSD and IVR e-extension services																				
Content design and platform development,language prep	Package	-	1	-	-	-	-	-	-	1	25,000	-	29	-	-	-	-	-	-	29
Content refresh & usability improvements	Lumpsum	-	-	1	-	-	-	-	-	1	5,000	-	-	6	-	-	-	-	-	6
Language expansion and and voice script update	Lumpsum	-	-	-	1	-	-	-	-	1	6,000	-	-	-	7	-	-	-	-	7
Content update	Lumpsum	-	-	-	-	1	-	-	-	1	7,000	-	-	-	-	8	-	-	-	8
Voice/audio recording refresh	Lumpsum	-	-	-	-	1	-	-	-	1	8,000	-	-	-	-	9	-	-	-	9
Final overhaul and sustainability transition	Lumpsum	-	-	-	-	-	-	1	1	2	5,000	-	-	-	-	-	-	6	6	11
Annual updates, system improvements	Per Year	-	-	-	1	1	1	1	1	5	2,500	-	-	-	3	3	3	3	3	14
Subtotal												-	29	6	10	20	3	9	9	84
F. CAWHs mobile registry app																				
Mobile App design & development	Package	-	1	-	-	-	-	-	-	1	18,000	-	21	-	-	-	-	-	-	21
Hardware for CAHWs	Number	-	22	-	-	-	-	-	-	22	500	-	13	-	-	-	-	-	-	13
Initial rollout & CAHW onboarding	Session	-	2	3	-	-	-	-	-	5	1,000	-	2	3	-	-	-	-	-	5
App updates & feedback integration	Update	-	-	-	1	1	1	1	1	5	2,000	-	-	-	2	2	2	2	2	11
Integration with MoA health data systems	API and linkages	-	-	-	-	-	-	-	1	1	6,000	-	-	-	-	-	-	-	7	7
Subtotal												-	35	3	2	2	2	2	9	56
G. BAITS Small Livestock Enhancement																				
Current Software Audit and early Development feasible cor	Package	-	1	-	-	-	-	-	-	1	28,000	-	32	-	-	-	-	-	-	32
Piloting and training (initial rollout)	pilots package in 3 districts	-	-	3	-	-	-	-	-	3	3,000	-	-	10	-	-	-	-	-	10
Market integration and dashboards to enable buyer/seller i	Cycle	-	-	-	2	-	-	-	-	2	7,000	-	-	-	16	-	-	-	-	16
Interoperability, updates, and usability fixes	Annual update cycle	-	-	-	-	1	1	1	-	3	5,000	-	-	-	-	6	6	6	-	17
Subtotal												-	32	10	16	6	6	6	-	75
Total												621	2,183	7,023	6,061	3,949	1,321	985	76	22,216

\a genetic improvement programme for indigenous smallstcok -NARDI/BUAN
\b organizing communities to select small livestock with desirable genetic traits - NARDI
\c rennovations at training centres -Impala, Lobu and 4xNARDI
\d training of veterinary assistants/crop ext. in small livestock production
\e a total of 180 CAHWs to be trained (15 per each district)
\f community/cluster level boreholes incl. storage tanks + water troughs
\g small farm level drip kits for fodder (loan scheme or matching grants)
\h support for commercial forage for sale by youths/women (loans)
\i Includes underground dams, sand dams, ultra-efficient irrigation systems
\j This may include tractor-mounted mowers, forage choppers, and balers for producing hay or silage from cultivated and rangeland forages
\k community infr. under local authorities
\l community infr. under local authorities
\m district level equipment (loan to entreprenuers)

Sub-component 1.2: Improved Capacity of Farmers to Adopt Climate Resilient Production And Management Practices

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 1.2. Improved Capacity of Farmers To Adopt Climate Resilient Prod

Detailed Costs		**Quantities**									**Unit Cost**	**Totals Including Contingencies (US$ '000)**								
	Unit	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**	**(US$)**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
I. Investment Costs																				
A. Enhanced access to feed and fodder																				
Acquisition of forage seeds and germplasm suited to dry environs.	Tonnes	5	5	20	30	-	-	-	-	60	6,600	38	38	150	226	-	-	-	-	451
Multiplication of adapted forage seed and germplasm	Hectare	20	50	100	300	130	-	-	-	600	1,000	23	57	114	342	148	-	-	-	684
Seed distribution	Tonnes	-	20	30	100	200	300	50	50	750	1,650	-	38	56	188	376	564	94	94	1,411
Forage agronomy demonstrations	Session	-	15	20	40	30	15	-	-	120	3,000	-	51	68	137	103	51	-	-	410
Forage harvesting, storage and utilization demonstrations	Session	-	15	20	40	30	15	-	-	120	4,000	-	68	91	182	137	68	-	-	547
Development of diets/rations from indigenous/rangeland plants	Lumpsum	0.2	0.25	0.25	0.15	0.15	-	-	-	1	200,000	46	57	57	34	34	-	-	-	228
Small livestock feeding demos	Session	-	15	20	40	30	15	-	-	120	2,500	-	38	50	100	75	38	-	-	300
Farmer training/capacity building	Session	-	15	20	40	30	15	-	-	120	2,500	-	38	50	100	75	38	-	-	300
Cultivation pilots for perennial grains /a	Lumpsum	-	-	2	2	2	-	-	-	6	40,000	-	-	80	80	80	-	-	-	240
Prosopsis control and reseeding /b	Hectare	-	-	100	200	50	50	-	-	400	1,000	-	-	100	200	50	50	-	-	400
Subtotal												106	384	818	1,589	1,078	809	94	94	4,972
B. Community Fodder Banks & Feed Storage Facilities (Construction of fo	Number	-	-	20	20	10	-	-	-	50	25,000	-	-	500	500	250	-	-	-	1,250
C. Training on fodder management & conservation	Package	-	-	10	10	5	-	-	-	25	10,000	-	-	100	100	50	-	-	-	250
D. Dedicated community-based rangelands management																				
Community mobilization/sensitization	Meeting	-	-	15	15	10	10	5	5	60	5,000	-	-	75	75	50	50	25	25	300
Mapping of rangelands + landuse planning	Lumpsum	-	-	0.2	0.2	0.2	0.3	0.1	-	1	200,000	-	-	40	40	40	60	20	-	200
Implementation/monitoring grazing management	Lumpsum	-	-	0.2	0.2	0.2	0.3	0.1	-	1	300,000	-	-	60	60	60	90	30	-	300
Soil + water conservation measures	Hectare	-	-	500	2,000	3,000	3,000	1,000	500	10,000	550	-	-	325	1,328	2,031	2,072	704	359	6,820
Livestock watering infrastructure	Number	-	-	20	20	20	-	-	-	60	22,000	-	-	538	548	559	-	-	-	1,645
Electric fencing units	Units	-	-	60	40	80	20	-	-	200	2,000	-	-	147	100	203	52	-	-	502
Satelite-based rangelands monitoring tools & geotagging	Lumpsum	-	-	1	-	-	-	-	-	1	100,000	-	-	122	-	-	-	-	-	122
Conflict mitigation measures (early warning, predator-proof kraals)	Number	-	-	5	5	5	-	-	-	15	70,000	-	-	403	403	403	-	-	-	1,209
Subtotal												-	-	1,710	2,554	3,347	2,324	779	384	11,098
E. Digital Rangeland and Advisory Tools																				
Automated Weather stations	Units	5	5	5	5	-	-	-	-	20	5,000	29	29	29	29	-	-	-	-	114
Establishment of digital communication platforms	Lumpsum	-	0.5	0.5	-	-	-	-	-	1	250,000	-	143	143	-	-	-	-	-	285
Subtotal												29	171	171	29	-	-	-	-	399
F. Digital Extension and Animal Health Services																				
Digital BAITS system	Unit	1	2	2	-	-	-	-	-	5	15,000	15	30	30	-	-	-	-	-	75
BAITS tags	Units	10,000	20,000	20,000	20,000	30,000	-	-	-	100,000	2	23	46	46	46	68	-	-	-	228
Mobile kraals/crush pens/scale/automated reader	Units	1	2	2	-	-	-	-	-	5	40,000	46	92	92	-	-	-	-	-	229
Subtotal												84	167	167	46	68	-	-	-	532
G. Additional AF budget for climate risk insurance pilots (partnership agre	Lumpsum	-	-	1	-	-	-	-	-	1	1,400,000	-	-	1,400	-	-	-	-	-	1,400
Total												218	722	4,866	4,817	4,793	3,133	874	478	19,901

\a For perennial varieties of crops that are normally annual (e.g. sainfoin and sorghum), in collaboration with experienced partner institutions. Amounts include the preparation and publication of reports on the results.
\b Including equipment and safeguards

Sub-component 2.1: Strengthened Clustering and Capacity Building of Value Chain Actors

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 2.1. Strengthened Clustering and Capacity Building of Value Chain Actors

Detailed Costs		**Quantities**									**Unit Cost**	**Totals Including Contingencies (US$ '000)**								
	Unit	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**	**(US$)**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
I. Investment Costs																				
A. Support to National Prducer Organisations																				
Training in leadership, advocacy, professional services (drought contigency,climate smart animal hea	Session	12	12	12	12	12	12	12	12	96	6,000	72	72	72	72	72	72	72	72	576
Support for member mobilisation	Lumpsum	1	1	1	1	1	1	1	1	8	40,000	40	40	40	40	40	40	40	40	320
Support to operations of National Farmers Organisations	Lumpsum	1	1	1	1	1	1	1	1	8	150,000	150	150	150	150	150	150	150	150	1,200
Support to Service Delivery Investments	Lumpsum	-	3	-	-	3	-	-	-	6	80,000	-	246	-	-	246	-	-	-	492
International Exchange Visits	Visits	-	1	-	1	-	1	-	-	3	20,000	-	20	-	20	-	20	-	-	60
Subtotal												262	528	262	282	508	282	262	262	2,648
B. Cluster Development																				
BDS Support for cluster Development	Person Month	24	36	36	36	36	36	36	24	264	2,650	73	110	110	110	110	110	110	73	804
Cluster training Events	Session	6	12	12	12	12	12	12	6	84	4,000	24	48	48	48	48	48	48	24	336
Cluster climate proofed infrstructural investments	Lumpsum	1	1	1	1	1	1	1	1	8	100,000	118	118	118	118	118	118	118	118	947
Subtotal												215	276	276	276	276	276	276	215	2,086
Total												477	804	538	558	784	558	538	477	4,734

Sub-component 2.2: Improved Access to Input and Output Markets

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 2.2. Improved Access to Input and Output Markets

Detailed Costs		**Quantities**									**Unit Cost**	**Totals Including Contingencies (US$ '000)**								
	Unit	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**	**(US$)**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
I. Investment Costs																				
A. Improved Access to Input Markets																				
1. Collective Access to inputs by farmers																				
BDS support tofacilitate access to inputs	Person Month	24	36	36	36	36	36	36	24	264	1,000	24	36	36	36	36	36	36	24	264
Conduct farmer Training on Input Technical Knowledge, Safe Use and Handling Skill	Session	30	30	30	30	30	30	30	10	220	1,500	45	45	45	45	45	45	45	15	330
Subtotal												69	81	81	81	81	81	81	39	594
2. Building a commercial cluster-focused agro-dealer network																				
Identify, select, profile and conduct needs assessment of new agro dealers	Agrodealers	5	10	10	10	10	10	10	5	70	1,000	5	10	10	10	10	10	10	5	70
Conduct Enterprise Management training for Agrodealers for Agrodealers/employee	Session	4	6	6	6	6	6	6	2	42	1,000	4	6	6	6	6	6	6	2	42
Conduct Training on Input Technical Knowledge, Safe Use and Handling Skills for n	Session	6	12	12	12	12	12	12	6	84	1,000	6	12	12	12	12	12	12	6	84
Subtotal												15	28	28	28	28	28	28	13	196
Subtotal												84	109	109	109	109	109	109	52	790
B. Improved Access to Output Markets																				
1. Support for aggregation and Collective Marketing																				
Market opportunity assessments	Study	1	1	1	1	1	1	1	1	8	500	1	1	1	1	1	1	1	1	4
BDS support market linkage facilitation	Person Month	24	36	36	36	36	36	36	24	264	2,000	48	72	72	72	72	72	72	48	528
Marketing training for farmer and farmer clusters	Session	6	12	12	12	12	12	12	6	84	1,000	6	12	12	12	12	12	12	6	84
Subtotal												55	85	85	85	85	85	85	55	616
2. Support for Market Transparency																				
Market information suppport	Lumpsum	1	1	1	1	1	1	1	1	8	40,000	40	40	40	40	40	40	40	40	320
Multi Stakeholder value Chain Platforms	Lumpsum	1	1	1	1	1	1	1	1	8	15,000	15	15	15	15	15	15	15	15	120
Subtotal												55	55	55	55	55	55	55	55	440
3. Market Infrastructures																				
Climate proofed Market infrastructure suppport for clusters	Units	5	24	24	24	24	24	24	2	151	18,000	105	502	502	502	502	502	502	42	3,161
Rehabilitate/build animal markets	Number	6	8	8	8	8	8	6	6	58	30,000	209	279	279	279	279	279	209	209	2,023
Support to public slaughter facilities	Facilities	2	4	4	4	4	4	2	-	24	35,000	81	163	163	163	163	163	81	-	977
Processing facility management risk management training	Session	1	-	1	-	-	-	-	-	2	2,500	3	-	3	-	-	-	-	-	6
Bio-gas digesters /a	Number	-	5	5	-	-	-	-	-	10	4,472	-	25	25	-	-	-	-	-	51
Oxidation pond system /b	Number	-	1	-	-	-	-	-	-	1	250,000	-	250	-	-	-	-	-	-	250
Septic tank systems /c	Number	-	5	5	-	-	-	-	-	10	6,500	-	37	37	-	-	-	-	-	74
PPE Equipment for workers	Package	-	2	1	1	1	1	-	-	6	10,000	-	23	11	11	11	11	-	-	68
Subtotal												398	1,280	1,021	956	956	956	793	251	6,610
4. Suppport to Value Chain Actors																				
Assist in Business Plan Development for SMEs	Business Plan	5	10	10	10	10	10	10	5	70	2,000	10	20	20	20	20	20	20	10	140
Support to modernise/build processing facilities	Facilities	1	3	3	3	2	2	1	1	16	70,000	81	244	244	244	163	163	81	81	1,302
Training and Incubation of youths	Session	12	12	12	12	20	20	20	10	118	5,000	60	60	60	60	100	100	100	50	590
Support to Youth and women enterpises	Number	10	50	50	50	50	20	20	10	260	2,643	26	132	132	132	132	53	53	26	687
Subtotal												178	456	456	456	415	336	254	168	2,720
Subtotal												686	1,875	1,617	1,551	1,510	1,431	1,187	528	10,385

Continuation

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 2.2. Improved Access to Input and Output Markets

Detailed Costs		**Quantities**									**Unit Cost**	**Totals Including Contingencies (US$ '000)**								
	Unit	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**	**(US$)**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
I. Investment Costs																				
C. Developmemnt of Digital Market Information System																				
Market Information System platform development & mobile version	Package	-	1	-	-	-	-	-	-	1	40,000	-	40	-	-	-	-	-	-	40
Build connections to national and commercial platforms through API S	Set	-	-	3	-	-	-	-	-	3	9,000	-	-	27	-	-	-	-	-	27
RFID readers, tablets for abattoirs/markets	Package	-	-	-	20	-	-	-	-	20	1,800	-	-	-	36	-	-	-	-	36
Digital grading & verification module development	Grading module	-	-	-	-	1	-	-	-	1	30,000	-	-	-	-	30	-	-	-	30
Local hosting, sustainability, and capacity transfer	Package	-	-	-	-	-	-	-	1	1	25,000	-	-	-	-	-	-	-	25	25
System updates & bug fixes	Update	-	-	1	1	1	1	1	1	6	1,000	-	-	1	1	1	1	1	1	6
Platform hosting & cloud services	Per Year	-	1	1	1	1	1	1	1	7	1,000	-	1	1	1	1	1	1	1	7
Data verification & dashboard QA	Per Year	-	-	-	1	1	1	1	1	5	800	-	-	-	1	1	1	1	1	4
MIS audit & sustainability planning	Audit	-	-	-	-	1	-	-	1	2	1,500	-	-	-	-	2	-	-	2	3
Subtotal												-	41	29	39	34	3	3	29	178
D. Green Livestock Processing and Cold Chain Infrastructure																				
Solar-powered processing machines	Number	-	-	6	6	-	-	-	-	12	5,000	-	-	30	30	-	-	-	-	60
Solar-powered cold storage rooms	Number	-	-	10	10	-	-	-	-	20	25,000	-	-	250	250	-	-	-	-	500
Solar dryers and ovens for processing	Number	-	-	50	50	-	-	-	-	100	2,500	-	-	125	125	-	-	-	-	250
Subtotal												-	-	405	405	-	-	-	-	810
Total												770	2,025	2,160	2,104	1,653	1,543	1,299	610	12,163

\a Integrated within infrastructure costs is intensive capacity building provided by supplier
\b Integrated within infrastructure costs is intensive capacity building provided by supplier
\c Integrated within infrastructure costs is intensive capacity building provided by supplier

Sub-component 2.3: Improved Access to Inclusive Financial Services For Value Chain Actors

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 2.3. Improved Access to Inclusive and Green Financial Services For Value Chain Actors

Detailed Costs		**Quantities**									**Unit Cost**	**Totals Including Contingencies (US$ '000)**								
	Unit	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**	**(US$)**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
I. Investment Costs																				
A. Credit/Loan Demand and Supply Analysis/Study for Small Livestock	per 6 months	1	-	-	-	-	-	-	-	1	10,000	10	-	-	-	-	-	-	-	10
B. Technical Assistance to NDB	TA	1	1	-	-	-	-	-	-	2	100,000	100	100	-	-	-	-	-	-	200
C. Sovereign Line of Credit for Small Livestock /a	Lumpsum	0.05	0.05	0.1	0.1	0.15	0.15	0.2	0.2	1	5,000,000	250	250	500	500	750	750	1,000	1,000	5,000
D. Enhancement of the MoLA TLMS																				
System scoping, architecture upgrade planning	Session	1	1	-	-	-	-	-	-	2	5,000	5	5	-	-	-	-	-	-	10
Core e-voucher upgrade: USSD/WhatsApp interfaces, BAITS linkage	Sofware module	-	-	1	-	-	-	-	-	1	35,000	-	-	35	-	-	-	-	-	35
e-wallet integration	Software module	-	-	-	1	-	-	-	-	1	30,000	-	-	-	30	-	-	-	-	30
Hardware for Digital Champions	Devices	-	33	-	-	-	-	-	-	33	450	-	15	-	-	-	-	-	-	15
Train 33 Champions, provide materials and incentive tools	Number	-	22	-	11	-	-	-	-	33	400	-	9	-	4	-	-	-	-	13
Platform enhancement & usability updates	Update cycle	-	-	1	-	1	-	-	-	2	8,000	-	-	8	-	8	-	-	-	16
Monitoring & usability enhancement based on field use - Simplify UI, adjust for user literacy, improve syste	Lumpsum	-	-	-	-	1	-	-	-	1	20,000	-	-	-	-	20	-	-	-	20
Maintenance Costs - hosting, service level agreements with tech providers, API maintenance	Per Year	-	-	-	1	1	1	1	1	5	4,000	-	-	-	4	4	4	4	4	20
Subtotal												5	29	43	38	32	4	4	4	159
E. Gender-Transformative Climate Innovation Hubs (equipment grants, mentorship and training programme	Lumpsum	-	-	1	-	-	-	-	-	1	1,000,000	-	-	1,000	-	-	-	-	-	1,000
Total												365	379	1,543	538	782	754	1,004	1,004	6,369

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\a The BoLCoP sovereign line of credit (LoC) for small stock will be concessional, blending BRAM resources (estimated at $5m) and GoB/NDB/TLMS resources. The GoB/NDB/TLMS contribution is yet to be determined once negotiations between GoB and NDB have been concluded but GoB has already committed to direct NDB to allocate some of TLMS resources allocated to them (100m pula) to blend the LoC. The blended sovereign LoC will be domiciliated at NDB.

Sub-component 3.1: Institutional Strengthening and Policy Support

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 3.1. Institutional Strengthening and Policy Support

Detailed Costs		**Quantities**									**Unit Cost**	**Totals Including Contingencies (US$ '000)**								
	Unit	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**	**(US$)**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
I. Investment Costs																				
A. Institutional Strenghtening																				
Institutional capacity gap assessment and production of a capacity development pla	Study	1	-	-	-	-	-	-	-	1	50,000	50	-	-	-	-	-	-	-	50
Capacity Strengthening of District extension staff for effective BoLCoP implementat	Session	1	1	-	-	1	1	-	-	4	50,000	50	50	-	-	50	50	-	-	200
Logistical Support to the participating districts for coordinating BoLCoP activities; 1	Vehicle	12	-	-	-	5	-	-	-	17	40,000	547	-	-	-	228	-	-	-	775
Implementation of other aspcts of the capacity development plan	Session	1	1	1	-	-	-	-	-	3	70,000	70	70	70	-	-	-	-	-	210
Subtotal												717	120	70	-	278	50	-	-	1,235
B. Policy Support																				
Formulation of the sheep value chain development strategy /b	Lumpsum	-	1	1	-	-	-	-	-	2	100,000	-	100	100	-	-	-	-	-	200
Review of the existing legislative framework to introduce an enforceable system of	Lumpsum	-	1	1	-	-	-	-	-	2	80,000	-	80	80	-	-	-	-	-	160
Introducing a requirement for minimum local content /d	Lumpsum	-	1	1	-	-	-	-	-	2	80,000	-	80	80	-	-	-	-	-	160
Subtotal												-	260	260	-	-	-	-	-	520
C. Strengthening the Enabling Environment																				
Establish & operationalize Multi-Stakeholder Structure (national platform)	Lumpsum	-	-	1	-	-	-	-	-	1	300,000	-	-	300	-	-	-	-	-	300
Gender-responsive policy & legislation review (incl. consultations, expert team)	Package	-	-	1	-	-	-	-	-	1	250,000	-	-	250	-	-	-	-	-	250
Training & equipment for national & sub-national centres/networks	Set	-	-	5	5	-	-	-	-	10	50,000	-	-	250	250	-	-	-	-	500
Develop gender-sensitive M&E strategy and monitoring plan	Package	-	-	1	-	-	-	-	-	1	150,000	-	-	150	-	-	-	-	-	150
Develop Knowledge Management & Applied Research System (KMAS)	Package	-	-	1	-	-	-	-	-	1	400,000	-	-	400	-	-	-	-	-	400
Establish online Knowledge Platform & dissemination tools	Package	-	-	1	-	-	-	-	-	1	200,000	-	-	200	-	-	-	-	-	200
Subtotal												-	-	1,550	250	-	-	-	-	1,800
D. Climate Information, Knowledge & Risk Management																				
Sub-national climate impact analyses (surface/groundwater, crop yields)	Study	-	-	4	2	-	-	-	-	6	80,000	-	-	320	160	-	-	-	-	480
Develop 3 climate-resilient WEFE scenarios	Package	-	-	1	-	-	-	-	-	1	150,000	-	-	150	-	-	-	-	-	150
Three vulnerability & resilience reports (value chain)	Reports	-	-	3	-	-	-	-	-	3	70,000	-	-	210	-	-	-	-	-	210
Develop & disseminate awareness materials (radio, school programs, theatre)	Package	-	-	1	-	-	-	-	-	1	150,000	-	-	150	-	-	-	-	-	150
Conduct 12 stakeholder workshops & develop trade-off monitoring tool	Workshop	-	-	6	6	-	-	-	-	12	15,000	-	-	90	90	-	-	-	-	180
Design weather-index insurance products (data analysis, scenario modeling)	Package	-	-	1	-	-	-	-	-	1	250,000	-	-	250	-	-	-	-	-	250
Community education & training for insurance schemes (including digital tools, exte	Package	-	-	1	-	-	-	-	-	1	366,043	-	-	366	-	-	-	-	-	366
Subtotal												-	-	1,536	250	-	-	-	-	1,786

Continuation

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 3.1. Institutional Strengthening and Policy Support

Detailed Costs	Unit	Quantities									Unit Cost	Totals Including Contingencies (US$ '000)								
		2026	2027	2028	2029	2030	2031	2032	2033	Total	(US$)	2026	2027	2028	2029	2030	2031	2032	2033	Total
I. Investment Costs																				
E. Planned South-South and Triangular Cooperation Activities																				
1. Cross-country Learning Exchanges (Zambia, Lesotho, Brazil, Bolivia)																				
Organize 3 study exchanges focused on animal health, meat grading systems, and	Event	-	-	1	1	1	-	-	-	3	33,333	-	-	36	36	37	-	-	-	109
2. SADC Regional Policy Roundtable on Animal Health & Traceability																				
Host a roundtable in Botswana with SADC countries /f	Workshop	-	-	-	1	-	-	-	-	1	40,000	-	-	-	44	-	-	-	-	44
3. One Health Pilot in Botswana and Zambia Border Region																				
Conduct joint outreach campaigns with Zambia at the border region /g	Pilot Intervention	-	-	-	1	-	1	-	-	2	30,000	-	-	-	33	-	34	-	-	67
4. Triangular Partnership with Brazil to Strengthen BAITS Traceability																				
Exchange with Brazil's SISBOV to enhance BAITS /h	Exchange Partnership	-	-	-	0.2	0.44	0.28	0.08	-	1	50,000	-	-	-	11	25	16	5	-	56
5. South–South Adaptation of Climate-Smart Grazing Models for Community I																				
Localize Bolivia/Zambia grazing models; produce training materials; train reps; pilo	Adapted model package	-	-	-	0.16	0.2	0.44	0.2	-	1	50,000	-	-	-	9	11	25	12	-	56
6. Documentation and Global Dissemination of BoLCoP Livestock Innovation																				
Produce 1 short film, 3 policy briefs, and 2 case studies (translated); share BoLCoI	Multimedia KM package	-	-	-	-	-	1	1	-	2	25,000	-	-	-	-	-	28	29	-	57
7. Coordination, Translation and Learning Support for SSTC Implementation																				
Appoint SSTC focal point or TA; support translation, reporting, and internal learning	Package	-	0.2	0.18	0.15	0.18	0.1	0.19	-	1	40,000	-	8	8	7	8	5	9	-	44
8. Youth in Livestock Innovation Challenge (SSTC Prize)																				
Launch an annual innovation challenge for youth in Botswana to submit livestock s	Per Year	-	-	1	1	1	-	-	-	3	10,000	-	-	11	11	11	-	-	-	33
9. Community-to-Community Knowledge Exchange Hubs /k	Hub	-	-	-	1	1	1	-	-	3	10,000	-	-	-	11	11	11	-	-	33
Subtotal												-	8	54	161	103	119	54	-	500
Total Investment Costs												717	388	3,470	661	381	169	54	-	5,841
II. Recurrent Costs																				
A. Vehicle O&M	Vehicle	12	12	12	12	12	12	12	12	96	5,000	60	60	60	60	60	60	60	60	480
B. Vehicle Insurance	Vehicle	12	12	12	12	12	12	12	12	96	2,000	24	24	24	24	24	24	24	24	192
Total Recurrent Costs												84	84	84	84	84	84	84	84	672
Total												801	472	3,554	745	465	253	138	84	6,513

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\a Includes IFAD climate advisory, Automatic weather, SECAP.EWS
\b The process is expected to take about 2 years and is allocated a total of USD 200,000
\c The process is expected to take about 2 years and is allocated a total of USD 200,000
\d The process is expected to take about 2 years and is allocated a total of USD 200,000
\e 45 participants; 3 reports produced.
\f (e.g., Zambia, Namibia, Zimbabwe) to harmonize veterinary protocols and traceability systems. Output: 1 policy brief and roadmap.
\g vaccinate 5,000 animals; Conduct 2 campaigns; assess pre- and post-intervention herd health impact.
\h ; includes 1 visit, 2 guidance notes, and planning TA support. (Duration from PY 2 to PY 5)
\i deliver 2 progress reports and 1 final synthesis report.
\j (e.g., pasture apps, animal health tools). Winners get seed funding and mentorship.
\k (videos, manuals, apps) and host regular peer-to-peer learning days.

Sub-component 3.2: Project Management and Implementation Support Services

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 3.2. Project Management and Implementation Support Service

Detailed Costs	Unit	Quantities									Unit Cost	Totals Including Contingencies (US$ '000)								
		2026	2027	2028	2029	2030	2031	2032	2033	Total	(US$)	2026	2027	2028	2029	2030	2031	2032	2033	Total
I. Investment Costs																				
A. Project Management Unit																				
Double-cabin Vehicles /a	Vehicle	7	-	-	-	3	-	-	-	10	50,000	399	-	-	-	171	-	-	-	570
Station Wagon /b	Vehicle	1	-	-	-	1	-	-	-	2	60,000	68	-	-	-	68	-	-	-	137
Subtotal												467	-	-	-	239	-	-	-	707
B. Office Eqipment for PMU																				
Laptop /c	Number	24	-	-	-	-	-	-	-	24	2,000	55	-	-	-	-	-	-	-	55
Desktop /d	Number	61	-	-	-	-	-	-	-	61	1,500	104	-	-	-	-	-	-	-	104
Printer/Photocopier /e	Number	13	-	-	-	-	-	-	-	13	2,500	37	-	-	-	-	-	-	-	37
Safe box /f	Number	13	-	-	-	-	-	-	-	13	2,000	30	-	-	-	-	-	-	-	30
Projector /g	Number	13	-	-	-	-	-	-	-	13	2,000	30	-	-	-	-	-	-	-	30
Video Conference Equipments	Set	13	-	-	-	-	-	-	-	13	2,000	30	-	-	-	-	-	-	-	30
TV 85 in	Number	13	-	-	-	-	-	-	-	13	3,000	44	-	-	-	-	-	-	-	44
Server /h	Number	14	-	-	-	-	-	-	-	14	3,000	48	-	-	-	-	-	-	-	48
Internet Network Equipment /i	Package	13	-	-	-	-	-	-	-	13	5,000	74	-	-	-	-	-	-	-	74
Office furniture /j	Set	12	-	-	-	-	-	-	-	12	1,000	14	-	-	-	-	-	-	-	14
Furniture for the Conference Room /k	Set	1	-	-	-	-	-	-	-	1	10,000	11	-	-	-	-	-	-	-	11
Subtotal												477	-	-	-	-	-	-	-	477
C. Audit																				
External audit	Number	1	1	1	1	1	1	1	1	8	30,000	30	30	30	30	30	30	30	30	240
Internal audit	Number	1	1	1	1	1	1	1	1	8	5,000	5	5	5	5	5	5	5	5	40
Subtotal												35	35	35	35	35	35	35	35	280
D. Monitoring and Evaluation																				
Development of M&E Manual and Plan, including SECAP	Manual	1	-	-	-	-	-	-	-	1	20,000	20	-	-	-	-	-	-	-	20
Establishment of MIS and tools	System	1	-	-	-	-	-	-	-	1	80,000	80	-	-	-	-	-	-	-	80
MIS Licenses for MIS	License	1	1	1	1	1	1	1	1	8	4,000	4	4	4	4	4	4	4	4	32
Tablets for data collection	Tablets	240	-	-	-	-	-	-	-	240	500	137	-	-	-	-	-	-	-	137
Training of staff in M&E, inclusive of SECAP	Session	1	1	-	-	1	-	-	-	3	7,000	7	7	-	-	7	-	-	-	21
Baseline Survey	Survey	1	-	-	-	-	-	-	-	1	90,000	90	-	-	-	-	-	-	-	90
Midline Survey	Survey	-	-	-	1	-	-	-	-	1	90,000	-	-	-	90	-	-	-	-	90
Routine Monitoring, including SECAP monitoring sessions	Session	2	2	2	2	2	2	1	1	14	10,000	20	20	20	20	20	20	10	10	140
Annual review meetings	Per Year	1	1	1	1	1	1	1	1	8	20,000	20	20	20	20	20	20	20	20	160
Learning workshops	Workshop	1	1	1	1	1	1	1	1	8	10,000	10	10	10	10	10	10	10	10	80
Annual Outcome Survey for COI	Survey	-	-	-	-	1	1	1	1	4	12,000	-	-	-	-	12	12	12	12	48
Supervision Missions	Per Year	1	1	1	1	1	1	1	1	8	20,000	20	20	20	20	20	20	20	20	160
Mid term Review	Review	-	-	-	1	-	-	-	-	1	60,000	-	-	-	60	-	-	-	-	60
Project Completion Review	Review	-	-	-	-	-	-	1	1	2	50,000	-	-	-	-	-	-	50	50	100
End-line Survey	Survey	-	-	-	-	-	-	1	-	1	90,000	-	-	-	-	-	-	90	-	90
Subtotal												408	81	74	224	93	86	216	126	1,308
E. Knowledge Management and Communication																				
Development of KM Strategy and Tools	Study	1	-	-	-	-	-	-	-	1	70,000	70	-	-	-	-	-	-	-	70
Knowledge Product Development	Session	1	1	1	1	1	1	1	1	8	8,000	8	8	8	8	8	8	8	8	64
Learning Events & Workshops (local & national)	Session	-	1	1	1	1	1	1	-	6	4,000	-	4	4	4	4	4	4	-	24
KM Capacity Building	Session	1	1	1	-	-	1	-	-	4	10,000	10	10	10	-	-	10	-	-	40
Peer Learning & Exchange Visits (national & SSTC)	Session	-	1	1	-	1	-	1	-	4	20,000	-	20	20	-	20	-	20	-	80
Communication & Outreach	Session	1	1	1	1	1	1	1	1	8	5,000	5	5	5	5	5	5	5	5	40
Partnerships with Research & Academic Institutions	Session	-	1	1	1	1	1	1	-	6	5,000	-	5	5	5	5	5	5	-	30
KM Monitoring, Reporting, and Synthesis	Report	1	1	1	1	1	1	1	1	8	4,000	4	4	4	4	4	4	4	4	32
Website development	Lumpsum	1	-	-	-	-	-	-	-	1	5,000	5	-	-	-	-	-	-	-	5
Subtotal												102	56	56	26	46	36	46	17	385
F. GALS training /l	Lumpsum	1	1	1	1	1	1	1	-	7	50,000	50	50	50	50	50	50	50	-	350
G. SECAP																				
Environmental and Social Training (inc SECAP policies and proces	Session	-	15	-	-	15	-	-	15	45	7,222	-	108	-	-	108	-	-	108	325
GBV-SEA Activities	Package	-	1	1	1	1	1	1	-	6	17,833	-	18	18	18	18	18	18	-	107
PPE Equipment for workers	Package	-	1	1	1	1	1	-	-	5	12,000	-	14	14	14	14	14	-	-	68
Site-specific ESIAs, ESMPs and Environmental License fees	Number	-	3	3	2	2	1	1	-	12	5,000	-	15	15	10	10	5	5	-	60
Cultural Heritage Studies	Study	-	-	1	-	-	-	-	-	1	5,000	-	-	5	-	-	-	-	-	5
Installation of e-waste handling systems	Package	-	1	-	-	-	-	-	-	1	15,000	-	15	-	-	-	-	-	-	15
Bi-Annual Audits	Package	-	-	1	-	1	-	1	-	3	5,000	-	-	5	-	5	-	5	-	15
Annual Reviews	Package	-	1	-	1	-	1	-	-	3	5,000	-	5	-	5	-	5	-	-	15
End of Project Audit	Package	-	-	-	-	-	-	-	1	1	30,000	-	-	-	-	-	-	-	30	30
Subtotal												-	175	57	47	155	42	28	138	640
H. Workshops																				
Startup workshop	Workshop	13	-	-	-	-	-	-	-	13	20,000	260	-	-	-	-	-	-	-	260
Annual planning & review workshop	Workshop	1	1	1	1	1	1	1	1	8	5,000	5	5	5	5	5	5	5	5	40
PMCU & Gov participation in selected international workshops	Workshop	-	1	-	1	-	1	-	-	3	30,000	-	30	-	30	-	30	-	-	90
PCR Stakeholders' Workshop	Workshop	-	-	-	-	-	-	-	1	1	20,000	-	-	-	-	-	-	-	20	20
Subtotal												265	35	5	35	5	35	5	25	410
Total Investment Costs												1,804	432	277	417	623	284	380	341	4,557

Continuation

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 3.2. Project Management and Implementation Support Service

Detailed Costs	Unit	Quantities									Unit Cost	Totals Including Contingencies (US$ '000)								
		2026	2027	2028	2029	2030	2031	2032	2033	Total	(US$)	2026	2027	2028	2029	2030	2031	2032	2033	Total
I. Investment Costs																				
II. Recurrent Costs																				
A. PMCU Staff																				
Project Director	Per Month	12	12	12	12	12	12	12	12	96	4,625	55	55	55	55	55	55	55	55	444
Monitoring and Evaluation and Knowledge Management Specialist	Per Month	12	12	12	12	12	12	12	12	96	4,263	51	51	51	51	51	51	51	51	409
Financial Management Specialist	Per Month	12	12	12	12	12	12	12	12	96	4,263	51	51	51	51	51	51	51	51	409
Procurement Specialist	Per Month	12	12	12	12	12	12	12	12	96	4,263	51	51	51	51	51	51	51	51	409
Livestock Specialist	Per Month	12	12	12	12	12	12	12	12	96	4,263	51	51	51	51	51	51	51	51	409
Agribusiness and Marketing Specialist	Per Month	12	12	12	12	12	12	12	12	96	4,263	51	51	51	51	51	51	51	51	409
Gender, Youth and Social Inclusion Specialist	Per Month	12	12	12	12	12	12	12	12	96	4,263	51	51	51	51	51	51	51	51	409
Environmental Management, Climate Change and Social Safeguard	Per Month	12	12	12	12	12	12	12	12	96	4,263	51	51	51	51	51	51	51	51	409
M&E/KM Assistant	Per Month	12	12	12	12	12	12	12	12	96	1,714	21	21	21	21	21	21	21	21	165
Accountant	Per Month	12	12	12	12	12	12	12	12	96	3,918	47	47	47	47	47	47	47	47	376
Procurement Assistant	Per Month	12	12	12	12	12	12	12	12	96	1,714	21	21	21	21	21	21	21	21	165
Project Assistant	Per Month	12	12	12	12	12	12	12	12	96	1,714	21	21	21	21	21	21	21	21	165
Driver	Per Month	84	84	84	84	84	84	84	84	672	461	39	39	39	39	39	39	39	39	310
Subtotal												561	561	561	561	561	561	561	561	4,488
B. Adaptation Fund Management Costs (Inc. Salaries and Allowanci	Lumpsum	-	-	1	1	1	1	1	1	6	291,859	-	-	292	292	292	292	292	292	1,751
C. Operations and Maintenance																				
Office rent (NPMCU)	Per Month	12	12	12	12	12	12	12	12	96	5,000	60	60	60	60	60	60	60	60	480
General operating expenses for PMCU	Per Month	12	12	12	12	12	12	12	12	96	2,500	30	30	30	30	30	30	30	30	240
General operating expenses for the participating districts	Per Month	144	144	144	144	144	144	144	144	1,152	1,000	144	144	144	144	144	144	144	144	1,152
Subtotal												234	234	234	234	234	234	234	234	1,872
D. Vehicle O & M																				
Vehicle O & M	Vehicle	8	8	8	8	8	8	8	8	64	5,000	40	40	40	40	40	40	40	40	320
Vehicle insurance	Vehicle	8	8	8	8	8	8	8	8	64	2,000	16	16	16	16	16	16	16	16	128
Subtotal												56	56	56	56	56	56	56	56	448
E. DSA/Field Per Diem																				
Field per diem /m	Person/Year	12	12	12	12	12	12	12	12	96	5,000	60	60	60	60	60	60	60	60	480
Allowances for frontline extension for data collection /n	DSA	144	144	144	144	144	144	144	144	1,152	300	43	43	43	43	43	43	43	43	346
Subtotal												103	103	103	103	103	103	103	103	826
Total Recurrent Costs												954	954	1,246	1,246	1,246	1,246	1,246	1,246	9,385
Total												2,758	1,386	1,523	1,663	1,869	1,530	1,626	1,587	13,942

\a Double Cabin trucks for the PMCU
\b Station Wagon for the Project Director
\c 1 Laptop for each of the PMCU officer and 1 for each of the District Coordinators. Laptop with software and antivirus.
\d Desktop with softwares and antivirus. I Desktop is for the PMCU and the other 60 are for the 12 participating district; 5 desktops per district
\e 12 of the printers are for the 12 districts (1 for each district) and the other one if the NPMCU
\f 12 of the safe boxes are for the 12 districts (1 for each district) and the other one if the NPMCU
\g 5 of the Projectors are for the five provinces (1 for each province)
\h It includes: Server, softwares, uninterruptible power supply unit. 1 server for the NPMCU, 1 server for MoLA and the rest are for the participating districts (1 each per district).
\i 5 of the packages are for the five provinces (1 for each province)
\j 1 set for each Officer of the NPMCU. Set consists of a desk, chair, lamp and a file cabinet. Assumes that the district Management and Coordination Units would be provided with furniture by the respective districts
\k Set consists of a big table (sitting 12 people) and 20 chairs
\l Assumes an average of USD 5,000 per staff (technical staff and drivers) per year
\m Assumes an average of USD 5,000 per staff (technical staff and drivers) per year
\n 12 months *12 districts *$1152/month/district

IFAD
Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Annex 4: Economic and Financial Analysis

Mission Dates:	07-19 July 2025
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Project No.	2000005356
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East and Southern Africa Division
Programme Management Department

Annex 4: Economic and Financial Analysis

Overview: The detailed Economic and Financial Analysis for the Botswana Livestock Commercialisation Project (BoLCoP) is presented in this annex. The EFA is conducted to assess benefits expected from the project interventions on different target groups. The financial analysis is conducted to demonstrate the expected benefits at household level, while the economic analysis is carried out to demonstrate the viability of the proposed interventions from the overall economy perspective.

Methodology of the EFA: The Economic and Financial Analysis (EFA) has been conducted using a cost-benefit approach, comparing "with project" and "without project" scenarios at both household and project levels. Representative household models have been developed for the selected livestock and poultry value chains, including goats, sheep, layer chickens, and broilers. The analysis has been done in constant 2025 prices for inputs and nominal prices for outputs to reflect actual market prices and account for commercialization effects. The cash flow is projected over a 20-year period, using a discount rate of 6% for financial analysis[1] and 8.6% for economic analysis[2]. Financial prices have been adjusted to economic values using standard conversion factors. The analysis has been performed in excel and sensitivity tests have been conducted on key variables such as reduced benefits, increased costs and delayed implementation.

Data used in the analysis: The data used for this analysis comes primarily from value chain analysis reports produced by the Local Enterprise Authority (LEA)[3]. LEA is a parastatal organisation under the Ministry of Trade and Entrepreneurship, mandated to support business and skills development. It also serves as an intermediary, linking enterprises to development finance institutions such as CEDA and NDB, and facilitating market access for start-ups, MSMEs, and youth-led enterprises.

Additional data is drawn from the Value Chain Analysis and Profitability Assessment of the targeted BoL-CoP value chains. This study, conducted prior to the current design phase of BoL-CoP, assesses the profitability, investment potential, and competitiveness of the selected value chains. It identifies key constraints and opportunities, highlights geographical areas with high potential for small livestock commercialisation, reviews relevant stakeholders and initiatives for potential synergies, and outlines market opportunities at local, regional, and international levels. Further technical data, including livestock mortality rates, were obtained from livestock experts during the concept note design stage.

The development objective of BoL-CoP is: *"enhance the incomes and resilience of rural households through more inclusive, sustainable and technology-driven small livestock value chains".* This PDO will be achieved through investment in the following components:

- **A. Increased Climate-Resilient Small Livestock Production and Productivity - US$ 38.67 million**
- **B. Strengthened Small Livestock Value Chains US$ 27.66 million**
- **C. Enhanced Enabling Environment for Improved Small Livestock Development - US$ 19.75 million**

Project Benefits and Beneficiaries

Project Benefits: BoL-CoP is expected to deliver clear, measurable benefits. These include increased production and productivity driven by better access to quality livestock and animal health services, adoption of climate-resilient practices, use of drought-tolerant forages, & improved grazing, housing, animal handling systems and access to green and inclusive finance. Farmers will also benefit from premium prices through stronger market access and commercialization of targeted value chains. Premium prices are directly embedded in the revenue analysis of the individual models, reflecting a percentage increase of up to 20% over the initial constant prices in the 4th–5th years of the project, consistent with the expected market improvements.

[1] https://tradingeconomics.com/botswana/bank-lending-rate

[2] https://www.worldgovernmentbonds.com/country/botswana/#google_vignette

[3] The reports were shared during the design mission and are available with IFAD for reference.

Other benefits that have not been quantified at this stage include key environmental improvements such as restored grazing land, reduced pressure on water sources, and enhanced biodiversity. The introduction of inclusive and sustainable infrastructure such as solar-powered boreholes, predator-proof kraals and biogas digesters, alongside improved waste management, will contribute to both climate adaptation and mitigation.

Target Group: The project aims to directly reach 50,000 households, classified into 4 broad socio-economic groups as presented in the table below. This translates to approximately 200,000 individuals, based on an average household size of four. Most beneficiaries will be rural poor or vulnerable smallholder farmers, emerging or existing commercially oriented producers, and remote area communities. These groups will be supported to actively and meaningfully participate in the targeted value chains.

BoL-CoP Target Outreach 50,000 Household (200,000 Individuals)

Category	Number	%	Description
Subsistence Farmers (Micro-scale)	10,000	20%	Farmers primarily producing for household consumption with the following characteristics: . Small herd size . Mixed crops and livestock . Limited market engagement
Small-Scale Commercial Farmers (Small-scale)	30,000	60%	Farmers with some market orientation with the following characteristics . Moderate herd size . Some mechanization . Part-time off-farm income
Emerging Commercial Farmers (Medium scale)	7,500	15%	Farmers transitioning from smallholder to full-time commercial with the following characteristics: . Medium herd size (Use of improved breeds . Access to input markets . Participate in cooperatives
Small and Medium Enterprises ((SMEs), on-farm and off-farm SMEs))	2,500	5%	Fully market-oriented, high investment withbackward linkages with the farmers (producers) in categories 1, 2, & 3 with the following characteristics: . Large herd size . Access to finance . Fenced ranches . Export compliant
Total	**50,000**	**100%**	

For this analysis, the main economic benefits of the enterprise models linked to the above value chains have been assessed using the incorporation matrix below.

Table 1: Incorporation Matrix

Project Years		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Total
#	Distribution	*Phasing of enterprises*								
Outreach (Lf)	**50,000**	**2,000**	**3,000**	**4,000**	**6,000**	**8,500**	**12,500**	**10,000**	**4,000**	**50,000**
Cummulative No. of HHs		2,000	5,000	9,000	15,000	23,500	36,000	46,000	50,000	50,000
Categories of BoL-CoP beneficiaries										
1 Subsistence Farmers (Micro-scale) *Layers and Goats*	20%	400	600	800	1,200	1,700	2,500	2,000	800	10,000
2 Small-Scale Commercial Farmers (Small-scale) *Goat & Shee, Layers & Broilers*	60%	1,200	1,800	2,400	3,600	5,100	7,500	6,000	2,400	30,000
3 Emerging Commercial Farmers (Medium scale) *Goat & Shee, Layers & Broilers*	15%	300	450	600	900	1,275	1,875	1,500	600	7,500
4 Small and Medium Enterprises ((SMEs) *Goat and Sheep*	5%	100	150	200	300	425	625	500	200	2,500
Total	**100%**	**2,000**	**3,000**	**4,000**	**6,000**	**8,500**	**12,500**	**10,000**	**4,000**	**50,000**

Programme costs and log-frame indicators: The total budget for BoL-CoP is estimated at USD87.1 million. The primary log-frame indicator is the target outreach which is estimated at 50,000. This translates into a cost per household of USD1,742 and USD 435 per individual. The cost per beneficiary is within range given the nature and geographical location of the project implementation areas.

Table 2: Programme Costs and Log-frame Indicators

PROGRAMME COSTS AND INDICATORS FOR LOGFRAME		
TOTAL PROGRAMME COSTS (in million USD)		
Number of household members	**200,000**	**People**
Cost per individual	**435**	**US$/Person**
Number of household	**50,000**	**HHs**
Cost per household	**1,742**	**US$/HHs**
Components and Cost (USD million)	**Amount**	
A. Increased Climate-Resilient Small Livestock Production and Productivity	38.7	US$ million
B. Strengthened Small Livestock Value Chains	27.7	US$ million
C. Enhanced Enabling Environment for Improved Small Livestock Development	19.8	
D. RED (Lumpsum to be allocated incase of emergency)	1.0	US$ million
Total	**87.1**	US$ million

Financial Analysis: The main objective of the financial analysis is to assess the financial viability of the value chains targeted under BoL-CoP, specifically from the perspective of the project's intended beneficiaries. For BoL-CoP, three major value chains have been analysed across the 4 groups of the project beneficiaries, as summarised in Table 3 below. The table presents the results of incremental benefits, comparing the *"Without Project" (WOP)* and *"With Project" (WP)* scenarios for each value chain. It also includes key financial profitability indicators, providing a clear view of the expected financial returns under project support.

Table 3: Results of Financial Analysis of the selected value chains

	Farm models' net incremental benefits (in BWP)								
	Category 1: Subsistence Farmers		Category 2: Small-Scale Commercial Farmers			Category 3: Emerging Commercial Farmers			Category 4: Small and
Project Year	Poultry - Layers (50 birds)	Livestock - Goat (6 heads unit)	Livestock - Goat and Sheep (14 heads unit)	Poultry - Layers (150 birds unit)	Poultry - Broilers (200 birds unit)	Livestock - Goat and Sheep (22 heads unit)	Poultry - Layers (300 birds unit)	Poultry - Broilers (400 birds unit)	Livestock - Goat and Sheep (125 heads unit)
PY1	(8,781)	(14,340)	(53,877)	(22,737)	(23,114)	(164,458)	(96,652)	(80,930)	(450,704)
PY2	1,584	4,733	15,732	4,570	5,530	10,383	4,796	25,051	116,238
PY3	1,778	4,786	19,737	11,330	7,362	18,584	11,822	30,546	206,103
PY4	1,804	4,047	20,800	12,733	7,396	45,554	35,878	30,649	281,993
PY5	3,140	5,212	23,383	16,458	6,213	58,536	54,340	29,500	336,756
PY6	3,311	5,430	22,676	17,098	7,430	63,680	46,885	30,751	401,567
PY7	3,263	4,628	18,924	14,888	7,430	58,883	38,613	30,751	503,040
PY8	3,311	5,881	21,420	16,903	7,430	76,215	61,636	30,751	499,355
PY9	3,456	6,116	20,864	16,843	6,230	83,792	46,885	29,551	495,670
PY10	3,422	5,251	17,449	14,698	7,430	78,515	38,613	30,751	495,670
PY11	3,470	6,615	19,800	16,824	7,430	105,524	61,636	30,751	495,670
PY12	3,470	6,882	19,292	16,827	7,430	120,388	46,885	30,751	495,670
PY13	3,439	5,966	16,599	14,704	6,230	118,667	38,613	29,551	495,670
PY14	3,488	7,434	19,530	16,831	7,430	156,153	61,636	30,751	495,670
PY15	3,488	7,721	19,650	16,831	7,430	177,556	46,885	30,751	495,670
PY16	3,440	13,706	24,117	14,705	7,430	206,396	38,613	30,751	495,670
PY17	3,490	15,760	27,765	16,831	6,230	243,978	61,636	29,551	495,670
PY18	3,490	15,760	27,765	16,831	7,430	253,395	46,885	30,751	495,670
PY19	3,442	13,706	24,117	14,705	7,430	231,740	38,613	30,751	495,670
PY20	3,490	15,760	27,765	16,831	7,430	273,399	61,636	30,751	495,670
IRR	28%	35%	36%	48%	29%	30%	31%	36%	54%
NPV (BWP) @9%	23,166	61,295	168,399	131,739	51,943	910,202	345,522	239,101	3,860,298
B/C Ratio	2.09	2.75	2.31	1.73	1.34	2.63	2.34	1.43	2.78
Return to Family Labour	111	100	274	214	216	548	457	11,450	3,329

Key assumptions used in the financial models: The following key assumptions have been used in estimating the above indicators and incremental cash-flows:

- All value chain models are developed at household level for the 4 target groups for BoL-CoP.
- Nominal prices have been used for outputs to reflect actual prices paid in a year, including effects of market dynamics like commercialization. For inputs, constant prices have been used in terms of single base year, focusing only on real volume changes.

- A discount rate of 6% has been adopted for all financial cash-flow and profitability indicators. This is the current bank lending rate in Botswana as reported by Trading Economics[4].
- All the crop models would use family labour for all operations and some hired labour for technical activities. Such labour differentiation has been maintained in the individual models. Such labour is accounted for accordingly and valued at different wage rates.
- It is also assumed that beneficiaries will use a portion of their production for domestic consumption. However, the total production has been valued and included in the analysis.
- For what is assumed to be a new enterprise, a proxy has been adopted for the WOP scenario. The proxy is calculated as a proportion of labour, for both skilled and family that is used in the model. The logic is that this proportion of labour was employed elsewhere before the project, and the enterprise has replaced that labour income by employing them.

Analysis of the Financial Models

Livestock - Goat and Sheep: The table below presents the key results of the livestock (goat and sheep) financial model across the four beneficiary categories.

Beneficiary Categories	WoP Herd Size (Heads)	WP Herd Size (Heads)	WoP Income (BWP)	WP Income (BWP)	Incremental Income (BWP)	IRR (%)	NPV (BWP)	BCR
Category 1: Subsistence	**2**	**6**	**1,750**	**10,004**	**8,254**	**35%**	**61,295**	**2.8**
Category 2: Semi-Subsistence	6	14	3,142	33,475	30,333	36%	77,734	2.3
Category 3: Emerging Commercial	**6**	**20**	**3,419**	**152,321**	**148,902**	**30%**	**910,202**	**2.6**
Category 2: SME	14	125	5,757	405,610	399,852	54%	3,860,298	2.8

BoL-CoP targets four distinct groups of beneficiaries. Category 1 (Subsistence) includes micro-scale farmers producing mainly for household consumption. They keep small herds, practice mixed farming, and have limited market engagement. Category 2 (Semi-subsistence), which makes up 60% of the target group, includes farmers with moderate herd sizes. They will be supported to improve market orientation and adopt basic mechanisation. With project support, they are also expected to earn income from off-farm activities.

Category 3 (Emerging Commercial Farmers) operate on a medium scale. The project will help them transition to full-time commercial farming by improving access to breeds, markets, and cooperatives. Category 4 includes SMEs engaged in both on-farm and off-farm activities. These are fully market-driven and invest heavily, with strong linkages to farmers in the first three categories. Support will focus on improving access to finance and enabling them to scale towards export markets.

Poultry – Layers: The enterprise model has been assessed for three categories of farmers: (i) Subsistence, (ii) Semi-subsistence, and (iii) Emerging Commercial. These categories share the same characteristics as those described in the livestock model. The results are summarised in the table below.

Beneficiary Categories	WoP Herd Size (Heads)	WP Herd Size (Heads)	WoP Income (BWP)	WP Income (BWP)	Incremental Income (BWP)	IRR (%)	NPV (BWP)	BCR
Category 1: Subsistence	20	50	1,360	6,220	4,860	28%	23,166	2.1
Category 2: Semi-Subsistence	25	150	1,339	31,796	30,457	48%	131,739	1.7
Category 3: Emerging Commercial	70	250	9,840	70,281	60,441	31%	345,522	2.3

Poultry – Broilers: The enterprise model has been assessed for two categories of farmers: (i) Semi-subsistence, and (ii) Emerging Commercial. These categories follow the same characteristics outlined in the livestock model. The results are presented in the table below.

[4] https://tradingeconomics.com/botswana/bank-lending-rate

Beneficiary Categories	WoP Herd Size (Heads)	WP Herd Size (Heads)	WoP Income (BWP)	WP Income (BWP)	Incremental Income (BWP)	IRR (%)	NPV (BWP)	BCR
Category 1: Semi-Subsistence	-	400	2,400	29,070	26,670	29%	51,943	1.3
Category 2: Emerging Commercial	-	1,200	3,600	87,364	83,764	36%	239,101	1.4

The broiler models are assumed to be new enterprises for the BoL-CoP beneficiaries. Therefore, a proxy has been adopted for the WOP scenario[5]. As already stated above, the proxy is calculated as a proportion of labour, for both skilled and family that is used in the model. The logic is that this proportion of labour was employed elsewhere before the project, and the enterprise has replaced that labour income by employing them.

Financing Strategy and Long-Term Financial Sustainability of the Models: The financing arrangement combines grants/subsidies, own savings, and short-term loans to cover the initial negative cash flows during the first year of enterprise operation. As shown in the indicative mix table, grants play a central role in reducing the initial loss, complemented by beneficiaries' own savings and limited use of concessional loans depending on business maturity. Family labour and early production revenue also contribute to closing the gap. This approach ensures that farmers do not face an overwhelming financial burden in the start-up phase and enables them to reach positive cash flow without jeopardising long-term viability. The financial sustainability analysis confirms that category 4 models generate solid net production revenue and gradually build financial reserves. Cash flow becomes positive from Year 3 and full loan repayment capability is achieved within two years, indicating that the enterprises remain financially viable and affordable for smallholders once the initial loss is bridged.

Table 4: Indicative Financing Mix to Cover First-Year Loss

Enterprise/Model	Category 4: Goat & Sheep (SME)	Category 3: Goat & Sheep (Emerging Commercial)	Category 3: Poultry - Layers (Emerging Commercial)	Category 3: Poultry - Broilers (Emerging Commercial)
Projected Initial Year Loss	(450,704)	(164,458)	(96,652)	(80,930)
Financing Plan				
Grants/Subsidies	320,016	135,402	66,737	64,960
Loan	106,672			
Own Savings	30,000	25,000	25,000	25,000
Family Labour	3,750	3,750	3,750	3,600
Production Revenue	158,089	17,523	7,985	22,950
Net Financing Available	**618,527**	**181,675**	**103,472**	**116,510**
Closing Balance	**167,823**	**17,216**	**6,821**	**35,580**

The affordability check confirms that Category 4 farmers can service the loan without compromising household cash flow, as their cash balances grow steadily from Year 2 onwards.

Table 5: Financial Viability and Cash Flow Projection for Category 4 Farmers

Financing plan/affordability check / household cash flow										
Years	**Yr 1**	**Yr 2**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**	**Yr 7**	**Yr 8**	**Yr 9**	**Yr 10**
A: Financing Needs										
I. Capital Investment	533,360	-	-	-	-	-	-	-	-	-
II. Operating Input (Feeds, Vaccines etc)	67,933	78,195	98,389	116,116	130,116	145,888	168,131	171,816	175,501	175,501
III. Labour costs	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750
Sub-total for on farm costs	605,043	81,945	102,139	119,866	133,866	149,638	171,881	175,566	179,251	179,251
Total financing needed	**605,043**	**81,945**	**102,139**	**119,866**	**133,866**	**149,638**	**171,881**	**175,566**	**179,251**	**179,251**
B: Financing Plan (How to cover the above financing needs)										
Opening Balance	**-**	**13,484**	**137,222**	**350,824**	**640,318**	**984,573**	**1,393,640**	**1,904,180**	**2,411,035**	**2,914,204**
Grant (Estimated) - Assuming 60% of the Investment	320,016	-	-	-	-	-	-	-	-	-
Loan (Estimated) - Assuming 10% of the Investment	106,672	-	-	-	-	-	-	-	-	-
Drawing from own savings (Estimated)	30,000	-	-	-	-	-	-	-	-	-
Family Labour	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750	3,750
Net production revenue	158,089	201,932	311,991	405,610	474,371	554,955	678,670	678,670	678,670	678,670
Total financing available	618,527	219,166	452,963	760,184	1,118,439	1,543,278	2,076,060	2,586,600	3,093,455	3,596,624
Closing Balance/ reserves (A-B)	13,484	137,222	350,824	640,318	984,573	1,393,640	1,904,180	2,411,035	2,914,204	3,417,374

Financial Analysis Results: The cash flows from all financial models have been aggregated to generate the overall results of the financial analysis. The Financial Internal Rate of Return (FIRR) is estimated at 36%. The baseline Financial Net Present Value (F-NPV) is US$492.5 million (BWP 6.89 billion), with a Benefit-Cost Ratio (BCR) of 8.1. A summary of results is show below:

Table 6: Summary of Financial Analysis Results

[5] A proxy is the average revenue per household before the project.

Summary of Financial Benefits (BWP'000)	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10-Y20
Category 1: Subsistence Farmers	(925)	(1,008)	(756)	(644)	137	1,304	6,835	14,633	21,234	27,469
Category 2: Small-Scale Commercial Farmers	(7,978)	(8,867)	(5,158)	(326)	11,022	27,926	85,303	166,794	237,149	295,209
Category 3: Emerging Commercial Farmers	(6,841)	(9,054)	(9,433)	(8,847)	(3,628)	3,603	42,696	105,698	169,182	232,975
Category 4: Small and Medium Enterprises	(9,014)	(10,034)	(4,553)	6,398	29,995	69,832	176,879	328,005	486,582	672,150
Total Benefits	**(24,758)**	**(28,964)**	**(19,900)**	**(3,419)**	**37,525**	**102,663**	**311,712**	**615,130**	**914,147**	**1,227,802**
Financial Costs (BWP'000)										
Investment Costs	74,780	97,304	268,668	217,156	184,487	110,772	79,834	45,437		
Recurrent Costs	14,535	14,535	18,621	18,621	18,621	18,621	18,621	18,621	1,862	1,862
Total Costs	**89,315**	**111,840**	**287,289**	**235,778**	**203,108**	**129,393**	**98,455**	**64,058**	**1,862**	**1,862**
Costs Included in models (costs for improved breeds and other direct inputs)	**4,550**	**4,550**	**9,100**	**9,100**	**13,650**	**13,650**	**18,200**	**18,200**		
Total Incremental Benefits (BWP'000)	**(109,523)**	**(136,254)**	**(298,089)**	**(230,097)**	**(151,933)**	**(13,080)**	**231,457**	**569,272**	**912,285**	**1,225,940**

Profitability Indicators	
Discount Rate	6.0%
NPV @8.6% (BWP'000)	6,895,274
NPV @8.6% (USD'000)	492,520
F-IRR	36%
NPV/b @8.6% (BWP'000)	7,798,619
NPV/c @8.6% (BWP'000)	969,848
BCR	8.04

Economic Analysis: The economic analysis aims to assess the project's viability and cost-effectiveness from a societal perspective by comparing aggregated economic benefits with total project costs, and to test the robustness of the investment through sensitivity analysis on the IRR and NPV under varying risk scenarios.

In addition to the assumptions applied in the financial analysis, the economic analysis incorporated the following additional assumptions.

- Social Discount Rate: Economic benefits are discounted at 8.6%, based on Trading Economics data[6].
- Conversion Factor for Tradable Goods: A factor of 0.93 is applied to adjust financial prices to economic values. Detailed calculations are provided in the integrated EFA worksheet.
- Shadow Wage Rate: A factor of 0.76 is used to align financial wages with the true economic opportunity cost of labor.
- VAT Adjustment: A VAT rate of 14% is applied to remove tax effects from financial prices when deriving economic (shadow) prices.
- Analysis Period: A 20-year horizon is used to capture the full phasing and gestation period of the proposed interventions. A summary of key assumptions is shown in the table below

[6] https://www.worldgovernmentbonds.com/country/botswana/#google_vignette

Table 6: Main Assumptions and Shadow Prices

MAIN ASSUMPTIONS & SHADOW PRICES					
		Yields (Annually) Kg			
	Model	Unit of measure	WOP	WP	Price (BWP)
FINANCIAL	Poultry - Layers (50 birds)	Birds	20	50	85
	Livestock - Goat (6 heads unit)	Heads	2	4	1,000
	Livestock - Goat and Sheep (14 heads unit)	Heads	6	14	1,000
	Poultry - Layers (150 birds unit)	Birds	25	150	85
	Poultry - Broilers (200 birds unit)	Birds	-	200	85
	Livestock - Goat and Sheep (22 heads unit)	Heads	6	20	1,000
	Poultry - Layers (300 birds unit)	Birds	70	250	85
	Poultry - Broilers (400 birds unit)	Birds	-	400	85
	Livestock - Goat and Sheep (125 heads unit)	Heads	14	125	1,000
Economic	Conversion Factor - Goods	0.93	Discount rate for FA		6.0%
	Labour Conversion Factor	0.77	Discount rate for EA		8.6%
	Unemployment Rate	23.10%	VAT rate on imports		14%

Aggregation of Economic Benefits: The aggregation of economic benefits is aligned with the annual project budget allocations in the COSTABS and the log-frame targets. It takes into account the number of beneficiaries by socio-economic group, phased by year, and the incremental net benefits generated by the selected value chain models supported by BoL-CoP. An adoption rate of 80% is applied, based on the assumption that 40,000 out of the 50,000 targeted households will adopt the proposed project investments. The adoption rate increases gradually in the initial years, reflecting the time needed for beneficiaries to transition from traditional to improved practices. This phased uptake accounts for the learning curve and support required before reaching full adoption potential. The summary is presented in the table below.

Table 7: Economic Benefits Aggregation

Adoption Rates		20%	30%	40%	50%	60%	70%	80%	80%	80%	80%	
Category 1: Subsistence Farmers		**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**	**Y7**	**Y8**	**Y9**	**Y10**	**Y11**
Incremental benefits	No. of HHs/Year	400	600	800	1,200	1,700	2,500	2,000	800			
Adoption Rate	**80%**											
Incremental benefits/Y1	(10,402)	(832)	(1,248)	(1,664)	(2,497)	(3,537)	(5,201)	(4,161)	(1,664)			
Incremental benefits/Y2	3,292		395	593	790	1,185	1,679	2,469	1,975	790		
Incremental benefits/Y3	3,406			545	818	1,090	1,635	2,316	3,406	2,725	1,090	1,090
Incremental benefits/Y4	3,075				615	923	1,230	1,845	2,614	3,844	3,075	1,230
Incremental benefits/Y5	4,238					1,017	1,526	2,034	3,052	4,323	6,358	5,086
Incremental benefits/Y6	4,419						1,237	1,856	2,475	3,712	5,259	7,734
Incremental benefits/Y7	4,024							1,288	1,931	2,575	3,863	5,472
Incremental benefits/Y8	4,629								1,481	2,222	2,963	4,444
Incremental benefits/Y9	4,806									1,538	2,307	3,076
Incremental benefits/Y10	4,388										1,404	2,106
Incremental benefits/Y11	5,045										1,614	2,421
Total Incremental benefits (BWP'000)		**(832)**	**(853)**	**(527)**	**(274)**	**678**	**2,106**	**7,647**	**15,270**	**21,729**	**27,932**	**32,659**
Category 2: Small-Scale Commercial Farmers		**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**	**Y7**	**Y8**	**Y9**	**Y10**	**Y11**
Incremental benefits	No. of HHs/Year	1,200	1,800	2,400	3,600	5,100	7,500	6,000	2,400			
Adoption Rate	**80%**											
Incremental benefits/Y1	(30,633)	(7,352)	(11,028)	(14,704)	(22,056)	(31,245)	(45,949)	(36,759)	(14,704)			
Incremental benefits/Y2	8,307		2,991	4,486	5,981	8,972	12,710	18,691	14,953	5,981		
Incremental benefits/Y3	12,214			5,863	8,794	11,725	17,588	24,916	36,641	29,313	11,725	11,725
Incremental benefits/Y4	12,989				7,793	11,690	15,587	23,380	33,122	48,708	38,967	15,587
Incremental benefits/Y5	14,578					10,496	15,745	20,993	31,489	44,610	65,603	52,482
Incremental benefits/Y6	14,935						12,545	18,818	25,091	37,636	53,318	78,409
Incremental benefits/Y7	13,086							12,563	18,844	25,125	37,688	53,391
Incremental benefits/Y8	14,485								13,906	20,858	27,811	41,717
Incremental benefits/Y9	13,922									13,365	20,047	26,730
Incremental benefits/Y10	12,570										12,067	18,100
Incremental benefits/Y11	13,958										13,400	20,099
Total Incremental benefits (BWP'000)		**(7,352)**	**(8,037)**	**(4,355)**	**513**	**11,638**	**28,225**	**82,601**	**159,341**	**225,596**	**280,625**	**318,240**
Category 3: Emerging Commercial Farmers		**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**	**Y7**	**Y8**	**Y9**	**Y10**	**Y11**
Incremental benefits	No. of HHs/Year	300	450	600	900	1,275	1,875	1,500	600			
Adoption Rate	**80%**											
Incremental benefits/Y1	(104,995)	(6,300)	(9,450)	(12,599)	(18,899)	(26,774)	(39,373)	(31,499)	(12,599)			
Incremental benefits/Y2	13,557		1,220	1,830	2,440	3,660	5,185	7,626	6,101	2,440		
Incremental benefits/Y3	19,983			2,398	3,597	4,796	7,194	10,191	14,987	11,990	4,796	4,796
Incremental benefits/Y4	35,839				5,376	8,064	10,752	16,128	22,848	33,599	26,879	10,752
Incremental benefits/Y5	45,235					8,142	12,213	16,284	24,427	34,605	50,889	40,711
Incremental benefits/Y6	44,906						9,430	14,145	18,861	28,291	40,079	58,939
Incremental benefits/Y7	40,853							9,805	14,707	19,609	29,414	41,670
Incremental benefits/Y8	53,368								12,808	19,213	25,617	38,425
Incremental benefits/Y9	50,771									12,185	18,278	24,370
Incremental benefits/Y10	46,942										11,266	16,899
Incremental benefits/Y11	62,458										14,990	22,485
Total Incremental benefits (BWP'000)		**(6,300)**	**(8,229)**	**(8,371)**	**(7,486)**	**(2,112)**	**5,401**	**42,681**	**102,139**	**161,932**	**222,208**	**259,048**
Category 4: Small and Medium Enterprises ((SMEs),		**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**	**Y7**	**Y8**	**Y9**	**Y10**	**Y11**
Incremental benefits	No. of HHs/Year	100	150	200	300	425	625	500	200			
Adoption Rate	**80%**											
Incremental benefits/Y1	(419,785)	(8,396)	(12,594)	(16,791)	(25,187)	(35,682)	(52,473)	(41,978)	(16,791)			
Incremental benefits/Y2	107,686		3,231	4,846	6,461	9,692	13,730	20,191	16,153	6,461		
Incremental benefits/Y3	191,295			7,652	11,478	15,304	22,955	32,520	47,824	38,259	15,304	15,304
Incremental benefits/Y4	261,902				13,095	19,643	26,190	39,285	55,654	81,844	65,475	26,190
Incremental benefits/Y5	312,852					18,771	28,157	37,542	56,313	79,777	117,319	93,855
Incremental benefits/Y6	373,151						26,121	39,181	52,241	78,362	111,012	163,253
Incremental benefits/Y7	467,559							37,405	56,107	74,809	112,214	158,970
Incremental benefits/Y8	464,130								37,130	55,696	74,261	111,391
Incremental benefits/Y9	460,702									36,856	55,284	73,712
Incremental benefits/Y10	460,702										36,856	55,284
Incremental benefits/Y11	460,702										36,856	55,284
Total Incremental benefits (BWP'000)		**(8,396)**	**(9,363)**	**(4,294)**	**5,847**	**27,727**	**64,680**	**164,146**	**304,631**	**452,064**	**624,582**	**753,245**
Total Incremental Benefits (BWP'000)		**(22,879)**	**(26,483)**	**(17,547)**	**(1,401)**	**37,932**	**100,412**	**297,075**	**581,381**	**861,322**	**1,155,347**	**1,363,191**

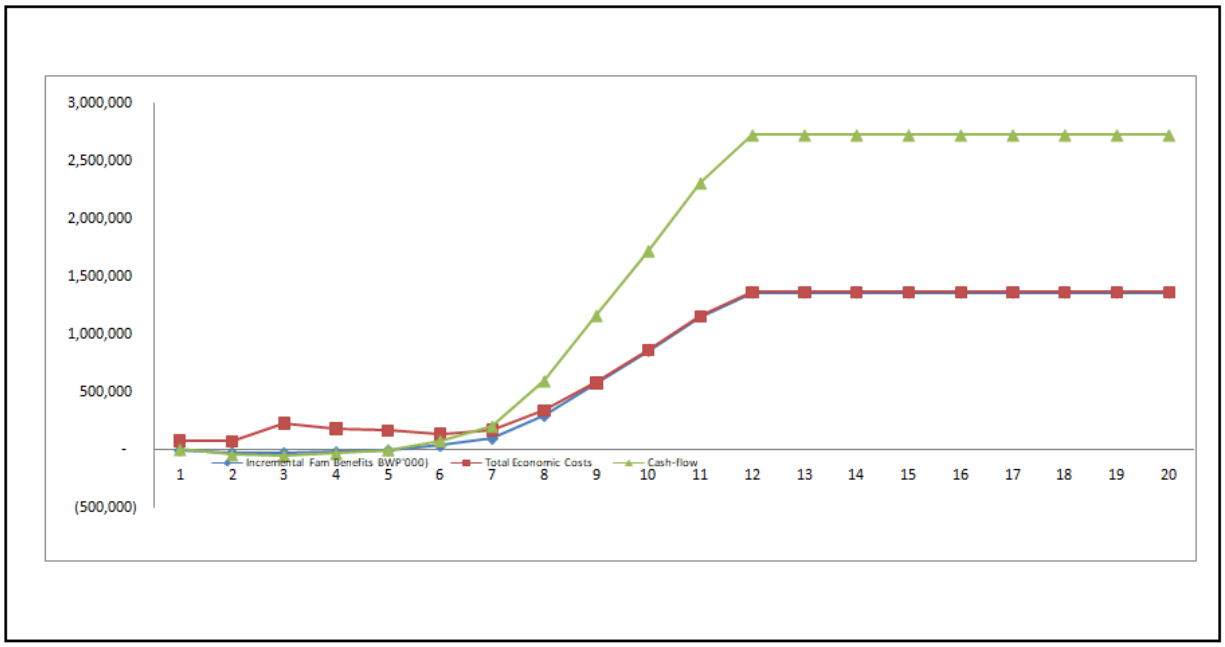
Double counting of costs: To avoid double counting, economic costs already captured in the models including transaction costs (Line of Credit) have been excluded from the cost estimates used to assess economic benefits. This has been done by by identifying all relevant expenditure lines included in the gross margin models across the cost tables. The economic values of these expenditures have been deducted from the total project economic cost, ensuring accurate representation of project costs in the EFA.

Economic results: With the above analysis, BoL-CoP is projected to yield a baseline Economic Rate of return of 32 percent with a positive Net Present Value of US$280 million, equivalent to BWP 3.92 billion (I US$ <>14BWP). The overall benefits cost ratio is computed at 6.3. The overall project economic cash-flow is provided in the summary table below:

Table 8: Overall Economic Analysis Cash-Flow

Project year	Incr. Economic Benefits				Incremental Fam Benefits BWP'000)	Economic Project Costs (BWP'000)				Cash-flow
	Category 1: Subsistence Farmers	Category 2: Small-Scale Commercial Farmers	Category 3: Emerging Commercial Farmers	Category 4: Small and Medium Enterprises		Investment Costs	Recurrent Costs	Add-back - Costs Inlcuded in Models	Total Economic Costs	
PY1					-	69,818	14,535	5,050	*79,303*	**(79,303)**
PY2	(832)	(7,352)	(6,300)	(8,396)	(22,879)	90,633	14,535	5,800	*99,369*	**(122,248)**
PY3	(853)	(8,037)	(8,229)	(9,363)	(26,483)	250,809	18,621	11,599	*257,832*	**(284,315)**
PY4	(527)	(4,355)	(8,371)	(4,294)	(17,547)	199,612	18,621	16,597	*201,636*	**(219,183)**
PY5	(274)	513	(7,486)	5,847	(1,401)	169,126	18,621	18,648	*169,099*	**(170,500)**
PY6	678	11,638	(2,112)	27,727	37,932	102,330	18,621	18,648	*102,304*	**(64,372)**
PY7	2,106	28,225	5,401	64,680	100,412	74,881	18,621	21,449	*72,054*	**28,358**
PY8	7,647	82,601	42,681	164,146	297,075	43,237	18,621	18,200	*43,659*	**253,416**
PY9	15,270	159,341	102,139	304,631	581,381		1,862		*1,862*	**579,519**
PY10	21,729	225,596	161,932	452,064	861,322		1,862		*1,862*	**859,460**
PY11	27,932	280,625	222,208	624,582	1,155,347		1,862		*1,862*	**1,153,485**
PY12	32,659	318,240	259,048	753,245	1,363,191		1,862		*1,862*	**1,361,329**
PY13	32,659	318,240	259,048	753,245	1,363,191		1,862		*1,862*	**1,361,329**
PY14	32,659	318,240	259,048	753,245	1,363,191		1,862		*1,862*	**1,361,329**
PY15	32,659	318,240	259,048	753,245	1,363,191		1,862		*1,862*	**1,361,329**
PY16	32,659	318,240	259,048	753,245	1,363,191		1,862		*1,862*	**1,361,329**
PY17	32,659	318,240	259,048	753,245	1,363,191		1,862		*1,862*	**1,361,329**
PY18	32,659	318,240	259,048	753,245	1,363,191		1,862		*1,862*	**1,361,329**
PY19	32,659	318,240	259,048	753,245	1,363,191		1,862		*1,862*	**1,361,329**
PY20	32,659	318,240	259,048	753,245	1,363,191		1,862		*1,862*	**1,361,329**
NPV@ 6% (BWP'000)										**3,920,645**
NPV@ 6% (US$ '000)										**280,046**
EIRR										**32%**
BCR				**NPV/b**	**4,669,308**	**NPV/c**			**748,663**	**6.2**

Graph 1: Illustration of the Overall Economic Analysis Cash-Flow



Sensitivity analysis, Risks and Assumptions: Sensitivity analysis has been conducted as part of the economic analysis to test the robustness of the results and assess the impact of key risks and uncertainties. The analysis considered the following scenarios: (i) increase in costs, (ii) increase in project benefits, (iii) reduction in project benefits, and (iv), delay in project benefits.

Results of sensitivity analysis: The sensitivity analysis shows that:

- A 20% increase in costs and a 20% decrease in benefits result in an ERR of 29.0% and 28.5%, with positive NPVs of US$269 million and US$213 million, respectively.
- A 10% and 20% increase in benefits raise the IRR to 33% and 34%, with NPVs of US$313 million and US$346 million, respectively.
- A 1 and 2 year delay in benefits still yields positive results, with IRRs of 27.9% and 24.8%, and positive NPVs.

Additional analysis assessing the project in the absence of the financing gap shows the project remains viable, with an IRR of 31% and a positive NPV of USD 194 million. The results are broadly consistent with the baseline because reduced costs also reduce the number of households covered, leaving overall economic returns largely unchanged.

These results confirm the Project remains economically viable under all tested scenarios. The summary sensitivity matrix is presented in the tables below.

Table 9: Summary of Sensitivity Analysis

Sensitivity analysis matrix				
	%	IRR	NPV (US$'000)	Link between EFA and IPRM
Base Scenario		32%	280,046	
Decrease of Project benefits	-10%	30.1%	246,694	Climate, social, and economic challenges that are likely to reduce the benefits communities gain from the project by disrupting farming activities, limiting access to markets, and making rural livelihoods more vulnerable
	-20%	28.5%	213,342	
	-30%	26.6%	179,989	
Cost Increase	10%	30.3%	274,698	Rising input costs from macroeconomic shocks and inflation (e.g. fuel, feed, veterinary supplies) increase project expenses and reduce financial returns.
	20%	29.0%	269,351	
	50%	26.2%	255,203	
Delay of benefits	1 Year	27.9%	196,201	Staffing gaps, high turnover, and short-term contracts can slow project implementation and delay delivery of benefits. Delays in planning and misaligned budgeting can slow down project activities and delay the delivery of benefits
	2 Years	24.8%	196,201	
	3 Years	22.0%	159,175	
	4 Years	19.6%	125,072	
Increase of benefits	10%	33.0%	313,398	Investments in climate-smart technologies, improved market access, inclusive value chains, and targeted support for women and youth that are expected to enhance productivity, increase incomes, and amplify project benefits across rural communities.
	20%	34.3%	346,750	
Financing Gap		31.1%	194,087	If the financing gap is not covered

Table 10: Detailed Sensitivity Analysis

Year	1	2	3	4	5	6	7	8	9	10	11	12	13-20	14	15	16	17	18	19	20
Incremental Benefits	-	(22,879)	(26,483)	(17,547)	(1,401)	37,932	100,412	297,075	581,381	861,322	1,155,347	1,363,191	1,363,191	1,363,191	1,363,191	1,363,191	1,363,191	1,363,191	1,363,191	1,363,191
benefits +10%	-	(25,167)	(29,131)	(19,302)	(1,541)	41,725	110,453	326,782	639,519	947,454	1,270,881	1,499,510	1,499,510	1,499,510	1,499,510	1,499,510	1,499,510	1,499,510	1,499,510	1,499,510
benefits +20%	-	(27,455)	(31,780)	(21,057)	(1,681)	45,518	120,495	356,490	697,657	1,033,586	1,386,416	1,635,829	1,635,829	1,635,829	1,635,829	1,635,829	1,635,829	1,635,829	1,635,829	1,635,829
Mild scenario	-	(20,592)	(23,835)	(15,792)	(1,261)	34,138	90,371	267,367	523,243	775,190	1,039,812	1,226,872	1,226,872	1,226,872	1,226,872	1,226,872	1,226,872	1,226,872	1,226,872	1,226,872
Medium scenario	-	(18,304)	(21,186)	(14,038)	(1,120)	30,345	80,330	237,660	465,105	689,058	924,277	1,090,553	1,090,553	1,090,553	1,090,553	1,090,553	1,090,553	1,090,553	1,090,553	1,090,553
High scenario	-	(16,016)	(18,538)	(12,283)	(980)	26,552	70,289	207,952	406,967	602,925	808,743	954,234	954,234	954,234	954,234	954,234	954,234	954,234	954,234	954,234
Without financing gap	(16,702)	(19,333)	(12,809)	(1,022)	27,690	73,301	216,865	424,408	628,765	803,232	806,683	806,683	806,683	806,683	806,683	806,683	806,683	806,683	806,683	806,683
Project Costs	79,303	99,369	257,832	201,636	169,099	102,304	72,054	43,659	1,862	1,862	1,862	1,862	1,862	1,862	1,862	1,862	1,862	1,862	1,862	1,862
costs +10%	87,234	109,306	283,615	221,800	186,009	112,534	79,259	48,025	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048
costs +20%	95,164	119,243	309,398	241,964	202,919	122,764	86,465	52,390	2,235	2,235	2,235	2,235	2,235	2,235	2,235	2,235	2,235	2,235	2,235	2,235
costs +30%	118,955	149,053	386,748	302,454	253,649	132,995	93,670	56,756	2,421	2,421	2,421	2,421	2,421	2,421	2,421	2,421	2,421	2,421	2,421	2,421
costs without financing gap	84,353	105,168	269,431	165,043	113,348	38,630	22,245	17,310												
Net cash flow																				
base scenario	(79,303)	(122,248)	(284,315)	(219,183)	(170,500)	(64,372)	28,358	253,416	579,519	859,460	1,153,485	1,361,329	1,361,329	1,361,329	1,361,329	1,361,329	1,361,329	1,361,329	1,361,329	1,361,329
costs +10%	(87,234)	(132,185)	(310,098)	(239,347)	(187,410)	(74,602)	21,153	249,050	579,333	859,274	1,153,298	1,361,143	1,361,143	1,361,143	1,361,143	1,361,143	1,361,143	1,361,143	1,361,143	1,361,143
costs +20%	(95,164)	(142,122)	(335,881)	(259,511)	(204,319)	(84,833)	13,947	244,684	579,146	859,087	1,153,112	1,360,957	1,360,957	1,360,957	1,360,957	1,360,957	1,360,957	1,360,957	1,360,957	1,360,957
costs +30%	(118,955)	(171,933)	(413,231)	(320,002)	(255,049)	(95,063)	6,742	240,318	578,960	858,901	1,152,926	1,360,770	1,360,770	1,360,770	1,360,770	1,360,770	1,360,770	1,360,770	1,360,770	1,360,770
benefits +10%	(79,303)	(124,536)	(286,963)	(220,938)	(170,640)	(60,579)	38,399	283,124	637,657	945,592	1,269,019	1,497,648	1,497,648	1,497,648	1,497,648	1,497,648	1,497,648	1,497,648	1,497,648	1,497,648
benefits +20%	(79,303)	(126,824)	(289,611)	(222,693)	(170,780)	(56,786)	48,441	312,831	695,795	1,031,724	1,384,554	1,633,967	1,633,967	1,633,967	1,633,967	1,633,967	1,633,967	1,633,967	1,633,967	1,633,967
benefits -10%	(79,303)	(119,960)	(281,666)	(217,429)	(170,360)	(68,165)	18,317	223,709	521,381	773,328	1,037,950	1,225,010	1,225,010	1,225,010	1,225,010	1,225,010	1,225,010	1,225,010	1,225,010	1,225,010
benefits -20%	(79,303)	(117,672)	(279,018)	(215,674)	(170,220)	(71,958)	8,276	194,001	463,243	687,195	922,415	1,088,691	1,088,691	1,088,691	1,088,691	1,088,691	1,088,691	1,088,691	1,088,691	1,088,691
benefits -30%	(79,303)	(115,385)	(276,370)	(213,919)	(170,080)	(75,751)	(1,766)	164,294	405,104	601,063	806,881	952,372	952,372	952,372	952,372	952,372	952,372	952,372	952,372	952,372
benefits delayed 1 year	(79,303)	(99,369)	(280,711)	(228,119)	(186,646)	(103,704)	(34,122)	56,753	295,213	579,519	859,460	1,153,485	1,361,329	1,361,329	1,361,329	1,361,329	1,361,329	1,361,329	1,361,329	1,361,329
benefits delayed 2 years	(79,303)	(99,369)	(257,832)	(224,516)	(195,582)	(119,851)	(73,455)	(5,727)	98,550	295,213	579,519	859,460	1,153,485	1,361,329	1,361,329	1,361,329	1,361,329	1,361,329	1,361,329	1,361,329
benefits delayed 3 years	(79,303)	(99,369)	(257,832)	(201,636)	(191,979)	(128,787)	(89,601)	(45,059)	36,070	98,550	295,213	579,519	859,460	1,153,485	1,361,329	1,361,329	1,361,329	1,361,329	1,361,329	1,361,329
benefits delayed 4 years	(79,303)	(99,369)	(257,832)	(201,636)	(169,099)	(125,183)	(98,537)	(61,206)	(3,263)	36,070	98,550	295,213	579,519	859,460	1,153,485	1,361,329	1,361,329	1,361,329	1,361,329	1,361,329
Without Financing Gap	(101,055)	(124,501)	(282,240)	(166,066)	(85,657)	34,671	194,619	407,098	628,765	803,232	806,683	806,683	806,683	806,683	806,683	806,683	806,683	806,683	806,683	806,683

Discount rate	9%

Sensitivity Analysis	Base case	Costs Increase			Benefits Increase		Decrease of Benefits			Delay of Benefits				Without
		+10%	+20%	+50%	+10%	+20%	-10%	-20%	- 30%	1 year	2 years	3 years	4 years	Financing
IRR (%)	**32%**	30%	29%	26%	33%	34%	30%	28%	27%	28%	25%	22.0%	19.6%	31.1%
NPV (BWP '000)	**3,920,645**	**3,845,779**	**3,770,913**	**3,572,844**	**4,387,576**	**4,854,507**	**3,453,714**	**2,986,784**	**2,519,853**	**3,309,614**	**2,746,820**	**2,228,455**	**1,751,011**	**2,717,225**
NPV (USD '000)	**280,046**	**274,698**	**269,351**	**255,203**	**313,398**	**346,750**	**246,694**	**213,342**	**179,989**	**236,401**	**196,201**	**159,175**	**125,072**	**194,087**
Benefit Cost Ratio	**6.24**	**5.7**	**5.2**	**4.3**	**6.9**	**7.5**	**5.6**	**5.0**	**4.4**	**5.9**	**5.5**	**5.1**	**4.6**	**5.4**

IFAD
Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Annex 5: SECAP Review Note

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
Report No.	7326-BW

East and Southern Africa Division
Programme Management Department

The SECAP Review note should build on the preliminary note mentioned above, draw on the results of the screening exercise and be informed by the issues raised during the design mission, the stakeholders interviews, publicly available tools and dataset, and environmental, social or climate-related studies that inform on the characteristics of the project location. The SECAP review note includes the revised ESMP and should be attached to the Project Design Report, integrated in Draft Project Implementation Manual (PIM) and COSTAB and shall be submitted to Design Review Meeting (DRM) or IRC (for NSOs).

1. Introduction

1. The Social, Environment, and Climate Assessment Procedure (SECAP) review note outlines the strategic orientation on social, environmental and climate change issues in Botswana for the Botswana Livestock Commercialization Project (BoLCoP) in the context of the project design.

2. The proposed Project aims to transform the livestock sub-sector with a focus on the small stock (sheep and goats), poultry, apiculture and piggery value chains. Its Development Objective is to enhance the income and resilience of rural households through better performing small livestock sector value chains. This will be achieved through the following three interlinked outcomes (i) increased climate-resilient production and productivity, (ii) strengthened small livestock value chains, and (iii) enhanced enabling environment for improved small livestock development.

3. BoLCoP is grounded on key national strategies such as the National Transformation Strategy, the Economic Recovery and Transformation Plan and Thuo Letlotlo[1] (currently under review). It is also aligns with and will contribute to the sustainable development goals (SDGs), most notably SDGs 1 (end poverty), 2 (end hunger), 5 (gender equality), 8 (decent work and economic growth) and 13 (climate action). The project aligns to Botswana's long term development aspirations articulated in Vision 2036: Achieving Prosperity for All and the transitional national development plan, which notes that the agricultural sector should be commercially viable, climate smart, and technologically driven. BoLCoP complies with IFAD's 2016-2025 Strategic Framework, the 2025-2026 Country Strategy Note (CSN) notably, (strategic objectives 1 and 2), IFAD's policies and strategies on Inclusive Rural Finance (2021); Poverty Targeting (2023); Gender Equality and Women Empowerment (2012); Environment and Climate Change (2019-2025); and its Social, Environment, Climate Assessment Procedures (SECAP, 2021).

4. The purpose of the SECAP Review Note (SRN) at design stage is to identify: 1) social, environmental and climate risks inherent to target geographies and stakeholders, with particular attention to the differential impacts on women, youth, and marginalized groups, and risks from Project activities, 2) measures to avoid, minimize, mitigate, and compensate for any residual impacts, 3) develop a set of activities within the Environment, Social and Climate Management Plan (ESCMP) to mitigate potential risks.

2. Potential Social, Environmental and Climate risks and impacts of the project

5. Botswana is a landlocked country in Southern Africa, covering an area of approximately 581,730 square kilometers (224,200 square miles). It's primarily known for its large expanse of the Kalahari Desert, which covers roughly 70% of the country. As of March 2, 2025, the population of Botswana was 2,548,316, with 51.9% female and 48.1% male [2]. The population density in Botswana is 5 per Km^2 (12 people per mi^2), with an annual growth rate of 1.63%. The country has a relatively young population (32.6 % of the population is below 15) with a median age of 23.4 [3].

6. Even though poverty and inequality has decreased in Botswana, it is still high; the national headcount poverty was estimated at 16.3 per cent in 2015/16, as compared with 19.3 per cent in 2009/10, with higher poverty levels recorded in rural areas despite the implementation of targeted State-supported initiatives to deal with this issue[4].

7. Botswana has a Gender Inequality Index value of 0.464, ranking it 111 out of 162 countries in the 2018 index[5]. In Botswana, 89.6 % of adult women have reached at least a secondary level of education compared to 90.3 % of their male counterparts. Female participation in the labour market is 66.2 % compared to 78.6% for men, and earn lower wages (men earn 29% more than women)[6].

8. The Botswana agriculture sector is still small, contributing a mere 3% to GDP and generating 15% of total employment in 2016. However, the sector has great potential to contribute to efforts to tackle poverty and inequality, especially in rural and peri-urban areas[10]. A significant part of the country is rangeland, supporting a substantial population of cattle, goats and sheep[11]. About

70% of rural household derive their livelihoods from agriculture, through subsistence farming.

9. BoLCoP will be national in scope targeting 21 priority districts and covering diverse agroecological zones, from the arid Kalahari in Ghanzi and Tsabong to the semi-arid Boteti and the relatively higher-rainfall areas of Maun and North East. These areas are home to a high concentration of small livestock producers, predominantly engaged in goat and sheep rearing, and include some of the most vulnerable rural communities. Livelihoods in these districts rely heavily on rainfed livestock production and communal rangelands, which are increasingly degraded due to overgrazing, bush encroachment, and erratic rainfall patterns. Environmental stress is compounded by climate change impacts, including recurrent droughts, higher temperatures, and prolonged dry spells, which undermine pasture availability and water resources. Social vulnerabilities intersect with environmental risks, as limited access to markets, infrastructure, and extension services constrains resilience, while gender disparities persist with women often bearing the burden of unpaid labor and have limited decision-making power in resource use.

2.1 Biodiversity conservation

10. The biodiversity risk rating is Moderate as livestock intensification in ecologically sensitive areas could increase grazing pressure, fragment habitats, and heighten human–wildlife conflict, however the majority of project activities are not near Botswana's protected landscapes.

11. Botswana's ecological landscape is dominated by two main regions: the sandveld or Kalahari Desert, which constitutes approximately 72.2% of the country, and the hardveld, which covers the remaining 28.%[12]. The sandveld is characterized by sandy soils, minimal surface water resources, and limited rainfall, while the hardveld, situated along the eastern border, offers more fertile soils, relatively reliable rainfall, and an abundance of mineral resources. These contrasting environments host diverse ecosystems and unique flora and fauna adapted to their respective conditions.

12. Botswana hosts rich biodiversity, including 157 mammal species, 587 bird species (25 globally threatened), 131 reptiles, 99 fish species, and over 3,000 plant species [13]. Many species, especially migratory wildlife, depend on extensive, connected habitats, but these are increasingly threatened by habitat fragmentation and human encroachment. Elephant dispersal into new areas also heightens human-wildlife conflict, impacting rural households reliant on small-scale livestock farming [14].

13. Conservation is a national priority. Over 45% of Botswana's territory is under protection through national parks, game reserves, wildlife management areas, and forest reserves, supported by the Wildlife Conservation and National Parks Act (1992) and Forest Act (1968). Community-Based Natural Resource Management (CBNRM) programs further engage local communities in sustainable resource use [15].

14. BoLCoP will operate across 21 districts, of which 19 will be organized into five clusters. These areas include ecologically sensitive rangelands and biodiversity corridors. The Project will not finance activities within protected areas, Wildlife Management Areas (WMAs), Ramsar/UNESCO sites, or other critical habitats, nor activities that could cause habitat loss, fragmentation, or degradation. In Ngamiland, interventions are restricted to market-linkage support only (e.g., producer–buyer matching, aggregation and logistics coordination, digital market access, standards/compliance services) with no civil works, land conversion, fencing, pasture/rangeland manipulation, borehole development, or water abstraction. Where sub-project siting occurs near ecological buffers/corridors, site-specific ESMPs and biodiversity measures will be applied in line with the avoid–minimize–restore–offset hierarchy and national EIA requirements.

15. Expansion of livestock activities may also encroach into unprotected wildlife habitats, heightening human–wildlife conflicts present in many project target districts. These conflicts often involve livestock predation by carnivores and crop destruction by elephants, creating food security and economic challenges for vulnerable households. Overharvesting of wild plants for food, medicine, and trade, coupled with the potential spread of invasive species like Prosopis juliflora and Salvinia molesta if not properly managed, further threatens biodiversity and ecosystem health.

16. BoLCoP's design emphasizes climate-smart and ecosystem-sensitive approaches aligned with national and international conservation standards. All subprojects will undergo environmental risk screening, applying exclusion criteria to avoid activities in protected areas and buffer zones. The introduction of alien species will be prohibited, while ecological risk assessments will be undertaken for introduced fodder species.

17. To curb rangeland degradation, the project will promote rotational grazing, sustainable stocking rates, and integration of indigenous forage species to enhance soil fertility and reduce erosion. These efforts will be implemented ensuring equal participation and access to benefits for women, youth, and marginalized groups, who often play key roles in land and livestock

management. Restoration measures include removing invasive plants and replanting native vegetation, supported by capacity-building on climate-resilient practices for farmers.

18. Conflict mitigation strategies will be developed with the Ministry of Environment, wildlife authorities, and local communities, including protective fencing, early warning systems, and locally adapted solutions. Land use planning will involve Tribal Land Boards, while veterinary cordon fencing and livestock insurance schemes will strengthen resilience against disease and predation risks.

2.2 Resource efficiency and pollution prevention

19. Resource efficiency and pollution prevention risks are elevated to Substantial given Botswana's chronic water scarcity, fragile soils, and weak capacity for waste and chemical management and given the project will involve extensive use of abattoirs.

20. BoLCoP finances rehabilitation and upgrading of small rural infrastructure (e.g., boreholes, storage, market pens, abattoir efficiency measures) rather than new large works, however expansion of water infrastructure in particular runs the risk of increasing pressure on overdrawn aquifers. To manage these, all water points will implement water-balance checks, metering, leakage control, and, where feasible, rainwater harvesting and reuse. Abattoir and lairage upgrades will include effluent pre-treatment and safe sludge disposal, including biogas digesters; farms will be encouraged to adopt manure storage/composting SOPs to prevent run-off. A project exclusion list prohibits activities in core protected areas, new large water abstraction works, and any subprojects that fail environmental screening.

21. The country's arid climate causes water to be a critical and limited resource. Intensified livestock operations would increase water demand, impacting local water supplies. Women, who often bear the responsibility of water collection in rural areas, may be disproportionately affected by water shortages. Energy consumption would rise due to the need for transportation, operation of machinery, and potentially refrigeration for animal products. Botswana's reliance on imported energy sources (mainly from South Africa) and the remote location of many rural livestock areas could further elevate the environmental and logistical costs. The project seeks to introduce solar-powered boreholes and pumping systems to reduce reliance on fossil fuel energy, while also promoting inclusive, sustainable and climate-resilient energy solutions that benefit the entire community.

22. Further, pollution risks are likely and potentially severe. Manure and wastewater mismanagement can contaminate soils and aquifers, causing nutrient loading and pathogen exposure. Veterinary drugs (antibiotics, dewormers) and agrochemicals (fertilizers, pesticides) risk leaching into sandy soils and fragile aquifers, with knock-on effects on ecosystems and human health. Misuse of agrochemicals could also contribute to antimicrobial resistance and biodiversity decline. Improper disposal of slaughter waste adds further contamination and biohazard risks. To mitigate these pollution risks, Integrated Pest Management and organic farming approaches will be encouraged through training to minimize chemical use, and all workers will be provided with appropriate PPE.

23. In general, the Project will ensure clean water sources and pollution monitoring. Depending on the geographic context or value chain of interest, further mitigation measures may need to be identified. In such cases, appropriate measures will be added in the ESCMP as required, building on existing national guidelines, where necessary. In cases of inadequate water access, environmental pollution, and resource inefficiency, BoLCoP will invest in climate-resilient and inclusive water infrastructure such as irrigation, rainwater harvesting systems, storage tanks, and solar-powered pump, with a focus on ensuring that women and marginalized groups are not left out of the planning and management processes. The project will also improve water distribution at the farm level. Comprehensive farmer training will be provided on efficient water use, proper manure and wastewater management, and hygiene practices across the farm and small livestock value chain. Special attention will be given to ensuring that training is accessible to women, youth, and marginalized groups, empowering them to adopt sustainable water management practices and improve their livelihoods.

24. In addition, improper disposal of slaughter waste and veterinary drugs poses a biohazard and contamination risk to water bodies and soils. To mitigate this, a waste management plan will be developed, including farmer training on safe handling and disposal practices and training for veterinarians on proper management of pharmaceutical waste.

2.3 Cultural heritage

25. The risk rating is Low. A new livestock project in Botswana has low potential to impact cultural heritage, including sites of historical or religious significance as well as traditional practices such as communal grazing. Risks may include disrupting access to sacred sites or altering intangible cultural practices that are deeply embedded in local communities but these are well mapped and managed by government authorities. Although the project does not include major infrastructure components, the introduction of new technologies and production methods may affect traditional food production and preparation practices that hold cultural and/or religious value. Therefore, these risks must be carefully managed to avoid unintended negative impacts.

26. Project planning and implementation will be participatory in nature involving Government and local / community leadership structures and potential and actual project beneficiaries with particular attention to ensuring the inclusion of women, youth, and marginalized groups in all stages. Project investments will consist, primarily, of holistic support measures to producers, especially smallholder farmers, ensuring that the needs and roles of women and marginalized groups are fully considered. In this context, it is expected that the identification of locations of all project investments consider: a. any potential locations endowed with cultural value to the community or any specific sub-group of permanent residents in the same communities; b. consider cultural processes for decision-making while also ensuring that social inclusivity is considered; c. integrate any specific cultural knowledge that contributes to the success of project and beneficiary investments and attaining expected results; d. make use of local social structures and processes of cultural value that contributes to conflict resolution, ensuring that these processes are accessible to all members of the community, including women and marginalized groups, in a way that promotes social cohesion and equity.

27. BoLCoP will ensure that any unexpected case finds are treated in line with the national legislation and IFAD guidelines and that any additional positive cultural attributes and traits that can enhance project success are used to empower beneficiaries throughout the project cycle. Thus, the project will develop a chance finds procedure which will be implemented in case of any chance finds of archaeological artifacts in the process of construction or rehabilitation.

28. Botswana's Monuments and Relics Act provides a framework for the protection of cultural heritage. To prevent or mitigate adverse impacts, thorough cultural heritage assessments should be conducted during Project planning. This includes consultations with local communities to identify culturally significant sites and practices, implementing Free, Prior, and Informed Consent (FPIC), and integrating protective measures to avoid or minimize disruptions to heritage sites and intangible cultural practices. The project will apply a Chance Finds Procedure consistent with the Monuments and Relics Act and SECAP: work stoppage, secure area, notify authorities, expert assessment, and documented resolution before resumption.

2.4 Indigenous peoples

29. The risk rating for Indigenous Peoples is Low, as the project does not involve land acquisition and its interventions are unlikely to jeopardize access to resources for ethnic minorities.

30. Botswana is a signatory to international instruments such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). However, the Government of Botswana does not officially identify any group as Indigenous, maintaining a constitutional and legal framework that guarantees equal rights and privileges to all citizens, regardless of ethnic background. As a result, while international commitments like UNDRIP are endorsed, their direct application in national policies is limited[20] due to the absence of specific domestic legislation recognising Indigenous peoples.

31. Botswana recognises eight Tswana speaking tribes but there are other ethnic minorities less recognised which have been brought under scrutiny and which have their unique local culture and traditions, which must be recognised and protected[21]. This is subject to ongoing discussion around better inclusion.

32. **Free, Prior and Informed Consent (FPIC) will be applied and integrated into project procedures and processes, so as to ensure that ethnic minority groups will be included and that their cultural specificities will be valued.** Considering the nature of the interventions, it is unlikely that the activities implemented will jeopardize access to resources for ethnic minorities. There is generally a low risk of adverse impacts on access to resources or land tenure arrangements, as the Project does not involve any land acquisition (see section 2.7). As part of the Indigenous Peoples Planning Framework (see IPPF), a characterization of ethnic minority groups has been completed, identifying the presence, population distribution, and socio-cultural characteristics of ethnic minorities in the target regions, as well as any potential risks from project activities. The findings confirmed that project interventions pose a **low risk of adverse impacts** on access to resources or land tenure arrangements, as the project does not involve land acquisition.

33. To ensure equitable inclusion of Remote Area Dwellers (RADs) and other indigenous people, representation and access to land, resilience to climate change, BoLCoP will work closely with the Ministry of Local Government and Rural Development, integrating Indigenous knowledge systems and practices into project planning and implementation, ensuring that these knowledge systems are inclusive and reflect the perspectives and needs of women, youth, and marginalized groups within these communities. BoLCoP will ensure that the project target groups are reached and that there are no threats to or loss of resources for RADs. A grievance mechanism and strong feedback mechanisms will be put in place for reporting on targeting, with an emphasis on ensuring that women and marginalized groups have equal opportunities to voice concerns and receive support.

2.5 Labour and working conditions

34. The risk rating is Moderate, due to potential exposure of workers to occupational hazards in livestock production, possible gender inequalities in labour conditions, and challenges in monitoring child labour in rural areas. These issues are not widespread but

require active mitigation and monitoring to prevent harm and discrimination.

35. Potential barriers to participation of vulnerable groups i.e. Youth, People with Disability (PWD), women and/or ethnic minorities, in value-chain development activities as well as underlying discriminatory practices (e.g. gender gap in wages, safety at work etc.) in labour conditions were assessed at design.

36. Risk of child labour is moderate. Livestock farming is usually family-based activity and rurally, it is very common for children, especially those above the age of 15, to participate, potentially exposing them to "hazardous" tasks i.e. handling large animals/ tools. While labour laws in this regard align with international standards, monitoring and enforcement in rural areas can be challenging especially due to cultural element.

37. Over time, some Occupational Safety and Health (OSH) risks may occur such as exposure to dangerous machinery, hazardous chemicals, and transmissible animal diseases such as anthrax or brucellosis, which are risks associated with animal handling and processing. Additionally, livestock farming may promote the use of tools, machinery, or pesticides that, if not properly managed, can be hazardous to health.

38. Migrant and informal labor lacks formal employment protections, creating vulnerabilities to lack up upskilling opportunities and discriminatory employment practices. Traditional Councils have strong presence and participation in tribal area mediating disputes.

39. As the Project may unintentionally lead to the involvement of children, specific measures to be adopted include awareness on the impact of labour on children during trainings, the inclusion of terms prohibiting child labour in all procurement contracts and monitoring the execution of activities and reporting any cases to the Project and relevant government stakeholders.

40. BoLCoP will further promote fair work practices by integrating labour safeguards into project activities[22]. The project will support equitable workload distribution and ensure that intensified livestock practices, such as zero grazing, do not disproportionately burden women and children.

41. Thus, BoLCoP will promote viable enterprises that generate enough income for decent labour practices. The project will raise awareness against gender-based violence, and unsafe working conditions. BoLCoP will also engage targeted households on the benefits of equitable sharing of labour through GALs.

2.6 Community health and safety

42. The risk rating is Moderate because livestock intensification could increase exposure to zoonotic diseases, hazardous chemicals, and social risks such as GBV and HIV transmission. While infrastructure construction is minimal, indirect risks remain and require integrated health, safety, and social safeguards.

43. Although the Project does not include infrastructure construction or upgrading, scaling up livestock farming could indirectly stimulate complementary activities by government or other actors, such as fencing, water infrastructure, and related operational needs. These may involve the use of fuels, fertilizers, and chemicals for pest control or animal care. In line with SECAP guidance, the Project will integrate environmental risk screening to ensure safe management of any hazardous materials through secure storage, regulated transport, and proper disposal, preventing pollution and health hazards.

44. Rural livestock systems, often characterized by backyard rearing of poultry and small ruminants, present a risk of zoonotic and food-borne diseases such as anthrax, brucellosis, and salmonellosis, particularly with livestock intensification and expanded slaughter activities. BoLCoP will address this by promoting strict biosecurity measures, enhancing veterinary surveillance, and delivering training on hygiene and safe handling practices for farmers and abattoir workers. The adoption of climate-smart technologies will minimize chemical exposure, improving environmental safety and protecting farmer health.

45. Social risks also require robust mitigation. Increased women’s income and empowerment may create intra-household tensions and potentially trigger gender-based violence (GBV). BoLCoP will establish a strong Grievance Redress Mechanism (GRM), aligned with IFAD’s protocols, to address GBV, sexual harassment, and exploitation risks, incorporating traditional and formal governance systems. Prevention and response strategieshave been suggested in the design to be amplified during the implementation phase, with broad awareness-raising among project stakeholders and communities. BoLCoP will designate a confidential GBV/SEA focal point, establish survivor-centred referral pathways with local service providers, and include codes of

conduct for contractors and staff; the GRM will include safe, anonymous channels.

46. HIV/AIDS remains a significant social risk, with Botswana having one of the highest prevalence rates globally. Women and youth are particularly vulnerable due to limited economic autonomy and gender power imbalances. Transactional sex, driven by poverty and inequality, remains a concern, compromising health and productivity. The Project will adopt the Gender Action Learning System (GALS) as part of an empowerment package that fosters joint household decision-making, strengthens gender relations, and includes HIV prevention modules. These measures aim to reduce vulnerabilities while supporting sustained project benefits.

47. Finally, the risk of increased interaction between local populations and outside workers is minimal, given the Government's focus on citizen empowerment; however, continued vigilance is required. By integrating environmental safeguards, such as documenting workers, strong biosecurity measures, gender-sensitive approaches, and HIV prevention strategies, BoLCoP seeks to mitigate critical social and health risks while promoting inclusive and sustainable livestock value chain development.

2.7 Physical and economic resettlement

48. The risk rating is Low as the project adopts a strict "no resettlement" policy and involves limited infrastructure, making land acquisition unlikely.

49. At implementation, any economic impacts of construction of small rural infrastructure will be assessed, including direct and indirect impacts on communities' access to land and resources. This risk will be carefully monitored by the implementing organization.

50. Botswana's land use policies emphasize protecting rural and community land rights, but it could affect small groups, especially if there's competition between livestock expansion and other land uses like farming or wildlife conservation.

51. A good percentage of the land is tribal with attached customary land rights not always legally registered, there can be unintentional result of involuntary resettlement/force eviction. Generally, people hold proof of tribal land rights but now need to register their titles with the Deeds Registry. Careful consultation with PDT, stakeholder consultations and grievance redress mechanisms will be required at implementation stage.

52. Botswana has dedicated specific land areas to conservation and are protected. BoLCoP will follow government guidance on if and how people living within the boundaries of these areas, as well as in their respective buffer zones, as well as in wildlife migration corridors should benefit in the project.

53. The project will adopt a "no-resettlement" policy, with careful consideration of land tenure and usage rights before selecting sites. Where construction of farm infrastructure like aggregation centres is carried out, it shall be done with full stakeholder engagement. This will require consultations to ensure that proposed sites for development do not displace or negatively impact the livelihoods of smallholder farmers.

2.8 Financial intermediaries and direct investments

54. The risk rating is determined to be Moderate.

55. The risk rating for financial intermediation is assessed as **Moderate**. BoLCoP will channel resources through the National Development Bank of Botswana (NDB), a state-owned financial institution regulated by the Non-Bank Financial Institutions Regulatory Authority (NBFIRA). In 2021, NDB operationalised an Environmental and Social Management Framework (ESMF) with UNDP support, which provides a structured framework for screening, risk categorisation, and management planning. However the framework will need to be strengthened and expanded to meet IFAD's requirements for financial intermediaries to implement a fully effective Environmental and Social Management System (ESMS). To this end, an Environmental and Social Action Plan (ESAP) is proposed to guide NDB in aligning its systems, capacity, and procedures with IFAD's SECAP standards.

56. **Environmental and Social Risk Screening.** NDB's Environmental and Social Management Framework (ESMF) is broadly consistent with SECAP risk-screening categories and national regulations, including the use of a credit risk assessment tool that incorporates environmental and social dimensions. Nonetheless, several important gaps remain. Gender and social inclusion are considered mainly in terms of employment, overlooking critical risks such as unequal access to land, water, and natural resources, as well as differentiated benefits for women and youth. The framework also does not explicitly address risks of elite

capture, community conflict, or broader human rights concerns beyond labour and resettlement. Moreover, NDB will need to categorise subprojects using IFAD's FI-1, FI-2, FI-3, and FI-4 classification. NDB currently utilises a three-tiered risk rating system (low, medium and high) to assess risk rating, with pre-determined risk ratings for certain sectors (i.e. water consumption high, resource efficiency low, based on consequences of non-compliance). Although mitigation measures for higher-risk applicants, such as EIAs, RAPs, and FPICs, are consistent with SECAP requirements, the screening framework should be recalibrated to IFAD standards to avoid overlooking or downgrading key risks. This is particularly relevant for biodiversity conservation, climate change adaptation, and pollution prevention, which IFAD has assessed as substantial risks for BOLCOP.

57. **Exclusion List Alignment.** NDB has adopted an exclusion list of activities it will not finance. However, the list is narrower than IFAD's SECAP exclusion list. Mining activities, for example, remain within NDB's portfolio, although these are explicitly prohibited under IFAD policy. Under the IFAD loan agreement, NDB will be required to exclude such activities from financing. NDB's exclusion list will need to be updated to achieve full alignment with SECAP.

58. **Institutional Capacity and Training**. At present, NDB does not employ a permanent Environmental and Social Officer, though training budgets and external service providers have been allocated in its ESMF. While this may be adequate in the short term, IFAD should closely monitor progress to ensure sufficient in-house expertise, and training is being sufficiently provided. Training programmes for loan officers and investment managers will be essential to mainstream environmental, social, and climate risk considerations across the credit cycle. SECAP also requires that capacity-building support extend beyond staff training to include awareness raising, technical assistance, and risk management training for project beneficiaries. NDB's framework does not yet provide for this, though the intention to scale up has been conveyed during design.

59. **Emergency preparedness** provisions within NDB's ESMS require strengthening to fully align with SECAP. Currently, applicants must prepare emergency response plans covering fire, medical situations, and service contacts, with disclosure to stakeholders. While this offers a useful baseline, the scope is narrowly focused on immediate operational risks. IFAD requires broader systems that identify responsibilities, establish communication with authorities, provide for safe evacuation, and include regular training.

60. **Monitoring and reporting** under NDB's ESMF requires applicants to implement frameworks, submit periodic reports, and appoint trained staff for compliance oversight. Independent annual reviews are also foreseen, which is a positive step toward accountability. However, on review, the system remains project-focused and does not extend to portfolio-wide monitoring or public disclosure. Under SECAP, financial intermediaries must submit Annual Environmental Performance Reports (AEPRs), promptly notify IFAD of significant accidents or incidents, and monitor ESAP implementation across their portfolios. Higher-risk transactions require independent expert oversight, and monitoring results must be disclosed to stakeholders. These elements should be integrated into NDBs updated ESMS.

61. **Stakeholder Engagement:** NDB has established a formal Grievance Redress Mechanism (GRM) with clear governance structures, multiple access channels, and defined procedures for registering, acknowledging, investigating, and resolving complaints. However, NDB lacks a stakeholder engagement plan to systematically identify affected groups, map concerns, and engage in ongoing dialogue. To align with SECAP, NDB will need to develop a structured stakeholder engagement plan that ensures inclusive participation, continuous two-way communication, and transparent reporting on environmental and social performance.

2.9 Climate change

62. Botswana experiences a warm to hot climate with temperatures ranging from 29.5°C to 35°C in summer and 19.8°C to 28.9°C in winter, with the hottest months being October and the coolest being June to August. Mean monthly minimum temperatures range from 14.6ºC to 20.8ºC in summer, and 2.9ºC to 11.6ºC in winter.

63. Botswana is one of the world's most drought-prone countries, frequently experiencing severe droughts, impacting food and water supply. Drought conditions exacerbate existing water scarcity in a country that already experiences low average annual rainfall (Figure 4) and relies on groundwater for around 49% of its freshwater supply[26].

64. **Temperature trends and projections**

65. Since 1963, Botswana has experienced a clear warming trend of about 2°C on average, with the increase most pronounced during the dry winter period[27]. Over the past 50 years, warm days and nights have become more frequent, while cool days and cold nights have declined [28].

66. Climate models rank Botswana among the African countries likely to face the most severe future temperature increases. Under moderate emissions scenarios (SSP2-4.5), warming of 0.5–1.4°C is projected by 2020–2039, rising to 1.0–2.5°C by mid-century and 1.5–3.3°C by 2060–2079, with the West and South most affected. Short-term projections suggest local warming and drying

will exceed global averages, breaching 1.5°C and 2°C thresholds within 10 and 20 years, respectively. IPCC estimates indicate temperatures could rise by 1.1°C by 2035, 2.5°C by 2065, and up to 4.5°C by 2100, with the Kalahari region warming fastest.

67. **Table 1:** Expected climatic impacts of an average temperature increase of 1.5°C and 2°C.

Projected climatic changes	1.5°C temperature increase	2°C temperature increase
Heat wave (days)	Increase by 43	Increase by 72
Annual rainfall	Decrease by 5%	Decrease by 9%
Dry days	Increase by 10	Increase by 17

68. **Precipitation Trends and Projections**

69. Over the past 30 years, Botswana has experienced declining rainfall on both annual and monthly scales, alongside fewer rainy days, particularly in the drier western regions [35]. Even in the historically wetter north, total summer rainfall has decreased since 1963 [36][37].

70. Climate change is expected to intensify these trends, driving greater rainfall variability and an increase in extreme events such as droughts and floods. Projections indicate that annual precipitation may decline in the northern and eastern regions while potentially increasing in the south, although model uncertainty remains high. Multi-decadal variability is also expected to persist throughout the century [41].

71. At 1°C global warming, mean annual precipitation in Botswana is projected to decrease by 2–7%, with dry spells lengthening by about five days; at 2°C warming, reductions could reach 5–12%, with dry spells extending by 15–19 days. The duration of warm spells could rise by 62–80 days annually. Although heavy rainfall events may become more frequent, their distribution will remain uneven, increasing both flood and drought risks [42].

72. **Impact of climate change on agricultural production**

73. Climate change poses significant threats to agricultural production in Botswana, primarily due to increased drought frequency, rising temperatures, and altered rainfall patterns. These changes negatively impact crop yields, livestock health, and overall food security, particularly for smallholder farmers:

74. Reduced Crop Production:

75. **Drought and Water Scarcity:**

76. Botswana is highly reliant on rainfed agriculture, making it vulnerable to droughts and reduced rainfall. Climate change is projected to exacerbate these conditions, leading to lower crop yields, particularly for maize and fodder crops.

77. **Increased Temperatures:**

78. Higher temperatures will increase water loss through evaporation, further impacting crop water availability. They can also negatively affect plant growth and development, reducing overall yields.

79. Impact on Livestock:

80. **Livestock Production:**

81. Livestock is also at risk. Rising temperatures and heat stress can negatively impact animal health, reproduction, and milk production.

82. **Forage Availability:**

83. Changes in rainfall patterns and increased heat stress can also reduce the availability and quality of pasture and forage, further impacting livestock production.

84. Botswana's livestock sector is increasingly threatened by climate change, with rising temperatures and more frequent climate-related hazards posing significant challenges. In the **Kalahari districts (e.g., Ghanzi, Tsabong, Mabutsane)**, prolonged droughts, extreme heat, and persistent water scarcity are degrading grazing lands and reducing water availability for livestock. In the **Okavango region (Maun and surrounding areas)**, seasonal flooding and fluctuations in water levels disrupt grazing cycles and access to resources. The **Eastern and South-Eastern districts (e.g., Mahalapye, Greater Gaborone cluster, Good Hope)** are experiencing erratic rainfall patterns, temperature extremes, and recurring droughts, which increase livestock mortality risk, reduce feed and water resources, and heighten vulnerability to pests and diseases. In the **Southern regions**, frequent wildfires and extended dry spells further stress rangeland ecosystems and forage availability, compounding risks to pastoral livelihoods.

85. A **Targeted Adaptation Assessment (TAA)** has been prepared to address these challenges. It provides a comprehensive analysis of climate hazards, exposure, sensitivity, and adaptive capacity in Botswana. The TAA also identifies a set of **tailored adaptation options** aligned with the local context and value chains, ensuring interventions enhance resilience to drought, flooding, heat stress, and water variability. These measures include improved grazing management, water harvesting and storage systems, climate-smart livestock practices, and early-warning systems for drought and extreme weather events.

3. Regulatory framework and institutional capacities

86. The below sets out preliminary institutional capacities and the regulatory framework for the Project.

3.1 National policies and regulatory framework relevant to SECAP

87. **Environment, Pollution, and Natural Resources:** Botswana's environmental management is governed by the Environmental Assessment Act (2011) and the Waste Management Act (1998), requiring Environmental Impact Assessments (EIAs) for industrial and commercial activities. However, compliance, particularly among microenterprises, remains low. Initiatives like the Botswana Green Economy Programme, supported by UNDP and GEF, aim to build capacity and provide financing for eco-friendly practices.[59] For Sustainable Land Management, there is the National Action Programme to Combat Desertification[60]. In respect of Water resource management, ensuring sustainable access, and conservation of water resources, there is the National Water Master Plan Review (2006)[61]. Botswana is a party to international conventions such as the Convention on Biological Diversity, the Ramsar Convention, and CITES, aligning with national efforts to protect critical ecosystems like the Okavango Delta. Strengthening enforcement and scaling sustainable practices, particularly among small enterprises, are crucial to complement these frameworks and preserve the country's natural resources.[62]

88. **Climate Change:** Botswana has developed a robust framework to address climate change impacts across key sectors. The National Climate Change Policy (2021) provides overarching guidance for integrating climate adaptation and mitigation into national development plans, supported by the forthcoming Climate Change Strategy and Action Plan. The Third National Communication to the UNFCCC (2019) details Botswana's climate profile, GHG inventory, and adaptation strategies, reaffirming its commitment to the Paris Agreement. Complementary frameworks include the National Disaster Risk Reduction Strategy (2013–2023), which outlines institutional roles in managing droughts, floods, and extreme weather, and the Integrated Water Resource Management Plan and Sustainable Land Management initiatives, which target the resilience of water and land resources. Together, these policies underscore Botswana's commitment to sustainable development and climate resilience.

89. **Youth:** Botswana's National Youth Policy (NYP) of 2010, currently under review, focuses on empowering youth through skills development, entrepreneurship, and civic engagement. The Youth Development Fund (YDF) supports training, funding, and land access for rural youth, enhancing employability and promoting agribusiness. The policy underscores the vital role of youth in sustainable development and community resilience.[63]

90. **Decent work and harmful child labour**:[64] Botswana promotes decent work through the Decent Work Country Programme (DWCP), developed in collaboration with the International Labour Organization (ILO). The current DWCP emphasizes fair employment practices, social protection, and workers' rights, aligning with national development goals. Botswana's Employment Act (2010) and Children's Act (2009) provide a legal framework to prohibit harmful child labour. Efforts to combat child labour include the National Action Plan for the Elimination of the Worst Forms of Child Labour, which outlines strategies to eradicate exploitative practices, particularly in rural and informal sectors.

91. **Gender:** [65]Botswana ratified the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) in 1996. The National Policy on Gender and Development (2015) serves as the guiding framework for addressing gender disparities. The Gender-Based Violence (GBV) National Strategy (2016–2020) and the recently developed GBV Referral System Framework aim to tackle GBV comprehensively. The National Development Plan 11 (NDP 11) and the forthcoming NDP 12 integrate a strong focus on gender. These plans focus on economic empowerment, gender-responsive budgeting, and resilience-building for women, especially in rural areas. Additionally, the Vision 2036 strategy underscores gender equality as a cornerstone for achieving a high-income, inclusive economy. Other relevant frameworks include Botswana's efforts under the African Union Gender Strategy and participation in the Southern African Development Community (SADC) Protocol on Gender and Development, which advances regional collaboration on gender equality.

92. **Persons with Disabilities:** Empowering persons with disabilities in Botswana's development agenda is a strong feature in Botswana. It ratified the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) in 2021 and its National Policy on Disability (2016) provides a comprehensive framework to address barriers and ensure equal opportunities. The Inclusive Education Policy (2011) aims to provide quality education and mainstreaming. Employment initiatives include the Economic Empowerment Programme and the Vocational Rehabilitation and Training Centre for People with Disabilities, which provide skills training and entrepreneurial support. The government also manages the Rehabilitation Trust Fund, which offers financial assistance and resources. NDP 11 incorporates specific measures to enhance access to services and infrastructure for persons with disabilities, while the forthcoming NDP 12 is expected to expand these efforts. Botswana is also a signatory to the African Charter on Human and Peoples' Rights on the Rights of Persons with Disabilities.[66]

93. **Nutrition:** Botswana's National Nutrition Policy (2007) provides a strategic framework to improve the nutritional status of its population, with a focus on vulnerable groups such as children, adolescent girls, and mothers. The policy aims to prevent and manage malnutrition, reduce micronutrient deficiencies, and promote food security as a foundation for sustainable development. It emphasizes the integration of nutrition into healthcare services and social protection programs. In alignment with this policy, Botswana has implemented the Integrated Nutrition Programme, which addresses child malnutrition and stunting, and the Micronutrient Deficiency Control Programme, targeting deficiencies in iron, iodine, and vitamin A. The School Feeding Programme, supported by the Ministry of Local Government and Rural Development, ensures children in public schools receive at least one nutritious meal per day, contributing to improved health and education outcomes. NDP 11 and Vision 2036 incorporate nutrition as a key priority for achieving sustainable development. The country is also a signatory to the Scaling Up Nutrition (SUN) Movement.[67]

3.2 National capacities, challenges and lessons with respect to SECAP implementation and compliance

94. The Government of Botswana has a fully fledged Ministry of Environment with an Environmental Impact Assessment (EIA) department responsible for impact assessments and safeguards issues. They have the personnel to monitor the project's environmental issues, however will require capacity building and training support to comply with SECAP requirements and to manage/monitor SECAP implementation.

4. Environmental and social category

95. The environmental and social risk is determined to be Substantial owing primarily to the production of animals products and livestock. The Design phase identified several moderate risks related to SECAP 2021 standards, including: biodiversity, resource use efficiency and pollution; labour and working conditions; community health and safety; financial intermediaries and direct investments.

96. Key risks identified include issues related to potential pollution from livestock production and waste management (standard 2), labour conditions and informal employment arrangements (standard 5), risks related to gender-based violence and community health and safety linked to handling and processing livestock products (standard 6), limited land ownership affecting credit worthiness (Standard 7), and the need to enhance an Environment Social Management Systems (ESMS) and complaint mechanisms for partnering financial institutions and service providers (Standard 8).

5. Climate risk category

97. The climate risk is determined to be Substantial due to prolonged droughts, heat stress, and rainfall variability, which are expected to negatively affect livestock production, pasture availability, water resources, and overall productivity in the sector

98. In addition to the World Bank Climate Change Knowledge Portal and the Think Hazard tool, evidence from secondary literature—on the target sector, Project activities, and potential target beneficiaries—informed responses. In the Notre Dame Global Adaptation Initiative (ND-GAIN) Country Index, Botswana's score is 51.8, with a vulnerability score of 0.409 and a readiness score of 0.444. This places it in the upper-right quadrant of the ND-GAIN Matrix, indicating high vulnerability and high readiness. The ND-GAIN Country Index ranks Botswana 77th overall. This placement in the ND-GAIN Matrix indicates that Botswana is on the right track to respond effectively to climate change, but there is still a need for greater adaptation and action since it is highly vulnerable to extremes of shocks.

99. Botswana is considered highly vulnerable to climate variability and change due to its high dependence on rain-fed agriculture and natural resources, high levels of poverty – particularly in rural areas, and a low adaptive capacity to deal with these expected changes. Primary challenges are centered around water resource availability, changing precipitation patterns and increasing population demands. Climatic and socio-economic environments in semi-arid areas in Botswana make communities vulnerable to food insecurity and unstable livelihoods as well as unsustainable agroecological systems, crop failure and unproductive rangelands.

100. Over the years, Botswana has experienced an increase in the intensity and frequency of extreme weather events, including droughts and flash floods. These events have led to substantial economic losses, negatively impacting the agricultural sector, as well as causing significant damage to infrastructure. Climate variability and extreme events continue to pose a major threat to sustainable agricultural development, resulting in challenges such as food insecurity, disrupted livelihoods, destruction of natural and agricultural resources, low adaptive capacity among farmers, and reduced productivity, as well as increased livestock and crop disease outbreaks.

101. The project is not expected to be a significant emitter of greenhouse gases. A GLEAMi analysis was commissioned from FAO. The study indicates The study indicates that total baseline emissions are estimated at 236,602 tCO_2-eq/year, increasing to 243,180 tCO_2-eq/year without the project (WOP) and to 250,313 tCO_2-eq/year with the project (WP). This represents a change of 2.93% between the WOP and WP scenarios.

6. Recommendations for project design and implementation

102. **Component 1: Climate-Smart Small Livestock Production and Productivity Improvement**

103. It is recommended that improvement of indigenous breeds of small livestock be conducted by breeding and selection for desirable adaptation traits and increased productivity. This is to take advantage of the natural traits of the indigenous breeds and further adapt them to the prevailing climatic conditions.

104. The establishment of a cohort of women and youth trained as community animal health workers (CAHWs) to provide animal health services must be done at the same time as establishing waste handling facilities for toxic wastes that will result from handling animal diseases and contaminated items. It may be of interest to institute a one health approach so that human health will also be taken into consideration at the same time.

105. Implementing inclusive rangeland management interventions, should include extensive collaboration with existing local partners for various erosion control measures and infrastructure (Re-seeding, gabions, swells, catch dams, etc.) to ensure that scaling up livestock numbers does not worsen degradation effects.

106. Promote integrated rangeland restoration through indigenous tree planting combined with sustainable grazing practices. Specifically, encourage the planting and protection of drought-tolerant, indigenous tree species within rangelands to provide fodder, shade, soil fertility and carbon sequestration benefits.

107. Pilot/collaborate with existing actors to scale up climate-resilient water solutions such as rainwater harvesting, aquifer recharge,

wastewater reuse and small water storage systems (like underground dams) as well as desalinization units to strengthen water security, particularly for vulnerable and underserved communities. For irrigation systems using groundwater it is essential that the irrigation system be designed so as to not over abstract the available water resources as this may result in salinization in some cases and in natural pollution in other cases. Adoption of ultra-efficient irrigation technologies, using solar energy where possible, like sub-surface drip irrigation and water pumps creating improved, water efficient, extended coverage irrigation systems.

108. In the process of digitalisation and digitisation, the project should provide for E-waste management as these systems will now introduce electronic equipment which will generate e-waste at end of life which if not properly planned for may end up polluting the environment.

109. Enhance fodder and livestock production may result in the use of more pesticides to control pests. It is recommended to develop and implement an integrated pest management plan (IPMP).

110. **Component 2: Strengthened and inclusive small livestock value chains**

111. It is recommended that rural farmers be organised into inclusive groups/clusters to create exponential returns through collective engagement with value chain actors and activities. The project will ensure that these groups are intentionally included during implementation to promote equitable participation of women, youth, and marginalized groups—who often face structural barriers to market access and decision-making. The farmers must also be trained in group dynamics to prevent disunity and collapse of governance structures.

112. Creation of complementary activities for rural youth which generate immediate income can address a key challenge to youth participation in small livestock/agri-business. Innovative interventions for them at the tail end of the value chains may attract their attention. For example, middleman activities where youth may purchase, package and quickly sell products and also being employed as eco-rangers. This also applies to women undertaking indigenous seed harvesting, storage and replanting.

113. Ensure digital tools (i.e. market apps) are accessible to women and youth, and provide digital literacy training to reduce exclusion risks.

114. Any refurbishments of abattoirs, or cold storage facilities must take into consideration incorporating solar power components and upgrading the effluent handling facilities too as these facilities handle substantial amounts of effluent.

115. **Component 3: Enhanced enabling environment for improved small livestock development.**

116. The project management office (PMO) must be fully fledged to include such personnel as Environment and Social Specialist (ESS) from the start so that environment social and climate issues are taken care of from the onset.

117. **Mainstreaming Climate Change and Environment:** The Project aims to ensure activities are ecologically and environmentally friendly as well as climate resilient; The preliminary screening and exclusion checklist have been developed.

118. **Youth and women empowerment:** When developing the project activities, special attention must be given to developing activities that cater to the unique needs of women and young people, addressing their constraints (e.g., rural security, absence of land titles or assets for collateral) and targeting agricultural business ventures which provide them with employment opportunities.

119. **Considerations for Capacity Development:** GoB, through the Ministry of Agriculture should receive support in assessing value chain challenges (market linkage, climate resilience, sustainability) and in ensuring that value chain development plans are responsive to broader strategy[68] for food system transformation[69]. All trainings for the GoB and BoLCoP PMU staff on selection of value chain and support to value chain development should discuss and finalize the sub-project screening checklist and exclusion criteria. The selection of value chains may involve some trade-offs between climate and environmental goals. BoLCoP PMU should ensure they are well-positioned to consider these trade-offs and develop potential mitigation measures. Finally, since BoLCoP PMU is not yet familiar with updated SECAP standards, SECAP 2021 training should be scheduled early in the implementation phase. BoLCoP PMU should develop value chain specific and site specific ESCMPs.

120. **Targeting and Social Inclusion:** GoB and its stakeholder network have a strong understanding of the needs of potential beneficiaries in different socio-economic strata. However, this knowledge is relatively fragmented in line with the discrete responsibilities of each government entity providing services to rural smallholders. BoLCoP presents the opportunity of bringing together different experiences, lessons, and lines of support through comprehensive and coherent support packages that respond to the different realms of beneficiary needs (technical, market acumen and access, business management, access to financial services and social risk management, among others).

121. Additional considerations related to targeting of the project include:

1. Agreeing on inclusive and gender-responsive criteria for geographic targeting that considers poverty, access to land, agro-ecological suitability, access to value chain players and existing social vulnerabilities. Geographic targeting will consider areas to avoid, such as mining, heritage and biodiversity-rich areas, as well as indicate how to operate in environmentally protected sites and their respective buffer zones.
2. To identify partnership opportunities to strengthen the nutrition, WASH and social inclusion components of the Project as well as to further define activities to be targeted to specific nutrition-vulnerable groups (e.g. pregnant and lactating women, adolescent girls etc.)
3. To further assess opportunities and barriers to the participation of more vulnerable social groups, some of which have benefited from / could be eligible for temporary social protection support to better define a strategy to graduate from social protection into small livestock value chain based economic autonomous income generating activities.

7. Further studies needed

122. The overall Project risk rating is Substantial. The following studies and documents, based on due diligence of current GoB policies have been drafted or updated:

1. Due diligence of existing GoB policies and procedures on environment, climate and social risk management aspects of implementation
2. Final SECAP Risk screening tool
3. Environmental, social, Climate Management Framework (ESCMF) with detailed ESCMP
4. Final SECAP Review Note
5. GBV Action Plan
6. E-Waste as well as Solid/Liquid Waste Management Plan
7. Indigenous Peoples Plan (IPP)
8. Stakeholder Engagement Plan (SEP)
9. Free, Prior and Informed Consent (FPIC)
10. Grievance Redress Mechanism (GRM)
11. GLEAM-i assessment
12. Targeted Adaptation Assessment incl. Literature review of climate assessments
13. Small livestock Value Chain and Market Study

8. Monitoring and evaluation

123. SECAP monitoring will be implemented in line with the ESCMP; implementation of the SECAP 2021 procedures will be led by the Project Management Unit (PMU) and the Project Coordinator.

124. An effective monitoring and evaluation system will ensure Project performance and allow for the evaluation of the Project's outcomes and impact. In order to monitor the targeting and social inclusion performance of the project it is recommended that the log frame include: Adequately disaggregated outreach indicators to reflect the extent to which the different target groups (very poor, moderate poor and enterprising poor) are reached and outcome indicators that identify heterogeneity of results and impact across target groups. All indicators should be disaggregated by gender, youth, disability and ethnicity (if relevant).

125. The Project will also adopt GRM, and feedback mechanisms based on current GoB practices and guidelines. The programme will follow IFAD's Complaints Procedure which ensures that appropriate mechanisms are in place to allow individuals and communities to file a complaint if they believe they are or might be adversely affected by an IFAD-funded project/programme not complying with IFAD's Social and Environmental Policies and mandatory aspects of SECAP. The GRM has been designed to be inclusive, accessible, and safe for all beneficiaries—especially women, youth, persons with disabilities, and marginalized groups—recognizing that these groups may face additional barriers to reporting grievances. It will include culturally appropriate and confidential reporting channels, including the option for anonymous submissions. The GRM will serve the purpose to be

responsive to the needs of beneficiaries and to address and resolve their grievances as well as to deter fraud and corruption and mitigate project risks. Specific measures will be integrated in relation to SH/SEA, as referred to above.

126. The main purpose of feedback mechanisms is to enhance relevance and effectiveness of the Project's interventions to target groups' needs and aspirations, which can lead to improved sustainability and impact, target group empowerment, transparency and accountability. A good feedback mechanism should be developed which results focused and context sensitive. Feedback mechanisms should be grounded in the local context and be sensitive to social, political, economic and cultural factors, including gender dynamics.

127. **Integrating Environment, Climate, and Social Safeguards**: Crucial environment, climate, and safeguards-related indicators were identified and seamlessly incorporated into the project's monitoring and evaluation framework and log-frame. **Capacity Building:** Enhancing the capacity of the PMU, government agencies, financial partners, and project stakeholders is pivotal in promoting gender equality, youth-sensitive programming, and addressing the needs of marginalized and vulnerable groups. This approach will also ensure effective climate risk management along agricultural value chains and rural livelihoods, ultimately fostering a more inclusive and resilient environment.

128. **SECAP and procurement.** During design, the PDT identified SECAP risks to be integrated in the Procurement Plan and Procedures. The most relevant SECAP risks include potential use of inputs such as fertiliser, tools and machinery for climate smart practices, adverse impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources and the capacity of financial intermediaries to manage climate risks and promote environmentally friendly practices and technologies. All suppliers will be required to operate in alignment with SECAP safeguard standards. In compliance with the ESCMP, the partner financial intermediaries are required to prepare an Environmental and Social Management System (ESMS) consistent with SECAP requirements, including developing an environmental and social policy, procedures, and capacities for assessing, managing, and monitoring risks, organizational capacity and competency, and Grievance Redress Mechanisms.

129. **Stakeholder Engagement Plan (SEP):** Key stakeholders have been identified: Target group typology, priority needs, and potential response. During the Concept mission, a tailored Stakeholder Engagement Plan (SEP) was developed to match the project's unique nature, scale, and potential risks and impacts. The SEP's primary objective is to enhance decision-making processes and cultivate an inclusive environment that actively involves project-affected individuals and stakeholders — particularly women, youth, persons with disabilities, Indigenous peoples, and other marginalized populations who may face systemic barriers to participation. This will be achieved by providing ample opportunities for stakeholders to express their views and concerns, ultimately impacting project decisions and ensuring a collaborative approach to project implementation.

9. References

1. National Transformation Strategy Innovating for Economic Growth 2023 – 2030
2. The National Policy for Youth (2017)
3. Botswana Decent Work Country Programme (2022–2026)
4. Botswana National Plan for the Elimination of Child Labour (2020–2025)
5. The National Nutrition Policy of Botswana (2011)
6. The National Policy on Gender and Development (2015)
7. Supplementary Literature and References (as listed in footnotes)
8. Botswana's Intended Nationally Determined Contributions (INDCs)
9. The National Climate Change Policy of Botswana
10. Botswana's Intended Nationally Determined Contributions (INDCs) (2016)
11. Botswana National Climate Change Policy (2021)
12. The Wildlife Conservation and National Parks Act (1992, Amended 1997)
13. Environmental Assessment Act of Botswana (2011)
14. The Monuments and Relics Act (2001)
15. Vision 2036: Achieving Prosperity for All (Adopted 2016)
16. Non-Bank Financial Institutions Regulatory Authority (NBFIRA) Act (2006)
17. Botswana National Development Plan II (NDP II)
18. Economic Recovery and Transformation Plan (ERTP) – 2020

10. SECAP Matrix

Environmental, Social, and Climate Impacts		Actions and Mitigation Measures (incl. public consultations)	Means of Verification (Monitoring & Reporting)	Frequency of Verification (Monitoring & Reporting)	Responsible for Implementation
Environmental Risks					
Construction Phase					
(a)	**Soil and land degradation**				
	· Exposure of land during land preparations for fodder crop and pasture farming. · Point source contamination from spilled paints, diesel, lubricants etc. around workshop areas. · Hazardous Materials spillages Construction risks of spills (oil, lubricants), during establishment of Agriculture facilities · Increased rapid runoff due to vegetation clearing and soil compaction diminishing infiltration capacity during construction phase.	· Avoid and minimise use of hazardous materials · Ensure adequate waste management at all operational sites · Install appropriate containment measures for all operational areas and proper disposal of used lubricants. · Install Soil erosion control measures (e.g., re-vegetation, reseeding of grasses, re-grassing of all bare surfaces, terracing, use of gabions, stabilization of banks contour ridges, swells and catch dams) · Restore borrow pits, sand and quarry stone abstraction sites and brick moulding sites. · Minimise vegetation clearing to working areas only.	. Contamination of nearby water resources. · Number of reported pollution events · Geo maps, observation, pictures, inspection	Bi-annual	· NPMCU. · Local Leadership. · Beneficiaries. · Contractors. · District Agriculture Office. · Contractors · BOLCOP Service Providers
(b)	**Deforestation**				
	· Clearing land for fodder production. · clearing land for Construction purposes and establishment of infrastructure	· Discourage cutting of mature trees by awareness raising · Ensure protection of buffer zones along rivers by awareness raising · Promote agroforestry through technical training	· Inspection, · visual observations, · pictures, · geo mapping	Bi-annual	· MET experts · extension workers · NPMCU · Contractors · Service Provider · MOLA
(c)	**Disturbance of Marginal Areas**				

	· Establishing the projects in Marginal Areas poses serious threats to their further degradation. · Establishing new farms.	· Avoid extraction of raw materials from marginal areas · No construction of structures in marginal areas. · Continuous community sensitization on sustainable land use targeting extension agents, producers and local leaders.	· Inspections of the state of the marginal areas.	annual	· NPMCU · Bolcop Contractors · Bolcop Service Provider
(d)	**Loss of Fragile ecosystems**				
	· Fragile ecosystems like wetlands, quickly degrade and lose their functionality if misused.	· Conduct feasibility studies before construction, · Use expert knowledge of ecologists, · Introduce ecosystem conservation projects. · Fence out some sensitive sites. · Harvesting of resources in wetlands must be controlled. · Agricultural activities in wetlands must be under controlled conditions – sustainable use of wetlands. · Invasive alien species must not be introduced into sensitive ecosystems.	· Inspections of state of Fragile Ecosystem.	annual	· NPMCU · Bolcop Contractors · Bolcop Service Provider
(e)	**Ambient air pollution**				
	· Demolition to modify the built environment will lead to considerable levels of cement dust and asbestos dust which can affect the health of the workers and the public. · Dust from Fodder processing at Grinding Mills. · Smells from agricultural waste. · Impaired Visibility on the roads · Disturbs normal developments of vegetation.	· Contractors should use dust screens or nets in windows, doorways, and ventilators of rooms where demolition or other dusty construction activities are occurring · Processing waste must be handled properly to avoid contamination and smells. · Dust suppression measures such as watering of dusty surfaces must be instituted at all sites including at fodder processing plants. (cover soil mounds and spray bare areas with water) · Accredited firms must be contracted to manage hazardous materials such as asbestos · Animal waste must be handled properly to avoid smell. · Site clearance is to be minimized as far as possible to reduce the potential for dust and other impacts.	· Inspections. · Availability of dust suppression measures.	annual	· NPMCU. · Bolcop Contractors · Local Leadership. · Beneficiaries. · Local Environment Officers · District Agriculture Office.
(f)	**Overexploitation of Water Resources**				

	· Boreholes may lead to water over-use if not properly managed = · Loanees may purchase pumps and expand production, increasing water demand in localized areas.	· Conduct awareness campaigns and training for beneficiaries on sustainable water use and climate-smart agricultural practices. · Encourage crop diversification with drought-resistant fodder species. · Enforce national water use regulations and permit systems for groundwater abstraction.	· Number of awareness campaigns conducted on water use efficiency	Bi-annual	· NPMCU · Ministry of Lands and Agriculture (MoLA · Local Water Authorities · District Agricultural Extension Officer · Beneficiaries
(g)	**Contamination of Water Resources**				
	· discharges of debris from civil works, oil spills, and other pollutants generated from construction works including onsite sewage and rainwater run-off. · Discharge of effluent from agricultural processing plants. · Soil and water pollution resulting from the accumulation of solid and liquid waste. · Soil and water pollution from chemicals & fertilizers meant for fodder production. · Littering and indiscriminate dumping of solid waste pollutes land and water resources. · Poisoning of aquatic and inland ecosystems.	· Contractors to erect proper sanitary facilities. - Toilets at convenient locations throughout the project area. · Pollution from lubricants and other wastes to be avoided. Contain all oil leaks at workshops and surfaces by collecting in oil separators. · Controlled disposal of wastes and effluent by use of appropriate disposal facilities, use of appropriate drainage structures, use of cleaner technologies, proper storage of materials. · Waste must be recycled and reused to avoid dumping in waterways. · Polluted water shall be treated prior disposal to watercourse. · activities related to slaughtering of cattle should be carefully conducted and the resultant waste managed properly. · Maintain all vehicles and equipment to avoid oil and grease leaks. · Install oil and grease separators to collect rain runoff around workshops and parking areas. · Promote compliance with national discharge standards · discharge effluent that meets the national discharge standards · Maintain safe distance (+50 feet) between latrine and water sources · Take corrective action when water contamination is established. · Emergency spill response plans in place	· Discharge of poor-quality effluent · Change in chemical and biological water quality · Number of reported pollution events	Bi-annual	· Contractors · MET · District/Local extension workers · NPMCU. · Local Leadership. · Beneficiaries. · Local Environment Officers · District Agriculture Office

Operations Phase					
(a)	**Solid waste**				
	· Less quantities of solid wastes generated include domestic wastes, plastics, and animal dung.	· Collect all solid waste in a systematic manner for disposal at designated landfills. · Place waste collection bins at strategic positions throughout the project area. · Solid waste should never be burnt on site. · Develop a solid waste management plan and implement it. · Promote waste minimization, segregation, and recycling. · Construct/refurbish waste management facilities at all processing plants like abattoirs. These should include biogas digesters	· Solid waste collection mechanisms in place. · Waste collection bins strategically positioned · solid waste management plan in place and being implemented.	Bi-annual	· NPMCU. · Local Leadership. · Beneficiaries. · Local Environment Officers · District Agriculture Office. · Contractors.
(b)	**Effluent Discharges**				
	· Most agricultural, livestock, agro-processing, packaging, and marketing operations produce liquid effluent	· Install appropriate effluent treatment facilities next to any processes that generate effluent. i.e., Septic tanks, oxidation ponds, etc · Collect and channel all effluent to a properly constructed effluent treatment plant, (oxidation ponds, septic tanks / bio-gas digesters) · Monitor the quality of the effluent that is ultimately discharged to the environment so that it meets the national effluent discharge standards. · Train staff on effluent management. · Construct/refurbish waste management facilities at all processing plants like abattoirs. · Pre-treat effluents before discharging into municipal sewers to reduce pollutant loads.	· appropriate effluent treatment facilities installed at facilities · Quality of final discharge being monitored – water quality records available.	Bi-annual	· NPMCU. · Local Leadership. · Beneficiaries. · Local Environment Officers · District Agriculture Office.
(c)	**Agro chemicals**				

	· Pollution of water resources from excess fertiliser applications for fodder production. · Pollution from inappropriate use of biocides. · establishment and operation of infrastructure for artificial insemination · Poisoning of farmers by chemicals. · Poisoning of aquatic and inland ecosystems by the chemicals. · Poisoning of the soil by the chemicals. · Poisoning of farm produce by chemicals.	· Apply fertiliser correctly and in the right amounts - Use split application - No application before major storms. · Store biocides, fertilisers, and animal feeds in separate, lockable storerooms to avoid cross-contamination - Keep away from food staffs · Train farmers on use, handling, storage, and disposal of agro chemicals. · Encourage organic farming and limit the use of Agro chemicals like inorganic fertilizers. · Use integrated Pest Management approaches to minimize pesticide use. · All workers to use appropriate PPE every time. · Use the least potent variants of pesticides to minimise poisoning.	· Number of trained farmers. · Availability of lockable separates storerooms for agro chemicals	Bi-annual	· Contractors · MET · District/Local extension workers · MOLA · NPMCU. · Local Leadership. · Beneficiaries. · Local Environment Officers · District Agriculture Office.
(d)	**E-waste generation**				
	· Potential of E-waste generation from the laptops, computers and solar panels supplied for the digitisation programme. · Potential for Hazardous waste pollution. · Littering and indiscriminate dumping of solid waste · E-waste pollution	· Develop an E-Waste Management Plan. · All e-waste must be securely stored on site prior to collection by competent personnel for proper disposal at designated landfills. · Collect and store in a lockable area, all potentially hazardous waste (end of life laptops and computer components, batteries, solar panels, etc.), for onward transportation back to supplier, recycling facility or proper disposal site.	· Availability of secure storage area for end of life electronic gadgets	Bi-annual	· NPMCU. · Local Environment Officers · District Agriculture Office.
(e)	**Invasive species**				
	· Invasive species risk from new fodder crops	· Conduct ecological risk assessments for all fodder species · Use only approved native or adapted species recommended by Botswana's Dept. of Agriculture & MET · Train farmers on safe fodder introduction and weed control · Eradicate invasive plants if detected · Ban planting near wetlands and protected areas	· Screening reports, training records	Bi-annual	· NPMCU, MET (Dept. of Forestry & Range Resources), District Agriculture Office
(f)	**Revegetation**				

	· planting of grass and continuous rehabilitation of the pastures.	· identify the correct indigenous plants that can thrive in the area. · Conduct deliberate exercise to revegetate the project area using fodder and other grasses.	· Area of land re-generated.	Bi-annual	· NPMCU. · Local Environment Officers · District Agriculture Office.
SOCIAL RISKS					
(a)	**Poor project Inception/Introduction**				
	· Anxiety and anticipation · Limited cooperation · Suspicion and hence concealing important of information.	· Efforts must be made to stick to agreed timelines. · Transparency and full disclosure of key elements of the project must be done. · Produce proper plan of action with timelines · Present full disclosure of project decisions and actions to all concerned stakeholders · The planning phase should not drag for far too long as people tend to lose despair.	· None	Bi-annual	· NPMCU. · Local Leadership. · Local Environment Officers
(b)	**Occupational Health and Safety Issues**				
	· Temporary and permanent physical injuries. · Bronchial diseases from dust. · Diseases and illness from agricultural activities such as pesticide handling. · Loss of life. · Accidental Injuries of local people accessing construction sites. · Accidents from operation of various equipment,	· A Health/Safety/Environment officer should be present during construction. · All safety precautions must be enforced. · Provide PPE to all workers. · Institute dust and noise suppression measures.	· Application of various types of PPE and their proper use.	Bi-annual	· Health Dept, · NPMCU. · Local Leadership. · Local Environment Officers
(c)	**Noise**				

	· Noise and vibration caused by machines, site vehicles, pneumatic drills etc.	· Contractor to avoid old and faulty equipment. · Heavy duty equipment to be minimised. · Noisy operations to be limited to certain times. · Noise levels to be limited to within acceptable levels.	· Use of well serviced equipment. · Noisy operations limited to certain times of the day.	Bi-annual	· Contractors · BolCoP · MET
(d)	**Gender Based Violence**				
	· Physical body harm · Lack of productivity · Communicable disease incidences	· Zero tolerance to gender-based violence · Ensure sexual harassment Policy at all levels involved in the project. · Establish grievance redress mechanism (GRM)	· Reported Gender Based Violence and Sexual Harassment	Bi-annual	· NPMCU. · Local Leadership. · Local Environment Officers
(e)	**Unequal Access To Benefits**				
	· Unequal access to benefits for women and other marginalised groups · Gender inequality & discrimination	· Take into account the needs of especially vulnerable and marginalised groups, particularly women and girls. · Training programmes will include gender considerations, as well as considerations for other marginalised groups · A Gender Mainstreaming Plan has been developed which embeds a gender responsive approach throughout the project. · Implement Gender Action Learning System (GALS) · Promote, women's influence in decision making Promote cottage industry · Improve women's access to land, credit, and technological resources. · Conduct women capacity building & mentorship · Conduct Gender & GBV awareness raising & prevention training.	· # of women employed · # of women trained and mentored · # of trainings & awareness raising on GBV · # of women with access land, credit, and technological resources	Bi-annual	· NPMCU; · ESS/Gender expert · Service Providers · Department of gender · UNFPA
(f)	**Inclusion of Women and Youth**				

	· Youth unemployment thus compromising security · Limited Women & Youth Participation due to unequal power relations & mismanaged natural resources.	· Promote income generation activities for the youth e.g. cottage industry, etc. · Women & youth mentorship and training. · Ensure women and youth needs/inputs are considered in implementation of project interventions	· # of youths employed · # of youth trained & mentored	Bi-annual	· NPMCU · Service Providers · Department of youth
(g)	**Inadequate Consultations with Indigenous Peoples**				
	· Negative impacts on Indigenous Peoples, whose ancient practices may be disturbed.	· Conduct comprehensive stakeholder mapping during the first year of the project to identify precisely which IPs will be affected. · Institute the process for Free, Prior and Informed (FPIC) · Include Representatives of IPs in planning, implementation, monitoring and evaluation of relevant project activities. · Develop protocols with IPs for communication that has the objective of seeking FPIC. · Seek Consent through procedures and institutions determined by IPs themselves. · Establish mechanisms and procedures with IPs to verify that FPIC has been sought and for Redress.	· IP representatives identified · No of FPIC trainings conducted. · FPIC processes conducted.	Bi-annual	· NPMCU, · ESS expert, · IP representatives
(h)	**Lack of access to Resources**				

	· Potential for IPs and other local communities including women and youth to be prevented access to land and natural resources or to be dispossessed of land and resources (physical displacement). Existing insecure land tenure and limited access to land for IPs, women and youth pose risks, which may lead to exclusion from project benefits or increase land-based conflicts if not carefully managed.	· The project does not anticipate any restrictions on land use or resettlement In the unlikely event this is unavoidable, the project will provide compensation for loss of assets at replacement cost and ensure resettlement activities are implemented with appropriate disclosure of information, consultation and informed participation of those affected · Conduct sociocultural and land tenure assessment · The project will adopt a "no-resettlement" policy and ensure all land-related decisions are preceded by comprehensive stakeholder engagement. · In the case of restrictions on land use, a Process Framework will be developed by the project · In the case of voluntary resettlement, a Voluntary Resettlement Action Plan will be developed by the project. · All interventions will adhere to the national laws for resettlement. · Develop all management plans and land use plans in collaboration with local communities who are likely to be affected. · Establish and promote accessible grievance redress mechanisms to manage emerging issues.	· Zero resettlement observed by project · Appropriate compensations in case of resettlement.	Bi-annual	· NPMCU; · Project manager; · district administration · IP representatives
(i)	**Labour & working conditions**				
	· Workers subjected to unfair Labour & working conditions.	· Awareness raising on child protection laws & education to prevent the use of child labour in project activities · Child labour to be monitored throughout the project through a participatory surveillance & control system. · Institute fair labour practices and conducive working conditions. · Enforce the national labour laws including the ILO agreements.	· Age confirmation with ID/any official evidence · # of awareness raising & capacity building activities	Bi-annual	· NPMCU · Department of Labour · MOLA
(j)	**Elite Capture**				

	· Elite capture – unequal access to training and inputs because of historical inequality and power relations	· Conduct an inclusive and transparent stakeholder engagement process to identify and determine different players and their influence on the project, and in the community. · Engage the most influential members by assigning them meaningful responsibilities, helping channel their influence productively and reducing any perceptions of elitism. · Capacitate district/local staff in appropriate community communication and facilitation skills to manage the community socio-political processes · Project staff will be trained on the historical inequality and power relations present in the project sites to inform the implementation of interventions and prevent elite capture · Field visits will take place to monitor the distribution of benefits derived from the project	· # of stakeholder engagements · # of trainings	Bi-annual	· NPMCU, · Project manager · Service Provider
(k)	**Cultural Heritage**				
	· Impacts on cultural heritage from establishment of infrastructure	· Ensure the prevention of the removal of or damage to objects or sites considered to be culturally important if encountered · Conduct Field-based studies, including consultation with local communities and IPs where appropriate, to ensure the full nature, extent and significance of any cultural heritage sites encountered. · Ongoing and extensive consultation with IPs will take place to ensure any risks related to cultural exchange are managed · Apply the chance finds procedure in case of any chance finds of archaeological importance.	· Records of stakeholder engagement · Availability of a project chance finds procedure	Bi-annual	· NPMCU; Project manager; · District administration
(l)	**Human-wildlife conflict (HWC)**				

	· Human-wildlife conflict (HWC) is a significant threat, in agricultural areas. Conflicts arise where: · human settlements encroach on wildlife habitats. · crop damage, livestock predation, and even human injury or death caused by wildlife. · retaliatory actions from affected communities	· Farmers have to avoid raring livestock in in hotspot areas where wildlife is rife. · Farmers have to take all necessary precautions like herding heir animals and kraaling them at night in secure kraals. · Animals may be fought back only in self-defence but must not be poached or trapped. · Farmers have to engage experts form Parks and Wildlife	· Number of Farmers Trained in wildlife management · Delineation of Hotspots · Number of compensations done · Number of incidences reported.	Bi-annual	· MET - Dept. Of National Parks and Wildlife · District/Local extension workers · MOLA, - NPMCU. · Local Leadership. · Beneficiaries. · Local Environment Officers · District Agriculture Office.
(m)	**Economic Opportunities Employment (job creation)**				
	· Improvement on their income generation. · Improvement of livelihoods · Maintained land output gain. · Improved entrepreneurial skills	· Set up favourable partnership agreements. · Deliver on project commitments. · Promote entrepreneurship and commercial farming skills.	· Entrepreneurial approaches. · Good animal Husbandry · Commercial farming approaches.	Bi-annual	· NPMCU. · Local Leadership. · Local Environment Officers
CLIMATE RISKS					
(a)	· Climate Change impacts: · Ever increasing Temperatures · Flash floods · Droughts · Rainfall variability	· Promote climate smart agriculture such as climate resilient fodder cropping systems and practices. · Promote · Enhance and improve agro-meteorological infrastructure to provide timely information services to the project beneficiaries such as cluster of smallholders, public and private investors, and value chain actors. · Adopt climate smart technologies (sustainable land management, water harvesting technologies, clean energy and conservation of forests ecosystems · use improved breed, more efficient application of fertilizers, and better manure management to reduce GHG emissions.	· Number of Climate Smart Agriculture Trainings conducted · Number of farmers trained in Climate Smart agriculture.	Bi-annual	· MoLA · NPMCU. · Local Leadership. · Local Environment Officers

Environmental and Social Safeguards Classification: Substantial

Environmental and Social Safeguards				
Biodiversity conservation	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
1.1 Could the project involve or lead to conversion or degradation of biodiversity, habitats (including modified habitat, natural habitat and critical natural habitat) and/or ecosystems and ecosystem services?	Yes	Unlikely	Moderate Project will significantly affect modified habitat , but will not impinge on natural habitat or critical natural habitat.	Moderate
1.2 Could the project involve or lead to activities negatively impacting habitats that are legally protected, officially proposed for protection, or recognized as protected by traditional local communities and/or authoritative sources (e.g. National Park, Nature Conservancy, Indigenous Community Conserved Area, (ICCA), etc.)?	No			Low
1.3 Could the project involve or lead to an increase in the chance of human-wildlife encounters/conflict?	Yes	Likely	Moderate Project may involve conflict leading to some loss of livelihood or threat to wildlife, but this is not major.	Moderate
1.4 Could the project involve or lead to risks to endangered species (e.g. reduction, encroachment on habitat)?	Yes	Possible	Moderate Net loss in biodiversity with a status of Near Threatened or Vulnerable, or status change to Near Threatened due to project impacts.	Moderate
1.5 Could the project involve or lead to negative impacts/risks to migratory wildlife?	Yes	Possible	Moderate Project or associated facilities may be close to sites or routes of importance to migratory wildlife. No direct negative impact, but possible indirect impact.	Moderate
1.6 Could the project involve or lead to introduction or utilization of any invasive alien species of flora and fauna, whether accidental or intentional?	No			Low
1.7 Could the project involve or lead to the handling or utilization of genetically modified organisms?	No			Low
1.8 Will the project involve or lead to procurement through primary suppliers of natural resource materials (wood, gravel, sand, etc.)?	Yes		Minor Project will require procurement of natural resources through primary suppliers, and resource extraction is tightly regulated. Alternatives to procurement of natural resources through primary suppliers exists.	Low
Resource Efficiency and Pollution Prevention	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**

Environmental and Social Safeguards				
2.1 Could the project involve or lead to the release of pollutants to the environment (on and off farm) due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Yes	Likely	Moderate Pollutants may be released, either routinely or by accident, but treatment systems are proven, verified and affordable. Receiving environment is highly sensitive.	Moderate
2.2 Could the project be located in an area which is being, or has been, polluted by an external source (e.g. a mine, smelter, industry)?	No			Low
2.3 Will the project involve or lead to significant consumption of raw materials and energy?	Yes		Moderate The project will require consumption of raw materials and/or energy. This will be a significant component of the project, but impacts can be appropriately managed.	Moderate
2.4 Will the project develop or rehabilitate irrigation schemes and/or involve or lead to significant extraction, diversion or containment of surface or ground water? (For example, construction of dams, reservoirs, river basin developments, groundwater extraction)	Yes		Moderate The project will need a considerable amount of groundwater or surface water. This will require a minor extension of existing sources. This will include development or rehabilitation of small-scale irrigation schemes below 300 ha per scheme.	Moderate
2.5 Will the project involve the use of agrochemicals (pesticides, fertilizers, and other modifying agents) which have potential to pollute soils and water bodies or cause other negative impacts?	Yes		Moderate The project will require use of fertilizers, pesticides and/or other modifying agents, but options are available to replace polluting fertilizers and/or pesticides with alternatives. The adaptive capacity of the environment is high, which should ameliorate most potential pollution problems.	Moderate
2.6 Will the project involve or lead to primary production of living natural resources through cultivation or rearing of plants, annual and perennial crop farming, etc.?	Yes		Minor Project will only be partly dependent on production of living natural resources, it does not require serious environmental or social controls.	Low
2.7 Will the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?	No			Low

Environmental and Social Safeguards				
2.8 Will the project involve livestock and production of animal products (dairy, skins, meat, etc.)?	Yes		Major The project will be focused on extensive and/or intensive systems livestock systems. Pollution control, waste management and/or grazing management systems are weak, and the environmental impacts (including overgrazing) are major.	Substantial
2.9 Will the project involve marine or freshwater fisheries, at industrial or artisanal scale?	No			Low
2.10 Will the project involve inland or marine aquaculture?	No			Low
Cultural Heritage	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
3.1 Could the project involve or lead to adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	Yes	Possible	Minor The project could be close to an area that is considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or contains features considered as critical cultural heritage. The site has been comprehensively surveyed, and all tangible and intangible cultural heritage is well known.	Low
3.2 Could the project involve or lead to excavations, demolitions, movement of earth, flooding or other environmental changes in an area that is considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or intangible forms of culture (e.g. knowledge, innovations, practices) or contains features considered as critical cultural heritage? (See Annex 1 of the Cultural Heritage Guidance Note for further information)	No			Low
3.3 Could the project involve or lead to alterations to landscapes and natural features with cultural significance?	No			Low
3.4 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	No			Low
Indigenous peoples	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
4.1. Is the project sited in areas where indigenous Peoples are present? (Indigenous peoples' traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources).	Yes			Low

Environmental and Social Safeguards				
4.2 Could the project adversely affect indigenous people's rights to traditionally owned or otherwise occupied and used lands, territories, waters, coastal seas and other resources and/or livelihood systems?	Yes	Unlikely	Minor Minor adverse impact to indigenous peoples' rights to land, assets, territories and resources is expected.	Low
4.3 Could the project result in the utilization and/or commercial development of natural resources on lands and territories inhabited by indigenous peoples?	Yes	Unlikely	Minor The project will be located in an area where natural resources are of value to indigenous peoples, but the project does not include utilization and/or commercial development of natural resources.	Low
Labour and Working Conditions	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
5.1 Could the project operate in sectors or value chains where there have been reports of discriminatory practices and the lack of equal opportunity (for disadvantaged and vulnerable workers, including women, children of working age, migrants and persons with disabilities), denial of freedom of association and collective bargaining, labour migrants?	Yes	Unlikely	Minor The project will operates in sectors or value chains that have, in the past, not met national labour laws, or international commitments, but is now adequately nationally regulated, and is part of international value chains that are subject to regular environmental and social auditing.	Low
5.2 Could the project operate in a value chain where there have been reports of forced labour? Note: Risks of forced labour may be increased for projects located in remote places or where the status of migrant workers is uncertain.	No			Low
5.3 Could the project involve children (a) below the nationally-defined minimum employment age (usually 15 years old) or (b) above the nationally-defined minimum employment age but below the age of 18 in supported activities or in value chains?	Yes	Possible	Moderate The project will operate in sectors or value chains where child labour was evident in the past. However, child labour is now regulated and is illegal under national law.	Moderate
5.4 Could the project: (a) operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks, and/or (b) promote or use technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general? (Note: "OSH risks in agriculture might include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects. Psychosocial hazards might include violence and harassment.")	Yes	Possible	Moderate The project will operate in a sector, area, or value chain where workers are occasionally exposed to OSH risks, and where regulation is known to be weak or non-existent. However, there is no evidence of illness or death.	Moderate

Environmental and Social Safeguards				
Community Health, Safety and Security	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
6.1 Could the project lead to and or be at risk from water-borne, zoonotic or vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable diseases?	Yes	Possible	Moderate The project will be situated in an area where there is past evidence of negative impacts from water-borne, zoonotic or vector-borne diseases, or communicable/non-communicable diseases, but where regulation or containment of these impacts has been shown to be effective. Project activities could lead to moderate risks of water-borne, zoonotic or vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable diseases.	Moderate
6.2 Could the project have unintended negative impacts on nutrition?	Yes	Possible	Minor Minor negative impact on customary or traditional diet, resulting in occasional individual health problems.	Low
6.3 Will the project involve the construction or rehabilitation of dams?	No			Low
6.4 Could the project involve or lead to transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	Yes	Possible	Minor The project will have only minor involvement with the transport, storage, and use and/or disposal of hazardous or dangerous materials, and regulation of hazardous materials is effective.	Low
6.5 Could the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labour influx, land redistribution, or other actions that alter community dynamics?	Yes	Likely	Moderate The project may lead to moderate changes to community dynamics may result in increased potential for gender-based violence or sexual exploitation. Gender-based violence protocols in place.	Moderate
6.6 Will the project construct, rehabilitate or upgrade rural roads and/or lead to increases in traffic or alteration in traffic flow?	No			Low

Environmental and Social Safeguards				
6.7 Could the project lead to an influx of project workers?	Yes	Possible	Minor The project will require the employment of new labour, but workers can be sourced from local communities, and so influx is kept to a minimum, and risks are effectively managed.	Low
6.8 Could the project involve or lead to the engagement of security personnel to protect facilities and property or to support project activities?	Yes	Possible	Minor A small number of security personnel will be required, but they are well trained, and protocols are in place.	Low
Physical and economic resettlement	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
7.1 Will the project result in temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?	No			Low
7.2 Will the project result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	No			Low
7.3 Could the project increase the risk of forced evictions? (The project cannot proceed unless forced evictions are avoided)	No			Low
7.4 Could the project result in adverse impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	Yes	Unlikely	Minor The project will result in minor impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights. Legal recourse and other forms of arbitration/conflict resolution are available.	Low
Financial intermediaries and direct investments	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
8.1 Could the investment be granted to an institution that does not have an environmental and social policy and an associated environmental and social management system (ESMS) in place (transparent, publicly available)?	Yes	Possible	Moderate The institution does not have an ESMS in place, but several individual E&S policies. The policies are therefore not considered as transparent. The reporting on E&S is available upon request.	Moderate

Environmental and Social Safeguards				
8.2 Could the investment be granted to an institution with insufficient capacities (i.e. unqualified personnel e.g. ES Officer) to implement the ESMS?	Yes	Possible	Moderate The institution does not employ an ES Officer, but has sufficiently trained field staff available to monitor the impact of the operations of the institution.	Moderate
8.3 Could the investment be granted to an institution that does not have an Exclusion List?	No			Low
8.4 According to the institution's portfolio classification: Could the institution have potential high-risk projects in their portfolio?	Yes	Possible	Moderate The portfolio classification is very broad, and detailed information is not available. The institution invests a small portion of funds in high-risk projects.	Moderate
8.5 Could the institution not be providing a stable communication channel with stakeholders and local communities (e.g. a Grievance Redress Mechanism)?	Yes	Possible	Minor Communities and stakeholders can contact the institution and a process is in place for institutionalizing the communication channels (e.g. complaint-management system), however staff has minimal training in grievance management.	Low
8.6 Could the institution not be providing auxiliary or capacity building support services?	Yes	Likely	Moderate The institution offers basic services for customers (directly or through third-party providers) to improve buisness and livelihood opportunities.	Moderate

Climate Risk Classification: Substantial

Step 1: Hazard identification	
What are the expected hazards in the project intervention area?	**No, Yes, TBD**
1.1 River flood	Yes
1.2 Costal Flood	No
1.3 Urban Flood	Yes
1.4 Landslide	No
1.5 Cyclone	No
1.6 Water Scarcity (agricultural droughts and/or dry spells)	Yes
1.7 Extreme Heat	Yes
1.8 Wildfires	Yes
Future climate scenarios foreseen (period 2040-2059) - Change in frequency and intensity	**No, Yes, TBD**
1.9 Change in temperature (increase or decrease)	Yes
1.10 Change in rainfall (increase or decrease)	Yes
1.11 Climate variability	Yes
1.12 Intensity and frequency of extreme events	Yes
Is the project expected to have an impact on climate change (i.e. contribute to greenhouse gas emissions)?	**No, Yes, TBD**
1.13 Is the project expected to be a significant emitter of greenhouse gas emissions?	No
Step 2: Exposure Assessment	
Is the project located in exposed areas to weather-related natural hazards?	**No, Yes, TBD**
2.1 Low-lying areas (valleys, coastal zones, and small islands)	No
2.2 Very warm areas (subtropical)	No
2.3 Tropical areas (rainforests)	No
2.4 Arid and semi-arid areas (deserts)	Yes
2.5 Mountains zones and permafrost areas (tundra)	No
2.6 River banks	Yes
Does the project target agricultural systems, ecosystems or livelihoods exposed to weather-related hazards?	**No, Yes, TBD**
2.7 Is crop production frequently affected by rainfall variability, prolonged droughts, changes in temperature or pests and diseases?	Yes
2.8 Is livestock productivity frequently affected by rainfall variability, prolonged droughts, changes in temperature or diseases?	Yes
2.9 Are fisheries frequently affected by ocean acidification, water salinity and changes in sea surface temperature due to ocean-atmospheric oscillations or climate change?	N/A
2.10 Is forest productivity frequently affected by wildfires, diseases, rainfall variability, prolonged droughts, or changes in temperature?	Yes
2.11 Is the biodiversity in the project area likely to be affected by changes in climate variables?	Yes
2.12 Is any stage of the agricultural value chain (production, storage, processing and marketing) exposed to climate related hazards?	Yes
2.13 Is any rural infrastructure likely to be affected by flooding, landslides, changes in temperatures, and extreme winds.	Yes
Step 3: Sensitivity Assessment	
What are key sensitivities for the populations in the project's areas of intervention?	**No, Yes, TBD**
3.1 Is conflict exacerbating the population´s sensitivity to weather related hazards?	No

3.2 Is population displacement being exacerbated by climate change impacts?	No
3.3 Are diseases (e.g. COVID-19, malaria, cholera) increasing the population´s vulnerability and affecting their capacity to address potential weather-related hazards?	Yes
3.4 Are social inequalities (e.g. based on gender, youth, indigenous persons and other marginalized groups) being exacerbated by climate change?	Yes
3.5 Human Development Index (HDI)	No
3.6 Multidimensional Poverty Index (MPI)	Yes
Step 4: Adaptive capacity	
What are key adaptive capacities in the areas of project intervention?	**No, Yes, TBD**
4.1 Is the country well ranked in the Disaster risk reduction progress score?	No
4.2 Are climate and weather information services (real-time weather data, seasonal forecasts etc.) effectively being delivered (through radio, TV, SMS, extension services etc.) to farmers, rural dwellers, and end users?	No
4.3 Does the project country have an early action plan (preparedness and emergency response) to mitigate the impacts of weather-related hazards once the shock occurs?	No
4.4 Does the government or other institutions support the target population/communities with the necessary social and economic resources to prepare for or respond to climate-related events?	No
4.5 Is the target community carrying out (using their own means) agricultural adaptation?	No
4.6 Does the target population have the economic means or support to adjust or adapt their activities in response to weather related shocks?	No
4.7 Do policies/mechanisms exist that make financial credit, loans, and agricultural insurance available?	Yes
4.8 Are rural infrastructures effectively delivering services to farmers and rural dwellers?	No

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Botswana Livestock Commercialization Project

Project Design Report

Environmental, Social and Climate Management Plan (ESCMP)

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
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East and Southern Africa Division
Programme Management Department

MINISTRY OF LANDS AND AGRICULTURE

Botswana Livestock Commercialization Project

(BoLCoP)

ENVIRONMENT, SOCIAL AND CLIMATE MANAGEMENT PLAN (ESCMP)

Prepared for:

Botswana Livestock Commercialization Project (BoLCoP)
Ministry of Lands and Agriculture,
AKD Building,
Plot number 1108,
Main Mall,
Gaborone,
Botswana.

Environment, Social and Climate Management Plan Matrix

	Environmental, Social, and Climate Impacts	Actions and Mitigation Measures (incl. public consultations)	Means of Verification (Monitoring & Reporting)	Frequency of Verification (Monitoring & Reporting)	Responsible for Implementation
Environmental Risks					
Construction Phase					
(a)	**Soil and land degradation**				
	• Exposure of land during land preparations for fodder crop and pasture farming. • Point source contamination from spilled paints, diesel, lubricants etc. around workshop areas. • Hazardous Materials spillages Construction risks of spills (oil, lubricants), during establishment of Agriculture facilities • Increased rapid runoff due to vegetation clearing and soil compaction diminishing infiltration capacity during construction phase.	• Avoid and minimise use of hazardous materials • Ensure adequate waste management at all operational sites • Install appropriate containment measures for all operational areas and proper disposal of used lubricants. • Install Soil erosion control measures (e.g., re-vegetation, reseeding of grasses, re-grassing of all bare surfaces, terracing, use of gabions, stabilization of banks contour ridges, swells and catch dams) • Restore borrow pits, sand and quarry stone abstraction sites and brick moulding sites. • Minimise vegetation clearing to working areas only.	• Contamination of nearby water resources. • Number of reported pollution events • Geo maps, observation, pictures, inspection	Bi-annual	• NPMCU. • Local Leadership. • Beneficiaries. • Contractors. • District Agriculture Office. • Contractors • BOLCOP Service Providers
(b)	**Deforestation**				
	• Clearing land for fodder production. • clearing land for Construction purposes and establishment of infrastructure	• Discourage cutting of mature trees by awareness raising • Ensure protection of buffer zones along rivers by awareness raising • Promote agroforestry through technical training	• Inspection, • visual observations, • pictures, • geo mapping	Bi-annual	• MET experts • extension workers • NPMCU • Contractors • Service Provider • MOLA
(c)	**Disturbance of Marginal Areas**				
	• Establishing the projects in Marginal Areas poses serious threats to their further degradation. • Establishing new farms.	• Avoid extraction of raw materials from marginal areas • No construction of structures in marginal areas.	• Inspections of the state of the		• NPMCU • Bolcop Contractors

		• Continuous community sensitization on sustainable land use targeting extension agents, producers and local leaders.	marginal areas.		• Bolcop Service Provider
(d)	**Loss of Fragile ecosystems**				
	• Fragile ecosystems like wetlands, quickly degrade and lose their functionality if misused.	• Conduct feasibility studies before construction, • Use expert knowledge of ecologists, • Introduce ecosystem conservation projects. • Fence out some sensitive sites. • Harvesting of resources in wetlands must be controlled. • Agricultural activities in wetlands must be under controlled conditions – sustainable use of wetlands. • Invasive alien species must not be introduced into sensitive ecosystems.	• Inspections of state of Fragile Ecosystem.		• NPMCU • Bolcop Contractors • Bolcop Service Provider
(e)	**Ambient air pollution**				
	• Demolition to modify the built environment will lead to considerable levels of cement dust and asbestos dust which can affect the health of the workers and the public. • Dust from Fodder processing at Grinding Mills. • Smells from agricultural waste. • Impaired Visibility on the roads • Disturbs normal developments of vegetation.	• Contractors should use dust screens or nets in windows, doorways, and ventilators of rooms where demolition or other dusty construction activities are occurring • Processing waste must be handled properly to avoid contamination and smells. • Dust suppression measures such as watering of dusty surfaces must be instituted at all sites including at fodder processing plants. (cover soil mounds and spray bare areas with water) • Accredited firms must be contracted to manage hazardous materials such as asbestos • Animal waste must be handled properly to avoid smell. • Site clearance is to be minimized as far as possible to reduce the potential for dust and other impacts.	• Inspections. • Availability of dust suppression measures.		• NPMCU. • Bolcop Contractors • Local Leadership. • Beneficiaries. • Local Environment Officers • District Agriculture Office.
(f)	**Overexploitation of Water Resources**				
	• Boreholes may lead to water over-use if not properly managed = • Loanees may purchase pumps and expand production, increasing water demand in localized areas.	• Conduct awareness campaigns and training for beneficiaries on sustainable water use and climate-smart agricultural practices. • Encourage crop diversification with drought-resistant fodder species. • Enforce national water use regulations and permit systems for groundwater abstraction.	• Number of awareness campaigns conducted on water use efficiency	Bi-annual	• NPMCU • Ministry of Lands and Agriculture (MoLA • Local Water Authorities

					• District Agricultural Extension Officer • Beneficiaries
(g)	**Contamination of Water Resources**				
	• discharges of debris from civil works, oil spills, and other pollutants generated from construction works including onsite sewage and rainwater run-off. • Discharge of effluent from agricultural processing plants. • Soil and water pollution resulting from the accumulation of solid and liquid waste. • Soil and water pollution from chemicals & fertilizers meant for fodder production. • Littering and indiscriminate dumping of solid waste pollutes land and water resources. • Poisoning of aquatic and inland ecosystems.	• Contractors to erect proper sanitary facilities. - Toilets at convenient locations throughout the project area. • Pollution from lubricants and other wastes to be avoided. Contain all oil leaks at workshops and surfaces by collecting in oil separators. • Controlled disposal of wastes and effluent by use of appropriate disposal facilities, use of appropriate drainage structures, use of cleaner technologies, proper storage of materials. • Waste must be recycled and reused to avoid dumping in waterways. • Polluted water shall be treated prior disposal to watercourse. • activities related to slaughtering of cattle should be carefully conducted and the resultant waste managed properly. • Maintain all vehicles and equipment to avoid oil and grease leaks. • Install oil and grease separators to collect rain runoff around workshops and parking areas. • Promote compliance with national discharge standards • discharge effluent that meets the national discharge standards • Maintain safe distance (+50 feet) between latrine and water sources • Take corrective action when water contamination is established. • Emergency spill response plans in place	• Discharge of poor-quality effluent • Change in chemical and biological water quality • Number of reported pollution events	Bi-annual	• Contractors • MET • District/Local extension workers • NPMCU. • Local Leadership. • Beneficiaries. • Local Environment Officers • District Agriculture Office
Operations Phase					
(a)	**Solid waste**				
	• Less quantities of solid wastes generated include domestic wastes, plastics, and animal dung.	• Collect all solid waste in a systematic manner for disposal at designated landfills.	• Solid waste collection	Bi-annual	• NPMCU. • Local Leadership.

		• Place waste collection bins at strategic positions throughout the project area. • Solid waste should never be burnt on site. • Develop a solid waste management plan and implement it. • Promote waste minimization, segregation, and recycling. • Construct/refurbish waste management facilities at all processing plants like abattoirs. These should include biogas digesters	mechanisms in place. • Waste collection bins strategically positioned • solid waste management plan in place and being implemented .		• Beneficiaries. • Local Environment Officers • District Agriculture Office. • Contractors.
(b)	**Effluent Discharges**				
	• Most agricultural, livestock, agro-processing, packaging, and marketing operations produce liquid effluent	• Install appropriate effluent treatment facilities next to any processes that generate effluent. i.e., Septic tanks, oxidation ponds, etc • Collect and channel all effluent to a properly constructed effluent treatment plant, (oxidation ponds, septic tanks / bio-gas digesters) • Monitor the quality of the effluent that is ultimately discharged to the environment so that it meets the national effluent discharge standards. • Train staff on effluent management. • Construct/refurbish waste management facilities at all processing plants like abattoirs. • Pre-treat effluents before discharging into municipal sewers to reduce pollutant loads.	• appropriate effluent treatment facilities installed at facilities • Quality of final discharge being monitored – water quality records available.	Bi-annual	• NPMCU. • Local Leadership. • Beneficiaries. • Local Environment Officers • District Agriculture Office.
(c)	**Agro chemicals**				
	• Pollution of water resources from excess fertiliser applications for fodder production. • Pollution from inappropriate use of biocides. • establishment and operation of infrastructure for artificial insemination • Poisoning of farmers by chemicals. • Poisoning of aquatic and inland ecosystems by the chemicals. • Poisoning of the soil by the chemicals. • Poisoning of farm produce by chemicals.	• Apply fertiliser correctly and in the right amounts - Use split application - No application before major storms. • Store biocides, fertilisers, and animal feeds in separate, lockable storerooms to avoid cross-contamination - Keep away from food staffs • Train farmers on use, handling, storage, and disposal of agro chemicals. • Encourage organic farming and limit the use of Agro chemicals like inorganic fertilizers. • Use integrated Pest Management approaches to minimize pesticide use.	• Number of trained farmers. • Availability of lockable separates storerooms for agro chemicals	Bi-annual	• Contractors • MET • District/Local extension workers • MOLA • NPMCU. • Local Leadership. • Beneficiaries.

		• All workers to use appropriate PPE every time. • Use the least potent variants of pesticides to minimise poisoning.			• Local Environment Officers • District Agriculture Office.
(d)	**E-waste generation**				
	• Potential of E-waste generation from the laptops, computers and solar panels supplied for the digitisation programme. • Potential for Hazardous waste pollution. • Littering and indiscriminate dumping of solid waste • E-waste pollution	• Develop an E-Waste Management Plan. • All e-waste must be securely stored on site prior to collection by competent personnel for proper disposal at designated landfills. • Collect and store in a lockable area, all potentially hazardous waste (end of life laptops and computer components, batteries, solar panels, etc.), for onward transportation back to supplier, recycling facility or proper disposal site.	• Availability of secure storage area for end of life electronic gadgets	Bi-annual	• NPMCU. • Local Environment Officers • District Agriculture Office.
(e)	**Invasive species**				
	• Invasive species risk from new fodder crops	• Conduct ecological risk assessments for all fodder species • Use only approved native or adapted species recommended by Botswana's Dept. of Agriculture & MET • Train farmers on safe fodder introduction and weed control • Eradicate invasive plants if detected • Ban planting near wetlands and protected areas	• Screening reports, training records	Bi-annual	• NPMCU, MET (Dept. of Forestry & Range Resources), District Agriculture Office
(f)	**Revegetation**				
	• planting of grass and continuous rehabilitation of the pastures.	• identify the correct indigenous plants that can thrive in the area. • Conduct deliberate exercise to revegetate the project area using fodder and other grasses.	• Area of land re-generated.	Bi-annual	• NPMCU. • Local Environment Officers • District Agriculture Office.
SOCIAL RISKS					
(a)	**Poor project Inception/Introduction**				
	• Anxiety and anticipation • Limited cooperation	• Efforts must be made to stick to agreed timelines. • Transparency and full disclosure of key elements of the project must be done.	• None	Bi-annual	• NPMCU. • Local Leadership.

	• Suspicion and hence concealing important of information.	• Produce proper plan of action with timelines • Present full disclosure of project decisions and actions to all concerned stakeholders • The planning phase should not drag for far too long as people tend to lose despair.			• Local Environment Officers
(b)	**Occupational Health and Safety Issues**				
	• Temporary and permanent physical injuries. • Bronchial diseases from dust. • Diseases and illness from agricultural activities such as pesticide handling. • Loss of life. • Accidental Injuries of local people accessing construction sites. • Accidents from operation of various equipment,	• A Health/Safety/Environment officer should be present during construction. • All safety precautions must be enforced. • Provide PPE to all workers. • Institute dust and noise suppression measures.	• Application of various types of PPE and their proper use.	Bi-annual	• Health Dept, • NPMCU. • Local Leadership. • Local Environment Officers
(c)	**Noise**				
	• Noise and vibration caused by machines, site vehicles, pneumatic drills etc.	• Contractor to avoid old and faulty equipment. • Heavy duty equipment to be minimised. • Noisy operations to be limited to certain times. • Noise levels to be limited to within acceptable levels.	• Use of well serviced equipment. • Noisy operations limited to certain times of the day.	Bi-annual	• Contractors • BolCoP • MET
(d)	**Gender Based Violence**				
	• Physical body harm • Lack of productivity • Communicable disease incidences	• Zero tolerance to gender-based violence • Ensure sexual harassment Policy at all levels involved in the project. • Establish grievance redress mechanism (GRM)	• Reported Gender Based Violence and Sexual Harassment	Bi-annual	• NPMCU. • Local Leadership. • Local Environment Officers
(e)	**Unequal Access To Benefits**				
	• Unequal access to benefits for women and other marginalised groups • Gender inequality & discrimination	• Take into account the needs of especially vulnerable and marginalised groups, particularly women and girls. • Training programmes will include gender considerations, as well as considerations for other marginalised groups	• # of women employed • # of women trained and mentored • # of trainings & awareness	Bi-annual	• NPMCU; • ESS/Gender expert • Service Providers • Department of gender • UNFPA

		• A Gender Mainstreaming Plan has been developed which embeds a gender responsive approach throughout the project. • Implement Gender Action Learning System (GALS) • Promote, women's influence in decision making Promote cottage industry • Improve women's access to land, credit, and technological resources. • Conduct women capacity building & mentorship • Conduct Gender & GBV awareness raising & prevention training.	raising on GBV • # of women with access land, credit, and technological resources		
(f)	**Inclusion of Women and Youth**				
	• Youth unemployment thus compromising security • Limited Women & Youth Participation due to unequal power relations & mismanaged natural resources.	• Promote income generation activities for the youth e.g. cottage industry, etc. • Women & youth mentorship and training. • Ensure women and youth needs/inputs are considered in design and implementation of project interventions	• # of youths employed • # of youth trained & mentored	Bi-annual	• NPMCU • Service Providers • Department of youth
(g)	**Inadequate Consultations with Indigenous Peoples**				
	• Negative impacts on Indigenous Peoples, whose ancient practices may be disturbed.	• Conduct comprehensive stakeholder mapping during the first year of the project to identify precisely which IPs will be affected. • Institute the process for Free, Prior and Informed (FPIC) • Include Representatives of IPs in planning, implementation, monitoring and evaluation of relevant project activities. • Develop protocols with IPs for communication that has the objective of seeking FPIC. • Seek Consent through procedures and institutions determined by IPs themselves. • Establish mechanisms and procedures with IPs to verify that FPIC has been sought and for Redress.	• IP representatives identified • No of FPIC trainings conducted. • FPIC processes conducted.	Bi-annual	• NPMCU, • ESS expert, • IP representatives
(h)	**Lack of access to Resources**				
	• Potential for IPs and other local communities including women and youth to be prevented access to land and natural resources or to be dispossessed of land and resources (physical displacement). Existing insecure land tenure and limited access to land for IPs, women and	• The project does not anticipate any restrictions on land use or resettlement In the unlikely event this is unavoidable, the project will provide compensation for loss of assets at replacement cost and ensure resettlement activities are implemented with	• Zero resettlement observed by project • Appropriate compensatio	Bi-annual	• NPMCU; • Project manager; • district administratio n

	youth pose risks, which may lead to exclusion from project benefits or increase land-based conflicts if not carefully managed.	appropriate disclosure of information, consultation and informed participation of those affected • Conduct sociocultural and land tenure assessment • The project will adopt a "no-resettlement" policy and ensure all land-related decisions are preceded by comprehensive stakeholder engagement. • In the case of restrictions on land use, a Process Framework will be developed by the project • In the case of voluntary resettlement, a Voluntary Resettlement Action Plan will be developed by the project. • All interventions will adhere to the national laws for resettlement. • Develop all management plans and land use plans in collaboration with local communities who are likely to be affected. • Establish and promote accessible grievance redress mechanisms to manage emerging issues.	ns in case of resettlement.		• IP representatives
(i)	**Labour & working conditions**				
	• Workers subjected to unfair Labour & working conditions.	• Awareness raising on child protection laws & education to prevent the use of child labour in project activities • Child labour to be monitored throughout the project through a participatory surveillance & control system. • Institute fair labour practices and conducive working conditions. • Enforce the national labour laws including the ILO agreements.	• Age confirmation with ID/any official evidence • # of awareness raising & capacity building activities	Bi-annual	• NPMCU • Department of Labour • MOLA
(j)	**Elite Capture**				
	• Elite capture – unequal access to training and inputs because of historical inequality and power relations	• Conduct an inclusive and transparent stakeholder engagement process to identify and determine different players and their influence on the project, and in the community. • Engage the most influential members by assigning them meaningful responsibilities, helping channel their influence productively and reducing any perceptions of elitism.	• # of stakeholder engagements • # of trainings	Bi-annual	• NPMCU, • Project manager • Service Provider

		• Capacitate district/local staff in appropriate community communication and facilitation skills to manage the community socio-political processes • Project staff will be trained on the historical inequality and power relations present in the project sites to inform the implementation of interventions and prevent elite capture • Field visits will take place to monitor the distribution of benefits derived from the project			
(k)	**Cultural Heritage**				
	• Impacts on cultural heritage from establishment of infrastructure	• Ensure the prevention of the removal of or damage to objects or sites considered to be culturally important if encountered • Conduct Field-based studies, including consultation with local communities and IPs where appropriate, to ensure the full nature, extent and significance of any cultural heritage sites encountered. • Ongoing and extensive consultation with IPs will take place to ensure any risks related to cultural exchange are managed • Apply the chance finds procedure in case of any chance finds of archaeological importance.	• Records of stakeholder engagement • Availability of a project chance finds procedure	Bi-annual	• NPMCU; Project manager; • District administration
(l)	**Human-wildlife conflict (HWC)**				
	• Human-wildlife conflict (HWC) is a significant threat, in agricultural areas. Conflicts arise where: • human settlements encroach on wildlife habitats. • crop damage, livestock predation, and even human injury or death caused by wildlife. • retaliatory actions from affected communities	• Farmers have to avoid raring livestock in in hotspot areas where wildlife is rife. • Farmers have to take all necessary precautions like herding heir animals and kraaling them at night in secure kraals. • Animals may be fought back only in self-defence but must not be poached or trapped. • Farmers have to engage experts form Parks and Wildlife	• Number of Farmers Trained in wildlife management • Delineation of Hotspots • Number of compensations done • Number of incidences reported.	Bi-annual	• MET - Dept. Of National Parks and Wildlife • District/Local extension workers • MOLA, - NPMCU. • Local Leadership. • Beneficiaries. • Local Environment Officers • District Agriculture Office.

(m)	**Economic Opportunities Employment (job creation)**				
	• Improvement on their income generation. • Improvement of livelihoods • Maintained land output gain. • Improved entrepreneurial skills	• Set up favourable partnership agreements. • Deliver on project commitments. • Promote entrepreneurship and commercial farming skills.	• Entrepreneurial approaches. • Good animal Husbandry • Commercial farming approaches.	Bi-annual	• NPMCU. • Local Leadership. • Local Environment Officers
CLIMATE RISKS					

(a)	• Climate Change impacts:
	  • Ever increasing Temperatures
	  • Flash floods
	  • Droughts
	  • Rainfall variability
		• Promote climate smart agriculture such as climate resilient fodder cropping systems and practices.
		• Promote
		• Enhance and improve agro-meteorological infrastructure to provide timely information services to the project beneficiaries such as cluster of smallholders, public and private investors, and value chain actors.
		• Adopt climate smart technologies (sustainable land management, water harvesting technologies, clean energy and conservation of forests ecosystems
		• use improved breed, more efficient application of fertilizers, and better manure management to reduce GHG emissions.
			• Number of Climate Smart Agriculture Trainings conducted
			• Number of farmers trained in Climate Smart agriculture.
				Bi-annual	• MoLA
					• NPMCU.
					• Local Leadership.
					• Local Environment Officers

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Botswana Livestock Commercialization Project

Project Design Report

Environmental, Social and Climate Management Framework (ESCMF)

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
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East and Southern Africa Division
Programme Management Department

MINISTRY OF LANDS AND AGRICULTURE

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Botswana Livestock Commercialization Project

(BoLCoP)

ENVIRONMENT, SOCIAL AND CLIMATE MANAGEMENT FRAMEWORK (ESCMF)

Prepared for:

Botswana Livestock Commercialization Project (BoLCoP)
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Botswana Livestock Commercialization Project (BoLCoP) Environment, Social and Climate Management Framework (ESCMF) is intended to provide complete documentation for the requirements of a holistic GRM system for the project. This GRM contains the findings of a study conducted for the Agriculture sector of Botswana and the instrument has been developed on the basis of the local conditions and findings.

Report no.	**001**
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……	**…….**
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……	**…….**
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This Report is Available from:

Attention: The Permanent Secretary,
Ministry of Lands and Agriculture,
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Botswana.

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ABBREVIATIONS AND ACRONYMS

BoLCoP	Botswana Livestock Commercialization Project
FSPs	Financial Service Providers
GRM	Grievance Redress Mechanism
MLA	Ministry of Lands and Agriculture
MSMEs	Micro, Small Medium Enterprises
IE	Implementing Entity
ESP	Environmental and Social Policy
ESCMF	Environmental and Social Commitment Framework
ESCMP	Environmental and Social Management Plan
SECAP	Social, Environmental and Climate Assessment Procedures
GDP	Gross Domestic Product
BDS	Business Development Services
GoB	Government of Botswana
NPMCU	National Project Management and Coordination Unit
PIM	Project Implementation Manual
PSC	Project Steering Committee
MoLA	Ministry of Land and Authority
PTC	Project Technical Committee
DPMCU	District Project Management and Coordination Unit
EA	Executing Agency
NDP	National Development Plan
NBSAP	National Biodiversity Strategy and Action Plan
DHMT	District Health Management Team
MDGs	Millennium Development Goals
SHER	Safety, Health, Environment and Risk
ESIA	Environmental and Social Impact Assessment
AIA	Archaeological Impact Assessment
DSWM	Domestic Solid Waste Management
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
DEP	Department of Environmental Protection
UNFCCC	United Nations Framework Convention on Climate Change
POPs	Persistent Organic Pollutants
ENRM	Environment and Natural Resource Management
ESMS	Environmental and Social Management System

ESIA	Environmental and Social Impact Assessment
MET	Ministry of Environment and Tourism
GALS	Gender Action Learning System
UNFPA	United Nations Population Fund
IP	Indigenous Peoples

Executive Summary

Introduction

The potential socio-economic benefits of BoLCoP will include a market-oriented approach that will empower rural communities—particularly women, youth, and marginalised groups—to actively participate in and benefit from the smalls-stock livestock value chain. The project will also enhance access to climate-resilient infrastructure, financial services, and productive assets, thus supporting income diversification, job creation, and improved food and nutrition security.

This ESCMF has been prepared as a guide for the various activities of the proposed BOLCOP project and how to assess and mitigate any negative environmental and social impacts, which would require attention prior to project implementation. This ESCMF is to be used by the BoLCoP to ensure that all environmental, social and climate safeguards are adequately addressed and that the relevant capacity building and training needs are established in order for the recommended measures to be implemented effectively. Furthermore, the ESCMF has been prepared as a guide for the integration of environmental and social considerations into the design, planning and implementation of the proposed programme activities. It also provides a basis for specific environmental and social assessments of all sub-projects to be carried out under this proposed financing.

Programme Categorization

The environmental and social category of the project has been determined to be "Substantial" owing primarily to the production of livestock and animal products. Several adverse risks related to SECAP 2021 standards, were identified including: biodiversity, resource use efficiency and pollution; labour and working conditions; community health and safety; financial intermediaries and direct investments. Although the projects will not be conducted in sensitive areas, the project may pose significant risks and impacts to the environment and humans if not adequately managed. However, the risks are reversible through proposed mitigation actions. Some of the sub-project's activities which are likely to have significant or adverse risks include: a) rehabilitation and or construction of water supplies, Rehabilitation of agriculture infrastructure, including feed and fodder processing plants and abattoirs, erection of water harvesting infrastructure close to homes, and increased use of agrochemicals. Potential environmental, social and climatic risks include vegetation clearance; land degradation; inappropriate use of agrochemicals leading to pollution; conflicts; gender-based violence; child labour etc.

Stakeholder Engagement Process

Stakeholder consultations were integral to developing the ESCMF and establishing a process for continuous engagement throughout project implementation. The approach involved identifying affected stakeholders, gathering their views, and ensuring concerns are addressed over time. Activities included full-scale site visits during the PCN and design stages, virtual meetings, focus group discussions, and one-on-one interviews. A Stakeholder Engagement Plan (SEP) was created to maintain engagement during the project lifecycle, supported by a Grievance Redress Mechanism (GRM). The GRM provides a structured system for responding to queries, resolving implementation issues, and addressing complaints efficiently, ensuring beneficiaries' concerns are acknowledged and resolved. Both the SEP and GRM aim to promote transparency, accountability, and inclusive participation in the BoLCoP project.

Environmental and Social concerns and mitigation of impacts

Identification of environmental and social impacts has been conducted and incorporated into the ESMF. The major E&S impacts and risks associated with the program include:

a) Land degradation from overgrazing and expansion of fodder production fields.
b) Poor water retention and increased runoff in sandy Kalahari soils, reducing forage productivity and resilience.
c) Climatic variability risks, including temperature extremes, droughts, unexpected rains, flash floods, and frost events.

d) Water access challenges, including low-yield boreholes and saline water unsuitable for farming.
e) Generation of solid waste, with improper disposal and potential GHG emissions.
f) Inappropriate use and handling of agrochemicals (vaccines, pesticides), including unsafe storage near food.
g) Wildlife–human conflicts, predators, and livestock theft.
h) Livestock diseases such as heartwater, tick-borne diseases, and Pasteurellosis.
i) Potential GBV/SEA risks linked to empowerment of women.
j) Child labour and social unrest, particularly among vulnerable groups.
k) Deforestation risks due to clearing land for fodder production.
l) E-waste generation from digitising and computerising financial and project systems.
m) potential pollution from livestock production and waste management

These impacts, though significant, are largely localized, reversible, and manageable through the application of mitigation measures outlined in the ESCMF.

Capacity Building
The successful implementation and monitoring of the environmental and social management framework (ESCMF), will require that target groups and stakeholders who play a role in the implementation of the ESCMF, be provided with appropriate training and awareness. This is necessary because the implementation of the activities will require inputs, expertise and resources which will be adequately taken care of if the concerned parties are well capacitated. Careful and strategic identification of training recipients should be carried out at the beginning of the Programme. The project has developed a capacity building plan that will be used for this purpose. Generally, MoLA and the PMU at national, provincial, district and community levels have limited capacity in the application of the ESCMF and the applicable SECAP Requirements.

ESCMF Budget
The total estimated amount needed to cover all the work to be carried out under the ESCMF preparation and implementation for the sub-projects is **US$ 1,145,887.49**for the eight years of project implementation. The key indicative aspects that would require a cost budget include training and capacity building for the project PMU; Training and capacity building for the project districts and local level teams; Implementation of the stakeholder engagement plan (SEP).

Conclusions and Recommendations
BoLCoP has great potential to significantly improve the livelihoods of the small stock farmers of Botswana. The proposed project has potential to significantly improve the farmers' production, productivity, and income in the target project areas. An improvement in the income of the households will translate to improved food security as they now will have cash to secure other needs. The implementation of BoLCoP will provide considerable economic opportunity for the rest of the small stock value chain from production to consumers, including material/equipment suppliers, construction contractors and other agricultural professionals.

The envisaged environmental and social impacts include soil disturbances and degradation from the rehabilitation and construction of various agriculture infrastructure, Solid and liquid waste generation from the farming and processing activities, tree cutting and general vegetation clearing from land preparations, emission of dust and generation of noise. **These envisaged environmental impacts will generally be localized, minimal, short term and can be mitigated.** To achieve this, it will entail incorporating all the requisite mitigation measures and adhering to the requirements of the current ESCMP. **The Final *benefits of this programme to the nation will, by far outweigh any potential negative effects.***

1. INTRODUCTION

1.0 BACKGROUND INFORMATION

The Government of Botswana through the Ministry of Lands and Agriculture (MoLA) is in the process of preparing the Botswana Livestock Commercialisation Project (BoLCoP), with IFAD technical and financial support. As one of the prerequisites for the project through the IFAD SECAP, an Environmental, Social and Climate Management Framework (ESCMF) must be developed.

The project will be implemented over a period of eight years and will comprise various sub-projects located at various locations throughout the country. (BoLCoP) seeks to realize the Government of Botswana's (GoB) aspirations to inclusively and sustainably commercialize the small livestock sector thereby enhancing incomes and resilience of rural households. BoLCoP will promote climate smart improvements in production and productivity, strengthen inclusive value chains and create an enabling policy and regulatory environment for small livestock development. The Project will also improve women and youth participation in the value chain, promote use of digital technologies and enhance access to rural finance.

Botswana is considered highly vulnerable to climate variability and change due to its high dependence on rain-fed agriculture and natural resources, high levels of poverty – particularly in rural areas, and a low adaptive capacity to deal with these expected changes.[1] Primary challenges are centred around water resource availability, changing precipitation patterns and increasing population demands. Climatic and socio-economic environments in semi-arid areas in Botswana make communities vulnerable to food insecurity and unstable livelihoods as well as unsustainable agroecological systems, crop failure and unproductive rangelands.[2]

As of March 2, 2025, the population of Botswana was 2,548,316, with 51.9% female and 48.1% male [3]. The population density in Botswana is 5 per Km^2 (12 people per mi^2), with an annual growth rate of 1.63%. The country has a relatively young population (32.6 % of the population is below 15) with a median age of 23.4 [4]. Even though poverty and inequality has decreased in Botswana, it is still high; the national headcount poverty was estimated at 16.3 per cent in 2015/16, as compared with 19.3 per cent in 2009/10, with higher poverty levels recorded in rural areas despite the implementation of targeted State-supported initiatives to deal with this issue[5]. Botswana has a Gender Inequality Index value of 0.464, ranking it 111 out of 162 countries in the 2018 index[6]. In Botswana, 89.6 % of adult women have reached at least a secondary level of education compared to 90.3 % of their male counterparts. Female participation in the labour market is 66.2 % compared to 78.6% for men, and earn lower wages (men earn 29% more than women)[7]. Gender-based violence (GBV) remains a critical issue. According to UNFPA, over 67% of women in Botswana have experienced physical or sexual violence in their lifetime, which is more than twice the global average[8]. Furthermore, the UNDP 2017–

[1] UNDP (2017). Botswana Climate Change Response Policy, Draft. Version 2 – December 2017. URL: https://info.undp.org/docs/pdc/Documents/BWA/DRAFT%20CLIMATE%20CHANGE%20RESPONSE%20POLICY%20%20version%202%20(2).doc

[2] ASSAR (2015). Understanding vulnerability and adaptation in semi-arid areas in Botswana. URL: http://www.assar.uct.ac.za/sites/default/files/image_tool/images/138/Info_briefs/Botswana%20Information%20Brief.pdf

[3] U.N. Dept. of Economic and Social Affairs - Population Division. World Population Prospects: The 2024 Revision. (Medium-fertility).

[4] U.N. Dept. of Economic and Social Affairs - Population Division. World Population Prospects: The 2024 Revision. (Medium-fertility).

[5] Statistics Botswana, 2018: Botswana Multi-Topic Household Survey 2015/16. Poverty Stats Brief, Private Bag 0024, Gaborone.

[6] UNDP (2019) Botswana human development report http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/BWA.pdf

[7] UNDP (2019) Botswana human development report http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/BWA.pdf

[8] UNFPA Botswana – Gender-Based Violence: https://botswana.unfpa.org/en/topics/gender-based-violence-1

2018 Botswana National Relationship Study reports that 37% of women and 21% of men have experienced some form of GBV during their lifetime[9].

The country has experienced one of the world's highest growth rates since its independence in 1966, Gross Domestic Product per capita income has risen from USD 80 to 7,820.23 USD (2023)[10], thereby enabling Botswana to graduate from a least developed country to a MIC status in 1992[11]. The growth of the Botswana GDP per capita is mainly attributed to the good diamond production, which contributes about one quarter of GDP and about one-third of Government's revenue. However, the Government is currently focusing on diversifying the economy from overdependence on the mining sector, through the recently launched Economic Stimulus Programme, which promotes non-mining sectors of the economy, including tourism, agriculture and manufacturing.[12]

The Botswana agriculture sector is still small, contributing a mere 3% to GDP and generating 15% of total employment in 2016. However, the sector has great potential to contribute to efforts to tackle poverty and inequality, especially in rural and peri-urban areas[13]. A significant part of the country is rangeland, supporting a substantial population of cattle, goats and sheep[14]. About 70% of rural household derive their livelihoods from agriculture, through subsistence farming, with women, who make up the majority of smallholder farmers, playing a critical yet often undervalued role in the sector.

Botswana has been experiencing adverse impacts of climate change - including an increase in severity of the occasional droughts, insect outbreaks, occasional dry spells, intense precipitation, increased temperatures and flash floods.

1.1 THE PROJECT OBJECTIVES

BoLCoP's goal is to "**contribute to the Government of Botswana's objective of inclusively and sustainably commercialising the small livestock sub-sector".** Its Project development objective (PDO) is to "enhance the incomes and resilience of rural households through more inclusive, sustainable and digitalised small livestock value chains".

The PDO will be achieved through the following three interlinked outcomes:

(a) increased climate-resilient production and productivity;
(b) strengthened and inclusive small livestock value chains; and
(c) enhanced enabling environment for improved small livestock development.

1.2 PROJECT COMPONENTS

BoLCoP will achieve the above stated outcomes through 3 components summarised below:

Table 1-1 Components of the BolCoP programme.

No.	COMPONENT	ACTIVITIES
1.	***Component 0:***	***Mitigation and Management of Climate Risks, Disasters and Disease Outbreaks:*** BoLCoP will facilitate the setting up of mechanisms to mitigate and manage risks that negatively impact small livestock such as floods, droughts, heat waves and disease

9 UNFPA Botswana – Gender-Based Violence: https://botswana.unfpa.org/en/topics/gender-based-violence-1

10 World Development Indicators.

11 IFAD (2017) Country Strategy Note Botswana, https://www.ifad.org/documents/38711644/40077965/Botswana%20CSN%20April%20201 7%20Final_0014-1994674306-1125.pdf/ad94ee45-1003-429b-b69ahttps://www.ifad.org/documents/38711644/40077965/Botswana CSN April 2017 Final_0014-1994674306-1125.pdf/ad94ee45-1003-429b-b69a-cc80934b7a4f?1517983667137cc80934b7a4f?1517983667137

12 UNECA, 2017, Botswana, Country Profile 2017, United Nations Economic Commission for Africa (UNECA) P.O. Box 3001 Addis Ababa, Ethiopia, E-mail: eca-info@un.org, Web: www.uneca.org.

13 UNECA, 2018, Botswana, Country Profile 2018, United Nations Economic Commission for Africa (UNECA) P.O. Box 3001 Addis Ababa, Ethiopia, E-mail: eca-info@un.org, Web: www.uneca.org

14 IFAD (2020) Botswana Mission Report Assessment of status quo and opportunities for technical assistance and/or investment project

		outbreaks. Activities will involve capacitating MoLA officials to institute a risk mitigation strategy and action plan, and disaster preparedness.
2.	***Component 1:***	***Climate-Smart Small Livestock Production and Productivity Improvement:*** This component will support the small livestock sector's climate-resilient production and productivity enhancement through: a) Availing improved breeds of small livestock, b) Gender-responsive capacity-building in efficient and climate-smart production and management, c) improvement of animal health services and access to inputs, d) adopt practices and technologies that enhance animal nutrition, e) promote infrastructure and ethical animal husbandry practices, f) support the use the Botswana Animal Identification and Traceability System (BAITS).
	Sub-component 1.1	Enhanced access to quality small livestock, and animal health services
	Sub-component 1.2	Improved capacity of farmers to adopt climate resilient production and management practices
	Component 2:	**Strengthened Small Livestock Value Chains:** This component will seek to improve effectiveness and efficiency along the targeted value chains (sheep/goats, poultry, pigs and apiculture) by: a) addressing problems of low and scattered production, as well as weak negotiation capacity of producers. b) providing business development services (BDS) to MSMEs, particularly women and youth. c) developing and/or strengthening existing user-friendly and adaptable trading platforms, d) promoting access to inclusive and green financial solutions for the targeted small livestock actors, particularly women and youth.
	Sub-component 2.1	Strengthened clustering and capacity building of value chain actors;
	Sub-component 2.2	Improved access to input and output markets
	Sub-component 2.3	Improved access to inclusive and green financial services for value chain actors.
	Component 3:	**Enhanced Enabling Environment for Improved Small Livestock Development** This component will be a cross-cutting, servicing the technical components and facilitating pathways for BoLCoP's effective and efficient implementation through: a) facilitating improved participation of small livestock farmers in existing market structures, b) strengthen youth skills to effectively access and sustain wage and self-employment opportunities in the small livestock sector, c) identify potential mechanisms that enable relevant social protection beneficiaries to sustainably engage in project supported income generating activities, d) strengthen and/or establish institutions for the effective and sustainable management and coordination of BoLCoP investments.
	Sub-component 3.1	Facilitate development and operationalization of national policies, strategies, regulations, etc.
	Sub-component 3.2	Effective institutional and implementation arrangements established.

1.3 BolCoP TARGETING

Geographic targets. BoLCoP will be national in scope with implementation managed in a staggered way following a cluster-based approach. The project will target 21 districts out of the 25 districts in Botswana. A total of 19 of the 21 districts will be grouped into five clusters as follows: a) Greater Gaborone Cluster (Molepolole, Mogoditshane, Ramotswa, Kgatleng, Tlokweng, Letlhakeng); b) Lobatse BMC Cluster (Good hope and Kanye); c) Tsabong abattoir Cluster (Tsabong, Ghanzi, Charleshill, Hukuntsi, Mabutsane); d) Central cluster (Mahalpye, Palapye, Serowe); and e) North East and Tonota Cluster; and f) Boteti (part of both Central and

North East clusters). In addition to the five clusters, BoLCoP will focus on value chains in Ngamiland region's two districts of Northwest and Okavango.

Geographically, the project will first operate in the Central and Southern parts of the country. These locations have the following characteristics: largest concentration of small stock; most suitable for small livestock rearing and high poverty levels. They also have fairly developed support systems for the small livestock sector. The project will be piloted in these two areas and transition to national level expansion. Please refer to the PDR document for the target areas map.

Project target groups. BoLCoP will directly reach **50,000 households**, the majority being rural poor or vulnerable smallholder farmers, existing/aspiring entrepreneurs or dwellers entering/improving their participation in the labour market in supported value chains. Direct beneficiaries will be selected from the following socio-economic groups:

- Subsistence farmers (micro-scale) (20%, 10,000 HHs);
- Semi-commercial farmers (small-scale) (60%, 30,000 HHs),
- Emerging commercial farmers (medium scale) (15%, 7,500 HHs); and
- Small and Medium Enterprises ((SMEs), on-farm and off-farm SMEs)) (5%, 2,500 HHs).

Consistent with the GoB's vision, the project will use a socially inclusive targeting strategy: 40% of beneficiaries will be women; and 30% youth, aged 18-35 years. BoLCoP will put particular emphasis on vulnerable groups, such as persons living with disabilities (PWD), persons living with HIV/AIDs, remote area communities etc.-

1.4 JUSTIFICATION FOR THE PREPARATION OF THE ESCMF

The ESCMF has been prepared in accordance with applicable Botswana's Environmental policies and procedures and IFAD SECAP (2021) requirements. Both primary and secondary sources of information were used to prepare the ESCMF. The methodologies adopted for the preparation of this ESCMF includes literature review, field visits, and stakeholder Consultations. The focus of the ESCMF is to highlight the potential environmental, Social and Climate impacts for the planned future activities of the project and recommend a management plan for addressing potential negative impacts. To achieve these targets, the ESCMF takes on board views from a cross section of people, at least from the local level, District level, regional and National level.

The main activities in components 1 and 2 of the programme will have environmental, social and climate concerns. These activities may cause various impacts, most of which are localized to the project site, short term and most importantly can be avoided/reduced or mitigated by properly applying mitigation measures.

The environmental and social category of the project is "Substantial" owing primarily to the production of livestock and animal products. Several adverse risks related to SECAP 2021 standards, were identified as mentioned above.

The identified risks include issues related to potential pollution from livestock production and waste management (standard 2), labour conditions and informal employment arrangements (standard 5), risks related to gender-based violence and community health and safety linked to handling and processing livestock products (standard 6), limited land ownership affecting, amongst other things,credit worthiness (Standard 7), and the need to enhance theEnvironment Social Management Systems (ESMS)and complaint mechanisms for partnering financial institutions and service providers (Standard 8).

Some of the sub-project's activities which are likely to generate these significant or adverse risks include: a) rehabilitation and or construction of water supplies, Rehabilitation of agriculture infrastructure, including feed and fodder processing plants and abattoirs, erection of water harvesting infrastructure close to homes, and increased use of agrochemicals.

Potential environmental, social and climatic risks include vegetation clearance; land degradation; inappropriate use of agrochemicals leading to pollution; conflicts; gender-based violence; child labour etc. These lead to the requirement to prepare safeguard instruments to mitigate the potential adverse impacts from the project. In this case an Environmental, Social and Climate Management Framework (ESCMF) is required since the actual project sites are not yet known. The ESCMF must contain a generic Environmental Social and Climate Management Plan (ESCMP), which will be adopted by the individual sub-projects when they finally get selected. An ESCMF is a useful tool meant to guide environmental and social risk management considerations of the project Implementation.

1.5 PURPOSE OF THE ESCMF

IFAD is continuously updating its approach to environmental, social and climate risk management and is currently applying the "Social Environmental and Climate Assessment Procedures (SECAP, 2021). IFAD's SECAP, 2021 describe how to better mainstream environmental, social and climate change considerations into the project cycle, going beyond "doing no harm" to maximize development gains. The SECAP have a dual nature of safeguarding (minimizing negative impact) and increasing positive impact, including those related to climate change.

In line with IFAD policy, a SECAP review note was prepared for BolCoP, which identified the project as "Substantial " category in terms of environmental and social risks. Given the environmental management thrust of the project, the expected environmental impacts are predominantly positive. Potential negative social impacts may emanate from the reduced access to natural resources, particularly grazing land that may be caused by the project. The project will deploy participatory methods to ensure these effects are recognized and minimized and that alternatives are offered to those people affected. Further details on project interventions and mitigation measures can be found in Chapter 7, and 8 of this document.

The ESCMF should be disclosed on the Botswana/Ministry of Agriculture website and various elements thereof, primarily the procedures and forms used in screening and monitoring of subprojects will be integrated into the project's overall implementation documentation and made accessible to local stakeholders. The IFAD SECAP and this ESCMF apply to all components, sub-projects and activities of BolCoP, even if these are funded entirely by another Development Partner or private party.

1.6 APPROACH TO THE PREPARATION OF THE ESCMF

The ESCMF has been prepared in accordance with applicable Botswana Environmental policies and procedures and IFAD SECAP (2021) requirements. Both primary and secondary sources of information were used to prepare the ESCMF. The methodologies adopted for the preparation of this ESCMF includes literature review, field visits, and stakeholder Consultations.

The focus of the ESCMF is to highlight the potential environmental, Social and Climate impacts for the planned future activities of the programme and recommend a management plan for addressing potential negative impacts. To achieve these targets, the ESCMF takes on board views from a cross section of people, at least from the local level, District level, and National government level.

The strategies of preparing the ESCMF followed the following six steps:

a) Review current conditions of the existing agricultural livelihood activities, and provide an assessment of their status and operation levels,
b) Review and analysis of the level of degradation of the Fodder fields, and potential fields (Baseline Conditions) in the potential project areas.

c) Review of typical implementation approach and processes for the proposed development activities within the smallholder sector,
d) Identification and analysis of potential environmental and social impacts the implementation processes will likely trigger and generate within and around the agriculture activities,
e) Development of a screening process for negative impacts for proposed programme sites and activities,
f) Identification of appropriate mitigation measures for the predicted impacts and compilation of a management plan for addressing environmental, social and climate impacts during implementation, operation, and maintenance of the programme activities.

In general, the study was then prepared in accordance with applicable IFAD's SECAP and policy documents and Botswana 's Environmental Impact Assessment Guidelines. The distinct phases of the study are outlined below:

1.6.1 Literature Review

Review on the existing baseline information and relevant literatures were undertaken to have better insight of the BolCoP Program areas. Similarly, the national policies and legal framework and IFAD environmental, climate and social climate Assessment procedure (SECAP 21) were also reviewed.

1.6.2 Field Visits.

As part of the BolCoP Design mission, visits were conducted to the project districts to carry out consultations with the stakeholders and with the potential beneficiaries of BolCoP and to inspect such facilities as piggeries, fodder fields, feed and fodder processing plants for their compliance or capacities to comply with the environmental safeguards. The design mission met the relevant institutions and communities including woman and youth at the district level.

The visits gave the design team an insight into the environmental and social settings of the proposed project area and identified opportunities and challenges that are expected to be encountered during BolCoP implementation.

1.6.3 Stakeholder consultations.

Comprehensive stakeholder consultations were conducted in the process of developing the PDR and this current ESCMF to solicit their views and concerns as regards the proposed dairy value chains. The consultations were conducted at National, Provincial and District levels. The strategy that was applied included the following:

- Virtual (Zoom, Microsoft Teams, Skype, etc.) Meetings with some of the key stakeholders in IFAD, Ministry of Agriculture, etc
- Physical meetings with some of the key stakeholders

1.7 PROJECT IMPLEMENTATION ARRANGEMENTS.

BoLCoP's implementation will be mainstreamed into the GoB system, both at national and district levels.

1.7.1 Lead Implementing Agency (LIA)

The Ministry of Lands and Agriculture will serve as BoLCoP's lead implementing agency. However, MoLA will delegate the day-to-day operation of the Project to a National Project Management and Coordination Unit (NPMCU) reporting directly to MoLA's Permanent Secretary.

1.7.2 National Project Management Coordination Unit (NPMCU)

A NPMCU will be established comprising a team of officers either recruited through a competitive process or seconded to the NPMCU by GoB on a fulltime basis to fully focus on Project implementation. The following is the NPMCU composition: a) Project Director; b) Monitoring and Evaluation and Knowledge Management Specialist; c) Financial Management Specialist; d) Procurement Specialist; e) Livestock/Value Chain Specialist; f) Agribusiness Specialist; g) Gender, Youth and Social Inclusion Specialist; h) Environmental Management and

Climate Change Specialist; i) M&E/KM Assistant; j) Accountant; k) Procurement Assistant; l) Project Assistant; and m) Drivers. All these positions will have detailed Terms of Reference/Job Descriptions in the PIM.

The PMCU will have to coordinate BoLCoP implementation with those ministries and other government bodies whose mandates directly relate to the Project's development objective (refer to the section on PSC below). In addition, the Project will recruit qualified service providers, where needed and following appropriate procurement procedures, to facilitate activity implementation.

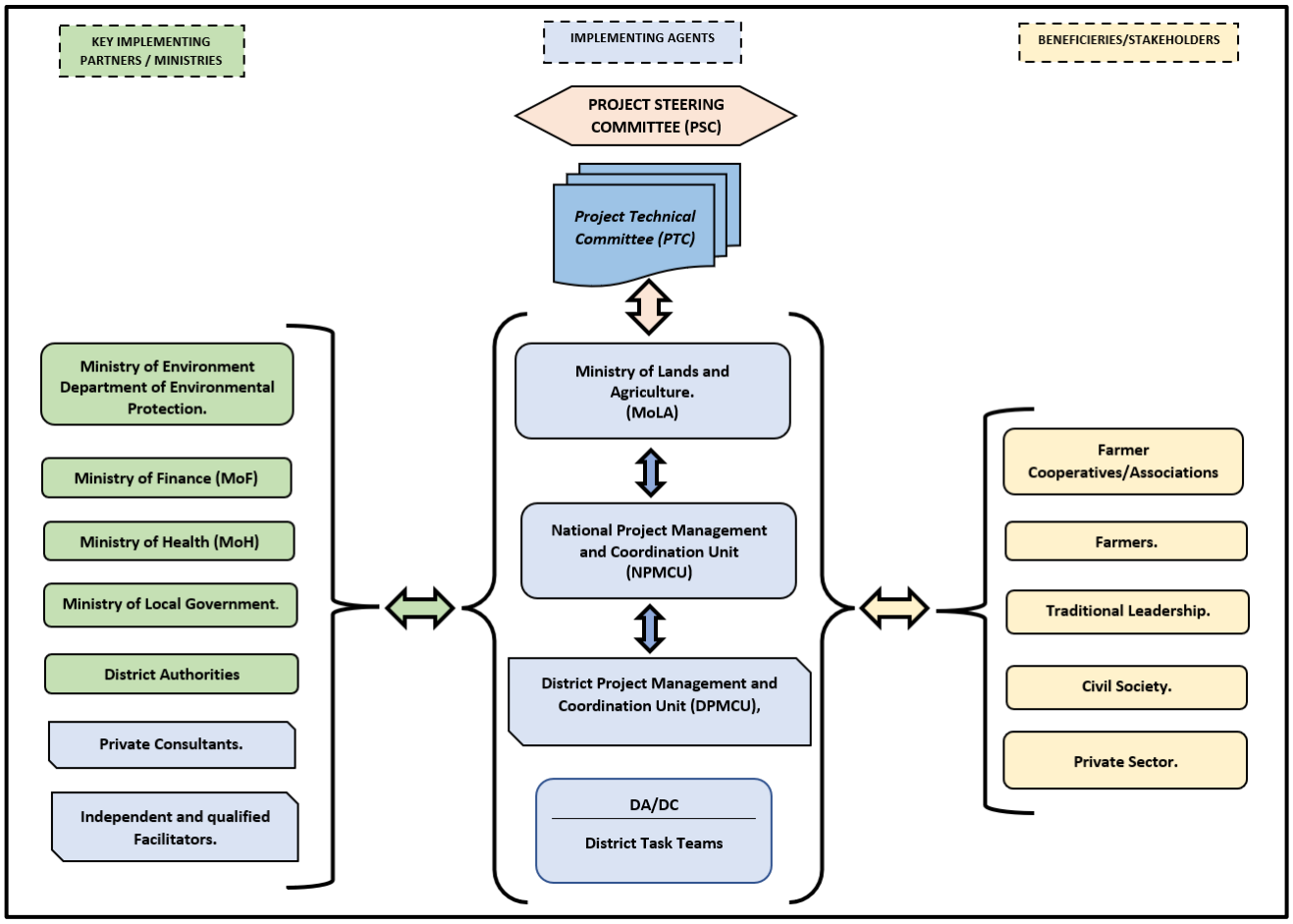

Figure 1-1 Implementation Arrangements for BoLCoP

The PMCU responsibilities will include: a) availing a conducive environment for Project activities, including the multiple partnerships required for effective implementation; b) coordinating the implementation of Project activities in line with the Annual Work Plans and Budgets (AWPBs) approved by the Project Steering Committee (PSC) and provided with a 'No-Objection' from IFAD; c) development of operational strategies and establishment of effective tools for BoLCoP implementation; d) ensuring effective and efficient financial and administrative management of Project resources, preparation of AWPBs, mobilisation and coordination of implementation partners; e) monitoring, evaluation, knowledge management, learning and reporting implementation progress; and f) provision of the procurement function.

1.7.3 Project Steering Committee (PSC)

A PSC, under the chairmanship of the MoLA Permanent Secretary, will be set up to provide overall policy and strategic guidance to the Project. The other members will be Permanent Secretaries from ministries whose mandates have a direct linkage to the effective implementation of the Project. These include Ministry of Finance, Ministry of Environment and Tourism; Ministry of Local Government and Traditional Affairs; Ministry of Water and Human Settlement; Ministry of Trade and Entrepreneurship; Ministry of Youth and Gender

Affairs; District Commissioners of the participating districts, and representatives from the Botswana Meat Commission, LEA, and other government parastatals that will play a critical role in BoLCoP implementation. The NPMCU will serve as a secretariat to PSC with the Project Coordinator being its secretary.

The main responsibility of the PSC will be to ensure successful implementation of the Project. The PSC tasks will include policy and strategic guidance on the BoLCoP focus, priority setting and institutional strengthening to ensure that the Project achieves its objective and contributes to the higher-level sector policy and strategic goals. This will necessitate reviewing Project progress against targets, assessing management effectiveness, appraisal of annual performance and recommending renewal of contracts of PMCU staff, deciding on corrective measures where appropriate, identifying lessons learned and good practices, approving AWPBs and Procurement Plans.

1.7.4 Project Technical Committee (PTC)

The PTC will be part of the oversight function and will be co-chaired by the Director of Animal Production and the Director Veterinary Services. The PTC will be composed of Directors of the relevant departments in the key ministries involved in the Project's implementation. Its responsibility will be to: a) provide technical guidance of the Project; b) update the PSC on partnerships with stakeholders within the government to advance operational/coordination issues related to the Project; d) coordinate with technical counterparts of other government agents; e) update their respective mother institutions on any progress and challenges and plans of the Project; f) provide technical and operational guidance to Project quarterly and annual progress reports and work plans; and g) participate in periodic monitoring of the Project in the participating districts.

1.7.5 At District Level

A District Project Management and Coordination Unit (DPMCU), headed by a dedicated District Project Coordinator, will be established and will be responsible for the day-to-day implementation of Project activities. The DPMCU will comprise staff seconded from the districts on a fulltime basis; this will enable the staff to fully focus on implementing BoLCoP activities. Composition of the DPMCU will seek to mirror the NPMCU for technical positions.

1.7.6 IFAD Supervision

BoLCoP will be jointly supervised by IFAD and GoB to assess achievements and lessons learned and, when required, provide implementation support with the objective of ensuring effective Project implementation and increase the likelihood of achieving the development objective. Missions would be fielded at least once every twelve months. However, and depending on the extent and quality of implementation progress, implementation support Missions would be fielded as frequently as warranted by conditions on the ground so as to address any emergent issues that may have the potential to negatively impact Project implementation. The composition of the supervision/implementation support Missions would be influenced by the issues identified as needing redress.

1.8 EXCLUSION LIST

BoLCoP will not fund any activities listed in the IFAD SECAP exclusion list particularly child labour, forced labour and any activity in protected areas. No physical works or land/soil/water interventions in North-West and Okavango districts will take place; only market-linkage (soft) measures are eligible.

2. APPLICABLE POLICIES AND LEGAL INSTRUMENTS

2.0 INTRODUCTION

This chapter covers a review of the Legal Framework of Botswana and IFAD which the project has to honour during its implementation. It includes a summary of the reviewed laws, regulations and institutional setup relevant to environmental and social management in Botswana. Recognising these laws will ensure that the project enhances the achievement of the environmental assessment (EA) process goals, which aim to integrate environmental considerations into development planning and decision-making to minimize negative impacts. The EA process is guided by the Environmental Assessment Act (2010, amended in 2020) and the Environmental Assessment Regulations (2012). The Department of Environmental Protection (DEP) is the Competent Authority for the EA process.

2.1 THE CONSTITUTION OF BOTSWANA, 1997

The Constitution of Botswana was promulgated in 1966, providing for the separation of judicial, legislative, and executive powers. Table 2-1 is an outline of the relevant sections of the Botswanan Constitution:

Table 2-1 The Constitution of Botswana

NO.	POLICIES AND PLANS	INTERPRETATION OF THE POLICY
1	The National Constitution of the Republic of Botswana 1966.	The Constitution of Botswana, adopted in 1966, establishes the fundamental rights and freedoms of individuals in Botswana, including the protection of life, liberty, and property, as well as freedom of conscience, expression, assembly, and association. However, the Constitution does not explicitly provide for environmental rights or sustainable development. While Botswana recognizes civil, political, and socio-economic rights, it does not currently have a framework environmental law. However, the country is committed to sustainable resource management, as reflected in Vision 2016, and the Ministry of Environment, Wildlife and Tourism is responsible for environmental issues. The country's commitment to sustainable resource management is reflected in Vision 2016.
2	The Macro policy 1994	Vision 2016 is a national strategy, which explicitly reflects a commitment to sustainable resource management. A key tenet of the vision is the sustainable utilization of natural resources, including renewable ones, and the establishment of a more equitable income distribution. • **Sustainable Resource Management:** Vision 2016 aims to ensure that renewable resources are used at a rate consistent with their regeneration capacity. This reflects a long-term perspective that prioritizes the well-being of the environment and future generations. • **Economic Diversification:** The vision also emphasizes diversifying sources of economic growth to reduce reliance on any single sector, particularly those that might be unsustainable. This includes promoting sustainable agriculture and forestry, ensuring food security and economic development. • **Social Development:** Alongside economic growth, Vision 2016 aims to improve the quality of life for Batswana, including poverty alleviation and access to education. This holistic approach recognizes the interconnectedness of economic, social, and environmental well-being. • **Environmental Protection:** The vision acknowledges the importance of environmental protection and conservation, with the Ministry of Environment, Wildlife and Tourism playing a key role in coordinating environmental policies and programs. This includes the Department of Environmental Protection, which is responsible for formulating and implementing relevant legislation and policies.

2.2 BOTSWANA LEGAL FRAMEWORK

The following sections lists Botswana's national policies, laws, and regulations that are relevant and directly applicable to the environmental and social risks and impacts of subproject activities. Only elements directly applicable to subproject activities are described.

2.2.1 Botswana Relevant Development Plans

The following National plans are relevant to the implementation of the BolCoP programme in Botswana.

Table 2-2 Botswana *Relevant Development Plans*

DEVELOPMENT PLANS	DESCRIPTION AND RELEVANCE TO PROJECT ACTIVITIES	RELEVANCE TO THE PROJECT
National Development Plan 11 (2017)	The National Development Plan (NDP) integrates environmental considerations, aiming for sustainable development and resource management. The 11th NDP, prioritizes sustainable human settlements and financing for environmental programs, including initiatives in forestry and renewable energy. It also focuses on climate change resilience, water security, and sustainable land use.	The NDP emphasizes the efficient and environmentally sound allocation and management of natural resources, including land, water, forests, and wildlife, which things are a priority in BolCoP.

2.2.2 Botswana relevant policies and standards

The following policy documents are relevant to the implementation of the BolCop programme in Botswana.

Table 2-3 Botswana relevant policies and standards

No.	POLICIES AND STANDARDS	DESCRIPTION AND RELEVANCE TO PROJECT ACTIVITIES	RELEVANCE TO THE PROJECT
1	National Agricultural Policy 2025	The National Agricultural Policy aims to create a sustainable, diversified, and competitive agricultural sector. Key objectives include improving access to financing, strengthening land and water rights, developing agricultural value chains, and promoting sustainable practices. The policy also focuses on commercializing and modernizing agriculture through private sector development and technology adoption.	The provisions of the National Agricultural Policy are very relevant for the BolCoP project as the activities it will be promoting are agricultural or development of some agricultural value chains. Thus, the promotion of sustainability and increasing productivity will be central to BolCoP.
2	Integrated Waste Management Policy (2021)	Integrated Waste Management Policy (2021) aims to address all waste streams, including e-waste, and promote the concept of extended producer responsibility (EPR). It also, aims to promote sustainable and environmentally sound waste management practices. It addresses the increasing waste generation due to population growth and industrialization, focusing on integrated planning, resource allocation, improved waste regulation, and increased stakeholder cooperation. The policy also emphasizes deriving value from waste through its value chain and promoting waste recovery and recycling initiatives.	The policy is relevant to BolCoP as the project will generate various wastes including liquid effluents from processing plants, solid wastes and e-waste
3	National Biodiversity Strategy and Action Plan (2007)	The National Biodiversity Strategy and Action Plan (NBSAP) is a multi-sectoral framework designed to protect biodiversity and promote its sustainable use within the country. It aims to integrate biodiversity considerations into all relevant national strategies and plans, including poverty eradication and development programs. The NBSAP acts as a roadmap for achieving Botswana's biodiversity-related objectives, including those outlined in the Johannesburg Plan of Implementation and the Convention on Biological Diversity (CBD).	The strategy will help the project to integrate biodiversity considerations into all its activities. Protection of biodiversity is a critical goal to achieve sustainable development. It is important that the project implementation will appraise actions which

No.	POLICIES AND STANDARDS	DESCRIPTION AND RELEVANCE TO PROJECT ACTIVITIES	RELEVANCE TO THE PROJECT
		The goal of the Biodiversity Strategy and Action Plan is to contribute to the long-term health of Botswana's ecosystems and related species, and to encourage sustainable and wise use of resources through the provision of a framework of specific activities designed to improve the way biodiversity is perceived, utilised and conserved	enhance protection of biodiversity and rehabilitation of degraded lands.
4	National Policy on Climate Change (2021)	Botswana's National Policy on Climate Change, established in 2021, outlines the country's commitment to addressing climate change by integrating sustainability and climate resilience into development planning. The policy aims to enhance Botswana's capacity to respond to current and future climate change impacts, promote low-carbon development, and achieve sustainable socio-economic development, environmental protection, poverty eradication, and global climate goals.	The policy will help BolCoP to integrate sustainability and climate resilience into project planning.
5	Botswana Waste Management Strategy	The Botswana Waste Management Strategy was formulated in 1998 by the Department of Waste Management and Pollution Control (DWMPC) to facilitate and coordinate waste management issues in the country as well as to consolidate the initial achievements in the waste management industry. It was also a response to implement the objectives of Agenda 21, which is the Action Programme from the 1992 Rio Earth Summit. The main objectives of the strategy are to: • Minimize and reduce waste in industry, commerce and private households. • Maximize environmentally sound waste reuse/recycling. • Promote environmentally sound waste collection, treatment and disposal. The strategy adopted the widely accepted waste management hierarchy as a basis for waste management. This strategy is relevant as the proposed development must adopt environmentally sound waste management disposal methods during the construction and operational phases.	Proper management of waste material is critical because waste matter has high potential to harm the entirety of the environmental resources including land, water, air etc. threatening human, animal and plant life. It is therefore important to collaborate with relevant authorities in managing waste material as provided by this strategy along with related laws and regulations
6	National Air Quality Standards	The standards make provision for the setting and formulation of national ambient air quality standards for substances or mixtures of substances which present a threat to health, wellbeing or the environment. The standards prescribe the allowable ambient concentrations of pollutants which are not to be exceeded during a specified time period in a defined area. If the air quality standards are exceeded, the ambient air quality is poor and the potential for health effects is greatest. The standard has limited application for short term nuisance-related air quality issues typically associated with activities on civil works construction sites. Air quality issues for this Project will be more effectively managed through observation, good communication with affected communities and practical management measures using water sprayers and water carts.	BolCoP Construction, rehabilitation and land preparations will generate considerable amounts of dust, thus the provisions of this standards will keep the project in line with health requirements.
7	National Policy on Resource Conservation and Development (1990)	The policy aims to promote conservation of natural resources including air, water, vegetation, wildlife, soils and archaeological features. The conservation goals of the Policy relevant to the project are: • The conservation of all main ecosystems, wildlife and cultural resources • The control of the depletion of exhaustible resources • The prevention and control of pollution. The policy provides a broad framework in support of resource conservation and good industrial practice and as such is applicable to	Agricultural Activities tend to impact adversely on natural resources. The requirements of this Policy will help the farmers to conserve all the natural resources available to them.

No.	POLICIES AND STANDARDS	DESCRIPTION AND RELEVANCE TO PROJECT ACTIVITIES	RELEVANCE TO THE PROJECT
		all civil works construction. The custodian of this policy is the Ministry of Environment, Natural Resources Conservation and Tourism.	
8	National Policy on HIV/AIDS (2012)	The principal objective of the National Policy on Human Immunodeficiency Virus (HIV) and acquired immunodeficiency syndrome (AIDS) is to prevent the spread of HIV infection and reduce the socio-economic impact of the disease. With regard to the project, there is bound to be interaction between construction workers and local females during construction works, which commonly results in transmission of sexual diseases due to unprotected sexual intercourse. The National Policy on HIV/AIDS should guide the development of HIV/AIDS prevention programs on site during construction and operational phases of the project. The custodian of this policy is the Ministry of Health and Wellness through the District Health Management Teams (DHMT).	This Policy is important as it will help prevent the spread of HIV infection and reduce the socio-economic impact of the disease. Farming activities tend to create environments conducive to spreading of such diseases.
9	The Second Botswana National Strategic Framework for HIV and AIDS (2010-2016)	The Second National Strategic Framework for HIV and AIDS, (NSF II) serves as a roadmap for the national response over the next seven years and makes an important contribution to the successful implementation of the 10th National Development Plan and ultimately Vision 2016. The purpose of NSF II is to outline national priorities for the national response to HIV and AIDS for the period 2010-2016. These priorities are based on evidence accumulated locally and are augmented by international best practices.	This Policy is important as it will help prevent the spread of HIV infection and reduce the socio-economic impact of the disease.
10	National Policy on Gender and Development (2015)	The National Policy on Gender and Development provides guidance, direction, coordination and facilitation on gender and development programming. It is anticipated that this will improve the implementation of Botswana's commitment to international obligations for the achievement of gender equality, objectives of the Millennium Development Goals (MDGs), Vision 2016 and National Development Plans. The approach employed by this policy highlights the national commitment to provide development and improved well-being to women, men, girls and boys on an equal and non-discriminatory basis. As required by the Policy, the Project proponent and the engaged contractor must ensure that opportunities generated by the project in terms of employment, entrepreneurship and corporate social responsibility initiatives benefit genders equally. The custodian of this policy is the Department of Gender Affairs.	This Policy is important as it gives guidance, direction, coordination and facilitation on gender and development programming for the achievement of gender equality.

No.	POLICIES AND STANDARDS	DESCRIPTION AND RELEVANCE TO PROJECT ACTIVITIES	RELEVANCE TO THE PROJECT
11	BPC Safety, Health and Environment Risk (SHER) Policy (2023)	BPC's Safety Health and Environmental Risk (SHER) Policy emphasizes safety within the workplace, which includes all project phases of power supply, and is thus applicable to civil works construction contractors working on BPCs behalf and operating facilities. It requires: • That all employees are provided with a work environment that will protect, maintain and foster safety and health. • That each employee in accordance with their functions takes individual responsibility for doing whatever is necessary to achieve SHER compliance, adopted SHER performance standards and all applicable and relevant statutes.	The Policy emphasizes safety within the workplace which includes all the agricultural activities the project will undertake.

2.2.3 Botswana relevant legal framework

Table 2-4 Botswana relevant legal framework

No.	LAW	DESCRIPTION AND RELEVANCE TO PROJECT ACTIVITIES	RELEVANCE TO THE PROJECT
1	Environmental Assessment Act (No. 10 of 2010) and associated Environmental Assessment Regulations (2012)	The Act provides for the preparation of Environmental Impact Assessments (EIA) to assess the potential effects of planned developmental activities; to determine and to provide mitigation measures; and to put in place a monitoring process for the evaluation of the environmental impacts of implemented activities. Only after the competent authority (Department of Environmental Protection) has approved the Environmental Impact Statement can the project proceed. Detailed requirements for the preparation of environmental assessments are set out in the Environmental Assessment (EA) Regulations (2012) under the EA Act (2010). The EA regulations define the activities to be undertaken during each of the Environmental Assessment (EA) stages, as well as the information and format to be submitted to the Department of Environmental Protection for review. An ESIA/ESMP is required for all transmission lines and substations under Botswana Environment Act (2010). The environmental and social assessment of project subcomponents 1.1 (BESS) and 2.1 (transmission and distribution lines / substations) will form part of the design engineers' scope of work and will be undertaken by a Botswana-registered Environmental Practitioner, consistent with the World Bank ESSs as per an agreed term of reference	The Act is relevant in that it highlights the provisions that guarantees the protection of the environment from developmental projects by requiring the production of EIAs prior to developments to assess the potential effects of planned developmental activities. This will be relevant for the construction, rehabilitation and maintance of agriculture infrastructure to be undertaken by the project •
2	Monuments and Relics Act (2001)	All developments in Botswana that are likely to change or disturb the land surface require the authorization of the Department of National Museum and Monuments, under the terms of the Monuments and Relics Act (2001), before such work can begin. This is usually granted after a pre-development impact study Archaeological Impact Assessment (AIA) has been conducted by an approved archaeologist to the satisfaction of the National Museum, the institution tasked with the responsibility of overseeing the Act. It may also be necessary to carry out mitigation work or have the development project modified before the permit is issued, depending upon the findings of the AIA.	Although the project activities will not directly affect Monuments and Relics, the Act will be relevant when chance finds are encountered in the process of digging foundations for agriculture infrastructure. **Thus, a chance finds procedure will suffice.**

No.	LAW	DESCRIPTION AND RELEVANCE TO PROJECT ACTIVITIES	RELEVANCE TO THE PROJECT
3	The Forest and Range Resources Bill	Was initially promulgated in 1968 to confer power to the Forestry Department of the then Ministry of Agriculture (the department has relocated to the Ministry of Environment Natural Resources Conservation and Tourism) as sole manager of forest reserves. Its objective was to regulate for and protect forests and forest products in Botswana by establishing forest reserves. The Forest and Range Resources Bill, currently under development, has broadened the mandate to provide for the implementation of international conventions to which Botswana is a signatory (e.g. UNFCCC, CITES, Convention on Wetlands of International Importance especially as Waterfowl Habitat, CBD, UNCCD). The Bill has also diversified management to provide for the participation of local communities, local authorities, traditional institutions, non-governmental organisations and other stakeholders in forest management.	Applicable to subprojects that will encroach onto forests or will involve use of forests and forest products and forest reserves
4	Atmospheric Pollution Prevention Act (1971)	Atmospheric Pollution (prevention) Act of 1971 is specifically directed at pollution prevention and control. The Act also provides for the prevention of pollution of the atmosphere caused by industrial processes and further provides for the appointment of pollution control officers as well as inspectors. The custodian of this Act is the Department of Waste Management and Pollution Control. It focuses on the adverse impacts of air pollution on the ambient environment and sets standards as the benchmark for air quality management performance. At the same time, it sets emission standards to regulate the control of noxious and offensive gases emitted by industrial processes, the control of smoke and wind-borne dust pollution, and emissions from diesel vehicles.	Agricultural activities are prone to polluting the atmosphere, so the project should take note of the requirements of this Act in order to limit the pollution of the atmosphere from dust, smoke, particulates, smell, etc that may be generated by different agricultural value chain activities.
5	Public Health Act (Chapter 63:01)	This Act addresses the spread of diseases and provides a range of health measures including regulations on prevention, management and control of diseases as well as cleanliness and sanitation and the control of nuisance. Any public health risk caused by failure to manage waste or wastewater that is offensive or injurious is a contravention of the Act.	The project activities which include construction of agriculture infrastructure and livestock rearing should not cause harm or material damage to health and environment as a results of the generation of noise, vibration, radiation, irritations or the release of smells resulting from the project activities.
6	Waste Management Act (1998)	The Act establishes the Department of Sanitation and Waste Management (DSWM). Waste as defined by the Waste Management Act includes all 'controlled' waste, which consists of household, industrial, commercial, clinical or hazardous waste. While much of the Act deals with the responsibilities of local authorities for waste management, it also prohibits any person from transporting controlled waste without being registered and licensed as a waste carrier by the DSWM. It is therefore applicable to the removal of waste from industrial civil works construction sites and from the operational BESS sites.	The objectives of the water law are to be considered in the sub-project implementation, so that any utilization of the water resources will be done sustainably and efficiently in pursuit of personal and public interest under the guidance of the law, regulations and policies thereof.

No.	LAW	DESCRIPTION AND RELEVANCE TO PROJECT ACTIVITIES	RELEVANCE TO THE PROJECT
7	Water Act (Chapter 65:03)	The Water Act provides for the protection of water resources from pollution and also addresses the ownership, protection and the rights to use "public water". The Act defines the ownership of rights to surface or groundwater and grants permission for the use of water resources through the Water Appointment Board (WAB) under the Department of Water Affairs. Water resources may not be polluted by any matter derived from an operation's activities. Under the Act, development proponents must first obtain water rights from the Water Apportionment Boards before use or discharge of any effluent into public water. It is an offence to pollute or foul any public water by either discharging any substance likely to pollute or by dumping any material in a place where water is likely to flow and carry the pollutants along. Such offences may incur penalties to be paid by the polluter.	All agriculture activities depend on water. So the project has to take into considerations the requirements of this act in terms of access to water, abstraction rights, utilisation, etc.
8	Employment Act (Chapter 47:01)	The Employment Act as amended addresses minimum conditions of employment for employees, whether citizen or expatriate, employed in the private and parastatal sectors. An expatriate employee must be in possession of a valid work permit. In relation to the proposed project, the proponent or the engaged contractor must ensure that expatriate workers are in possession of valid work permits before they can be engaged in construction activities. Furthermore, the contractor must ensure that conditions of employment for staff meet the minimum requirements of the Act.	The project alignment to the labour law will ensure that the rights of employees are well respected including workplace safety by ensuring proper management of all waste sources for safety of human life and the environment. The project should refrain from employment of children.
9	Tribal Land Act (2018)	The Tribal Land Act (Chapter 32:02) in Botswana was enacted in 1968 and came into effect in 1970. It was originally enacted as Act No. 54 of 1968. Supersedes the 1968 Act and its amendments in 1991 and 1993. The initial Act in 1968 transferred the land management and administration from traditional chiefs to the Land Boards. Subsequent revisions maintained the Land Boards' mandate of governing the use of communal land while accommodating new policies in agriculture and decentralization and the creation of subordinate land boards. Tribal land, which can be transferred through agreed mechanisms, and which is in part governed by traditional systems, is the most common form of land tenure in Botswana, followed by state land. Tribal land is used for agricultural purposes (with uses including arable farming, wetland farming, mixed farming, and grazing), commercial agriculture, industrial use, residential and community use.	The project will need to adhere to the provisions of this law as its activities will depend on the availability of land for construction of facilities including farmer's training centres and storage structures.
10	State Land Act	An Act to define the state land of Botswana, to provide for its disposal and to provide for matters incidental to, or connected with, the foregoing matters. This Act concerns "State land", which means unalienated State land and reacquired State land	The project will need to adhere to the provisions of this law in utilising state lands for project activities.
11	The Wildlife Conservation and	This Act serves to regulate fauna, their habitats and protected areas. Established the Wildlife Management Areas and local advisory committees. It defines National Parks, Game Reserves and Sanctuaries, Game Management Areas, and Controlled Hunting	Applicable to subprojects that will affect biodiversity and wildlife protection

No.	LAW	DESCRIPTION AND RELEVANCE TO PROJECT ACTIVITIES	RELEVANCE TO THE PROJECT
	National Parks Act (Act 28 of 1992)	Areas. It provides for the conservation and management of Botswana's wildlife including control and management of National Parks and Game Reserves. It also provides a list of nationally protected species and ratifies the terms utilised by the Convention on International Trade of Endangered Species (CITES) to control the trade of animals and animal products. There is a possibility that the proposed Project could impact on individuals or communities of plant or animal species of conservation concern, and it is therefore of relevance.	
12	Agricultural Resources Conservation Act (1974)	The Act provides for the protection of the physical environment, including slopes, protection of land against erosion, preservation of vegetation, siltation of dams and conservation of soil and its fertility, i.e. the protection, conservation and improvement of agricultural resources such as soil, water, agricultural animal and plant species. It allows for the making of regulations that serve to protect land against erosion; protect against the deposit thereon of sand, stones or gravel or any other material; prevent siltation of dams; preserve, protect the source and banks of streams or otherwise preserve the soil and its fertility; prohibit, restrict or control the use of insecticides, fertilizers, or any type of chemical compound in, on or over land.	The project will need to make sure that the activities undertaken do not lead to environmental degradation through soil pollution, erosion, siltation of water ways and unnecessary damage to vegetation.
13	The Herbage Preservation Act (1978)	Provides for herbage preservation and protection from fire as well as conservation committees across scale.	Relevant for the preservation of Herbage.
14	The Seed Certification Act (1976)	Provides for the seed testing practices to be used, for the conditions for control of the Export, Sale and Use of Seeds, as well as the conditions under which statements and certificates are to be issued.	Relevant for the production of quality feed and fodder.

No.	LAW	DESCRIPTION AND RELEVANCE TO PROJECT ACTIVITIES	RELEVANCE TO THE PROJECT
15	Town and Country Planning Act (2023)	The Act provides a legislative framework for the orderly and sustainable development of urban and rural areas in Botswana. The Act empowers local authorities to designate different zones for various land uses, such as residential, commercial, industrial, and recreational purposes. This Act provides the basis to allow for planning with District Councils serve as planning authorities. According to the Land Policy, all of Botswana is to be considered a planning area with all land in Botswana subject to land use planning. Zoning regulations help ensure compatibility between land uses and mitigate potential conflicts. It establishes procedures and criteria for reviewing and approving development proposals, including requirements for building permits, site plans, and environmental impact assessments. Development control aims to regulate the scale, design, and location of development to safeguard public health, safety, and welfare. It governs the subdivision of land into smaller parcels and sets standards for road access, utilities, and infrastructure provision. It seeks to promote orderly subdivision practices and prevent the fragmentation of land into uneconomical or unsustainable parcels. It further makes provisions to protect natural resources, conservation areas, and environmentally sensitive areas from inappropriate development. It may require environmental assessments and mitigation measures for proposed developments that could have significant environmental impacts and promotes public participation in the town planning process.	The Act is relevant for the orderly and sustainable development of urban and rural areas as the project will be implemented in these areas.

2.3 RELEVANT BOTSWANA SUBSIDIARY LEGISLATION (REGULATIONS)

Table 2-5 outlines the overview of the relevant Subsidiary Legislation (Regulations):

Table 2-5 Relevant Botswana Subsidiary Legislation (Regulations)

NO.	LEGISLATION	INTERPRETATION OF THE LEGISLATION	RELEVANCE TO THE PROJECT
1.	the Environmental Assessment Regulations (2012)	The Environmental Assessment Regulations of 2012 are managed by the Department of Environmental Protection. These regulations provide detailed guidance on the implementation of the EIA process and require environmental assessments for various projects to mitigate negative impacts and enhance positive ones. Key aspects include the use of Environmental Impact Statements (EIS) and Environmental Management Plans (EMP), and the registration of practitioners through the Botswana Environmental Assessment Practitioners Board.	These regulations are relevant for the project to identify any potential impacts it will cause and to develop requisite mitigation measures.

2.4 NATIONAL ENVIRONMENTAL AND SOCIAL ASSESSMENT AND PERMITTING.

2.4.1 Environmental and Social Impact Assessment

The Environmental Impact Assessment process is guided by the Environmental Assessment Act of 2010 and Environmental Assessment Regulations of 2012. The process consists of several steps as briefly set out below:

2.4.1.1 Screening

Project proponents together with the Department of Environmental Protection (DEP) are required to screen proposed project activities against a list of activities contained in the EA Regulations, which are likely to have a significant adverse effect on the environment or locations which might be environmentally sensitive and as such would require an environmental assessment to be completed. If the proposed project activity triggers one of the requirements, the DEP will confirm the need and detail of an environmental assessment that will need to be prepared by the project proponent.

2.4.1.2 Project Brief

The project proponent will be required to prepare a Project Brief, in the prescribed format. As part of the preparation of the Project Brief, the proponent will be required to, a) publicize the proposed activities, its effects and benefits in the mass media for a period of at least 21 days and b) hold meetings with affected people and communities, prior to submitting the Project Brief to DEP for consideration.

Based on the DEP review a decision may be made for the project to proceed, if the DEP is satisfied that there are no probable adverse impacts associated with the proposed project. Alternatively, it may require the proponent to prepare an Environmental Management Plan or a detailed Environmental Impact Assessment (EIA). In the latter case, the DEP will require the proponent to prepare and submit Terms of Reference for the EIA.

2.4.1.3 EIA and Environmental Impact Statement (EIS)

The EIA and EIS are required to identify and evaluate the environmental impacts of activities with particular reference to:

- Health, safety or quality of life of people,
- Archaeological, aesthetic, cultural or sanitary conditions of the environment, and
- Configuration, quality and diversity of natural resources."

The EA Regulations include extra matters pertaining to sustainable development which need to be addressed in the statement. These include labour and working conditions (mitigation measures in the statement need to address this) and resettlement. Cross-cutting issues which are not explicitly required to be addressed include gender and climate change.
EIA and EIS reports are required to be sent out for public review within a stipulated timeframe. Public are invited to comment on the documents via notification by Government Gazette and specific newspapers.

2.4.1.4 Decision

After public review, the DEP is required to take into consideration the views and opinion of the public as part of its final decision to grant an environmental authorization for the project to proceed. The Act stipulates that the DEP has 60 days in which to review. After its review, the DEP may invite public comment. Once it is satisfied that the report is adequate and that the proposed mitigation measures will be 'effective and sufficient', it may grant an Environmental Authorization or reject the application.

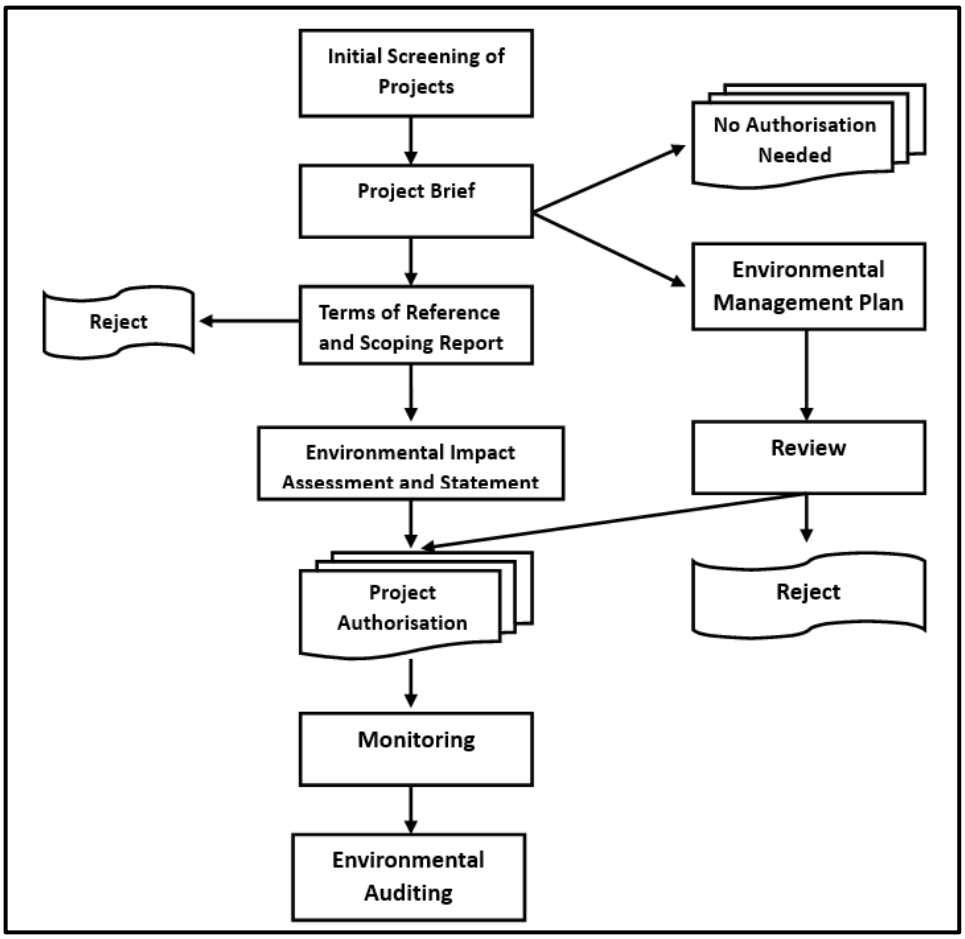

Figure 2-1 Botswana *Environmental Impact Assessment process.*

2.4.2 Permit Requirements

Table 2-6 describes permit requirements that are (or may be) necessary prior to project implementation.

Table 2-6 Permit/ License Requirements for the project.

SUMMARY OF LEGAL REQUIREMENTS	AUTHORITY	RELEVANT LEGISLATION	BY WHEN
Environmental and Social Impact Assessment (ESIA) approval	Department of Environmental Protection	EA Act (2020)	Before construction
Archaeological Impact Assessment (AIA) clearance	Department of National Museum and Monuments	Monuments and Relics Act (2001)	Before ESIA approval
Physical and/or economic displacement (Resettlement Action Plan (RAP) and RAP implementation)	Land Authorities (Land Board, Dept of Lands)	Tribal Land Act State Land Act	Before construction
Planning permission for all permanent structures	District Councils – Physical Planning Unit.	Town and Country Planning Act (1977)	Before construction
Land Lease	Ministry of Land Management, Water & Sanitation Services	Tribal Land Act (1968) State Land Act	Before construction
Working conditions	Department of Labour and Social Security	Factories Act (1979)	Before Project construction start

Work permits and residence permits	Department of Labour	Employment Act (2001) Immigration Act (2011)	As and when needed
Water borehole registration	Department of Water Affairs	Boreholes Act (1956)	When drilling boreholes for the project – if required
Water rights	Department of Water Affairs	Water Act (1968)	Before project construction start– if required
Connection to existing water supply	Water Utilities Corporation	Water Act (1968)	Before project construction start– if required
Borrow pit permits	Department of Mines	Mines, Quarries Works and Machinery Act (1978)	Before start of excavations – if required
Waste Management Permit (for manure and slaughter waste)	Department of Waste Management and Pollution Control	Waste Management Act (1998)	Before operational phase of aggregation centers and slaughter points
Construction Permits for Solar Installations and off-grid Systems	Energy Regulatory Authority	Botswana Energy Regulatory Act (2016)	Before installing solar energy infrastructure

2.5 RELEVANT INTERNATIONAL CONVENTIONS AND TREATIES

Botswana is party to a number of international environmental treaties (with accession) including Basel Convention; Cartagena Protocol; the Convention on Biological Diversity; The United Nations Convention to Combat Desertification; United Nations Convention on the Law of the Sea; Minamata Convention on Mercury; Stockholm Convention; Rotterdam Convention; United Nations Watercourses Convention; Vienna Convention; and Montreal Protocol to protect the Ozone Layer. Programs and sub-projects of the BolCoP are expected to observe these conventions and treaties, it is expected that the implementation of project activities will be in full compliance with these international conventions. Table 2-4 below is a summary of the relevant treaties to which Botswana is party to.

Table 2-7 Summary of the relevant treaties to which Botswana is party to.

No.	INTERNATIONAL CONVENTIONS	INTERPRETATION OF LEGISLATION	RELEVANCE TO THE PROJECT
1	**United Nations Convention to combat Desertification in those countries experiencing serious Drought and/or Desertification, particularly in Africa, 1994**	The convention emphasizes the prevention of land degradation that may among other initiatives include the rehabilitation of degraded lands that are caused by human actions such as construction activities in development projects. Clearing and grubbing which may cause land degradation.	Provision of infrastructure in some subcomponents of the project may have potential to degrade the environment by removing the soil cover, exposing the bare soil and poor disposal of rubbles. The Convention encourages implementation of measures to combat land degradation. These measures need to be taken and implemented at all costs.
2	**Convention on Biological Diversity (1992)**	The Convention on Biological Diversity, requires members to adopt national strategies, plans and programs for the conservation of various biological diversity, and to integrate the conservation and sustainable use of biological diversity into relevant sectoral and cross-sectoral plans, programs and policies.	The project activities are expected to conserve biodiversity, especially the rare and endangered species in the project areas and its environs.
3	**United Nations Framework convention on Climate Change (UNFCC) (1992)**	The Convention entered into force in Botswana on 27th January 1994. The Convention sets an overall framework for intergovernmental efforts to tackle climate change. It recognises that the climate system is a shared resource whose stability can be affected by industrial and other emissions of carbon dioxide and other greenhouse gases. The (UNFCC) seeks to regulate levels of greenhouse gases (GHGs) concentration in the atmosphere, so as to avoid the occurrence of climate change at levels that would harm economic development, or that would impede food production activities. The Convention is founded on the principle that contracting parties should take courses of action, in respect of their economic and social activities, and with regard to the Convention's specific	In line with the objectives of the UNFCC the project should endeavour to assist the implementation of the requirements of this Convention in an effort to minimize emissions of greenhouse gases which are detrimental to the atmosphere. The project will support the objectives of the Convention by reducing GHG emissions.

No.	INTERNATIONAL CONVENTIONS	INTERPRETATION OF LEGISLATION	RELEVANCE TO THE PROJECT
		requirements, that will protect the climate system for present and future generations Under the Convention, governments gather and share information on greenhouse gas emissions, national policies and best practice. Members also collaborate to launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries and cooperate in preparing for adaptation to the impacts of climate change.	
4	**UN Watercourses Convention 1997**	This convention obligates member states to consider the impact of their actions on other states with the shared water resource and equitable share of this resource, • Each member state is required to provide information to other sharing states about the condition of the watercourse and about their planned uses for it, • Other states should be allowed sufficient time to study the use and object if the use is perceived to be harmful. • The convention permits a state with urgent need to immediately utilize a watercourse to do so, provided that it notifies sharing states both the use and the urgency. • In the event that a use is perceived to be harmful, it requires member states to negotiate a mutually acceptable solution. • The treaty also requires states to take reasonable steps to control damage, such as caused by pollution or the introduction of species not native to the watercourse, • It further imposes an obligation on states that damage a shared water resource to take steps to remedy the damage or to compensate sharing states for the loss.	Project implementation should take serious note of the requirement of this convention as it requires states to take reasonable steps to control damage to shared water resources, which could include pollution or the introduction of species not native to the watercourse
5	**The convention on wetlands of significant importance.**	**The Convention on Wetlands of International Importance**, called the Ramsar Convention, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources.	The project area has some wetlands and these may be encroached on by the agricultural activities due to the constraints of land availability. The requirements of the Ramsar Convention will need to be applied in order to protect the wetlands from degradation.
6	**The convention on conservation of migratory species of wild animals.**	The Convention on the Conservation of Migratory Species of Wild Animals (also known as CMS or Bonn Convention) aims to conserve terrestrial, marine and avian migratory species throughout their range.	The project may interfere with migratory routes of wildlife as the requisite structures for the Livestock activities are established. The usual nesting grounds for avian migratory species may be affected as lands, vleis and wetlands will be acquired for agricultural purposes.
7	**The convention concerning the protection of world and natural heritage.**	The World Heritage Convention aims for the preservation of the cultural and natural heritage sites of outstanding universal value. Each State, party to this Convention recognizes that the duty of ensuring the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage situated on its territory, belongs primarily to that State.	The project area is endowed with a number of natural and cultural heritage sites. Any excavations may encounter artefacts, fossils and other items of cultural importance. Thus, the convention is relevant to the proper implementation of BolCoP.
8	**The convention on desertification and drought.**	The aim of the Convention, which was signed in 1994, is to combat desertification and mitigate the effects of drought in those countries experiencing serious drought, particularly in Africa, through international cooperation and effective action at all levels. Desertification is due primarily to human activity and climatic variations. It does not mean the advance of current areas of desert. It is the result of the extreme vulnerability of the ecosystems in arid areas to over-exploitation and inappropriate use of land. Poverty, political instability, deforestation,	Under BolCoP the agricultural activities have a potential to degrade the environment and the Convention encourages implementation of measures to combat desertification.

No.	INTERNATIONAL CONVENTIONS	INTERPRETATION OF LEGISLATION	RELEVANCE TO THE PROJECT
		overgrazing and bad irrigation practices are all factors which have a deleterious impact on the productivity of the land.	
9	**African convention on conservation of nature and natural resources**	This Convention focuses on living resources, calling for the creation of protected areas and for the specific conservation measures for listed species. It also provides the grounds for the conservation of other natural resources such as soil and water, for the consideration of environmental concerns in development plans, and for research and education.	The Livestock activities will have a direct impact on the natural resources by clearing of vegetation, loosening soils, possible degrading marginal lands. Thus, the requirements of this convention have to be considered in the implementation of BolCoP.
10	**Stockholm Convention on Persistent Organic Pollutants**	This is an important convention for the proper management of pesticides as it recognizes that persistent organic pollutants posse toxic properties that are transported through air, water and migratory species across international boundaries and are deposited far from their place of release, where they accumulate into the ecosystems. The **Convention** is a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of humans and wildlife, and have adverse effects to human health or to the environment. Exposure to Persistent Organic Pollutants (POPs) can lead to serious health effects including certain cancers, birth defects, dysfunctional immune and reproductive systems, greater susceptibility to disease and even diminished intelligence.	BolCoP activities will promote increased use of biocides, some of which are listed as POPs. Some illegal trade in these will also be fuelled by the increased activities, thus this convention has to be effected Thus, the provisions of this convention have to be adhered to in the implementation of BolCoP and handling all agro-chemicals including waste during the project

2.6 IFAD SECAP AND POLICIES

BOLCOP has been designed and informed by IFAD's Climate Change Strategy, Environment and Natural Resources Management (ENRM) Policy, Indigenous Peoples Policy, Gender and Women's Empowerment Policy, Targeting Policy and Land Policy. The Programme has also been designed in compliance with IFAD's guidelines on Social, Environmental and Climate Assessment Procedures (SECAP 21). The following is a summary of the relevant pieces of policies.

2.6.1 IFAD Environment and Natural Resources Management (ENRM) Policy

The goal of the ENRM policy is: "To enable poor rural people to escape from and remain out of poverty through more productive and resilient livelihoods and ecosystems" and its purpose is: "To integrate the sustainable management of natural assets across the activities of IFAD and its partners". The policy sets out 10 core principles to guide IFAD's support for clients in ENRM.

2.6.2 IFAD's Strategy and Action Plan on Environment and Climate Change (2019-2025)

This strategy addresses environment and climate change issues across all IFAD policies, strategies and operations. The main objective of the strategy is to enhance the resilience of smallholder farmers and rural communities to environmental degradation and climate change impacts.

2.6.3 IFAD Indigenous Peoples' Policy

This Policy on Engagement with Indigenous Peoples aims to enhance IFAD's development effectiveness in its engagement with indigenous peoples' communities in rural areas. It sets out the principles of engagement IFAD will adhere to this policy in its work with indigenous peoples, and the instruments, procedures and resources IFAD will deploy to implement them.

2.6.4 IFAD Gender Policy

The IFAD Gender Equality and Women's Empowerment Policy focuses on promoting equal opportunities, resources, and rights for women and men in rural development, ensuring gender-sensitive design and implementation across all projects. The policy emphasizes creating an enabling environment for women's

economic empowerment, ensuring equal participation in decision-making processes within rural institutions. It also seeks to reduce gender disparities in workloads and promote equitable access to social and economic benefits for both women and men.

2.6.5 IFAD Targeting Policy

IFAD's targeting policy focuses on directing resources towards rural populations living in poverty and experiencing food insecurity in developing countries. It prioritizes the poorest and most vulnerable, including those facing food insecurity, and those at risk of falling into poverty. IFAD's approach emphasizes participatory targeting, meaning it involves consultations with stakeholders, including potential beneficiaries, to ensure inclusivity and build trust.

2.6.6 IFAD Land Policy

The IFAD Policy on Improving Access to Land and Tenure Security has been formulated to: (a) provide a conceptual framework for the relationship between land issues and rural poverty, acknowledging the complexity and dynamics of evolving rural realities; (b) identify the major implications of that relationship for IFAD's strategy and programme development and implementation; (c) articulate guiding principles for mainstreaming land issues in the Fund's main operational instruments and processes; and (d) provide the framework for the subsequent development of operational guidelines and decision tools.

2.7 THE SOCIAL, ENVIRONMENTAL AND CLIMATE ASSESSMENT PROCEDURES (SECAP 2021)

Social, environmental and climate sustainability is critical for achieving IFAD's mandate. Projects and Programs that foster social, environmental and climate sustainability rank among the Fund's highest operational priorities. To meet these objectives, in 2021 IFAD updated its 2017 Social, Environmental and Climate Assessment Procedures (SECAP). This updated edition of SECAP lays out an improved framework and process for managing risks and impacts and integrating mainstreaming priorities into new IFAD-supported investments.

2.7.1 IFAD's Environmental and Social Standards

IFAD's Environmental and Social Standards comprise key requirements for the environmental and social sustainability of projects (Table 2-8). They focus on nine environmental, social and climate Standards that should be met through the project life cycle. These standards are aimed predominantly at borrowing governments and private sector partners, which are responsible for undertaking environmental, social and climate risk assessments, and for implementing projects.

BOLCOP is anticipated to trigger six of the of IFAD SECAP standards as outlined in section 1.7. These standards require adhering to appropriate environmental assessment procedures and steps to address all possible negative impacts by putting in place clear mitigation measures that will be integrated during implementation The table 2-8, below indicates which ones are most relevant to BOLCOP:

Table 2-8 Standards most relevant to BOLCOP

STANDARDS	RELEVANCE TO BOLCOP	
	Less Relevant	More Relevant
Standard 1: Biodiversity conservation		X
Standard 2: Resource efficiency and pollution prevention		X
Standard 3: Cultural heritage	X	
Standard 4: Indigenous peoples		X
Standard 5: Labour and working conditions		X
Standard 6: Community health and safety		X
Standard 7: Physical and economic resettlement	X	
Standard 8: Financial intermediaries and direct investments		X
Standard 9: Climate change		X

The IFAD's Environmental and Social Standards are detailed in Appendix 9. In general, the requirements of all SECAP Standards apply to all activities. However, FIs. are further required to prepare an Environmental and Social Management System (ESMS). This is dealt with in the chapter 3.

2.7.2 IFAD's environmental and social categorization

IFAD's environmental and social categorization of projects/programmes comprises the following categories: (See SECAP 2021 version for Details) High Risk, Substantial Risk, Moderate Risk and Low risk. The current project was categorised as Substantial. The categorisation is elaborated in Appendix 5.

3. ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEM FOR FIs

3.1 INTRODUCTION

SECAP8 requires that Financial Intermediaries develop and maintain Environmental and Social Management Systems (ESMS), which comprise "environmental and social systems, procedures and capacities for assessing, managing and monitoring risks and impacts of direct investments and activities and FI sub-projects, as well as for managing overall portfolio risk in a responsible manner, while also ensuring the return on investment and sustainability objectives" (SECAP Standard 8).

The three key requirements set out in SECAP Standard 8 for Financial Intermediaries are:

i. develop and maintain an ESMS for assessing, managing and monitoring risks and impacts of direct investment activities and the FI's sub-projects,
ii. develop stakeholder engagement procedures, and
iii. develop monitoring and reporting procedures.

IFAD and the Banks will conduct an Environmental and Social Due Diligence (ESDD) for every Financial and beneficiary Institution to ascertain their environmental and social compliancy levels. The minimum requirements for the various financial institutions will be as follows:

Table 3-1 Minimum ESMS Requirements.

No.	INDIRECT BENEFICIERIES.	MINIMUM REQUIREMENTS
	Commercial Banks	Fully Fledged ESMS. ESG. Checklist.
	Microfinance Institutions (MFIs)	ESG. Checklist.
	Non- Bank Financial Institutions	ESG. Checklist.
	Community Based Financial Institutions (CBFI) Promoters	Checklist.
	Community Based Microfinance Institutions (CBMFIs)	Checklist.
	End Beneficiaries.	Checklist.

3.2 BENEFICIARY FINANCIAL INSTITUTIONS

Table 3-2 below, outlines the beneficiary institutions for BOLCOP whilst Figure 3-1 depicts the possible financial flows through the system.

Table 3-2 Beneficiary Financial Institutions

INDIRECT BENEFICIERIES.	EXAMPLES
Commercial Banks	• Bank Gaborone (BG) • National Development Bank (NDB) • Bank of Botswana, • Botswana Savings Bank, • Statistics Botswana, • BIDPA
Microfinance Institutions (MFIs)	• Agora Microfinance Botswana Limited • Letshego, • Penridge Employee Benefits, • Peo Holdings, • Blue Employee Benefits,

	• First Funding, • Capricorn, • Women's Finance House Botswana, • Kgetse ya Tsie, • Youth in Development Trust, • Emang Basadi, • Kuru Development Trust.
Non- Bank Financial Institutions	• Botswana Savings Bank (BSB), • Botswana Building Society (BBS), • National Development Bank (NDB)
CBFI Promoters	• World Vision
Agribusinesses Support Organisations.	• Botswana Agricultural Marketing Board (BAMB), • Botswana Meat Commission (BMC), • The Citizen Entrepreneurial Development Agency (CEDA).
Faith Based institutions	• SOS Children's Home • Caritas Botswana (Tirisanyo Catholic Commission) • Catholic Relief Services
UN Agencies & Other Development Partners	• World Food Programme (WFP) • Food and Agricultural Organization (FAO) • GIZ • European Union Delegation • Foreign, Commonwealth and Development Office (FCDO)
INGOs	• SNV • IFAD • TechnoServe
Government Agencies and Ministries	• Ministry of Lands and Agriculture (MoLA) • Ministry of Health • Ministry of Finance and National Planning (Rural Finance Unit) • Ministry of Small and Medium Enterprise Development (MSME)
Insurance Companies	• Botswana Insurance Company (BIC), • Alpha Direct Insurance Co.
Environmental Management affiliated agencies	• The Department of Environmental Protection (DEP)

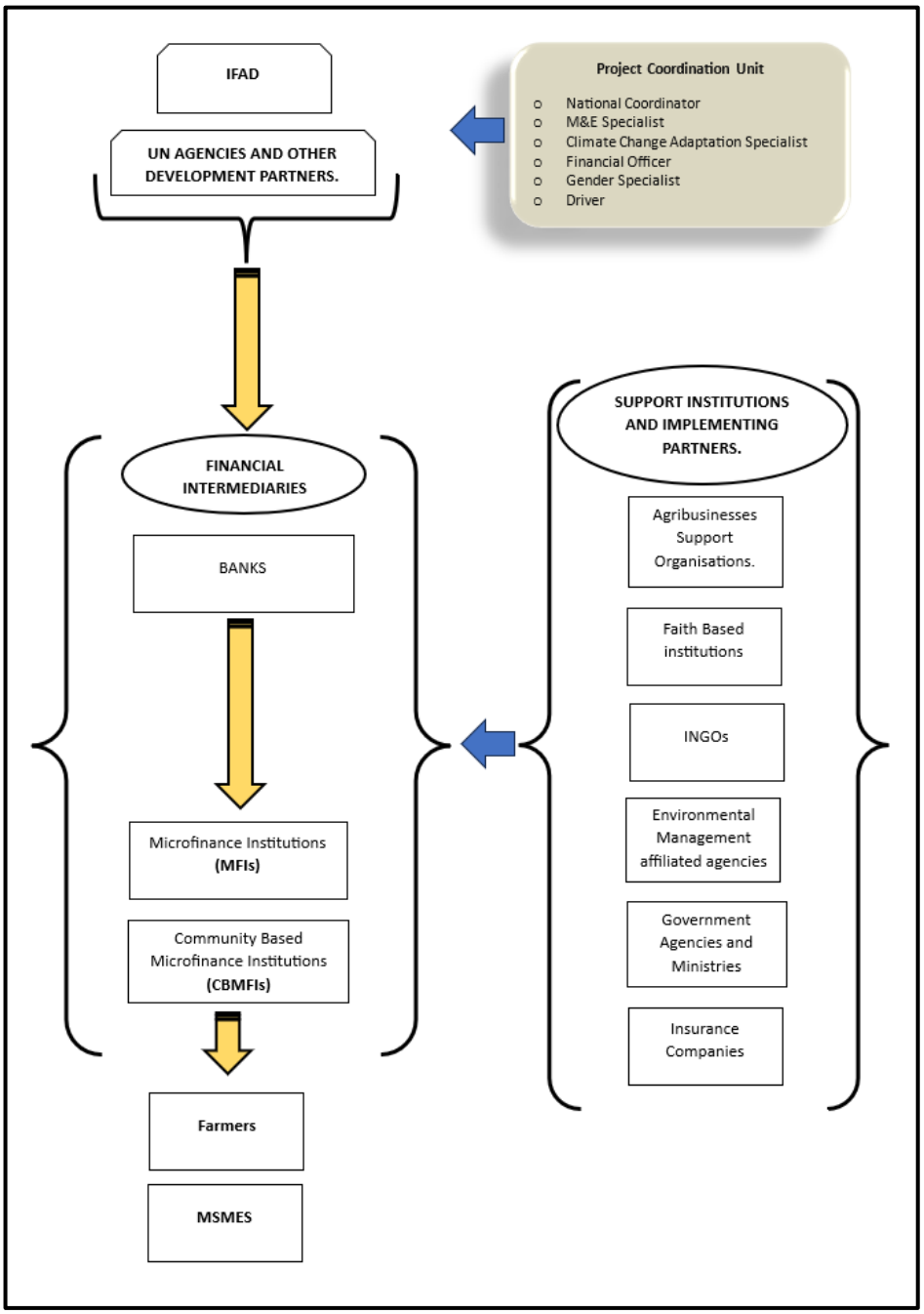

Figure 3-1 Project financial flows.

3.3 ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEM (ESMS)

In General the requirements of all SECAP Standards apply to all FIs. Further the FIs are required to prepare an ESMS comprising:

(i) environmental and social systems, procedures and capacities for assessing, managing and monitoring risks and impacts of direct investments and FI subprojects; and

(ii) a portfolio risk-management framework that ensures a return on investment and sustainability. This should be proportionate to the risks and impacts of each project, and the risk profile of the FI's overall portfolio.

In cases where the FI already has an ESMS in place, the entity needs to provide supporting documentation on its ESMS, indicating any elements that require modification to meet this Standard. When improvements to an existing ESMS are required, the provisions must be included in the financing agreement.

An ESMS commensurate with an entity's risk profile should include the following:

- Environmental and social policy,
- Identification of risks and opportunities,
- Management programmes,
- Internal organizational capacity and competency,
- Emergency preparedness and response,
- Monitoring and reporting.

Table 3-3 below, depicts a standard ESMS comprised of six core management components that provide a broad framework to govern the assessment, management, and monitoring of E&S risks, including FIs and sub-projects. These components are drawn from international best practice, including SECAP Standard 8.

Table 3-3 ESMS Components

No.	POLICY	ISSUES COVERED
1.	**Environmental and Social Policy**	States the E&S objectives and intentions with respect to E&S risk management and performance, as well as the FI lending activities. Made publicly available.
2.	**Risk Assessment Process**	Measures to identify, screen and categorise sub-project E&S risks and opportunities, develop Environmental and Social Action Plans (ESAPs), as well as monitor any changes to E&S risks.
3.	**Organizational Capacity and Competency**	Personnel with designated responsibility for ESMS implementation and (internal or external) personnel with designated responsibility for assessing the E&S risks of sub-projects.
4.	**Emergency Preparedness and Response and Incident Management**	A system to respond to incidents, accidental and emergency situations at FI and sub-project operations.
5.	**Stakeholder Engagement**	Procedures for external communications on environmental and social matters proportionate to the risks and impacts of the given sub-projects. Establishment of a grievance mechanism. Requirements for end beneficiaries to conduct stakeholder engagement depending on the risks and impacts of the sub-project.
6.	**Monitoring and Reporting**	Process to monitor environmental, social and climate risks of the sub-projects proportionate to their risks and impacts, and to report on progress to the NPMCU lenders. Process to monitor and report on own ESMS implementation. Reporting process for serious incidents or accidents.

3.4 STAKEHOLDER ENGAGEMENT FOR FIs

FIs are required to establish procedures for external communications on environmental and social matters proportionate to the risks and impacts of the projects or subprojects, and their overall risk profile in line with their public disclosure policies and proprietary rights. They must also establish a grievance redress mechanism in a timely manner for project-affected parties related to environmental and social performance of the investment.

Pursuant to this, the FIs must respond to public enquiries and concerns in a timely manner and are encouraged to publish their corporate environmental and social policies (or a summary of their ESMS) on their websites. FIs should also list on their website links to any publicly available ESIA reports or other relevant documents for High Risk subprojects they finance.

3.5 MONITORING AND REPORTING FOR FIs

FIs must submit, in a form acceptable to IFAD, annual environmental and social reports on ESMS implementation. They should also promptly notify IFAD of any significant accidents or incidents associated with their subprojects. If the risk profile of an FI increases significantly, the entity is required to notify IFAD.

4. BIOPHYSICAL ENVIRONMENT

4.1 INTRODUCTION.

Botswana's social and environmental setting is characterized by a mix of natural resources, particularly diamonds, which have driven economic growth, but also by significant environmental challenges like water scarcity and climate change impacts. The country faces issues related to waste management, human-wildlife conflict, and the need for sustainable resource management. Botswana is also working to build resilience to climate change and promote a low-carbon economy.

4.2 ADMINISTRATIVE SYSTEM

Botswana is a democratic republic with a two-tier system of government: national government headed by the president and local government headed by a mayor in towns/cities and a council chairperson in rural districts. There is no constitutional provision for local government in Botswana, and the main legislation is the Local Government Act 2012. The Ministry of Local Government and Rural Development is charged with providing policy direction and guidance. Local government comprises of twenty five (25) administrative districts . Under these, there are sub-districts including four administrative authorities. Governance at the local level is also based on a traditional system of villages headed by a kgosi (chief). This traditional system works cooperatively with other district institutions.

4.3 GENERAL CONDITIONS

4.3.1 Topography

Botswana is predominantly flat to gently undulating, with a few hills located along the south-east and northwest sections of the country (the eastern edge of the Kalahari Basin). It is characterized by the Kalahari Desert (covering about 70% of Botswana's surface) and the Okavango Delta.

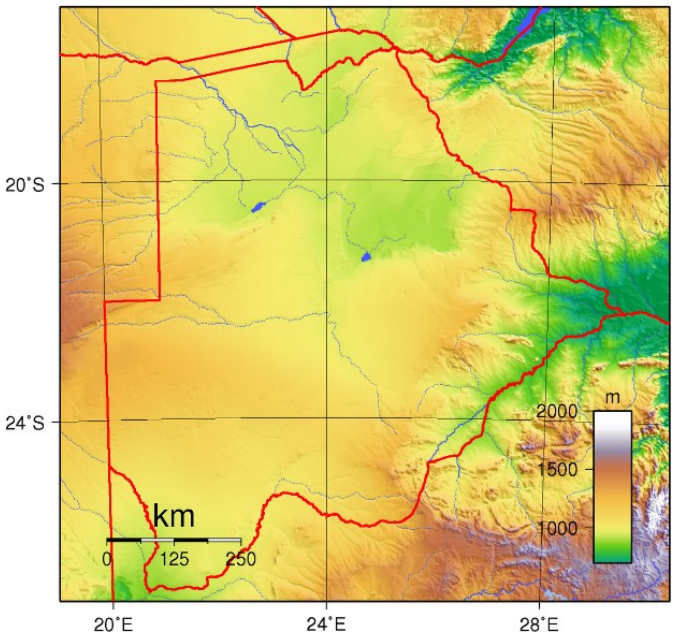

Figure 4-1 Topographic Map of Botswana

Major Topographic Features include the following:

- **Kalahari Desert:** Occupies the central, southern, and western parts of Botswana, characterized by semi-arid grasslands, shrub, and tree savannah.
- **Okavango Delta:** A large inland delta in the northwest, one of the world's largest.
- **Makgadikgadi Pans:** A large salt pan in the north-central area, a former lake.
- **Hilly Areas:** Found in the southeast and far northwest, including locations like Aha, Tsodilo, Koinaka, and Gcwihaba hills.

- **Drainage Regions:** The country is divided into four drainage regions: the Chobe River (Zambezi basin), the Okavango inland basin, and the Limpopo drainage basin.

The majority of Botswana lies at an altitude of 1000 to 1100 meters. The lowest point is the confluence of the Limpopo and Shashe Rivers at 513 meters. The highest point is the Monalanong Hill at 1,494 meters.

4.3.2 Hydrogeology and Geomorphology

Botswana's hydrogeology is characterized by a semi-arid climate with scarce and erratic rainfall, leading to a reliance on groundwater resources. Surface water is primarily ephemeral, with the major rivers like the Chobe and Okavango flowing in the north, and the Limpopo basin in the east. The Kalahari Desert dominates the country's geology, and groundwater plays a crucial role in water supply.
Key Aspects of Botswana's Hydrogeology:

Due to the arid conditions, groundwater resources are extensively developed and managed. Extensive research has been conducted to understand aquifer characteristics, including transmissivity, storage capacity, safe yields, and infiltration rates.

The major Aquifers include the Ntane sandstone aquifer, which is a significant source of groundwater for many towns and villages in central and eastern Botswana. Other important aquifers are found in the Kalahari formations, such as the Boritse and Kweneng Formations, which are characterized by sandstones with varying degrees of cementation and fracturing.

Significant research has been conducted on groundwater resources, including the establishment of observation boreholes, monitoring water levels, and analysing groundwater chemistry. Geophysical methods are increasingly used to map groundwater resources, providing spatially distributed models of physical properties and helping to identify potential drilling locations.

However, groundwater recharge is limited due to low rainfall, and issues like fluoride-rich waters and saline water intrusion can affect water quality. There is a growing emphasis on sustainable groundwater management, including the development of water conservation strategies and exploring alternative water sources like wastewater reuse.

4.3.3 Flora and Fauna

Conservation efforts in Botswana are noteworthy. More than 45 percent of the national territory is designated for conservation purposes, encompassing national parks, game reserves, wildlife management areas, and forest reserves. Governance of these areas is supported by the Wildlife Conservation and National Parks Act (1992) and the Forest Act (1968). Community-Based Natural Resource Management (CBNRM) initiatives complement these formal systems, engaging local communities in sustainable resource use and biodiversity protection [15]. The table below identifies some protected areas in target priority districts and their key features and risks. Safeguards will be in place to avoid interventions which negatively impacts these areas.

Table 4-1 Key Features of some protected areas in target priority districts

Name of Protected / Sensitive Area	Designation & Extent	Relevant District(s)	Key Biodiversity Features & Risks
Okavango Delta System	Ramsar site, UNESCO World Heritage, Wildlife Management Areas (~55,374 km²)	Maun, Ngamiland (included in project area)	Globally significant wetland ecosystem; supports migratory birds, elephants (~130,000 population), and seasonal floodplain dynamics. Risk of disruption from upstream abstraction or livestock-related infrastructure.

Moremi Game Reserve	National Park (~2,000 km² core, large WMAs buffer)	Maun	Key refuge within Okavango Delta, critical for wildlife habitat connectivity. Risks from encroaching livestock grazing and human-wildlife conflict.
Central Kalahari Game Reserve (CKGR)	Game Reserve (~52,800 km²) in Kalahari sandveld	Ghanzi, Tsabong (adjacent)	Large Kalahari ecosystem, wildlife migration corridors. Vulnerable to encroachment via expanded grazing, infrastructure development.
Khutse Game Reserve	Game Reserve (~2,500 km²)	Molepolole region (Greater Gaborone cluster)	Semi-arid Kalahari landscape with large herbivores and predators. Risk of habitat degradation from livestock pressure and fencing.
Nata Bird Sanctuary & Makgadikgadi Pans	Community-managed sanctuary (~230 km²) and national park complex	North East, Good Hope	One of the world's largest lesser flamingo breeding sites and seasonal migration zone for wildebeest and zebra. Pressure from forage demand and livestock mobility needs.
Wildlife Management Areas (WMAs)	Cover ~20–22% of country; serve as buffer corridors	Ghanzi, Maun, Mabutsane, Tsabong	Designed to connect major wildlife parks; increasingly re-zoned for grazing and agriculture. Grazing expansion threatens habitat integrity and migratory pathways.
Kavango–Zambezi Transfrontier Conservation Area (KAZA-TFCA)	Regional TFCA covering multiple protected areas including Botswana's national parks	Maun, North East (Okavango zone)	Largest protected landscape in Africa, supports elephant and predator movements across borders. Sensitive to fencing, water point expansion, and rangeland conversion.

Vegetation Cover: Botswana's vegetation is primarily savanna grassland with woody plants, interspersed with areas of woodland, shrubland, and even desert vegetation. A significant portion of the country, particularly the southwest and central areas, is covered by the Kalahari Desert, which features semi-arid adapted vegetation.

- **Savanna:** Approximately 90% of Botswana is savanna, a mix of grassland and woodland.
- **Kalahari Desert:** This desert area, covering about 84% of the country, is characterized by semi-arid adapted plants like thorny shrubs and trees on sandy ridges.
- **Okavango Delta:** The Okavango Delta and Chobe areas feature dense clusters of trees and tall shrubs, with the delta also hosting unique vegetation like papyrus reeds.
- **Forests:** Small forest areas exist, mainly in the far north along the Chobe River.
- **Other Vegetation:** Dry shrubland dominates drier desert areas, while trees thrive in wetter areas like swamps and the Okavango Delta.

The vegetation types vary based on rainfall and moisture, with different plant species adapted to various conditions across the country. For example, the Kalahari region has specific grasses like Eragrostis pallens and Stipagrostis uniplumis, while the Okavango Delta supports Phragmites communis and other wetland species. The vegetation of the south western Kalahari region is characterized as southern Kalahari bush savanna and Central Kalahari bush savanna. The main tree species are *Acacia* (*Vachellia*) *erioloba, Acacia giraffae*, and *Acacia mellifera*, and *Boscia albitrunca* along with some *Terminalia sericea*. Shrubs include various Grewia species (e.g. *Grewia flava*, *Grewia retinervis*), *Dichrostachys cenerea*, *Ziziphus mucronata*, and *Bauhinia macrantha.* The greatest density of trees and shrubs is on the sand ridges and on the fringes of pans. Some of the grasses include *Eragrostis lehmeanniana*, *Aristida uniplumis*, *Schmidtia bulbosa*, *Panicum kalahariense*, and *Aristida meridonalis* (Skarpe.1986a, b; Thomas and Shaw 1991)

Fauna: Botswana boasts a rich and diverse fauna, including the iconic "Big Five" (lions (*Panthera leo*), leopard (*Panthera pardus*) , elephant, rhino, and buffalo), spotted hyena (*Crocuta crocuta*), brown hyena (*Hyaena brunnea*), cheetah (*Acionyx jubatus*), alongside a wide array of other mammals, birds, reptiles, and amphibians. The country's various ecosystems, from the Okavango Delta to the Kalahari Desert, support unique animal populations adapted to their specific environments.

The country is renowned for its healthy populations of lions, leopards, elephants, black and white rhinos, and buffalo, making it a premier safari destination. Other Notable Mammals include Zebras, giraffes,

wildebeest, hippos, antelopes (including gemsbok, eland, and various other species), African wild dogs, cheetahs, hyenas, aardvarks, aardwolves, bat-eared foxes, and caracals are commonly seen.

Desert-Adapted Species include unique species like the gemsbok, aardwolf, and brown hyena, adapted to the harsh arid conditions. Aardvarks, aardwolves, bat-eared foxes, and various mongooses are more likely to be seen during the night. Lesser bushbabies and vervet monkeys can also be spotted in Botswana.

Some pan areas have ground squirrels (*Xenus inauris*) and meerkats (*Suricata suricatta*) as well as small cats (e.g. the black-footed cat, *Felix nigripes*) and mice. There has been an increase in the numbers of elephants (*Loxodonta africana*) visiting the area, especially in the past several years. Elephants are considered vulnerable by the International Union for Conservation of Nature (IUCN).

Avifauna: Botswana boasts a rich avifauna, with over 600 bird species recorded, including both resident and migratory birds. The country's diverse habitats, from the Okavango Delta to the Kalahari Desert, support a wide range of birdlife. Notable species include the Kori Bustard, the national bird, and various raptors, waterbirds, and songbirds. Some of the birds 'follow the rains' e.g. Kalahari larks, Alaudidae (Maclean 1970).

The Okavango Delta is a unique wetland ecosystem which attracts large numbers of birds, particularly during the breeding season and when the floodwaters arrive. Even the arid Kalahari supports birdlife, with species adapting to the limited water resources.

Botswana is also an important stopover for Palearctic migrants, especially during the "green season" (October to April). The country has twelve (12) Important Bird Areas (IBAs) covering a significant portion of the country, which are crucial for bird conservation. Popular birding locations include the Okavango Delta, Makgadikgadi Pans, and areas around Gaborone. The Birding Season, the green season (December to March) is particularly good for birding due to the presence of migrants and breeding birds.

Botswana also hosts some globally threatened bird species, highlighting the importance of conservation efforts. Some of the birds are considered vulnerable according to the IUCN, and these include several species of vultures, (e.g. African white-backed vulture, *Gyps africanus*, the Cape vulture, *Gyps coprotheres*, and the lappet-faced vulture, *Torgos tracheliotis*). Also vulnerable are the black harrier (*Circus maurus*), the pallid harrier (*Circus macrourus*), and the lesser kestrel (*Falco naumanni*), and several species of cranes.

4.3.4 Tourism and Cultural Heritage

Tourism represents an important source of income and livelihoods for people in most parts of Botswana. Much of the tourism is wildlife-based or nature tourism (Moswete 2009; Moswete, Thapa, and Child 2012; Moswete and Thapa 2015, 2018; Saarinen et al 2012, 2020; World Bank 2020).

There is also some cultural heritage tourism that includes archaeological sites, for example at Mamuno, close to the Botswana-Namibia border on the A2B6 highway. The site has petroglyphs (rock engravings) that were reported on by Litherland, Litherland, and Sekwale 1975; Walker 1998a: and Thebe 2011). Mabuasehube Pan, now part of the Kgalagadi Transfrontier Park, has Early, Middle, and Late Stone Age archaeological remains (Robbins and Murphy 1998; Walker 1998b). A Late stone age site was found at Buitsavango in the Ghanzi Farms (Walker 2009) and as well as at places along the Okwa Valley (A.C. Campbell, C.K. Cooke, Alinah Segobye, George Silberbauer, Nick Walker, Arthur Albertson, personal communications). Archaeological sites were also discovered in the northern Ghanzi District in the area affected by the Khoemacau Copper-Silver Mining holdings (Nick Walker, personal communication, 2011).

5. ENVIRONMENTAL, CLIMATE AND SOCIAL IMPACTS ANALYSIS

5.1 INTRODUCTION

The following chapter outlines the description of the potential Environmental, Climate and Social impacts that will be caused by the implementation of the project, including their significance. The requisite mitigation measures for the identified impacts are then outlined in Chapter 6.

The BoLCoP is envisaged to result in more positive than negative environmental and social impacts. With appropriate design, adequate management and monitoring, negative impacts can be kept to a minimum.

5.2 ACTIVITIES AND SOURCES OF ENVIRONMENTAL AND SOCIAL IMPACTS.

The critical components for environmental, Climate and Social related negative impacts as a result of BOLCOP activities carried out will include such activities as:

a) rehabilitation and or construction of small rainwater harvesting systems mainly based on boreholes.
b) rehabilitation and or construction of agriculture infrastructure such as abattoirs.
c) small-scale solar powered irrigation and water supply,
d) Construction of Waste management and sanitation infrastructure and drainage.
e) construction of agro-processing and storage facilities.
f) Administration of veterinary services (such as vaccinations, artificial insemination, and animal husbandry services in general.
g) Establishment of Storage facilities for management of post-harvest losses; fodder crop disease outbreaks (fodder crop husbandry services in general and aquaculture.
h) use of agrochemicals; fertilisers, herbicides, pesticides, etc
i) preparation of land for fodder crop farming.
j) E-waste from digitising and computerising the financial systems and services.

These activities may contaminate some of the environmental media such as water and soil, and pose occupational health hazard, water use conflicts, conversion and/or loss of physical cultural resources.

The potential environmental, social and climatic risks emanating from the project includes the following:

a) land degradation resulting from overgrazing
b) poor water retention and increased runoff in sandy Kalahari soils, significantly reducing forage productivity and system resilience
c) increasing climatic variability, including temperature extremes, droughts, unexpected rains, flash floods, and frost events.
d) water access.
e) Generation of solid waste:
    - The solid waste is just being piled.
    - Potential GHG emissions.
f) inappropriate use and handling of agrochemicals (vaccines, pesticides, etc).
    - For the smaller farmers the vaccines are brought by the vet.
    - For the bigger farmers they purchase the vaccines a day before administering, store them in a cooler box in the same fridge they keep their food.
g) limited access to land and water:
    - Small size plots limiting expansion.
    - Low yielding boreholes.

- Salty water not suitable for farming.

h) Wildlife – Human conflicts, predators and thieves.
i) Challenges of diseases like heartwater, tick borne diseases and Pasteurellosis.
j) Potential GBV/SEA as women become empowered.
k) Potential Child labour and social unrests.
l) Potential Deforestation issues - opening up fields for fodder production.
k) E-waste from digitising and computerising the financial systems and services.

Most of the impacts will be localized to the project site, short term, some can be avoided/reduced or mitigated. The following is an analysis of the possible beneficial and adverse impacts of the project.

5.3 SUMMARY OF IMPACTS

5.3.1 Biodiversity

Botswana hosts rich biodiversity, including 157 mammal species, 587 bird species (25 globally threatened), 131 reptiles, 99 fish species, and over 3,000 plant species [13]. Many species, especially migratory wildlife, depend on extensive, connected habitats, but these are increasingly threatened by habitat fragmentation and human encroachment. Elephant dispersal into new areas also heightens human-wildlife conflict, impacting rural households reliant on small-scale livestock farming [14].

Expansion of livestock activities may also encroach into unprotected wildlife habitats, heightening human–wildlife conflicts present in many project target districts. These conflicts often involve livestock predation by carnivores and crop destruction by elephants, creating food security and economic challenges for vulnerable households.

The project will not support any interventions that will impact negatively on biodiversity. All subprojects will undergo environmental risk screening to assess the severity of the risk and apply mitigation measures set out herein which include applying exclusion criteria to avoid activities in protected areas and create buffer zones. However there is a risk that livestock intensification in ecologically sensitive areas could increase grazing pressure, fragment habitats, and heighten human–wildlife conflict. The project will also avoid any operations that will be carried out in protected or conservation areas and forest lands. All project work will be confined to privately owned, communal or government land.

The project will further avoid any deforestation or forest degradation, but will promote intercropping, agroforestry, multi and mixed cropping, in a bid to maintain or enhance biodiversity. The introduction of alien species will be prohibited, while ecological risk assessments will be undertaken for introduced fodder species. In addition, the communal farmers will be capacitated in climate smart and best agricultural practices including the use of local and indigenous seed varieties and organic inputs.

5.3.2 Resource efficiency and pollution prevention

Resource efficiency and pollution prevention risks will be Substantial given the project area's chronic water scarcity, fragile soils, and weak capacity for waste handling. The project will involve the use of agrochemicals and extensive animal products processing like abattoirs.

Natural Resources: The project activities will not result in any significant consumption of natural resources; raw materials or energy, or risks increasing water demand particularly in Botswana's water-scarce and sandy-soil regions. As the project will be committed to sustainable practices it will emphasise on optimising the existing resources by implementing efficient methodologies and working closely with the Department of Water

Resource Efficiency: The project activities are not expected to release any pollutants into the environment and where such may occur waste handling systems will be promoted. The project will not directly purchase fertilisers and other agrochemicals but will encourage the use of organic and other bio inputs and integrated pest management approaches. However veterinary drugs (antibiotics, dewormers) and agrochemicals (fertilizers, pesticides) risk leaching into sandy soils and fragile aquifers. In all instances the project will promote and support the use of eco-friendly alternatives. The project will also not endorse the use of antibiotics and hormonal products for livestock production. Proper handling and waste disposal has also been included in a study for reference.
The project will rehabilitate and upgrade small rural infrastructure (e.g., boreholes, storage, market pens, abattoir efficiency measures) and will not be involved in new and large works. Expansion of water infrastructure may increase the pressure on overdrawn aquifers. To manage these, all water points will implement water-balance checks, metering, leakage control, and, where feasible, rainwater harvesting and reuse. The upgrading of abattoirs will include effluent pre-treatment and safe sludge disposal, including biogas digesters; Proper manure handling (storage/composting) will be encouraged at farm level.

The project may increase the energy consumption due to the need for transportation, operation of machinery, and refrigeration for animal products. In the remote rural livestock areas. The project will use solar-powered boreholes and pumping systems to reduce reliance on fossil fuels.

5.3.3 Cultural heritage

The project does not envisage opening up new areas or establishing new infrastructure that may impact on cultural heritage sites. The project will confine itself in existing cultivated lands and fallow lands that were previously under cultivation.

However, if any cultural heritage sites are encountered, the project will adhere to the national chance finds procedure. Cultural heritage risks may include disrupting access to sacred sites or altering intangible cultural practices that are deeply embedded in local communities. However, these are well mapped and managed by government authorities.

Although the project does not include major infrastructure components, the introduction of new technologies and production methods may affect traditional food production and preparation practices that hold cultural and/or religious value. Therefore, these risks must be carefully managed to avoid unintended negative impacts.

Botswana's Monuments and Relics Act provides a framework for the protection of cultural heritage. To prevent or mitigate adverse impacts, thorough cultural heritage assessments should be conducted during Project planning. This includes consultations with local communities to identify culturally significant sites and practices, implementing Free, Prior, and Informed Consent (FPIC), and integrating protective measures to avoid or minimize disruptions to heritage sites and intangible cultural practices. The project will apply a Chance Finds Procedure consistent with the Monuments and Relics Act and SECAP: work stoppage, secure area, notify authorities, expert assessment, and documented resolution before resumption.

5.3.4 Indigenous peoples

There are a number of indigenous peoples (remote area Dwellers) dispersed throughout Botswana. Wherever the project will identify them in the course of project implementation, ethical engagement and respect for the rights of these communities will be exercised, including seeking free, prior and informed consent (FPIC). To this effect the project has developed an indigenous peoples planning framework (IPPF) that will be used to take care of the concerns and needs of the remote area Dwellers

Botswana recognises eight Tswana speaking tribes but there are other ethnic minorities less recognised which have been brought under scrutiny and which have their unique local culture and traditions, which must be recognised and protected[21]. **Free, Prior and Informed Consent (FPIC) will be applied and integrated into project procedures and processes, so as to ensure that ethnic minority groups will be included and that their cultural specificities will be valued.** Considering the nature of the interventions, it is unlikely that the activities implemented will jeopardize access to resources for ethnic minorities. There is generally a low risk of adverse impacts on access to resources or land tenure arrangements, as the Project does not involve any land acquisition.

5.3.5 Labour and working conditions

The project will endeavour to uphold the national labour laws and the country's international commitments regarding labour rights. The risk of not upholding this exists, due to potential exposure of workers to occupational hazards in livestock production, possible gender inequalities in labour conditions, and challenges in monitoring child labour in rural areas. These issues are not widespread but require active mitigation and monitoring to prevent harm and discrimination.

Risks of child and forced labour exist. Livestock farming is usually a family-based activity, and it is very common for children, especially those above the age of 15, to participate, potentially exposing them to "hazardous" tasks i.e. handling large animals/ tools. While labour laws in this regard align with international standards, monitoring and enforcement in rural areas can be challenging especially due to cultural element.

Thus, the project will not support any value chains or activities where there are instances of forced or child labour. Children below the nationally defined minimum employment age of 18 years should not be engaged in any activities supported by the project.

Occupational Safety and Health (OSH) risks may occur such as exposure to dangerous machinery, hazardous chemicals, and transmissible animal diseases such as anthrax or brucellosis, Additionally, livestock farming may promote the use of tools, machinery, or pesticides that, if not properly managed, can be hazardous to health. Thus the project will also not operate in sectors, areas, or value chains were the workers face significant occupational and safety risks, including technologies or practices that pose occupational safety and health (OSH) risks. These include dangerous machines and tools, hazardous chemicals, toxic substances, parasitic or transmissible diseases, extreme temperatures, etc

BoLCoP will further promote fair work practices by integrating labour safeguards into project activities[22]. The project will support equitable workload distribution and ensure that intensified livestock practices, such as zero grazing, do not disproportionately burden women and children.

5.3.6 Community health and safety

It is not envisaged that the project activities will result in any negative impacts on community health and safety, especially after implementing the recommended mitigation measures from the current ESCMP. However, the risk does exist because livestock intensification could increase exposure to zoonotic diseases, hazardous chemicals, and social risks such as GBV and HIV transmission. While infrastructure construction is minimal, indirect risks remain and require integrated health, safety, and social safeguards.

The project will also deliberately seek to prevent gender-based violence (GBV) and Sexual exploitation and abuse (SEA), stemming from labour influx to project sites, and subsequent empowerment of women that may result from the project. Any actions that may disrupt community dynamics will be avoided.

HIV/AIDS remains a significant social risk, with Botswana having one of the highest prevalence rates globally. Women and youth are particularly vulnerable due to limited economic autonomy and gender power imbalances. Transactional sex, driven by poverty and inequality, remains a concern, compromising health and productivity.

The risk of increased interaction between local populations and outside workers is minimal, given the Government's focus on citizen empowerment; however, continued vigilance is required. By integrating environmental safeguards, such as documenting workers, strong biosecurity measures, gender-sensitive approaches, and HIV prevention strategies, BoLCoP seeks to mitigate critical social and health risks while promoting inclusive and sustainable livestock value chain development.

5.3.7 Physical and economic resettlement

The project will adopt a "no-resettlement" policy, with careful consideration of land tenure and usage rights before selecting sites. There will be no temporary or permanent displacement of any households due to the project's activities as these will be limited to cultivated, communal and Government designated communal lands. The project will also not cause any economic displacement such as loss of assets or access to resources caused by land acquisition or access restrictions. The project will operate within the allocated lands while ensuring the preservation of established land rights and community-based property rights.

A good percentage of the land is tribal with attached customary land rights not always legally registered, there can be unintentional result of involuntary resettlement/force eviction. Generally, people hold proof of tribal land rights but now need to register their titles with the Deeds Registry. Careful consultation with PDT, stakeholder consultations and grievance redress mechanisms will be required at implementation stage.

Botswana has dedicated specific land areas to conservation and are protected. BoLCoP will follow government guidance on if and how people living within the boundaries of these areas, as well as in their respective buffer zones, as well as in wildlife migration corridors should benefit in the project.

5.3.8 Financial intermediaries and direct investments

In line with SECAP standard 8, Financial Intermediaries will be required to develop and maintain Environmental and Social Management Systems (ESMS). They will be required to:

i. develop and maintain an ESMS for assessing, managing and monitoring risks and impacts of direct investment activities and the FI's sub-projects,
ii. develop stakeholder engagement procedures, and
iii. develop monitoring and reporting procedures.

The FI must have a fully operating ESMS in place, which includes the following:

- An environmental and social policy that includes a requirement for subprojects to meet an acceptable level of compliance with IFAD's SECAP standards and requirements as well as local E&S regulation
- A process to identify environmental, social and climate risks
- Management programmes to avoid, minimize or compensate for identified risks and impacts
- Internal organizational capacity and competency to implement the ESMS
- Monitoring and reporting systems
- A mechanism for responding to accidents, emergencies and a grievance redress apparatus.

The FI must also establish

- An appropriate stakeholder engagement process

- An external communication mechanism that allows the FI to inform affected communities and: (a) explain the project to them; (b) incorporate their feedback and any agreed changes; (c) inform local authorities, other stakeholders and IFAD on project progress and on any unexpected and unintended events affecting those communities

The FI must also provide:

- Guidance on the establishment of grievance mechanisms (for FI subprojects)
- An appropriate monitoring and reporting programme

So the FIs will have to make sure that any sub-projects financed through them will comply with their ESMS and the beneficiaries will have to develop site specific ESMPs.

5.3.9 Climate change

The target project areas are prone to extreme climatic conditions such as heat waves, flash floods and droughts resulting in significant loses in fodder crops, livestock and infrastructure including routes connecting the farmers to markets. Frequent droughts have impacted heavily on the communities resulting in recurring scarcity of water for domestic use, crops and livestock. These climate-related disruptions exacerbate existing inequalities particularly for women and other vulnerable groups who often have limited access to alternative water sources, land, and agricultural inputs, making it harder for them to cope and recover from such shocks.

The ever-escalating temperatures in the project areas has also resulted in more frequent pest and diseases outbreaks, posing significant challenges to crop health and ultimately to agricultural productivity.

6. THE ENVIRONMENTAL, SOCIAL AND CLIMATE MANAGEMENT PLAN (ESCMP).

This chapter outlines the Environmental, Social and Climate Management Plan (ESCMP) for the BoLCoP.

6.1 THE ESCMP

The ESCMP plan will guide the proposed BoLCoP project and provide guidelines for the management of potential environmental and social aspects at the project sites. It outlines necessary environmental and social mitigation measures for the project and its proposed components during the development and operational phases of the project. The ECSMP farther identifies parties responsible for monitoring actions, frequency of monitoring and any training or capacity building needs.

Mitigation measures have been identified to reduce present and potential impacts associated with the prosed project aimed to enable smallholder farmers and SMEs – including those led by women and youth and vulnerable /marginalized groups - to access a diverse range of financial services that will enable them to invest in green and climate-resilient technologies, better manage the risks, and increase productivity. Moreover, mitigation measures are identified categorized as either social or physical. Social mitigation includes the measures used to mitigate effects of noise, land use, and other effects to the human environment. Physical mitigation includes measures that address impacts to the physical environment, such as biological communities, vegetation, air quality, and others.

Table 6-1 Environmental, Social Management Plan (ESCMP).

TEXT REF.	ENVIRONMENTAL, SOCIAL AND CLIMATE IMPACT	RECOMMENDED MITIGATION/ENHANCEMENT MEASURES	PUBLIC CONSULTATION ACTIVITIES	RESPONSIBLE INSTITUTION	MEANS OF VERIFICATION	FREQUENCY OF VERIFICATION	RELEVANT SECAP STANDARDS	Budget
1.0	**ENVIRONMENTAL IMPACTS - CONSTRUCTION PHASE**							
1.1	***Potential Negative Impacts During Construction Phase*.**							
(a)	**Soil and land degradation**							
	• Exposure of land during land preparations for fodder crop and pasture farming. • Point source contamination from spilled paints, diesel, lubricants etc. around workshop areas. • Hazardous Materials spillages Construction risks of spills (oil, lubricants), during establishment of Agriculture facilities • Increased rapid runoff due to vegetation clearing and soil compaction diminishing infiltration capacity during construction phase.	• Avoid and minimise use of hazardous materials • Ensure adequate waste management at all operational sites • Install appropriate containment measures for all operational areas and proper disposal of used lubricants. • Install Soil erosion control measures (e.g., re-vegetation, reseeding of grasses, re-grassing of all bare surfaces, terracing, use of gabions, stabilization of banks contour ridges, swells and catch dams) • Restore borrow pits, sand and quarry stone abstraction sites and brick moulding sites. • Minimise vegetation clearing to working areas only.	Stakeholder engagements during meetings and field visits	• NPMCU. • Local Leadership. • Beneficiaries. • Contractors. • District Agriculture Office. • Contractors • BOLCOP Service Providers	• Contamination of nearby water resources. • Number of reported pollution events • Geo maps, observation, • pictures, inspection	Quarterly	SECAP Standard 1 and 2	Erosion control works, revegetation integrated into component 1. Contractor costs for pollution mitigation.
(b)	**Deforestation**							
	• Clearing land for fodder production. • Clearing land for Construction purposes and establishment of infrastructure	• Discourage cutting of mature trees by awareness raising • Ensure protection of buffer zones along rivers by awareness raising • Promote agroforestry through technical training	Stakeholder engagements during meetings and field visits	• MET experts • extension workers • NPMCU • Contractors • Service Provider • MOLA	• Inspection, • visual observations, • pictures, • geo mapping	Quarterly	SECAP Standard 1	Agroforestry integrated into component 1
(c)	**Disturbance of Marginal Areas**							
	• Establishing the projects in Marginal Areas poses serious threats to their further degradation. • Establishing new farms.	• Avoid extraction of raw materials from marginal areas • No construction of structures in marginal areas.	Stakeholder engagements during meetings and field visits	• NPMCU • Bolcop Contractors • Bolcop Service Provider	Inspections of the state of the marginal areas.	Quarterly	SECAP Standard 1	Capacity building: rangeland management training

TEXT REF.	ENVIRONMENTAL, SOCIAL AND CLIMATE IMPACT	RECOMMENDED MITIGATION/ENHANCEMENT MEASURES	PUBLIC CONSULTATION ACTIVITIES	RESPONSIBLE INSTITUTION	MEANS OF VERIFICATION	FREQUENCY OF VERIFICATION	RELEVANT SECAP STANDARDS	Budget
		• Continuous community sensitization on sustainable land use targeting extension agents, producers and local leaders.						
(d)	**Loss of Fragile ecosystems**							
	• Fragile ecosystems like wetlands, quickly degrade and lose their functionality if misused.	• Conduct feasibility studies before construction • Use expert knowledge of ecologists, • Introduce ecosystem conservation projects. • Fence out some sensitive sites. • Harvesting of resources in wetlands must be controlled. • Agricultural activities in wetlands must be under controlled conditions – sustainable use of wetlands. • Invasive alien species must not be introduced into sensitive ecosystems.	Stakeholder engagements during meetings and field visits	• NPMCU • Bolcop Contractors • Bolcop Service Provider	Inspections of state of Fragile Ecosystem.	Quarterly	SECAP Standard 1	
(e)	**Ambient air pollution**							
	• Demolition to modify the built environment will lead to considerable levels of cement dust and asbestos dust which can affect the health of the workers and the public. • Dust from Fodder processing at Grinding Mills. • Smells from agricultural waste. • Impaired Visibility on the roads • Disturbs normal developments of vegetation.	• Contractors should use dust screens or nets in windows, doorways, and ventilators of rooms where demolition or other dusty construction activities are occurring • Processing waste must be handled properly to avoid contamination and smells. • Dust suppression measures such as watering of dusty surfaces must be instituted at all sites including at fodder processing plants. (cover soil mounds and spray bare areas with water) • Accredited firms must be contracted to manage hazardous materials such as asbestos • Animal waste must be handled properly to avoid smell. • Site clearance is to be minimized as far as possible to reduce the potential for dust and other impacts.	Project Coordination, District /Municipal, Environment Departments	• NPMCU. • Bolcop Contractors • Local Leadership. • Beneficiaries. • Local Environment Officers • District Agriculture Office.	Inspections. Availability of dust suppression measures.	Quarterly	SECAP Standard 2	Contractor costs
	Overexploitation of Water Resources							

TEXT REF.	ENVIRONMENTAL, SOCIAL AND CLIMATE IMPACT	RECOMMENDED MITIGATION/ENHANCEMENT MEASURES	PUBLIC CONSULTATION ACTIVITIES	RESPONSIBLE INSTITUTION	MEANS OF VERIFICATION	FREQUENCY OF VERIFICATION	RELEVANT SECAP STANDARDS	Budget
	• Boreholes may lead to water over-use if not properly managed • Loanees may purchase pumps and expand production, increasing water demand in localized areas.	• Conduct awareness campaigns and training for beneficiaries on sustainable water use and climate-smart agricultural practices. • Encourage crop diversification with drought-resistant fodder species. • Enforce national water use regulations and permit systems for groundwater abstraction.	• Project Coordination, • District /Municipal, • Environment Departments • awareness campaigns	• NPMCU • Ministry of Lands and Agriculture (MoLA • Local Wateruthorities • District Agricultural Extension Officer • Beneficiaries	• Number of awareness campaigns conducted on water use efficiency	• Quarterly and ongoing during project implementation	SECAP Standard 2	Included under capacity building (no separate major infrastructure costs)
\(f)	**Contamination of Water Resources**							
	• Discharges of debris from civil works, oil spills, and other pollutants generated from construction works including onsite sewage and rainwater run-off. • Discharge of effluent from agricultural processing plants. • Soil and water pollution resulting from the accumulation of solid and liquid waste. • Soil and water pollution from chemicals & fertilizers meant for fodder production. • Littering and indiscriminate dumping of solid waste pollutes land and water resources. • Poisoning of aquatic and inland ecosystems.	• Contractors to erect proper sanitary facilities. - Toilets at convenient locations throughout the project area. • Pollution from lubricants and other wastes to be avoided. Contain all oil leaks at workshops and surfaces by collecting in oil separators. • Controlled disposal of wastes and effluent by use of appropriate disposal facilities, use of appropriate drainage structures, use of cleaner technologies, proper storage of materials. • Waste must be recycled and reused to avoid dumping in waterways. • Polluted water shall be treated prior disposal to watercourse. (Install septic tanks and bio-digesters) • Activities related to slaughtering of cattle should be carefully conducted and the resultant waste managed properly. • Maintain all vehicles and equipment to avoid oil and grease leaks. • Install oil and grease separators to collect rain runoff around workshops and parking areas.	• Project Coordination, • District /Municipal, • Environment Departments • awareness campaigns	• Contractors • MET • District/Local extension workers • NPMCU. • Local Leadership. • Beneficiaries. • Local Environment Officers • District Agriculture Office	• Discharge of poor-quality effluent • Change in chemical and biological water quality • Number of reported pollution events	Bi-annually Annually	SECAP Standard 2	Contractor costs

TEXT REF.	ENVIRONMENTAL, SOCIAL AND CLIMATE IMPACT	RECOMMENDED MITIGATION/ENHANCEMENT MEASURES	PUBLIC CONSULTATION ACTIVITIES	RESPONSIBLE INSTITUTION	MEANS OF VERIFICATION	FREQUENCY OF VERIFICATION	RELEVANT SECAP STANDARDS	Budget
		• Promote compliance with national discharge standards • Discharge effluent that meets the national discharge standards • Maintain safe distance (+50 feet) between latrine and water sources • Take corrective action when water contamination is established. • Emergency spill response plans in place						
2.0	**ENVIRONMENTAL IMPACTS - OPERATION PHASE**							
2.1	***Potential Negative Impacts During Operation Phase.***							
(a)	**Solid waste**							
	• Less quantities of solid wastes generated include domestic wastes, plastics, and animal dung.	• Installation of biogas digesters to manage organic waste and reduce environmental pollution. • Collect all solid waste in a systematic manner for disposal at designated landfills. • Place waste collection bins at strategic positions throughout the project area. • Solid waste should never be burnt on site. • Develop a solid waste management plan and implement it. • Promote waste minimization, segregation, and recycling. • Construct/refurbish waste management facilities at all processing plants like abattoirs. These should include biogas digesters	Stakeholder engagements during meetings and field visits	• NPMCU. • Local Leadership. • Beneficiaries. • Local Environment Officers • District Agriculture Office. • Contractors.	• Solid waste collection mechanisms in place. • Waste collection bins strategically positioned • solid waste management plan in place and being implemented.	Quarterly	SECAP Standard 2	Contractor costs 44 Bio-gas digesters @ 4471.59 each = $197,000.00
(b)	***Effluent Discharges***							
	• Most agricultural, livestock, agro-processing, packaging, and marketing operations produce liquid effluent • improper disposal of slaughter waste and veterinary drugs	• Install appropriate effluent treatment facilities next to any processes that generate effluent. i.e., Septic tanks, oxidation ponds, etc • Collect and channel all effluent to a properly constructed effluent treatment	Stakeholder engagements during meetings and field visits	• NPMCU. • Local Leadership. • Beneficiaries. • Local Environment Officers	• appropriate effluent treatment facilities installed at facilities	Quarterly	SECAP Standard 2	Effluent treatment facilities . One oxidation pond system @ 250,000.00

TEXT REF.	ENVIRONMENTAL, SOCIAL AND CLIMATE IMPACT	RECOMMENDED MITIGATION/ENHANCEMENT MEASURES	PUBLIC CONSULTATION ACTIVITIES	RESPONSIBLE INSTITUTION	MEANS OF VERIFICATION	FREQUENCY OF VERIFICATION	RELEVANT SECAP STANDARDS	Budget
		plant, (oxidation ponds, septic tanks or bio-gas digesters) • Monitor the quality of the effluent that is ultimately discharged to the environment so that it meets the national effluent discharge standards. • Train staff on effluent management. • Develop a waste management plan • farmer training on safe handling and disposal practices • training for veterinarians on proper management of pharmaceutical waste • Construct/refurbish waste management facilities at all processing plants like abattoirs. • Pre-treat effluents before discharging into municipal sewers to reduce pollutant loads.		• District Agriculture Office.	• Quality of final discharge being monitored – water quality records available.			10 septic tank systems @ 6500.00 each = 65,000.00 Capacity building: agro-facilities training
(c)	**Agro chemicals**							
	• Pollution of water resources from excess fertiliser applications for fodder production. • Pollution from inappropriate use of biocides. • establishment and operation of infrastructure for artificial insemination • Poisoning of farmers by chemicals. • Poisoning of aquatic and inland ecosystems by the chemicals. • Poisoning of the soil by the chemicals. • Poisoning of farm produce by chemicals.	• Apply fertiliser correctly and in the right amounts - Use split application - No application before major storms. • Store biocides, fertilisers, and animal feeds in separate, lockable storerooms to avoid cross-contamination - Keep away from food staffs • Train farmers on use, handling, storage, and disposal of agro chemicals. • Encourage organic farming and limit the use of Agro chemicals like inorganic fertilizers. • Use integrated Pest Management approaches to minimize pesticide use. • All workers to use appropriate PPE every time. • Use the least potent variants of pesticides to minimise poisoning.	• Stakeholder engagements during meetings and field visits • awareness training. • In-field training	• Contractors • MET • District/Local extension workers • MOLA • NPMCU. • Local Leadership. • Beneficiaries. • Local Environment Officers • District Agriculture Office.	• Number of trained farmers. • Availability of lockable separates storerooms for agro chemicals	Quarterly	SECAP Standard 2	Contractor costs for pollution mitigation Capacity building: pollution management training
(d)	E-waste generation							

TEXT REF.	ENVIRONMENTAL, SOCIAL AND CLIMATE IMPACT	RECOMMENDED MITIGATION/ENHANCEMENT MEASURES	PUBLIC CONSULTATION ACTIVITIES	RESPONSIBLE INSTITUTION	MEANS OF VERIFICATION	FREQUENCY OF VERIFICATION	RELEVANT SECAP STANDARDS	Budget
	• Potential of E-waste generation from the laptops, computers and solar panels supplied for the digitisation programme. • Potential for Hazardous waste pollution. • Littering and indiscriminate dumping of solid waste • E-waste pollution	• Develop an E-Waste Management Plan. • All e-waste must be securely stored on site prior to collection by competent personnel for proper disposal at designated landfills. • Collect and store in a lockable area, all potentially hazardous waste (end of life laptops and computer components, batteries, solar panels, etc.), for onward transportation back to supplier, recycling facility or proper disposal site.	Stakeholder engagements during meetings and field visits	• NPMCU. • Local Environment Officers • District Agriculture Office.	Availability of secure storage area for end of life electronic gadgets	Bi- annually	SECAP Standard 2	E-waste awareness training sessions $15,000 e-waste collection points
(e)	Invasive species							
	• Invasive species risk from new fodder crops	• Use only approved native or adapted species recommended by Botswana's Dept. of Agriculture & MET • Train farmers on safe fodder introduction and weed control • Eradicate invasive plants if detected • Ban planting near wetlands and protected areas	Community consultations, farmer training sessions	• NPMCU, MET (Dept. of Forestry & Range Resources), District Agriculture Office	Screening reports, training records	Quarterly	SECAP Standard 1	Integrated into component 1 costs
	• Rangeland degradation • Overstocking, overgrazing • Unplanned grazing	• promote rotational grazing, • Promote sustainable stocking rates, • promote integration of indigenous forage species to enhance soil fertility and reduce erosion. • removing invasive plants • replanting native vegetation.	capacity-building on climate-resilient practices for farmers	• NPMCU, MET (Dept. of Forestry & Range Resources), District Agriculture Office •	Screening reports training records	Quarterly		standard 1Integrated into component 1 costs
2.2	***Potential Positive Impacts During Operation Phase.***							
(a)	***Revegetation***							
	• Planting of grass and continuous rehabilitation of the pastures.	• Identify the correct indigenous plants that can thrive in the area. • Conduct deliberate exercise to revegetate the project area using fodder and other grasses.	Stakeholder engagements during meetings and field visits	• NPMCU. • Local Environment Officers • District Agriculture Office.	Area of land re-generated.	Bi- Annually	SECAP Standard 1	Integrated into component 1 costs

TEXT REF.	ENVIRONMENTAL, SOCIAL AND CLIMATE IMPACT	RECOMMENDED MITIGATION/ENHANCEMENT MEASURES	PUBLIC CONSULTATION ACTIVITIES	RESPONSIBLE INSTITUTION	MEANS OF VERIFICATION	FREQUENCY OF VERIFICATION	RELEVANT SECAP STANDARDS	Budget
3.0	**SOCIAL AND HEALTH IMPACTS - CONSTRUCTION/OPERATIONS PHASE**							
3.1	***Potential Negative Impacts During Constructions/Operations Phase***							
(a)	**Poor project Inception/Introduction**							
	• Anxiety and anticipation • Limited cooperation • Suspicion and hence concealing important of information.	• Efforts must be made to stick to agreed timelines. • Transparency and full disclosure of key elements of the project must be done. • Produce proper plan of action with timelines • Present full disclosure of project decisions and actions to all concerned stakeholders • The planning phase should not drag for far too long as people tend to lose despair.	Stakeholder engagements during meetings and field visits	• NPMCU. • Local Leadership. • Local Environment Officers	None		SECAP Standard 6	Included in Component: stakeholder engagement activities
(b)	**Occupational Health and Safety Issues**							
	• Temporary and permanent physical injuries. • Bronchial diseases from dust. • Diseases and illness from agricultural activities such as pesticide handling. • Loss of life. • Accidental Injuries of local people accessing construction sites. • Accidents from operation of various equipment,	• A Health/Safety/Environment officer should be present during construction. • All safety precautions must be enforced. • Provide PPE to all workers. • Institute dust and noise suppression measures.	Stakeholder engagements during meetings and field visits	• Health Dept, • NPMCU. • Local Leadership. • Local Environment Officers	Application of various types of PPE and their proper use.	Quarterly	SECAP Standard 6	Contractor costs Provision of personal protective equipment (PPE) $60,000
(c)	**Noise**							
	Noise and vibration caused by machines, site vehicles, pneumatic drills etc.	• Contractor to avoid old and faulty equipment. • Heavy duty equipment to be minimised. • Noisy operations to be limited to certain times.	Stakeholder engagements during meetings and field visits	• Contractors • BolCoP • MET	• Use of well serviced equipment. • Noisy operations	Quarterly	SECAP Standard 6	Contractor costs

TEXT REF.	ENVIRONMENTAL, SOCIAL AND CLIMATE IMPACT	RECOMMENDED MITIGATION/ENHANCEMENT MEASURES	PUBLIC CONSULTATION ACTIVITIES	RESPONSIBLE INSTITUTION	MEANS OF VERIFICATION	FREQUENCY OF VERIFICATION	RELEVANT SECAP STANDARDS	Budget
		• Noise levels to be limited to within acceptable levels.			limited to certain times of the day.			
(d)	**Gender Based Violence**							
	• Physical body harm • Lack of productivity • Communicable disease incidences	• Zero tolerance to gender-based violence • Ensure sexual harassment Policy at all levels involved in the project. • Establish grievance redress mechanism (GRM)	• Stakeholder engagements during meetings and field visits • Gals Training	• NPMCU. • Local Leadership. • Local Environment Officers	Reported Gender Based Violence and Sexual Harassment	Quarterly	SECAP Standard 6	Contractor costs
(e)	**Unequal Access To Benefits**							
	• Unequal access to benefits for women and other marginalised groups • Gender inequality & discrimination	• Consider the needs of especially vulnerable and marginalised groups, particularly women and girls. • Training programmes will include gender considerations, as well as considerations for other marginalised groups • A Gender Mainstreaming Plan has been developed which embeds a gender responsive approach throughout the project. • Implement Gender Action Learning System (GALS) • Promote, women's influence in decision making Promote cottage industry • Improve women's access to land, credit, and technological resources. • Conduct women capacity building & mentorship • Conduct Gender & GBV awareness raising & prevention training.	• Stakeholder engagements during meetings and field visits • Training & capacity building • Gender & GBV awareness raising	• NPMCU; • ESS/Gender expert • Service Providers • Department of gender • UNFPA	# of women employed # of women trained and mentored # of trainings & awareness raising on GBV # of women with access land, credit, and technological resources	Quarterly	Cross-cutting	Capacity building: IFAD SECAP
(f)	**Inclusion of Women and Youth**							
	• Youth unemployment thus compromising security • Limited Women & Youth Participation due to unequal power relations & mismanaged natural resources.	• Promote income generation activities for the youth e.g. cottage industry, etc. • Women & youth mentorship and training. • Ensure women and youth needs/inputs are considered in design and implementation of project interventions	• Stakeholder engagements during meetings and field visits	• NPMCU • Service Providers • Department of youth	# of youths employed # of youth trained & mentored	Quarterly	Cross-cutting	Capacity building: IFAD SECAP

TEXT REF.	ENVIRONMENTAL, SOCIAL AND CLIMATE IMPACT	RECOMMENDED MITIGATION/ENHANCEMENT MEASURES	PUBLIC CONSULTATION ACTIVITIES	RESPONSIBLE INSTITUTION	MEANS OF VERIFICATION	FREQUENCY OF VERIFICATION	RELEVANT SECAP STANDARDS	Budget
		• improve water distribution at the farm level • Include women youth, and marginalized groups in Comprehensive farmer training will be provided on efficient water use, proper manure and wastewater management, and hygiene practices	• Training & capacity building					
(g)	**Inadequate Consultations with Indigenous Peoples**							
	Negative impacts on Indigenous Peoples, whose ancient practices may be disturbed.	• Conduct comprehensive stakeholder mapping during the first year of the project to identify precisely which IPs will be affected. • Institute the process for Free, Prior and Informed (FPIC) • Include Representatives of IPs in planning, implementation, monitoring and evaluation of relevant project activities. • Develop protocols with IPs for communication that has the objective of seeking FPIC. • Seek Consent through procedures and institutions determined by IPs themselves. • Establish mechanisms and procedures with IPs to verify that FPIC has been sought and for Redress. • integrating Indigenous knowledge systems and practices into project planning and implementation, ensuring that these knowledge systems are inclusive and reflect the perspectives and needs of women, youth, and marginalized groups within these communities • Put in place a grievance mechanism and strong feedback mechanisms for reporting on targeting, with an emphasis on ensuring that women and marginalized groups have equal opportunities to voice concerns and receive support.	• Stakeholder engagements during meetings and field visits • Embed FPIC in all project training programmes.	• NPMCU, • ESS expert, • IP representatives	• IP representatives identified • No of FPIC trainings conducted. • FPIC processes conducted.	Quarterly	SECAP Standard 4	Capacity building: IFAD SECAP - FPIC
(h)	**Lack of access to Resources**							

TEXT REF.	ENVIRONMENTAL, SOCIAL AND CLIMATE IMPACT	RECOMMENDED MITIGATION/ENHANCEMENT MEASURES	PUBLIC CONSULTATION ACTIVITIES	RESPONSIBLE INSTITUTION	MEANS OF VERIFICATION	FREQUENCY OF VERIFICATION	RELEVANT SECAP STANDARDS	Budget
	Potential for IPs and other local communities including women and youth to be prevented access to land and natural resources or to be dispossessed of land and resources (physical displacement). Existing insecure land tenure and limited access to land for IPs, women and youth pose risks, which may lead to exclusion from project benefits or increase land-based conflicts if not carefully managed.	• The project does not anticipate any restrictions on land use or resettlement In the unlikely event this is unavoidable, the project will provide compensation for loss of assets at replacement cost and ensure resettlement activities are implemented with appropriate disclosure of information, consultation and informed participation of those affected • Conduct sociocultural and land tenure assessment • The project will adopt a *"no-resettlement"* policy and ensure all land-related decisions are preceded by comprehensive stakeholder engagement. • In the case of restrictions on land use, a Process Framework will be developed by the project • In the case of voluntary resettlement, a Voluntary Resettlement Action Plan will be developed by the project. • All interventions will adhere to the national laws for resettlement. • Develop all management plans and land use plans in collaboration with local communities who are likely to be affected. • Establish and promote accessible grievance redress mechanisms to manage emerging issues.	Stakeholder engagements during meetings and field visits	• NPMCU; • Project manager; • district administration • IP representatives	• Zero resettlement observed by project • Appropriate compensations in case of resettlement.	Quarterly	SECAP Standard 7	Conduct sociocultural and land tenure assessment ($30,000)
(i)	**Labour & working conditions**							
	Workers subjected to unfair Labour & working conditions.	• Awareness raising on child protection laws & education to prevent the use of child labour in project activities • include terms prohibiting child labour in all procurement contracts • Child labour to be monitored throughout the project through a	• Stakeholder engagements during meetings and field visits • Training & capacity building	• NPMCU • Department of Labour • MOLA	• Age confirmation with ID/any official evidence • # of awareness raising &	Biannually	SECAP Standard 5	Capacity building: Child Labour Awareness Training

TEXT REF.	ENVIRONMENTAL, SOCIAL AND CLIMATE IMPACT	RECOMMENDED MITIGATION/ENHANCEMENT MEASURES	PUBLIC CONSULTATION ACTIVITIES	RESPONSIBLE INSTITUTION	MEANS OF VERIFICATION	FREQUENCY OF VERIFICATION	RELEVANT SECAP STANDARDS	Budget
		participatory surveillance & control system. • Institute fair labour practices and conducive working conditions. • Enforce the national labour laws including the ILO agreements.			capacity building activities			
(j)	**Elite Capture**							
	Elite capture – unequal access to training and inputs because of historical inequality and power relations	• Conduct an inclusive and transparent stakeholder engagement process to identify and determine different players and their influence on the project, and in the community. • Engage the most influential members by assigning them meaningful responsibilities, helping channel their influence productively and reducing any perceptions of elitism. • Capacitate district/local staff in appropriate community communication and facilitation skills to manage the community socio-political processes • Project staff will be trained on the historical inequality and power relations present in the project sites to inform the implementation of interventions and prevent elite capture • Field visits will take place to monitor the distribution of benefits derived from the project	Stakeholder engagements during meetings and field visits Training & capacity building	• NPMCU, • Project manager • Service Provider	• # of stakeholder engagements • # of trainings	Biannually	Cross-cutting	Capacity building: Group Dynamics
(k)	**Cultural Heritage**							
	Impacts on cultural heritage from establishment of infrastructure	• Ensure the prevention of the removal of or damage to objects or sites considered to be culturally important if encountered • Conduct Field-based studies, including consultation with local communities and IPs where appropriate, to ensure the full nature, extent and significance of any cultural heritage sites encountered.	• Stakeholder engagements during meetings and field visits • Awareness raising	NPMCU; Project manager; District administration	• Records of stakeholder engagement • Availability of a project chance finds procedure	Quarterly	SECAP Standard 3	Field studies: $5,000

TEXT REF.	ENVIRONMENTAL, SOCIAL AND CLIMATE IMPACT	RECOMMENDED MITIGATION/ENHANCEMENT MEASURES	PUBLIC CONSULTATION ACTIVITIES	RESPONSIBLE INSTITUTION	MEANS OF VERIFICATION	FREQUENCY OF VERIFICATION	RELEVANT SECAP STANDARDS	Budget
		• Ongoing and extensive consultation with IPs will take place to ensure any risks related to cultural exchange are managed • Apply the chance finds procedure in case of any chance finds of archaeological importance. • identify any potential locations endowed with cultural value to the community or any specific sub-group of permanent residents in the same communities • consider cultural processes for decision-making while also ensuring that social inclusivity is considered • integrate any specific cultural knowledge that contributes to the success of project and beneficiary investments and attaining expected results • make use of local social structures and processes of cultural value that contributes to conflict resolution, ensuring that these processes are accessible to all members of the community, including women and marginalized groups, in a way that promotes social cohesion and equity.						
	Human-wildlife conflict (HWC)							
	Human-wildlife conflict (HWC) is a significant threat, in agricultural areas. Conflicts arise where: • human settlements encroach on wildlife habitats. • crop damage, livestock predation, and even human injury or death caused by wildlife. • retaliatory actions from affected communities	• Predator-proof kraals and other livestock management infrastructure to reduce conflicts • Training on safe herding practices • Producers will be trained on human-wildlife conflict management strategies • Farmers must avoid rearing livestock in in hotspot areas where wildlife is rife. • Erecting protective fencing • installing Early warning systems	• Stakeholder engagements during meetings and field visits • Awareness raising	• MET - Dept. Of National Parks and Wildlife • District/Local extension workers • MOLA, - NPMCU. • Local Leadership. • Beneficiaries. • Local Environment Officers • District Agriculture Office.	• Number of Farmers Trained in wildlife management • Delineation of Hotspots • Number of compensations done • Number of incidences reported.	Quarterly	SECAP Standard 2	Integrated rangeland management activities (comp 1.2) Capacity building: human wildlife-conflict training
3.2	***Potential Positive Impacts During Constructions/Operations Phase.***							

TEXT REF.	ENVIRONMENTAL, SOCIAL AND CLIMATE IMPACT	RECOMMENDED MITIGATION/ENHANCEMENT MEASURES	PUBLIC CONSULTATION ACTIVITIES	RESPONSIBLE INSTITUTION	MEANS OF VERIFICATION	FREQUENCY OF VERIFICATION	RELEVANT SECAP STANDARDS	Budget
(a)	**Economic Opportunities Employment (job creation)**							
	• Improvement on their income generation. • Improvement of livelihoods • Maintained land output gain. • Improved entrepreneurial skills	• Set up favourable partnership agreements. • Deliver on project commitments. • Promote entrepreneurship and commercial farming skills.	Stakeholder engagements during meetings and field visits	NPMCU. Local Leadership. Local Environment Officers	• Entrepreneurial approaches. • Good animal Husbandry • Commercial farming approaches.	Bi-Annually	SECAP Standard 5	Skills training integrated into component 2 budget
4.0	**CLIMATE IMPACTS - CONSTRUCTION/OPERATIONS PHASE**							
1.1	***Potential Negative Impacts During Constructions/Operations Phase***							
	Increased temperatures and droughts: • Low water availability reduces crop/fodder yields and feed availability for livestock. • Impacts on Biodiversity and rangeland • High temperatures reduce products shelf life and increase post-harvest losses • Droughts may lead to total crop failure and loss of substantial investment for farmers • Reduced precipitation may lead to reduced and scarcity of water.	• Promote conservation agriculture, with a specific focus on those living in poverty, and female-headed households. • Promote drought tolerant breeds to increase the national head that is drought tolerant and reduce mortality rates from drought. • Improve livestock diet i.e.. the percentage of livestock that is under supplementary feed for 1/3 of the year • Institute stocking rate management in order to match stocking rates with carrying capacities of pastures. • Promote conjunctive use of ground-surface water • Establish hedgerows, windbreaks, and practice agroforestry to support on-farm biodiversity • Use native grasses and trees for reseeding to enhance biodiversity and forage quality • Promote better crop/fodder storage structures and capacity building in post-harvest handling and management. • Identify alternative sources of water supply during drought.	• Stakeholder engagements during meetings and field visits • Workshops and training on Climate Smart Agriculture	MoLA NPMCU. Local Leadership. Local Environment Officers	• Number of Climate Smart Agriculture Trainings conducted • Number of farmers trained in Climate Smart agriculture.	Bi-Annually	SECAP Standard 9	Activities integrated into component 1 and 2 budgets

TEXT REF.	ENVIRONMENTAL, SOCIAL AND CLIMATE IMPACT	RECOMMENDED MITIGATION/ENHANCEMENT MEASURES	PUBLIC CONSULTATION ACTIVITIES	RESPONSIBLE INSTITUTION	MEANS OF VERIFICATION	FREQUENCY OF VERIFICATION	RELEVANT SECAP STANDARDS	Budget
		• Promote climate smart agriculture such as climate resilient fodder cropping systems and practices. • Enhance and improve agro-meteorological infrastructure to provide timely information services to the project beneficiaries such as cluster of smallholders, public and private investors, and value chain actors. • Adopt climate smart technologies (sustainable land management, water harvesting technologies, clean energy and conservation of forests ecosystems						
	Extremes of climatic conditions: • Increased precipitation lead to landslide, occurrence of floods, loss of crops, livestock and damage investment infrastructures • High erosion from flash floods on bare lands and increased sedimentation in water bodies	• Use building materials that withstand extreme climate events • Promote an ecosystems-based approach to regulate extreme event: floods, storms, etc • Improve the design of animal structures, and storage structures to enhance infrastructure resistance to climate extremes. • Promote micro catchment conservation (afforestation, check dams, contour bunds and vetiver). • Introduce new tillage and drainage methods to reduce soil erosion.	• Stakeholder engagements during meetings and field visits • Workshops and training on Climate Smart Agriculture	MoLA NPMCU. Local Leadership. Local Environment Officers	• Number of farmers trained in ecosystems-based approaches • Area of land conserved • Numbers of farmers using improved animal structures.	Bi-Annually	SECAP Standard 9	Activities integrated into component 1 and 2 budgets
	Climate variability: • Impact on livelihoods and welfare. • Inadequate Climate services • Impact on Agriculture.	• Diversify livelihoods / create income sources from activities other than agriculture. • Devise appropriate social protection strategies. • Expand Multiple Hazard Early Warning Systems (EWS) to serve multiple sectors, to improve response to climate disasters. • Diversify agricultural activities within single farm units, e.g. introduction of agro-forestry systems. • Diversify agricultural crops available to farmers/ introduce new crops.	• Stakeholder engagements during meetings and field visits • Workshops and training on Climate Smart Agriculture	MoLA NPMCU. Local Leadership. Local Environment Officers	• Number of farmers with diversified activities. • Numbers of farmers receiving and using climate forecast information.	Bi-Annually	SECAP Standard 9	Activities integrated into component 1 and 2 budgets

TEXT REF.	ENVIRONMENTAL, SOCIAL AND CLIMATE IMPACT	RECOMMENDED MITIGATION/ENHANCEMENT MEASURES	PUBLIC CONSULTATION ACTIVITIES	RESPONSIBLE INSTITUTION	MEANS OF VERIFICATION	FREQUENCY OF VERIFICATION	RELEVANT SECAP STANDARDS	Budget
		• Build expertise in the use of climate forecast information for improvement of cropping strategies and yield forecasting. • Re-schedule planting and harvesting dates and use intercropping where appropriate. • Make use of integrated systems involving livestock and/or aquaculture to improve resilience.						

6.2 SCREENING OF SUBPROJECT

The District Project teams will help the farmers in preparing their sub-projects applications to avoid or minimize adverse environmental and social impacts. They will use the Environmental and Social Screening Form (Appendix 6), which is based on the SECAP screening questions together with information on typical sub-project impacts and mitigation measures in the environmental and social management plan (ESMP).

The sections below detail the stages of the environmental and social screening process (the screening process) leading towards the review and environmental and social approval of any sub-project that will be undertaken in the BoLCoP.

6.3 APPRAISAL OF IDENTIFIED SUB-PROJECT.

As part of the sub-project selection for funding, the identified potential sub-projects will be subjected to a rigorous environmental and social screening process (Figure 6-1). The screening will be based on the IFAD SECAP categorisation of the project, which is overall a "substantial". The initial stage is a desk appraisal of the activities planned, including designs. The screening process will be carried out by the Environment and Climate Officer (BOLCOP SECAP Specialist) in conjunction with his/her District project team and the relevant government offices. This initial screening will be carried out using the Environmental and Social Screening Form (Appendix 6).

Completion of the screening form will facilitate the identification of potential environmental and social impacts, determination of their significance, assignment of the appropriate environmental and social category, proposal of appropriate environmental and social mitigation measures, and conducting of any further environmental and social work, if necessary. The Environmental and Social Screening Process is outlined in Figure 6-1 below.

6.3.1 Need for further E&S work at Screening Stage

Before submitting an identified sub-project proposal to the PMCU for approval, the District project team, led by the BOLCOP SECAP Specialist, using the results of the screening exercise, will determine, whether: (a) the application of simple mitigation measures outlined in the Environmental and Social Screening Form (Appendix 6) will suffice; or (b) whether further Environmental and social work needs to be done.

If the District Screening team determines that:

1. the sub-project will not need any further EA work then the sub-project will just need to prepare a site specific workplan for SECAP implementation.
2. the proposed sub-project may have environmental or social concerns that are not adequately addressed in the current documentation, or if the application meets certain criteria (see Table 6-5), then the sub-project will prepare a site specific ESMP.

Other SECAP instruments may also be required e.g. IPMP, depending on the local situation.

Table 6-2 Example Criteria for Requiring further studies

No.	CRITERIA	FURTHER EA WORK
1.0	A sub-project may have an impact on ecologically sensitive ecosystems (e.g. impact on wetlands)	The application may need to be revised to describe how the sub-project will avoid or minimize adverse impacts to ecologically sensitive areas. This will require a distinct Environmental and Social Management Plan (ESMP).
2.0	A sub-project will involve or introduce the use of pesticides	If the subproject will involve use of pesticides, then an Integrated Pest Management Plan (IPMP) will be prepared.
3.0	A sub-project may involve, or result in: • Diversion or use of surface waters. • Production of waste. • wells, or water points.	Depending on the scale of these activities and the associated potential adverse effects, an ESMP will be prepared in conjunction with the Department of Water
4.0	Human Wildlife Conflict	A plan to manage this will be conducted with the Department of Wildlife

Note: *these criteria should be updated based on field experience in implementing sub-projects.*

With the assistance of the Environment Department, the District team will supervise any further environmental work which may include the preparation of an ESMP, or Integrated Pest Management Plan (IPMP) or other studies as the situation may require. Once all the requisite documentation has been compiled the District team will make recommendations to the PMCU at National Level for approval.

6.3.2 Assigning the Environmental and Social Categories

The assignment of the appropriate environmental and social category to a sub-project will be based on the information provided in the Environmental and Social Screening Form (Appendix 1). The same technical team of experts will be responsible for categorizing agricultural activities either as high, substantial, moderate or low.

The assignment of the appropriate environmental and social category will also be based on provisions in SECAP. Consistent with these provisions, most of the sub-projects and activities of the current project are likely to be categorized as "Substantial", meaning that their potential adverse environmental and social impacts on human populations or environmentally/biodiversity important areas – including wetlands, forests, grasslands, and other natural habitats – are site-specific, few if any of the impacts are irreversible, and they can be mitigated readily. **For most of these sub-projects only the screening form and a site-specific E&S workplan will be required. Depending on the outcome of the screening process some sub-projects may exhibit more impacts than earlier envisaged, and these may require the development of a site specific ESMP.**

Some rehabilitation activities such as the water proofing of leaking tanks might be categorized as "Low" if the environmental and social screening results indicate that such activities will have no significant environmental and social impacts and therefore will not require additional environmental and social work. Thus, if the screening form has only "No" entries, the proposed activity will not require further environmental and social work, and the technical team of experts will recommend approval of this proposal and implementation can proceed on the basis of a site specific E&S workplan.

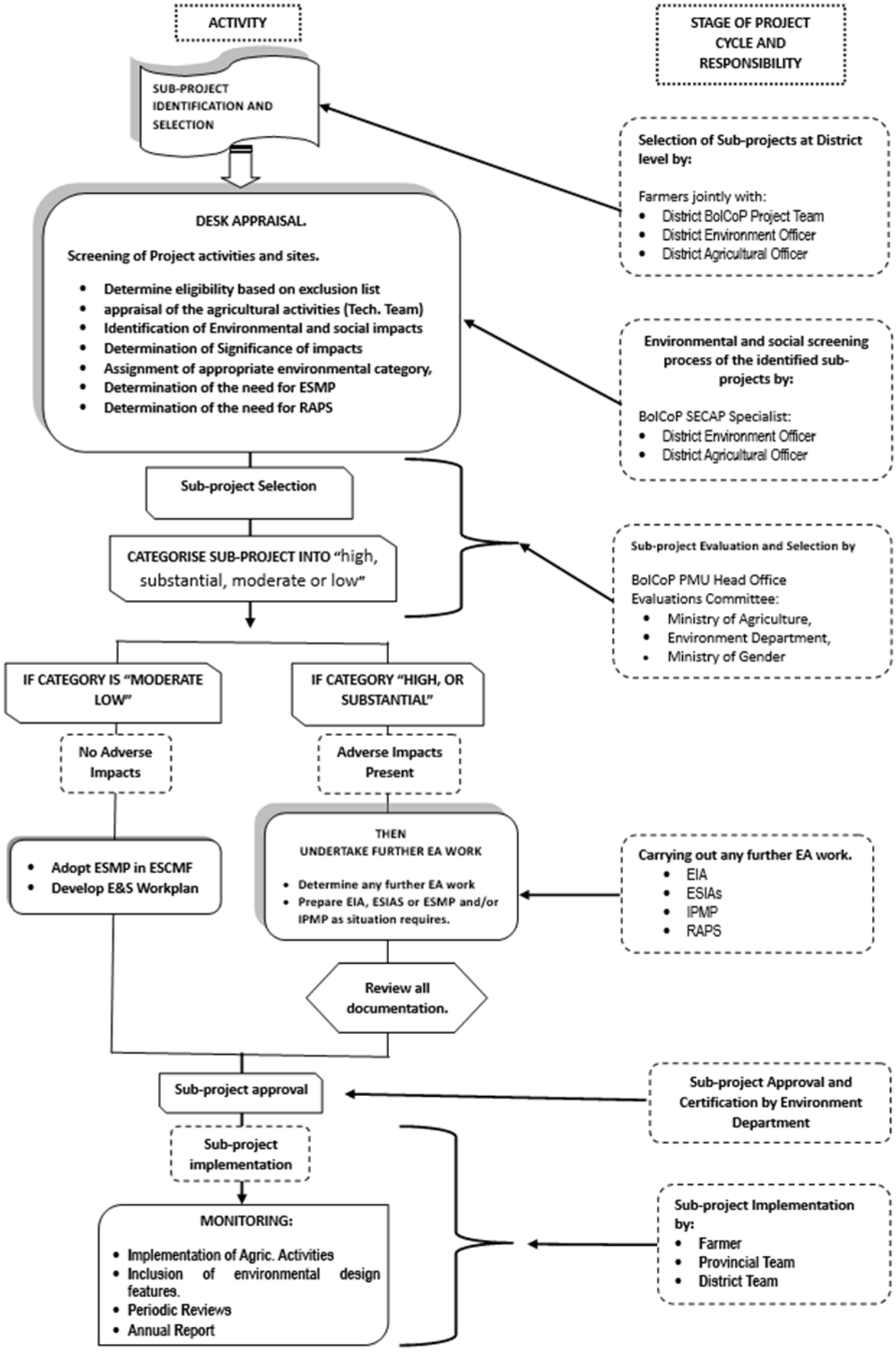

Figure 5-1 Sub-project Screening Process

6.3.3 Approval of Environmental and Social Work

The completed screening form along with any additional planning reports (e.g. site-specific E&S workplan, ESMP, IPMP) will be forwarded to the PMCU at National Level, where MOLA, and the BoLCoP PMCU will constitute an "Evaluations Committee". The Evaluations Committee will be led by the BoLCoP PMCU SECAP Specialist and assisted by environmentalists from the Ministry of Environment to make sure that all the requirements are in place to avoid delays. The Evaluations Committee will:

1. determine if all the relevant information has been provided, and that it is adequate.
2. check if the technical team has thoroughly considered all environmental and social issues with regards to the identification of potential adverse effects arising from the sub-project as well as mitigating measures to adequately address negative impacts.

If the Evaluations Committee is happy, it will approve the sub-projects and submit any further EA work to the Ministry of Environment (the approval authority for EIAs). (**NOTE** that at this stage the site specific ESMPs will not require another licence since the main ESCMF would have been approved. The submission is for the Ministry of Environment to synchronise the ESMPs with their parent ESCMF in their system.)

6.4 SUB-PROJECT IMPLEMENTATION

Once the sub-project is approved by the Evaluations Committee to proceed, implementation can tart. The implementation will involve the application of all the SECAP Instruments discussed above as developed and approved for the sub-project. District teams will closely monitor the implementation process, conducting regular site visits, and report to the PMCU on a bi-annual basis at least showing compliance with the site-specific E&S instruments. Subprojects can be re-screened at any time if the scope of work changes or unforeseen impacts arise.

7. ENVIRONMENTAL AND SOCIAL MONITORING PLAN

7.1 INTRODUCTION

The National Project Management and Coordination Unit (NPMCU) Environmental Officers will be responsible for the environmental and social monitoring, who will be coordinating all safeguards issues. The objective for monitoring is twofold:

- To provide timely information about the effectiveness of the environmental and social management screening process as outlined in the ESMP. Information generated will inform continuous improvement to the process,
- To establish the progress in implementation of the mitigation measures, the extent to which they are effective in maintaining environmental and social integrity and if any changes are required to improve the ESMP implementation.

7.2 AREAS TO BE MONITORED

7.2.1 Environmental issues

a) Soils

Soil degradation may occur as the soils are exposed and or compacted during the construction of agriculture infrastructure and agricultural activities, potentially affecting the drainage of the areas. Other soil pollutants may include the use of agrochemicals (pesticides, fertilizers, and other modifying agents) which have potential to pollute soils and water bodies or cause other negative impacts.

The beneficiary communities must ensure that no gullies or rills develop in the programme areas. This can be avoided by taking such soil erosion control measures as construction of embankments and designing drainage along work areas. The absence of gullies and rills will be used as a measure of the success of the control measures and Replacing polluting fertilizers and/or pesticides with other alternatives. The soil can also be scotched by chemical spillages. This will render the soil poisonous, and it must be discouraged at all costs.

b) Vegetation

Unnecessary vegetation clearing and grass fires must be prevented at all costs. The trees should not be gathered for firewood or cut for other purposes. The residents must be monitored to ensure that firewood is not excessively collected. Cover with topsoil and re-vegetate (plant grass, fast-growing plants/bushes/trees) construction areas quickly once work is completed

c) Wildlife

No unauthorised hunting, fishing, capture of wildlife or collection of plants. All wildlife should be treated in accordance with the Wildlife Act. Marginal lands and fragile ecosystems must be protected against abuse.

Issues of human - wildlife conflicts will be topical throughout the project areas as Botswana is prolific in wildlife which is freely roaming everywhere. Human-wildlife conflict (HWC) is a significant threat, particularly in agricultural areas where human settlements encroach on wildlife habitats. Conflicts arise from crop damage, livestock predation, and even human injury or death caused by wildlife. Elephants, lions, hyenas, and other species are frequently involved, impacting livelihoods and prompting retaliatory actions from affected communities Livestock. Farmers will have to take all necessary precautions like herding heir animals and kraaling them at night in secure kraals. Animals may be fought back only in self-defence but must not be poached or trapped.

e) Chemical pollution

A great likelihood of chemical pollution of the water and the soil exists and in order to monitor this in the soil or water, samples must be taken regularly from them for pollution testing.

f) Water resources

Botswana is largely arid and faces significant water resource challenges. Groundwater is the primary source of water for both human and animal populations, with surface water resources being limited and often ephemeral. The country relies on a few major rivers, including the Okavango and Chobe, for some surface water, with the Limpopo basin also contributing to its water resources.

Both quality and quantity of water resources must be properly managed for sustainable agriculture activities to persist. A lot of boreholes have saline waters which are not suitable for agriculture. Project Activities should not affect the availability of water for drinking and hygienic purposes. No soiled materials, solid wastes, toxic or hazardous materials should be stored in, poured into or thrown into water bodies for dilution or disposal.

g) Ambient air quality

All air polluting activities need to be checked regularly to minimise their effect on air quality. Minimize dust from exposed work sites by applying water on the ground regularly during dry season. Control vehicle speed when driving through community areas so that dust dispersion from vehicle transport is minimized.

h) Climate Resilience

Adopt various sustainable and climate-smart practices which may be include agro-forestry, precision agriculture, labour-saving agricultural technologies, renewable energy, waste management, and recycling. value-addition technologies, eco-friendly packaging, and conservation agriculture techniques. It will be important to regularly inspect agricultural infrastructure for its resilience to climate change and variability and also any agricultural practices, if they are still relevant in the given climatic conditions.

i) Waste Management (Solid & Hazardous)

Solid waste, including agrochemical containers, plastics, and construction debris, must be collected and disposed of properly. Open burning of waste should be prohibited. Empty pesticide containers should be triple-rinsed and returned to designated collection points. Hazardous wastes such as chemical residues and oils must be handled in accordance with the Waste Management Act.

7.2.2 Social Issues

a) Loss of natural and cultural heritage

The rehabilitation/construction of roads, water reticulation systems, warehouses and other agricultural infrastructure and fields may affect some natural features, antics and relics in the programme area. Measures must be put in place for chance finds and any such incidences must be treated as required by the relevant Act.

b) Occupational Health and Safety (OHS)

Monitor compliance with OHS standards, including the use of PPE by workers. Maintain records of worksite injuries and implement corrective measures promptly. Ensure all staff receive OHS training.

c) Gender and Vulnerable Groups Inclusion

Monitor participation of women, youth, and vulnerable groups in all project activities. Ensure equitable distribution of benefits such as inputs, training, and employment.

d) Community Health and Safety

Monitor public health risks, including zoonotic disease prevention and road safety during material transport. Awareness campaigns should be conducted to prevent accidents and ensure safe interaction between wildlife and communities.

e) Noise and Vibrations

Plan activities in consultation with communities so that noisiest activities are undertaken during periods that will result in least disturbance. It will be important to routinely monitor noise levels from the machinery to ensure that it conforms to the limits recommended for noise levels. Use when needed and feasible noise-control methods such as fences, barriers or deflectors (such as muffling devices for combustion engines or planting of fast-growing trees).

It is recommended that all environmental parameters mentioned above be monitored during the implementation and operation stages and any impacts should be mitigated as soon as possible. In the course of monitoring, if and when any significant impacts are detected, the monitoring team should meet and address the issue. All team members should keep records of such meetings.

7.3 REPORTING

To monitor the progress of the implementation of the measures that have been identified in this ESMP, annual reviews will be carried. The principal output of the annual reviews is an **annual review report** that documents the review methodology, summarizes the results, and provides practical recommendations. Distinct sections should address:

a. ESMP performance and,
b. cumulative impacts.

Annexes should provide the detailed results of the field work and summarize the number of approved sub-projects by district and their characteristics according to the annual report format (Appendix 3). Copies of the annual review report (Appendix 2) should be delivered to the Project Technical Committee (PTC), to each District office responsible for appraisal, approval, and implementation of sub-projects, and to IFAD.

7.4 ENVIRONMENTAL AND SOCIAL MONITORING PLAN

Sub-project screening will ensure that no activities in the project exclusion list will be done under BoLCoP. Thus, the first action by the Environmental Officers will be to monitor whether any subprojects:

i) Require acquisition of land and displacement of people,
ii) Block the access to or use of land, water points and other livelihood resources used by others,
iii) Encroach onto fragile ecosystems, marginal lands or important natural habitats,
iv) Impact on physical cultural resources of national or international importance and conservation value.

The following is an outline of the proposed environmental and social monitoring plan for the BoLCoP:

The Monitoring Plan is summarized in Table 7-1 below.

Table 7-1 Monitoring Activities and Indicators

ISSUE	*METHOD OF MONITORING*	AREAS OF CONCERN	POSITIVE INDICATOR	FREQUENCY	RESPONSIBLE AUTHORITIES
Soils	In the process of constructing/rehabilitating roads, boreholes, Abattoirs, micro-water reticulation systems and other agriculture infrastructure, the contractors should make a daily inspection of earth works and ensure that slopes are suitably graded. Once earthworks are complete the Implementing Agent should monitor the restoration measures implemented by the Contractor, such as re-vegetation	• Soil erosion • Conservation activities • Rangelands management	An absence of rills, gullies or other erosion features occurs	Daily and ongoing as project is implemented	• Ministry of Environment and Tourism (MET) • Ministry of Lands and Agriculture (MoLA) • NPMCU • Department of Environmental Protection
Vegetation	Vegetation clearance must be limited to areas to be used and site works only.	• Clearing of the project sites and disturbance of animals. • flora and fauna	No unnecessary vegetation cleared	Weekly and ongoing as project is implemented	• Ministry of Environment and Tourism (MET) • Ministry of Lands and Agriculture (MoLA) • NPMCU • Department of Environmental Protection
Birds Habitats	Interference with nesting sites	• Nesting sites • Migratory routes	Reproductive patterns of birds undisturbed	Weekly and ongoing as project is implemented	• Department of Environmental Protection • Department of National Parks and Wildlife
Small mammals habitat loss	Ensure that no unnecessary habitat loss occurs, and that poaching is curtailed.	• Animal habitats • Poaching	No Mammals are displaced from their habitats. Number of poaching incidences reduced or eliminated.	Weekly and ongoing as project is implemented	• Department of Environmental Protection • Department of National Parks and Wildlife • Police department
Waste Management (Solid & Hazardous)	Inspect waste storage and disposal practices at project sites; ensure designated waste collection points and triple-rinsing of agrochemical containers; verify compliance with the Waste Management Act.	• Improper disposal of agrochemical containers, plastics, and construction debris • Hazardous waste such as chemical residues and oils •	All waste collected, segregated, and disposed of in approved facilities; no open burning	Weekly and ongoing as project is implemented	• NPMCU • Ministry of Environment and Tourism (MET) • Department of Environmental Protection
Crime	The NPMCU should Liaise with police department if crime/theft becomes a problem. Poaching and trapping should be monitored in the project areas.	• Criminal activities in the area	Crime theft kept to a minimum. Incidences of stock theft and house breaking minimized.	Weekly and ongoing as project is implemented	• Department of National Parks and Wildlife • Police department • District Administrators

ISSUE	*METHOD OF MONITORING*	AREAS OF CONCERN	POSITIVE INDICATOR	FREQUENCY	RESPONSIBLE AUTHORITIES
Noise	Noise monitoring should be carried out on an ad-hoc basis by the Environmental Monitor or the NPMCU to establish noise levels in the work areas.	• Noise Levels	Noise levels at the nearest sensitive receiver would be kept to a minimum.	Weekly and ongoing as project is implemented.	• Ministry of Health • Department of Environmental Protection • NPMCU.
Occupational Health and Safety (OHS)	Regular inspections of worksites to check PPE usage; maintain injury records; verify corrective measures and OHS training attendance.	• PPE compliance • Worksite accidents	Zero or minimal worksite accidents; 100% compliance with PPE requirements	Weekly and ongoing as project is implemented	• NPMCU • Ministry of Labour and Employment • Implementing Partners
Gender and Vulnerable Groups Inclusion	Review participation data in training, employment, and benefit distribution; monitor equity during project implementation.	• Inclusion of women, youth, and vulnerable groups • Benefit distribution	Equal participation rates; fair benefit allocation	Quarterly	• NPMCU • Ministry of Gender • Local Community Leaders
Community Health and Safety	Monitor implementation of public health measures, zoonotic disease prevention practices, and road safety campaigns during material transport. Ensure health education and awareness campaigns are conducted, including mainstreaming HIV/AIDS issues into the project implementation programme.	• Public health risks • Zoonotic disease prevention • Road safety during transport • Wildlife-community interaction	No disease outbreaks linked to project; zero or minimal accidents	Monthly	• NPMCU • Ministry of Health • Local Authorities
Archaeology	This should concentrate on chance finds. Provision should be made to allow archaeologists to be present on site during the excavation periods if they so wish. The NPMCU should inspect all excavations, and where archaeological remains are found work must stop until the NPMCU has been given the all clear to proceed. The NPMCU should contact the Botswana National Museums in the event of a significant archaeological find.	• Archaeological Findings	Archaeological remains not excavated, disturbed or destroyed.	• Daily and ongoing as project is implemented • Room for chance finds	• Botswana National Museums. • Department of Environmental Protection
Energy	The Developers must inspect the provisions made by the Contractor to supply energy to the workforce and ensure that fuel wood is not being collected. The Department of Environmental Protection should enforce legislation which prohibits cutting down of trees. The Department of Environmental Protection, BOLCOP and local leadership (cultural and political) should sensitize the workers against cutting down of trees.	• Types of energy sources used in the project	Energy supplied by electric generator or other suitable source. Deforestation and resultant erosion controlled and reduced	Regularly	• Department of Forestry. • Department of Environmental Protection • Local Leadership

ISSUE	*METHOD OF MONITORING*	AREAS OF CONCERN	POSITIVE INDICATOR	FREQUENCY	RESPONSIBLE AUTHORITIES
Air Pollution	Observations should be made on the level of dust generated during the construction and Agricultural activities by the Environmental Monitor or NPMCU. Dampening should be carried out if levels are unacceptable.	• Levels of dust emissions	Deposition of dust on surfaces should decrease with increased dampening	Daily	• Health ministry • Project NPMCU • Ministry of Lands and Agriculture (MoLA)
Water resources	• Water resources should be managed well. • The Ministry of Health should test borehole water quality in the area to ascertain the suitability for human consumption.	• Groundwater resources availability • Watercourses and impoundments. • Surface water quality • Ground Water Quality • Recommended distances from water sources.	• Water made available for environmental concerns. • Pollution of water resources monitored/detected early and remedial measures taken on time	Tests for water pollution to be done Monthly.	• Health ministry • Project NPMCU • Ministry of Lands and Agriculture (MoLA) • Department of Water Development, (DWD) • Department of Environmental Protection
Landscape	The NPMCU should make visual inspection of earth works to ensure that excessive excavation is not being carried out. Temporary screening may be appropriate in some cases.	• Visual intrusions. • Aesthetics.	Landscape alteration reduced to a minimum	Monthly	• National Museums of Botswana. • Department of Environmental Protection
Complaints	The NPMCU should inspect the record of complaints made by local residents, to be kept by the sub-project proponents, and should check that action is taken quickly and that the number of complaints do not rise significantly.	• Complaints.	Number of complaints decreases.	Monthly	• NPMCU • Ministry of Lands and Agriculture (MoLA) • Department of Environmental Protection

8. CAPACITY BUILDING

8.1 - INTRODUCTION

MoLA is the Lead Implementing Agent for the BoLCoP project with the assistance of NPMCU. It is important that these institutions be capable of carrying out the ESCMF recommendations.

The following is an outline of the capacity building and training needs that were identified for the implementing partners of the BoLCoP to enhance their environmental and social management.

8.2 CAPACITY BUILDING NEEDS

The successful implementation and monitoring of the Environmental, Social and Climate Management Framework (ESCMF) together with its environmental and social management plans (ESMPs) (Appendix 3) will require that target groups and stakeholders who play a role in its implementation be provided with appropriate training and awareness.

The design mission observed capacity gaps within the MoLA for implementing the environmental and social requirements needed to effectively manage the potential environmental and social risks and impacts associated with the proposed agricultural activities under BoLCoP
This current needs assessment is essentially a preliminary exercise and at the start of the Project, within the first three months of project inception, a comprehensive capacity needs assessment will be carried out in order to:

- Identify the existing knowledge, skills and gaps in the area related to environmental and social compliance among all the key Project implementation actors.
- Make recommendations for detailed capacity development required in order to ensure environmental and social compliance of BoLCoP at all stages of its development and implementation.
- Make recommendations for detailed capacity building required by specific Project teams in order to ensure climate risk mitigation and emission reductions at all stages of the Project development and implementation.
- Identify training needs for specific target groups (e.g., farmers, extension workers, NPMCU staff, district officers) and propose tailored training approaches for each, ensuring inclusivity for women, youth, PWD, and remote area dwellers.Prepare a detailed capacity building plan, training manuals (modules, visual aids, leaflets), training schedule and provide costs for these activities based on the identified capacity needs.
- Carry out the initial training programme by using the manuals developed.

The comprehensive capacity building needs assessment for the BoLCoP will systematically identify the specific knowledge, skills, and resources needed by stakeholders to achieve project goals. This will involve assessing capacity at the individual, organizational, and systemic levels, taking into account the unique context of Botswana's agricultural sector. The assessment should involve participatory methods, data collection through various tools, and analysis to inform targeted capacity development interventions.

Thus, the assessment will clearly Identify the key stakeholders who will be involved in the project and may need capacity enhancement. These will include farmers, extension officers, researchers, policymakers, and agribusinesses.

The capacity will be assessed at different Levels:

At **Systemic Level,** the assessment will analyze the policy and regulatory environment related to agriculture, including access to finance, land tenure, and market access. It will evaluate the effectiveness of agricultural institutions and their capacity to support farmers and the sector. It will also assess the coordination and collaboration mechanisms among different stakeholders, paying attention to any identified gaps that can be filled through capacity enhancement.

At **organisational level** the analysis will examine the capacity of agricultural organizations (e.g., cooperatives, farmer groups, research institutions) to deliver services, manage resources, and implement projects. It will then evaluate their financial management, governance structures, and human resource capacity, in the process identifying the capacity enhancement needs.

At **Individual Level** the assessment will cover the knowledge, skills, and attitudes of farmers and other individuals involved in the agricultural value chain. It will identify gaps in technical expertise, business management skills, and access to information, and consider the specific needs of women and other vulnerable groups.

Further the comprehensive assessment will collect data through conducting i) Document Review, by analysing existing reports, policies, and data related to the agriculture sector in Botswana. ii) Stakeholder Interviews, by conducting interviews with key informants at the national, district, and community levels, iii) Focus Group Discussions by facilitating group discussions with farmers and other stakeholders to gather insights into their experiences and needs, iv) Surveys by Administering questionnaires to collect quantitative data on specific capacity gaps and needs, v) Field Visits by conducting site visits to observe agricultural practices, infrastructure, and resource management and finally by vi) Participatory Rural Appraisals (PRAs), using participatory methods to engage communities in identifying their own needs and priorities

In addition, Technical Assistance will be hired on temporary basis, as and when necessary, to support the PMU and other key Project implementers at both National and District level to mainstream environmental, social and climate issues.

i. National Level

NPMCU will be responsible for completing the Environmental and Social Screening Form (Appendix 1) to be able to identify and mitigate the potential environmental and social impacts of rolling out the various agricultural value chains. In the event that a project activity under BoLCoP falls under the listed projects in the Environmental Law, MoLA/ NPMCU will review the recommendations from the districts and undertake the process of seeking the approval of the EIA through the Environmental Protection Department of the Ministry of Environment and Tourism (MET). In addition, strategic decisions on the direction of rolling out the project value chains will be undertaken at this level, and therefore those decision makers must be aware of potential risks and impacts. The groups that will need training will include:

- NPMCU Staff, BoLCoP coordinator and management and BoLCoP Steering Committee
- MoLA staff
- Environmental Protection Department of the Ministry of Environment and Tourism (MET)
- Ministry of Local Government
- Other collaborating institutions.

ii. District (Local) Level

At District and local level, the groups that will receive environmental and social training include the following:

- the Association members,
- individual farmers
- Extension workers in project impact areas

- District environmental officers
- District agricultural officers
- Wildlife extension officers
- District gender, youth and social affairs officers

8.3 TRAINING REQUIREMENTS

Training activities and target groups are presented in Table 8-1 below.

The proposed BoLCoP activities will be diverse, technically demanding, and multi-sectoral in nature. Their successful implementation will depend on the availability of dynamic, well-trained, and multi-disciplinary professionals, as well as knowledgeable and empowered beneficiary communities. To achieve this, capacity building will be a continuous process, designed not only to transfer technical skills but also to strengthen institutional systems, promote inclusive participation, and ensure environmental, social, and climate compliance throughout the project cycle. All stakeholders, including women, men, youth farmers, and persons with disabilities (PWD), will be provided with equitable access to capacity-building opportunities. Special attention will be given to ensuring that vulnerable or marginalised groups, including remote area dwellers, persons living with HIV/AIDS, and low-income households, are meaningfully engaged and able to participate without undue hardship. Training activities and target groups are presented in Table 8-1 below.

8.3.1 Capacity building needs for BoLCoP Partners.

The key experts from the BoLCoP implementation partners are highly skilled in the relevant fields for which they are responsible. However, there are some areas in Environmental, social and climate aspects for which they will need some training and sensitisation in order to improve effectiveness in the implementation of the project. They will need to be sensitised on the specific requirements of the project, including IFAD's SECAP, 2021, Climate, Land and Disclosure Policies for IFAD as well as on the findings and recommendations of the ESCMF. This will be geared at bringing them to the same level of understanding as NPMCU so that they can offer their services from an informed position. BoLCoP will offer a line of credit financed by PoLG to beneficiaries to support project activities, with the National Development Bank (NDB) likely serving as the financial intermediary. Preliminary reviews indicate that SECAP-equivalent standards are not currently integrated into NDB systems. To address this gap, IFAD will introduce the NDB team to its SECAP requirements, exclusion lists, and environmental and social screening checklists that must be applied for on-lending activities. NDB will receive technical assistance to develop or strengthen its Environmental and Social Management System (ESMS) to align with IFAD and NBFIRA requirements.

8.3.2 Capacity Building needs for NPMCU

The NPMCU will oversee daily environmental, social, and climate-related activities and monitor how management actions are being implemented on the ground. It is essential to strengthen NPMCU's institutional and human resource capacity to ensure sufficient staff and expertise for the sustainable implementation of all project activities. Capacity building will focus on:

- ESCMF operationalisation.
- Climate risk adaptation planning.
- Gender mainstreaming and social inclusion.
- Monitoring, evaluation, and reporting of safeguard compliance.

8.3.3 Capacity Building needs for beneficiary communities

Beneficiary communities will receive training to equip them for the sustainable implementation of subprojects. The approach will be gender-responsive and inclusion-focused, recognising the differing needs, roles, and constraints of women, men, youth, persons with disabilities (PWD), persons living with HIV/AIDS, and residents of remote areas. Training will target District Development Committees and the management structures of beneficiary associations, tailored to the stage of subproject implementation. Measures to promote inclusivity will include:

- Scheduling training outside peak farming/household labour periods.
- Providing childcare services near training venues for participants with caregiving responsibilities.
- Decentralising training through mobile outreach teams and adapting modules for delivery via radio, SMS, and community facilitators.
- Ensuring physical accessibility of venues and providing reasonable accommodations such as sign language interpretation and accessible learning materials.

8.3.4 Specific Capacity Building Needs for Remote Areas Dwellers

Remote Area Dwellers will be invited to all training and capacity building activities as part of the project's social and economic inclusion commitments. These communities may require specialised training approaches, including:

- Culturally adapted content delivered in local languages.
- Separate youth-targeted programmes reflecting specific aspirations and lifestyles.
- Training schedules and formats informed by the Free, Prior, and Informed Consent (FPIC) process.

8.3.5 Necessary training to support business farming:

NPMCU, in collaboration with the MoLA and other strategic partners, will continue to sensitise beneficiary communities (Fodder and Feed producers, Fodder seed producers, Small stock associations and individual farmers) in using technological advancements to improve productivity and quality of produce.

8.3.6 Training on business management

NPMCU will provide capacity building for Small stock, fodder and feed farmers on important aspects of farming such as the construction of appropriate facilities for processing the products, as well as handling of waste generated from processing the products.

8.3.7 Training on the use and interpretation of early warning systems

NPMCU, in collaboration with the Meteorological Services Department, will also encourage the communication and dissemination of meteorological bulletins tailored to climate risks and vulnerabilities specific to selected fodder crops grown in those areas.

8.3.8 Training of farmers on Rangeland management issues

Every Small stock farmer is key in ensuring compliance with the ESMP that has been developed by this ESCMF process. It will be important for them to have a good understanding of how the activities they will carry out under BoLCoP will affect and/or be affected by environmental, social and climate change aspects, occurring in the rest of the rangelands. They will need to be trained on what measures are required to address these rangeland management issues. This will include:

- ESMP compliance.
- Sustainable grazing practices.
- Restoration techniques for degraded areas.

8.3.9 Capacity building for gender equity

Gender balance should be promoted in order to increase awareness of gender roles in the households and communities by improving the capacity of vulnerable groups such as household heads who are female and single parents of either gender, to negotiate their needs and interests. These Households will be capacitated on how to effectively participate in livelihoods planning and value chain development through gender-equitable solutions. To achieve this, BoLCoP will adopt a gender-transformative approach that goes beyond participation to address underlying power relations, using the Gender Action Learning System (GALS) methodology to:

- Facilitate participatory visioning and goal setting at household and community levels.
- Strengthen negotiation and conflict-resolution skills within households.

Additional gender equity capacity building measures will include:

- Leadership and advocacy training for women and youth to increase their representation in producer organisations, cooperatives, and project governance structures.
- Gender-sensitive financial literacy programmes to ensure equitable access to and control over project-related financial resources, including credit from the BoLCoP line of funding.
- Awareness-raising on gender-based violence (GBV) prevention and referral pathways, with links to local protection Services.

8.3.10 Social and psychosocial support for BoLCoP communities

NPMCU should acknowledge that the implementation of the project is likely to trigger some culture shocks within the participating communities and therefore make the necessary plans to provide support.

- Put in place support structures for the social and psycho-social needs of affected communities.
- Sensitise communities to prepare them for the likely changes in their way of life.
- Prepare communities for the culture shocks through sensitisation sessions and training.
- Establish structures for the control and resolution of conflicts related to the impacts of BoLCoP on family fabric.

8.3.11 Training on health, safety and environmental quality issues

- Farm workers should be trained on how to handle and store agrochemicals.
- Farm workers should be sensitised and educated on how to avoid accidental contact with pesticides and agrochemicals.
- Sensitisation on the usefulness of Safety data sheets and how to keep and use them.
- Training of farm workers on occupational health and safety issues, relevant Personal Protective Equipment necessary for each sub-project, including guidelines that need to be followed to prevent the transmission of communicable diseases.
- Improved water management, including training on abstraction rates and techniques to preserve underground water resources and prevent depletion of aquifers and determining optimal timing for irrigating fodder crops to maximise growth and water efficiency.

8.3.12 Training on Climate Risk Adaptation & Resilience Planning

NPMCU, in collaboration with relevant government agencies and technical partners, will provide training on climate risk adaptation and resilience planning to strengthen community and institutional capacity to address climate-related vulnerabilities. The training will focus on the interpretation of climate change scenarios, conducting vulnerability assessments, and integrating climate adaptation into local development and sub-project planning. It will also cover drought preparedness and early warning systems to ensure that target groups can proactively respond to climate shocks.

8.3.13 Training on Emergency Preparedness & Disaster Risk Management

NPMCU, working closely with the National Disaster Management Office and other key stakeholders, will organize training sessions on emergency preparedness and disaster risk management for project communities and implementing partners. This training will address drought and resource conflict management and community-level emergency planning. The sessions will also emphasize coordination with national disaster risk management frameworks to ensure effective and timely response to emergencies, minimizing disruption to livelihoods.

8.4 SUMMARY OF TRAINING REQUIREMENTS.

Table 8-1 provides a summary of the training needs for the BOLCOP including the target groups and trainers for each training activity and its cost estimates:

Table 8-1 Environmental and Social Training

No.	CAPACITY BUILDING ISSUES	TARGET GROUP	TRAINING METHODS	BUDGET
1.	**High Level Environmental, Social and Climate Risks and Impacts of BoLCoP** • BoLCoP and linkage to Safeguards policies • Typical issues • Mitigation requirements • Management plans • Monitoring requirements • Management review • Budgeting for E&S risk management • early warning systems • health, safety and environmental quality.	**TARGET GROUP:** • 5 Ministries, • EIA Department, • BoLCoP coordinator and management • Sub-project management • Other collaborating institutions. **TRAINER:** • Environmental Protection Department of the Ministry of Environment and Tourism (MET) • Private Consultant	Training workshops at national levels.	$ 10,000.00 one session during the entire project period) **Length**: 1 day **Total cost:** $ 10,000.00
2.	**Environmental and Social Impact Assessment of the Projects**: • Screening process. • Use of checklists • Preparation of terms of reference. • Identification of Impacts • ESIA report preparation and processing • Policies and laws in Botswana • IFAD safeguard policies • early warning systems • health, safety and environmental quality	**TARGET GROUP:** • District Agriculture Office Team • District Environment Units • Wildlife extension officers • Extension workers in project impact areas. **TRAINER:** • Environmental Protection Department of the Ministry of Environment and Tourism (MET) • Private Consultant	Training workshops at District levels.	(Three sessions during the entire project period) **Length**: 5 days per session **Total cost:** $ 20,000.00
		TARGET GROUP: • Cascading training to lower levels: • Associations/cooperatives/farmers. • The rest of the District Forestry staff • District Councils and Extension workers **TRAINER:**		(Two sessions during entire project period) **Venue**: **Length**: 5 days **Total cost:** 10,000.00

No.	CAPACITY BUILDING ISSUES	TARGET GROUP	TRAINING METHODS	BUDGET
		• Environmental Protection Department of the Ministry of Environment and Tourism (MET) • Private Consultants		
3.	**Rangelands Management** • Rehabilitation of degraded rangelands, mountain sides and gullies, soil and water conservation measures. • Reforestation/revegetation, re seeding • Control of Alien Invasive Species. • General Rangeland management.	**TARGET GROUP:** • District Agriculture Office Team • District Environment Units • Extension workers in project impact areas. **TRAINER:** • Environmental Protection Department of the Ministry of Environment and Tourism (MET) • Private Consultants	Training workshops at national, Sector and District levels.	(Two sessions during entire project period) **Venue**: **Length**: 5 days **Total cost:** 10,000.00
		TARGET GROUP: • Cascading training to lower levels: • Associations/cooperatives/farmers • The rest of the District Agriculture staff • District Councils and Extension workers **TRAINER:** • Environmental Protection Department of the Ministry of Environment and Tourism (MET) • Private Consultants	Training workshops at District and village levels.	(Two sessions during entire project period) **Venue**: **Length**: 5 days **Total cost:** 10,000.00
4.	**Water Management** • Abstraction rates to preserve aquifers • When to irrigate fodder crops • How much water to apply • For how long • Water rights **Fodder Crop Management** • Fodder Crop selection • Crop rotations	• Extension workers and Farmers • Extension workers and Farmers **TRAINER:** Private Consultant or Department of Environmental Protection	Training workshops at national, Sector and District levels.	(Two sessions during entire project period) **Venue**: **Length**: 5 days **Total cost:** 10,000.00

No.	CAPACITY BUILDING ISSUES	TARGET GROUP	TRAINING METHODS	BUDGET
	• Cropping calendar • How to apply fertilizer • Use of organic manure / compost • Weeding • Crop harvesting & storage			
5.	**Agro chemicals Management** • Pesticides Types and Use • Vaccine types to use • Packaging, labelling, and Handling • Storage, Stacking and Release • Agro chemicals record Maintenance **Agro chemicals Procurement** • Identification of Pesticide Dealers • Pesticides Handling & Transportation • Record Maintenance **Agro chemicals Application and Disposal** • Types and Handling of Equipment • Pesticides Toxicity • Safety of Applicators (OSHA) • First Aid • Care, Cleaning and Disposal of Pesticides and Equipment	• Storekeepers • **Agro chemicals** Transporters • **Agro chemicals** Users • Agro-dealers • All Farmers **TRAINER:** MoLA, Private Consultant or Department of Environmental Protection	Training workshops at national, Sector and District levels.	(Three sessions for the entire project period) **Venue**: Farms **Length**: 5 days per session **Total cost:** $15,000.00
6.	**Maintenance of the Agricultural Facilities** • Detecting the damaged structures • Materials needed to maintain the damaged structures **Hygiene and Sanitation** • Water supply • Sanitation • Water and sanitation related diseases • Infrastructure needed on the scheme for sanitation enhancement	• Extension workers and Farmers • Extension workers and Farmers • Agro-processors **TRAINER:** Private Consultant or Department of Environmental Protection	Training workshops at national, Sector and District levels.	(Two sessions during the entire project period) **Venue:** The farms **Length**: 5 days per session **Total cost:** $ 20,000.00
7.	**Agro-facility Management** • disposal of wastes, • biosafety, • security,	• Agro facilities, e.g. warehouses, etc	Training workshops at national,	(Two sessions during the entire project period) **Venue: research laboratories** **Length**: 5 days per session

No.	CAPACITY BUILDING ISSUES	TARGET GROUP	TRAINING METHODS	BUDGET
	• emergency response.		Sector and District levels.	**Total cost:** $5,000.00
8.	**Processing facility Management** • disposal of wastes, • biosafety, • security, • emergency response.	• Agro processors	Training workshops at national, Sector and District levels.	(Two sessions during the entire project period) **Length**: 5 days per session **Total cost:** $5,000.00
9.	**National Policy** National environmental, social and climate policies, legislation and administrative frameworks requirement	NPMCU, Associations, cooperatives, individual farmers, women and men and District Officials.	Training workshops at national, Sector and District levels.	(Two sessions during the entire project period) **Venue: research laboratories** **Length**: 5 days per session **Total cost:** $5,000.00
10.	**IFAD's SECAP** IFAD's SECAP, Gender, Indigenous Peoples, FPIC, Climate, Land and Disclosure Policies	NPMCU, Associations, cooperatives, individual farmers, women and men and District Officials.	Training workshops at national, Sector and District levels.	(Two sessions during the entire project period) **Length**: 5 days per session **Total cost:** $5,000.00
11.	**ESMS Requirements for FIs** NDB team trained on IFAD SECAP requirements, exclusion lists, and environmental and social screening checklists that must be applied for on-lending activities.	NDB technical and financial teams. Environmental and Social Management System (ESMS) team	Training workshops at national, and branch level.	(Two sessions during the entire project period) **Length**: 5 days per session **Total cost:** $10,000.00
12.	**BOLCOP environmental and social management processes** BOLCOP environmental and social management processes, procedures and institutional arrangements to develop and implement required safeguards documents	BOLCOP Project Management Unit at all levels, including MoLA and District Officials.	Training workshops at national, Sector and District levels.	(Two sessions during the entire project period) **Venue: research laboratories** **Length**: 5 days per session **Total cost:** $5,000.00

No.	CAPACITY BUILDING ISSUES	TARGET GROUP	TRAINING METHODS	BUDGET
13.	**Human -Wildlife conflicts:** Train farmers on mitigation measures which include hot spot areas where farming is a problem, having guard dogs, always herding their livestock, keeping their livestock in predator proof kraals at night, appropriate Bomas, the herding for health concept.	NPMCU, Associations, cooperatives, individual farmers, women and men and District Officials.	Training workshops at national, Sector and District levels.	(Two sessions during the entire project period) **Venue: research laboratories** **Length**: 5 days per session **Total cost:** $5,000.00
14.	**Group dynamics** Group dynamics to cater for reluctance to form associations.	Existing Associations, CBOs	Training workshops at Village level.	(Two sessions during the entire project period) **Length**: 5 days per session Total cost: $5,000.00
15.	**Training in circular agriculture;** minimizing waste and maximizing resource efficiency, including Farm and farm produce processing waste management.	Associations, cooperatives, individual farmers, abattoirs, Farmer based organisations, processors	Training workshops at cluster and Village level.	(Two sessions during the entire project period) **Length**: 5 days per session **Total cost:** $5,000.00
16.	Training in **feed and fodder production**. Growing, processing and storage.	Associations, cooperatives, individual farmers.	Training workshops at cluster and Village level.	(Two sessions during the entire project period) **Length**: 5 days per session **Total cost:** $5,000.00
17.	**Use of Digital extension and climate advisory platform**	Extension officers, Associations, cooperatives, individual farmers.	Training workshops at farm, cluster and Village level.	(Two sessions during the entire project period) **Length**: 5 days per session **Total cost:** $5,000.00
18.	**Community Health Workers (CHW)**	Youth	Training workshops at Village level.	(Two sessions during the entire project period) **Length**: 5 days per session **Total cost:** $5,000.00
19.	**Good animal husbandry** -animal health, welfare and nutrition Improvement Training and employing skilled labour	Extension officers, Associations, cooperatives, individual farmers, women and Youth	Training workshops at farm, cluster and Village level.	(Four sessions during the entire project period) **Length**: 5 days per session **Total cost: $ 5,000.00**
20.	**E-finance voucher Training.** Youth can be trained as Trainers for the rest of the community	Youth: Associations, cooperatives, individual farmers, women and Youth	Youth at District Level. Training workshops at	(Four sessions during the entire project period) **Venue**: Farms **Length**: 5 days per session

No.	CAPACITY BUILDING ISSUES	TARGET GROUP	TRAINING METHODS	BUDGET
			farm, cluster and Village level.	**Total cost: $ 10,000.00**
21.	**Facilitate Gender, and GALs Training** • Mitigation measures • Sensitisation on GBV/SEA • Care of victims • Social and psychosocial support	NPMCU, Associations, cooperatives, individual farmers, women and men and District Officials. Extension workers.	Training workshops at national, Sector and District levels. Training workshops at farm, cluster and Village level.	(Four sessions during the entire project period) **Venue**: Farms **Length**: 5 days per session **Total cost: $ 20,000.00**
22.	**Child Labour Awareness Training** for PMU and Implementing Partners	NPMCU, Associations, cooperatives, individual farmers, women and men and District Officials	Training workshops at national, Sector and District levels. Roll out training to other stakeholders	(Four sessions during the entire project period) **Venue:** Farms **Length:** 5 days per session **Total cost:** $ 10,000.00
23.	**HIV/AIDS Awareness Training**	NPMCU, Associations, cooperatives, individual farmers, women and men and District Officials. Project beneficiaries	Training workshops at national, Sector and District levels. Roll out training to other stakeholders	(Four sessions during the entire project period) **Venue**: Farms **Length**: 5 days per session **Total cost:** $ 10,000.00
24.	**Grievance Redress Mechanism (GRM)**	NPMCU, Associations, cooperatives, individual farmers, women and men and District Officials. Project beneficiaries.	Training workshops at national, Sector and District levels. Roll out training to other stakeholders	(Four sessions during the entire project period) **Venue**: Farms **Length**: 5 days per session **Total cost**: $ 10,000.00

No.	CAPACITY BUILDING ISSUES	TARGET GROUP	TRAINING METHODS	BUDGET
25.	**Climate Risk Adaptation & Resilience Planning** • Climate change scenarios & vulnerability assessments • Drought preparedness & early warning systems • Integrating adaptation into planning	District officers, PMU staff, Farmer associations, Extension workers	Training workshops at national, district & cluster levels	(2 sessions during entire project period) **Length**: 10 days per session **Total cost:** $20,000.00
26	**Emergency Preparedness & Disaster Risk Management** • Drought & resource conflict management • Community emergency planning • Coordination with national DRM frameworks	Community-based organizations, PMU, Extension staff, Local leaders	Training workshops at district & village levels	(2 sessions during entire project period) **Length**: 5 days per session **Total cost**: $ 10,000.00
27	**E-Waste awareness and sensitization** targeting the users of the electronic devices to ensure that they engage in best practice for E-waste management.	the users of the electronic devices, including farmers, extension workers and service providers	Training workshops at district & village levels	(Several 5 day sessions during entire project period) **Length**: 5 days per session **Total cost:** $ 20,000.00
	TOTAL BUDGET			**$285,000.00**

8.5 PROPOSED APPROACHES IN EXECUTING TRAINING ACTIVITIES

BoLCoP will adopt a strategy of running workshops and refresher courses to disseminate the SECAP related studies and reports. It will also use the training of trainers and community exchange visits approach.

It will be important that key decision makers, the BoLCoP coordinator and management staff and other high-level persons are sensitized in the potential environmental and social risks and impacts due to the proposed BoLCoP activities. This training may be conducted by a private consultant or by the EIA Department of the Ministry of Environment and Tourism (MET).

8.6 FUNDING REQUIREMENTS FOR ENVIRONMENTAL AND SOCIAL TRAINING

The proposed environmental training activities for the programme will be funded directly by the programme resources in accordance with the proposed plan laid out in Table 8-1 above.

9. BUDGETARY ALLOCATIONS

9.1 INTRODUCTION

The following is a breakdown of the cost estimates for the various activities in the environmental and social management plan. This detailed budget is meant for implementing and monitoring the recommended mitigation measures throughout the project life. **The budget must be integrated into the overall programme costs to ensure that the proposed mitigation measures are implemented.**

9.2 SITE-SPECIFIC ESIAs AND ESMPs

This component will comprise mitigation issues to do with Site-specific environmental and social workplans and ESMPs:

Site Specific ESMPs

These will be required for a few sub-projects which will be of "Substantial Risk". These are sub-projects that may have some adverse environmental and/or social impacts on human populations or environmentally significant areas, but the impacts are less adverse than those for "high Risk Category"; are site-specific and few are-irreversible in nature; and can be readily remedied by appropriate preventive actions and/or mitigation measures.

Site-specific E&S workplans

The majority of the subprojects will be of "Low Risk" Category and will generally not require additional environmental analysis because the activities have positive environmental impacts, or negligible or minimally adverse environmental impacts. Only **Site-specific E&S workplans** can be produced and the sub-project then proceeds to implementation.

Table 9-1 Site-specific ESMPs Budget

No.	ACTIVITY	ESTIMATED COST (US $)
1.0	Site-specific ESMPs (Develop and train beneficiaries to implement).	30,000.00
2.0	The rest develop site specific E&S workplans (Develop and train beneficiaries to implement).	30,000.00
3.0	Environmental License fees for all the sub-projects (These will not be required since the main ESMP would have been approved)	----------
	Sub-Total	**60,000.00**

9.3 MITIGATION MEASURES

This provision is for implementing mitigation measures in each project Governorate. These resources will provide for:

- prevention of soil erosion,
- protection of critical natural habitats (wetlands, mountain tops, etc.),
- prevention of water-borne diseases,
- Climate change resilient activities,
- prevention of HIV/AIDS, and
- Gender and Youth mainstreaming.

Mitigation and enhancement measures were discussed in detail in table 6-1 and the following is a summary of some of the measures with cost implications.

Most of the mitigation measures will be part of the main project implementation and has been budgeted there through the various project components. Table 9-2 provides a summary of the additional mitigation and enhancement measures which will be factored into the project budget:

Table 9-2 Mitigation and enhancement measures Budget

No.	MITIGATION/ENHANCEMENT	ESTIMATED COST (US $)
1	**Solid Waste Management:** • Construction of at least **10 Bio-gas digesters @ 4471.59 each** • Other waste management activites, manure management etc.	44,716.00 50,284.00
2	**Effluent Discharge Management:** • Capacity Assessment needs to be conducted before bringing infrastructure • Intensive capacity building commensurate with proposed infrastructure/equipment • One oxidation pond system @ 250,000.00 • 10 septic tank systems @ 6500.00 each = 65,000.00	315,000.00
3	**E-Waste Management:** • Installation of E-Waste Handling systems	15,000.00
4	**Cultural Heritage studies:** • Conduct Field studies	5,000.00
5	**Provision of PPE equipment:** • All workstations to have appropriate PPE to protect the workers from injury or infection.	60,000.00
	Sub-total	**490,000.00**

9.4 MONITORING AND EVALUATION

This provision is for training both the BoLCoP staff and the beneficiaries in participatory environmental monitoring. This entails monitoring the implementation of mitigation measures at the sub-project level (e.g., each irrigation scheme, Value addition centre, etc.). The component will comprise:

- the monitoring and evaluation issues of the whole programme,
- Research and Development work to come up with more environmentally friendly agricultural processes for value chains,
- Monitoring and Evaluation of the progress of the implementation of the BoLCoP. Assessing whether it is being effective or not.

The general monitoring and evaluation will be conducted as part of the main project programmes and is adequately budgeted for there. Specific separate environmental and social compliance monitoring, will be done once every 6 months.

Table 9-3 Monitoring and Evaluation Budget

No.	ACTIVITY	Estimated Cost (US $)
1.0	Monitoring and evaluation exercises	60,000.00
	Sub-Total	**60,000.00**

9.5 ENVIRONMENTAL AND SOCIAL TRAINING

Most of this training will be part of the Capacity development of the main project (except training on ESMP) and will thus be funded through the various project components.

Table 9-4 Environmental and Social Training Budget.

No.	TRAINING ACTIVITIES	Estimated Cost (US $)
1	High level training in Environmental and Social Risks of BoLCoP	10,000.00
2	Environmental and Social Impact Assessment	30,000.00
3	Training in Rangelands Management	20,000.00
4	Water and Fodder Crop Management	10,000.00
5	Agro chemicals Management	15,000.00
6	Maintenance of the Agricultural Facilities	20,000.00
7	Agro-facility Management	5,000.00
8	Processing facility Management	5,000.00
9	National Policy	5,000.00
10	IFAD's SECAP	5,000.00
11	ESMS Requirements for FIs	10,000.00
12	BOLCOP environmental and social management processes	5,000.00
13	human -Wildlife conflicts	5,000.00
14	Group dynamics	5,000.00
15	Training in circular agriculture	5,000.00
16	Training in feed and fodder production	5,000.00
17	Digital extension	5,000.00
18	Community Health Workers	5,000.00
19	Good animal husbandry	5,000.00
20	E-finance voucher Training	10,000.00
21	Facilitate Gender, HIV/AIDS awareness	20,000.00
22	Child Labour Awareness Training	10,000.00
23	HIV/AIDS Awareness Training	10,000.00
24	Grievance Redress Mechanism	10,000.00
25	Climate Risk Adaptation & Resilience Planning	20,000.00
26	Emergence Preparedness and disaster Management	10,000.00
27	E-Waste management awareness sensitisation	20,000.00
28	Capacity Building for FPIC Implementation	40,000.00
TOTAL		**325,000.00**

9.6 GBV-SEA ACTIVITIES

The following is an itemized budget for undertaking the GBV-SEA activities described in the GBV/SEA Action Plan

Table 9-5 Estimated Budget for GBV-SEA action plan Implementation (US$)

No.	ACTIVITY	ESTIMATE (US $)
1	Engage/hire a GBV/SEA Specialist in BOLCOP to supervise and provide technical support for the implementation of GBV/SEA Action Plan	32,000
2	Support capacity of local systems to prevent and respond to GBV/SEA (police, health, legal, CDO's, CBO's)	10,000
3	Conduct GBV/SEA orientation training for project staff	20,000
4	Develop relevant Information Education and Communication (IEC) materials for community engagements	10,000
5	Conduct GBV/SEA assessment at project sites.	25,000
6	Workers (Contractor/consultant) sensitization on GBV/SEA.	10,000

7	**TOTAL (US $)**	**$107,000**

9.7 ANNUAL AUDITS

The project will be subjected to reviews and bi-annual audits and an end of project audit. Audits will be done bi-annually whilst reviews will be done annually after every annual report is produced

Table 9-6 Monitoring and Evaluation Budget

No.	ACTIVITY	ESTIMATED COST (US $)
1.0	Bi- Annual Audit	15,000.00
2.0	Annual Reviews	15,000.00
3.0	End of Project Audit	30,000.00
	Sub-Total	**60,000.00**

9.8 ESMP IMPLEMENTATION BUDGET SUMMARY

The following is the ESMP Implementation budget summary taking into consideration all the issues covered in sections 7.1 to 7.6:

Table 9-7 Estimated Budget for ESMF Implementation (US$)

No.	YEAR / ACTIVITY	REFERENCE TABLE	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	TOTAL
2	Site-specific ESIAs, ESMPs and Environmental License fees	Table 9-1		15,000.00	15,000.00	10,000.00	10,000.00	5,000.00	5,000.00	----------	60,000.00
3	Mitigation Measures	Table 9-2	----------	223,000.00	120,000.00	50,000.00	30,000.00	30,000.00	30,000.00	7,000.00	**490,000.00**
4	Monitoring and evaluation purposes (R&D, M&E, Field Visits)	Table 9-3	8, 333.00	8, 333.00	8, 333.00	8, 333.00	8, 333.00	8, 333.00	5,000.00	5,000.00	60,000.00
5	Environmental and Social Training	Table 9-4	----------	125,000.00			125,000.00			125,000.00	325,000.00
6	GBV/SEA Activities	Table 9-5		30,000.00	20,000.00	15,000.00	10,000.00	10,000.00	7,500.00	7,500.00	107,000.00
7	Annual Reviews	Table 9-5	----------	5,000.00		5,000.00	----------	5,000.00			15,000.00
8	Bi-Annual Audit	Table 9-5	----------		5,000.00		5,000.00		5,000.00		15,000.00
9	End of Project Audit	Table 9-5								30,000.00	30,000.00
	Sub - Total										**1,102,000.00**
	10% Contingency										**110,200.00**
	Grand Total										**1,212,200.00**

10. CONCLUSIONS AND RECOMMENDATIONS

BoLCoP has great potential to significantly improve the livelihoods of the small stock farmers of Botswana. The proposed project has potential to significantly improve the farmers' production, productivity, and income in the target project areas. An improvement in the income of the households will translate to improved food security as they now will have cash to secure other needs. The implementation of BoLCoP will provide considerable economic opportunity for the rest of the small stock value chain from production to consumers, including material/equipment suppliers, construction contractors and other agricultural professionals.

The envisaged environmental and social impacts include soil disturbances and degradation from the rehabilitation and construction of various agriculture infrastructure, Solid and liquid waste generation from the farming and processing activities, tree cutting and general vegetation clearing from land preparations, emission of dust and generation of noise. **These envisaged environmental impacts will generally be localized, minimal, short term and can be mitigated.** To achieve this, it will entail incorporating all the requisite mitigation measures and adhering to the requirements of the current ESCMP. **The Final *benefits of this programme to the nation will, by far outweigh any potential negative effects.***

It is therefore recommended that:

- The land around any sub-project works should be left intact and pollution free.
- Bush clearance should be confined to the necessary parts of project sites, buffer strips must be maintained, and revegetation must be affected to affected areas.
- Sensitive environments like wetlands and hillsides should be preserved and managed well to avoid their rapid deterioration.
- Labour intensive methods should be encouraged as they benefit the local community in terms of job creation. For this the project should employ locals as much as possible to ensure that benefits remain in the area where development is taking place.
- The use of destructive machinery should be avoided as much as possible. Machinery will adversely affect soils and undergrowth.
- The recommended mitigation measures should be implemented to reduce significant environmental impacts.

11. REFERENCES

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12. APPENDICES

APPENDIX 1 IMPACTS SIGNIFICANCE RATING TABLES.

The significance of adverse impacts from project activities will be rated based on their magnitude, duration and probability as shown below in Table **APP 1-1**. The scales of rating are 1 to 5 with 1 being low and 5 being high. Where an aspect is affected by more than one impact, the highest rating is taken as the applicable significance of the impact. The ESMP in Chapter 7 only considers the impacts that have been rated moderate and high significance as these present impacts that need attention.

Table APP 1-1 Impact Magnitude Scoring Table. (Adapted from Ryan Edwards, 2011)

Criteria	*Scoring*	*Description*
Quality		**Nature of Environmental Change**
Positive	N/A	Beneficial impacts
Negative	N/A	Adverse Impacts
Probability		**the likelihood of the impact occurring**
Unlikely	1	The chance of the impact occurring is extremely low (Less than a 20% chance of occurrence).
Fairly Unlikely	2	The chance of the impact occurring is moderately low (Between a 20% to 40% chance of occurrence).
Possible	3	The impact may occur (Between a 40% to 60% chance of occurrence).
Probable	4	The impact will likely occur (Between a 60% to 80% chance of occurrence).
Definite	5	Impact will certainly occur (Greater than an 80% chance of occurrence).
Severity		**The degree of disturbance**
Very Low	1	Impact affects the quality, use and integrity of the system/component in a way that is barely perceptible.
Low	2	Impact alters the quality, use and integrity of the system/component but system/ component continues to function in a slightly modified way and maintains original integrity (no/limited impact on integrity).
Moderate	3	Impact alters the quality, use and integrity of the system/component but system/component continues to function in a moderately modified way and maintains general integrity.
High	4	Impact affects the continued viability of the system/component and the quality, use, integrity and functionality of the system or component is severely impaired and may temporarily cease. High costs of rehabilitation and remediation.
Very High	5	Impact affects the continued viability of the system/component and the quality, use, integrity and functionality of the system or component permanently ceases and is irreversibly impaired (system collapse). Rehabilitation and remediation often impossible. If possible, rehabilitation and remediation often unfeasible due to extremely high costs of rehabilitation and remediation.
Extent		**the spatial influence of the effects produced by the impact.**
Project Area (Site)	1	Effects of an impact experienced within or in proximity (100m) to the project site. However, the size of the site needs to be considered. A large site may have to be scored according to category 2 below.
Surrounding Area	2	Effects of an impact experienced beyond the project site but within a 2km radius of the site.

Criteria	*Scoring*	*Description*
Local	3	Effects of an impact experienced within the local area (e.g. between a 2km to 50km radius of the site).
Regional	4	Effects of an impact experienced within the local region (e.g. between a 50km to 200km radius of the site).
National (larger area)	5	Effects of an impact experienced within a large geographic area beyond a 200km radius of the site.
Duration		**Period when the Impact is Expected to Occur**
Short-term	1	The impact and its effects will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase (0 – 1 years), or the impact and its effects will last for the period of a relatively short construction period and a limited recovery time after construction, thereafter it will be entirely negated (0 – 2 years).
Medium-Short-term	2	The impact and its effects will continue or last for the period of a relatively long construction period and/or a limited recovery time after this construction period, thereafter it will be entirely negated (2 – 5 years).
Medium-Long-term	3	The impact and its effects will continue or last for some time after the construction phase but will be mitigated by direct human action or by natural processes thereafter (5 – 15 years)
Long-term	4	The impact and its effects will continue or last for the entire operational life of the development but will be mitigated by direct human action or by natural processes thereafter (15 – 50 years).
Permanent	5	The only class of impact that will be non-transitory. Mitigation either by man or natural process will not occur in such a way or such a time span that the impact can be considered transient (Indefinite).
Magnitude		**Effect on Environmental and Social Processes**
negligible	< 6	not serious: Changes are barely perceptible.
low	6-9	acceptable, mitigable
moderate	10-13	undesirable but mitigable
high	14-17	very serious
very high	>17	totally unacceptable

Note: Probability + Severity + Extent + Duration = Magnitude

APPENDIX 2 GUIDELINES FOR ANNUAL REVIEWS AND ANNUAL AUDITS

Objectives: The objectives of annual reviews and annual audits of the ESMP implementation are two-fold:

a) *To assess Project performance in complying with ESMP procedures, learn lessons, and improve future performance; and*
b) *To assess the occurrence of, and potential for, cumulative impacts due to BOLCOP-funded and other development activities.*

The annual reviews and annual audits are intended to be used by BOLCOP management to improve procedures and capacity for integrating natural resources and environmental/social management into project operations. They will also be a principal source of information to IFAD supervision missions.

Audits will be done bi-annually whilst reviews will be done annually after every annual report is produced

An audit is different from a review. In a review, the auditor conducts analytical procedures and makes inquiries to ascertain whether the information contained within the annual report is correct. The result is a limited level of assurance that the annual report being presented does not require any material modifications. In an audit, the auditor must corroborate the information in the annual report. This calls for a thorough examination of all the documentation leading to the annual report, Confirmations from beneficiaries, physical inspections of sub-projects and other procedures as needed.

Thus, the audit gives a higher level of assurance that the annual report is fairly presented. An audit also requires a significant amount of time and effort to complete and thus audits are much more expensive than reviews.

The following is an outline of the scope of work and impacts of these audits. Note that if it is an audit, more detailed work will be needed but if it is a review, information provided in the annual reports will be sufficient:

Scope of Work: *ESMP Performance Assessment*
The overall scope of the performance assessment work is to:

a) Assess the adequacy of the sub-project approval process and procedures based on interviews with project participants, project records, and the environmental and social performance of a sample of approved sub-projects.
b) Assess the adequacy of ESMP roles and responsibilities, procedures, forms, information resource materials, etc.
c) Assess the needs for further training and capacity building.
d) Identify key risks to the environmental and social sustainability of sub-projects; and
e) Recommend appropriate measures for improving ESMP performance.

The following tasks will be typical:

a) Review district records of sub-projects preparation and approval (e.g., applications; screening checklists; site specific ESMPs, appraisal forms; approval documents), monitoring reports as well as related studies or reports on wider issues of natural resources and environmental management in the country.
b) On the basis of this review, conduct field visits of a sample of approved sub-projects to assess the completeness of planning and implementation work, the adequacy of environmental/social design, and compliance with proposed mitigation measures. The sample should be large enough to be representative and include a substantial proportion of sub-projects that had (or should have had)

a field appraisal according to established ESMP criteria. Sub-projects in sensitive natural or social environments should especially be included.

c) Interview project and district officials responsible for sub-projects appraisal and approval to determine their experience with ESMP implementation, their views on the strengths and weaknesses of the ESMP process, and what should be done to improve performance. Improvements may concern, for example, the process itself, the available tools (e.g., guidelines, forms, and information sheets), the extent and kind of training available, and the number of financial resources available.
d) Develop recommendations for improving ESMP performance.

Cumulative Impacts Assessment

This part of the annual review or annual audit assesses the actual or potential cumulative impacts of sub-projects with other sub-projects or development initiatives on the environment, natural resources, and community groups. Cumulative impacts result from several individual small-scale activities that, on their own, have minimal impacts, but over time and in combination generate a significant impact. For example:

* Decline in groundwater levels or quality due to the construction of numerous wells and the introduction of numerous small-scale irrigations works.
* Overwhelmed or illegal waste and dumping sites due to the inappropriate disposal of increasing amounts of waste materials.

The function of this assessment is primarily as an "early warning" system for potential cumulative impacts that might otherwise go undetected and unattended to. It will be largely based on the observations of people interviewed during the field work, and trends that may be noticed by district or regional officials. Where cumulative impacts are detected or suspected, recommendations will be made to address the issue, perhaps through more detailed study to clarify matters and what should or can be done about them.

Qualifications for Undertaking Annual Reviews:

The reviews and annual audits should be undertaken by an individual or small team with training and experience relevant to the likely issues to be encountered (e.g., environmental, and natural resources management and land acquisition and resettlement). They should also be familiar with the methods and practices of effective community consultation, and with typical methods and processes for preparing, appraising, approving, and implementing small-scale community development projects.

Timing:

Annual reviews and annual audits should be undertaken after the annual monitoring report has been prepared and before IFAD supervision of the project, at the closing of each year of the project. It is expected that each review would require 3-4 weeks of field work (interviews, examination of sub-projects), and that the review report would be completed within 2 weeks of completing the field work.

Outputs:

The principal output is an **annual review or audit report** that documents the review methodology, summarizes the results, and provides practical recommendations. Distinct sections should address a) ESMP performance and b) cumulative impacts. Annexes should provide the detailed results of the field work and summarize the number of approved sub-projects by district and their characteristics according to the annual report format. Copies of the annual review report should be delivered to BOLCOP Technical Committee, to each District Administration office responsible for appraisal, approval, and implementation of sub-projects, and to IFAD. The District Review Panel may also want to host national or Sub-District workshops to review and discuss the review findings and recommendations.

APPENDIX 3 GUIDELINES FOR ANNUAL REPORT

Name of the Project: (BOLCOP) **Application Number:**

1. **Name of District or Local Government:**

2. **Name and Position of Review Authority Completing the Annual Report:**

3. **Reporting Year:**

4. **Date of Report:**

5. **Community Sub-project (s):**

Please enter the numbers of sub-projects in the following table.

Types of Activities	**Approved this year**	**Application included an ESMP checklist**	**Field Appraisal**	**Mangrove Management**	**Quality and Water analysis monitoring**	**Stakeholder Engagement**	**Catchment management**	**Specific TA**
Water point rehabilitation								
Earth dam rehabilitation								
Community reservoirs								
Small dams								
Tertiary/secondary roads								
Tertiary/secondary road culverts/bridges								
Footpaths								
Fisheries and markets								
Terracing								
Fish-processing facilities								
Post-harvest handling facilities								
Market places								
Natural resources management								
Anti-erosion interventions and vegetation restoration								
Catchment, Stream, and riverbank protection								

6. Were there any **unforeseen environmental or social problems** associated with any sub-project approved and implemented this year? If so, please identify the sub-project (s) and summarize the

problem (s) and what was or will be done to solve the problem (s). Use a summary table like the one below.

Sub-project	Problem(s)	Actions taken	Actions to be taken

7. Have any **other environmental or social analyses** been carried out by other public or private agencies in your district/province? If so, please describe them briefly.

……
……
…….

8. Have you noticed any problems **with implementing the ESMP** in the past year (e.g., administrative, communications, forms, capacity)? If so, please describe them briefly.

……
……
…….

9. **Training:** Please summarize the training received in your district/province in the past year, as well as key areas of further training you think is needed.

Group	Training Received	Training Needed
Review Authority		
Approval Authority		
Extension Teams		
NGOs/Associations		

APPENDIX 4 ENVIRONMENTAL AND SOCIAL DUE DILIGENCE (ESDD)

Bank ESDD

No.	REQUIREMENT	EXPECTED DOCUMENTATION, POLICIES AND PROCEDURES	RECOMMENDED ACTION POINTS
1.	Environmental and social policy with social and environmental requirements encompassing direct and indirect sub-projects. The policy should also include a commitment that all non-retail transactions comply.	Financial Institution (Bank) should have a clearly documented and top management approved environmental and social management policy indicating the date approved. The Bank policy should include: ● Environmental and social risk management. ● Exclusion list. ● Legislative framework. ● E&S risks and opportunities management. ● E&S governance structure. ● E&S training. ● E&S social performance communication. ● Grievance redress mechanism.	As part of the annual policy review, include the requirement for indirect investments and sub-projects to comply with the Bank's Environmental and Social policy. For instance, ensure that the sub-projects do not support activities on the IFAD exclusion list; comply with host-country environmental, health and safety laws and regulations; that grievance mechanisms are in place for sub-projects.
2.	A process to identify environmental, social and climate risks and impacts and categorise investments including sub-projects.	Financial Institution must have an Environmental and Social Risk Management (ESRM) procedures • The ESRM procedures provide an E&S Risk Categorisation guide which categories transactions. • An E&S Risk Rating (ESRR) guide can also be developed. A transaction can either be Very High Risk, High Risk, Medium or Low Risk.	
		The ESRM procedures also provide guidance on how to conduct Environmental and Social Due Diligence (ESDD) for each of the categories identified. An executive summary of the ESDD is included into the credit application. An ESDD register is provided for to be maintained by each respective Bank's head of ESG. It is recommended that only agricultural facilities of BWP 5million and above undergo a detailed E&S due diligence process (Micro-loans rapid E&S assessment checklist- BWP 5M-19.99M; SME E&S assessment checklist-	Develop a process for environmental, social and climate screening of transactions (by small-scale producers) below BWP 5M. Expand the credit application tool to include climate change adaptation screening for facilities below BWP 5M (small-scale producers). ● Identified climate risk i.e., physical, transition or liability) ● Climate adaptation type

No.	REQUIREMENT	EXPECTED DOCUMENTATION, POLICIES AND PROCEDURES	RECOMMENDED ACTION POINTS
		BWP 20M-99.99M; Corporate E&S assessment checklist-above BWP 100M) Anything below BWP 5million undergoes a check against respective Bank procedures and the Bank exclusion list.	Consider expanding the ESDD tools to include additional CCA categories i.e., Value chain services and value creating solutions.
		For the BOLCOP's program, environmental and social risk classification is Substantial based on SECAP's environmental and social risk categorization for financial institutions including anticipated sub-projects. For this reason, Banks should exclude all sub-projects categorised as high risk. If the risk-profile of a sub-project increases significantly, Banks should notify IFAD.	All sub-projects categorised as high risk are not eligible for the BOLCOP program. Notify IFAD if there is a significant increase in risk-profile for approved sub-projects.
		Banks Credit Risk policy details an exclusion list. However, this does not align to the IFAD policy exclusion.	Ensure that the E&S policy Exclusion List has covered all items in IFAD Exclusion List.
3.	Internal organizational capacity and competency	Banks should have teams to manage the E&S risks. Each Financial Institution must have an ESG head reporting to the Bank's Sustainability Director.	Banks should set up sustainability teams.
4.	Monitoring and reporting systems	The Banks should define a monitoring process within the ESG procedures for all sub-projects undergoing ESDD assessment. Monitoring of E& S covenants agreed upon with clients is dependent on risk categorisation. A summary of all monitoring reports is presented to the Director of Sustainability.	Establish a monitoring process to monitor E&S performance of sub-projects and investments below K 5M within the BOLCOP program.

No.	REQUIREMENT	EXPECTED DOCUMENTATION, POLICIES AND PROCEDURES	RECOMMENDED ACTION POINTS
		The Banks are required to submit to IFAD annual ESMS monitoring reports as well as notify IFAD of any significant accidents or incidents within sub-projects or if the risk profile of an FI or a direct investee increases significantly. The annual reports should include: • Portfolio breakdown by sub-borrower category, and sample ESDD reports. • Update on progress achieved in E&S covenants. • Cases of non-compliance and significant E&S accidents or incidents related to a transaction. Information on the implementation of any changes to the FI's ESMS; and where relevant, the FI sub-projects' exposure to high-risk activities.	The Banks are to provide annual monitoring reports. The contents of the report should include: • Portfolio breakdown by sub-borrower category/lending channel (small-scale producers; micro enterprise; SME Agribusiness; either direct or indirect). • CCA adaptation type and sub-sector. • Sample ESDD reports. • Update on progress achieved in E&S covenants. • Cases of non-compliance and significant E&S accidents or incidents related to a transaction. Information on the implementation of any changes to the FI's ESMS; and where relevant, the FI sub-projects' exposure to high-risk activities.
1.	Disclosure	The Bank must develop an environmental and social risk management disclosure and reporting procedure as part of the Bank's ESRM procedures. This should cover internal reporting to the board and management and external reporting either for regulatory purposes, Bank sustainability reporting, reporting to investors or DFIs. IFAD will publicly disclose an Environmental and Social Review Summary for the BOLCOP program which will include: • Reference to IFAD's SECAP and any applicable grievance mechanisms. • The rationale for IFAD's categorization of the project. • A description of the main identified environmental, social and climate risks and impacts associated with the program and a summary of the ESMS. • Key measures identified to strengthen the ESMS, as specified in the ESAP, to ensure compliance with IFAD's SECAP.	Good practise: the Banks are to communicate the E&S policy externally through public disclosure, e.g., presenting it in corporate statements and reports and publishing it on their website.

APPENDIX 5 IFAD'S ENVIRONMENTAL AND SOCIAL CATEGORIZATION

IFAD's environmental and social categorization of projects/programmes comprises the following categories: (See SECAP 2021 version for Details) High Risk, Substantial Risk, Moderate Risk and Low risk. The current project was categorised as Substantial.

- **High Risk:**
  The programme/project may have most or all of the following significant adverse environmental and/or social characteristics:
  i. Result in sensitive, irreversible or unprecedented significant risks and impacts (for example, resulting in loss of major natural habitat or conversion of wetlands),
  ii. Result in risks and impacts that are significant in magnitude and/or spatial extent (large geographical area or size of the population likely to be affected),
  iii. Have significant risks and impacts that affect an area much broader than the sites or facilities subject to physical interventions,
  iv. Result in significant adverse cumulative or transboundary impacts,
  v. High probability of serious adverse effects to human health and/or the environment (e.g., due to accidents, toxic waste disposal),
  vi. Risks and potential impacts are not readily remedied by preventive actions or mitigation measures.
- **Substantial Risk:**
  A project should be classified as Substantial Risk when it is not as complex as a High-Risk project and its environmental and social scale is not in such a sensitive area but may pose significant risks and impacts if not adequately managed. These potential risks and impacts have most or all of the following characteristics:
  i. They are mostly temporary, predictable or reversible, and the nature of the project makes it possible to entirely avoid or reverse them,
  ii. There are concerns that the project's adverse social impacts and associated mitigation measures may give rise to a limited degree of social conflict, harm or impacts on human security,
  iii. The geographical area and size of the population likely to be affected are medium to large,
  iv. There is some potential for cumulative or transboundary impacts, but they would be less severe and more readily avoided or mitigated than in a High-Risk project,
  v. There is medium to low probability of serious adverse effects to human health or the environment (e.g., due to accidents, toxic waste disposal), and there are known and reliable mechanisms to prevent or minimize such incidents,
  vi. The project's effects on areas of high value or sensitivity are expected to be lower than for High-Risk projects,
  vii. Mitigation or compensation measures may be designed more easily and be more reliable than those of High-Risk projects.

While no formal ESIA is required for Substantial Risk programmes/projects, in many cases further environmental analysis could be undertaken during project preparation or implementation.

- **Moderate Risk:**

A project should be classified as Moderate Risk when potential adverse risks and impacts on human populations or the environment are not likely to be significant. This may be because the project is not complex or large, does not involve activities with high potential for harming people

or the environment, and is located away from environmentally or socially sensitive areas. The potential risks and impacts are:

i. Predictable and expected to be temporary or reversible,
ii. Low in magnitude,
iii. Site-specific, without the likelihood of impacts beyond the project life cycle,
iv. Low probability of serious adverse effects to human health or the environment (e.g., they do not involve the use or disposal of toxic materials, or routine safety precautions are expected to be sufficient to prevent accidents),
v. The project's risks and impacts can be easily mitigated in a predictable manner.

- **Low Risk:**

A project should be classified as Low Risk if it will have negligible or no environmental or social implications. Examples include:

i. Technical assistance grants for agricultural research and training,
ii. Research,
iii. Extensions,
iv. Health,
v. Nutrition,
vi. Education and
vii. Capacity- and institution building.

In addition, the environmental and social screening exercise of sub-projects is used to determine the exposure of the programme objectives to climate-related risks (High, Substantial, Moderate or Low). SECAP provides guidance statements on biodiversity and protected area management; agrochemicals; energy; fisheries and aquaculture; forest resources; water; small dams; physical cultural resources; rural roads; development of value chain, microenterprises and small enterprises; and physical and economic resettlement – most of which are applicable in the context of the BOLCOP programme. Where resettlement or economic displacement is envisaged, SECAP requires that the principles of "do no harm" and "free, prior and informed consent" are adhered to at all times and for all beneficiaries for any intervention that might affect the land access and user rights of communities.

APPENDIX 5 ENVIRONMENTAL & SOCIAL SCREENING FORM

Step 1 — Formal screening (SECAP offline tool)

- The Project Management Unit (PMU) will use the SECAP offline screening tool provided by IFAD as the screening form for every subproject.
- Completion and clearance of the SECAP form is required before approval.

Step 2 — Special-considerations checklist (attached to the SECAP form)
Use this short checklist to guide site planning, mitigation, and supervision.

A) Basic identifiers

- Project name; district; location/catchment; village; nature/size; sector
- Date of field evaluation
- Names, designations, and signatures of evaluator(s)

(Note: Site inspection of project site. The evaluation results to be a consensus of at least three officials)

B) Issues to check on site (note significance: Low / Medium / High, and list mitigation)

- Vegetation & soil: loss of trees/native species; soil erosion/siltation; spoil/rubble management
- Pollution & waste: land contamination (fuels/oils); agrochemical/pesticide risks; solid & liquid waste; dust; odour/noise
- Water & flooding: water-quality/quantity reduction; stagnant water/borrow pits; flooding incidence
- Health & safety: worker/community health hazards; water-borne disease (e.g., malaria); HIV/sexually transmitted infections (STIs)
- Biodiversity: alien/invasive species
- Access & social aspects: disruption to marriages/social cohesion (if relevant)

C) Resettlement-related red flags

- Loss of land, houses/structures, trees, or crops
- Loss of access to rivers/forests/grazing areas
- Impacts on cultural/heritage sites and graveyards
- Conflicts over local water use
- Disruption to pathways/roads
- Loss of communal facilities (e.g., churches)

D) Recording & follow-up

- Record significance (Low/Medium/High) and specific mitigation measures for each item.
- Enter all findings in the ESCMP register.
- Reflect agreed measures in method statements/Bills of Quantities and contracts, as relevant.
- Verify during supervision
- **Consultation** (comments from beneficiaries)

(Note: This checklist supports but does not replace the formal SECAP screening)

E) Overall evaluation of Environmental and Resettlement Screening Exercises:

- The results of the screening process would be either the proposed sub-projects would be exempted or subjected to further environmental and resettlement assessment.
- The table forms part of the special considerations checklist and is filed within project file immediately after endorsement. **Environmental District Officer** should keep a duplicate. Project Management Committee will maintain a copy of completed forms:

Review of Environmental Screening	**Tick**	**Review of Resettlement Screening**	**Tick**
1. The project is cleared. No serious impacts. *(When all answers are "No", or risk rating is low)*		1.The project is cleared. No serious social impact. *(Where answers are all "No", or risk rating is "low")*	
2.There is need for further assessment. *(when some answers are "Yes, moderate, substantial or high" in form)*		2.There is need for resettlement/compensation. *(When some answers are "Yes, moderate, substantial or high"*	
3. Need to prepare ESMP		3. Need to prepare RAP	

Endorsement by Environmental District Officer	**Endorsement by BOLCOP PMU**
Name	Name:
Signature: Date	Signature: Date:

IFAD
Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Pest Management Plan

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
Report No.	7326-BW

East and Southern Africa Division
Programme Management Department

MINISTRY OF LANDS AND AGRICULTURE

Investing in rural people

Botswana Livestock Commercialization Project

(BoLCoP)

INTERGRATED PEST MANAGEMENT PLAN
(IPMP)

Prepared for:

Botswana Livestock Commercialization Project (BoLCoP)
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Botswana Livestock Commercialization Project (BoLCoP) Intergrated Pest Management Plan (IPMP) is intended to provide complete documentation for the requirements of a holistic IPMP system for the project. This IPMP contains the findings of a study conducted for the Agriculture sector of Botswana and the instrument has been developed on the basis of the local conditions and findings.

Report no.	**001**
Issue no.	**001**
Date of issue	**21/04/25**

……	**……**
CHECKED	**DATE**
……	**……**
APPROVED	**DATE**

This Report is Available from:

Attention: The Permanent Secretary,
Ministry of Lands and Agriculture,
AKD Building,
Plot number 1108,
Main Mall,
Gaborone,
Botswana.

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1. INTRODUCTION

The Small-stock farmers will be involved in the rearing goats, sheep and poultry. These agricultural livelihoods activities will entail the use of agro chemicals (pesticides, fertilisers etc). This outline of the Integrated Pest Management Plan (IPMP) has been developed as a decision-making process for the selection, implementation, and evaluation of pest management practices to be employed in the project.

1.1 RATIONALE FOR THE IPMP

Integrated Pest Management (IPM) brings together, into a workable combination the best strategies of all control methods that apply to a given problem created by the activities of pests. IPM has been defined in various ways, but a more scientific definition describes it as, "the practical manipulation of pest populations using sound ecological principles to keep pest populations below a level causing economic injury".

Considering the magnitude of the BoLCoP which is expected to improve small stock production in the country, there is undoubtedly the likelihood of infestation by pests, currently within the proposed area or migratory pests, hence the need for an Integrated Pest Management Plan (IPMP) which is the suitable safeguard instrument for tackling pest management issues.

1.2 SCOPE OF THE IPMP

Integrated Pest Management Plan (IPMP) represents one of the frameworks for screening, monitoring, and mitigating potential impacts of BoLCoP. The IPMP will thus complement the Environmental and Social Management Framework (ESMF) and other SECAP instruments of the project. Accordingly, this IPMP covers the existing national and international legislations on the use of chemicals for pest management. It also assesses the Botswana experience in pest management and capacity on integrated pest management approach. Other areas addressed by it include training and awareness raising for the public and users of pesticides on safety measures, description of pesticides banned for use in Botswana as well as those approved for use.

1.3 OBJECTIVES OF THE IPMP

The specific objectives of the BOLCOP IPMP include;

- Assist the targeted State governments to plan and design location specific IPM activities;
- Promote participatory approaches in IPM to learn, test, select and implement “best-bet” IPM options.
- Promote biodiversity monitoring to serve as early warning systems on pest status, alien invasive species, beneficial species, and migratory pests;
- Establish linkages to drive the draft policy document for BOLCOP in Botswana and ensure compliance with national and international conventions and guidelines on pesticide use in agriculture.
- Monitor and evaluate the benefits of IPM including its impact on the environment and health.

2. PEST MANAGEMENT CONCERNS AND CONTROL MEASURES

This section covers the baseline Information on livestock pests and diseases in Botswana, general control methods and their efficacy. It further outlines the constraints to effective utilization of local pest control methods. A capacity assessment of integrated pest management is also discussed in this chapter.

2.1 HEALTH SYSTEMS AND INFECTIOUS & COMMUNICABLE DISEASES

Botswana is both a wildlife and livestock sanctuary, and this makes animal health s big issue. The animal health sector is however characterized by a high incidence and prevalence of infectious diseases, communicable diseases, both zoonotic and non-zoonotic, impacting veterinary and public health, trade, rural development, and livelihoods. The Standard practice in animal health care in Botswana is plagued by many problems. These include inadequate manpower and logistics inputs, scarce and erratic supply of veterinary drugs and supplies, high cost of veterinary drugs, poor communication facilities and other modern amenities, counter–productive government policies which do not complement the development of ethnoveterinary medicine and other indigenous systems. The relation between these problems and the current dependence on Standard veterinary medicine has resulted in a failure to solve most animal health problems.

Improvement of animal health requires increased and sustained investments in national Veterinary Services to meet international standards of quality defined by the World Organisation for Animal Health (Office International des Epizooties (OIE)). Any country failing to prevent, detect, inform, react and control sanitary issues, such as infectious diseases or antimicrobial resistance places other countries at risk, hence the importance of regional approaches. All countries in the region have engaged in the OIE Performance of Veterinary Services (PVS) Pathway, a program which provides independent qualitative (PVS evaluation) and quantitative (PVS Gap Analysis) evaluations of Veterinary Services, identifying their strengths and weaknesses, prioritizing interventions and costing activities needed to address deficiencies. Some countries have also received support to review their veterinary legislation.

2.2 PROBLEMS OF AGRICULTURAL PEST AND DISEASES IN BOTSWANA

Pests and disease vectors constitute serious hazards to public health, food security and general welfare of the citizenry in Botswana. It is estimated that agricultural pests destroy about 50% of agricultural products (livestock, crops, fruits and ornamental plants) annually.

Livestock farming in Botswana faces significant disease threats from Foot-and-Mouth Disease (FMD), heartwater, pasteurellosis, ophosphoris, anthrax, botulism, and brucellosis. Additionally, pests such as fall armyworms and locusts impact fodder and crop production that affects livestock feed, alongside predator challenges for small-scale producers. These challenges affect the health and productivity of livestock, impact the valuable meat export industry, and pose risks to food security and farmer livelihoods.

Farmers often respond to pest infestations by heavy applications of pesticides which threaten environmental quality and pose risks to human and livestock health. The incautious dependence on chemical pest control options undermines national economic growth through farmers' noncompliance with trade barriers on pesticide residues in export produce. According to EC directive 91/414, for example, approximately 80% of the active ingredients used in Africa are banned for use in Europe, and IPM is a fast-emerging trade policy issue.

2.3 GENERAL CONTROL METHODS OF PESTS AND DISEASES IN BOTSWANA

Pest management methods in Botswana vary with the type of pests and livestock. Most of the pest control operations in Botswana today are by pesticides. However, due to the increasing concerns about the environment, the development of pest resistance to pesticides, pesticides residues and the increasing economic pressures on livestock and the food industry are increasingly being seen as just one of a range of control measures available.

Main pest management controls used in Botswana include:

i. **Cultural control**

This refers to the adjustment of husbandry techniques by the farmer and include:

a) **Hygiene**: Maintaining overall good health of the animals by keeping the environment clean, setting fire to warm the environment at cold nights, according to farmers, this keeps the animal healthy which enhances its tolerant level to pests;

b) **Herbs and local concoction**: This is practiced by majority farmers and involves cutting herbs and boiling them for their animals to drink;

c) **Change of location**: This method involves leaving an area for another when it is noticed that there is the presence or outbreak of pests or diseases especially in a case of sudden death of cattle;

d) **Bush burning**: Bush burning is also believed by many farmers as being effective in tackling common pests in cattle such as tick. Burning surrounding bush would reduce the menace of tick infestation by burning of the eggs of the tick, as well as the elimination of possible intermediate host for pests and diseases. In addition, burning of dry materials to produce smoke that chase the pests away from the animal;

e) **Timing on grazing:** usually during afternoon to allow sun heat to chase the pests.

f) **Nutrition**: Balanced animal diets provided at consistent intervals and in appropriate portions is believed to build resistance to pests and infections.

g) **Herd sharing:** This involves the distribution of cattle among relatives and grown up children in other location apart from the area of infestation during emergency disease and pest invasion in order to lessen rate of casualties.;

h) **Use of holy books:** The use of holy books in controlling diseases and pest by reading of verses from the holy Koran over the animals before leaving the enclosure. Sometimes these verses are even written and wrapped up into amulets to be worn by the animals.

ii. **Mechanical Tools**

Mechanical methods have also been employed which include:

a) Use of Grooming combs, brushes and flea combs with closely spaced teeth to monitor for insects and ticks;
b) Use of electronic devices such as lights that attract flying insects around barns or other animal quarters to reduce some nuisance pests;
c) Use of traps for rodents that may be carriers of pests;
d) Handpicking of ticks and insect pests from the body of the animal.

iii. **Physical control**

This involves the following measures:

a) adequate ventilation to prevent heat, stress or the spread of diseases;
b) avoid over crowdedness of animals to avoid pest outbreaks;
c) use of sticky flypaper to reduce nuisance flying insects in confined areas;
d) use of cages that separate animals from contact with one another which reduces the spread of insects from infested animals to non-infested ones;

e) use of pest resistant breeds and breeds adapted to the climatic conditions of the surrounding environment where they are raised can avoid or reduce the effect of the pests.

iv. **Biological Control**

This involves either encouraging or introducing natural enemies of the pest or interfering with the life cycle of the pest. This area has not been fully harnessed in Botswana due to inadequate research equipment and facilities but has begun to gain awareness among farmers. This method is predominantly practiced among agricultural research institutions and farmers in agricultural based development projects. The biological approach to pest control is best described under the IPM.

v. **Chemical control**

This employs the use of pesticides to kill pests. The use of spray for control of pesticides and herbicides has been in long use in Botswana.

Pesticide application equipment and pesticides have been introduced into the Botswana agricultural system ever since they were used in the industrialized world. Practically, all the different techniques available have, at a given time, been introduced successfully along with the screening of new insecticides, fungicides and herbicides, new spraying pumps are usually evaluated for their efficiency before they are recommended for use in the application. However, with the new European Union (EU) Legislation on Maximum Residue Levels (MRLs), some of the pesticides are still undergoing screening and the previously recommended pesticides have been banned. This regulation has left very few pesticides for use in agricultural activities in Botswana.

2.4 COMMON LIVESTOCK PESTS IN THE PROJECT AREAS

Common livestock pests and problems in Botswana include large carnivore predation by animals like lions and wild dogs, tsetse flies that transmit trypanosomiasis, poisonous plants such as Dichapetalum cymosum (gifblaar) and Pavetta harborii that cause widespread deaths, and parasitic diseases like foot-and-mouth disease, which the blue wildebeest is susceptible to. Additionally, the African armyworm can destroy pastures, and locust outbreaks can decimate both crops and grazing land, leaving livestock vulnerable.

In general, according to literature and stakeholder consultations in preparation of the IPMP, the most effective local practices for pest management in order of effectiveness are listed as follows:

i. Herd Sharing – which significantly minimizes outbreaks and transmission. This is especially common amongst cattle herders who mostly practice nomadism.
ii. Breeding – use of resistance varieties which are able to resist common pests at a very high rate. The drawback is that these varieties are not commonly available to local farmers.
iii. Hygiene – providing a sanitary environment away from waterlogged areas, poor drainages, waste disposal areas etc. has been reported to significantly reduce incidences and re-occurrence of pests.
iv. Herbs – have also been reported to be effective, and also cost effective since most of the herbs are locally sourced.
v. Bush burning – is effective for a period of time when the smoke is still in the air and immediately after the bush is burnt. However, once the environment gets wet, the pests are likely to re-occur.
vi. Although manual removal of ticks is also widely practiced, it is quite tasking especially when there are many livestock in the area.

vii. Other methods like local concussion and religious beliefs are becoming less popular which can be attributed to the fact that the efficacy could not be properly documented or embracing modern techniques.

In general, the use of chemicals for pest control has been reported to be effective in handling pests across the country. However, there are growing concerns about the use of pesticides including:

- Potency reduction from cold chain due to inadequate cold storage and irregular electricity supply which causes freeze-thaw cycles
- Increasing rate of pest resistance
- Limited information on usage and side effects
- Growing environmental concerns
- High costs of purchase due to unavailability of Government-subsidized pesticides.

2.5 CONSTRAINTS TO EFFECTIVE UTILIZATION OF LOCAL CONTROL METHODS

i. Cutting of trees

Indiscriminate feeling of trees for farming, building of houses, industries and fire wood, usually leads to depletion of trees and herbs that are sources of local medicine and sometime extinction of the herbs.

ii. Bush burning

Most of the shrubs used are being destroyed by bush burning. Indigenous people have to trek long distance that involved risking their lives in search of herbs and other raw materials for parasites control.

iii. Concealing of knowledge/ Improper knowledge of dosage

The variation in prescription such as quantity to administer at a time and for how long is common among the custodians of the knowledge. This leads to improper dosage knowledge of the herbs to be given to infested animal. There are cases of overdose of the herbal medicine, manifested in severe diarrhea or vomiting, shivering and weakened joints. There is also the problem of multiple administrations of herbs that may lead to over dosage. It also sometimes makes it difficult to identify the herbs or single out the role and contribution of each medicinal plant species.

iv. Wrong diagnosis

this is likely to occur because of limited diagnosis and most of the farmers medicate the livestock themselves either from previous knowledge or previous diagnosis, unfortunately, the pest specie may be different thus rendering the treatment ineffective.

v. Flood and drought

This causes changes in environmental balance and also change in pests' species types which the indigenous pest control methods may be ineffective against. Flood also affects the smoke and bush burning practices while drought leads to difficulty in finding the local herbs used.

vi. Lack of government recognition

Most Government interventions have been in the areas of crop agriculture, leaving the livestock farmers with limited support, information and research.

vii. Time consuming and stressful

Manual methods like handpicking of ticks are time consuming especially where there is large number of livestock.

2.6 ASSESSMENT OF THE CAPACITY OF BOTSWANA ON IPM

Currently, many farmers in Botswana use cultural practices and physical control measures for pest control which has been the norm for several farming generations. Nevertheless, some of these methods have not provided sufficient and environmentally friendly options for pest management. Bush burning as a way of controlling pest causes deforestation and loss of biodiversity and

therefore should be discouraged. Other practices as outlined in the section 2.4 are not in line with best practices and cannot support large-scale agriculture.

Conventional chemical control methods have been the widespread means generally used to control livestock infestation by pests in Botswana. It has however been recorded that this method is associated with:

- Emerging cases of numerous intoxications each year;
- Resistance of numerous pests to many chemicals;
- Destruction of useful species;
- Perturbation of the ecological balance;
- Dependence towards synthetic chemical pesticides; and
- Growing debt of farmers compelled to use increasingly expensive products etc.

In-country capacity to implement IPM does exist, and is evident from the past and current projects, and outcomes of several IPM programs being implemented through funding from development partners, technical assistance provided by research centres and institutes and from farmer-based programs or initiatives driven by NGOs, communities, cooperatives and the Government of Botswana. However, it is noteworthy that there is little or no specific training programs on IPM or use of chemicals in livestock production in Botswana.

3. IDENTIFICATION OF POTENTIALLY ADVERSE IMPACTS OF PESTICIDES

3.1 GLOBAL CONCERNS ON THE USE OF PESTICIDES

Pesticides are toxic xenobiotics released most often intentionally into our environment. Pesticides when applied could easily bring adverse effects on the environment, as well as human and animal health. This includes substances that kill weeds (herbicides), insects (insecticides), fungus (fungicides), rodents (rodenticides), ticks (acaricides) and others. Pesticides are used almost everywhere not only in agricultural fields, but also in homes, parks, schools, buildings, forests, and roads. The use of toxic pesticides to manage pest problems has become a common practice around the world, though they could be very useful in managing pest problems, they are also a great environmental and health risk.

3.1.1 Persistent Organic Pollutants (POPs)

Botswana is a signatory to the Stockholm Convention on Persistent Organic Pollutants. Under Annex A (listed for elimination) of the convention, parties must take measures to eliminate the production and use of the chemicals listed under Annex A. These obsolete pesticides are characterized by a high persistence in the environment (e.g. half-life for DDT in soil ranges from 22 to 30 years, Toxaphene -14 years, Mirex - 12 years, Dieldrin- 7 years, Chlordecone up to 30 years), low water solubility and thus potential to accumulate in fatty tissue of living organisms including humans and toxicity to both human and wildlife. Due to intensive releases to the environment in past several decades, and tendency to long-range trans-boundary atmospheric transport, they are now widely distributed and are found around the globe. Most agricultural pesticides could constitute any of the Persistent Organic Pollutants (POPs) chemicals, which if are in use pose adverse environmental, animal, and human health risks. The country is obligated to stop the use of POPs pesticides if still in use. For other pesticides, which are not POPs, the issue of toxicity, its consequence on livestock and agricultural farmland as well as resultant wider environmental and social impacts still lingers.

3.2 PESTICIDES AND HEALTH HAZARDS

3.2.1 Effects of Pesticides on Human Health

A wide range of human health hazards have been linked to pesticides, ranging from short-term impacts such as headaches and nausea to chronic impacts like cancer, reproductive abnormalities, and endocrine disruption. Chronic health effects may occur years after even minimal exposure to pesticides in the environment, or result from the pesticide residues, which we ingest through our food and water. Pesticides can cause many types of cancer in humans. Some of the most prevalent forms include leukemia, non-Hodgkin's lymphoma, brain, bone, breast, ovarian, prostate, testicular and liver cancers.

3.2.2 Effects of pesticides on animal health

In general, animals are impacted by pesticides through their direct or indirect application, such as pesticide drift, secondary poisoning, runoff into local water bodies, or groundwater contamination. Some major health hazards associated with pesticides use on animals are as follows:

- Pesticides used could end up in drinking water, hay/ fodder consumed by the animals;
- Pesticides are non-discriminatory chemicals, thus they impact both good bugs and bad ones alike. Some pesticides have devastating effects on honeybees and other pollinating insects. Specifically, imidacloprid they are known to cause symptoms in these insects such as memory loss, navigation disruption, paralysis, and death. In cases when the insects aren't killed or paralyzed, bees are unable to navigate their way back to the hive causing the collapse of the colony;
- Pesticides have an affinity for lipid material and are not biodegradable, accumulate in animal systems, such pesticides are the main cause of contamination of animal products like milk, meat, egg.;

- Pesticides decrease the reproductive rate of birds by causing eggshell thinning and embryo deaths;
- Pesticides are highly toxic to aquatic animals, affecting various systems in aquatic animals including the heart and brain;
- High doses of pesticides are usually related to its effects on the central nervous system. Major symptoms are instability, dizziness, disturbed equilibrium, tremor and convulsions, and also shown to cause immune system damage as well as birth defects.

3.3 POTENTIAL ENVIRONMENTAL AND HEALTH RISKS ASSOCIATED WITH PESTICIDES

Potential adverse environmental and health risks of pesticides applications that are of concern to the BOLCOP project are listed in table 7 below:

Table 3-1 Adverse Impacts and Mitigation Measures

Receptor/Media	Potential issues	Mitigation Measures	Monitoring	Responsibility	Frequency	Cost estimate
Surface and ground water	Pesticides may pollute surface water through runoff which transports pesticides to streams, rivers, and other surface-water bodies. Groundwater contamination may occur from pesticide residue in surface water, such as drainages, streams, and municipal wastewater.	Minimize use of chemical pesticides in line with the IPMP. Ban pesticides should not be used	Compliance with BOLCOP IPMP Monitoring of water quality in project areas	MOLA/ Department of Animal Husbandry Department of Environmental Protection	Annually	$20,000
Air Pollution	Vapor from sprayed pesticides will be released into the air, and if the chemical compound is very stable, vapor may travel beyond the application location.	Minimize use of chemical pesticides in line with the IPMP.	Monitoring of air quality parameters	Department of Environmental Protection	Annually	$15,500
		Adequate equipment should be used to minimize aerosols	Adequate training on pesticides application	MOLA / Department of Animal Husbandry	As required	$15,200
Soil Contamination	Pesticides could also enter soil during spraying causing wash-off or run-off into soil. Long-term excessive use of pesticides will cause higher pesticide residues in the soil, which will further cause soil contamination within the area.	Minimize use of chemical pesticides in line with the IPMP. Ban pesticides should not be used	Compliance with BoLCoP IPMP Monitoring of soil quality in project areas	MOLA / Department of Animal Husbandry Department of Environmental Protection	Annually	$25,000
Flora and Fauna	Harm to non-target species: sprayed insecticides reach a destination other than their target species because they are mainly aerosol. Runoff can carry pesticides into aquatic environments while wind can carry them to other fields, grazing areas, human settlements and undeveloped areas, potentially affecting other species.	Minimize use of chemical pesticides in line with the IPMP. Site specific EMPs	Compliance with BoLCoP IPMP Monitoring of environmental parameters	MOLA / Department of Animal Husbandry Department of Environmental Protection	Annually	$26,000
	Other problems emerge from poor production, transport and storage practices. Over time, repeated application increases pest resistance, while its effects on other species can facilitate the pest's resurgence.	Proper diagnosis of pests issues Minimize use of chemical pesticides in line with the IPMP.				
Human Health	Consumption of crops and plants grown under chemical pest control could cause health hazards to humans and animals within and around the project site.	Minimize use of chemical pesticides in line with the IPMP.	Health plans and programs	Ministry of Health	Periodically	$10,000

	Certain kinds of chemicals intoxication especially after drinking pesticide contaminated water is a medium to high likelihood. This is a crucial potential impact considering that most of the locals get drinking water from surface and groundwater sources. Skin, eye, and nose irritation Possibility of cancers, neurologic, endocrine and reproductive problems form direct and indirect exposure to pesticides	Public awareness health campaigns Prohibit the use of banned pesticides Have a plan to recycle/eliminate empty containers and prevent local communities from using them for household chores.	Health plans and programs Emergency Preparedness Plan Health plans and programs	Department of Environmental Protection Ministry of Health	Periodically Periodically	
Occupational Health and Safety	Long term inhalation of toxic pesticides sprayed, could eventually result in respiratory illnesses or disease conditions	Minimize use of chemical pesticides in line with the IPMP Banned pesticides should not be financed or used	Compliance with the BoLCoP IPMP Health risk assessment on project locations	MOLA Ministry of Health	Annually	$25,000
TOTAL						$136,700.00

Table 3-2 Matrix of Some WHO Classified Pesticides and their Effects

Pesticides	Result of Accidental Exposure		
	WHO Class (3)	Effects of acute intoxication	Effects of chronic intoxication
Clorpyriphos ethyle (1)	II (Moderately dangerous)	Nausea, dizziness, vomiting, cough, loss of consciousness, convulsions, constriction of the pupils, muscle cramps and salivation. A severe exposure may cause inhibition of cholinesterase Exposure above the Occupational Exposure Limit (OEL) may result in death	The substance may have effects on the nervous system, cholinesterase inhibitor
Fenitrothion(1)	II (Moderately dangerous)	Cramps, diarrhea, dizziness, headache, nausea, loss of consciousness. A severe exposure may cause inhibition of cholinesterase exposure above the OEL may result in death	The substance may have effects on the nervous system, cholinesterase inhibitor
Pesticides	**Result of Accidental Exposure**		
	WHO Class (3)	Effects of acute intoxication	Effects of chronic intoxication
Malathion (1)	III (Slightly hazardous)	The substance may have effects on the nervous system, causing convulsions, muscle cramps, vomiting, diarrhea, excessive salivation, sweating, difficulty breathing, and loss of consciousness. A severe exposure may cause inhibition of cholinesterase Exposure above the OEL may result in death.	A prolonged or repeated contact may cause skin sensitization. Cholinesterase inhibitor; possibility of cumulative effects
Dizinon	II (moderately hazardous)	The main symptom of soft acute diazinon poisoning are headache, nausea, dizziness, pinpoint pupils, blurred vision, tightness in the chest, difficulty in breathing, muscle weakness or twitching, difficulty in walking, vomiting abdominal cramps and diarrhea Effects on the central nervous system may include confusion, anxiety, drowsiness, depression, difficulty in concentrating, slurred speech, poor recall, insomnia, nightmares and a form of toxic psychosis resulting in bizarre behavior.	Cholinesterase inhibitor. Accumulation of acetylcholine at junctions between nerves and glands results in gland secretion; and accumulation between nerves in the brain causes sensory and behavioral disturbances.
Cypermethrin	II (moderately hazardous)	Symptoms of acute poisoning include abnormal facial sensations, dizziness, headache, nausea, anorexia and fatigue, vomiting and increased stomach secretion	Chronic symptoms include brain and locomotory disorders, polyneurophalsy and immuno-suppression and resembles the multiple chemical sensitivity syndrome
Carbosulfan	II (Moderately hazardous	The acute symptoms of carbosulfan in humans are characteristics of other organophosphate and carbamate insecticides. Signs include dizziness, salivation, excess salivation, nausea, abdominal cramps, vomiting, diarrhea, blurred vision, pi-point pupils, difficulty breathing and muscle twitching	-
Carbaryl	II (Moderately hazardous		
Profenofos	II (Moderately hazardous	Muscarinic, nicotinic and central nervous system manifestations	There is no available data concerning chronic toxicity of profenofos

3.4 IMPACT MITIGATION THROUGH IPMP

Integrated Pest Management (IPM) is an important aspect of sustainable agriculture. It is based on the planned and strategic use of pest control methods (including chemicals and a range of other methods) – not simply using chemicals as part of a routine. It is an effective and environmentally sensitive approach to pest management that relies on a combination of multiple practices with a view to reduce reliance or use of pesticides. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment.

The above information, in combination with available pest control methods, is used to manage damage by pests through the most economical means, and with the least possible hazard to people, property, and the environment. By applying basic IPM principles historical and future pest that affects animal health and causes disease outbreaks in poultry and livestock will be subdued in an environmentally safe manner that may arise from the BolCoP, thus reducing increased dependency on pesticides or other environmentally unsafe approaches.

Compared to traditional pesticide applications which pose immeasurable health and environmental risks, and may result in severe current and future losses (environmental, public, health, occupational health, social and financial), an Integrated Pest Management Plan (IPMP) will be the most appropriate pest management approach for the BOLCOP project. The IPMP for the project will lay down mitigation measures, institutional responsibilities, and capacity building needs.

4. INTEGRATED PEST MANAGEMENT PLAN FOR BoLCoP

4.1 INTRODUCTION

This chapter presents a robust plan for pest management in Botswana including the methodology for establishing an IPM. It further provides information on classes of pesticides that can be used and banned pesticides.

The IPMP for BoLCoP is developed to reduce dependency on pesticides and encourage integrated pest control methods such as biological, cultural, physical, chemical methods and design a program for capacity building in IPM. By identifying institutional responsibilities, the IPMP also provides an information basis for stakeholder groups to establish functional mechanisms which will help BoLCoP actors and Partners understand and respond to IPM needs.

4.2 STEPS INVOLVED IN ESTABLISHING AN IPMP

Establishing an IPMP for Livestock pests is a function of the following 5 steps depicted in fig 1 below:

Figure 4-1 Steps for Establishing an IPM

1. **Detection:** Pest detection requires thorough and regular monitoring of animals for pest invasions and/or other signs and symptoms that indicate a pest is present on the animal or in the environment where animals live (Walker & Stacheki, 1996). This is done by observing an animal's body, stool, living quarters, bedding, surroundings and behaviours. Under BoLCoP project, any unusual change noticed in an animal shall be recorded and brought to the attention of a veterinarian.
2. **Identification:** Identification step is required to determine if the pest detected is actually the organism causing the discomfort or disorder in the animal. This is best performed by a trained farm manager or a veterinarian.
3. **Economical or Medical Significance:** Medical judgements of the state of health of an animal is made on the basis of symptoms caused by pests. On the economic side, estimated losses which the pest has caused such as reduction in meat and egg production are the variable indicators, but high economic loss can be a function of duration of pest invasion or period within which it took for effective mitigation response to take place.
4. **Method Selection:** This involves selecting a method or methods for managing the observed pests such as are contained in this IPMP.
5. **Evaluation:** It is necessary under BoLCoP to evaluate the effectiveness of the applied pest management procedures. Keeping records and evaluating pest control techniques will be followed as monitoring task for the BoLCoP IPM outcome evaluation.

4.3 CLASSES OF INSECTICIDES/ACARICIDES USED IN LIVESTOCK PEST MANAGEMENT

1. **Chlorinated Hydrocarbons:** This class includes lindane and methoxychlor. Lindane has become a restricted use pesticide for *mange mites and lice.*

2. **Organophosphates (OP):** Organophosphate compounds inhibit cholinesterase. Cholinesterase is a chemical catalyst found in mammals that helps regulate the activity of nerve impulses. It is a synthetic

organic pesticide containing carbon, hydrogen and phosphorus. Cholinesterase includes a broad range of insecticides such as chlorpyrifos, malathion, DDVP, runnel, stiriphos, etc.

Organophosphates have been found to be effective against a wide range of insects including but not limited to fleas and ticks.

Other classes of insecticides/acaricides that may be used in this project are:

c) *Carbamates*
d) *Synthetic pyrethroids*
e) *Botanicals*
f) *Lime sulfur (Calcium polysulfide)*
g) *Mineral oil*
h) *Amitraz*
i) *Ivermectins and*
j) *Insect growth regulators and hormone mimics*

Annexes 4a and 4b provide a list of WHO pesticides in Classes 1a, 1b and 2 and must not be used

4.4 FORMULATIONS THAT ARE ALLOWED FOR MANAGING LIVESTOCK PESTS

Insecticides and acaricides formulations vary widely and must be selected to fit the particular situation. Noted below are various formulations that may be used but their applications must be based on effectiveness, cost, practicality and relative safety to human, the animal being treated and the environment.

1. ***Ready to use (RTU):*** RTU formulations require no mixing or combining with other ingredients or diluents. They come in containers that serve as the application device, such as an aerosol can, pour-on bottle, roll-on, spot-on or spray bottle.
2. ***Wettable powders (WP):*** This type must be mixed with water before application. They are concentrated in solid, powdered form and can be sprayed after mixing.
3. ***Emulsifiable concentrates (EC):*** Emulsifiable concentrates are liquids that must be mixed with water before application. They can be sprayed after mixing or sponged on the animal being treated.
4. ***Shampoo:*** A shampoo is a formulation of insecticide and other ingredients that is applied to an animal's wet haircoat and worked into a lather. Label direction should be looked out for to determine the length of time that the shampoo must remain on the animal to achieve effective pest control before being thoroughly rinsed.
5. ***Dust:*** A dust is a ready-to-use dry formulation. The following safety caution must apply:
    a. protect the animal and applicator's eyes from the dust.
    b. applicators must wear appropriate personal protective equipment to protect exposed skin, the respiratory tract and eyes
6. ***Baits:*** Baits are either commercially prepared as dry granules or made as mixes of insecticides.
7. ***Pastes, liquids, powders, tablets/pellets and injectables:*** These formulations should be given orally or injected into animals to control internal parasites.

Only licensed or qualified veterinarians shall administer this on the animal.

4.4.1 General guidelines for insecticides/chemical use for livestock pest control

- Read labels before using any pesticide, and follow strictly label instructions.
- Use only products labelled for use on animals or in animals' environments.
- Do not exceed label dosages; measure carefully and know the animal's exact weight.

- Provide adequate ventilation while using pesticides.
- Remove animals from buildings if it is an area or premise spray.
- As much as possible, use dust formulation instead of spray on outdoor animals on cold days.
- Use all appropriate personal protective equipment during applications of any pesticide.
- Do not add new insecticides to old, previously used dipping water, but start with fresh water.
- Avoid using pesticide when an animal has been, will be or is anesthetized.
- Keep records of pesticides applications.
- Always store and dispose of pesticide containers according to label directions (or see attached animal waste management protocol).

4.5 IPM METHODS SUITABLE FOR THE VALUE CHAINS WITHIN BOLCOP

The use of highly persistent and highly toxic chemicals must be avoided in implementing IPMP for BoLCoP. Natural pest control methods can be employed to effectively reduce or eliminate pest or disease infestation without harming humans, animals and crops. Tables 9 and 10 below present effective control methods (chemical, cultural and biological) for managing common pests and diseases of the value chains within the project area.

Table 4-1 Livestock Value Chain Pest and Control Methods

S/N	LIVESTOCK	PESTS	CONTROL METHODS		
			CHEMICAL	CULTURAL	BIOLOGICAL
1.	SHEEP AND GOATs	Chewing and Sucking Lice	This can be achieved by timed treatments with insecticides like permethrin.	Outdoor grazing can be timed to be in the afternoon where sunlight will chase the lice away from the animals.	-
		Sheep Scabies	Application of Amitraz in the recommended dilution will be desirable. This can be by spray or deep.	Good hygiene of the pen by regular cleaning and drying.	-
		Wool Maggot (Black Blow Fly)	Insecticide sprays, dips, or smears are effective in controlling this pest	Early shearing before blow fly season is an effective preventive measure. Clipping and cleaning the fleece will help prevent infestations.	
		Spinose Ear Tick	Application of insecticide dusts or liquid insecticides in oil to the inner folds of the sheep's ear.	Use primarily local breeds which are more resistant than exotic breeds, or cross breeds. Hand picking of ticks, spreading ashes or diatomite in nesting sites can control or greatly reduce the number of ticks. Also dry leaves of eucalyptus, neem, pyrethrum and tephrosia added to the ashes and or diatomite in nests and dust bath areas will further reduce numbers of soft ticks.	
4.	POULTRY	Lice	Insecticides can be applied by dusting or spraying the bird or providing self-treatment devices such as dust boxes.	Animal diets should be well balanced and provided at consistent intervals and in appropriate portions. Adequate ventilation should be provided for animals kept indoors to prevent heat, stress or the spread of diseases Ensure that animals are not over crowded to avoid pest outbreaks.	-
		Mites	The chicken (red) mite can be controlled by spraying pesticide into the cracks and crevices of the	Animal diets should be well balanced and provided at consistent intervals and in appropriate portions.	-

S/N	LIVESTOCK	PESTS	CONTROL METHODS		
			CHEMICAL	CULTURAL	BIOLOGICAL
			poultry house. Spray the pesticide directly on the birds will be effective for the control of northern fowl mite. Retreatment may be required for effective control.	Adequate ventilation should be provided for animals kept indoors to prevent heat, stress or the spread of diseases Ensure that animals are not over crowded to avoid pest outbreaks.	
		Chiggers	Apply approved pesticides to the ground as sprays or dusts. Repeated applications may be necessary	Animal diets should be well balanced and provided at consistent intervals and in appropriate portions. Adequate ventilation should be provided for animals kept indoors to prevent heat, stress or the spread of diseases Ensure that animals are not over crowded to avoid pest outbreaks.	-
		Fowl Ticks	Control is by spraying pesticide in the poultry houses and directly on the birds.	Spreading ashes or diatomite in nesting sites can control or greatly reduce the number of ticks. Also, dry leaves of eucalyptus, neem, pyrethrum and tephrosia added to the ashes and or diatomite in nests and dust bath areas will further reduce numbers of soft ticks.	-
		Bed Bugs	Spraying recommended insecticides into cracks and crevices and wall voids in poultry houses and surrounding areas is the best method of control.	Animal diets should be well balanced and provided at consistent intervals and in appropriate portions. Adequate ventilation should be provided for animals kept indoors to prevent heat, stress or the spread of diseases Ensure that animals are not overcrowded to avoid pest outbreaks.	-

S/N	LIVESTOCK	PESTS	CONTROL METHODS		
			CHEMICAL	CULTURAL	BIOLOGICAL
		Flies (house fly and stable fly)	Application of Emulsified GardStar spray	Good sanitation is important for successful fly control Traps (nets) have been effective when used around poultry houses	There are no effective biological control programs for controlling tabanids. There are native beneficial insects that target tabanids. Eggs are parasitized by such Hymenopteran families as Trichogrammatidae, Scelionidae, and Chalcididae. Diapriidae and Pteromalidae (Hymenoptera), and Bombyliidae and Tachinidae (Diptera) parasitize the larvae and pupa. Tabanid adults are used as provisions for nest building wasps

Table 4-2 Value Chain Diseases and Control Methods

S/N	LIVESTOCK	DISEASES	CONTROL METHODS		
			CHEMICAL	CULTURAL	BIOLOGICAL
	SHEEP AND GOATS	Small Ruminants Pests	Since PPR is a viral disease, there is no specific treatment for this disease. Post-exposure therapeutic approaches for PPR infections is by administration of antibiotics (long acting oxytetracycline, chlortetracycline) to prevent secondary bacterial infections and anti-diarrhea medicines with supportive therapy (B-complex and Dextrose saline) for 5–7 days, which may be useful to reduce the severity of the disease.	Proper hygiene and isolation of infected animals from healthy ones.	-
		Parasitic Gastroenteritis	Use of Anthelmintics is recommended at the right dosage.	Enclosed housing of cattle will help reduce the spread and infestation of the causative parasite. Good nutrition will also aid in developing resistance against the causative parasites.	
		Contagious Caprine Pleuropneumonia	Since the disease occurs in epidemics, antibiotic treatment, as the only control measure would be very uneconomical. Therefore, efforts should been directed towards controlling the disease by vaccination.	Proper hygiene and isolation of infected animals from healthy ones.	
		Foot rot	Footbaths/Footsoaks: There are two different types of solutions commonly used in foot baths: zinc sulfate and copper sulfate. For treatment, they should be used 1-2 times per week for several weeks. Penicillin and streptomycin combinations used either as a one-shot treatment (1 ml/8 pounds) or every day up to ten days has been proven to be effective in treating foot rot. Procaine Penicillin G or long-acting penicillin products at the same dosage may also be effective. Single injections of long-acting tetracycline have also been successful in some cases	Foot trimming reduces the number of cracks and crevices where bacteria can hide, removes infected hoof, and exposes the organism to air and various medications.	

S/N	LIVESTOCK	DISEASES	CONTROL METHODS		
			CHEMICAL	CULTURAL	BIOLOGICAL
		Trypanosomiasis	A small number of curative and prophylactic drugs have been developed and can be employed. Drugs include Isometamidium chloride, Pyrithidium bromide, Quinapyramine sulfate, Homidium bromide and Diminazene aceturate	Bush clearing is one of the main technique used to control tsetse populations Under zero-grazing systems, susceptible livestock can be protected from trypanosomiasis risk by keeping them in fly-proof shelters	Control of tsetse populations by eliminating their wildlife hosts has been attempted Sterile Male Release This technique involves releasing large numbers of male tsetse flies which have been sterilized by radiation or exposure to chemicals. Because the female tsetse apparently mate only once, if the sterile males reach them before the males in the natural population they will not reproduce.
	POULTRY	Newcastle Disease	The disease can be prevented through vaccination and adaptation of strict bio-security measures by use of disinfectants	Strict isolation and quarantine, high standard of hygiene, good management, housing and nutrition. During the outbreak of disease proper disposal of dead birds and zoning of the area can help to control the disease in surrounding flocks.	-
		Infectious Bursal Disease (IBD)/Gumboro	There is no treatment for IBD but support therapies such as vitamin and electrolyte supplements and antibiotics to treat any secondary bacterial infection may reduce the impact of the disease.	Strict isolation and quarantine, high standard of hygiene, good management, housing and nutrition. During the outbreak of disease proper disposal of dead birds and zoning of the area can help to control the disease in surrounding flocks.	-

S/N	LIVESTOCK	DISEASES	CONTROL METHODS		
			CHEMICAL	CULTURAL	BIOLOGICAL
		Fowl pox	Live virus vaccines both from lentogenic (La Sota, F, B1) and mesogenic (H, R2B, Mukteshwar) strains are used for induction of good immune response. Regular disinfection of farm premises and equipment with potassium permanganate (1: 1000), sodium hydroxide (2%) or Lysol (1: 5,000) are useful in preventing this disease.	Strict isolation and quarantine, high standard of hygiene, good management, housing, and nutrition. During the outbreak of disease proper disposal of dead birds and zoning of the area can help to control the disease in surrounding flocks.	-
		Chronic Respiratory Disease	Antibiotics can help to control the disease but reducing stress is an essential component to managing the disease once it is in the flock.	Management issues must be addressed before the birds arrive. Ensure birds are free of M. Gallisepticum on introduction. An all-in, all-out system with thorough cleaning down between batches and acquiring vaccinated birds helps. Ensure the nutrition and flock dynamics (size, age distribution, presence of roosters etc) are also optimal. Housing that is difficult to clean and thus accumulates manure, dust and vermin leads to many common ailments in poultry During the outbreak of disease proper disposal of dead birds and zoning of the area can help to control the disease in surrounding flocks.	-
		Coccidiosis	Drugs that can be effective are sulphonamides, amprolium and toltrazuril as well as other anticoccidial agents.	-	-

The BoLCoP project will interface with other livestock project in Botswana. A lot of experience and success has been gained in the Beef sector including application of IPM operations. Therefore, the BoLCoP stands to gain from shared experience and capacity of these existing projects in terms of challenges and success drivers of IPM operations and other similar areas. That way, the BoLCoP beneficiaries would not require much experimentation time lag in the implementation of this IPM.

4.6 PERSONAL PROTECTIVE EQUIPMENT (PPE)

It is very important that the people who will be involved in the application and handling of pesticides under the BoLCoP wear and use appropriate personal protective gears in the course of their activities. Wearing PPE can greatly reduce the potential for dermal, inhalation, eye, and oral exposure, of humans to pesticides and thereby significantly reduce the chances of pesticide poisoning. PPEs to use when applying pesticides include the following:

- Chemical: It is important to use chemical goggles, which are specially developed to prevent chemical related accidents, rather than general safety goggles;
- Gloves: Unlined, full-length plastic or rubber gloves should be used. If gloves are lined residue can become trapped in the lining and is hard to remove;
- Hat: The absorption rate of pesticides is also very high on the scalp and forehead. Plastic caps are recommended as they are waterproof and prevent absorption;
- Boots: Rubber overshoes are suggested since they prevent absorption and are easy to clean.
- Coverall or long sleeved shirt and full trousers made from closely woven fabric;
- Respiratory masks;
- Ear protection: Earplugs prevent pesticide exposure via the ear canal.

It is mandatory that pesticide contaminated clothing be kept from other fabric. PPE should be cleaned and dried in a well-ventilated place before storage.

4.7 GUIDELINES FOR RESPONSIBLE USE AND STORAGE OF PESTICIDES

- Do not store pesticides in unlocked cabinets that are within the reach of children. Pesticides are extremely toxic to children.
- Do not transfer pesticides into containers that could be associated as something else such as food.
- Do not use empty pesticide containers for chores or other household purposes
- Properly store and eliminate empty pesticides containers
- Do not apply insect repellents over cuts, irritated skin, eyes, mouth, hands, or directly over the face.
- Do not store unnecessary amounts of pesticides. Purchase only what you need at that time.
- Apply an appropriate level of caution to those who might come into contact and become exposed
- Look for pesticide alternatives.

4.8 PEST MANAGEMENT PLANNING MATRIX

Table 4-3 below outlines the planning matrix of activities, its components, expected results, milestones, and performance indicators of the BoLCoP IPMP.

Table 4-3 Planning matrix for the BoLCoP Project

Narrative summary	Expected results	Performance indicators	Assumptions/risks
Goal: Enhance the capacity of Veterinarians and health workers to contribute to human and animal health disaster reduction through environmentally friendly pest management practices.	• Improved public and animal health; • Increased national and community surveillance and preparedness on human and animal health risk disaster management; • Increase capacity of institutions to manage health emergencies/outbreaks in environmental and socially safe manner; • Increase number of private laboratories for diagnosis of infectious human and animal health.	• Evidence of the number of persons and institutions trained on safe pest management practices • Increase in number of accredited private laboratories for diagnosis of infectious human and animal diseases. • Evidence of reduction in use of pesticides. • Evidence of increase in use of non-chemical or safe chemical applications on crop production and even mosquito control around human settlement.	• National security remains stable • Government commitment to implement national regulations and conventions on pesticides/chemical application, transportation and storage
Purpose (i) improvement in efficiency of specimen transport and disposal system. ii) increase awareness on use and safety of application of chemicals for pest/vector control. (iii) document and disseminate key lessons to users and stakeholders. iv) reduction in the use of harmful or banned chemicals/pesticides in growing foods for human and animal consumptions.	**Medium-term results/outcomes** • Health institutions and those that control/use pesticides can prioritize pest problems, specifically with the BoLCoP and identify IPM opportunities to mitigate negative environmental and social impacts associated with pesticides. • Health institutions and those that control/use pesticides can adopt ecologically sound options to reduce cassava crop losses with minimal personal and environmental health risks. • Policy makers in Health institutions and agric. Organizations and associations are strengthened and provided with guidelines enabling then to promote IPM approaches and options in animal health management. • Collaborate with established linkages to develop a national IPM policy that promotes compliance with international conventions and guidelines on safe pesticide use.	• Commitment of government to implement IPM across the national health and agricultural sector spread. • Level of compliance with World Bank safeguards, and compliance parameters of other donors etc. • Level of chemical control practices • Types and level of use of alternatives to synthetic pesticides	

5. RECOMMENDATIONS AND CONCLUSION

This IPMP addresses the BoLCoP's need to monitor and mitigate negative environmental and social impacts of the project and promote ecosystem management. The IPMP provides an information basis for stakeholder groups to establish functional mechanisms enabling project beneficiaries to identify, understand and manage pest and vector problems in the further development of agriculture, reduce personal and environmental health risks associated with pesticide use, and protect beneficial biodiversity such as natural enemies of pests and pollinators in the farmers' efforts to increase productivity.

This IPMP has established that there are some initiatives in the use of indigenous knowledge and nonchemical practices for pest management, among other things. The IPMP has also proposed activities that need to be carried out to set up IPM practices in the BoLCoP Project locations.

It is noted that not all IPM practices would be applicable for the BoLCoP in the short term. Specifically, mechanical methods may be difficult to implement in small scale farming communities where heavy machinery for weeding will be inappropriate. Biological methods are a possible option under BoLCoP but they take a long time and they need technical know-how as well as patience to adopt. Generally, IPM practices take some time to adopt and to bear the required results. However, IPM practices are highly recommended for long term and sustainable agricultural productivity. BoLCoP should therefore:

- Introduce the IPM in the BoLCoP Project locations by using the systematic approach presented in Chapter 4. This will ensure application of all appropriate alternatives prior to resorting to chemical pesticides as remedy for pests.
- Adopt a collective community effort and dissemination of appropriate tools and training. This will maximize IPMP implementation and accelerate progress towards reaching both measurable and tangible results in pest management.
- Adopt the use of chemicals as a last resort approach to prioritize IPM remedies, consistent with sound environmentally sustainable practices.
- Set up a team that incorporates BoLCoP PMU with Pest Control Agents so that inspections are jointly conducted, permitting instantaneous discovery of illicit pesticides, followed by immediate impounding and appropriate legal action.
- Train farmers in (a) identifying approved pesticide; (b) acceptable disposal practices for expired chemical pesticides; and (c) the general environmental risks associated with the use of expired chemical pesticides.
- Adopt a "safety is the number one priority" approach in IPM approach.
- Equip the farmers with "safety packages" to be made available to farmers by the BoLCoP PMU. Packages must include the minimum requirements for pesticide application such as gloves and eyewear, nose mask; and
- Thoroughly inform farmers on the dangers of handling chemical pesticides and equipment without sufficient and appropriate protective gear.

In addition, the project should assist with the disposal of the farmers and household's pesticides related waste by establishing infrastructures for the collection and appropriate management of small quantities of pesticides and contaminated materials.

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APPENDIX 1. LIST OF BANNED PESTICIDES

1. **Aldrin**
2. **Chlordane**
3. **DDT (Dichlochphenyl trichloroethane)**
4. **Dieldrin**
5. **Endrin**
6. **Heptachlor**
7. **Toxaphene**
8. **Chlordimeform**
9. **Mercury Compounds**
10. **Lindane**
11. **Parathion**
12. **Methyl Parathion**
13. **Methyl bromide**
14. **Hexachlorobenzene**

APPENDIX 2. LIST OF APPROVED LIVESTOCK AND CROP PROTECTION PRODUCTS

a) Insecticides

Organochlorines insecticides	Organophosphorus insecticides	Carbamates	Pyrethroids
1. Endosulfan 2. Helptachor 3. Lindane (Restricted to use on Cocoa only)	**Organophosphorus** i 1. Diazinon 2. Dichlorvos (DDVP) 3. Chlorpyrifos 4. Chlorpyrifos – Methyl 5. Dicrotophos 6. Dimethoate 7. Monocrotophos 8. Perimiphos – Ethyl 9. Perimiphos – Methyl 10. Ethion 11. 11. Rugby (Cadusofas) 12. Malathion 13. Temeguard (Temephos) 14. Isazofos 15. Parathion – Methyl 16. Phosphamidon 17. Methidathion	1. Carbaryl 2. Carbofuran 3. Propoxur 4. Carbosulfan 5. Furathiocarb 6. Temik (Aldicarb	1. Lambda – Cyhalothrin 2. Cypermethrin 3. Deltamethrin 4. Phenothrin 5. Permethrin 6. Tetramethrin 7. Cyfluthrin 8. Allethrin

b) Herbicides and fungicides

Organophosphorus	**Carbamates**	Other herbicidas	Fungicides

Organophosphorus 1. Anilofos 2. Piperophos 3. Glyphosate 4. Glyphosate Trimesium (Touchdown or Sulfosate) 5. Amideherbicides (Acetochlor; Alachlor; Propanil; Butachlor; Metalochlor) Triazines and Triazoles (Atrazine; Ametryn; Desmetryn; Terbuthalazine; Terbutrex Terbutryne) Chlorophenoxyherbicides (Prometryn; Simazine; 2.4D (2.4 Dichlorphenoxy acetiacid) 7. Urea and guadinidines ; (Diuron ; Linurex (=Linuron); Fluometurone; Chloroxuron; Neburon) Quaternary nitrogen compounds (paraquat; diquat)	1. Asulam	1. Dimethachlor 2. Metazachlor 3. Monosodium Methyl Arsonate (MSMA) 4. Fluxixpyr 5. Imazaquine 6. Triassulfuran (Amber) 7. Osethoxydim 8. Oxadiazon (Ronster) 9. Clomaone 10. Trifluralin 11. Stamp 500 (pendimethalin) 12. Fluazifop – P.butyl	1. Benomyl (Nitroheterocyclic Compound) 2. Dazomet (Thiadiazine Fungicide) 3. Folpet (Phthalimide Fungicide) 4. Metalaxyl (Acylalamine Fungcide) 5. Cyproconazole (Alto – 100SL) 6. Bavistin (Carbon) – Benzimide 7. Triadmenol (Bayfidon GR Conzole Fungicide)

APPENDIX 3A: EXTREMELY HAZARDOUS (CLASS 1A) PESTICIDE

Common name	CAS no	UN no
Aldicarb [ISO]	116-06-3	2757
Brodifacoum [ISO]	56073-10-0	3027
Bromadiolone [ISO]	28772-56-7	3027
Bromethalin [ISO]	63333-35-7	2588
Calcium cyanide [C]	592-01-8	1575
Captafol [ISO]	2425-06-1	
Chlorethoxyfos [ISO]	54593-83-8	3018
Chlormephos [ISO]	24934-91-6	3018
Chlorophacinone [ISO]	3691-35-8	2588
Difenacoum [ISO]	56073-07-5	3027
Difethialone [ISO]	104653-34-1	2588
Diphacinone [ISO]	82-66-6	2588
Disulfoton [ISO]	298-04-4	3018
EPN	2104-64-5	2783
Ethoprophos [ISO]	13194-48-4	3018
Flocoumafen	90035-08-8	3027
Hexachlorobenzene [ISO]	118-74-1	2729
Mercuric chloride [ISO]	7487-94-7	1624
Mevinphos [ISO]	26718-65-0	3018
Parathion [ISO]	56-38-2	3018
Parathion-methyl [ISO]	298-00-0	3018

Common name	CAS no	UN no
Phenylmercury acetate [ISO]	62-38-4	1674
Phorate [ISO]	298-02-2	3018
Phosphamidon	13171-21-6	3018
Sodium fluoroacetate [C]	62-74-8	2629
Sulfotep [ISO]	3689-24-5	1704
Tebupirimfos [ISO*]	96182-53-5	3018
Terbufos [ISO]	13071-79-9	3018

APPENDIX 3B: HIGHLY HAZARDOUS (CLASS 1B)

Common name	CAS no	UN no
Acrolein [C]	107-02-8	1092
Allyl alcohol [C]	107-18-6	1098
Azinphos-ethyl [ISO]	2642-71-9	2783
Azinphos-methyl [ISO]	86-50-0	2783
Blasticidin-S	2079-00-7	2588
Butocarboxim [ISO]	34681-10-2	2992
Butoxycarboxim [ISO]	34681-23-7	2992
Cadusafos [ISO]	95465-99-9	3018
Calcium arsenate [C]	7778-44-1	1573
Carbofuran [ISO]	1563-66-2	2757
Chlorfenvinphos [ISO]	470-90-6	3018
3-Chloro-1,2-propanediol [C]	96-24-2	2689
Coumaphos [ISO]	56-72-4	2783
Coumatetralyl [ISO]	5836-29-3	3027
Cyfluthrin [ISO]	*68359-37-5*	
Beta-cyfluthrin [ISO]	*68359-37-5*	
Zeta-cypermethrin [ISO]	52315-07-8	3352
Demeton-S-methyl [ISO]	919-86-8	3018
Dichlorvos [ISO]	62-73-7	3018
Dicrotophos [ISO]	141-66-2	3018
Dinoterb [ISO]	1420-07-1	2779

Common name	CAS no	UN no
DNOC [ISO]	534-52-1	2779
Edifenphos [ISO]	17109-49-8	3018
Ethiofencarb [ISO]	29973-13-5	2992
Famphur	52-85-7	2783
Fenamiphos [ISO]	22224-92-6	2783
Flucythrinate [ISO]	70124-77-5	3352
Fluoroacetamide [C]	640-19-7	2588
Formetanate [ISO]	22259-30-9	2757
Furathiocarb	65907-30-4	2992
Heptenophos [ISO]	23560-59-0	3018
Isoxathion [ISO]	18854-04-8	3018
Lead arsenate [C]	7784-40-9	1617
Mecarbam [ISO]	2595-54-2	3018
Mercuric oxide [ISO]	21908-53-2	1641
Methamidophos [ISO]	10265-92-6	2783
Methidathion [ISO]	950-37-8	3018
Methiocarb [ISO]	2032-65-7	2757
Methomyl [ISO]	16752-77-5	2757
Monocrotophos [ISO]	6923-22-4	2783
Nicotine [ISO]	54-11-5	1654
Omethoate [ISO]	1113-02-6	3018
Oxamyl [ISO]	23135-22-0	2757
Oxydemeton-methyl [ISO]	301-12-2	3018
Paris green [C]	12002-03-8	1585
Pentachlorophenol [ISO]	87-86-5	3155

	CAS no
Propetamphos [ISO]	31218-83-4
Sodium arsenite [C]	7784-46-5
Sodium cyanide [C]	143-33-9
Strychnine [C]	57-24-9
Tefluthrin	79538-32-2
Thallium sulfate [C]	7446-18-6
Thiofanox [ISO]	39196-18-4
Thiometon [ISO]	640-15-3
Triazophos [ISO]	24017-47-8
Vamidothion [ISO]	2275-23-2
Warfarin [ISO]	81-81-2
Zinc phosphide [C]	1314-84-7

Common name	CAS no	UN no
Acephate [ISO]	30560-19-1	
Acifluorfen [ISO]	50594-66-6	
Alachlor [ISO]	15972-60-8	2588
Alanycarb [ISO]	83130-01-2	
Allethrin [ISO]	584-79-2	
Ametryn [ISO]	834-12-8	
Amitraz [ISO]	33089-61-1	
Anilofos [ISO]	64249-01-0	
Azaconazole	60207-31-0	
Azamethiphos [ISO]	35575-96-3	
Azocyclotin [ISO]	41083-11-8	2786
Bendiocarb [ISO]	22781-23-3	2757
Benfuracarb [ISO]	82560-54-1	2992
Bensulide [ISO]	741-58-2	2902
Bensultap [ISO]	17606-31-4	
Bentazone [ISO]	25057-89-0	
Bifenthrin	82657-04-3	3349
Bilanafos [ISO]	71048-99-2	
Bioallethrin [C]	584-79-2	
Bromoxynil [ISO]	1689-84-5	2588
Bromuconazole	116255-48-2	
Bronopol	52-51-7	
Butamifos [ISO]	36335-67-8	
Butralin [ISO]	33629-47-9	

	CAS no	UN no
Butroxydim [ISO]	138164-12-2	
Butylamine [ISO]	13952-84-6	1992
Carbaryl [ISO]	63-25-2	2757
Carbosulfan [ISO]	55285-14-8	2992
Cartap [ISO]	15263-53-3	
Chloralose [C]	15879-93-3	
Chlordane [ISO]	57-74-9	2996
Chlorfenapyr [ISO]	122453-73-0	
Chlormequat (chloride) [ISO]	999-81-5	
Chloroacetic acid [C]	79-11-8	1751
Chlorphonium chloride [ISO]	115-78-6	2588
Chlorpyrifos [ISO]	2921-88-2	2783
Clomazone [ISO]	81777-89-1	
Copper hydroxide [C]	20427-59-2	
Copper oxychloride [C]	1332-40-7	
Copper sulfate [C]	7758-98-7	
4-CPA [ISO]	122-88-3	
Cuprous oxide [C]	1317-39-1	
Cyanazine [ISO]	21725-46-2	
Cyanophos [ISO]	2636-26-2	
Cyhalothrin [ISO]	68085-85-8	3352
Cyhexatin [ISO]	13121-70-5	
Cymoxanil [ISO]	57966-95-7	

	CAS no	UN no
Cypermethrin [ISO]	52315-07-8	3352
Alpha-cypermethrin [ISO]	67375-30-8	3349
Cyphenothrin [(1R)-isomers] [ISO]	39515-40-7	3352
Cyproconazole	94361-06-5	
2,4-D [ISO]	94-75-7	3345
Dazomet [ISO]	533-74-4	
2,4-DB	94-82-6	
DDT [ISO]	50-29-3	2761
Deltamethrin [ISO]	52918-63-5	3349
Diazinon [ISO]	333-41-5	3018
Dicamba [ISO]	1918-00-9	
Dichlorobenzene [C]	106-46-7	
Dichlorophen [ISO]	97-23-4	
Dichlorprop [ISO]	7547-66-2	
Diclofop [ISO]	40483-25-2	
Dicofol [ISO]	115-32-2	
Difenoconazole [ISO]	119446-68-3	
Difenzoquat [ISO]	43222-48-6	2588
Dimepiperate [ISO]	61432-55-1	
Dimethachlor [ISO]	50563-36-5	
Dimethipin [ISO]	55290-64-7	

	CAS no	UN no
Dimethenamid [ISO]	*87674-68-8*	
Dimethylarsinic acid [C]	75-60-5	1572
Dimethoate [ISO]	60-51-5	2783
Diniconazole [ISO]	83657-24-3	
Dinobuton [ISO]	973-21-7	2779
Dinocap [ISO]	39300-45-3	
Diphenamid [ISO]	957-51-7	
Diquat [ISO]	2764-72-9	2781
Dithianon [ISO]	3347-22-6	
Dodine [ISO]	2439-10-3	
Endosulfan [ISO]	115-29-7	2761
Endothal-sodium [(ISO)]	125-67-9	2588
EPTC [ISO]	759-94-4	
Esfenvalerate [ISO]	66230-04-4	3349
Ethion [ISO]	563-12-2	3018
Fenazaquin [ISO]	120928-09-8	2588
Fenitrothion [ISO]	122-14-5	
Fenobucarb	3766-81-2	
Fenothiocarb [ISO]	62850-32-2	
Fenpropidin [ISO]	67306-00-7	
Fenpropathrin [ISO]	64257-84-7	3349
Fenpyroximate [ISO]	*134098-61-6*	
Fenthion [ISO]	55-38-9	3018
Fentin acetate[(ISO)]	900-95-8	2786
Fentin hydroxide[(ISO)]	76-87-9	2786
Fenvalerate [ISO]	51630-58-1	3352
Ferimzone [ISO]	89269-64-7	
Fipronil	120068-37-3	2588
Fluchloralin [ISO]	33245-39-5	
Flufenacet [ISO]	142459-58-3	
Fluoroglycofen	77501-60-1	
Flurprimidol [ISO]	56425-91-3	
Flusilazole	85509-19-9	
Flutriafol [ISO]	76674-21-0	
Fluxofenim [ISO]	88485-37-4	
Fomesafen [ISO]	72178-02-0	
Fuberidazole [ISO]	3878-19-1	
Furalaxyl [ISO]	57646-30-7	
Gamma-HCH [ISO], Lindane	58-89-9	2761
Glufosinate [ISO]	53369-07-6	
Guazatine	108173-90-6	
Haloxyfop	69806-34-4	
HCH [ISO]	608-73-1	2761
Hexazinone [ISO]	51235-04-2	
Hydramethylnon	67485-29-4	
Imazalil [ISO]	35554-44-0	2588
Imidacloprid [ISO]	138261-41-3	
Iminoctadine [ISO]	13516-27-3	
Indoxacarb [ISO]	*173584-44-6*	
Ioxynil [ISO]	1689-83-4	2588
Ioxynil octanoate [(ISO)]	3861-47-0	
Iprobenfos	26087-47-8	
Isoprocarb [ISO]	2631-40-5	2757
Isoprothiolane [ISO]	50512-35-1	
Isoproturon [ISO]	34123-59-6	
Isouron [ISO]	55861-78-4	
Lambda-cyhalothrin	2164-08-1	3349
MCPA [ISO]	94-74-6	
MCPA-thioethyl [ISO]	25319-90-8	
MCPB [ISO]	94-81-5	
Mecoprop [ISO]	7085-19-0	
Mecoprop-P [ISO]	16484-77-8	
Mefluidide [ISO]	53780-34-0	
Mepiquat [ISO]	15302-91-7	
Mercurous chloride [C]	10112-91-1	2025
Metalaxyl [ISO]	57837-19-1	
Metaldehyde [ISO]	108-62-3	
Metamitron [ISO]	41394-05-2	
Metam-sodium [(ISO)]	137-42-8	2771
Metconazole [ISO]	125116-23-6	
Methacrifos [ISO]	62610-77-9	

	CAS no	UN no
Spiroxamine [ISO]	118134-30-8	
Sulfluramid [ISO]	4151-50-2	
2,3,6-TBA [ISO]	50-31-7	
TCA [ISO] (acid)	76-03-9	1839
Tebuconazole [ISO]	107534-96-3	
Tebufenpyrad [ISO]	119168-77-3	
Tebuthiuron [ISO]	34014-18-1	
Terbumeton [ISO]	33693-04-8	
Tetraconazole [ISO]	112281-77-3	
Thiacloprid	111988-49-9	
Thiobencarb [ISO]	28249-77-6	
Thiocyclam [ISO]	31895-22-4	
Thiodicarb [ISO]	59669-26-0	2757
Thiram [ISO]	137-26-8	
Tralkoxydim [ISO]	87820-88-0	
Tralomethrin	66841-25-6	3349
Triadimefon [ISO]	43121-43-3	
Triadimenol [ISO]	55219-65-3	
Triazamate [ISO]	112143-82-5	2588
Trichlorfon [ISO]	52-68-6	
Triclopyr [ISO]	55335-06-3	
Tricyclazole [ISO]	41814-78-2	
Tridemorph [ISO]	81412-43-3	
Triflumizole	99387-89-0	

APPENDIX 4. GOOD MANAGEMENT PRACTICES GUIDE AND PESTICIDES MANAGEMENT MEASURES

REQUIRED MEASURES FOR THE REDUCTION OF PESTICIDES-RELATED RISKS

Safe use of pesticides

Pesticides are toxic for pests and for humans. However, if sufficient precautions are taken, they should not constitute a threat either for the population or for non-targeted animal species. Most of them can have harmful effects if swallowed or in case of prolonged contact with the skin. When a pesticide is sprayed in the form of fine particles, there is a risk of absorbing them with the air we breathe. There is also a risk of water, food and soil contamination.

Specific precautions should therefore be taken during the transportation, storage and handling of pesticides. The spraying equipment should be regularly cleaned and well maintained to avoid leakages. The individuals using pesticides should learn how to use them safely.

Insecticides registration

Reinforce the registration process of insecticides by ensuring:

- Streamlining, between the national pesticides registration system and other products used in Public Health;
- Adoption of WHO specifications applicable to pesticides for national registration process purposes;
- Reinforcement of the pilot regulatory body;
- Collection and publication of data relating to imported and manufactured products; ● Periodical review of registration.

When planning to buy pesticides to control vectors, consult the guiding principles issued by WHO. For the acquisition of insecticides intended for public health use, the following guidelines are recommended:

- Develop national guidelines applicable to the purchase of products intended for vector control and ensure that all the agencies buying them strictly comply with those guidelines;
- Use synthetic Pyrethroids: Deltamethrin SC, Permethrin EC, Vectron, Icon, Cyfluthrin, as recommended by the national policy;
- Refer to the guiding principles issued by WHO or FAO on calls for tenders, to FAO recommendations regarding labeling and to WHO recommendations regarding products (for indoor spraying);
- Include in calls for tenders, the details regarding technical support, maintenance, training and products recycling that will be part of the after-sale service committing manufacturers; apply the back-to-sender principle;
- Control the quality and quantity of each lot of insecticides and impregnated supports before receiving the orders;
- Ensure that the products are clearly labeled in French and if possible in local language and in the strict respect of national requirements;
- Specify which type of package will guarantee efficiency, preservation duration as well the human and environmental security of handling packaged products while strictly complying with national requirements;
- Ensure that donated pesticides intended for public health, comply with the requirements of the registration process in Mali (CSP) and can be used before their expiry date;
- Establish a consultation, before receiving a donation, between the ministries, agencies concerned and the donors for a sound use of the product;
- Request users to wear protective clothes and equipment recommended in order to reduce their exposition to insecticides to the strict minimum;

- Obtain from the manufacturer a physic-chemical analysis report and the product acceptability certification;
- Request the manufacturer to submit an analysis report of the product and of its formulation along with guidelines to follow in case of intoxication;
- Request the buying agency to perform a physic-chemical analysis of the product before shipping and arrival.

Precautions

Labeling

Pesticides should be packaged and labeled according to WHO standards. The label should be written in English and in the local language (Hausa, Igbo and Yoruba as applicable); it should indicate the content, the safety instruction (warning) and any action to be taken in case of accidental ingestion or contamination. The product should always remain in its original container. Take all appropriate precautionary measures and wear protective clothes in accordance with recommendations.

Storage and transportation

Pesticides should be stored in a place that can be locked up and is not accessible to unauthorized individuals or children. The pesticides, should, in no event, be stored in a place where they could be mistaken for food or beverage. They should be kept dry and out of the sun. They should not be transported in a vehicle that also carries food products.

To ensure safety during storage and transportation, the public or private agency in charge of managing purchased insecticides and insecticide-impregnated supports, should comply with the current regulations as well as the conservation conditions recommended by the manufacturer regarding:

- Preservation of the original label;
- Prevention of accidental pouring or overflowing;
- Use of appropriate containers;
- Appropriate marking of stored products;
- Specifications regarding the local population;
- Products separation;
- Protection against humidity and contamination by other products;
- Restricted access to storage facilities;
- Locked storage facilities to guarantee product integrity and safety.
- Pesticides warehouses should be located far from human residences or animal shelters, water supplies, wells and channels. They should be located on an elevated surface and secured with fences with restricted access for authorized individuals only.
- Pesticides should not be stored in places where they could be exposed to sunlight, to water or to humidity, which could harm their stability. Warehouses should be secured and well ventilated.
- Pesticides should not be transported in the same vehicle with agricultural products, food products, clothes, toys or cosmetics as these products could become dangerous in case of contamination.
- Pesticides containers should be loaded in vehicles in order to avoid damages during transportation, that their labels will not tear off so that and they would slip off and fall on a road with an uneven surface. Vehicles transporting pesticides should bear a warning sign placed conspicuously and indicating the nature of the cargo.

Distribution

Distribution should be based on the following guidelines:

- Packaging (original or new packaging) should ensure safety during the distribution and avoid the unauthorized sale or distribution of products intended for vector control;

- The distributor should be informed and made aware of the dangerous nature of the cargo;
- The distributor should complete delivery within the agreed deadlines;
- The distribution system of insecticides and impregnated supports should enable to reduce the risks associated with the numerous handlings and transportations;
- In the event the purchasing department is not able to ensure the transportation of the products and materials, it should be stipulated in the call for tenders that the supplier is expected to transport the insecticides and impregnated supported up to the warehouse;
- All pesticides and spraying equipment distributors should have an exploitation permit in accordance with the current regulation in Mali.

Disposal of pesticide stocks

After the operations, the remaining stocks of pesticides can be disposed of without risk by dumping them in a hole dug specifically or in a pit latrine. A pesticide should not be disposed of by throwing it in a place where there is a risk of contaminating drinking water or for bathing or where it can reach a pond or a river. Some insecticides, such as pyrethroids, are very toxic for fish.

Dig a hole to at least 100 meters from any stream, well or habitat. If in hilly areas, the whole must be dug below. Pour all waters used for hand washing after the treatment. Bury all containers, boxes, bottles, etc. that have contained pesticides. Reseal the hole as quickly as possible. Packaging or cardboard, paper or plastic containers— the latter cleaned — can be burnt, if allowed, far away from homes and drinking water sources, regarding the re-use of containers after cleaning. Pyrethroid suspensions can be discharged on a dry soil where they are quickly absorbed and then will go through a decomposition process making them harmless for the environment.

If there is an amount of insecticide solution left, it can be used to destroy ants and cockroaches. Simply pour a little bit of solution on infested areas (under the kitchen sink, in corners) or to rub a sponge soaked with water on it. To temporarily prevent insect proliferation, a certain amount of solution can be poured inside and around latrines or on other breeding places. Pyrethroid suspensions for mosquito nets treatment and other fabrics can be used days after their preparation. It can also be used to treat mats and rope mattresses to prevent mosquito to bite from the bottom. Mattresses can also be treated against bugs.

Cleaning of empty pesticide packaging and containers

Re-using empty pesticide containers is risky and it is not recommended to do so. However, it is estimated that some pesticide containers are very useful to be simply thrown away after use.
Can we therefore clean and re-use such containers? This depends both on the material and the content. In principle, the label should indicate the possibilities for re-using containers and how to clean them.

Containers having contained pesticides classified as hazardous or extremely dangerous should **not** be re-used. Under certain conditions, containers of pesticides classified as dangerous or that do not present any risk under normal use, can be re-used unless they are not used as food or drink containers or as food containers for animal food. Containers made of materials such as polyethylene that preferentially absorb pesticides, must not be re-used if they have contained pesticides whose active ingredient has been classified as moderately or extremely dangerous regardless of the formulation. Once a recipient is empty, it should be rinsed, then filled completely with water and allowed to stand for 24 hours. Then it should be emptied, and this process should be done over again.

General Hygiene

Do not eat, drink or smoke when handling insecticides. Food should be placed in tightly closed containers. Measurement, dilution and transfer of insecticides should be done with the adequate material. Do not shake or take liquid with unprotected hands. If the nozzle is blocked, press the pump valve or unblock the opening with a flexible rod. After each fill, wash hands and face with water and soap. Eat and drink only after washing hands and face. Take a shower or a bath at the end of the day.

Individual protection

- Adapted coveralls covering hands and legs
- Dust, gas and respirator masks, based on the type of treatment and product used
- Gloves
- Goggles
- Hoods (facial shield)

Protection of the population

- Minimize the exposure of local populations and livestock
- Cover wells and other reservoirs
- Sensitize populations on risks

Protective clothing

Treatments inside homes

Operators should wear coveralls or a long sleeves shirt over a pair of pants, a flapped hat, a turban or any other type of headgear as well as boots or big shoes. Sandals are not suitable.

Nose and mouth should be protected using a simple method, for example a disposable paper mask, a disposable surgical or washable mask or a clean cotton cloth. Once the fabric is wet, it should be changed. Clothing must be in cotton for easy washing and drying. It must cover the body and contain no opening. In hot and humid climates, it can be uncomfortable to wear additional protective clothing; therefore, one will be forced to spray pesticides during hours when it is very hot.

Preparation of suspensions

People responsible for bagging insecticides and preparing suspensions, particularly for the treatment of mosquito bed net units must take special precautions. In addition to the abovementioned protective clothing, they must wear gloves, an apron and eye protection, for example a facial shield or glasses. Facial shields protect the entire face and keep less warm. Nose and mouth should be covered as indicated for treatment in homes. They should ensure that they do not touch any part of their body with gloves during pesticide handling.

Treatment of nets

To treat mosquito nets, clothes, grills or with tsetse traps with insecticides, it is necessary to wear long rubber gloves. In some cases, additional protection is required, for example against vapors, dusts or insecticide dusting that could be dangerous. These additional protective accessories should be mentioned on the product label and may consist of aprons, boots, facial masks, coveralls and hats.

Maintenance

Protective clothing should always be impeccably maintained and should be checked periodically to verify tearing, wearing that could lead to skin contamination. Protective clothing and equipment should be washed daily with water and soap. Particular attention should be paid to gloves and they must be replaced once they are torn or show signs of wear. After usage, they

should be rinsed in water before removing them. At the end of each working day, they will need to be washed inside and outside.

Safety measures

During spraying

Spurt form the sprayer must not be directed towards a part of the body. A leaking sprayer must be repaired, and skin must be washed if it is accidentally contaminated. The household and animals must stay outside during the whole spraying activity. Avoid treating a room where there is a person — a sick person for example — who cannot be taken outside. Before starting spraying activities, kitchen utensils should be taken out and all utensils as well as dishes containing drinks and food. They can be gathered in the centre of the room and covered with plastic film. Hammocks and paintings should not be treated. The bottom part of furniture and the side against the wall should be treated while ensuring that surfaces are effectively treated. Sweep or wash the floor after spraying. Occupants should avoid contact with walls.

Clothing and equipment should be washed every day. Avoid spraying organophosphate or carbamate for more than 5 to 6 hours daily and wash hands after each filling. If Fenitrothion is used or old stocks of Malathion are used, operators should control the level of cholinesterase in their blood every week.

Monitoring exposure to organophosphate

There are country kits available on the market to control cholinesterase activity in the blood. If this activity is low, it can be concluded that their excessive exposure to organophosphate insecticide. These dosages should be done every week with people handling such products. Any person whose cholinesterase activity is very low should be stopped from working until it returns to normal.

Fabric spraying

When handling insecticide concentrates, or preparing suspensions, gloves should be worn. Attention should be paid particularly to spraying in the eyes. A big bowl not too high should be used and the room should be well ventilated to avoid inhaling smokes.

APPENDIX 5. WHO PESTICIDES CLASSIFICATION

PESTICIDES PRODUCT	ACTIVE INGREDIENT	CHEMICAL CLASS	TOXICOLOGICAL CLASS	MAIN USE
BASUDIN	Diazinon	Organophosphate	11	Insecticide
HERBOXONE	2,4-D	Chlorophenoxyacid	11	Herbicide
TOPIK	ClodinafopPropargyl	Arylozyphenoxy propionics	111	Herbicide
AATREX	Atrazineq	Triazines	U	Herbicide
MACHETE	Butaclor	Chloroacetanilides	U	Herbicide
CERTAINTY	Sulfosulfurone	Sulfonylureas	U	Herbicide
ERADICANE	EPTC	Carbamides	11	Herbicide
LASSO	Alachlone	Chloroacetanilides	111	Herbicide
DECIS	Deltamethrin	Pyrethroides	11	Insecticide
ALTO	Cyproconazol	Triazoles	111	Fungicide
SENCOR	Metribuzin	Triazines	11	Herbicide
CONFIDOR	Imidacloprid	Neonicotinides	11	Insecticide
GRANDSTAR	Tribenulon-methyl	Sulfonylureas	U	Herbicide

APPENDIX 6. INTERNATIONAL CODE OF CONDUCT ON PESTICIDEMANAGEMENT

CODE OF CONDUCT – 2014
10.1 All pesticide containers should be clearly labelled in accordance with applicable guidelines, at least in line with the FAO guidelines on good labelling practice (3).
10.2 Industry should use labels that:
10.2.1 Comply with registration requirements and include recommendations consistent with those of the recognized research and advisory agencies in the country of sale;
10.2.2 Include appropriate symbols and pictograms whenever possible, in addition to written instructions, warnings and precautions in the appropriate language or languages (3);
10.2.3 Comply with national or international labelling requirements for dangerous goods in international trade and, if appropriate, clearly show the appropriate WHO hazard classification of the contents (3,35,36);
10.2.4 Include, in the appropriate language or languages, a warning against the reuse of containers and instructions for the safe disposal or decontamination of used containers;
10.2.5 Identify each lot or batch of the product in numbers or letters that can be understood without the need for additional code references;
10.2.6 Clearly show the release date (month and year) of the lot or batch and contain relevant information on the storage stability of the product (21).
10.3 Pesticide industry, in cooperation with government, should ensure that:
10.3.1 Packaging, storage and disposal of pesticides conform in principle to the relevant FAO, UNEP, WHO guidelines or regulations (27,28, 37, 39, 40) or to other international guidelines where applicable;
10.3.2 Packaging or repackaging is carried out only on licensed premises where the responsible authority is satisfied that staff are adequately protected against toxic hazards, that the resulting product will be properly packaged and labelled, and that the content will conform to the relevant quality standards.
10.4 Governments should take the necessary regulatory measures to prohibit the repackaging or decanting of any pesticide into food or beverage containers and rigidly enforce punitive measures that effectively deter such practices.
10.5 Governments, with the help of pesticide industry and with multilateral cooperation, should inventory obsolete or unusable stocks of pesticides and used containers, establish and implement an action plan for their disposal, or remediation in the case of contaminated sites (41), and record these activities
10.6 Pesticide industry should be encouraged, with multilateral cooperation, to assist in disposing of any banned or obsolete pesticides and of used containers, in an environmentally sound manner, including reuse with minimal risk where approved and appropriate.
10.7 Governments, pesticide industry, international organizations, and the agricultural community should implement policies and practices to prevent the accumulation of obsolete pesticides and used containers (37).

IFAD
Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Free Prior and Informed Consent or FPIC implementation plan

Mission Dates:	07-19 July 2025
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East and Southern Africa Division
Programme Management Department

MINISTRY OF LANDS AND AGRICULTURE

Investing in rural people

Botswana Livestock Commercialization Project

(BoLCoP)

FPIC IMPLEMENTATION PLAN

Prepared for:

Botswana Livestock Commercialization Project (BoLCoP)
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Botswana Livestock Commercialization Project (BoLCoP) FPIC Implementation Plan is intended to provide complete documentation for the requirements of a holistic FPIC system for the project. This FPIC contains the findings of a study conducted for the agriculture sector of Botswana and the instrument has been developed on the basis of the local conditions and findings.

Report no.	**001**
Issue no.	**001**
Date of issue	**21/04/25**

……	**…….**
CHECKED	**DATE**
……	**…….**
APPROVED	**DATE**

This Report is Available from:

Attention: The Permanent Secretary,
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EXECUTIVE SUMMARY

The Government of Botswana is in the process of preparing the "Botswana Livestock Commercialization Project (BoLCoP) with the assistance from IFAD. BoLCoP's intervention are in line with the Government's Livestock Management and Infrastructure Development (LIMID) program and the National Master Plan for the Arable Agriculture and Dairy Development. The Project Development Objective (PDO) is to *"*enhance the incomes and resilience of rural households through more inclusive, sustainable and digitalised small livestock value chains*"*.

BoLCoP will be national in scope with implementation managed in a staggered way following a cluster-based approach. Geographically, the project will first operate in the Central and Southern parts of the country. The project will be piloted in these two areas and transition to national level expansion.

BoLCoP will directly reach **50,000 households**, the majority being rural poor or vulnerable smallholder farmers, existing/aspiring entrepreneurs or dwellers entering/improving their participation in the labour market in supported value chains. Consistent with the GoB's vision, the project will use a socially inclusive targeting strategy: 40% of beneficiaries will be women; and 30% youth, aged 18-35 years. BoLCoP will put particular emphasis on ensuring outreach to and participation of vulnerable groups, such as persons with disabilities (PWD), persons living with HIV/AIDs, remote area communities etc.

Even though the project will not cause any physical displacements, it may arise in shifting of livelihoods for some small-scale farmers, in the process of establishing the agricultural activities. So, there is a possibility of issues involving land and land rights, and livelihoods, thus the need to develop this FPIC implementation plan. The FPIC process requires the following steps:

Socio-Cultural and Land Assessments

One of the project's priority activities is to carry out assessments on the sociocultural and land tenure conditions of the project areas right at the beginning of BoLCoP implementation and before any investment is made at community level. This will also involve the screening, and preliminary stakeholder identification.

Identification of Decision-Making Institutions and Representatives

The key institutional actors involved with issues of resettlement, property and land rights, access to resources, etc, are the local government departments both at National level and District level. The implementing agency will be the Ministry of Lands and Agriculture (MoLA) through the BolCoP. There will be several key implementing Ministries that will be involved in the FPIC process.

Consultations leading to FPIC.

Subsequent to the socio-cultural and land tenure assessments and the identification of key decision-making institutions, consultations will be held with the sub-project communities during programme implementation – when site specific ESMPs and designs are being updated

or prepared, as the case may be. Consultations will be conducted by the BolCoP Environmental and Social Specialist, or by an independent facilitator/advisor hired by BolCoP.

As part of the engagements in preparing the BolCoP Project, several missions and consultations were undertaken, including the project design mission.

Formalising the Consent Agreement

Once project activities and project sites requiring FPIC agreement are identified, this will be formalised in a written form in English as well as in the local language. The effective time the consent agreement would be formalised will be agreed upon during the consultation process and needs to be formalised before any investment is made.

The consent agreement will be prepared by the BolCoP District Teams. The format for a consent agreement would, among others, include:

- Project activities on which consent is provided.
- Respective expectations.
- Proposed project duration expected results and activities.
- Participatory monitoring and verification plan and procedures.
- Identification of grievances procedures and mechanisms.
- Terms of withdrawal of consent.
- Record of process through means and languages accessible to all stakeholders and parties involved.

Capacity Support

The successful implementation of the BolCoP FPIC programme activities will require that the stakeholders and the implementing partners be on the same page. Thus, a series of training workshops to sensitise both parties so that they will be able to make informed decisions through the FPIC process has been proposed. The regular short and tailor-made training courses and seminars that will be offered to reinforce the capacity and skills of the stakeholders and farmers during the entire project period include the following:

- **Training of implementing partners on background of project: -**Environmental and Social Risks and Impacts of BolCoP.
- **Training of extension staff on background of project: -** Environmental and Social Impact Assessment of the Projects.
- **Cascading training to lower levels on background of project: -** Environmental and Social Impact Assessment of the Projects.
- **Training of stakeholderd on gender equality, women's empowerment, and gender-based violence and sexual exploitation, abuse and sexual harassment (GBV-SEAH)**
- **Training of stakeholders on HIV/AIDS awareness.**
- **Training of stakeholder on land issues:** Land Tenure and rights.

FPIC Implementation Arrangements

A description of the arrangement, responsibilities and mechanisms for seeking FPIC, has been outlined. The lead implementing agency for the project is MoLA, with the assistance of BolCoP -PMU. BolCoP -PMU will be tasked with day-to-day coordination, planning and management of select project activities, whilst the overall steering of the project will be done by a Steering Committee.

BolCoP -PMU will spearhead the implementation of the FPIC process and will be assisted by several key implementation ministries who have staff down to district level. BolCoP -PMU staff with their District teams comprised of the staff from the key implementing partners will be capacitated by undergoing scheduled training. The target beneficiaries will similarly be capacitated. All the training will be conducted by designated Ministries or private consultants. Once capacitated the teams will start the consultation processes leading to FPIC. This process will also be assisted with private consultants.

Funding For the FPIC Process

The estimated cost for the implementation of the FPIC process, which covers land tenure assessments, identification of stakeholders, capacitating both the implementing partners and the beneficiaries, and monitoring the FPIC implementation is USD **40,000.00**.

1. DESCRIPTION OF THE PROJECT

1.0 PROJECT DESCRIPTION

The Government of Botswana is in the process of preparing the "Botswana Livestock Commercialization Project (BoLCoP) with the assistance from IFAD. In alignment with the Government's the Government's Livestock Management and Infrastructure Development (LIMID) program and the National Master Plan for the Arable Agriculture and Dairy Development. and IFAD's Country Strategy Note (2019- 2020), IFAD's intervention in Botswana will focus on the:

- re-establishing livelihoods for rural communities (returnees, youth, and women)
- Supporting CDD approach meant to strengthen the social fabric,
- contributing to economic empowerment of communities
- elaborating the Community Development Plans that identify priority investments and critical infrastructure needs.
- strengthening rural communities' resilience to emergency and crises
- recovering agricultural sector and restoration of local food production
- availing of Livelihood opportunities,
- complementing the peace-building process.

The BoLCoP Project Development Objective.

The Project Development Objective (PDO) is to *"*enhance the incomes and resilience of rural households through more inclusive, sustainable and digitalised small livestock value chains*".*

Geographic targets. BoLCoP will be national in scope with implementation managed in a staggered way following a cluster-based approach. Geographically, the project will first operate in the Central and Southern parts of the country. These locations have the following characteristics: largest concentration of small stock; most suitable for small livestock rearing and high poverty levels. They also have fairly developed support systems for the small livestock sector. The project will be piloted in these two areas and transition to national level expansion.

Project target groups. BoLCoP will directly reach **50,000 households**, the majority being rural poor or vulnerable smallholder farmers, existing/aspiring entrepreneurs or dwellers entering/improving their participation in the labour market in supported value chains. Direct beneficiaries will be selected from the following socio-economic groups:

- Subsistence farmers (micro-scale) (20%, 10,000 HHs);
- Semi-commercial farmers (small-scale) (60%, 30,000 HHs),
- Emerging commercial farmers (medium scale) (15%, 7,500 HHs); and
- Small and Medium Enterprises ((SMEs), on-farm and off-farm SMEs)) (5%, 2,500 HHs).

Consistent with the GoB's vision, the project will use a socially inclusive targeting strategy: 40% of beneficiaries will be women; and 30% youth, aged 18-35 years. BoLCoP will put particular emphasis on outreach to and participation of vulnerable groups, such as persons with disabilities (PWD), persons living with HIV/AIDs, and remote area communities etc.

Even though the project will not cause any physical displacements, it may arise in shifting of livelihoods for some small-scale farmers, in the process of establishing the agricultural activities. So, there is a possibility of issues involving land and land rights, and livelihoods, thus the need to develop this FPIC implementation plan. The FPIC process requires the following steps:

1.2 PROJECT STRUCTURE

BoLCoP has three components: The first two (technical components) will generate varying effects to different components of the environment and the society at large.

The three components will address the key social sector challenges and support the achievement of the PDO. The three components summarised below:

Table 1-1 Components of the BolCoP programme.

No.	COMPONENT	ACTIVITIES
1.	***Component 0:***	***Mitigation and Management of Climate Risks, Disasters and Disease Outbreaks:*** BoLCoP will facilitate the setting up of mechanisms to mitigate and manage risks that negatively impact small livestock such as floods, droughts, heat waves and disease outbreaks. Activities will involve capacitating MoLA officials to institute a risk mitigation strategy and action plan, and disaster preparedness.
2.	***Component 1:***	***Climate-Smart Small Livestock Production and Productivity Improvement:*** This component will support the small livestock sector's climate-resilient production and productivity enhancement through: a) Availing improved breeds of small livestock, b) Gender-responsive capacity-building in efficient and climate-smart production and management, c) improvement of animal health services and access to inputs d) adopt practices and technologies that enhance animal nutrition, e) promote infrastructure and ethical animal husbandry practices, f) support the use the Botswana Animal Identification and Traceability System (BAITS).
	Sub-component 1.1	Enhanced access to quality small livestock, and animal health services
	Sub-component 1.2	Improved capacity of farmers to adopt climate resilient production and management practices
	Component 2:	**Strengthened Small Livestock Value Chains:** This component will seek to improve effectiveness and efficiency along the targeted value chains (sheep/goats, poultry, pigs and apiculture) by: a) addressing problems of low and scattered production, as well as weak negotiation capacity of producers. b) providing business development services (BDS) to MSMEs, particularly to women, youth, and other vulnerable groups, including PWD, persons living with HIV/AIDs, and people living in particularly remote areas c) developing and/or strengthening existing user-friendly and adaptable trading platforms,

		d) promoting access to inclusive and green financial solutions for the targeted small livestock actors.
	Sub-component 2.1	Strengthened clustering and capacity building of value chain actors;
	Sub-component 2.2	Improved access to input and output markets
	Sub-component 2.3	Improved access to inclusive and green financial services for value chain actors.
	Component 3:	**Enhanced Enabling Environment for Improved Small Livestock Development** This component will be a cross-cutting, servicing the technical components and facilitating pathways for BoLCoP's effective and efficient implementation through: a) facilitating improved participation of small livestock farmers in existing market structures, with particular consideration for women, youth, and other vulnerable groups, including persons with disabilities (PWD), persons living with HIV/AIDs, and people living in particularly remote areas b) strengthen youth skills to effectively access and sustain wage and self-employment opportunities in the small livestock sector, c) identify potential mechanisms that enable relevant social protection beneficiaries to sustainably engage in project supported income generating activities, d) strengthen and/or establish institutions for the effective and sustainable management and coordination of BoLCoP investments.
	Sub-component 3.1	Facilitate development and operationalization of national policies, strategies, regulations, etc.
	Sub-component 3.2	Effective institutional and implementation arrangements established.

1.2.1 Impacting Activities

The main activities in components 1 and 2 of the programme will have environmental, social and climate concerns. These activities may cause various impacts, most of which are localized to the project site, short term and most importantly can be avoided/reduced or mitigated by properly applying mitigation measures.

Some of the sub-project's activities which are likely to have significant or adverse risks include:

a) rehabilitation and or construction of water supplies,
b) Rehabilitation of agriculture infrastructure, including feed and fodder processing plants and abattoirs,
c) erection of water harvesting infrastructure close to homes, and
d) increased use of agrochemicals.
e) Improved Household Income Support Activities (IHISP).
f) Community mobilization & sensitization in target villages by CFs.
g) Group training and adherence to regular meetings and savings.
h) Technical training in chosen livelihood activity.
i) Promotion of Smart Land Husbandry practices (SLHP**).**
j) Development of Rainwater Harvesting Systems.
k) Borehole Water Supply Systems establishment.
l) Implementation of Feeder Roads Improvement Works.
m) Rehabilitate/ construct structures with the community to mitigate the effect of drought (water ponds, hand-dug wells, drip irrigation, etc.…).
n) Animal Health Delivery Services
o) Multi-purpose water supply schemes (Irrigation, Livestock, and Domestic)
p) water for livestock points – chicken, goats etc.

Potential environmental, social and climatic risks include

a) vegetation clearance/land clearance/deforestation,
b) land degradation,
c) inappropriate use of agrochemicals leading to pollution,
d) conflicts (water use, land rights etc),
e) gender-based violence,
f) child labour etc.
g) pollution of environmental media such as water, soil, etc,
h) exposure to occupational health hazards,
i) temporary/permanent displacement of people,
j) conversion and/or loss of physical cultural heritage/resources during construction of infrastructures etc.
k) Interference with Indigenous communities and/or their traditionally owned or otherwise occupied and used lands, as well as associated natural resources

Most of the adverse impacts are localized to the project site, short term and most importantly can be avoided/reduced or mitigated by properly applying mitigation measures.

The project is being designed in an environment which has some social risks already such as land tenure and availability to women and youth. During the ESMP preparation, the extensive assessments aimed to match the proposed programme components with the local environmental and socio-cultural resources to determine the most likely outcome. The following is an outline of the possible beneficial and adverse impacts of the project.

1.3 WHEN IS FPIC REQUIRED?

The following chart provides guidance to establish under what circumstances FPIC is required.

Table 1-2 When is FPIC required?

	Project likely to affect land access and/or use rights of communities	**Agricultural and rural development projects unlikely to affect land rights** (agricultural technologies and production, value chain development, social infrastructure)	**Project supporting demand-driven services to individuals** (rural finance, small and medium-sized enterprise development)
Rural areas without indigenous peoples or minorities	YES	NO	NO
Rural areas with some indigenous peoples and minorities' communities	YES	On a case-by-case basis*	NO
Indigenous peoples territories or tribal areas	YES	YES	YES

*Depending on the potential impact of the project on local indigenous peoples' communities. The project target group may include some indigenous peoples' communities or it may not include indigenous peoples but project activities may have an impact on land, territories and resources of indigenous peoples' communities living near the project area.

Source: IFAD SECAP 2014

The BolCoP is not likely going to cause any resettlement but may cause a shift in the livelihoods of the small-scale farmers. Land rights and user rights are key elements as regards the need for FPIC, and since they are an important issue in BolCoP this has triggered the requirement for an FPIC implementation plan.

2. THE SCREENING PROCESS

2.1 IDENTIFYING STAKEHOLDERS.

To develop an effective FPIC process, it is necessary to determine who the stakeholders are and understand their needs and expectations for engagement, and their priorities and objectives in relation to the Project. This information is then used to tailor engagement to each type of stakeholder. As part of this process, it is particularly important to identify individuals and groups who may find it more difficult to participate and those who may be differentially or disproportionately affected by the project because of their marginalised or vulnerable status.

Stakeholders for the purpose of this project have been and will continue to be identified on a continuous basis by identifying those people and institutions that have an interest in the successful planning and execution of the project including special interest groups. These include those:

- Project Implementing Agencies (funding agencies, executing agencies, partners)
- Directly and/or indirectly project-affected people (PAPs) and
- Interested parties (Social and labour regulatory authorities, Contractors, Media society, and Civil Society etc)

2.2 KEY STAKEHOLDERS

Stakeholders of this project shall be defined as all those people and institutions that have an interest in the successful planning and execution of the project. This includes those likely to be positively and negatively affected by the project.

The key stakeholders to be continuously engaged could include those in table 2-1:

Table 2-1 Identified Stakeholders for BolCoP.

LEVEL	STAKEHOLDER	SPECIFIC INFORMATION TARGET	ROLE IN THE PROJECT
Global	IFAD	Country/Regional Office	Funding Agency
Central Government	Ministry of Finance (MoF)	Permanent Secretary's office	Fund Manager
	Ministry of Lands and Agriculture	Department of Agriculture	Steering Committee member / oversight and technical expertise on agriculture.
	BoLCoP - PMU	Project Office	Implementing Agency
		BoLCoP - Project Management Unit staff	Implementing Agency
	Ministry of Environment and Tourism	Ministry of Environment and Tourism	Steering Committee member Responsible for environmental compliance of the project
		The National Climate Change Unit (NCCU) Climate Change Unit: Designated officer	Responsible for all climate issues. The primary coordinating body for climate change related activities.
	The National Disaster Management Office (NDMO)	Designated officer	responsible for disaster preparedness, response, and risk reduction. The NDMO coordinates disaster management activities nationwide,

LEVEL	STAKEHOLDER	SPECIFIC INFORMATION TARGET	ROLE IN THE PROJECT
			including natural calamities and man-made disasters (excluding drought and epidemics).
	Gender Affairs Department.	Gender Monitoring and Evaluation Analyst.	All Gender Issues responsible for promoting gender equity and coordinating gender policy development.
	Ministry of Local Government.	Snr. Community Development Officer	All Local Government Issues
	Ministry of Health: Environmental Health Department	Director: Environmental Health.	All Health Issues
	The Department of Wildlife and National Parks (DWNP)	Director of Parks	• Biodiversity • responsible for managing the country's national parks and game reserves, as well as its wildlife resources and habitats. • They also focus on conservation efforts, including research, community services, and education.
Private Sector, Coalitions and Associations	Input manufacturing / supplier companies	Designated officers	Input suppliers
	Aggregators, transporters, buyers, processing businesses	Designated officers	produce market linkages,
	Micro and Small Enterprise Department	Designated officers	Micro-finance
	FAO	Economist	Agriculture Issues
	WFP	Head of Office	Food Programmes
Civil Society	Human rights, Women, child, and youth promoters	NGO focal persons	Interested parties, technical expertise
District	District BoLCoP PMU	Staff members	District level Implementing Agency
	DISTRICT.	District administrator.	All District development
	DISTRICT Department of water	Local field Officers	Equitable sharing of water
	DISTRICT Department of Agriculture	All District Officers	Technical expertise on Agriculture production
	DISTRICT Department of Environment.	District Officers	Environmental protection
	Traditional Leadership	Chiefs	Overall traditional leadership, upholding of cultural values, Land distribution, community level GRM
Village	Village Leadership	Village Head	Traditional leadership, upholding of cultural values, Land distribution, community level GRM
		Village Development Committees (VIDCOs), including members who are women, youth, or of heightened vulnerability due to other identity characteristics	Coordinating Village development plans
	Community based organisations	Water User Organisations (WUOs), including members who are women, youth, or of heightened vulnerability	Steering Committee member / Affected parties / water management

LEVEL	STAKEHOLDER	SPECIFIC INFORMATION TARGET	ROLE IN THE PROJECT
		due to other identity characteristics	
		Agricultural Production Groups (APGs), including members who are women, youth, or of heightened vulnerability due to other identity characteristics	Steering Committee member / Affected parties / production management
	Wider Community	Community leadership Women, youth, and other groups of heightened vulnerability such as PWD, persons living with HIV/AIDs, or remote area dwellers.	Indirectly affected parties
Household	Agricultural Produce / Water Users	Including women,Youth and other groups of heightened vulnerability such as PWD, persons living with HIV/AIDs, or remote area dwellers.	Directly Affected parties / primary project beneficiaries

The list above is not exhaustive. As the Programme gets underway, the BoLCoP will develop a detailed PCP identifying all possible stakeholders, their specific information needs and the appropriate modes of consultation as well as feedback mechanisms.

2.3 SOCIO-ECONOMIC STATUS.

Botswana has experienced significant socio-economic transformation, transitioning from one of the world's poorest nations at independence to an upper-middle-income country. While it boasts a stable economy with strong institutions and democratic governance, Botswana still faces challenges such as high unemployment, poverty, and inequality. Some of the key Aspects of Botswana's Socio-Economic Status include the following:

- **Economic Growth:**
  Botswana has achieved remarkable economic growth, largely driven by its diamond wealth and prudent economic management. The economy has averaged about 5% per annum over the past decade.
- **Poverty and Inequality:**
  Despite overall economic progress, Botswana still grapples with high levels of poverty and inequality. While the extreme poverty rate has decreased, it remains higher than in comparably wealthy countries. The Gini coefficient, a measure of income inequality, is also high, indicating a significant gap between the rich and poor. Botswana also has a Gender Inequality Index value of 0.464, ranking it 111 out of 162 countries in the 2018 index[1]. Female participation in the labour market is 66.2 % compared to 78.6% for men, with women earning 29% less than men on average[2]. Gender-based violence (GBV) remains a critical issue. Botswana's HIV prevalence rate, one of the highest globally, stands

[1] UNDP (2019) Botswana human development report http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/BWA.pdf
[2] UNDP (2019) Botswana human development report http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/BWA.pdf

at approximately 19.9% among adults aged 15–49, increasing health-related vulnerabilities and income shocks for affected households[3].

- **Unemployment:**
  Unemployment, especially among youth, remains a persistent challenge. While there are efforts to diversify the economy and create jobs, the reliance on the diamond sector and a nascent industrial base continue to pose challenges. According to Statistics Botswana , youth in rural areas are particularly affected, with unemployment among young people (aged 15–35) standing at 37.4% in 2021, and even higher in rural districts[4].
- **Human Development:**
  Botswana has invested significantly in human capital development through education, health, and social protection programs. However, some human development indicators are not fully aligned with the country's level of economic development.
- **Vulnerability:**
  Botswana is vulnerable to climate change and natural resource shocks, particularly given its reliance on rain-fed agriculture. These exacerbate existing inequalities, particularly for women, who often have limited access to alternative water sources, land, and agricultural inputs, making it harder for them to cope and recover from such shocks.
- **Diversification:**
  The country is working to diversify its economy beyond diamonds, including developing the private sector and promoting other industries.

Botswana's socio-economic progress is a mixed picture. While it has achieved impressive economic growth and development, it also faces significant challenges related to poverty, inequality, and unemployment. Addressing these issues and diversifying the economy are crucial for Botswana to achieve its goal of becoming a high-income country.

2.4 PROPERTY RIGHTS AND TRIBAL RELATIONS

Land ownership and usage rights are intricately linked to tribal relations and are primarily governed by the Tribal Land Act and customary law within tribal areas. Tribal land, held in trust by Land Boards for the benefit of citizens, is allocated for various purposes like residential, agricultural, and grazing needs. Citizens acquire land rights through allocation by the Land Board, and these rights can be passed down through generations.

The country has three main land tenure systems: tribal, state, and freehold. Tribal land, the most prevalent, is managed by Land Boards. The Land Boards are local institutions responsible for allocating and managing tribal land. They operate under the Tribal Land Act and issue customary land grants.

Customary Land Rights are granted for the use of land for residential, farming, or grazing purposes, often without charge. The Land is allocated by the Land Boards based on customary law and practices. The Customary land rights can be passed down to heirs, and certain transactions, like leases or mortgages, require Land Board consent.

[3] UNAIDS. (2020). *Botswana National AIDS Spending Assessment 2018/19–2019/2020*. Retrieved from https://www.unaids.org/sites/default/files/media/documents/NASAreport_botswana_2018-2020_en.pdf

[4] Statistics Botswana. (2024). *Quarterly Multi-Topic Survey Labour Force Module, Quarter 1 2024* [PDF].

Non-citizens can acquire land through leases or other forms of grant under common law, but this often requires Land Board consent.

The Botswana Constitution and other laws aim to protect the rights of all citizens, including indigenous communities, to access and use land for their traditional way of life.

3. PARTICIPATION, CONSULTATION AND FPIC PROCESSES

3.0 INTRODUCTION

The purpose of the present FPIC Implementation Plan is, among others, to provide information on how the FPIC Process will be conducted throughout the course of the project and which methods will be used as part of the process, as well as to outline the responsibilities of MoLA and BolCoP.

3.1 IDENTIFICATION OF DECISION-MAKING INSTITUTIONS AND REPRESENTATIVES

The key institutional actors involved with issues of resettlement, property and land rights, access to resources, etc, are the local government departments both at National level and District level. The implementing agency will be the **MoLA** through the BolCoP.

BolCoP Environmental and Social Specialists will work very closely with the Department of Environmental Affairs, Local Government officials and District Council Officials to facilitate consultations leading to FPIC with concerned communities /project affected persons (PAPs).

The practical timing for identifying decision-making institutions and representatives at community level would be at the beginning of BolCoP implementation, during preliminary consultations with the communities undertaken for the site specific ESMPs for newly proposed sub-projects as well as during the preparation of any ESIA studies or can be done in tandem with the socio-cultural and land tenure assessment.

3.2 CONSULTATIONS LEADING TO FPIC

Subsequent to the socio-cultural and land tenure assessments and the identification of key decision-making institutions, consultations will be held with the sub-project communities and Cooperatives /Associations during programme implementation – when site specific ESMPs and designs are being updated or prepared, as the case may be. Consultations will be conducted by the BolCoP Environmental and Social Specialist (ESS), or by an independent facilitator/advisor hired by BolCoP.

The use of participatory mapping will be instrumental for the consultation process leading to FPIC. This is because of the advantages of participatory mapping and accompanying participatory enquiry techniques which allow the assessment of ownership, occupation and use of land and resources as well as the social dynamics (e.g., movements and relationships among the different social groups) and right holders.

Given that the sub-projects are initiated by the communities and proposed to the BolCoP the consultations will:

- Confirm that the sub-project is a community-driven initiative.
- Share the objective and scope of the proposed sub-project with the communities/ Cooperatives /Associations directly or through their representatives (existing or elected by the communities in the process).
- Clearly inform the Cooperatives /Associations/communities' representatives on the actors financing and implementing the project and their respective responsibilities.

- Provide clear and transparent information on the benefits and risks of the project.
- Share the findings of the socio-cultural, land tenure and environmental assessment and reality check/confirmation of findings.
- Engage selected Association/community members or their representatives in the resources and social mapping activities, in order to assess ownership, occupation and use of land and resources as well as the social dynamics (relationships among the different social groups).
- Share the objective and scope of the mapping exercise with the Cooperatives / Associations/communities.
- Ensure inclusive participation - men, women, young people, the elderly, PWD, people living with AIDS/HIV, remote area dwellers, and representatives of different communities present on the same land and neighbouring villages - and provide for multiple maps by the different Cooperatives / Associations/communities.
- Share the maps with all stakeholders and actors; and,
- Formalise ownership of the land use maps by the communities that have developed them.

It is important that:

- Where there is universal consent to the proposed sub-project, Cooperatives/Associations/communities' consent is formalized through a consent agreement between the Cooperatives/Associations/communities and the BolCoP. The consent agreement will be the outcome of the collective decision-making process by the local Cooperatives/Associations/communities. The process will be adequately documented.
- Where there are doubts on consent, or where concerns are raised during consultations, these doubts and concerns are documented, and the Cooperatives/Associations/communities are requested to propose means/solutions to overcome concerns.
- Feedback is provided to the sub-project design team and project staff on concerns/doubts raised by the Cooperatives/Associations/communities.
- Feedback is provided to the Cooperatives/Associations/communities on how their concerns have been accommodated in the sub-project design.

The usual practice for IFAD-funded projects is to use independent, qualified[5] facilitators to support the FPIC process. Where BolCoP teams are not familiar with consultations leading to FPIC, the facilitator will have a double role, in facilitating the process and building capacity, while applying relevant provisions, hence supporting the local and national governments to fulfil the requirements of internal and external policies. If the right people to facilitate these exercises are selected, they can play a role as facilitators and at the same time build the capacities of project staff, as well as of communities. Communities' representatives who participate in the mapping should be identified by the communities as their representatives in the FPIC process.

[5] Minimum requirement for the facilitator is rights sensitivity and knowledge of the cultural context they will operate, together with technical knowledge of the issues under consideration. The facilitator must be neutral, trustworthy and mutually accountable to IFAD, the borrower government and the community.

3.3 ONGOING STAKEHOLDER ENGAGEMENT ACTIVITIES

3.3.1 On-going Stakeholder Engagement

A variety of engagement techniques were used to build relationships with stakeholders, gather information from stakeholders, consult with stakeholders, and disseminate project information to stakeholders. This engagement process will provide a framework for achieving effective stakeholder involvement and promoting greater awareness and understanding of issues so that the project is carried out effectively.

For the proposed BolCoP, the public consultations with the local communities, and all other interested/affected parties were conducted as part of the initial BolCoP project design and implementation process. These consultations were aimed at briefing the communities and other stakeholders about the project activities, how the activities will be carried out and what sectors of the environment are likely to be impacted. The public consultations were done in a participatory manner to encourage the communities to contribute to the screening process.

Throughout the project life, the engagement techniques that will be used will take into consideration the cultural appropriateness and the purpose for engaging with the stakeholders. Thus prior to any engagement event the following actions will occur:

- Selection of individual stakeholders with whom engagement will occur,
- Selection of methods for disclosure of information (including such topics as format, language, and timing),
- Selection of location and timing for engagement event(s) (avoiding busy work times, which may be seasonal, and days/times when special events may be occurring),
- Agreeing on mechanisms for ensuring stakeholder attendance at engagement event(s) (if required),
- Identification and implementation of feedback mechanisms to be employed.

3.4 CONSIDERATIONS FOR STAKEHOLDER ENGAGEMENT

The following considerations were made and should be carried out throughout the project life:

3.4.1 Resourcing Stakeholder Engagement:

FPIC Consultations require resources as they take time to develop and build trust-based relationships with stakeholders. Relationships with stakeholders should develop, grow, and be sustained. This becomes a continuous process as additional stakeholders might be identified that will also need to be engaged.

This was done through initial outreach meetings with various stakeholders to, among other things, introduce the project, educate some stakeholders about the concept of engagement itself, as well as on the complex issues requiring specialised and technical knowledge.

3.4.2 Managing expectations:

Stakeholders can have unrealistically high expectations of benefits that may accrue to them from a project and as such BolCoP must be clear on what the project can and cannot do, establishing a clear understanding of their roles and responsibilities. The engagement

processes during the initial BolCoP implementation enabled the project team to develop these relationships with stakeholders and potential project partners.

3.4.3 Securing stakeholder participation:

Cultural and social norms, values, attitudes, behaviours and power imbalances can prevent stakeholders from freely participating in meetings, particularly true for women. Often there are conflicting demands within project beneficiaries, and it can be challenging for a project to identify stakeholders who are representative of common interests. The design team took advantage of the presence of local officers who were sensitive to local power dynamics.

3.5 PROPOSED STRATEGY FOR INFORMATION DISCLOSURE

Information and data that will be shared will be information about the project description that will include among many other issues, the project background, the theory of change and the summarized presentation of each of the project components and subcomponents. The selection of project beneficiaries will also be outlined.

The information will largely be shared at the early stages of the project. This will be presented in a document format, distributed to the district offices who will present it to lower levels, i.e., the beneficiaries. The documents will also be published in the Government of Botswana/MoLA website as well as the BolCoP website. There will also be public presentations and discussions over scheduled radio and television platforms. Ministry Officials responsible for implementation, management and coordination of project activities will make presentations about the project as well as the progress update while engaging with the public and responding to arising questions, concerns and comments.

The MoLA/ BolCoP – PMU will also use the following platforms to reach more stakeholders and widen ease of access to information:

- Media briefing
- Newspapers, posters, radio, television,
- Information centres and exhibitions or other visual displays,
- Brochures, leaflets, posters, nontechnical summary documents and reports,
- Official correspondence, meetings,
- Website, social media.

The strategy will also include means to consult with project-affected stakeholders if there are significant changes to the project resulting in additional risks and impacts. The most critical aspect of the strategy is leveraging on village level leadership engagement, coordination with the District Administrator's Offices, project affected people and BolCoP.

3.6 PROPOSED STRATEGY FOR CONSULTATION

MoLA/ BolCoP – PMU have earlier identified groups of stakeholders in the agricultural sector. These include members of the community governance structures, District Administration Structures, Ministry Officials, Farmer groups/Cooperatives /Associations, agriculture value chain players which include MSMEs in agricultural production Industry, inputs suppliers, the market brokers/agents, and the general public. BolCoP - PMU will be responsible for

coordination of all project events and will keep a schedule of implementation of all outreach activities and will report on progress.

The identified stakeholder groups will be engaged using various platforms including:

- Interviews
- Surveys, polls, and questionnaires for beneficiary feedback
- Public meetings, workshops, and/or focus groups on specific topic.
- Participatory methods
- Other traditional and non-traditional mechanisms for consultation and decision making.

Table 3-1 Stakeholder engagement techniques

ENGAGEMENT TECHNIQUE	APPROPRIATE APPLICATION OF THE TECHNIQUE
Correspondences (Phone, Emails)	• Distribute information to Government officials, NGOs, Local Government, and organisations/agencies • Invite stakeholders to meetings and follow-up
One-on-one meetings	• Seeking views and opinions • Enable stakeholder to speak freely about sensitive issues • Build personal relationships • Record meetings
Formal meetings	• Present the Project information to a group of stakeholders • Allow group to comment – opinions and views • Build impersonal relation with high level stakeholders • Disseminate technical information • Record discussions
Public meetings.	• Present Project information to a large group of stakeholders, especially communities • Allow the group to provide their views and opinions • Build relationship with the communities, especially those impacted • Distribute non-technical information • Facilitate meetings with presentations, PowerPoint, posters etc. • Record discussions, comments, questions.
Focus group meetings	• Present Project information to a group of stakeholders (8- 15 people groups) • Allow stakeholders to provide their views on targeted baseline information • Build relationships with communities • Record responses
Project website	• Present project information and progress updates • Disclose SEP, GRM and other relevant project documentation
Project leaflet	• Brief project information to provide regular update • Site specific project information.
Surveys	• Gathering opinions and views from individual stakeholders • Gather baseline data • Record data • Develop a baseline database for monitoring impacts
Workshops/Webinars	• Present project information to a group of stakeholders • Allow a group of stakeholders to provide their views and opinions • Use participatory exercises to facilitate group discussions, brainstorm issues, analyse information, and develop recommendations and strategies • Record responses

3.7 FORMALISINGE THE CONSENT AGREEMENT

Once project activities and project sites requiring FPIC agreements are identified, this will be formalised in a written form in English as well as in the local language. The effective time the consent agreement would be formalised will be agreed upon during the consultation process and needs to be formalised before any investment is made.

The consent agreement will be prepared by the BolCoP District Teams. The format for a consent agreement would, among others, include:

- Project activities on which consent is provided,
- Respective expectations,
- Proposed project duration, expected results and activities,
- Participatory monitoring and verification plan and procedures,
- Identification of grievances procedures and mechanisms,
- Terms of withdrawal of consent,
- Record of process through means and languages accessible to all stakeholders and parties involved.

The FPIC agreement and record of process will be made available through means and languages that are accessible to all stakeholders and parties involved.

3.8 DISCLOSURE

The FPIC Implementation Plan will be disclosed together with the Programme Design Report (PDR), Environmental, Social and Climate Management Framework (ESCMF), and other documents to be submitted to the Executive Board (and Evaluation Committee).

3.9 DOCUMENTING THE FPIC PROCESS

The FPIC process will be documented through minutes of consultations, mapping documents prepared by the Cooperatives /Associations/communities, videos where feasible, and FPIC agreements/formalisation documents.

4. THE BolCoP FPIC IMPLEMENTATION PLAN

4.1 BolCoP FPIC IMPLEMENTATION PLAN

The following is a summary of the BolCoP FPIC implementation Plan:

Table 4-1 Summarised BolCoP FPIC Implementation Plan

No.	DESCRIPTION/ACTIVITY	RESPONSIBLE	TIMEFRAME
1.0	**Conduct sociocultural and land tenure assessment:**		
	Identify: • Customary laws, informal rules and organizing practices on land ownership. • Institutions and governance systems. • Types of livelihoods. • Mutual support and solidarity mechanisms. • Cooperatives /Associations/Community stakeholders, land users and assess who has the right to give or withhold the consent. • Norms and inequalities that might hinder participation of vulnerable groups in FPIC procedures, particularly, women, youth, PWD, people living with AIDS/HIV, rural area dwellers ***Assess:*** • Consequences from the proposed project that may result in the change of the status of the lands, and resources	District offices of the BolCoP (who may hire consultants to carry out the sub-project specific socio-cultural/land tenure assessments.	At the beginning of programme implementation phase. This could be part of the participatory mapping exercise.
2.0	**Identify decision-making institutions and representatives**		
	• Conduct preliminary consultations with the Cooperatives /Associations/community and explain the nature of the proposed project. • Allow time for Cooperatives/Associations/communities to discuss and decide on their representatives for the consultation process leading to FPIC • Clarify responsibilities of representatives • Agree on the process leading to FPIC • Identify signatory parties for the consent agreement. • Ensure vulnerable population subgroups are actively engaged.	District offices of the BolCoP, possibly through an independent facilitator, supported by IFAD as part of project implementation support, as required.	At the beginning of programme implementation phase (this could be done in tandem with the socio-cultural and land tenure assessment and mapping exercise)
3.0	**Capacitate the implementors and the stakeholders**		
	Conduct various capacity building workshops for both the implementing partners and the stakeholders so that they are all on the same page and will make informed decisions (See Section 5 for Details): • **Training of implementing partners on background of project:** Environmental and Social Risks and Impacts of BolCoP. • **Training of extension staff on background of project:** Environmental and Social Impact Assessment of the Projects.	• MoLA/ BolCoP - PMU Assisted by: o National Aids Council (NAC). o Department of Environmental Affairs. o Private Consultant	Programme implementation phase - before individual sub-projects start begins and throughout the project cycle

No.	DESCRIPTION/ACTIVITY	RESPONSIBLE	TIMEFRAME
	• **Cascading training to lower levels on background of project:** Environmental and Social Impact Assessment of the Projects. • **Training of stakeholder on gender equality, women's empowerment, and gender-based violence and sexual exploitation, abuse and harassment (GBV-SEAH),** • **Training of stakeholders on HIV/AIDS awareness.** • **Training of Stakeholder on land issues:** o Land Tenure and rights o Land rights o Use of land o Pollution and degradation.		
4.0	**Conduct consultation leading to FPIC on the proposed project/specific component/activities**		
	• Share objective and scope of the project with the representatives identified by the communities and identify project component(s) requiring FPIC. • Ensure vulnerable population subgroups are actively engaged. • Inform them on the actors financing and implementing the project and their respective responsibilities. • Provide clear and transparent information on the benefits and risks of the project. • Share the findings of the sociocultural, land tenure and environmental assessment • Formalize consent agreement.	District offices of the BolCoP possibly through an independent facilitator, supported by IFAD as part of project implementation support, as required.	At the beginning of programme implementation phase and before individual sub-projects start.
5.0	**Formalize the consent agreement**		
	Formalize the consent agreement *(written or in other form if so, requested by the community)* ***The format for a consent agreement*** *would include:* • Respective expectations • Proposed project duration, expected results and activities • Participatory monitoring and verification plan and procedures • Identification of grievances procedures and mechanisms • Terms of withdrawal of consent ***Record*** the process through means and languages accessible to all stakeholders and parties involved ***Annex the FPIC agreement*** *and documented process to the PDR.*	District offices of the BolCoP possibly through an independent facilitator, supported by IFAD as part of project implementation support, as required.	Programme implementation phase. Timing agreed upon during the consultation process and before individual sub-projects starts.
6.0	**FPIC implementation**		
	Implement the FPIC agreements throughout the project life.	• MoLA/ BolCoP - PMU, Supported by IFAD implementation support and joint supervision missions.	Programme implementation phase - before individual sub-projects start begins and throughout the project cycle.

No.	DESCRIPTION/ACTIVITY	RESPONSIBLE	TIMEFRAME
7.0	**Monitoring the FPIC implementation**		
	Assess FPIC implementation as part of the M&E exercise during the project life. ***Appropriate indicators*** for measuring progress towards and/or attainment of agreed terms will be defined and linked with a timeframe in the FPIC agreement	• MoLA/ BolCoP - PMU, Supported by IFAD implementation support and joint supervision missions	Programme implementation phase - before individual sub-projects start begins and throughout the project cycle

5. CAPACITY SUPPORT

5.1 TRAINING REQUIREMENTS

The Successful implementation of the BolCoP FPIC programme activities will require that the stakeholders and the implementing partners are on the same page. This entails a series of training workshops to sensitise both parties so that they will be able to make informed decisions through the FPIC process. The following (Table 5-1) is an outline of the FPIC short and tailor-made training courses and seminars that will be offered to reinforce the capacity and skills of the stakeholders and farmers during the entire project period:

Table 5-1 Capacity Building for FPIC Implementation.

No.	TRAINING ACTIVITY	TARGET GROUP / TRAINER	MEANS OF VERIFICATION	COST ESTIMATES
1.0	**Training of Extension staff on the FPIC Process**.	• District Agriculture Office Team. • District Environment Units. • Extension workers in project impact areas. **TRAINER: BolCoP -PMU/ Department of Environmental Affairs OR PRIVATE CONSULTANT**	• 10 District Environment Units members are trained. • 10 AGRICULTURE Extension workers in project impact areas trained.	(Three sessions during the entire project period) **Length**: 5 days per session Total cost: $ 20,000.00
2.0	**Cascading training to lower levels on the FPIC Process**	○ Participating Farmers ○ Participating Agriculture Cooperatives/Association members **TRAINER: BolCoP -PMU/ Department of Environmental Affairs**	• 100 members Small stock farmers.	(Four sessions during the entire project period) **Venue**: In project areas **Length**: 5 days per session Total cost: $20,000.00
6.0	**TOTAL ESTIMATED BUDGET**			**40,000.00**

5.2 PROPOSED APPROACH IN EXECUTING THE CAPACITY BUILDING

BolCoP - PMU will adopt a strategy of running workshops and refresher courses to disseminate the SECAP FPIC related studies and reports. It will also use the training of trainers and community exchange visits approach.

It will be important that key decision makers, the BolCoP – PMU coordinator and management staff and other high-level persons are sensitized in the potential environmental and social risks and impacts due to the proposed BolCoP activities. This training may be conducted by a private consultant or by the EIA Section of the Department of Environmental affairs.

5.3 FUNDING REQUIREMENTS FOR ENVIRONMENTAL AND SOCIAL TRAINING

The proposed FPIC related training activities for the programme will be funded directly by the programme resources in accordance with the proposed plan laid out in Table 5-1 above.

6. IMPLEMENTATION ARRANGEMENTS

6.1 POSSIBLE IMPLEMENTATION ARRANGEMENTS

The following is a description of arrangements, responsibilities and mechanisms for seeking FPIC, as well as the role of independent, impartial entities to monitor the FPIC implementation process.

The lead implementing agency for the project is MoLA with the assistance of BolCoP – PMU. BolCoP – PMU will be tasked with the day-to-day coordination, planning and management of select project activities.

Due to the multifaced nature of BolCoP, a project steering committee (PSC) will be established and will contribute to the project oversight.

The BolCoP will spearhead the implementation of the FPIC process and will be assisted by several key implementation ministries who have staff down to district level. The structure of the implementation is outlined in figure 6-1 below.

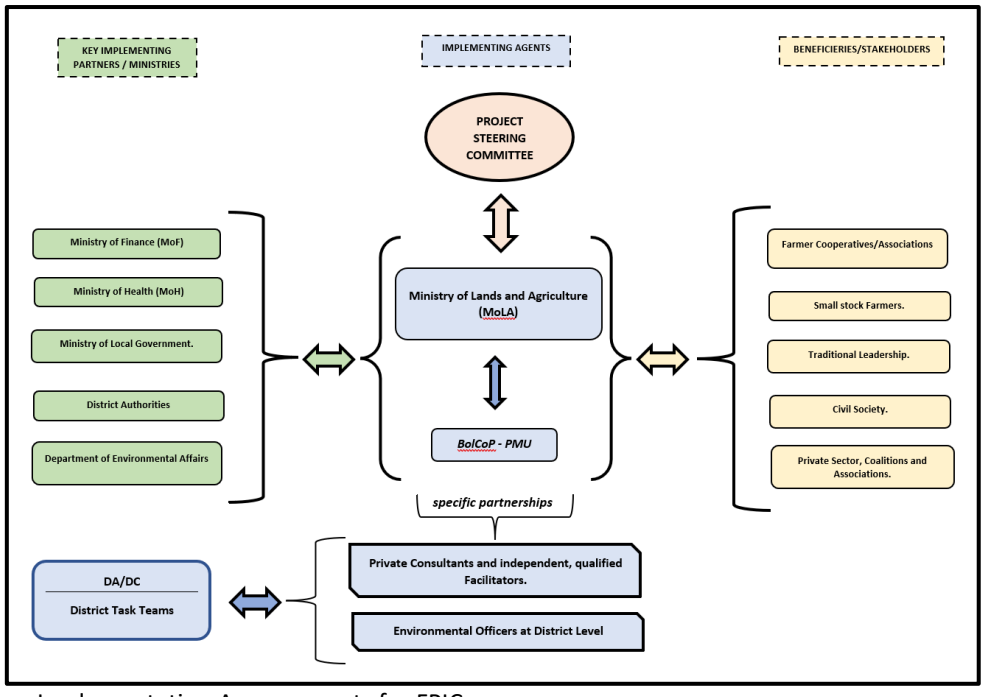

Figure 6-1 Implementation Arrangements for FPIC.

BolCoP staff with their District teams comprised of the staff from the key implementing partners will be capacitated by undergoing training as explained in section 5 of this report. The target beneficiaries will similarly be capacitated. All the training will be conducted by designated Ministries or private consultants. Once capacitated the teams will start the consultation processes leading to FPIC. This process will also be assisted with private consultants.

6.2 ASSESS FPIC IMPLEMENTATION.

To assess FPIC implementation, the appropriate indicators for measuring progress towards and/or attainment of agreed terms will be defined and linked with a timeframe in the FPIC agreement. Subsequent workshops and stakeholders' reviews of the FPIC plan may also amend the various indicators to be established in the FPIC agreement. Joint supervision missions assessing project progress will also assess the implementation of FPIC agreements on a regular basis. Whenever possible, supervision and evaluation missions would include experts of relevance.

7. BUDGET AND FINANCING

The following is an itemized budget for undertaking the FPIC activities described in this report.

Table 7-1 Estimated Budget for ESMF Implementation (US$)

No.	ACTIVITY	Key Cost Components	ESTIMATE (US $)
1	Conduct sociocultural and land tenure assessment	• Consultant fees • Field visits • Data collection tools & translation • Reporting & validation workshop	Covered in main ESCMF budget
2	Identify decision-making institutions and representatives	• Community meetings • Documentation & reporting	Integrated within project costs
3	Capacitate the implementors and the stakeholders - Environmental and Social Training	• Training workshops (7 sessions) • Venue, training materials • Resource persons/consultants	Integrated within project main Capacity building budget
4	Conduct consultation leading to FPIC on the proposed project/specific component/activities	• Community consultations • Transport & logistics for participants • Facilitation consultation costs • Communication materials (leaflets, posters) • Translation services	20,000.00
5	Formalize the consent agreement	• Legal and technical drafting • Printing and translation of agreements • Validation meetings • Documentation (audio/video recording)	20,000.00
6	Assess FPIC implementation: - Monitoring and evaluation purposes (R&D, M&E, Field Visits)	• M&E specialist fees • Field visits for verification	Integrated within project costs
7	**TOTAL (US $)**		**40,000**

IFAD
Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Indigenous Peoples Plan or Indigenous Peoples Planning Framework

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
Report No.	7326-BW

East and Southern Africa Division
Programme Management Department

MINISTRY OF LANDS AND AGRICULTURE

IFAD
Investing in rural people

Botswana Livestock Commercialization Project

(BoLCoP)

INDIGENOUS PEOPLES PLANNING FRAMEWORK (IPPF)

Prepared for:

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Botswana Livestock Commercialization Project (BoLCoP) INDIGENOUS PEOPLES PLANNING FRAMEWORK (IPPF) is intended to provide complete documentation for the requirements of a holistic GRM system for the project. This GRM contains the findings of a study conducted for the agriculture sector of Botswana and the instrument has been developed on the basis of the local conditions and findings.

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1. INTRODUCTION

THE Government of Botswana is in the process of developing the Botswana Livestock Commercialization Project (BoLCoP), with the assistance of the international food and agriculture development (IFAD). The Implementing Agency of the Project will be the Ministry of Lands and Agriculture through a Project Management Unit (PMU). The project will major on the development of small stock agriculture in Botswana. This will involve engaging with individuals or groups, nation wide, who will be assisted in the raising of small stack. In the process the project will impact marginalised or minority ethnic groups who will need assistance to be able to participate in the programme. These groups include the San, the Balala and the Nama. Many of these groups live in marginal conditions and are considered vulnerable due to low levels of literacy and minimal chances of meaningful involvement in developmental issues in their areas. This prompted the need for the development of this Indigenous Peoples Planning Framework (IPPF).

The IPPF describes the process through which the project will ensure that the Indigenous People within the project area are identified and given an opportunity to contribute to the project specifically targeting how the project will impact on their wellbeing.

Commented [KD1]: Deleted just because the acronym hasn't been used below

In coming up with the IPPF, a number of stakeholders were consulted and their contributions have been quite value adding. Representatives of the San community were consulted and showed a lot of enthusiasm for the project. The community pledge its full support for the project and requested its active involvement. There are however some challenges that inhibit the community from enjoying potential positive benefits fully. These barriers include the low literacy level as a result of extreme poverty under which they live.

2. JUSTIFICATION FOR AN IPPF FOR THE BOLCOP.

Recent developments in the field of International Human Rights have underscored and further clarified the right to participation to suit Indigenous Peoples' unique context and situations. The expansion aims to address historical injustices and is partly a result of the realization of apparent and deepening power imbalances and information asymmetries underlying Indigenous Peoples' interactions with other actors such as States, transnational corporations and increasingly, international non-governmental organizations and UN Agencies working in the area of development. Accordingly, the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), which was passed by the UN General Assembly in 2007, introduces the right to Free Prior and Informed Consent (FPIC)[1], a right closely connected to the right to participation, but applicable only to Indigenous Peoples as a group or collective right.

While FPIC is widely understood as an environmental and social safeguard aimed at protecting Indigenous Peoples from negative impacts of interventions, IFAD takes it beyond protection. For IFAD, FPIC is understood and practiced from the angle of co-designing. It is seen as an opportunity to engage Indigenous Peoples as partners, ensuring that development projects are built on the experiences, knowledge, understandings, and initiatives of Indigenous Peoples. Since there is no universally agreed procedure for conducting FPIC, its success depends largely on adherence to the principle of good faith. The classical international law operational principle of good faith can be demonstrated in practical

[1] Article 32(2) provides for example that "States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands and territories and other resources, particularly in connection to the development, utilization or exploitation of mineral, water or other resources. See the United Nations Declaration on the Rights of Indigenous Peoples, available at http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf

terms by strictly adhering to all the three components or qualities of consent, namely Free, Prior, and Informed. In this context, free means voluntary, not clouded with pressure or threats or corruption.

Prior means the consultation process should begin as soon as feasible in the circumstance, but strictly before any harmful activity is implemented. Harm in this context bears a wide interpretation to include both physical, emotional, or spiritual. Consent connotes some autonomy that Indigenous Peoples have and speaks to the quality of the consultation process- not as a mere 'box checking' exercise, but one encompassing the right to refuse or object the proposed project for which their consent is sought.

To safeguard against existing information asymmetry, the principle of good faith, which animates implementation of FPIC requires the involvement of multiple actors in the consultation process. They may include independent experts and academics with interest in Indigenous Peoples' issues as well as elites from the indigenous groups in question. This can be contrasted from efforts to take advantage of indigenous elders' lack of technical knowledge in certain emerging areas such as biotechnology or geographic information systems for example, compounded by using languages that are foreign to Indigenous Peoples, or the use of disciplinary jargons, when interacting with Indigenous Peoples.

Guided by IFAD Policies and their commitment to co-designing projects with Indigenous Peoples, the present IPPF is developed for the BoICoP.

3. INDIGENOUS PEOPLES.

To review relevant legal framework for ensuring the meaningful consultation of Indigenous Peoples in Botswana, it is informative to provide an overview of recognition of Indigenous Peoples in Africa. This will inform a discussion on the concept of Indigenous Peoples in Botswana. The aim is to provide a clearer "big picture" view of the state of Indigenous Peoples in the project area, within the broader context of public policy discussions and developments of indigeneity in Africa.

3.1 Recognition of indigenous peoples in Africa.

To understand the contextual applicability of the concept of indigenous peoples in Africa, reference to the African Charter on Human and Peoples Rights (the African Charter) is central. The Africa Charter establishes the African Commission on Human and Peoples Rights (the African Commission) and tasks it to supervise the African Charter's implementation. In line with this mandate, the African Commission has for decades engaged in discussions on the human rights situation of African communities on the margin (mostly hunter-gatherers and nomadic pastoralists) that self-identify as Indigenous Peoples. These communities also constitute the most vulnerable and highly marginalized groups in the continent. They live in remote areas, and have *inter alia*, linguistic barriers and lack of formal education, making it hard for them to effectively participate in development planning and other public affairs.

A watershed moment was 2001. The African Commission formed a Working Group on the Right of Indigenous Populations/Communities to advance and coordinate the discussions. The Working Group issued a report, which is considered as "a highly important instrument for the advancement of indigenous populations' human rights situations"[2] in Africa. Launched in 2004, the report confirms that indeed there are Indigenous Peoples in Africa.

[2] As envisaged during its adoption, the report has facilitated constructive dialogue between the Commission and member states and has served as a platform for the commission's activities on promotion and protection of human rights of indigenous populations.

Significantly, the report provides that (unlike in jurisdictions such as Canada, New Zealand, Australia, and the United States where indigeneity is assessed in terms of land occupancy prior to colonialism), the term Indigenous Peoples in the African context puts more emphasis on continued marginalization in line with the modern analytical and emancipatory connotation of the term. The question which community was the first to occupy which part of the continent is therefore irrelevant and undesirable in understanding who Indigenous Peoples are in Africa.

The African Commission Report clarifies that communities that self-identify with the concept aim to showcase the structural relationships of inequality that have persisted after liberation from colonial dominance, mainly attributed to the communities' traditional livelihoods and land holding systems that are at variance with public policy priorities of most African countries.[3] Generally, African communities that self-identify as Indigenous Peoples have disproportionally experienced and continue to experience subjugation, marginalization, dispossession, exclusion, or discrimination based on different cultures, ways of life or modes of production than the national hegemonic or dominant model.[4] They strive to maintain traditional livelihoods, culture and spiritual connection that intricately depend on communal ownership of land and natural resources, in the face of strong opposing forces that put primacy on modernization and individual land ownership.

Accordingly, the African Commission (the intergovernmental organization charged with the protection and promotion of human rights on the continent) has settled the debate on whether there are Indigenous Peoples in Africa, at least conceptually. The practical importance of its report hinges on the report's adoption by the African Union. It is therefore correct to say that the report is an official document for African Governments. Contemporarily, the concept of Indigenous Peoples has gained momentum largely as an international legal platform that enables claimant communities to seek justice as well as treatment that is responsive to their spirituality, communal land ownership, and distinctive and vulnerable status compared to other mainstream communities. Indigenous Peoples of Africa (like Indigenous Peoples elsewhere) do not agitate for special rights or treatment but insist on conditions that enable them to exist as distinct groups.

3.2 Indigenous Peoples in Botswana.

3.2.1 National trends.

Botswana is a culturally diverse country**.** Its Constitution initially recognized eight major tribes. However, several other ethnic groups have recently obtained such official recognition. Many of these groups live in marginal conditions and are considered vulnerable, such as the San who have been historically excluded for their distinct cultural characteristics. However, the Botswana government maintains that all citizens of the country are indigenous.

Nevertheless, some groups in Botswana define themselves as Indigenous Peoples and prefer to be recognised by the term "Remote Areas Dwellers" (RAD). These groups include the San, the Balala and the Nama. The Balala number some 1,500 and live in Southern (Ngwaketse) and Kgalagadi Districts. Most of the Balala live and work on the Molopo Farms in Southern District as herders and domestic laborers. The Nama, who number some 2,000, are small scale agropastoralists and farm workers who live along the southern Botswana and in Tsabong. The Nama speak a Khoekhoe language and Setswana.

[3] Ibid p. 92

[4] See Report of the African Commission's Working Group of Experts on Indigenous Populations/Communities, IWGIA and ACHPR, 2005 p. 92-92

The San[5] number about 50,000 and belong to the Nharo, !Xo, G/wi, G//ana, Tyua, Deti, /Auni, /Xam, //Xegwi, Kwe, Ju/'hoansi and //Khau-/eisi, among other ethno-linguistic groups. The San are traditionally hunter-gatherers although they no longer depend on it exclusively. Many San live in remote rural settlements where land tenure is uncertain, where other ethnic groups dominate and where there are few livelihood options apart from selling handicrafts, meat and foraged products such as thatching grass or firewood, in the towns. Others work on cattle farms as laborers. An increasing number, however, has begun more recently to move into slums in the outskirts of the local district towns, looking for menial work. The San face considerable social and cultural discrimination. The employment relationship is highly exploitative and they are paid very poorly. Whether cattle post laborers, settlement or slum dwellers, most of the San live at or below the Poverty Datum Line (PDL). They also exhibit some of the highest rates of illiteracy, morbidity and mortality in the country. Although HIV/AIDS rates are not as high for San as for some other groups in Botswana, the HIV/AIDS rates are climbing.

Traditionally, the San were semi-nomadic. Their association with the land was based on complex intra-cultural negotiated systems and, because they had no formally recognized land tenure system, they were often being seen as having no land of their own (and therefore no rights to land). Territory available to the San has shrunk over the last century through successive in-migrations of both colonial and other African tribal groups.

After independence, the land situation of the San further deteriorated and the Tribal Grazing Lands Policy (TGLP)—a large-scale land reform and livestock development program adopted in 1975—virtually left no land "in reserve" for the San. Despite some attempts by the Bushmen Development Program (1974) and its successor, the Remote Area Development Program (1978) to retain a portion of the land the San used to have, the land reform process entailed loss of land tracts that had economic as well as cultural significance for the San. It also resulted in the removal of an estimated 28,000-31,000 people from the TGLP ranch areas,[6] and their subsequent relocation in government established settlements. These settlements were part of the government's efforts to integrate the San into wider society and enhance their development through the adoption of agriculture and cattle-raising as livelihood options. However, while the settlements provide water, schools, and health posts, most government projects have not fully succeeded in providing sustainable livelihood.

The Botswana government believes that marginalization of the San is not related to their ethnic status. But official policies promote sedentarization, acculturation and assimilation, discouraging traditional San lifestyle. Having lost their customary hunting land to expanding cattle farmers, San calls for land rights are dismissed as unwarranted, tribalist and even secessionist. Although more equitable opportunities are sought to be extended to the San through existing development schemes, denying them land rights and a voice is likely to deepen their marginalization. The 2003 review of the Remote Area Dwellers Program states that equality of opportunities is good but that "…there are ethnic groups in remote areas, notably the BaSarwa, who are historically disadvantaged, and who cannot easily take advantage of their entitlements under the constitution and legal framework without special assistance."

In the last few years, both social organization and networking have grown stronger among the San. There are now San NGOs and Community Based Organizations (CBOs). Civil society organizations working on Indigenous Peoples' issues include, among others, DITSHWANELO (the Botswana Center for Human Rights), the Kuru Family of Organizations, Botswana Council of Churches (BCC). The San

[5] The San were formerly also known as Bushmen. They are also called Basarwa in Botswana but this term is perceived as derogatory by many San themselves. The government also often refers to them as "Remote Area Dwellers".

[6] Taylor, Michael, quoting a World Bank report in "The Past and Future of San Land Rights in Botswana" in *Indigenous Peoples' Rights in Southern Africa*, Robert Hitchcock and Diana Vinding, eds. Copenhagen: IWGIA, 2004.

organizations include First Peoples of the Kalahari (FPK), Working Group for Indigenous Minorities in Africa (WIMSA). In addition, the University of Botswana for several years now has had a special BaSarwa Research Program which is trying to be institutionalized as a Center of San Studies.

4. LEGAL FRAMEWORKS FOR THE PROTECTION OF INDIGENOUS PEOPLES RIGHTS

4.1 International and Regional Legal Frameworks.

Botswana has not ratified the International Labour Organization Convention (ILO Convention 169)-the Indigenous and Tribal Peoples Convention of 1989. So far this is the only comprehensive and binding Indigenous Peoples' specific international legal instrument. Technically therefore, it is not bound by the various provisions of the ILO Convention that are relevant to the rights of Indigenous Peoples identified traversed by the Proposed Project.

Additionally, Botswana has not formulated an implementation plan for the UN Declaration on the Rights of Indigenous Peoples (UNDRIP). The UNDRIP has been described as having "significant normative weight grounded in its high degree of legitimacy.[7] However, Botswana has signed and ratified key international and regional human rights instruments that could and have been used to pursue rights of Indigenous Peoples in the BolCoP.

Regional Legal Frameworks signed/ratified by Botswana include the following:

- The Convention on the Elimination of All forms of Racial Discrimination (CERD)
- The international Covenant on Civil and Political Rights (ICCPR)
- The International Covenant on Economic, Social and Cultural Rights (ICESCR)
- The Convention on the Elimination of All forms of Discrimination Against Women (CEDAW)
- The Convention on the Rights of the Child (CRC)
- The Convention on the Rights of Persons with Disability (CRDP).

At the regional level, Botswana has ratified the following regional human rights instruments.

- The African Charter on Human and Peoples Rights (ACHPR)
- The African Charter on Rights and Welfare of the Child (ACRWC)
- The Protocol on the ACHPR on the rights of women in Africa (signature)
- The Protocol on the ACHPR on an African Court on Human and Peoples Rights.

4.2 National Environmental and Social Management Requirements

4.2.1 Environmental Impact Assessment

Botswana's Environmental Impact Assessment Act (Act 6 of 2005) provides for environmental impact assessment to be used to:

- Assess the potential effects of planned developmental activities;
- Determine and provide mitigation measures for effects of such activities as may have a significant adverse impact on the environment; and
- Put in place a monitoring process and evaluation of the environmental impacts of implemented activities.

The EIA Act applies to policies, programmes, projects or activities that are likely to have a significant effect on the environment. Its scope goes beyond the physical impact to include other developmental

[7] S James Anaya, *Situation of Human Rights and Fundamental Freedoms of Indigenous People*, UN Doc A/65/264 (9 August 2010) 17 [61].

effects such as economic, social, human health, aesthetic, cultural and institutional. (www.envirobotswana.gov.bw)

4.2.2 Community Based Natural Resources Management

The Botswana CBNRM Policy (2007) is based on the principle that local communities should benefit from natural resources in their vicinity in order to improve their livelihoods. The overall goal of this policy is:

> "To create a foundation for conservation-based development, in which the need to protect biodiversity and ecosystems is balanced with the need to improve rural livelihoods and reduce poverty. This will be achieved by providing communities with diversified livelihood and economic options, opportunities and incentives and by managing and using the country's natural resources in a sustainable manner."

The Botswana CBNRM Policy is part of six sustainable livelihoods programs in the national strategy for poverty reduction of the 2003 Presidential Directive Cab 14/2003, as well as the revised National Policy on Rural Development (2002: 24), one of the objectives of which is "to promote natural resources utilization of wildlife and veld products to generate income and improve livelihoods of remote communities." (www.envirobotswana.gov.bw).

With reference to the CBNRM policy, the Project aims to improve livelihoods of communities in the Project areas through its various activities focusing on proactive HWC interventions.

4.2.3 Remote Area Dwellers Development Programme

The Division of Remote Area Development Programmes (RADP) in the Ministry of Local Government in Botswana is responsible for the coordination of various sectoral activities for the development of remote area dwellers. The programme targets people who are remote and socio-economically marginalised, living outside recognised villages. These are people who lack basic services and facilities and fall outside the scope and coverage of other national development programmes. The overall aim of the programme is to promote social, cultural and economic development of remote area dwellers (RADs) so that they can participate in and benefit equitably from the growth of the country.

Through the RADP, the government provides development to RADs particularly in social services such as schools, water supplies, health services and others. To encourage economic activity and improve the economic welfare of the target group, the programme includes the Economic Promotion Fund, which aims at developing sustainable small-scale enterprises for RADs.
(www.gov.bw/index.php?option=com_content&task=view&id=50&Itemid=52)

5. PLANNING FRAMEWORK

5.1 Project Components.

BoLCoP will achieve the above stated outcomes through 3 components summarised below:

Table 5-1 Components of the BolCoP programme.

No.	COMPONENT	ACTIVITIES
1.	***Component 0:***	***Mitigation and Management of Climate Risks, Disasters and Disease Outbreaks:*** BoLCoP will facilitate the setting up of mechanisms to mitigate and manage risks that negatively impact small livestock such as floods, droughts, heat waves and disease

		outbreaks. Activities will involve capacitating MoLA officials to institute a risk mitigation strategy and action plan, and disaster preparedness.
2.	***Component 1:***	***Climate-Smart Small Livestock Production and Productivity Improvement:*** This component will support the small livestock sector's climate-resilient production and productivity enhancement through: a) Availing improved breeds of small livestock, b) Gender-responsive capacity-building in efficient and climate-smart production and management, c) improvement of animal health services and access to inputs, d) adopt practices and technologies that enhance animal nutrition, e) promote infrastructure and ethical animal husbandry practices, f) support the use the Botswana Animal Identification and Traceability System (BAITS).
	Sub-component 1.1	Enhanced access to quality small livestock, and animal health services
	Sub-component 1.2	Improved capacity of farmers to adopt climate resilient production and management practices
	Component 2:	**Strengthened Small Livestock Value Chains:** This component will seek to improve effectiveness and efficiency along the targeted value chains (sheep/goats, poultry, pigs and apiculture) by: a) addressing problems of low and scattered production, as well as weak negotiation capacity of producers. b) providing business development services (BDS) to MSMEs, particularly to women, youth, and other vulnerable groups, including persons with disabilities (PWD), persons living with HIV/AIDs, and people living in particularly remote areas c) developing and/or strengthening existing user-friendly and adaptable trading platforms, d) promoting access to inclusive and green financial solutions for the targeted small livestock actors.
	Sub-component 2.1	Strengthened clustering and capacity building of value chain actors;
	Sub-component 2.2	Improved access to input and output markets
	Sub-component 2.3	Improved access to inclusive and green financial services for value chain actors.
	Component 3:	**Enhanced Enabling Environment for Improved Small Livestock Development** This component will be a cross-cutting, servicing the technical components and facilitating pathways for BoLCoP's effective and efficient implementation through: a) facilitating improved participation of small livestock farmers in existing market structures, particularly women, youth, and other vulnerable groups, including PWD, persons living with HIV/AIDs, and people living in particularly remote areas b) strengthen youth skills to effectively access and sustain wage and self-employment opportunities in the small livestock sector, c) identify potential mechanisms that enable relevant social protection beneficiaries to sustainably engage in project supported income generating activities, d) strengthen and/or establish institutions for the effective and sustainable management and coordination of BoLCoP investments.
	Sub-component 3.1	Facilitate development and operationalization of national policies, strategies, regulations, etc.
	Sub-component 3.2	Effective institutional and implementation arrangements established.

5.2 Project Areas.

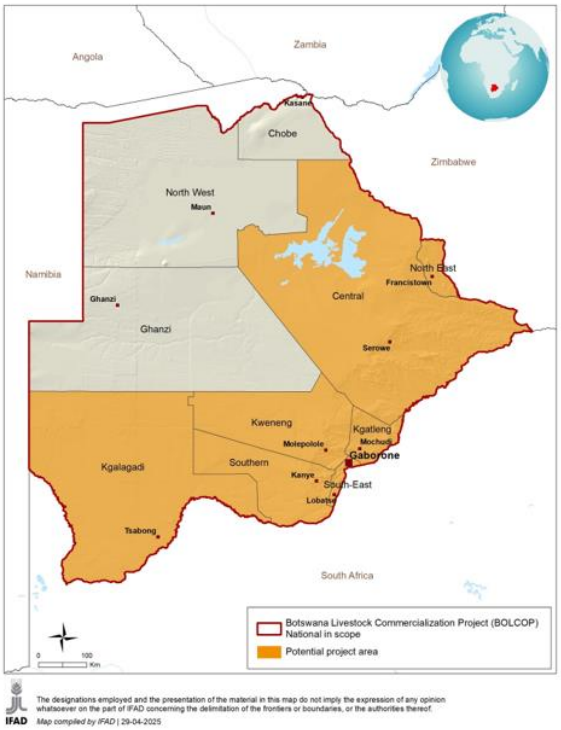

Figure 5-1 Country Map

Commented [MM2]: Map to be updated.

BoLCoP will be national in scope with implementation managed in a staggered way following a cluster-based approach. Geographically, the project will first operate in the Central and Southern parts of the country. These locations have the following characteristics: largest concentration of small stock; most suitable for small livestock rearing and high poverty levels. They also have fairly developed support systems for the small livestock sector. The project will be piloted in these two areas and transition to national level expansion.

5.3 Project Target Groups.

Project target groups. BoLCoP will directly reach **50,000 households**, the majority being rural poor or vulnerable smallholder farmers, existing/aspiring entrepreneurs or dwellers entering/improving their participation in the labour market in supported value chains. Direct beneficiaries will be selected from the following socio-economic groups:

- Subsistence farmers (micro-scale) (20%, 10,000 HHs);
- Semi-commercial farmers (small-scale) (60%, 30,000 HHs),
- Emerging commercial farmers (medium scale) (15%, 7,500 HHs); and
- Small and Medium Enterprises ((SMEs), on-farm and off-farm SMEs)) (5%, 2,500 HHs).

Consistent with the GoB's vision, the project will use a socially inclusive targeting strategy: 40% of beneficiaries will be women; and 30% youth, aged 18-35 years. BoLCoP will put particular emphasis on outreach to and participation of vulnerable groups, such as persons with disabilities (PWD), persons living with HIV/AIDs, and remote area communities etc.

5.4 The Potential Positive and Negative Impacts on Indigenous Peoples

- Based on the focus of BoLCoP, its implementation will have minimal adverse impacts on land access and use rights of rural communities.
- Since pastoralism (which is the key livelihood of Indigenous Peoples in the project areas) and small stock farming operate in the same context and spaces, BoLCoP may also target Indigenous Peoples or lands belonging to them.
- Accordingly, local communities that would potentially be affected are yet to be identified. This means that FPIC needs to be solicited during BoLCoP implementation.

Most of the expected impacts are positive. Nevertheless, the potential adverse effects of the above activities are related to the relative disenfranchisement of local communities, particularly the San. The project could strengthen the grip of outside interest on the tourism industry and to decisions related to the allocation of game rights if it fails to effectively empower local communities under its community-based approach. In addition, it could further marginalize the San if subproject resources are controlled by representatives of ethnic groups that traditionally have dominated them. The project could miss the historical opportunity to advance efforts towards the regularization of their land or territory if it fails to include activities designed to raise awareness about their land needs. Finally, the project could repeat the errors of other official efforts (pointed out in the 2003 Review of the Remote Area Dwellers Program) if it does not adopt affirmative action programs that promote cultural revitalization and the recovery/use of traditional knowledge and practices related to natural resources management. As the above review states "It would seem clear that there need to be programs to address the marginalization (of the San) through affirmative action targeted at disadvantaged remote area people, as well as public education programs to counter the prevalent attitudes towards them."[8]

Early during project implementation, once there is confirmation of the specific sites and more exact subprojects design, the Project will start the preparation of an **Indigenous Peoples Plan (IPP), which could be considered a subproject, for the five villages at the panhandle of the Okavango Delta**, where San/BaSarwa are present or even set the majority of the village population. Ensure that subprojects for the other areas are prepared in a participatory fashion and respond to the demands of local people.

The preparation of the IPP (subproject) requires the following:

- A plan to carry out social assessments
- a framework to ensure free, prior and informed consultations with the affected and/or potentially affected Indigenous Peoples' communities at each stage of the preparation and implementation of the project
- institutional arrangements (including capacity building where necessary) for screening project-supported activities, evaluating their effects on Indigenous Peoples, preparing IPPs, and addressing any grievances
- monitoring and reporting arrangements, including mechanisms and benchmarks appropriate to the project
- disclosure arrangements for IPPs to be prepared under the IPPF

[8] Report on the Review of the Remote Area Development Programme (RAPD). Prepared for the Ministry of Local Government by the Botswana Institute for Development Policy Analysis. 19 December 2003.

It is important to recognize that Indigenous Peoples within a given community are not a homogeneous group, and that certain subpopulations may face heightened socio-economic risks associated with project implementation. Particular attention should be given women, youth, PWD, and any other subgroups of increased vulnerability.

5.5 Plan for Social Assessment.

The social assessment is a variant of what is generally known as a Social Impact Assessment (SIA) and will be done during IPP/subproject preparation. It will gather relevant information on demographic data: social, cultural and economic situation; and social, cultural and economic impacts. This information will be gathered through separate group meetings within the indigenous community, including their leaders, NGOs, CBOs, and affected persons. Discussions will focus on potential positive and negative impacts of the subproject; measures to enhancing positive impacts; and strategies/options to minimize and/or mitigate negative impacts.

The social assessment includes the following elements, as needed:

a) A review, on a scale appropriate to the project, of the legal and institutional framework applicable to Indigenous Peoples.
b) Gathering of baseline information on the demographic, social, cultural, and political characteristics of the affected Indigenous Peoples' communities, the land and territories that they have traditionally owned or customarily used or occupied, and the natural resources on which they depend.
c) Taking the review and baseline information into account, the identification of key subproject stakeholders and the elaboration of a culturally appropriate process for consulting with the Indigenous Peoples at each stage of subproject preparation and implementation.
d) An assessment, based on free, prior, and informed consultation, with the affected Indigenous Peoples' communities, of the potential adverse and positive effects of the subproject. Critical to the determination of potential adverse impacts is an analysis of the relative vulnerability of, and risks to, the affected Indigenous Peoples' communities given their distinct circumstances and close ties to land and natural resources, as well as their lack of access to opportunities relative to other social groups in the communities, regions, or national societies in which they live.
e) The identification and evaluation, based on free, prior, and informed consultation with the affected Indigenous Peoples' communities, of measures necessary to avoid adverse effects, or if such measures are not feasible, the identification of measures to minimize, mitigate, or compensate for such effects, and to ensure that the Indigenous Peoples receive culturally appropriate benefits under the subproject.

5.6 Institutional Arrangements.

A short-term consultant, functioning as development specialist, will be placed in the PCU *inter alia* to facilitate the development and implementation of IPPF activities, and eventually of IPP/subproject. Staff of DWNP dealing with social issues will receive capacity building where necessary for screening subproject-supported activities, evaluating their effects on Indigenous Peoples, preparing IPPs, and addressing any grievances. If need arises, a local NGO with expertise in San/BaSarwa culture and issues of wildlife conflict management will be subcontracted for IPP implementation.

Both the social assessment and consultation process and the preparation of the IPP/subproject should be done by one consulting firm or individual, according to terms of reference approved by the World Bank. Given the complexity of the task and the fact that the original IPPF prepared by the ESIA consultants did not follow policy guidelines and had to be almost completely redone, it is

recommended that the preparation of the IPP/subproject be done by a consultant or consulting firm with expertise on the San culture and on issues of wildlife conflict management.

5.7 Indigenous Peoples Plan.

Based on the social assessment, the subproject will develop appropriate mitigation measures and livelihood enhancement activities for Indigenous Peoples. An IPP addresses the (i) aspirations, needs, and preferred options of the affected and/or potentially affected Indigenous Peoples; (ii) local social organization, cultural beliefs, ancestral territory, and resource use patterns among the affected and/or potentially affected Indigenous Peoples; (iii) potential positive and negative impacts on Indigenous Peoples; (iv) measures to avoid, mitigate, or compensate for the adverse project effects; (v) measures to ensure project benefits will accrue to Indigenous Peoples; (vi) measures to strengthen the capacity of local authority and relevant government departments to address Indigenous Peoples issues; (vii) the possibility of involving local organizations and non-governmental organizations with expertise in Indigenous Peoples issues; (viii) budget allocation; and (ix) monitoring. The PCU will submit the IPP to the Bank for review and approval prior to commencement of civil works. The Bank will review and send comments within three weeks.

The IPP is prepared in a flexible and pragmatic manner, and its level of detail varies depending on the specific project and the nature of effects to be addressed. The IPP includes the following elements, as needed:

a) A summary of the social assessment.
b) A summary of results of the free, prior, and informed consultation with the affected and/or potentially affected Indigenous Peoples' communities that was carried out during subproject project preparation and that led to broad community support for the subproject.
c) A framework for ensuring free, prior, and informed consultation with the affected Indigenous Peoples' communities during subproject implementation.
d) An action plan of measures to ensure that the Indigenous Peoples receive social and economic benefits that are culturally appropriate, including, if necessary, measures to enhance the capacity of the subproject implementing agencies.
e) When potential adverse effects on Indigenous Peoples are identified, an appropriate action plan which includes measures to avoid, minimize, mitigate, or compensate for these adverse effects.
f) The cost estimates and financing plan for the IPP.
g) Accessible procedures appropriate to the subproject to address grievances by the affected Indigenous Peoples' communities arising from subproject implementation. When designing the grievance procedures, the borrower takes into account the availability of judicial recourse and customary dispute settlement mechanisms among the Indigenous Peoples.
h) Mechanisms and benchmarks appropriate to the subproject for monitoring, evaluating, and reporting on the implementation of the IPP. The monitoring and evaluation mechanisms should include arrangements for the free, prior, and informed consultation with the affected Indigenous Peoples' communities.

The varying vulnerability of population subgroups should be carefully considered throughout, with particular attention given to women, youth, persons with disabilities (PWD), and any other groups identified as being at heightened risk.

5.8 Framework for free, prior, and informed consultation.

The consultation and participation of Indigenous Peoples will be ensured in formulation of the IPP/subproject to ensure that it adequately deal with their needs, priorities, and preferences. Indigenous Peoples will be provided with relevant project information in a language(s) and manner suitable to them. Separate focus group discussions will be carried out to assess the subproject impacts and benefits to these groups. Accordingly, the IPP/subproject will be prepared in consultation with

the beneficiaries. The outcome of social assessment and IPP will be presented in community workshops/meetings.

The lead NGO shall make the following documents available to the project-affected Indigenous Peoples and to the public:

a) A draft IPP, before subproject appraisal;
b) A final IPP, after completion of such an IPP; and
c) The revised IPP, following the detailed technical design or change in scope in the subproject.

5.9 Monitoring.

The PCU will establish a quarterly monitoring system to monitor the implementation of IPP(s) against a set of monitoring indicators determined during IPP preparation. A survey of existing socio-economic status and cultural practices of Indigenous Peoples, which will be carried out during subproject feasibility study/design, will be the basis for establishing the baseline data to monitor the project impacts on Indigenous Peoples. The PCU will prepare quarterly monitoring reports, post them on its website, and submit to the Bank for its review. The monitoring system should disaggregate and account for the diversity in population subgroups.

6. DISCLOSURE ARRANGEMENTS FOR IPPS AS SPECIFIED IN THE IPPF.

Disclosure arrangements for IPPs to be prepared under the IPPF. The final draft of this IPPF will be submitted by the PCU to the World Bank for review and clearance. Once cleared, it will be disclosed in-country, in the appropriate from, manner and language(s). Subsequently, the information from the documents specified above (particularly the IPP/subproject) will be made available to affected persons as leaflets in appropriate local language(s). After submitting the IPP(s) to the Bank for review and clearance, the PCU shall also post the above documents on its website and on the Bank's *Infoshop.* During implementation, the PCU will prepare social monitoring reports, make them available to affected Indigenous Peoples, post them on its website, and submit them to the Bank for review.

Based on the preliminary (desk-based) mapping of potential project-affected indigenous communities in Botswana, most members are illiterate and do not speak widely-used languages. Accordingly, information disclosure will include pictorial depiction and oral presentation, with indigenous languages used for communication.

Additionally, the information to be disclosed will include potential impacts – negative and positive – and culturally appropriate mitigation measures.Should there be severe impacts, an IPP will be developed once the affected Indigenous Peoples have been concretely identified.

Specifically, the IPP will ensure that the activities proposed are consistent with applicable laws of Botswana and obligations of the state and relevant international treaties and agreements. Specifically, the IPP will outline how to seek FPIC during project implementation, and expected outcomes related to the risks and impacts affecting the Indigenous Peoples. IFAD's How to Do Note on seeking FPIC will provide reference points and guidance. All elements/components will be duly followed in the IPP development as well as during FPIC seeking processes wherever applicable.

7. BUDGET.

Implementation of the IPPF does not require major costs, except for capacity building of project staff dealing with social issues and the cost of preparation of an IPP/subproject. All costs required to implement the IPP will be incorporated in the relevant subproject budget, which should include detailed cost estimates and indicate source of funds for the required activities (see Component 1).

IFAD
Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Targeted Adaptation Assessment

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
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East and Southern Africa Division
Programme Management Department

MINISTRY OF LANDS AND AGRICULTURE

Investing in rural people

Botswana Livestock Commercialization Project

(BoLCoP)

TARGETED ADAPTATION ASSESSMENT.

(TAA)

Prepared for:

Botswana Livestock Commercialization Project (BoLCoP)
Ministry of Lands and Agriculture,
AKD Building,
Plot number 1108,
Main Mall,
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June 2025

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1. INTRODUCTION

Climate variability and change is significantly impacting Botswana's economic growth potential especially agriculture as a consequence of temperature and hydrometeorological extremes (erratic rainfall, and more frequent extreme weather events), creating an adaptation deficit, leading to reduced crop yields, water scarcity, and increased pest and disease pressure. These stressors disproportionately affect the livelihoods of farmers and pastoralists, especially those reliant on rain-fed agriculture. Moving into the future, the negative impacts could widen this gap. Ensuring the achievements of the SDGs, poverty eradication and ensuring food security would require effective investments in adaptation, especially in the agriculture sector, which happens to be one of Botswana's mainstays.

2. CLIMATE CHANGE

2.1 CLIMATE OVERVIEW

Botswana experiences a warm to hot climate with temperatures ranging from 29.5°C to 35°C in summer and 19.8°C to 28.9°C in winter, with the hottest months being October and the coolest being June to August. Mean monthly minimum temperatures range from 14.6ºC to 20.8ºC in summer, and 2.9ºC to 11.6ºC in winter.

Botswana is one of the world's most drought-prone countries, frequently experiencing severe droughts, impacting food and water supply. Drought conditions exacerbate existing water scarcity in a country that already experiences low average annual rainfall (Figure 1) and relies on groundwater for around 49% of its freshwater supply[1].

2.2 TEMPERATURE TRENDS:

2.2.1 Historical temperature trends:

Since 1963, there has been a clear signal of increasing temperatures in Botswana of two degrees on average; higher than average temperatures have been particularly striking during the dry winter period[2].

Records from the last 50 years show that the number of warm days and nights has increased, and the number of cool days and cold nights decreased[3].

---

[1] Botswana's Third National Communication to the UNFCCC, 2019.

[2] MEWT. (2012). Second National Communication to the United Nations Framework Convention on Climate Change (UNFCCC). https://unfccc.int/resource/docs/natc/bwanc2.pdf

[3] Crawford, A. 2016. Review of current and planned adaptation action in Botswana. CARIAA Working Paper no. 7. International Development Research Centre, Ottawa, Canada and UK Aid, London, United Kingdom. Available online at: www.idrc.ca/cariaa

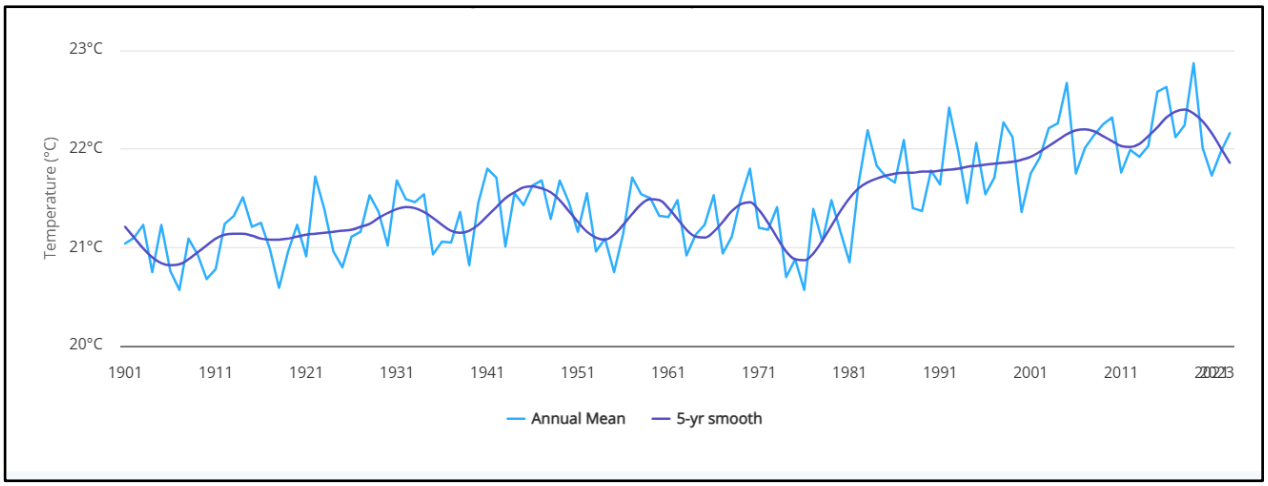

Figure 2-1 Observed annual average mean surface air temperature of Botswana for 1901 - 2023

2.2.2 Temperature Projections:

While Botswana has already been experiencing severe climatic conditions to some extent, climate models highlight the country as one of the African nations to experience the most severe temperature increases in the coming decades[4]. Accordingly, the Coupled Model Intercomparison Project (CMIP) Phase 6, Shared Socioeconomic Pathways (SSP) project Botswana's temperature increases as follows[5].

Moderate emissions scenarios (SSP2-4.5) project warming of ~0.5-1.4°C in the near term (2020-2039), 1.0-2.5°C in the medium term (2040-2059) and 1.5-3.3°C in the long term (2060 2079). Warming is expected to be moderately more severe in the West and South of the country[6].

Shorter term projections indicate that local warming and drying will be greater in Botswana than the global average and that the 1.5°C and 2°C temperature increase thresholds could be breached within the next 10 and 20 years respectively[7].

---

[4] Trisos, C.H., I.O. Adelekan, E. Totin, A. Ayanlade, J. Efitre, A. Gemeda, K. Kalaba, C. Lennard, C. Masao, Y. Mgaya, G. Ngaruiya, D. Olago, N.P. Simpson, and S. Zakieldeen. 2022. Africa. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group 11 to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 1285–1455. 18 World Bank. 2023. Climate Change Knowledge Portal. https://climateknowledgeportal.worldbank.org/country/botswana/climate-data projections. Date of access: 29 Jun 2023.

[5] World Bank. 2023. Climate Change Knowledge Portal. https://climateknowledgeportal.worldbank.org/country/botswana/climate-data projections. Date of access: 29 Jun 2023.

[6] World Bank Group. 2021. World Bank Climate Knowledge Portal. Available at: https://climateknowledgeportal.worldbank.org/country/botswana

[7] Nkemelang, T. et al. 2018. Determining what global warming of 1.5°C and higher means for the semi-arid regions of Botswana, Namibia, Ghana, Mali, Kenya and Ethiopia: A description of ASSAR's methods of analysis. https://bit.ly/2yHbWPf. Date of access: 29 Jun 2023.

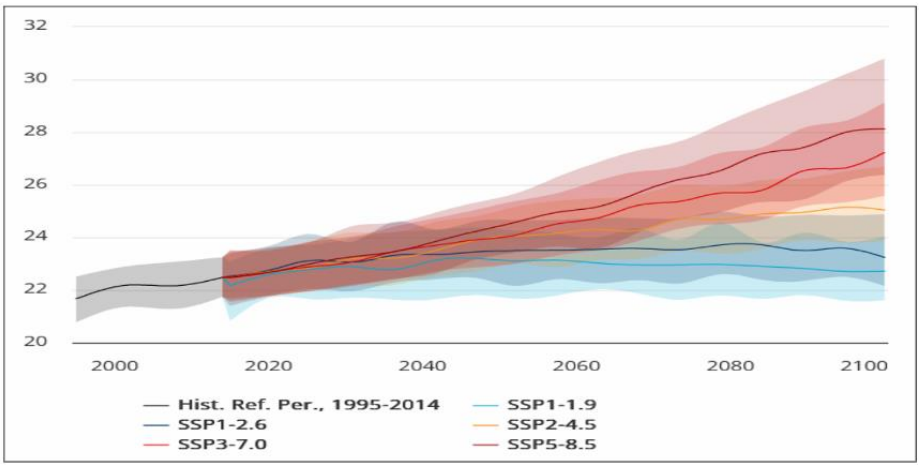

Figure 2-2 Multi-model ensemble mean temperature (°C) projections for Botswana.

The IPCC projects that temperatures over Botswana are projected to increase by 1.1°C by 2035, 2.5°C by 2065 and 4.5°C by 2100, compared to pre-industrial temperatures (Christensen et al. 2013: 14SM-36). In particular, the Kalahari desert region is expected to see an even greater and more rapid temperature increase, possibly by 2°C by 2030 [8] [9].

2.3 PRECIPITATION TRENDS:

2.3.1 Historical Precipitation Trends:

Climatic trends over the last 30 years show that rainfall has been decreasing on both annual and monthly bases across Botswana[10]. Moreover, the number of rainy days has decreased across the country, especially in the country's drier western areas.

In northern Botswana, historically the wettest region of the country, total summer rainfall amounts have decreased since 1963[11] [12].

2.3.2 Projections for Precipitation:

These patterns are projected to intensify as climate change, including rising temperatures, heightened rainfall variability, and a greater frequency of extreme weather events such as droughts and floods is poised to have a profound impact on the Southern African region[13].

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[8] MEWT. (2012). Second National Communication to the United Nations Framework Convention on Climate Change (UNFCCC). https://unfccc.int/resource/docs/natc/bwanc2.pdf.

[9] Crawford, A. 2016. Review of current and planned adaptation action in Botswana. CARIAA Working Paper no. 7. International Development Research Centre, Ottawa, Canada and UK Aid, London, United Kingdom. Available online at: www.idrc.ca/cariaa.

[10] Batisani, N. Yarnal, B. 2010. Rainfall variability and trends in semi-arid Botswana: Implications for climate change adaptation policy. Applied Geography. 30:483-489.

[11] MEWT. (2012). Second National Communication to the United Nations Framework Convention on Climate Change (UNFCCC). https://unfccc.int/resource/docs/natc/bwanc2.pdf

[12] Crawford, A. 2016. Review of current and planned adaptation action in Botswana. CARIAA Working Paper no. 7. International Development Research Centre, Ottawa, Canada and UK Aid, London, United Kingdom. Available online at: www.idrc.ca/cariaa

[13] Mpandeli S., Naidoo D., Mabhaudhi, T., Nhemachena, C., Nhamo, L., Liphadzi, S., Hlahla, S. Modi, A.T. 2018. Climate Change Adaptation through the Water-Energy-Food Nexus in Southern Africa. International Journal of Environmental Research and Public Health 15:2306.

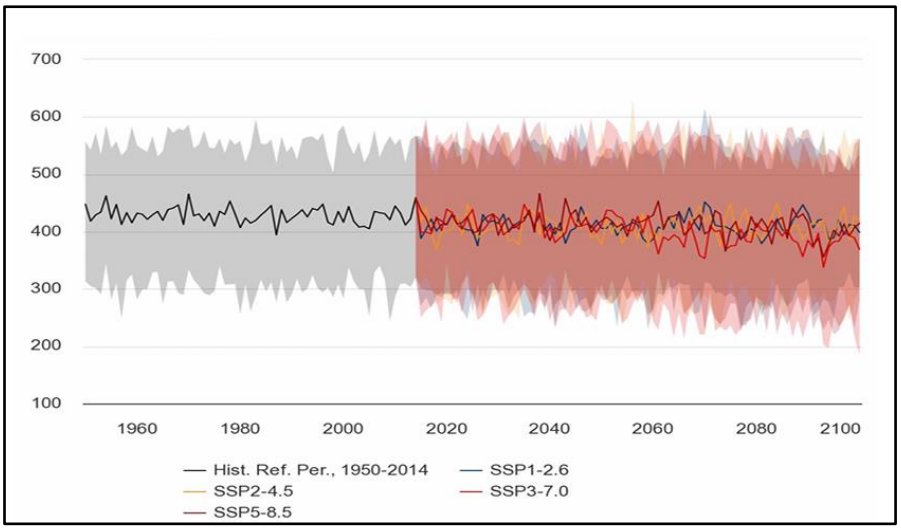

Figure 2-3 Projected Precipitation Botswana (Ref. Period 1995-2014), Multi-Model Ensemble[14]23

Annual precipitation is projected to decrease in the currently wetter northern and eastern regions, and increase in the south, although models vary in their results[15] (MEWT 2012); additionally, multi-decadal variability will likely continue throughout the century[16] (Daron 2014). Thus the country is projected to experience increased rainfall variability due to climate change. This includes a trend towards decreased rainfall overall, with fewer rainy days, and an increase in the length of dry spells. While some areas may see increases in rainfall, particularly in the east, the overall trend is towards greater rainfall variability and drier conditions.

The average duration of warm spells could increase between 62 and 80 days per year, or half of this in a 1°C world, depending on the region. Additionally, the length of dry spells is projected to increase by 5-days at 1°C and by 15-19 days at 2°C. Mean annual precipitation is projected to decrease between 5 and 12% in a 2°C world and between 2 and 7% in a 1°C world. Climate projections also show increases in indices of heavy rainfall. However, it is important to note here that the range presented by different models is large and therefore difficult to conclude upon[17] (Nkemelang et al. 2018).

3. IMPACT OF THE CLIMATE CHANGE

3.1 The expected climatic impact of the changes:

The following is an outline of the expected climatic impacts of the temperature and precipitation changes[18]:

[14] World Bank Group. 2021. World Bank Climate Knowledge Portal. Available at: https://climateknowledgeportal.worldbank.org/country/botswana.

[15] MEWT. (2012). Second National Communication to the United Nations Framework Convention on Climate Change (UNFCCC). https://unfccc.int/resource/docs/natc/bwanc2.pdf.

[16] Crawford, A. 2016. Review of current and planned adaptation action in Botswana. CARIAA Working Paper no. 7. International Development Research Centre, Ottawa, Canada and UK Aid, London, United Kingdom. Available online at: www.idrc.ca/cariaa.

[17] Nkemelang, T., New, M., & Zaroug, M. (2018). Temperature and precipitation extremes under current, 1.5 C and 2.0 C global warming above pre-industrial levels over Botswana, and implications for climate change vulnerability. Environmental Research Letters, 13(6), 065016. https://iopscience.iop.org/article/10.1088/1748- 9326/aac2f8/meta.

[18] New, M. & Bosworth, B., 2018. What global warming of 1.5 C and higher means for Botswana and Namibia. Climate and Knowledge Development Network. https://africaportal.org/feature/what-global-warming-15c-and-higher-means-botswana-and-namibia/. Date of access: 29 Jun 2023.

Table 3-1 Expected climatic impacts of an average temperature increase of 1.5°C and 2°C.

Projected climatic changes	1.5°C temperature increase	2°C temperature increase
Heat wave (days)	Increase by 43	Increase by 72
Annual rainfall	Decrease by 5%	Decrease by 9%
Dry days	Increase by 10	Increase by 17

Multiple future climate change scenarios, point to a decline in average annual rainfall, an increase in the number of dry days and longer heat wave periods as well as greater rainfall variability[19]. These anticipated climatic shifts are likely to exert significant stress on key sectors including biodiversity, agriculture, water, and energy.

Botswana experiences varying climate risks across its geographic regions due to its arid and semi-arid climate and diverse landscapes. The south-western region, including the Kalahari Desert, faces severe drought and water scarcity. The north-eastern regions, on the other hand, are more prone to flooding due to higher rainfall. Projections also show that droughts and storms are expected to increase (in frequency and severity) in western and northern Botswana, while in south-mid eastern Botswana (part of Limpopo basin), precipitation is likely to decrease, but with an increased risk in flooding. These regional differences highlight the complex challenges Botswana faces in adapting to climate change. The table below summarises the regional climate risks:

Table 3-2 Regional Climate Risks

No.	DISTRICTS	CLIMATE RISKS
1.0	**Southwestern Districts (Ghanzi, Kgalagadi) - Kalahari Desert:** These districts, including parts of the Kalahari Desert, experience the most severe drought conditions with very low rainfall and high temperatures. The climatic risks in these districts include the following	• **Drought:** The driest area, with low rainfall and soil conditions, leading to water scarcity and agricultural challenges. • **Water Stress:** Groundwater sources are under pressure due to high demand and reduced recharge rates. • **Food Insecurity:** Droughts impact livestock and agricultural production, potentially leading to food shortages. • **Impact on Biodiversity:** Hot, dry weather may increase the frequency of severe fires, impacting vegetation and wildlife.
2.0	**Central District:** This district, particularly around Palapye, is vulnerable to drought and has a semi-arid climate with average rainfall of 351mm.	• **Drought:** The driest area, with low rainfall and soil conditions, leading to water scarcity and agricultural challenges. • **Water Stress:** Groundwater sources are under pressure due to high demand and reduced recharge rates. • **Variable Rainfall:** Across Botswana, rainfall patterns are highly variable, making it difficult for communities to plan for agricultural activities. • **Increased Temperature:** Rising temperatures will exacerbate water stress and potentially reduce agricultural productivity. • **Vulnerability of Communities:** Communities in semi-arid areas are particularly vulnerable to climate change impacts, facing food insecurity and unstable livelihoods.
3.0	**Northern: (Ngamiland, Chobe)** These areas generally receive more rainfall (over 500mm annually) and are less prone to extreme drought conditions. However, they can still	• **Flooding:** Higher rainfall and potential for flash floods, particularly during La Niña events, can cause damage to infrastructure and livelihoods • **Variable Rainfall: r**ainfall patterns are highly variable, making it difficult for communities to plan for agricultural activities. • **Increased Temperature:** Rising temperatures will exacerbate water stress and potentially reduce agricultural productivity.

[19] Moseley, W.G. 2016. Agriculture on the Brink: Climate Change, Labour and Smallholder Farming in Botswana. Land. 5:21.

	experience variability in rainfall and occasional flooding.	• **Vulnerability of Communities:** Communities in semi-arid areas are particularly vulnerable to climate change impacts, facing food insecurity and unstable livelihoods
4.0	**Southeastern Districts: (Kweneng, Southern, South - east, Kgatleng)** These areas generally receive more rainfall (over 500mm annually) and are less prone to extreme drought conditions. However, they can still experience variability in rainfall and occasional flooding.	• **Flooding:** Higher rainfall and potential for flash floods, particularly during La Niña events, can cause damage to infrastructure and livelihoods • **Variable Rainfall: r**ainfall patterns are highly variable, making it difficult for communities to plan for agricultural activities. • **Increased Temperature:** Rising temperatures will exacerbate water stress and potentially reduce agricultural productivity. • **Vulnerability of Communities:** Communities in semi-arid areas are particularly vulnerable to climate change impacts, facing food insecurity and unstable livelihoods.
5.0	**North-East District:**	• **Flooding:** Higher rainfall and potential for flash floods, particularly during La Niña events, can cause damage to infrastructure and livelihoods. • **Waterlogging:** Excess water can lead to waterlogging of agricultural land and affect crop yields. • **Increased Risk of Disease:** Flooding can increase the risk of waterborne diseases.

The table and figure below summarises the Standardized Precipitation Index (SPI-3) average for each district based on recent 5-year trends[20], showing how short-term moisture conditions vary across Botswana and what this implies for drought risk. The Standardized Precipitation Index (SPI) trend over the last 5 years in Botswana is showing a general trend of increasing dryness, according to research from ScienceDirect.com. Specifically, there are indications that moderate droughts are becoming more frequent. This trend is partly attributed to rising temperatures and their impact on the SPEI (Standardized Precipitation-Evapotranspiration Index).

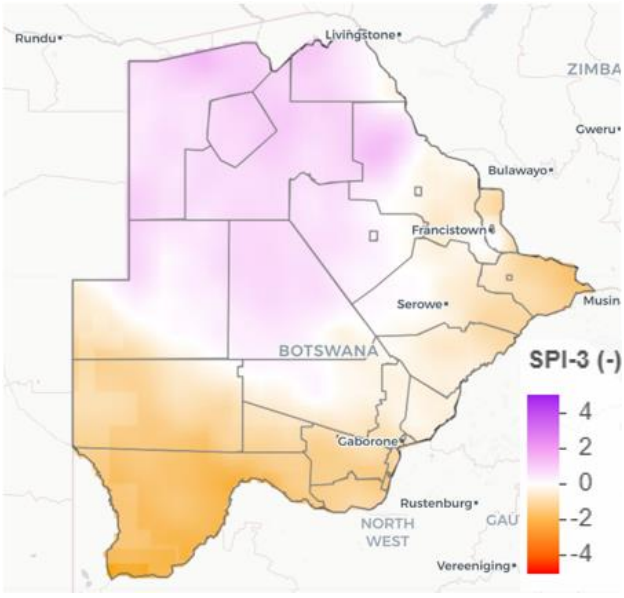

Figure 3-1 Standardized Precipitation Index (SPI-3)

[20] https://hydrology.soton.ac.uk/apps/bot_app/

Table 3-3 Standardized Precipitation Index (SPI-3)

District	SPI-3 Trend (recent 5 yrs)	SPI-3 Average	Moisture Category
Central	**Slight drying**	**–0.8**	**Normal**
Chobe	Wetter	1.2	Moderately wet
Ghanzi	Consistent drying	–1.4	Moderate drought
Kgalagadi	**Drying trend**	**-0.8**	**Moderate drought**
Kgatleng	Slight drying	–1.0	Moderate drought
Kweneng	Dry trend	–1.3	Moderate drought
Ngamiland (North-West)	Wetter trend	1.5	Severe wet
North-East	Slight drying	–0.9	Normal
Southern	**Severe drying trend**	**–1.6**	**Severe drought**
South-East	Slight drying	–1.1	Moderate drought

3.2 Current climate vulnerabilities of the Agriculture Sector.

The agricultural sector faces significant climate change vulnerabilities, primarily due to the country's arid to semi-arid climate and reliance on rain-fed agriculture. Increased temperatures, erratic rainfall patterns, and more frequent droughts and floods are major concerns. These climate-related challenges negatively impact crop production, livestock, and overall food security.

Droughts and Rainfall Variability: Botswana experiences highly erratic rainfall, with the southwest receiving an average of only 250 mm annually, while the north receives about 650 mm. Resulting in serious water scarcity. Droughts are becoming more frequent and severe, impacting crop yields and livestock, especially in rural communities heavily reliant on rain-fed agriculture. Further, the variability in rainfall makes it difficult for farmers to plan and manage their crops effectively.

Rising Temperatures: Temperatures are continuously rising, stressing crops and livestock. Higher temperatures are resulting in increased evaporation rates, reducing water availability for agriculture. Heat waves and severe thunderstorms are also damaging crops and infrastructure.

Impact on Crop Production: Most of the country depends on rainfed agriculture. Rain-fed crops like fodder crops, including sorghum and maize are particularly vulnerable to drought and low rainfall. Low soil fertility, another challenge in Botswana, further restricts arable crop production. Production is further diminished by pests and diseases, such as fall armyworms and locusts, which contribute to serious crop failure.

Impact on Livestock: Droughts lead to livestock mortalities due to water scarcity and lack of grazing. As a result, livestock may migrate to other areas in search of water and grazing, impacting traditional grazing patterns and inducing conflicts.

Food Security: The combination of reduced crop yields and livestock losses threatens food security, particularly in rural areas. Vulnerable populations, including female-headed households, children, and those with disabilities, are disproportionately affected.

3.3 Expected climate vulnerabilities of the Agriculture Sector

3.3.1 Impacts on Agriculture.

The temperatures over Botswana are projected to increase by 1.1°C by 2035, 2.5°C by 2065 and 4.5°C by 2100, compared to pre-industrial temperatures (Christensen et al. 2013: 14SM-36) and the increased rainfall variability, threaten livelihoods of 70% of the rural population that depend on

agriculture. In landlocked, largely dry Botswana these projected temperature increases and indications of decreasing annual rainfall trends for large parts of the country will increase pressure on water resources, with implications for households, industry and agriculture.

Figure 1-1 summarizes the potential effects of climate stressors, including drought, rainfall variability, floods, temperature increases, on agriculture. The climate impacts point to the connection between climate change in Botswana and agricultural productivity. It shows that four climate stressors – temperature increase, rainfall variability, droughts, and floods – affect the agricultural sector and ultimately reduce its productivity.

The Mean temperature in Botswana are projected to increase by 1.1°C by 2035, 2.5°C by 2065 and 4.5°C by 2100. The vulnerable sectors to rises in temperature are particularly rainfed agriculture, aquaculture, natural ecology systems and biodiversity, water resources, and energy (production and consumption). This ultimately increases the vulnerability of certain communities, such as poor farmers, pastoralists and generally communities that rely on rainfed agriculture (Figure 1-1).

By 2050, Botswana is projected to experience a decrease in precipitation, potentially by as much as 15%, according to Botswana's Second Updated Nationally Determined Contribution report to UNFCCC, with increasingly significant decrease expected throughout the rest of the century. There will be increased aridity and a higher occurrence in the number and frequency of dry spells over the summer season, October to February. Rainfall variability will also increase together with increased frequencies of both droughts and floods. Communities that are most vulnerable to droughts and floods are poor farmers, and generally poor families with senior members, children, and women.

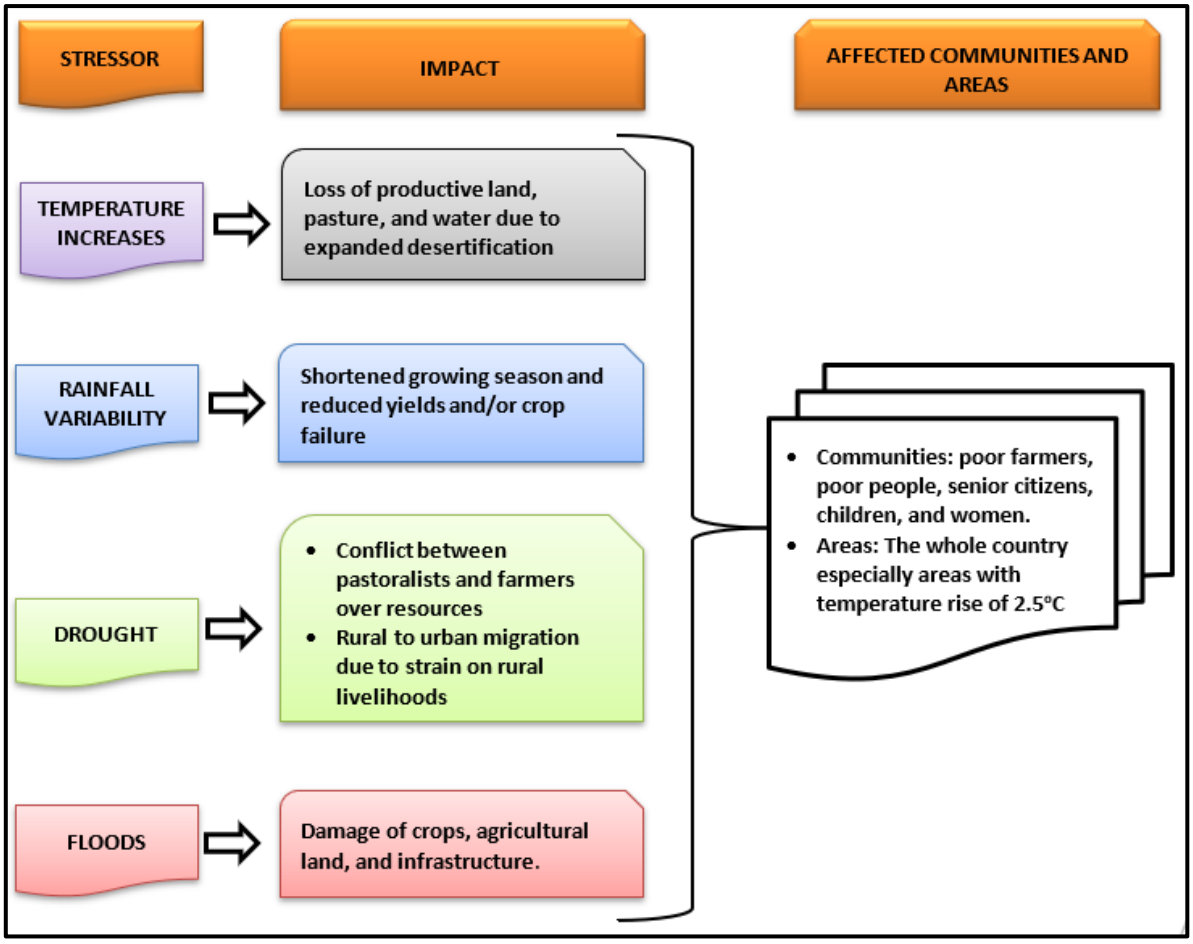

Figure 3-2 Climate stressors and their potential impacts on agriculture.[21]

Table 3-4 below depicts the broad scale sectoral vulnerabilities and potential climate change impacts in Botswana.

Table 3-4 Broad scale sectoral vulnerabilities and potential climate change impacts in Botswana

No.	SECTOR	POTENTIAL CLIMATE CHANGE MPACTS

[21] Adapted from **Siddig K, Stepanyan D, Wiebelt M, Zhu T, and Grethe H, 2018;** Climate change and agriculture in the Sudan: Impact pathways beyond changes in mean rainfall and temperature, Regional Program, Working Paper 13, September 2018.

	Agriculture	• Crop loss and reduced yields owing to increased temperatures and changing rainfall patterns. • Increased incidence of pests and diseases. • Reduced crop yields owing to dry spells and increased frequency of drought especially in the South. • Increased death and heatstroke in livestock owing to increased temperatures. • Decreased fodder availability for livestock.
2.0	Fisheries	• Decreased fish populations owing to increased sedimentation of rivers. • Reduced aquatic biodiversity owing to increased water temperatures and decreased river flows.
3.0	Water resources	• Increased flash flooding and siltation in rivers, especially in the north. • Reduced availability of water resources during drought, especially in the south. • Decreased water quality owing to contamination of water resources during flooding, especially in the north. • Reduced water storage negatively affecting irrigated agriculture production, especially during the summer months.
4.0	human settlements	• Increased potential for migration from rural to urban areas. • Damage to or destruction of infrastructure owing to extreme events, especially flash flooding.
5.0	Human health	• Changes in the prevalence of vector-borne diseases, such as malaria. • Increased potential for malnutrition and stunting, especially during drought.

The climate change impacts will occur through different channels and will affect each of the four dimensions of food security: access, availability, utilisation and stability[22], as outlined in Table 3-5.

Changes in temperature, precipitation, water availability, extreme climate events, and atmospheric composition will have direct effects on agricultural production, which may then translate into impacts on agricultural produce prices, incomes and livelihoods.

Table 3-5 Climate-change impacts on different aspects of food security[23]

FOOD SECURITY DIMENSION	POTENTIAL IMPACTS
Availability	• Reduced rainfall and increased evapotranspiration reducing yields from rain-fed agriculture and livestock production, • Reduced soil fertility and increased land degradation from increased temperatures, evaporation, and drought, • Climate change induced crop and livestock pests and diseases, • Higher post-harvest losses as a result of climate change.
Access	• Loss of agricultural income due to reduced yields and higher costs of production input such as water, • Climate-change impacts on food production could lead to higher global and local food prices, • Difficulties in accessing food due to displacement driven by climate extremes and disasters.
Stability	• Greater instability of supply due to increased frequency and severity of extreme events, including droughts, • Instability of incomes from agriculture.
Utilisation	• Impact on food safety due to increased temperatures, • Impacts on nutrition resulting from reduced water quality and quantity, • Climate induced morbidity

3.2.2 Climate Sensitivity and Adaptive Capacity of the Agricultural Sector in Botswana

Botswana's agriculture sector is highly sensitive to climate change due to its strong dependence on natural rainfall, limited irrigation infrastructure, poor soil fertility, and already variable weather patterns. In recent years, the country has faced increasingly unpredictable climatic conditions, including frequent and severe droughts, insect outbreaks, extended dry spells, intense rainfall events, rising temperatures, wildfires, flash floods, and shifting growing seasons. These evolving climatic circumstances have resulted in dry fields, water shortages, reduced yields, pest outbreaks, and a notable increase in both crop and livestock diseases. Such outcomes not only threaten production levels but also reduce the resilience of smallholder systems, which are the backbone of Botswana's food production. While some progress has been made in agricultural policy and investment, the adaptive capacity of the sector remains limited. Key constraints include:

- Reliance on rain-fed systems among smallholders.

[22] Food and Agriculture Organisation (FAO) (2016) The state of food and agriculture. Climate change, agriculture and food security. FAO, Rome, Italy.

[23] adapted from **Jobbins, G., and Henley, G., 2015;** Food in an uncertain future: the impacts of climate change on food security and nutrition in the Middle East and North Africa. Overseas Development Institute, London / World Food Programme, Rome.

- Limited access to irrigation and water storage technologies.
- Low uptake of climate-smart agricultural practices.
- Weak extension services and access to timely climate information.
- Insufficient access to finance, insurance, and risk reduction tools.
- Lack of diversified livelihoods in rural communities.
- Limited infrastructure to support post-harvest storage and market access.

To cope with these challenges, Botswana's agriculture sector must transition towards climate-resilient farming systems, improve water management, and increase investment in adaptation technologies. This includes expanded access to irrigation, drought-resistant seeds, better livestock management, early warning systems, and financial instruments such as weather-based insurance and credit schemes.

The effects of climate change on agricultural production are expected to:

- Increase production costs (e.g., for irrigation, inputs, pest control).
- Cause decreases in agricultural incomes and profitability.
- Lead to higher food and fodder prices, deepening food insecurity.
- Reduce employment and livelihood opportunities in rural areas.

These consequences could reinforce existing vulnerabilities, especially among small-scale farmers, women, and youth, unless adaptive measures are taken. Women in particular play a central role in Botswana's agriculture, especially in smallholder subsistence farming. According to the Botswana Gender Affairs Department (2021), women constitute nearly 45% of the agricultural labor force, with even higher participation in weeding, planting, harvesting, and post-harvest processing. However, their contributions are often under-recognized, and they face systemic barriers such as limited access to finance and inputs that reduce their adaptive capacity. The table below (Table 3-4) outlines the main climatic drivers, their direct impacts on agriculture, and reflects the sector's sensitivity to such changes and the limitations in its current adaptive capacity.

1. The effects of climate change on agricultural production are expected to translate into negative impacts on agricultural incomes and prices, with repercussions on food security.
2. The potential consequences of climate change risks on agriculture in Botswana are summarised in table 3-4 below[24]. These effects may then translate into increased agricultural production costs, higher food prices, decreased incomes and profitability for farmers, and deteriorating rural livelihoods and food security. As a consequence, this will result in food and fodder insecurity in Botswana.
3. Food and fodder insecurity is already a cause for concern in Botswana, and in the absence of adaptation, climate change may exacerbate these trends (Table 3-6).

Table 3-6 Potential climate-change impacts on agriculture in Botswana[25]

No.	MAIN CLIMATIC CAUSES OF RISK	CONSEQUENCES ON THE AGRICULTURAL SECTOR
1.0	Changes in monthly precipitation distribution	Crop area changes due to decrease in optimal farming conditions.
	Increased temperatures in critical periods	
	Increased erosion	

[25] Adapted from **Tippmann, R. and Baroni, 2017;** L. ClimaSouth Technical Paper N.2, 2016; The Economics of Climate Change in Palestine, February 2017.

	Loss of soil water-retention capacity	
	Increased soil salinity	
	Climate-induced land degradation	
2.0	Changes in monthly precipitation distribution	Decreased crop productivity
	Increases in seasonal temperature variability	
	Increased temperatures in critical periods (heat stress)	
	Increased evapotranspiration (leading to water stress)	
	Loss of soil water-retention capacity	
	Increased incidence of agricultural pests and pathogens	
3.0	Decreasing livestock carrying capacity of grazing areas (due to changes in temperature and water availability)	Decreased livestock productivity
	Increased temperatures (heat stress)	
	Decreased water availability	
	Decreased fodder availability (both quantity and quality)	
	increased disease outbreaks (linked to water stress and heat).	
4.0	Increase of extreme events frequency/intensity	Increased risk of floods (affecting crops, livestock and agricultural infrastructure)
	Loss of soil water-retention capacity	
5.0	Decreased annual and/or seasonal precipitation	Increased risk of drought and water scarcity.
	Increase in the frequency of extreme conditions (droughts and heat waves)	
	Decreased groundwater availability/quality	
	Increased demand on aquifers leading to further depletion	
	Conflicts amongst water users due to drought and water scarcity	
6.0	Increased average and extreme temperature	Increased irrigation requirements
	Increased evapotranspiration in plants	
	Increased frequency of drought and heat stress conditions	
	Decreased precipitation	
	Decreased water availability	

4. THE ADAPTATION ASSESSMENTS PROCESS

Given the above observed and potential climatic hazards (Also considered in the SECAP review Note), including the analysis of the vulnerability factors and climate impacts on crop value chains in the regions, this section proposes feasible adaptation options that the project may promote.

4.1 LONGLIST OF ADAPTATION OPTIONS

A longlist of adaptation options based on climatic hazards, sensitivity, exposure, adaptive capacity and agroecological zone are presented in Table 4-1 below. The longlist is developed from adaptation recommended in the updated NDC, Third National Communications to the UNFCCC, options highlighted in the National Agriculture Policy, the National Climate Smart Agriculture Training, the IFAD Database for Climate Adaptation Options and discussions with technical officers and the local

stakeholders. These documents highlight strategic sectoral adaptation projects and programs to be implemented to reduce the country's vulnerability to climate change.

Table 4-1 Climate change adaptation options.

ID	CLIMATE RISKS	POTENTIAL IMPACTS ON VALUE CHAINS	SUGGESTED ADAPTATION OPTIONS
A1.0	Increased temperatures and droughts	Low water availability reduces crop/fodder yields and feed availability for livestock	• Promote conservation agriculture, with a specific focus on those living in poverty, and female-headed households.
			• Prevent land cover conversion during shifts in land use from forestry to ecotourism
			• Revitalise community woodlots
			• Institute bush and game area encroachment control
			• Promote drought tolerant breeds to increase the national head that is drought tolerant and reduce mortality rates from drought.
			• Improve livestock diet i.e.. the percentage of livestock that is under supplementary feed for 1/3 of the year
			• Institute stocking rate management in order to match stocking rates with carrying capacities of pastures.
			• Implement herding and directed area-grazing for health and range management
			• Rehabilitate degraded lands
			• Establish emergency forage storage and distribution systems.
			• Promote integrated *insitu* soil and water management and conservation (including conservation agriculture, box ridges, compost manure application, mulching, agroforestry).
			• Promote community and small-scale irrigation structures and better water management practices.
			• Promote conjunctive use of ground-surface water
		Impacts on Biodiversity and rangeland	• Prevent spread of alien invasive species
			• Retain core wildlife refugia, keeping protected areas fully protected
			• Train Farmers Wildlife management to Promote and support human-wildlife coexistence
			• Implement Veldt fire management
			• Establish hedgerows, windbreaks, and practice agroforestry to support on-farm biodiversity
			• Use native grasses and trees for reseeding to enhance biodiversity and forage quality
		High temperatures reduce products shelf life and increase post-harvest losses	• Promote better crop/fodder storage structures and capacity building in post-harvest handling and management.
		Droughts may lead to total crop failure and loss of substantial investment for farmers	• Introduce new varieties of existing fodder crops, e.g. with greater drought or flood resistance.
			• Promote the design of attractive and affordable crop and livestock insurance products for farmers.
		Reduced precipitation may lead to reduced and scarcity of water.	• Construct new water harvesting infrastructure and Install rooftop rainfall catchment systems on public buildings
			• Build new storage facilities / dams to cope with drought.
			• Identify alternative sources of water supply during drought.
			• Work more closely with other users of water in the relevant catchments to ensure sustainable water supplies.

			• Support the adoption of solar-powered water reticulation and irrigation systems to promote clean energy and water access.
			• Stick to recommended rates of groundwater abstraction to avoid salt water intrusions and depletion of groundwater resources.
			• Avoid discharging polluted effluents into the scarce water resources. Pre-treat all process waters.
		Increased warm temperature lead to pest and disease outbreaks	• Improve pest and disease control practices.
			• Enhance capacity in pest and disease surveillance.
2.0	Extremes of climatic conditions.	Increased precipitation lead to landslide, occurrence of floods, loss of crops, livestock and damage investment infrastructures	• In building infrastructure, Use of building materials that withstand extreme climate events
			• Promote an ecosystems-based approach to regulate extreme event: floods, storms, etc.
			• Improve design to enhance infrastructure resistance to climate extremes, (animal structures, storage structures) etc.
			• Promote micro catchment conservation (afforestation, check dams, contour bunds and vetiver).
			• Map flood-prone agricultural zones and integrate them into land-use planning.
		High erosion from flash floods on bare lands and increased sedimentation in water bodies	• Introduce new tillage and drainage methods to reduce soil erosion.
3.0	Climate variability	Impact on livelihoods and welfare.	• Diversify livelihoods / create income sources from activities other than agriculture.
			• Devise appropriate social protection strategies.
			• Consider the effect of new weather patterns on the health and well-being of agricultural workers.
		Climate services	• Expand Multiple Hazard Early Warning Systems (EWS) to serve multiple sectors, to improve response to climate disasters.
			• Establish a climate advisory systems to help producers adapt. promote mobile-based weather advisory services for farmers in local languages.
			• Establish climate projections and a system to measure the impacts of climate change Collect and identify areas that are vulnerable to climate related damage (drought, flooding, soil erosion).
		Impact on Agriculture.	• Diversify agricultural activities within single farm units, e.g. introduction of agro-forestry systems.
			• Diversify agricultural crops available to farmers/ introduce new crops.
			• Build expertise in the use of climate forecast information for improvement of cropping strategies and yield forecasting.
			• Re-schedule planting and harvesting dates.
			• Research traditional farming practices to identify approaches that may be suited to a different climate.
			• Early sowing enabled by improvements in sowing machinery or dry sowing techniques.
			• Use intercropping where appropriate.
			• Make use of integrated systems involving livestock and/or aquaculture to improve resilience.

			• Change post-harvest practices, for example the extent to which grain may require drying and how products are stored after harvest.

4.2 PRIORITIZATION OF ADAPTATION OPTIONS

Having developed a long list of adaptation options, a criteria for prioritisation is presented as in Table 4-2 below. The Multi-Criteria Analysis (MCA) was used to decide which "most feasible options" should be implemented. The approach takes into consideration a number of criteria including technical feasibility costs, benefits, potential to address climate risks, accessibility of option to small scale farmers, flexibility (i.e. avoids lock-in), mitigation co-benefits, transformative potential. The approach is adapted from IFAD (Thematic Brief Irrigated Crops (ifad.org). It is an expert-driven process using information gathered from a wide stakeholder engagement.

The assessment uses a simple scoring system based on the eight criteria outlined in table 4-2. The first four criteria require a minimum score of 2; options which score lower than 2 on any of these criteria do not meet the minimum requirements and are not deemed to be suitable. Adaptation options which are scored the highest are most suitable for a project.

Table 4-2 Criteria and scoring for prioritisation of adaptation options

No.	Theme	Scoring Criteria		
		1	2	3
1	Technical Feasibility	No experience in implementing solution	Consultants available with suitable skills	Previous IFAD experience with solution
2	Cost Benefit Analysis	Benefits are less than the costs	Benefits are higher than the estimated costs	Benefits are significantly higher than the estimated costs
3	Potential to addresses Climate Risk	Adaptation option is not relevant or may not be effective for the risks identified	Adaptation option effectively addresses at least one of the identified risks	Adaptation option is relevant for all of the major climate risks identified
4	Accessibility for SHF	Adaptation option is inaccessible for the main project beneficiaries (e.g. unaffordable, requiring regular complex maintenance), or exacerbates existing inequalities.	Adaptation option is accessible for the majority of the project's target beneficiaries.	Adaptation option is accessible to project beneficiaries and specifically benefits women or other marginalised groups.
5	Flexibility (avoids lock-in)	The adaptation option has a long lifetime (>10 years) and its design does not allow for any adjustment.	The adaptation option being considered has a short lifetime (less than 10 years)	The adaptation option is low or no regrets or is part of an adaptive management approach.
6	Mitigation Co-benefits	No mitigation co-benefits or adaptation significantly increases greenhouse gas emissions.	Adaptation option leads to emissions reductions, either at present or in the future.	Adaptation option involves reforestation, restoration of carbon sinks, or the substitution of fossil fuels for renewable energy sources.
7	Transformative potential	Adaptation option is limited to small increases in the resilience of target group but does not involve changes in wider systems.	Adaptation option operates at scale or enables wider implementation of the option, for instance with a declining marginal cost	Adaptation option enables change in the system in question which significantly increases opportunities for target beneficiaries to adapt to climate change.
8	Complementarity to IFAD themes	No complementarity	Complements at least one other cross-cutting theme that is directly relevant to adaptation outcomes	Complements more than one other cross-cutting theme to support systemic resilience.

4.3 ADAPTATION DECISION MATRIX TABLE

Table 4-3 Adaptation decision matrix table

PRIORITY ADAPTATION OPTIONS	NAME	RATIONALE
1	Promote drought tolerant breeds to increase the national head that is drought tolerant and reduce mortality rates from drought.	drought tolerant breeds possess unique physiological adaptations that allow them to thrive in arid conditions while minimizing resource use. These livestock breeds are able to survive with less water. Thus, reducing the chances of livestock losses during drought. By choosing drought-resistant breeds, farmers can enhance the sustainability of their operations, reduce feed costs, and ensure the welfare of their livestock. Breeding for drought-tolerant livestock also ensures resilience of traditional farmers and of the Botswana economy to the impacts of climate change. Promoting drought tolerant breeds is relatively no-regret with little trade-offs and win-win in terms of supporting livelihoods and food security.
2	Diversify agricultural activities within single farm units, e.g. introduction of agro-forestry systems.	Agricultural diversification i) helps to reduce the risks associated with farming by spreading out investments and production across multiple crops and livestock, reducing the likelihood of crop failure or livestock disease wiping out the entire farm's income. ii) provides the opportunity to sell a wider range of products, increasing the income streams. iii) ensures a steady supply of food throughout the year, reducing the risk of food shortages during times of crop failure, and iv) promotes biodiversity and reduces the risk of pest and disease outbreaks, reducing the need for pesticides and other chemicals. Agricultural diversification is a no-regret option as the farmers will benefit regardless of the specific future. It is also a win-win option as it will contribute to multiple objectives simultaneously, like social, economic and environmental benefits.
3	Construct new water harvesting infrastructure and Install rooftop rainfall catchment systems on public buildings	Rainwater harvesting offers several advantages, primarily addressing water scarcity and promoting sustainable water management. It provides readily accessible water for both domestic and agricultural purposes and provides a backup source during droughts. Additionally, it helps mitigate flooding and erosion by reducing stormwater runoff and recharges groundwater resources. Rainwater harvesting is a no-regret option as it is beneficial in the present climate and will also be valuable in the face of future climate change impacts.
4	Institute stocking rate management in order to match stocking rates with carrying capacities of pastures.	Matching the stocking rates with carrying capacities of pastures will help avoid the degradation of pastures. Further, this ensures animals always have sufficient feed. This minimises the impact of dry years and drought feeding costs. Most importantly, it prevents overgrazing and reduces the impact of drought on land condition. Matching the stocking rates with carrying capacities of pastures is a no-regret option as it is beneficial in the present climate and will also be valuable in the face of future climate change impacts.
5	Diversify agricultural fodder crops available to farmers/ introduce new crops. e.g. with greater drought or flood resistance.	New varieties of existing fodder crops will be adopted much easier since the farmers are already familiar with them. Further if they have greater drought or flood resistance, they will address the climate risks and enhance food security. Diversify agricultural fodder crops is a no-regret option as it is beneficial in the present climate and will also be valuable in the face of future climate change

Select Sector	Adaptation options	Technical feasibility	Cost-benefit ratio	Addresses climate risks	Accessibility for smallholders	Flexibility (i.e avoids lock-in)	Mitigation co-benefits	Transformative potential	Complementarity to IFAD themes	Suitability	Total Score

Increased temperatures and droughts	Promote conservation agriculture, with a specific focus on those living in poverty, and female-headed households.	2	2	3	2	3	2	2	2	Suitable	18
	Revitalise community woodlots	2	2	3	2	2	2	2	2	Suitable	17
	Institute bush and game area encroachment control	2	2	3	2	2	2	2	3	Suitable	18
	Promote drought tolerant breeds to increase the national head that is drought tolerant and reduce mortality rates from drought.	3	3	3	2	3	3	3	3	Suitable	23
	Improve livestock diet i.e. the percentage of livestock that is under supplementary feed for 1/3 of the year	3	3	2	2	1	2	3	2	Suitable	18
	Institute stocking rate management in order to match stocking rates with carrying capacities of pastures.	2	3	2	2	3	3	2	3	Suitable	20
	Implement herding and directed area-grazing for health and range management	2	2	2	2	2	2	1	1	Suitable	14
	Rehabilitate degraded lands	2	2	2	3	2	2	2	3	Suitable	18
	Establish emergency forage storage and distribution systems.	2	2	3	2	2	2	2	3	Suitable	18
	Promote integrated insitu soil and water management and conservation (including conservation agriculture, box ridges, compost manure application, mulching, agroforestry).	2	2	2	3	3	2	1	2	Suitable	17
	Promote community and small-scale irrigation structures and better water management practices.	2	2	2	2	2	2	2	1	Suitable	15
	Promote conjunctive use of ground-surface water	2	2	3	2	3	2	3	1	Suitable	17
	Prevent spread of alien invasive species	2	2	2	2	1	2	2	1	Suitable	14
	Retain core wildlife refugia, keeping protected areas fully protected	1	2	2	2	1	2	1	1	Not Suitable	0
	Promote and support human-wildlife coexistence	2	2	2	2	1	2	1	1	Suitable	13
	Implement Veldt fire management	2	2	2	2	3	2	2	2	Suitable	17
	Promote better crop/fodder storage structures and capacity building in post-harvest handling and management.	3	3	2	3	2	2	1	2	Suitable	18
	Introduce new varieties of existing fodder crops, e.g. with greater drought or flood resistance.	3	2	2	2	2	3	1	2	Suitable	17
	Promote the design of attractive and affordable crop and livestock insurance products for farmers.	2	3	2	3	3	2	2	2	Suitable	19
	Construct new water harvesting infrastructure and Install rooftop rainfall catchment systems on public buildings	3	3	2	3	2	3	3	2	Suitable	21
	Build new storage facilities / dams to cope with drought.	2	1	2	2	3	2	2	2	Not Suitable	0
	Identify alternative sources of water supply during drought.	2	2	3	2	3	2	3	3	Suitable	20
	Work more closely with other users of water in the relevant catchments to ensure sustainable water supplies.	2	2	2	2	2	1	1	2	Suitable	14
	Improve pest and disease control practices.	3	2	2	3	2	1	1	2	Suitable	16

	Enhance capacity in pest and disease surveillance.	3	2	2	2	2	1	1	2	Suitable	15
Extremes of climatic conditions	In building infrastructure, Use of building materials that withstand extreme climate events	2	2	2	2	3	3	2	2	Suitable	18
	Promote an ecosystems-based approach (EbA) to regulate extreme event: floods, storms, etc.	2	2	2	2	1	1	2	1	Suitable	13
	Improve design to enhance infrastructure resistance to climate extremes, (animal structures, storage structures) etc.	2	2	2	2	1	1	2	2	Suitable	14
	Promote micro catchment conservation (afforestation, check dams, contour bunds and vetiver).	2	2	2	2	3	3	2	1	Suitable	17
	Introduce new tillage and drainage methods to reduce soil erosion.	2	2	2	2	2	1	3	1	Suitable	15
Climate variability.	Diversify livelihoods / create income sources from activities other than agriculture.	2	2	2	2	3	2	2	1	Suitable	16
	Devise appropriate social protection strategies.	2	2	2	2	3	2	2	1	Suitable	16
	Consider the effect of new weather patterns on the health and well-being of agricultural workers.	2	2	2	3	3	2	2	1	Suitable	17
	Expand Multiple Hazard Early Warning Systems (EWS) to serve multiple sectors, to improve response to climate disasters.	2	2	2	3	3	2	2	2	Suitable	18
	Establish climate projections and a system to measure the impacts of climate change Collect and identify areas that are vulnerable to climate related damage (drought, flooding, soil erosion).	2	2	2	3	3	2	2	2	Suitable	18
	Diversify agricultural activities within single farm units, e.g. introduction of agro-forestry systems.	2	3	3	3	3	3	3	2	Suitable	22
	Diversify agricultural fodder crops available to farmers/ introduce new crops. e.g. with greater drought or flood resistance.	2	2	2	3	3	2	3	2	Suitable	19
	Build expertise in the use of climate forecast information for improvement of cropping strategies and yield forecasting.	2	2	2	3	3	1	1	2	Suitable	16
	Re-schedule planting and harvesting dates.	2	2	2	3	3	2	2	2	Suitable	18
	Research traditional farming practices to identify approaches that may be suited to a different climate.	3	2	3	3	3	2	2	2	Suitable	20
	Early sowing enabled by improvements in sowing machinery or dry sowing techniques.	2	2	2	3	3	2	2	2	Suitable	18
	Use intercropping where appropriate.	2	2	2	3	3	2	2	2	Suitable	18
	Make use of integrated systems involving livestock and/or aquaculture to improve resilience.	3	2	3	3	3	2	3	2	Suitable	21
	Change post-harvest practices, for example the extent to which grain may require drying and how products are stored after harvest.	2	2	2	3	3	2	2	2	Suitable	18

5. IMPLEMENTATION AND MONITORING

The TAA and recommendations will be implemented by the Ministry of Lands and Agriculture, through the BolCoP - PMU and district councils. Oversight for TAA implementation will be undertaken by the Climate Change Adaptation Specialist, recruited under the PMU. The PMU will customise, update and include TAA as part of project annual workplan for review by the Project Technical Committee and approval by the Project Steering Committee.

Monitoring will ensure the long-term success of climate adaptation initiatives, plans and actions. The TAA will play an important role in the planning of and mainstreaming of adaptation activities to be undertaken; track progress of planned outputs and outcomes from adaptation actions; and monitor if project interventions are leading to any unanticipated side effects. The five priority adaptation options have been embedded into the various project activities in the PDR and will be included in the KPIs.

6. CONCLUSIONS AND KEY RECOMMENDATIONS.

This report analysed the most common observed hazards, factors that compound communities' vulnerability to climate change, including exposure, sensitivity and adaptive capacity. The report has made recommendations on adaptation options that may be promoted to climate proof and improve resilience of target beneficiaries and sustainability of the project's achievements.

The main climate hazards found include extreme temperatures, droughts and Flash floods. Future climate trends indicate increase in temperature and extreme temperatures; increased rainfall variability; and a reduction in precipitation. Most of the selected value chains without adaptative measures would result in reduced yields.

Based on the climate risks and projected impacts, the adaptation options recommended include a) Promote drought tolerant breeds to increase the national head that is drought tolerant and reduce mortality rates from drought, b) Diversify agricultural activities within single farm units, e.g. introduction of agro-forestry systems, c) Construct new water harvesting infrastructure and Install rooftop rainfall catchment systems on public buildings, d) Institute stocking rate management in order to match stocking rates with carrying capacities of pastures, e) Diversify agricultural fodder crops available to farmers/ introduce new crops. e.g. with greater drought or flood resistance.

The TAA recommendations will need to be mainstreamed by the project implementation team, including the PMU and the districts councils. At PMU level it is recommended that a Climate Change Adaptation Specialist be recruited to spearhead and technically guide implementation of the climate adaptation interventions. The Climate Adaptation Specialist will provide technical support and assist the district councils to mainstream climate adaptation in the workplans and the selected beneficiary group in implementing adaptation options and NRM plans. The Project Technical Committee will review the annual work plans to ensure that climate change adaptation is well mainstreamed before seeking approval from the Project Steering Committee. An Environment, Social and Climate management Plan will be developed and continuously monitored and reported in the annual progress reports.

Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Stakeholder Engagement Plan

Mission Dates:	07-19 July 2025
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East and Southern Africa Division
Programme Management Department

MINISTRY OF LANDS AND AGRICULTURE

Investing in rural people

Botswana Livestock Commercialization Project

(BoLCoP)

STAKEHOLDER ENGAGEMENT PLAN

(SEP)

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Botswana Livestock Commercialization Project (BoLCoP) Stakeholder Engagement Plan (SEP) is intended to provide complete documentation for the requirements of a holistic Stakeholder Engagement system for the project. This SEP contains the findings of a study conducted for the agriculture sector of Botswana and the instrument has been developed on the basis of the local conditions and findings.

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1 STAKEHOLDER ENGAGEMENT PLAN

1.1 INTRODUCTION.

This report presents a Stakeholder Engagement Plan (SEP) which forms part of the set of Environmental and Social Management Instruments for the Botswana Livestock Commercialization Project (BoLCoP). The Implementing Agency of the Project, the Ministry of Lands and Agriculture through a Project Management Unit (PMU), has the responsibility to effectively engage stakeholders in achieving the project objectives, hence the formulation of this SEP, which will be applied for all public consultation processes.

The SEP involves identifying and engaging with individuals or groups who can impact or be impacted by the project. Its aim is to improve and facilitate decision making and create an atmosphere of understanding that actively involves project-affected people and other stakeholders in a timely manner. It will further provide the stakeholders with sufficient opportunity to voice their opinions and concerns that may influence project decisions.

The plan is a crucial part of ensuring the project is effective, inclusive, and sustainable. It outlines how the project will involve stakeholders at various stages, from project design to implementation, and addresses how feedback will be gathered and incorporated.

1.2 OBJECTIVES OF THE PLAN

The Key objectives of the SEP are to:

- Identify key stakeholders that are affected, and/or able to influence the Project and its activities,
- Identify the most effective methods, timing, and structures through which to share project information, and to ensure regular, accessible, transparent, and appropriate consultation,
- Provide guidance for stakeholder engagement such that it meets the standards of International Best Practice,
- Develop a stakeholders' engagement process that provides stakeholders with sufficient opportunity to voice their opinions and concerns and be able to influence the project,
- Establish formal grievance redress mechanisms,
- Define roles and responsibilities for the project implementers in conducting stakeholder consultations,
- Define reporting and monitoring measures to ensure the effectiveness of the SEP and periodical reviews of the SEP based on findings.

The SEP provides a framework for achieving effective stakeholder involvement and promotes greater awareness and understanding of issues so that the project is carried out effectively. Effective stakeholder engagement develops a "social licence" to operate and depends on mutual trust, respect and transparent communication between the PMU and its stakeholders. The key elements of the SEP are:

- Stakeholder identification and analysis
- Stakeholder Engagement Program
- Grievance Redress Mechanism
- Monitoring and Reporting.

1.3 WHAT IS STAKEHOLDER ENGAGEMENT?

Stakeholder Engagement will be free of manipulation, interference, coercion, and intimidation, and conducted on the basis of timely, relevant, understandable and accessible information, in a culturally appropriate format. It involves interactions between identified groups of people and provides stakeholders with an opportunity to raise their concerns and opinions (e.g., by way of meetings, surveys, interviews and/or focus groups), and ensures that this information is taken into consideration when making project decisions. It thereby improves its decision-making and performance by:

- **Managing costs:** Effective engagement can help BoLCoP avoid costs, in terms of money and reputation.
- **Managing risk:** Engagement helps BoLCoP and communities to identify, prevent, and mitigate environmental and social impacts that can threaten project viability.
- **Enhancing reputation:** By publicly recognising human rights and committing to environmental protection, BoLCoP-PMU and financial institutions (IFAD) involved in financing the project can boost their credibility and minimise risks.
- **Avoiding conflict:** Understanding current and potential issues such as rights to service provision and proposed project activities.
- **Improving corporate policy:** Obtaining perceptions about a project, which can act as a catalyst for changes and improvements in BoLCoP-PMU corporate practices and policies.
- **Identifying, monitoring and reporting on impacts:** Understanding a project's impact on stakeholders, evaluating and reporting back on mechanisms to address these impacts; and
- **Managing stakeholder expectations:** Consultation also provides the opportunity for BoLCoP-PMU to become aware of and manage stakeholder attitudes and expectations.

1.4 PRINCIPLES FOR EFFECTIVE STAKEHOLDER ENGAGEMENT

This SEP shall be informed by a set of principles defining its core values underpinning interactions with identified stakeholders. Common principles based on "International Best Practice" include the following:

- **Commitment** is demonstrated when the need to understand, engage and identify the community is recognized and acted upon early in the process,
- **Integrity** occurs when engagement is conducted in a manner that fosters mutual respect and trust,
- **Respect** is created when the rights, cultural beliefs, values and interests of stakeholders and affected communities are recognized,
- **Transparency** is demonstrated when community concerns are responded to in a timely, open, and effective manner,
- **Inclusiveness** is achieved when broad participation is encouraged and supported by appropriate participation opportunities; and
- **Trust** is achieved through open and meaningful dialogue that respects and upholds a community's beliefs, values and opinions.

2 REGULATORY REQUIREMENTS

2.1 RELEVANT NATIONAL LEGISLATION

The BoLCoP SEP takes into account the existing institutional and regulatory framework within the context of Botswana and international laws. These applicable laws and international good practices are discussed below.

2.2 THE CONSTITUTION OF BOTSWANA, 1997

The Constitution of Botswana was promulgated in 1966, providing for the separation of judicial, legislative, and executive powers. Table 2-1 is an outline of the relevant sections of the Botswanan Constitution:

Table 2-1 The Constitution of Botswana

NO.	POLICIES AND PLANS	INTERPRETATION OF THE POLICY
1	The National Constitution of the Republic of Botswana 1966.	The Constitution of Botswana, adopted in 1966, establishes the fundamental rights and freedoms of individuals in Botswana, including the protection of life, liberty, and property, as well as freedom of conscience, expression, assembly, and association. However, the Constitution does not explicitly provide for environmental rights or sustainable development. While Botswana recognizes civil, political, and socio-economic rights, it does not currently have a framework environmental law. However, the country is committed to sustainable resource management, as reflected in Vision 2016, and the Ministry of Environment, Wildlife and Tourism is responsible for environmental issues. The country's commitment to sustainable resource management is reflected in Vision 2016.
2	The Macro policy 1994	Vision 2016 is a national strategy, which explicitly reflects a commitment to sustainable resource management. A key tenet of the vision is the sustainable utilization of natural resources, including renewable ones, and the establishment of a more equitable income distribution. • **Sustainable Resource Management:** Vision 2016 aims to ensure that renewable resources are used at a rate consistent with their regeneration capacity. This reflects a long-term perspective that prioritizes the well-being of the environment and future generations. • **Economic Diversification:** The vision also emphasizes diversifying sources of economic growth to reduce reliance on any single sector, particularly those that might be unsustainable. This includes promoting sustainable agriculture and forestry, ensuring food security and economic development. • **Social Development:** Alongside economic growth, Vision 2016 aims to improve the quality of life for Batswana, including poverty alleviation and access to education. This holistic approach recognizes the interconnectedness of economic, social, and environmental well-being. • **Environmental Protection:** The vision acknowledges the importance of environmental protection and conservation, with the Ministry of Environment, Wildlife and Tourism playing a key role in coordinating environmental policies and programs. This includes the Department of Environmental Affairs, which is responsible for formulating and implementing relevant legislation and policies.

2.3 SUMMARY OF LEGAL AND REGULATORY BASELINE.

Table 2-2 is an outline of the relevant Legal and Regulatory Instruments:

Table 2-2 The Legal and Regulatory Instruments.

LEGISLATION	DESCRIPTION
The Tribal Land Act (2018)	Supersedes the 1968 Act and its amendments in 1991 and 1993. The initial Act in 1968 transferred the land management and administration from traditional chiefs to the Land Boards. Subsequent revisions maintained the Land Boards' mandate of governing the use of communal land while accommodating new policies in agriculture and decentralization and the creation of subordinate land boards.
The Forest and Range Resources Bill	Was initially promulgated in 1968 to confer power to the Forestry Department of the then Ministry of Agriculture (the department has relocated to the Ministry of Environment Natural Resources Conservation and Tourism) as sole manager of forest reserves. Its objective was to regulate for and protect forests and forest products in Botswana by establishing forest reserves. The Forest and Range Resources Bill, currently under development, has broadened the mandate to provide for the implementation of international conventions to which Botswana is a signatory (e.g. UNFCCC, CITES, Convention on Wetlands of International Importance especially as Water Fowl Habitat, CBD, UNCCD). The Bill has also diversified management to provide for the participation of local communities, local authorities, traditional institutions, non-governmental organisations and other stakeholders in forest management.
The Agricultural Resources Conservation Act (1974)	Provides for the protection, conservation and improvement of agricultural resources such as soil, water, agricultural animal and plant species. It allows for the making of regulations that serve to protect land against erosion; protect against the deposit thereon of sand, stones or gravel or any other material; prevent siltation of dams; preserve, protect the source and banks of streams or otherwise preserve the soil and its fertility; prohibit, restrict or control the use of insecticides, fertilizers, or any type of chemical compound in, on or over land.
The Herbage Preservation Act (1978)	Provides for herbage preservation and protection from fire as well as conservation committees across scale.
The Seed Certification Act (1976)	Provides for the seed testing practices to be used, for the conditions for control of the Export, Sale and Use of Seeds, as well as the conditions under which statements and certificates are to be issued.
The Wildlife Conservation and National Parks Act (1992)	Established the Wildlife Management Areas and local advisory committees. It provides for the conservation and management of Botswana's wildlife including control and management of National Parks and Game Reserves
The Town and Country Planning Act (2013)	Provides for the orderly and progressive development of land in both urban and rural areas and to preserve and improve the amenities thereof. It includes provision for the minister to issue a tree preservation order to protect trees that may be in danger of destruction for other developments such as road construction, communication infrastructure or buildings. This Act provides the basis to allow for planning with District Councils serve as planning authorities. According to the Land Policy, all of Botswana is to be considered a planning area with all land in Botswana subject to land use planning.
The Environmental Impact Assessment Act (2005) (revised in 2011)	Provides for environmental impact assessment to be used to assess the potential effects of planned developmental activities; to determine and to provide mitigation measures for the effects of such activities on the environment; to put in place a monitoring process and evaluation of the environmental impacts of implemented activities and to provide for matters incidental to the foregoing.

3 STAKEHOLDERS IDENTIFICATION AND ANALYSIS

3.1 IDENTIFYING STAKEHOLDERS.

To develop an effective SEP, it is necessary to determine who the stakeholders are and understand their needs and expectations for engagement, and their priorities and objectives in relation to the Project. This information is then used to tailor engagement to each type of stakeholder. As part of this process, it is particularly important to identify individuals and groups who may find it more difficult to participate and those who may be differentially or disproportionately affected by the project because of their marginalised or vulnerable status.

Stakeholders for the purpose of this project have been and will continue to be identified on a continuous basis by identifying those people and institutions that have an interest in the successful planning and execution of the project including special interest groups. These include those:

- Project Implementing Agencies (funding agencies, executing agencies, partners)
- Directly and/or indirectly project-affected people (PAPs) and
- Interested parties (Environmental protection authorities, Social and labour regulatory authorities, Contractors, Media, Civil Society etc)

A significant factor in achieving inclusiveness of the engagement process is safeguarding the participation of vulnerable individuals in public consultations and other engagement forums established by the project. Vulnerable groups are persons who may be disproportionately impacted or further disadvantaged by the project as compared with any other groups due to their vulnerable status, and that may require special engagement efforts to ensure their equal representation in the consultation and participation in the program. In this case, women and youths fall into that category but there are differences within the same categories and/or gender lines that needs to be carefully considered. The same can be said for persons with disabilities (PWD), persons living with HIV/AIDs, and remote area communities – all of whom the project is emphasising in its targeting strategy.

Engagement is directly proportional to impact and influence, and as the extent of impact of a project on a stakeholder group increases, or the extent of influence of a particular stakeholder on a project increases, engagement with that stakeholder group should intensify and deepen in terms of the frequency and the intensity of the engagement method used.

3.2 PRELIMINARY STAKEHOLDERS IDENTIFICATION

The key stakeholders identified in the SEP and to be continuously engaged could include:

Table 3-1 Identified Stakeholders for BoLCoP

LEVEL	STAKEHOLDER	SPECIFIC INFORMATION TARGET	ROLE IN THE PROJECT
Global	IFAD	Country/Regional Office	Funding Agency
Central Government	Ministry of Finance (MoF)	Permanent Secretary's office	Fund Manager
	Ministry of Lands and Agriculture	Department of Agriculture	Steering Committee member / oversight and technical expertise on agriculture.

LEVEL	STAKEHOLDER	SPECIFIC INFORMATION TARGET	ROLE IN THE PROJECT
	BoLCoP - PMU	Project Office	Implementing Agency
		BoLCoP - Project Management Unit staff	Implementing Agency
	Ministry of Environment and Tourism	Ministry of Environment and Tourism	Steering Committee member Responsible for environmental compliance of the project
		The National Climate Change Unit (NCCU) Climate Change Unit: Designated officer	Responsible for all climate issues. The primary coordinating body for climate change related activities.
	The National Disaster Management Office (NDMO)	Designated officer	responsible for disaster preparedness, response, and risk reduction. The NDMO coordinates disaster management activities nationwide, including natural calamities and man-made disasters (excluding drought and epidemics).
	Gender Affairs Department.	Gender Monitoring and Evaluation Analyst.	All Gender Issues responsible for promoting gender equity and coordinating gender policy development.
	Ministry of Local Government.	Snr. Community Development Officer	All Local Government Issues
	Ministry of Health: Environmental Health Department	Director: Environmental Health.	All Health Issues
	The Department of Wildlife and National Parks (DWNP)	Director of Parks	• Biodiversity • responsible for managing the country's national parks and game reserves, as well as its wildlife resources and habitats. • They also focus on conservation efforts, including research, community services, and education.
Private Sector, Coalitions and Associations	Input manufacturing / supplier companies	Designated officers	Input suppliers
	Aggregators, transporters, buyers, processing businesses	Designated officers	produce market linkages,
	Micro and Small Enterprise Department	Designated officers	Micro-finance
	FAO	Economist	Agriculture Issues
	WFP	Head of Office	Food Programmes
Civil Society	Human rights, Women, child, and youth promoters	NGO focal persons	Interested parties, technical expertise
District	District BoLCoP PMU	Staff members	District level Implementing Agency
	DISTRICT.	District administrator.	All District development
	DISTRICT Department of water	Local field Officers	Equitable sharing of water
	DISTRICT Department of Agriculture	All District Officers	Technical expertise on Agriculture production
	DISTRICT Department of Environment.	District Officers	Environmental protection
	Traditional Leadership	Chiefs	Overall traditional leadership, upholding of cultural values, Land distribution, community level GRM

LEVEL	STAKEHOLDER	SPECIFIC INFORMATION TARGET	ROLE IN THE PROJECT
Village	Village Leadership	Village Head	Traditional leadership, upholding of cultural values, Land distribution, community level GRM
		Village Development Committees (VIDCOs), including members who are women, youth, or of heightened vulnerability due to other identity characteristics	Coordinating Village development plans
	Community based organisations	Water User Organisations (WUOs), including members who are women, youth, or of heightened vulnerability due to other identity characteristics	Steering Committee member / Affected parties / water management
		Agricultural Production Groups (APGs), including members who are women, youth, or of heightened vulnerability due to other identity characteristics	Steering Committee member / Affected parties / production management
	Wider Community	Community leadership Women, youth, and other groups of heightened vulnerability such as PWD, persons living with HIV/AIDs, or remote area dwellers.	Indirectly affected parties
Household	Agricultural Produce / Water Users	Including women, Youth and other groups of heightened vulnerability such as PWD, persons living with HIV/AIDs, or remote area dwellers.	Directly Affected parties / primary project beneficiaries

The above list is not exhaustive. As the project gets underway, BoLCoP - PMU will develop a detailed SEP identifying emerging and all possible stakeholders, their specific information needs and the appropriate modes of consultation as well as feedback mechanisms. The consultation process shall ensure that all those identified as stakeholders are conferred with. Active engagement of all stakeholders will facilitate a common understanding of the specific opportunities and constraints which can be the foundation for deeper harmonization and coordination of the various support services.

3.3 PRELIMINARY STAKEHOLDER MAPPING.

Table 3-2 Stakeholders mapping

No.	NAME	OCCUPATION	LEVEL OF INFLUENCE	INTEREST IN PROJECT	LOCATION	FORM OF ENGAGEMENT	FORM OF NOTIFICATION	WHEN TO ENGAGE
	GOVERNMENT							
1.	Dr. Edwin Dikoloti	Acting Minister of Lands and Agriculture	High	Economic and Developmental improvement	Gaborone	Meeting, email,	Formal letter, e-mail	Conception, design, implementation
2.	Tshwaragano Kopano	Chief – Ruminants Minister of Lands and Agriculture	High	Livestock development	Gaborone	Meeting, email,	Formal letter, e-mail	Conception, design, implementation
3.	Ignatius Oarabile	Deputy Secretary – Budget Ministry of Finance	High	Project Finances	Gaborone			
4.	Keneilwe Mogatle	Economist(Development Budget Unit) Ministry of Finance	High		Gaborone	kbolebano@gov.bw		
5.	Dr Cyril Taolo	Ministry of Environment and Tourism	Medium	Environmental protection and compliance, GHG emissions reductions, Climate adaptation and resilience. Biodiversity Conservation.	Gaborone	Meeting, email ctaolo@gov.bw	Formal letter, e-mail	Conception, design, implementation
6.	Mbakiso Morapedi	Deputy Permanent Secretary -Value Chains Ministry of Trade and Entrepreneurship.	medium	Export of Agricultural produce, value chain development, cluster development	Gaborone	Meeting, email, mmorapedi@gov.bw	Formal letter, e-mail	Conception, design, implementation
7.		Deputy Director- Ministry of Youth and Gender Affairs	High	Economic and Youth Employment	Gaborone	Meeting, email,	Formal letter, e-mail	Conception, design, implementation
8.	Serufo Ntsabane	Ministry of Local Government and Traditional Affairs	High	Economic and rural development, secretariat to the Rural Development Council	Gaborone	Meeting, email, sntsabane@gov.bw	Formal letter, e-mail	Conception, design, implementation
9.	Gomolemo Tselakgopo	Department of Social Development Ministry of Local Government and Traditional Affairs	medium	Social development and Services	Gaborone	gmtembwe@gov.bw		
10.		Ministry of Water & Human Settlement.	medium	Human settlements and land use for agriculture	Gaborone	Meeting, email,	Formal letter, e-mail	Conception, design, implementation
11.	Phemelo Gadimang pggadimang@gmail.com	Ministry of Environment and Tourism (MET) Department of Wildlife and National Parks (DWNP)	medium	Human-Wildlife Interaction for project success.	Gaborone	Meeting, email,	Formal letter, e-mail	Conception, design, implementation
12.	Mmadi Reuben	Ministry of Environment and Tourism (MET)	medium	Human-Wildlife Interaction for project success	Gaborone	Meeting, email,	Formal letter, e-mail	Conception, design, implementation

No.	NAME	OCCUPATION	LEVEL OF INFLUENCE	INTEREST IN PROJECT	LOCATION	FORM OF ENGAGEMENT	FORM OF NOTIFICATION	WHEN TO ENGAGE
	mmadireuben@gmail.com	Department of Wildlife and National Parks (DWNP)						
13.	Rabogwe Rampete razisky@gmail.com	Ministry of Environment and Tourism (MET) Department of Wildlife and National Parks (DWNP)	medium	Human-Wildlife Interaction for project success	Gaborone	Meeting, email,	Formal letter, e-mail	Conception, design, implementation
14.	Unip Sedirwa usedirwa@gmail.com	Ministry of Environment and Tourism (MET) Department of Wildlife and National Parks (DWNP)	medium	Human-Wildlife Interaction for project success	Gaborone	Meeting, email,	Formal letter, e-mail	Conception, design, implementation
15.		Ministry of Environment and Tourism (MET) Community Based Natural Resources Mamagement (CBNRM)	low	Application of the CBO model in small stock farming.	Gaborone	Meeting, email,	Formal letter, e-mail	design, implementation
16.		District Commissioner Mahalype	High	District Development	Mahalype	Meeting, email		
17.		District Comissioner Serowe	High	District Development	Serowe	Meeting, email		
18.		District Commissioner Tutume	High	District Development	Tutume	Meeting, email		
19.		District Commissioner Letlhakane	High	District Development	Letlhakane	Meeting, email		
20.		District Commissioner Jwaneng	High	District Development	Jwaneng	Meeting, email		
21.		District Commissioner Mabutsane	High	District Development	Mabutsane	Meeting, email		
22.		District Commissioner Tsabong	High	District Development	Tsabong	Meeting, email		
23.	Gabriel Tsuaneng	Acting District Commissioner Jwaneng District	High	District Development	Jwaneng District	Meeting, email		
24.	Mosipidi Mokgolele	Deputy District Commissioner Mabutsane District	High	District Development	Mabutsane District	Meeting, email		
25.	Levis Thupa	District Commissioner Tsabong District	High	District Development	Tsabong District	Meeting, email		
26.	Stanley Makosha	SmartBots	High			smakosha@gov.bw		

No.	NAME	OCCUPATION	LEVEL OF INFLUENCE	INTEREST IN PROJECT	LOCATION	FORM OF ENGAGEMENT	FORM OF NOTIFICATION	WHEN TO ENGAGE
27.	Kgotla Basalumi	Botswana Digital and Innovation Hub (BDIH)	High			Kgotlayarona.Basalumi@bih.co.bw		
28.	David Sefawe	Assistant Commissioner General-Policy &Research National Planning Commission (NPC)	High	Guide on national development plans		dsefawe@gov.bw		
29.	Berzeack Maphakwane	Rural Development Council (RDC)						
30.		Botswana Investment & Trade Centre (BITC)						
31.	Marea Mooketsi	Meat Regulatory Authority (MIRA)	Medium	Secretariat to MIRA		mrmooketsi@gov.bw		
32.		Botswana Meat Commission						
33.		Special Economic Zone Authority (SEZA)						
34.		Botswana Trade Commission						
	RESEARCH & POLICY							
35.	Dr Onkgolotse Moatshe Mashiqa	BUAN Crops and Soil Science	low	Use of safflower as fodder for small stock	Gaborone	Meeting, moatsheonkgolotse@gmail.com,	Formal letter, e-mail	design, implementation
36	Professor Julius Atlhopheng	National Agricultural Research and Development Institute (NARDI)	Medium	Research	Gaborone	julius@nardi.org.bw		
37.		Botswana University of Agriculture and Natural Resources (BUAN) Research	low	Research in good breeds, feed and fodder	Gaborone	Email, questionnaire, virtual and physical meetings	Email	Project Conception, design and implantation.
38.	Dr Lillian Mookodi	Botswana Institute for Development Policy Analysis (BIDPA)	Medium	Research and Policy development	Gaborone	lmookodi@bidpa.bw		
39.	Lillian Mogami	Statistics Botswana	Medium	Data collation and analysis	Gaborone	lmogami@statsbots.org.bw		
	FINANCIAL INSTITUTIONS/PARASTATALS							
40.	Monyadiwa Masilo	Head-Sector Innovation Local Enterprise Authority (LEA)	Medium	Supporttraining ,incubation	Botswana	mmasilo@lea.co.bw Email, questionnaire, virtual and	Email	Project Conception, design and implantation.

No.	NAME	OCCUPATION	LEVEL OF INFLUENCE	INTEREST IN PROJECT	LOCATION	FORM OF ENGAGEMENT	FORM OF NOTIFICATION	WHEN TO ENGAGE
						physical meetings		
41.		Citizen Entrepreneurship Development Agency (CEDA)	medium	Support the development of Entrepreneurs	Botswana	Email, questionnaire, virtual and physical meetings	Email	Project Conception, design and implantation.
42.	Ogone Madisa	CEO_-National Development Bank (NDB)	Medium	Potential financial intermediary	Gaborone	omadisa@NDB.BW		
	FARMER ORGANIZATIONS							
43.	Thatayaone Mosepedi	President-Small stock Industry Federation Botswana (SIFB)	High	Apex body for small stock associations		Meeting, site visit	Radio, Via extension officers, Notice in Local language	mosepedithatayaone@gmail.com Project Conception and design
44.		Botswana Farmers Association	low	More Food security and income from small stock.		Meeting, site visit	Radio, Via extension officers, Notice in Local language	Project Conception and design
45.		Meat Masters Association	low	income from slaughter of small stock.		Meeting, site visit	Radio, Via extension officers, Notice in Local language	Project Conception and design
46.		Breeders Society	low	More Food security and income from small stock.		Meeting, site visit	Radio, Via extension officers, Notice in Local language	Project Conception and design
	DEVELOPMENT PARTNERS							
47.	Sekgowa Motsumi	The Nature Conservancy	Medium	Conservation of nature, biodiversity, and the well-being of humanity.	Botswana	sekgowa.motsumi@tnc.org, email, questionnaire, virtual and physical meetings	Email	Project Conception, design and implantation.
49.		Conservation International	Medium	Conservation of nature, biodiversity, and the well-being of humanity.	Botswana	Email, questionnaire, virtual and physical meetings	Email	Project Conception, design and implantation.

No.	NAME	OCCUPATION	LEVEL OF INFLUENCE	INTEREST IN PROJECT	LOCATION	FORM OF ENGAGEMENT	FORM OF NOTIFICATION	WHEN TO ENGAGE
50.	Boitumelo Mokiya	Programme and Communications Assistant-FAO	Medium	Support agricultural programmes	Gaborone	FAO-BW@fao.org		
51.	Liang Wang	Country Representative-World Bank,		Support development projects	Gaborone	lwang9@worldbank.org		
	FARMERS							
52.	Baboletse Mokgaotsane	Bee Keeper	low	More food security and income from honey.	Ramotsoa District	Meeting, site visit	Radio, Via extension officers, Notice in Local language	Project Conception and design
53.	Jairos Thipo	Pig Farmer	low	More Food security and income from piggery.	Ramotsoa District	Meeting, site visit	Radio, Via extension officers, Notice in Local language	Project Conception and design
54.	Thabani Machacha	Chandima Smallstock Farm	low	More Food security and income from smallstoke.		Meeting, site visit	Radio, Via extension officers, Notice in Local language	Project Conception and design
55.		Multi Species Abattoir	low	Slaughtering Small stock for Smallholder farmers	Gaborone	Meeting, site visit	E-mail, Via extension officers.	Project Conception and design
56.		Sky Eggs	low	Production of feed, chicks and working with and training smallholder farmers.	Gaborone	Meeting, site visit	E-mail, Via extension officers.	Project Conception and design
57.	Makebwana	Makebwana Bee Keeping Farm	low	More food security and income from honey.	Ramotsoa District	Meeting, site visit	Radio, Via extension officers, Notice in Local language	Project Conception and design
58.		Poultry Abattoir	low	Contracting Smallholder farmers and Slaughtering Chicken for them.	Gaborone	Meeting, site visit	E-mail, Via extension officers.	Project Conception and design
59.		Thlokwe Abattoir and Processing – SENN FOODS	low	Slaughtering Small stock for Smallholder farmers	Gaborone	Meeting, site visit	E-mail, Via extension officers.	Project Conception and design
60.	Mrs	Khudiro Farm Small stock Farmer						
61.		Village Chief Paje Village		Village Development		Meeting, site visit	E-mail, Via extension officers.	Project Conception and design
62.	Nicholas	Farm manager Kumo Farm		Goats and sheep stud farmer		Meeting, site visit	E-mail, Via extension officers.	Project Conception and design
63.	Makati Ivan	Deputy Town Clerk Jwaneng Town Council Abattoir	medium	Slaughtering Small stock for Smallholder farmers	Jwaneng Town	Meeting, site visit	E-mail, Via extension officers.	Project Conception and design

No.	NAME	OCCUPATION	LEVEL OF INFLUENCE	INTEREST IN PROJECT	LOCATION	FORM OF ENGAGEMENT	FORM OF NOTIFICATION	WHEN TO ENGAGE
64.	Kopo Ramgaka	Environment Health officer Jwaneng Town Council Abattoir	low	Environmental Issues in the District	Jwaneng Town	Meeting, site visit	E-mail, Via extension officers.	Project Conception and design
65.	Thatayaone Mosepedi	President Jwaneng Small Stock Farm	low	Farming: small stock	Jwaneng Small Stock Farm	Meeting, site visit	E-mail, Via extension officers.	Project Conception and design
66.	Manners Bohule	Chair Jwaneng Lethabile Young Farmers' Association	low	Association of young farmers	Jwaneng	Meeting, site visit	E-mail, Via extension officers.	Project Conception and design
67.	Tumaeletse	Chair Molopo Small stock Farmers Marketing Cooperative	low	Marketing cooperative for small stock	Tsobang	Meeting, site visit	E-mail, Via extension officers.	Project Conception and design
68.	Promise M. Mahundu	Farm Manager Lobu Smart Farm	low	Small stork demonstration farm.	Tsobang	Meeting, site visit	E-mail, Via extension officers.	Project Conception and design
	MARGINALISED/VULNERABLE GROUPS ORGANISATIONS							
69	Dr. Mpho Gilika	TAWLA **The African Women Leadership Academy**	low	empowering African women through leadership training and development. Equip women with the skills, networks, and knowledge necessary to navigate leadership roles	Gaborone	email, questionnaire, virtual and physical meetings	+267 310 5376 tawlacademy@gmail.com	Project Conception, design and implementation
70	Under Gender Affairs Department	Women's Economic Empowerment Programme, (WEEP)		Economic Empowerement for women in various sectors including agriculture	Gaborone	email, questionnaire, virtual and physical meetings	Block 8, Government Enclave, Khama Crescent, PO Box 00107. Tel. (+267) 3912290. Fax. (+267) 3911944.	Project Conception, design and implementation
71		**Botswana Young Women's Christian Association -YWCA**	low	Voluntary organization assisting youth identify projects and programmes	Gaborone	email, questionnaire, virtual and physical meetings	P O Box 359 Gaborone Botswana, Gaborone, Botswana +267 395 3681 ywcasecretary@btcmail.co.bw	Project Conception, design and implementation

No.	NAME	OCCUPATION	LEVEL OF INFLUENCE	INTEREST IN PROJECT	LOCATION	FORM OF ENGAGEMENT	FORM OF NOTIFICATION	WHEN TO ENGAGE
72	Mr. Moffat Louis	Botswana Council for the Disabled (BCD)	low	Umbrella body for PWD NGOs responsible for developmental projects for Disabled persons.	Gaborone	email, questionnaire, virtual and physical meetings	Matsaakgang Way, Extension 12 Plot 3275, Gaborone, Botswana +267 397 3599 admin@bcd.org.bw	Project Conception, design and implementation
73	Board Chairperson MS NJIRAMANDA MBEWE	THE BOTSWANA NETWORK ON ETHICS, LAW AND HIV/AIDS	low	support people living with HIV/AIDS identify livelihoods and start business including in agriculture	Gaborone	email, questionnaire, virtual and physical meetings	P.O. Box 402958 Gaborone, Botswana	Project Conception, design and implementation
74	Under Local Government Ministry	Rural Area Development Programme (RADP)	low	supporting Remote Area Dwellers (RADs), primarily the Basarwa (San) people, identify livelihoods and business including agriculture	Gaborone	email, questionnaire, virtual and physical meetings		Project Conception, design and implementation

3.4 STAKEHOLDER ANALYSIS.

Once stakeholders are identified by directly and/or indirectly project-affected parties, interested parties, and those who have the potential to influence project outcomes, the next step will be to assess the level of stakeholder interest and support for the project. The assessment shall be geared toward identifying:

- stakeholders' interests,
- areas of potential risks and misunderstandings,
- mechanisms to positively influence other stakeholders,
- key people to be informed about the project during the preparation and implementation phases and,
- negatively impacted stakeholders as well as their adverse effects on the project.

This is the assessment of the level of stakeholder interest and support as well as their power.

- Some of them may have the power either to block or advance.
- Some may be interested in what you are doing,
- others may not care.

Power-Interest grid can be used to segregate or prioritise the stakeholders.

The BoLCoP - PMU through its implementation partners shall continuously classify stakeholders based on:

- their power to influence and their interest on the project,
- the legitimacy of each stakeholder's relationship with the project, and
- the urgency of the stakeholder's claim on the project activities, potential risks, and impacts.

Based on this analysis, the communication strategy, and the coordination mechanism to be developed by the BoLCoP - PMU shall incorporate strategies to engage the 'High Interest and High Influence stakeholders 'and the 'high Interest and Low Influence' stakeholders.

High interest and high influence stakeholders: The plan should be to fully engage this group and apply all effort to ensure that they are satisfied and fully always informed of the project. This can be done by focusing efforts on these groups of stakeholders throughout the project cycle, giving them the importance, they deserve, involving them in project governance decision making bodies and engaging them and consulting them regularly as well as providing timeous feedback. The engagement plan targeting these stakeholders shall be incorporated into the project annual work plan.

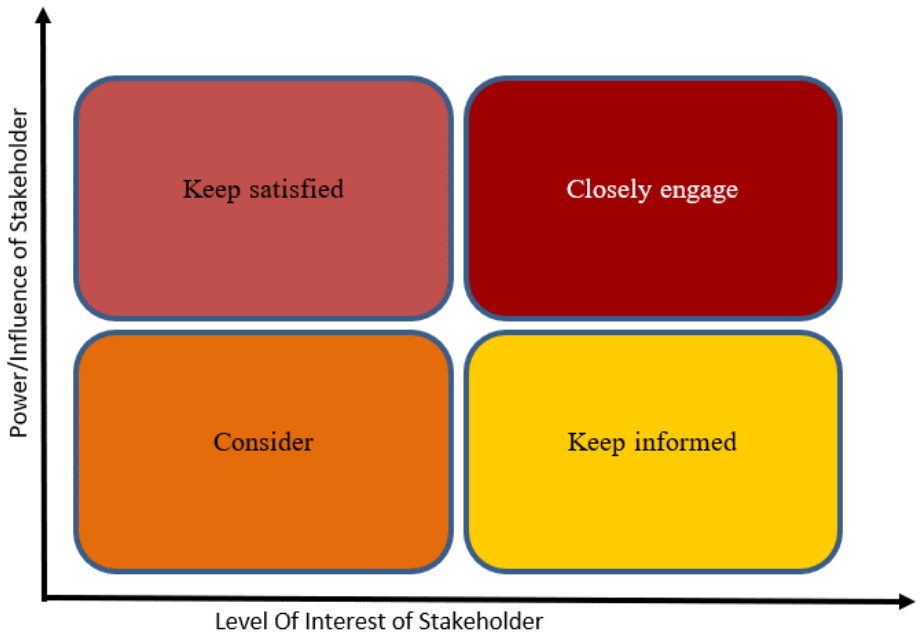

Figure 3-1 Basic Stakeholder Influence/Interest Chart.
(Adapted from: https://www.boreal-is.com/data/uploads/2020/07/A-step-by-step-guide-to-building-a-stakehoder-engagement-plan)

High interest and medium/low influence stakeholders: The high interest and low influence stakeholders should be kept informed, ensuring that no major issues arise because of the project. The project will maintain this group's interest in the project, involving them in the implementation arrangements, tapping into their interest and keep them in the loop.

In General:

- People with high power need to be kept satisfied,
- people with high interest need to be kept informed.
- When a stakeholder has both, make sure you manage her expectations very closely!

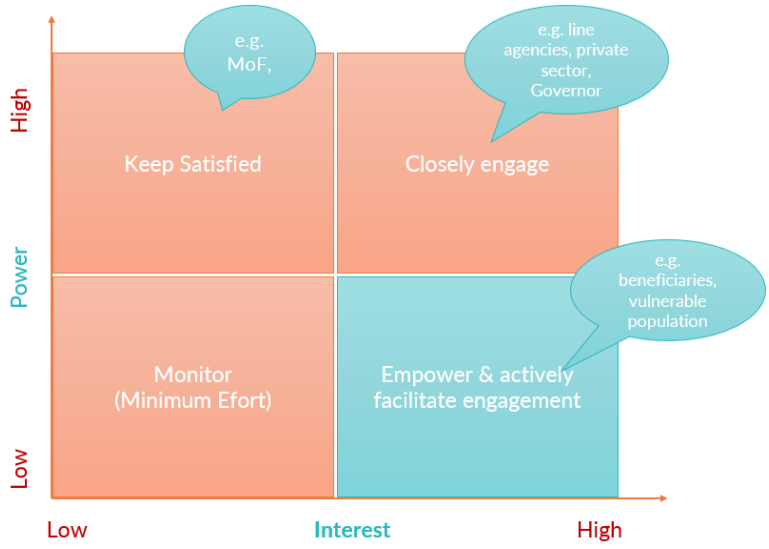

Figure 3-2 The Different Efforts in the Influence/Interest Chart.

4 PLANNING FOR STAKEHOLDER ENGAGEMENT.

4.1 STAKEHOLDER ENGAGEMENT

The PMU will establish an operational plan in line with proposed project activities to ensure the participation and engagement of the stakeholders, ensuring that each group gets involved as defined and receive the agreed information. The plan must ensure a balance in the involvement and benefits between different gender and youth segments and the participation of vulnerable groups, ensuring that the project's objectives are met in terms of agriculture value chain development through Inclusive Financing. Regular meetings will be scheduled with the representatives of the groups of actors involved in the project, for the revision of the plan, activity progress and necessary adjustments according to probable changes in the initial context during the execution of the project.

4.1.1 Stakeholder Considerations.

The following considerations should be made when planning for stakeholder engagement:

Resourcing Stakeholder Engagement: Stakeholder engagement requires resources as it takes time to develop and build trust-based relationships with stakeholders. Relationships with stakeholders should develop, grow, and be sustained. This becomes a continuous process as additional stakeholders might be identified that will also need to be engaged.

Additional stakeholders might be identified that also want to be engaged. No willing stakeholder should be excluded from the process of engagement. Some stakeholders will need to be educated about the concept of engagement itself, as well as on the complex issues requiring specialised and technical knowledge. These demands can increase the cost of consultation required to meet external expectations.

Managing expectations: Stakeholders can have unrealistically high expectations of benefits that may accrue to them from a project and as such the PMU must be clear on what they can and cannot do, establishing a clear understanding of their roles and responsibilities. The engagement processes should provide the PMU with an opportunity to develop relationships with stakeholders and potential project partners.

Securing stakeholder participation: Cultural and social norms, values, attitudes, behaviours, and power imbalances can prevent stakeholders from freely participating in meetings, particularly true for women, youth, and other vulnerable/marginalised groups Often there are conflicting demands within a community, and it can be challenging for a project to identify stakeholders who are representative of common interests. There may be a need to employ local officers who are sensitive to local power dynamics.

Consultation fatigue: Stakeholders can easily tire of consultation processes especially when promises are unfulfilled, and their opinions and concerns are not taken into consideration. Often stakeholders feel their lives are not improving because of a project and this can lead to consultation meetings being used as an area to voice complaints and grievances about the lack of development. Implementing Partners must not make wild promises to stakeholders; but

expectations should be managed through dissemination of accurate information. Opinions for stakeholders should be treated as feedback to the project and other project partners and specialists.

4.1.2 Stakeholder Consultation Techniques/Methods

There are a variety of engagement techniques used to build relationships with stakeholders, gather information from stakeholders, consult with stakeholders, and disseminate project information to stakeholders. A range of techniques will be applied that are specifically tailored to the identified stakeholder groups. The format of every engagement activity should meet general requirements on accessibility, i.e., should be held at venues that are easily reachable and do not require long commute, entrance fee or preliminary access authorization, cultural appropriateness (i.e., with due respect to the local customs and norms), and inclusivity, i.e., engaging all segments of the project affected parties including the identified vulnerable groups – i.e., women, youth, PWD, persons living with HIV/AIDs, and people living in remote areas. If necessary, logistical assistance should be provided, including for those with insufficient financial or transportation means to attend public meetings scheduled by the project. Particular attention will be given to the vulnerable groups to ensure that they are not denied project benefits.

In general, public consultations will take place through:

- Interviews
- virtual and physical workshops,
- Surveys, polls, and questionnaires for beneficiary feedback
- Public meetings, seminars, workshops, and/or focus groups on specific topic.
- Participatory methods
- radio programs,
- request for written proposals/comments,
- public reading and explanation of project ideas and requirements.
- Other traditional mechanisms for consultation and decision making.

The techniques mostly used in SEP are outlined in the table below:

Table 4-1 Stakeholder Engagement Techniques

ENGAGEMENT TECHNIQUE	APPROPRIATE APPLICATION OF THE TECHNIQUES
BoLCoP PMU - Internal	• Emails • Progress Meetings • Bulletin board • Grievance procedure • Code of conduct
Official correspondences (Phone, Emails)	• Distribute information to Co-Implementing partners (at central, regional and local level), other Government departments, NGOs, Local Government, private sector, and organisations/agencies • Invite stakeholders to meetings and follow-up
Social Media (WhatsApp, SMS, Face book, Twitter, Zoom, Microsoft Meetings Google classes etc	• Share information with beneficiaries • Distribute information to Co-Implementing partners • Invite stakeholders to meetings and follow-up • Online Meetings with stakeholders • Online Workshops with stakeholders
Project website	• Present project information and progress updates • Disclose SEP, GRM and other relevant project documentation
One-on-one physical meetings	• Seeking views and opinions • Enable stakeholder to speak freely about sensitive issues

	• Build personal relationships • Record meetings
Formal physical meetings	• Present the Project information to a group of stakeholders • Allow group to comment – opinions and views • Build impersonal relation with high level stakeholders • Disseminate technical information • Record discussions
Public consultation meetings	• Present Project information to a large group of stakeholders, especially communities • Allow the group to provide their views and opinions • Build relationship with the communities, especially those impacted • Distribute non-technical information • Facilitate meetings with presentations, PowerPoint, posters etc. • Record discussions, comments, questions.
Focus group meetings	• Present Project information to a group of stakeholders (8-15 people groups) • Allow stakeholders to provide their views on targeted baseline information • Build relationships with communities • Record responses
Project leaflet	• Brief project information to provide regular update • Site specific project information.
Surveys	• Gathering opinions and views from individual stakeholders • Gather baseline data • Record data • Develop a baseline database for monitoring impacts
Multi-stakeholder meetings and/or Workshops	• Present project information to a group of stakeholders • Allow a group of stakeholders to provide their views and opinions • Use participatory exercises to facilitate group discussions, brainstorm issues, analyse information, and develop recommendations and strategies • Record responses

4.2 PURPOSE AND TIMING OF STAKEHOLDER ENGAGEMENT PROGRAM.

The main goal of the Stakeholder engagement plan is primarily to garner all support of the agriculture sectors. This support will allow for ease of implementation as it is assumed that mobilization of these stakeholders will provide an enabling environment for implementation of the various livelihood activities. The ongoing sharing of information will be aligned with ongoing information dissemination meetings that already exist within the Ministry of Lands and Agriculture. In addition to these scheduled meetings, it is worth mentioning that there will be progress updates on implementation of project activities at different levels. These updates will be provided by the different implementers of project activities. Documentation of these meetings will form part of project documentation.

4.3 PROPOSED STRATEGY TO INCORPORATE THE VIEW OF VULNERABLE GROUPS

During the consultation process, the views of vulnerable or disadvantaged groups will be sought through a process of free, prior and informed consultation. This will be done during project preparation to inform them about the project, to fully identify their views, to obtain their broad community support to the project, and to develop project design and safeguard instruments. This process is best done as part of the social assessment although consultations are likely to continue after its completion.

For projects with no impacts or direct interventions with the vulnerable or disadvantaged communities, the local communities are informed about the project, asked for their views on the project, and assured that they will not be affected during project implementation.

For projects affecting vulnerable or disadvantaged communities, whether positively or adversely, a more elaborate consultation process is required. This may include, as appropriate:

- Informing the affected vulnerable or disadvantaged communities about project objectives and activities,
- Discussing and assessing possible adverse impacts and ways to avoid or mitigate them,
- Discussing and assessing potential project benefits and how these can be enhanced,
- Discussing and assessing natural resource use and how management of these resources may be enhanced,
- Identifying customary rights to natural resource use and possible ways of enhancing these,
- Identifying and discussing (potential) conflicts with other communities and how these might be avoided,
- Discussing and assessing food security and how it might be enhanced through project interventions,
- Discussing and eliciting customary norms of the vulnerable or disadvantaged groups and incorporating them into the project design,
- Eliciting and incorporating indigenous knowledge into project design,
- Facilitating and ascertaining the affected communities' broad support to the project,
- Developing a strategy for vulnerable or disadvantaged groups' participation and consultation during project implementation, including monitoring and evaluation.
- Discussing and assessing cultural and social norms, values, attitudes, behaviours, and power imbalances that can prevent stakeholders from freely participating in meetings, particularly with women, youth, and other vulnerable/marginalised groups

All project information provided to vulnerable or disadvantaged groups should be in a form appropriate to local needs. Local languages should usually be used and efforts should be made to include all community members, including women and members of different generations and social groups (e.g. clans and socioeconomic background).

If the vulnerable or disadvantaged groups are organized in community associations or umbrella organizations, these should usually be consulted. In some cases, it may be appropriate or even necessary to include or use in the process independent entities that have the affected communities' trust. The experience of (other) locally active NGOs and experts may also be useful.

5 ENGAGEMENT ACTIVITIES COMMUNICATION PLAN AND INFORMATION DISCLOSURE.

5.1 STAKEHOLDERS ENGAGEMENT ACTIVITIES

Prior to the commencement of stakeholder's engagement activities, meetings shall be scheduled with relevant Traditional Authorities, Community Representatives, political leaders in the project area, Government Ministries and Departments, Media, and other Interested & Affected Parties (I&APs). The purpose of these meetings shall be to refine stakeholder's engagement strategy to meet the requirements of I&APs and ensure that future communication is effective and cognisant of all social sensitivities.

Table 5-1 Stakeholder Engagement Activities

STAGE	OBJECTIVES	KEY ACTIVITIES	TARGET STAKEHOLDERS
Preliminary Engagements	• To gain a preliminary understanding of the scope of the BoLCoP and relevant stakeholders;	• Field Visits • Stakeholder identification process	• Government Ministries and Departments • Communities • Clusters • Local Authorities • Local Leadership
Engagements	• To meet key stakeholders and introduce them to the project and Grievance Redress Mechanism (GRM) Process, • To disclose the GRM as well as other project documents in the public domain to all interested and affected stakeholders, • To gather issues of concern and through this identify a list of potential negative and positive impacts,	• Meetings with key stakeholders to facilitate the broader stakeholder's engagement process, • Dissemination of engagement materials (background information documents, posters, media notices etc.), • Consultations through training workshops with GRM focal points, and all other stakeholders • Feedback from stakeholders.	• Government Ministries and Departments, • Communities, • Clusters • Local authorities, • Local Leadership • BoLCoP Consultants, • Agriculture Officers • NGOs •
Disclosure of the Grievance Redress Mechanism (GRM) and other project specific Reports.	• To expose the stakeholders to the developed GRM and other project specific Reports.	• Disseminate the GRM and other project specific Reports to all stakeholders, • Expound the contents of the GRM and other project specific Reports to all stakeholders,	• Government Ministries and Departments • Communities • Clusters • Local Authorities • Local Leadership • General Public • Media

5.2 COMMUNICATION PLAN

The following table outlines the Stakeholders Engagement Communications plan:

Table 5-2 Stakeholders Engagement Communication Plan

DATE	STAKEHOLDERS	COMMUNICATION	METHOD OF ENGAGEMENT
	Lands and Agriculture	• Grievance Redress Mechanism • BoLCoP Stakeholders Engagement Plan	• Formal Meeting
	• DISTRICT Agriculture Officers	• Preliminary Meeting	• Formal Meetings • Workshops

	• District Administrator • Village Development Committees • Community Leadership	• Present information on GRM and other project specific reports • Induction and training on use of GRM tools • Distribute non-technical information • Facilitate meetings with presentations, PowerPoint, posters etc.	
	• Project Field Officers (PFO) • Agriculture Officers	• Present information on GRM • Induction and training on use of GRM tools • Distribute non-technical information • Facilitate meetings with presentations, PowerPoint, posters etc. • Allow to provide their views and opinion • Request guidance on how to handle BoLCoP issues related to their views and opinions	• Formal Meeting • Workshop • Email
	• Communities • Clusters • Project Beneficiaries • Vulnerable Persons	• Present GRM and other project specific reports to project communities • Allow the communities to provide their views and opinions • Build relationships with the communities • Facilitate meeting with presentation and posters	Community Meetings
	Media	• Distribute non-technical information	• Press Statements

5.3 INFORMATION DISCLOSURE

The type of information to be disclosed to the various stakeholders depends on their interests and how they will be affected by the Programme – or how the BoLCoP activities may be affected by them. Information and data that will be shared will be information about the project description that will include among many other issues, the project background, the theory of change and the summarized presentation of each of the project components and subcomponents. The projects beneficiary's selection will also be outlined. This information will largely be shared at the early stages of the project.

This will be presented in document format to the district offices who will in-turn present it to lower levels, i.e., the beneficiaries. These documents will also be published in the Government of Botswana website as well as the BoLCoP-PMU website. There will also be presentations and discussions over scheduled radio and television platforms where Ministry Officials responsible for implementation, management and coordination of project activities will make presentations about the project as well as the progress update while engaging with the public and answering any arising questions.

The Ministry will also use the platforms below to reach more stakeholders who do not have easy access to information:

- Project notices published in local newspapers Brochures, leaflets, posters, nontechnical summary documents and reports,
- Radio and Television advertisements,
- Information centres and exhibitions or other visual displays,
- Direct mailings to communities, Official correspondence, meetings,
- Presentations with or without focus group sessions),
- Targeted e-mails,

- Virtual meetings, presentations, seminars, workshops, with stakeholders,
- One-on-one meetings, presentations, seminars, workshops, e-mails, and phone conversations with stakeholders,
- Site tours, and
- The use of Websites and social media.

The strategy will also include means to consult with project-affected stakeholders if there are significant changes to the project resulting in additional risks and impacts. The most critical aspect of the strategy is the leveraging of village level leadership engagement and coordination with the District Administrator's Offices.

Table 5.3 below gives a general overview of the types of information needs for various stakeholder groups.

Table 5-3 Summary Overview of the Stakeholder Engagement Plan (SEP)

STAKEHOLDERS	INFORMATION TO BE DISCLOSED	CONSULTATION MEANS
BoLCoP, community, neighbouring communities, general public	Current and new activities and how these relate to them in terms of opportunities and threats	Local leaders i.e., Chief's or district offices, Churches, national media, social media, lands and Agriculture website etc.
	Forum to express community / health fears and get feedback e.g., accidental release/escape; contamination; emergencies (fire)	Public consultations, focal group discussions, social media. Training specific members of the communities, awareness, education
Staff / workers at target Districts	How regeneration of landscapes and other project work will affect their work environments including Occupational Health & Safety rules	Staff newsletters, bulletin boards, email, website, meetings with management, staff sensitization & inhouse training programs.
Agriculture Groups, Agriculture NGOs Agriculture Union Agriculture Equipment companies	Consultation on Agriculture needs / food security issues.	District Extension services, Baseline surveys/subsequent surveys to monitor impacts, emails, bulletins
Intergovernmental Institutions; IFAD, FAO, etc	Setting Agriculture agenda for participating Districts	Intergovernmental meetings and consultations
	Capacity building for participating Districts.	Build partnerships through meetings, seminars, workshops
University Graduates	Internship opportunities	Website, public media, bulletin boards
Youth, Women, PWD, and other vulnerable groups	Opportunities for employment during project implementation, sponsorships for education	District Agriculture Offices, public consultations

6 RESOURCES AND RESPONSIBILITIES FOR IMPLEMENTION

6.1 RESOURCES

The cost of the stakeholder engagement activities can be benchmarked with those undertaken in similar projects else where. This rationale therefore brings an estimated cost of about US $ 60,000.00 which will be allocated from the overall project allotment. However, the design and implementation of **a detailed and accurate** SEP will be the overall responsibility of the BoLCoP-PMU. Other resources to be committed will be organized as such:

- The Ministry of Lands and Agriculture Information Office will be in charge of the SEP in liaison with the project development team lead by the department of planning.
- The Ministry of Lands and Agriculture is committed to the implementation of the project as well as the implementation of the SEP in keeping with requirements and good governance pillars therefore makes a commitment to commit some of the project funds towards the implementation of the SEP activities.
- Additional information on SEP related activities will be available from the Information office with support from the department of planning at the Ministry of Lands and Agriculture.

6.2 BUDGET

The Project Coordinator will ensure that the PMU has an adequate standing budget allocated towards the Stakeholder Management Programme and is continuously reflected in the AWPB.

6.3 TRAINING

All the BoLCoP partners and PMU team members will attend a workshop that will bring awareness on the project, SEP, GRM as well as other project specific documents.

6.4 RESPONSIBILITIES

The management, coordination and implementation of the SEP and its integral tasks will be the responsibility of dedicated team members within the PMU, partner ministries and its Contractors, Sub-contractors and Consultants. The roles and responsibilities of the organizations are presented below.

6.4.1 The Project Management Unit

The PMU will be accountable for ensuring BoLCoP achieves its development objectives and for oversight of all day-to-day operations of the project. The PMU will also be responsible for all reporting requirement of GoB and IFAD related to the project. The PMU under the oversight of the Permanent Secretary will work closely with relevant stakeholders to ensure that the SEP is implemented in a successful manner.

6.4.2 The Project Coordinator

The Project Coordinator will work closely with the Environmental and Social Specialist **(**ESS) to ensure that the SEP is implemented in a successful manner.

6.4.3 Environmental and Social Specialist (ESS)

Environmental and Social Specialist (ESS) is responsible for the management of project related social and environmental issues. The ESS will oversee all stakeholders' engagement activities regarding the implementation of the GRM as well as other project specific documents. Responsibilities of the ESS include the following:

- Develop, implement and monitor stakeholders engagement plan for the project, GRM and other project specific documents,
- Liaise with the Project Coordinator to ensure that stakeholders engagement requirements are understood,
- Guiding and overseeing community sensitization processes, ensuring that key information reaches all intended target groups, that beneficiary selection is transparent and in line with pre-defined criteria and that all target groups participate in relevant programme decision-making processes,
- Liaising with local stakeholders regularly to disseminate information about social risk mitigation activities considered by BoLCoP,
- To develop and maintain the stakeholder database/map,
- Proactively identify stakeholders, project risks and opportunities and inform Project Director to ensure that the necessary planning can be done to either mitigate risk or exploit opportunities.
- To organize regular meetings and/or prepare regular communications, in close collaboration with the PMU.

6.5 MONITORING AND REPORTING

Monitoring and evaluation of the SEP process is vital as it ensures that the PMU can respond to identified issues and alter the schedule and nature of engagement activities to make them more effective. As part of the SEP, a mechanism for providing feedback to the stakeholders on their information needs will be set up. In addition, the SEP will include means for monitoring the effectiveness of the public consultation processes and outcomes from consultations, and for determining where further action may be necessary regarding engagement.

The environmental and social safeguards specialists in the PMU will be responsible to ensure that the SEP is implemented throughout the life of the project. They will also be responsible for communicating and reporting on all stakeholder matters to the Project Director.

Monitoring of the stakeholder engagement process allows the efficacy of the process to be evaluated. Amongst others the following monitoring activities will be implemented:

- During the engagement activities: short-term monitoring to allow for adjustments/improvements to be made during engagement; and
- Following completion of all engagement activities: review of outputs at the end of engagement to evaluate the effectiveness of the SEP as implemented.

To help in the monitoring system, a series of key performance indicators for each stakeholder engagement stage will be developed. The table below shows an example of the indicators and performance against the indicators to show successful completion of engagement tasks.

Table 6-1 Key Performance Indicators by Project Phase

PHASE	ACTIVITIES	INDICATORS
Planning for Project	Share updates on Project activities	Posters displayed in allocated service centres by time specified
GRM, SEP and other project specific documents Implementation	Share updates on SEP, GRM and other project specific documents activities	• Posters displayed in allocated service centres by time specified, • Affected community stakeholders will have received and understand the information disclosed and attended the public meetings, • Communities provided feedback, • No complaints about non-receipt of project specific documents received.

The identification of BoLCoP related impacts and concerns is a key element of stakeholder engagement that will occur over the complete Project life cycle. As such, the identification of new concerns, impacts and grievances as the GRM and project progresses will serve as an overall indicator for the implementation of the stakeholder engagement process. There are two keyways in which the stakeholder engagement process, as will be provided for in the M&E action plan, will be monitored:

6.5.1 Review of Engagement Activities in the Field

During the engagements with stakeholders the engagement team will assess meetings using the following engagement tools:

- Stakeholders database,
- Issue and Response table, and
- Meeting records of all consultations held.

6.5.2 Reporting Stakeholders Engagement Activities

Performance will be reviewed following the stakeholder's engagement sessions conducted in the field. In assessing performance, the following will be considered:

- Materials disseminated: Types, frequency, and location,
- Place and time of formal engagement events and level of participation including specific stakeholders' groups e.g., Chiefs,
- Number of people attending public or formal meetings,
- Number of comments received type of stakeholder and detail of feedback provided,
- Meeting minutes, attendance register and photographic evidence,
- Numbers and type of stakeholders who contact the BoLCoP team by mail, telephone, and any other means of communication,
- Comments received by government authorities, community leaders and other project partners and passed to the BoLCoP, and
- Number and types of feedback and/or grievances and the nature and timing of their resolution; and the extent to which feedback and comments have been addressed and have led to corrective actions being implemented.

IFAD
Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Solid/Liquid Waste Management Plan

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
Report No.	7326-BW

East and Southern Africa Division
Programme Management Department

MINISTRY OF LANDS AND AGRICULTURE

IFAD
Investing in rural people

Botswana Livestock Commercialization Project

(BoLCoP)

SOLID AND LIQUID WASTE MANAGEMENT PLAN

(SLWMP)

Prepared for:

Botswana Livestock Commercialization Project (BoLCoP)
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Botswana Livestock Commercialization Project (BoLCoP) Solid and Liquid Waste Management Plan is intended to provide complete documentation for the requirements of a holistic waste management system for the project. This waste management plan contains the findings of a study conducted for the Agriculture sector of Botswana and the instrument has been developed on the basis of the local conditions and findings.

Report no.	**001**
Issue no.	**001**
Date of issue	**21/04/25**

.....	.....
CHECKED	**DATE**
.....	.....
APPROVED	**DATE**

This Report is Available from:

Attention: The Permanent Secretary,
Ministry of Lands and Agriculture,
AKD Building,
Plot number 1108,
Main Mall,
Gaborone,
Botswana.

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1. PROJECT BACKGROUND

The Government of Botswana through the Ministry of Lands and Agriculture (MoLA) is in the process of preparing the Botswana Livestock Commercialisation Project (BoLCoP), with IFAD technical and financial support. BoLCoP is being designed to transform small stock farming and increase productivity and rural incomes in Botswana. BoLCoP is comprised of agricultural activities which have a potential to generate both liquid and solid waste, which will have a bearing on physical and social environments. This has necessitated the development of this Solid and Liquid Waste Management (SLWM) plan to establish principles, guidelines, and procedures to comprehensively handle all the waste that will be generated by the project. The SLWMP which is designed to minimise potential harmful effects on human, animal health and on the environment that may arise particularly in the context of waste storage, collection, transportation, treatment and disposal.

This comprehensive Solid and Liquid Waste Management (SLWM) plan for the small stock agriculture project involves creating waste streams, segregating waste at source into biodegradable and non-biodegradable, and treating it using methods like composting (aerobic or anaerobic) for solid waste and soakage pits or reuse for irrigation for liquid waste. The key steps include setting up a waste management team, establishing collection and storage systems, selecting appropriate technologies, and ensuring safe final disposal.

In accordance with requirements of the Environment Management Act (2011), the Solid and Liquid Waste Management Plan outlines measures to manage and mitigate waste generation during the operation of the developments. The Plan includes details on the following:

- The types and quantities of waste generated during operation,
- Procedures to collect and dispose of waste,
- Measures that will be implemented to minimise waste generation associated with the project, and
- A program for monitoring the effectiveness of these measures.

The Waste Management Plan is designed to support an ecological based management approach underpinned by adaptive management principles.

This plan also considers other aspects to waste management such as waste reduction, segregation of waste, disposal of waste, financial impacts of waste disposal and recording, monitoring, education and reviewing. This plan outlines the waste management procedures that have been put in place and demonstrate the benefits to the environment, how we can measure the effects and how these procedures and practices are sustainable.

2. PROJECT DESCRIPTION

1.1 THE PROJECT OBJECTIVES

BoLCoP's goal is to "**contribute to the Government of Botswana's objective of inclusively and sustainably commercialising the small livestock sub-sector".** Its Project development objective (PDO) is to "enhance the incomes and resilience of rural households through more inclusive, sustainable and digitalised small livestock value chains".

The PDO will be achieved through the following three interlinked outcomes:

(a) increased climate-resilient production and productivity;
(b) strengthened and inclusive small livestock value chains; and
(c) enhanced enabling environment for improved small livestock development.

1.2 PROJECT COMPONENTS

BoLCoP will achieve the above stated outcomes through 3 components summarised below:

Table 2-1 Components of the BolCoP programme.

No.	COMPONENT	ACTIVITIES
1.	***Component 0:***	***Mitigation and Management of Climate Risks, Disasters and Disease Outbreaks:*** BoLCoP will facilitate the setting up of mechanisms to mitigate and manage risks that negatively impact small livestock such as floods, droughts, heat waves and disease outbreaks. Activities will involve capacitating MoLA officials to institute a risk mitigation strategy and action plan, and disaster preparedness.
2.	***Component 1:***	***Climate-Smart Small Livestock Production and Productivity Improvement:*** This component will support the small livestock sector's climate-resilient production and productivity enhancement through: a) Availing improved breeds of small livestock, b) Gender-responsive capacity-building in efficient and climate-smart production and management, c) improvement of animal health services and access to inputs, d) adopt practices and technologies that enhance animal nutrition, e) promote infrastructure and ethical animal husbandry practices, f) support the use the Botswana Animal Identification and Traceability System (BAITS).
	Sub-component 1.1	Enhanced access to quality small livestock, and animal health services
	Sub-component 1.2	Improved capacity of farmers to adopt climate resilient production and management practices
	Component 2:	**Strengthened Small Livestock Value Chains:** This component will seek to improve effectiveness and efficiency along the targeted value chains (sheep/goats, poultry, pigs and apiculture) by: a) addressing problems of low and scattered production, as well as weak negotiation capacity of producers. b) providing business development services (BDS) to MSMEs, particularly women and youth. c) developing and/or strengthening existing user-friendly and adaptable trading platforms, d) promoting access to inclusive and green financial solutions for the targeted small livestock actors, particularly women and youth.
	Sub-component 2.1	Strengthened clustering and capacity building of value chain actors;
	Sub-component 2.2	Improved access to input and output markets

Commented [LM1]: This needs to reflect the updated activities in the PDR which are gender-responsive

	Sub-component 2.3	Improved access to inclusive and green financial services for value chain actors.
	Component 3:	**Enhanced Enabling Environment for Improved Small Livestock Development** This component will be a cross-cutting, servicing the technical components and facilitating pathways for BoLCoP's effective and efficient implementation through: a) facilitating improved participation of small livestock farmers in existing market structures, b) strengthen youth skills to effectively access and sustain wage and self-employment opportunities in the small livestock sector, c) identify potential mechanisms that enable relevant social protection beneficiaries to sustainably engage in project supported income generating activities, d) strengthen and/or establish institutions for the effective and sustainable management and coordination of BoLCoP investments.
	Sub-component 3.1	Facilitate development and operationalization of national policies, strategies, regulations, etc.
	Sub-component 3.2	Effective institutional and implementation arrangements established.

3. LIVESTOCK VALUE CHAIN AND WASTE GENERATED

3.1 INTRODUCTION

In general, small stock production and value chain are part of the mixed farming production system and waste management is crucial and plays a significant role in the sustainable development of the small stock value chain.

3.1.1. Why is Waste Management an Issue?

There are ecological, agricultural, public health, economic, and institutional contexts that define small stock waste problems in the quest to achieve sustainable development in l small stock production. First is the fact that 'Clean and green' agriculture is of increasing importance in the marketing of livestock produce, both domestically and overseas, secondly the appropriate management of farm wastes can benefit farm operators by preventing:

- Negative impacting of property value;
- Contamination of the land and water on their farm;
- Breeding sites for disease spreading mosquitos, pest animals and predators;
- Contamination of farm produce;
- Stock injury, disease or death;
- Offensive odors to workers and neighbors;
- Large penalties and clean-up costs from poor waste management.

a) Small stock Systems interactions in Environmental Context

- Livestock, as part of global ecological and food production systems, are a key commodity for human well-being. Their importance in the provisioning of food, incomes, employment, nutrients and risk insurance to mankind is widely recognized (Herrero et al. 2010). In contrast, the interactions of livestock with its environment are complex and depend on location and management practices. Most traditional livestock production systems are resource driven, making use of locally available resources with limited alternative uses.
- The relationship between livestock production and greenhouse gas (GHG) emissions is widely recognized. As pointed out by Steeg and Tibbo (2012) agriculture contributes between 59% and 63% of the world's non-carbon dioxide (non-CO2) GHG emissions, including 84% of the global nitrous oxide (N2O) emissions and 54% of the global methane (CH4) emissions.
- Improperly managed animal waste can have severe consequences for the environment such as odour problems, attraction of rodents, insects and other pests, release of animal pathogens, groundwater contamination, surface water runoff, deterioration of biological structure of the earth and catastrophic spills (GoN, 2022).
- High livestock density is always accompanied by production of a surplus of animal manure, representing a considerable pollution threat for the environment in these areas. Cattle are the largest contributors to global manure production (60%), while pigs and poultry account for 9% and 10%, respectively (GoN, 2022).
- Recovery of nutrients from manure is highly variable and depends significantly on infrastructure and handling.
- Intensive animal production areas need suitable manure management, aiming to export and to redistribute the excess of nutrients from manure and to optimize their recycling. When untreated or poorly managed, animal manure can become a major source of air and water pollution. Nutrient leaching, mainly nitrogen and phosphorous, ammonia evaporation and pathogen contamination are some of the major threats (GoN, 2022)

b) Public Health Context

- Concentrated Animal Feeding Operations (CAFOs), release a significant amount of contaminants into the air and water. Adverse health effects related to exposure to these contaminants among CAFO workers have been well-documented; however, less is known about their impact on the health of residents in nearby communities. Epidemiological research in this area suggests that neighboring residents are at increased risk of developing neurobehavioral symptoms and respiratory illnesses, including asthma.
- Public health concerns associated with CAFOs include heightened risks of pathogens (disease- and non-disease-causing) passed from animals to humans;
- The emergence of microbes resistant to antibiotics and antimicrobials, due in large part to widespread use of antimicrobials for nontherapeutic purposes; food-borne disease; worker health concerns; and dispersed impacts on the adjacent community at large.
- Epidemiological studies have linked farm animal waste runoff to several waterborne outbreaks involving pathogens such as Campylobacter, Salmonella, Listeria monocytogenes, *Helicobacter pylori*, and *Escherichia coli* 0157:H7, as well as the protozoa *Cryptosporidium parvum*. See figure 3-1 and 3-2.

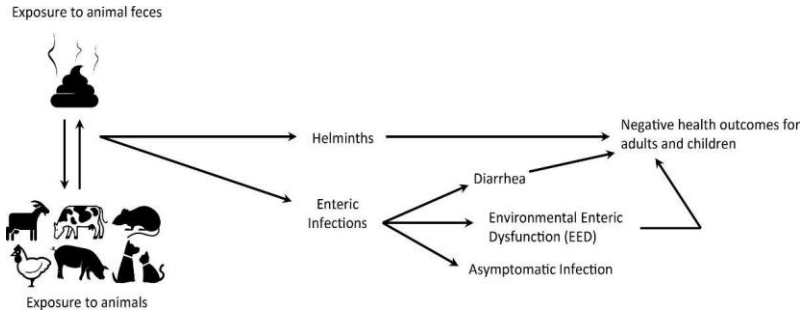

Figure 3-1 Exposure to animal faeces and/or contact with animals to human health. (GoN, 2022)

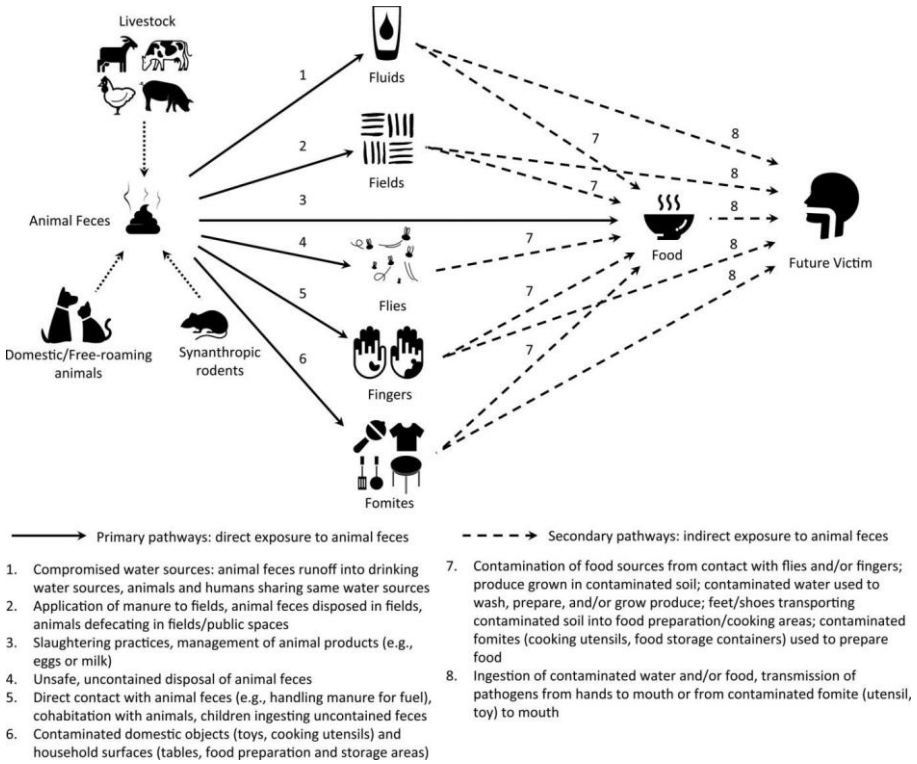

Figure 3-2 Flow-diagram showing transmission routes of animal faeces to humans. (GoN, 2022)
Adapted from Wagner, E.; Lanoix, J., Excreta disposal for rural areas and small communities.

- Excess nitrates in water have also been implicated in several health outcomes for susceptible populations. For instance, studies have found an association between high nitrate levels in water used in infant formula and development of methemoglobinemia, or blue-baby syndrome(baby skins turns blue) which is an illness associated with poor water supply contaminated with nitrates from fertilizers and manure.
- Animal confinement facilities also generate a variety of air contaminants, including skin cells, feed, fungi, and other particulates, which can become airborne. Additional contaminants include ammonia, hydrogen sulfide, and antimicrobials.
- A 2006 report by the Food and Agriculture Organization of the United Nations noted that, on a global scale, the animal agriculture sector accounts for approximately 18% of all anthropogenic greenhouse gas emissions.
- Many of the air pollutants in CAFOs do not currently have occupational exposure limits in Botswana. Complicating the issue, contaminants released by CAFOs are often mixtures of a variety of pollutants. Very little is known about the risks these contaminant mixtures pose to human health, and even less is known about synergistic effects of such mixtures.
- The presence of a CAFO in or near a community can negatively impact the social structure of residents with respect to odour emanating from such farms.

3.2 WASTE GENERATED ALONG MEAT VALUE CHAIN

The core functions in a small stock value chain are inputs supply, production, trade (marketing), processing and consumption. These core functions generate different wastes as indicated in Figures 3-3 below:

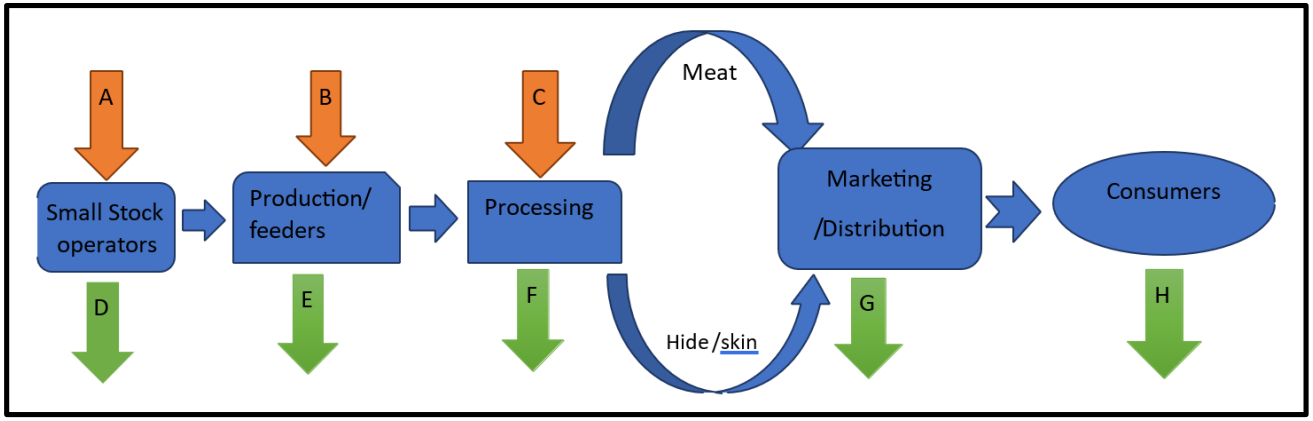

Figure 3-3 Schematic Representation of Waste Generated along Meat Value Chain (GoN, 2022)

Legend

Alphabet	Content
A	Input Feeds, animal health services and products
B	Input Feeds, animal health services and products
C	Input Water,
D	Waste Dead animals, waste water from animal wash, feed waste, feed bags(nylons), dungs, urine, vaccine, insecticides and drugs residue output waste.
E	Waste Dead animals, waste water from animal wash, feed waste, feed bags (nylons), dungs, urine, vaccine, insecticide and drugs residue output waste, and furs.
F	Waste Dungs, undigested ingest, waste water from meat processing, bones, horns, fats, blood, hooves, and furs output
G	Waste Bones output
H	Waste Bones output

3.3 EXISTING LIVESTOCK WASTE MANAGEMENT CONDITIONS

Table 3-1 Ruminants' existing Livestock Waste Management Conditions

WASTE TYPES	WASTE DESCRIPTION	GENERATION	STORAGE	TREATMENT	DISPOSAL	POTENTIAL IMPACT
Biohazardous waste	This is any waste containing potentially infectious substance. Examples are hypodermic needles, blades carcass of diseased animals, condemned vaccines. This waste is generated because of the diagnosis, treatment, or immunization of animals	Source segregation to reduce the volume of biohazardous waste	Waste are often left open	Mostly no treatment is done	Open dumping, burning.	These infectious materials can cause infection to humans. Zoonosis is one important aspect to consider in peri-urban livestock keeping. For example, anthrax, brucellosis, cysticercosis, trichinosis among others is reported to be transmitted from animals to humans through inappropriate management practices for urban animal farming.
Hazardous chemical wastes	These are generated by veterinary procedures, animal house cleaning and sanitation. Chemicals like formaldehyde or chemotherapeutic agents. Pharmaceutical waste that is toxic or ignitable and sometimes pesticide for parasite control.	Waste generation can be reduced by buying and applying only required quantity of chemicals	Leftovers are often left in containers in the open or shelf or mixed with general waste	No treatment	Open dumping or burning	These compounds leach into the ground and find their ways into the water sources which is a public health risk

WASTE TYPES	WASTE DESCRIPTION	GENERATION	STORAGE	TREATMENT	DISPOSAL	POTENTIAL IMPACT
Plastic, nylon and paper waste	These are waste generated from packaging of feeds, drugs, and other material in livestock production.	Alternative packaging materials can be explored to reduce waste generation	Often mixed with general municipal waste stream	No treatment	Open dumping burning	This constitutes an environmental hazard as they block water ways.
Organic wastes water	These are effluents from abattoirs and meat processing. They are very rich in organic content.	Source segregation should be done to reduce the amount of this waste. Blood, animal dung and gut content should be carefully removed from the water	No storage but direct discharge	No treatment	They are washed directly into the open drain and allowed to be washed into the nearest water course.	The waste contaminates water bodies with bacterial pathogens, ammonia, heavy metals and nitrate and raising the oxygen demands neighbourhood. Flies and insects' vectors (of diseases such as mosquitoes) proliferation are also major consequence of this waste
Bones, hooves, claws, horn,	This is generated during the animals processing	Source generation will support he secondary value of bones as a resource	Stacked in the open	Open drying	Direct burning or open dump or recycled and processed into animal feed	Burning of bones and hooves produced smoke which constitute air pollution which in turn can lead to respiratory disease among the neighbouring inhabitants
Condemned Organs, tissues, and dead animals	This is generated during the animals processing.	This generated waste can be reduced by avoiding overcrowding of animals.	-	-	The cultural practice is to bury dead animals for the protection of public health	The waste contaminates water bodies with bacterial Pathogens, ammonia, heavy metals and nitrate and raising the oxygen demands neighbourhood. Flies and insects' vectors (of diseases such as mosquitoes) proliferation are also major consequence of this

WASTE TYPES	WASTE DESCRIPTION	GENERATION	STORAGE	TREATMENT	DISPOSAL	POTENTIAL IMPACT
Animal dungs and gut content	This is generated during the animals processing		In some areas the dungs may be compacted in a pile and stored in the open for a limited time		The main waste disposal practice is dumping at a site which has piled up to form a refuse hill. Dung is piled up, used directly as manure for food production	Waste utilization for urban food production can encourage transmission of faecal-oral infections including diarrhoea and dysenteries. It can also promote diseases associated with rats such as plague, endemic typhus and rat bite fever.
Blood	This is generated during the animals processing				Collected as edible or Processed into Protein meal, or Discharged in wastewater	The waste contaminates water bodies with bacterial Pathogens, ammonia, heavy metals and nitrate and raising the oxygen demands neighbourhood. Flies and insects' vectors (of diseases such as mosquitoes) proliferation are also major consequence of this
Animal feed waste	This is generated during the feeding.	This is generated because of inefficient feeding system this can be reduced by using appropriate feeders for the animals.			The main waste disposal practice is dumping at a site.	
Methane, H_2S and Offensive odour	This is generated by the digestive process in the animals		-	-	-	At higher concentration they can be hazardous to human

3.4 WASTE STREAM GENERATION POINTS IN POULTRY LIVESTOCK LIFECYCLE

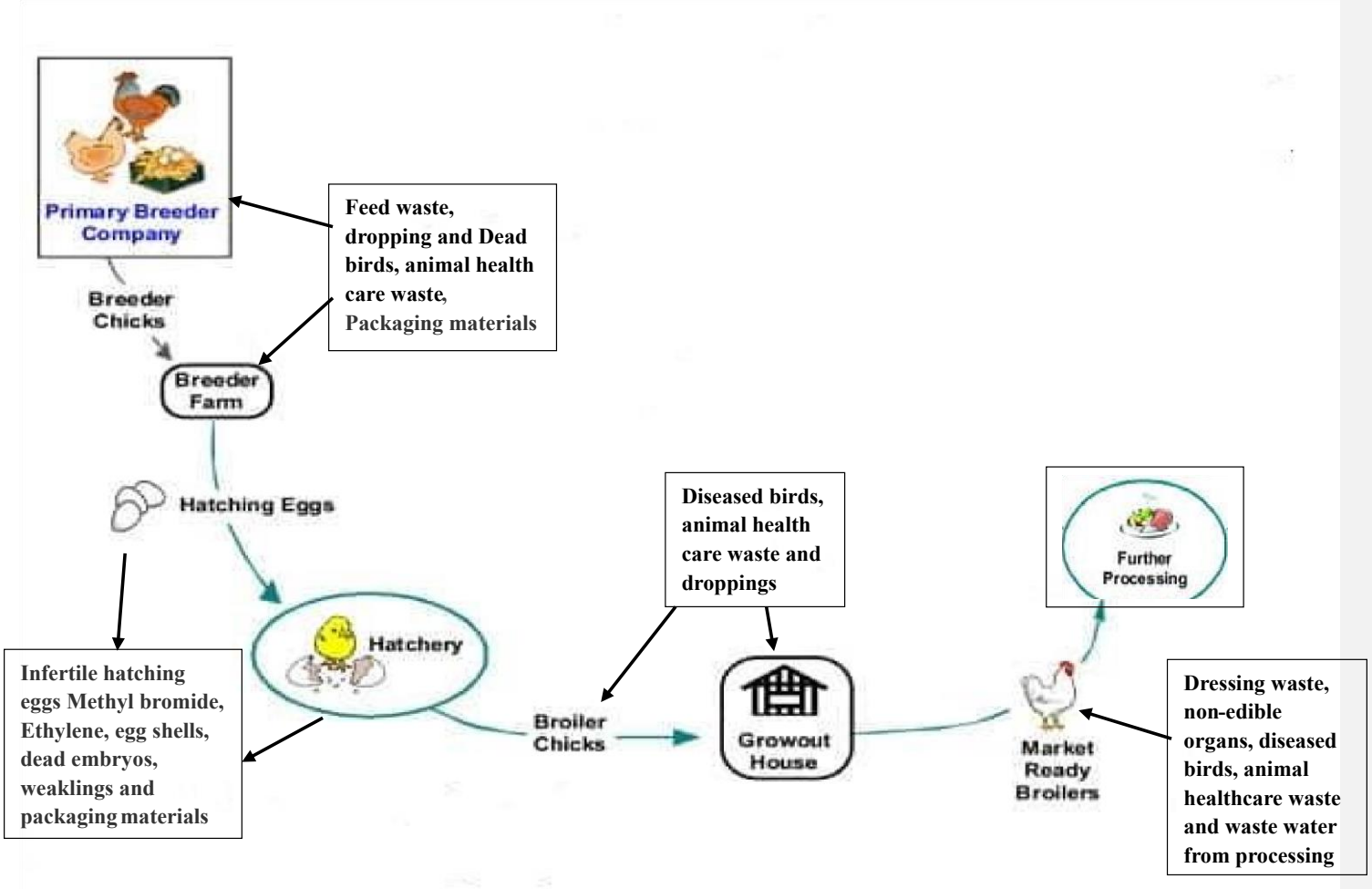

Figure 3-4 Schematic representation of Waste Stream Generation Points in Poultry Livestock Lifecycle (GoN, 2022)

1

Table 5.2 below presents the classes of poultry waste and the conditions in which they are currently managed

Table 3-2 Classification of Poultry Waste and Existing Conditions

Waste Categories	**Existing Conditions Management**
Feed Waste	**Generation** ▪ This is majorly generated during feeding of the birds. A lot of the feed is wasted as the birds tend to spread the feeds with the feet and step on the feed-holder while trying to rush on the feed. ▪ The package material for the feed gets torn easily thereby causing waste of the feed during transportation to the farm and even at the farm. **Handling/Storage / Collection** ▪ The feed waste is gathered together and stored in an open space as hill of waste. It is also stored in polyethene sacks before disposal or being sold. **Treatment / Disposal** ▪ Feed waste is majorly cleared outside the poultry farm and left to dry. However, after drying it is sold off to fish farmers who use it as feed for the fishes.
Droppings	The removal of dropping as stated above is done in case of deep litter and 3-tier reverse cage rearing but in case of battery cages, droppings are removed every day or once in two days to avoid filth in house. **Generation** ▪ This is majorly generated as the birds excrete their waste after digestion. Most of this dropping is usually mixed with waste feed as well. **Handling/Storage / Collection** ▪ The droppings are stored for 3, 6 or 12 months till the disposal of batch of birds. ▪ The dropping stored mostly in pit at corner of premises, preferably on downwind flow side to avoid recontamination of birds. **Treatment / Disposal** ▪ ***Oxidation ditches:*** Aerobic fermentation of manure occurring in open ditches is the prominent disposal approach. Bacteria decompose organic matter into simpler substances. However, the liquid portion has NPK elements and is used as fertilizer in field. ▪ ***Solid disposal:*** The solid manure is handled as it is, in the form of heap. The stacked heap on compression generates heat inside and kills microbes making the material sterile, which is used as fertilizer as well but it is also used as fish feed.

Hatchery waste	Considerable amount of waste material from hatchery is obtained which consists of infertile hatching eggs, dead embryos, egg shells from hatched eggs, dead chicks or weaklings and packaging materials. At this stage, it involves around 10-15 per cent loss of eggs or embryos during incubation and hatching and this is the reason for the considerable amount of waste. **Generation** ▪ This is generated during the conversion of eggs into chicks. The waste is majorly egg shell, dead embryo, methyl bromide and Ethelene ▪ The package material used in the transportation of the newly hatched chick, chemical bottles of the methyl bromide and Ethelene. **Handling/Storage / Collection** ▪ Handling of raw hatchery by-products is difficult because of its strong off odour. To overcome this problem, various chemical treatments can be used including gaseous sterilant such as methyl bromide and ethylene oxide. ▪ The most important point to be considered during handling hatchery waste is that it should not contain high number of pathogens, which may pose difficulty to human health and risk for handlers. For preventing this, do not select eggs for hatching from diseased birds and remove dead embryos timely from incubator and try to keep embryonic morality at minimum possible level. **Treatment / Disposal** ▪ No formal form of treatment; ▪ Hatchery waste in the form of egg shells, dead embryos, infertile eggs, dead or weak chicks is mostly converted in hatchery byproduct meal or hatchery residue meal which is also used as protein source for poultry feeding. Due to this it can be said as utilisation of hatchery waste instead of disposal of hatchery waste.
Dead Birds	Mortalities refer to dead poultry that are not marketable for human consumption. Proper disposal of dead birds is extremely important to protect the health of both people and livestock. **Generation** ▪ Large commercial poultry operations are subject to mortality rates from 2-5% and therefore generate many carcasses for disposal due to infection with diseases such as metabolic and nutritional diseases, infectious diseases; parasitic diseases; and behavioural diseases. **Handling/Storage / Collection** ▪ It is observed that in many instances, dead birds are just thrown away in open outside the farm on fallow land or at the corner of premises; worse situations arise during critical periods of outbreaks, due to more number of dead birds posing difficulties for systematic disposal. **Treatment / Disposal**
	▪ Dead birds are not given any form of treatment; ▪ Dead birds are mostly buried while some incinerate them.

Dressing waste	On the farm, dressing waste is not a severe issue as much as other form of waste because major sales are live-whole selling. However, poultry farms with processing section who dresses birds for domestic use or retailed dressed birds generated this waste. **Generation** ▪ This is waste generated during bird processing. **Handling/Storage / Collection** ▪ Dry dressing waste such as feathers shanks are stored in a waste pit collection point; Wet dressing waste is disposed-off into decomposition pit immediately. **Treatment/ Disposal** No form of treatment; ▪ Dry wastes are burnt openly while the wet wastes are buried for decomposition.
Animal Health Care Products	These are spent medicines, empty containers, expired vaccines, used needle, and used vaccine bottles. **Generation** ▪ These wastes are generated during treatment, or immunization of the birds. **Handling/Storage / Collection** ▪ Stored in general waste collection bin. **Treatment / Disposal** ▪ No form of treatment; ▪ Disposed along with the general waste and burn openly.
Packaging Materials	These are material used packaging all the poultry products. **Generation** These wastes are generated from all goods coming into the poultry and also from the egg and hatchery section of the poultry. **Handling/Storage / Collection** ▪ Stored in general waste collection bin or waste pit within the premises. **Treatment / Disposal** ▪ No form of treatment; ▪ Some are reused within the poultry;

Waste water	Some are disposed with the general waste or burn openly. **Generation** This is mainly generated from the poultry processing section and during the cleaning of the bird cages. **Handling/Storage / Collection** ▪ Stored in septic tank within the farm and while some are channelled into open drains. **Treatment / Disposal** ▪ No formal treatment; ▪ Channelled to septic tank or public drain;
Chemical waste	**Generation** This is generated from the hatchery section. It is used to control the strong off odour. **Handling/Storage / Collection** ▪ No formal storage **Treatment / Disposal** ▪ No formal treatment; ▪ Washing of the floor / hatchery section into septic tank or public drain.

3.5 COMMON WASTE MANAGEMENT PRACTICES

From the field visits conducted during the design mission it can be ascertained that currently there is no best livestock waste management practice in Botswana, due to poor waste disposal and treatment methods, lack of utilization and insufficient education in utilization skills.

The locations of many livestock farms encourage pollution of both ground and surface water. Waste at the farms was being left to pile and was not treated before disposal

Specifically, Poultry litter is yet to find full utilization by the poultry farmers and the public. A few current applications include fish feeding and manure/fertilizer.

With the processing facilities, technologies exist to significantly reduce emissions from processing plants. The problem is one of the cost and corresponding incentive and regulatory framework. Because of the high BOD-load in the wastewater of slaughterhouses, anaerobic systems are the most suitable waste water purification systems.

Simple anaerobic systems could cut the BOD contents by half, while more sophisticated anaerobic systems reach 90 percent BOD-purification. Wastewater treatment usually first separates solids from the liquid, followed biological treatment under anaerobic conditions (lagoons). Then, chemical or physical processes such as adsorption, stripping or coagulation remove nutrients such as phosphorus. The same process serves to remove the remaining BOD as well as pathogens. In a few developed countries, environmental problems have already led to high quality standards being required for discharge water. To meet these standards, a combination of anaerobic and aerobic treatment is required, often coupled with nutrient removal systems.

3.5.1 Biogas as a Sustainable Solution to Energy and Waste Management Challenges

One of the beneficial and advantageous processes in manure treatment is anaerobic digestion (AD). The AD of various organic feedstock, predominantly animal manures and municipal wastewater sludge produce a methane rich gaseous mixture called biogas that is of added benefit to farm livestock manure as an energy resource. The older uses of the technology were for the treatment of sewage sludge and agricultural manures.

The generation of biogas from the AD of biomass is a technology which can produce sustainable energy and also reduce the environmental risks associated with manure and waste management. These and other benefits of biogas systems are indicated in table 3-3 below. Biogas is produced by bacterial conversion of organic matter under anaerobic conditions and is a mixture of carbon dioxide (CO_2) and the flammable gas methane (CH_4) (Jiang et al. 2011). The biogas produced, consists of methane (50–80%), carbon dioxide (20–50%) and traces of, for example, hydrogen sulphide (0–0.4%) (Lantz et al. 2007).

“Biogas technology offers a unique set of benefits. It can improve the health of users, is a sustainable source of energy, benefits the environment and provides a way to treat and reuse various wastes – human, animal, agricultural, industrial and municipal.

According to IEA 2001 there are several benefits resulting from the use of AD (biogas) technology.

Table 3-3 Benefits resulting from the use of biogas systems

WASTE TREATMENT BENEFITS	NATURAL WASTE TREATMENT PROCESS
Disposal Space	Requires less land than aerobic composting or landfilling
	Reduces disposed waste volume and weight to be landfilled
Energy Benefits	Net energy producing process Generate high quality renewable fuel
	Biogas proven in numerous end-use applications
Environmental Benefits	Significantly reduces carbon dioxide and methane emissions
	Eliminates odours
	Produces a sanitized compost and nutrient rich liquid fertilizer
	Maximizes recycling benefits
Economic Benefits	Is more cost-effective than other treatment options from a lifecycle perspective

Source. Adapted from IEA 2001.

3.5.2. Incinerators

Current abattoir operations have livestock carcass incinerators which use liquid fuel—diesel, propane, or natural gas— to support high temperature combustion that reduces carcasses to ash and gaseous emissions. The primary benefits of incineration are rapid and timely disposal, minimal operational labour, and ability to rapidly destroy pathogens.

The incinerators are designed for on-site disposal of routine mortalities and usually inadequate to handle surges caused by disease or other catastrophic events.

3.5.3. Engineered landfill

Other than the use of biogas or incinerator is outright disposal of livestock mortalities in dumpsite/ engineered landfills. The benefit of using engineered landfills for disposal is that these facilities are carefully sited to avoid environmentally sensitive areas and are constructed with leachate containment and/or treatment systems that substantially reduce the risks of soil and groundwater contamination. Under the current practice the local government area / municipal landfills often do not have sufficient excavating capacity, or stockpiles of cover soil, to handle large volumes of livestock during an emergency. Furthermore, animal remains are difficult to compact, making proper construction of landfill cells difficult unless large quantities of more stable solid waste are available to bury with the carcasses.

4. IMPACT OF VETERINARY AND LIVESTOCK WASTE AND MITIGATION MEASURES

Associated waste impacts and sanitary nuisances from livestock operations needs to be mitigated through good husbandry practices and a proper farm management to avoid any inconveniences to the surrounding environment. Major issues of environmental concern will relate to, zoning and site selection, solid waste, odour and sanitary nuisances, wastewater, health and safety aspects, and energy and water consumption.

With respect to generated waste on farm, there are two broad categories namely Non hazardous and hazardous.

4.1 Non-Hazardous Waste

4.1.1 Feed Waste

Waste examples: Livestock feed includes hay, grain (sometimes supplemented with protein, amino acids, enzymes, vitamins, mineral supplements, hormones, heavy metals, and antibiotics), and silage.
Generation: Feed can be unusable waste material if spilled during storage, loading, and unloading or during animal feeding.
Impact: Waste feed, including additives, may contribute to the contamination of storm water runoff, primarily because of its organic matter content.
Mitigation measures:
Minimizing the waste generation
-Promote efficient storage, handling and use of feed by maintaining records of feed purchases and livestock feed use;
-Use covered or protected feeders to prevent feed from exposure to rain and wind;
● Maintain feeding systems in good working condition to prevent spills and feed contact with the ground;
Disposal: Consider mixing of waste feed with other recyclable materials destined for use as fertilizer. Incineration or land disposal options should be considered depending on an assessment of potential impacts of each option to air, soils, and surface water / groundwater. Incineration only should be considered for feed waste with potentially high impact on the environment.

4.1.2 Animal Waste

Mammalian livestock production operations generate significant quantities of animal waste, mainly in the form of un-metabolized nutrients excreted as manure and undigested intestinal content during the meat processing in abattoir.
Waste Example: Manure, contents of the rumen and intestines
Generation: Most of the animal waste is generated at housing, feeding, and watering locations and during meat processing at abattoir. Animal wastes can be either liquid, slurry, or solid. **Impact:** Manure contains nitrogen, phosphorus, and other excreted substances which may result in air emissions of ammonia and other gases and may pose a potential risk of contamination to surface or groundwater resources through leaching and runoff. Manure also contains disease-causing agents such as bacteria, pathogens, viruses, parasites, and prions which may also potentially affect soil, water, and plant resources (for human, livestock, or wildlife consumption). Most of the animal waste is generated at housing, feeding, and watering locations. Animal wastes can be either liquid, slurry, or solid, depending on the solids content. Animal waste management systems involve the collection,

transport, storage, treatment, and utilization (rather than disposal) of the waste to reduce such adverse impacts

Mitigation measures:

A. Minimizing the waste generation

- Implement a comprehensive nutrient and waste management plan that considers the potentially harmful constituents of this waste including potential phytotoxicity levels, potential concentration of hazardous substances in soils and vegetation, as well as nutrient limits and groundwater pollutant limits;
- Observe internationally recognized guidance, such as that published by FAO, on land requirements for livestock production for livestock units (LU) per hectare (ha) to ensure an appropriate amount of land for manure deposition;
- Match feed content to the specific nutritional requirements of the animals in their different production and growth stages;
- Use low-protein, amino acid-supplemented diets (e.g. a 1 percent reduction in the protein content of pig feed may result in a 10 percent reduction in the amount of nitrogen excreted);
- Grind feed to increase utilization efficiency by the animals, allowing the use of less feed and thereby reducing the amount of manure generated (as well as increasing the production efficiency);
- Use low-phosphorus diets with highly digestible inorganic phosphates;
- Use quality, uncontaminated feed materials (e.g. concentrations of pesticides, dioxins, and so on are known and do not exceed acceptable levels) that contain no more copper, zinc, and other additives than is necessary for animal health;
- Curtail animal feeding 12 hours before slaughtering to reduce manure production and reduce the risk of contamination of the carcasses with manure and digestive tract content during slaughter;
- Provide sufficient manure storage capacity until the manure is transported for agricultural and other uses;
- Collect and compost stomach and intestinal contents and manure (preferably removed in “dry” form without mixing into the effluent and provided it does not come from diseased animals) for use as compost or other agricultural application. In the case of bovine slaughter, the cattle’s first stomach has a considerable organic material content (approximately 10, 40, and 50 kg for veal calves less than one-year-old, bulls, and cows, respectively).

Storage

- Adequate storage capacity is related to the size of facility, livestock units, length of storage and consideration of high rainfall and flood conditions ;
- Ensure production and manure storage facilities are constructed to prevent urine and manure contamination of surface water and groundwater (e.g. use concrete floors, collect liquid effluent from pens, and use roof gutters on buildings to collect and divert clean stormwater);
- Keep waste as dry as possible by scraping wastes instead of, or in addition, to flushing with water to remove waste;
- Reduce the amount of water used during cleaning (e.g. by using high-pressure, lowflow nozzles);
- Minimize the surface area of manure in storage;
- Cool the manure surface to maintain temperatures at 15ºC or less (e.g. by using cooling fins on the manure surface), if practical, to reduce ammonia emissions;
- Locate manure stacks away from water bodies, floodplains, wellhead fields; or other sensitive habitats;
- For feedlots, ensure that solid waste (e.g. bedding and muck) is gathered regularly and is not permitted to lie on the ground for long periods of time;

- Reduce the volume of rainwater in the storage system by covering slurry tanks or lagoons with a rigid roof or floating cover and by placing dry manure or litter in a covered or roofed area;
- Check for storage systems leakage regularly (e.g. inspect tanks for corrosion of seams, especially those near ground level; annually empty and inspect tanks);
- Use double valves on outlets from liquid tanks to reduce the probability of release;
- Conduct manure spread only as part of well-planned strategy that considers potential risks to health and the environmental due to the presence of chemical and biological agents as well as nutrient balance in an agricultural setting.
- Manure storage facilities should have capacity for 9–12 months of manure production or as necessary to avoid over application;
- Design, construct, operate, and maintain waste management and storage facilities to contain all manure, litter, and process wastewater including runoff and direct precipitation **enough to withstand a 24 hour 10 to 25-year rainfall; Designing, constructing and maintaining manure storage facilities is a large expense to the farmer.**

Treatment

- Remove liquids and sludge from lagoons as necessary to prevent overtopping;
- Build a reserve slurry storage lagoon;
- Transport liquid effluent in sealed tank **Disposal:**

Manure can be applied to agricultural land only during periods that are appropriate for its use as plant nutrient (generally just before the start of the growing season).

4.1.3 Animal Carcasses

Waste examples: Dead animals and parts
Generation: Mortalities are a normal part of animal husbandry and from diseased livestock.
Impact: Animal carcasses can initiate the spread of disease and odours, and to avoid the attraction and multiplication of vectors Livestock producers may dispose of mortalities from their own farms through one of the following means:

- Dead animal collection service
- On-farm disposal by: - Composting - Incineration, or - Burial

Mitigation measures:

- Minimizing the waste generation by reducing mortalities through proper animal care and disease prevention;
- Where burial is the option adopted for disposal, all dead animals should be disposed of by deep burial with the application of quick lime in a dedicated site within farm premises to the satisfaction of the Environmental Health Officers and the Ministry of Agriculture inspectors as applicable.
- The burial area should have stable and low permeability soils. There should be setback between burial site and water courses/bodies Burial sites should be located a minimum of 30 m from each other.
- Burial sites should be well distributed around a property.
- No more than one large animal carcass should be placed in each burial site. No more than 700 kg of mortalities should be buried per hectare per year. Once a burial site is used, it should not be reused for at least three years.

Storage

- Collecting animals not approved by veterinary inspection and segregating them from animal materials sent by the slaughterhouse for off-site rendering.

- This segregation is necessary because the treatment processes in off-site rendering plants can entail higher pressure, temperature, and duration, in accordance with the risk classifications of the waste materials ;
- Storing carcasses until collection to prevent putrefaction, odours, and attraction of vectors, using cooling if necessary ;
- Transformation in a bio-gas or composting plant after pressure sterilization;
- Using a reliable collection company approved by local authorities that disposes of carcasses by rendering, with adequate time, temperature and pressure criteria for sanitization, or incineration/co-incineration depending on the cause of fatality; Storage times should be minimized to avoid energy intensive cooling requirements; Store carcasses until disposal, using cooling if necessary to prevent putrefaction.

Disposal

- Separated SRM (Special Risk Materials) should be destroyed through incineration with a minimum gas temperature of 850 °C. Prior to incineration, the material should be reduced to an appropriate particle size and heat-treated according to defined combinations of time, temperature and pressure;
- Use a reliable collection company approved by local authorities that disposes of carcasses by rendering or incineration, depending on the cause of fatality;
- Incineration should only be conducted in permitted facilities operating under international recognized standards for pollution prevention and control.

4.1.4 Wastewater

Livestock operations most commonly generate non-point source effluents due to runoff from feed (including silage) storage, loading, and unloading, livestock housing, feeding, and watering, waste management facilities, and areas of land application of manure. Depending on the type and intensity.

Impact

Effluents have the potential to contaminate surface water and groundwater with nutrients, ammonia, sediment, pesticides, pathogens and feed additives, such as heavy metals, hormones, and antibiotics. Effluents from livestock operations typically have a high content of organic material and consequently a high biochemical oxygen demand (BOD) and chemical oxygen demand (COD), as well as nutrients and suspended solids (TSS).

Mitigation

Minimizing the waste generation, the following measures are proposed:

- Reuse water used for cleaning milking equipment to clean the milking parlour;
- Reduce water use and spills from animal watering by preventing overflow of watering devices and using calibrated, well-maintained self-watering devices;
- Install vegetative filters to trap sediment;
- Install surface water diversions to direct clean runoff around areas containing waste;
- Implement buffer zones to surface water bodies, avoiding land spreading of manure within these areas;
- Reduce leachate from silage by allowing plant material to wilt in the field for 24 hours, varying cutting and harvesting times, and adding moisture-absorbent material as the silage is stored.
- Prioritize the removal of solid waste before it enters the wastewater stream:
- Use floor drains and collection channels with grids, screens, and / or traps to reduce the amount of solids entering the wastewater stream collect blood for use in food, feed or in the pharmaceutical industry.
- Manure from the stockyard and from vehicle cleaning should be removed while in solid form;

- Stomach and intestine contents should be removed and transported in a dry state by pumps, screw conveyers or trolleys to outdoor storage and collection points for further recycling. Offal should be transported by vacuum or compressed air systems;
- Prevent direct runoff to water courses, especially from lairage and manure storage areas;
- Apply appropriate tank and equipment cleaning procedures. Clean in place (cip) cleaning procedures are useful to reduce chemical, water and energy consumption in cleaning operations;
- Choose cleaning agents that do not have adverse impacts on the environment in general, on wastewater treatment unit processes, or on sludge quality for agricultural application. Prevent the use of agents that contain active chlorine or prohibited, banned or restricted chemicals.
- Optimize agent use through correct dosage and application (e.g. Cip);
- Implement integrated pest and vector management programs and maximize vector control through mechanical means (e.g. Traps, and use of mesh on doors and windows) to avoid or minimize the introduction of chemicals potentially harmful to the wastewater treatment process or the sludge quality.

Process Wastewater Treatment

Techniques for treating industrial process wastewater in this sector include sedimentation for suspended solids reduction using clarifiers or settling ponds; flow and load equalization; biological treatment, typically anaerobic followed by aerobic treatment, for reduction of soluble organic matter (BOD); biological nutrient removal for reduction in nitrogen and phosphorus; chlorination of effluent when disinfection is required; dewatering of residuals and composting or land application of wastewater treatment residuals of acceptable quality. Additional engineering controls may be required (i) if pass through of active ingredients (residual amounts of growth enhancers and antibiotics, among other hazardous constituents) is an issue, and (ii) to contain and neutralize nuisance odours.

4.1.5 Air Emissions

Waste examples and Generation: Air emissions from mammalian livestock production include ammonia (e.g. management of animal waste), methane and nitrous oxide (e.g. animal feeding and waste management), odours (e.g. animal housing and waste management), bioaerosols, and dust (e.g. feed storage, loading, and unloading, feeding, and waste management activities).

Impact of Ammonia and Odours

Ammonia gas and other sources of odour are generated primarily during denitrification of manure and can be released directly into the atmosphere at any stage of the manure handling process, including through ventilation of buildings and manure storage areas. Ammonia gas levels are also affected by the ambient temperature, ventilation rate, humidity, stocking rate, litter quality, and feed composition (crude protein). Ammonia gas (NH_3) has a sharp and pungent odour can act as an irritant when present in high enough concentrations. Ammonia gas deposition into surface waters may contribute to their eutrophication. Release of ammonia gas also reduces the nitrogen content and, therefore, the fertilizer value of the manure.

Mitigation of Ammonia & Odour:

- Consider the siting of new facilities taking into account distances to neighbours and the propagation of odours;
- Control the temperature, humidity, and other environmental factors of manure storage to reduce emissions;
- Consider composting of manure to reduce odour emissions;
- Reduce emissions and odours during land application activities by applying a few centimetres

- below the soil surface and by selecting favourable weather conditions (e.g. Wind blowing away from inhabited areas);
- If necessary, apply chemicals (e.g. urinate inhibitors) weekly to reduce conversion of nitrogen to ammonia;

Impact of Greenhouse gases

Generation and waste type: The livestock account for 9 percent of anthropogenic CO2 emissions (mostly from deforestation / land use changes for grazing and pasture for feed crops), 37 percent of anthropogenic methane emissions, mostly from enteric fermentation by ruminants, and 65 percent of anthropogenic nitrous oxide emissions, the majority of which from manure. Methane has 23 times the Global Warming Potential (GWP) of CO2, while nitrous oxide has 296 times the GWP of CO2. By improving livestock production efficiency, producers can both increase profits and reduce methane emissions. Methane can also be produced from microbial action in manure.

Greenhouse Gas Mitigation measures:

- Improve the productivity and efficiency of livestock production (thus lowering the methane emissions per unit of livestock) through improvements in nutrition and genetics;
- Supplement livestock diets with nutrients, as necessary (e.g. increasing the level of starch and rapidly fermentable carbohydrates, use of urea supplements). Production of feed supplements, may also, however, result in production of GHGs ;
- Increase the carbon to nitrogen ratio in feeds to reduce methane and nitrous oxide production;
- Implement balanced feeding (e.g. optimizing proteins and amino acids to correspond to requirements of particular animal groups);
- Consider various techniques to manage methane emissions from manure including controlled anaerobic digestion (to produce biogas), flaring / burning, use of biofilters, composting, and aerobic treatment. Use of anaerobic digestion may also reduce emissions of nitrous oxide;
- Minimize the amount of manure production through the implementation of animal waste management approaches;
- Control the temperature, humidity, and other environmental factors of manure storage to reduce methane and nitrous oxide emissions. This may involve use of closed storage tanks or maintaining the integrity of the crust on open manure storage ponds / lagoons.
- Implement pasture / grazing management techniques to reduce nitrous oxide and methane emissions, including not overstocking pastures, avoiding late fall and winter grazing, improving soil drainage, and avoiding soil compaction from grazing to maintain the anaerobicity of the soil.

Impact of Dust

Dust can reduce visibility, cause respiratory problems, and facilitate the transport of odours and diseases.

Dust Mitigation measure

Install dust-collection systems at dusty operations, such as feed grinding;
Prevent overgrazing of pasture land;
Implement fugitive-dust-control measures, such as wetting frequently travelled dirt roads, as necessary.

4.2 HAZARDOUS WASTE

Hazardous materials are used throughout the beef, milk, and pork production cycles (e.g. disinfecting agents, antibiotic and hormonal products).

4.2.1 Impact of Hazardous chemical waste

The potential pollutants from pesticides and other chemical product include the active and inert ingredients, diluents, and persistent degradation products. This waste may enter groundwater and surface water in solution, in emulsion, or bound to soil particles. In some instances, impair the uses of surface waters and groundwater. Some pesticides are suspected or known to cause chronic or acute Potential exposures to pesticides include dermal contact and inhalation during their preparation and application as well as ingestion due to consumption of contaminated water. The effect of such impacts may be increased by climatic conditions, such as wind, which may increase the chance of unintended drift, or high temperatures.

Mitigation Measures

- Maintain structures to keep out pests (e.g. plug holes, seal gaps around doors and windows);
- Use mechanical controls (e.g. traps, barriers, light, and sound) to kill, relocate, or repel pests;
- Use predators to control pests. Protect natural enemies of pests by providing a favorable habitat (e.g. bushes for nesting sites and other indigenous vegetation) that can house pest predators;
- Use good housekeeping practices in barns and other facilities to limit food sources and habitat for pests;
- Improve drainage and reduce standing water to control mosquito populations;
- Consider covering manure piles with geotextiles (which allow water to enter the pile and maintain composting activity) to reduce fly populations;
- If pesticides are used, identify in the IPM plan the need for the pesticide and evaluate their effectiveness, as well ;
- Purchase and store no more pesticide than needed and rotate stock using a “first-in, firstout” principle so that pesticides do not become obsolete. Additionally, the use of obsolete pesticides should be avoided under all circumstances;
- A management plan that includes containment, storage and ultimate destruction measures of obsolete stocks should be prepared in accordance to guidelines by FAO and consistent with country commitments under the Stockholm, Rotterdam and Basel Conventions.
- Implement groundwater supply wellhead setbacks for pesticide application and storage;
- Maintain records of pesticide use and effectiveness

4.2.2 Impact of hazardous biological waste

This waste contains disease-agents such as bacteria, fungi, mites, and viruses transmitted from live animals, manure, animal carcasses, and parasites and ticks (zoonoses) which can easily be transmitted to human population. Use of antibiotics in feed or water may be ineffective for antibiotic-resistant microorganisms which might develop in the gastrointestinal tract of animals. Resistant bacteria can potentially infect humans on or near the farm. The genetic material (DNA) can be taken up by other bacterial human pathogens.

Mitigating measures
Storage: this shouldn’t be stored for long it should be disposed immediately.
Disposal Incineration should be done immediately

5. LIVESTOCK WASTE MANAGEMENT PLAN

The Livestock Waste Management Plan is based on International best practices and the waste management hierarchy. It encompasses a range of measures across all 5 tiers namely, prevention and minimisation, reuse, recycling, recovery and disposal towards minimization of waste impact on our environment.

5.1 WASTE HIERARCHY

As far as is reasonably practicable, general waste management and waste minimization will be practiced through the following waste hierarchy approach presented in figure 5-1

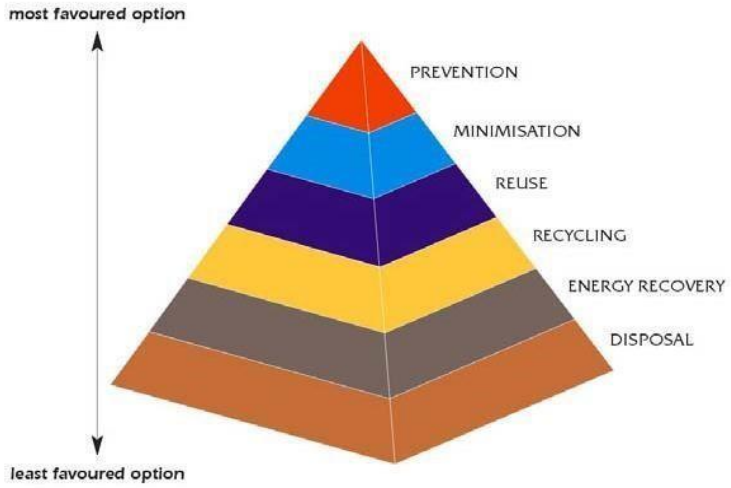

Figure 5-1 Hierarchy of Waste (GoN, 2022)

Prevention: Waste prevention at source. Departments must plan activities to avoid the generation of waste.
Minimization: Reduce the amount of waste produced.
Re-use: Re-use materials wherever possible.
Recycle: Transfer waste to approved recycling plants to minimize environmental impact.
Energy recovery: feasible to be carried out as farm waste because of high calorific value.
Disposal: Sending of waste to landfill as a last resort.
Hazardous waste will be disposed of and treated by authorized disposal contractors and facilities.

5.2 WASTE CATEGORIES

Based on the activities that are undertaken within livestock farm, waste has been categorized into the following:

- Non-hazardous waste: includes paper, wood, office, rubbish, cardboard, scrap metal, and glass;
- Hazardous waste: animal waste, oil, lubricants cans, chemical, pesticides cans, paint cans, expired drugs etc.

5.3 GENERAL WASTE MANAGEMENT OPTIONS AVOIDANCE

In order to avoid the generation of waste each farm will where possible;

- Estimate and order the required quantities of supplies;
- Establish a Buy Back Scheme with key suppliers that is where ever such an option exists the supplier will take back the packing material. This is a requirement under the Extended Producer Responsibility (EPR) regulations for the food and beverage, Hides and Skin, and the chemical sectors at the national level in Botswana; Avoid the use of disposable materials.

Waste Reduction

In order to ensure reduction in waste generation, the following control measures will be introduced:

- Where reasonably practicable, materials shall be ordered in bulk to reduce packaging. Avoid individual packaging for volume purchases ;
- Where possible and practicable the use of returnable containers and packing materials will be favoured ;
- Purchase criteria will favour recycled products where applicable ;
- Suppliers will be requested to use minimal packaging ;
- Where possible and applicable, refillable containers will be used for the collection of waste fluids ;
- Ensure the correct amounts of chemicals are used when mixing or diluting chemicals to prevent avoidable waste generation.

Re-Use

The following control measures will be implemented to ensure reuse of generated waste:

- Evaluation of waste production processes and identification of potentially reusable /recyclable materials
- Identification and reuse/ recycling of products that can be reintroduced into the manufacturing process or industry activity at the site e.g o Where possible, paper will be re-used such as the printing of documents on the clear side of used documents.
  - Reuse the water for cleaning milk equipment or to clean the milking parlor.
  - Reuse materials that may be separated from pretreatment processes (e.g. screened materials, suspended solids, and emulsified fats from flotation) in the manufacture of high-quality by-products (e.g. pet food or technical fat for oleo chemicals manufacturing);
- Increase the quality of the sludge for possible use as agricultural fertilizer by reducing or eliminating pathogens such as E. coli 0157, campylobacter, and salmonella through controlled aerobic treatment (compost) or anaerobic digestion (bio-gas);
- Treat materials with high organic content (e.g. blood, fat, and manure) anaerobically for the purpose of generating and using bio-gas as an energy source.

General Waste Management Control Measures

The following control measures will be employed within each farm to reduce the environmental impacts from waste generation, handling, storage and disposal:

- Open burning of waste, dumping of waste in any water body (stream/ river / marine) or the dumping of waste at undesignated area within the property is prohibited ;
- Separate labelled waste receptacles will be provided for, plastic, cardboard / paper, tins, glass, the biodegradables/ manure, sharps etc. ;
- The dilution of hazardous waste is prohibited ;
- The mixing of hazardous and non-hazardous waste is prohibited ;
- All hazardous waste will be provided with secondary containment and suitably bunded to meet legal requirements, where necessary ;
- A program for regular collection and removal of skips and bins will be implemented
- All litter will be controlled within each farm by means of good housekeeping ;
- Where possible, performance measurement and targets for reduction reuse and recycling will be developed and implemented ;

- Any wastes that cannot be reused and recycled will be transported and disposed in accordance with Municipality and environmental requirements ;
- Volumes and types of waste will be monitored to establish whether additional opportunities for improvements in waste management (avoid, reduce, reuse, recycle) can be adopted, where practicable ;
- All workers/ farm staff will be trained on the Waste Management Plan, through shift briefs, etc.

Disposal Landfill
Where the above hierarchy of control cannot be satisfied the waste will be sent to an approved Municipality landfill. Landfill is a last resort. The burning, burying, and unauthorized dumping of waste is prohibited.

5.4 WASTE MANAGEMENT OPTIONS

Specific waste management plan is summarised in table 5-1 for the production and processing value chain of the mammalian ruminants (cattle, sheep and goat), Small ruminants, Poultry & Birds, and Snails.

5.5 SCREENING CHECKLIST FOR FUTURE MONITORING OF PROJECTS

Projects, be they large or small, have the potential to adversely impact the environment, and depending on their location, can be vulnerable to natural hazard impacts. A simple questionnaire to guide decision making on the waste management issues that can arise from the LPRES project is stated below:

- Is there a plan to compost, recycle, reuse and reduce and/or properly dispose of wastes generated? Yes Unknown No N/A ;
- Will the project generate sewage and/or include a wastewater treatment solution? Yes Unknown No N/A;
- Will construction and/or operation of the project cause significant changes to the receiving environment's water resources and/or area drainage patterns (on-site or off-site, short term or long term)? Yes Unknown No N/A;
- Will the project involve the build-up or accumulation of waste from project activities? Yes Unknown No N/A ;
- Will the project involve the use of hazardous materials e.g. chemicals, vaccines, pesticides, poisonous gases? Yes Unknown No N/A ;
- Will the facility operation generate special waste streams that require special handling (e.g. biomedical waste, veterinary waste, waste oils)? Yes Unknown No NA
- Will the project be located in a polluted or contaminated area or close to a waste dump site? Yes Unknown No N/A ;
- Is the proposed site within the catchment area for regular collection and disposal of municipal solid waste? Yes Unknown No N/A

A screening checklist as indicated in table 5-2. for monitoring the project as regards waste management has been developed to provide guidance to farm operators and project staff and consultants in key phases of the livestock project cycle particularly monitoring, supervision and reporting. The objective of the checklist is meant to ensure that prospective developers:

- Adopt appropriate mitigation measures to safeguard the environment with respect to arising operational waste;

- Comply with provisions of relevant laws/ regulations/standards ; Adopt eco-friendly practices to optimize use of resource.

Table 5-1 below presents the Specific Waste Management Plan in the Value Chain of Livestock..

Table 5-1 Specific Waste Management Plan in the Value Chain of Livestock

Type of Animal	Waste Generated	Source	Mitigation Measures	Implementation Schedule	Frequency	Institutional Responsibility for Implementation	Institutional Responsibility for Supervision
	PRODUCTION PHASE						
Sheep	**PRODUCTION PHASE**						
	Waste Generated	Source	Mitigation Measures	Implementation Schedule	Frequency	Institutional Responsibility for Implementation	Institutional Responsibility for Supervision
	Feed Waste	Dry Grass, clover, forbs and hay	Regulated quantity of feed should always be served. Proper storage, handling of feed should be practiced.	Regularly	Every 3days	Farm Personnel	Dept of Environmental Protection (DEP)
	Dung	Animal faeces	Dungs should be used as manure on farmland	Regularly	Daily	Farm Personnel	DEP
	Dead Animal	Dead sheep, Dead Rodent	proper animal care and disease prevention. Collect carcasses on a regular basis to prevent putrefaction. Compost only disease-free carcasses and ensure that the composting process is managed to prevent leachate and odours. Regular veterinary check-up of animals.	On a need basis	Periodically	Farm Personnel, Veterinary officer	MOLA, DEP
	Wastewater	Housekeep and sanitary use	Direct runoff from cleaning animal house and spillage of drinking water into a Septic tank	Regularly	Every 3days	Farm Personnel	DEP
	Hazardous and Veterinary Waste	Used Syringes, used needles, used drug packs, used vaccine bottles, expired drugs & vaccines	Purchase vaccines and drug on request to avoid stockpile of vaccines Designated waste bins with clearly marked label Proper disposal through incineration or landfill	On a need basis	Monthly	Farm management Veterinary officer	DEP

		PROCESSING PHASE					
	Waste Generated	Source	Mitigation Measures	Implementation Schedule	Frequency	Institutional Responsibility for Implementation	Institutional Responsibility for Supervision
	Animal waste	Inedible organs, animal hair, animal fats	Offal and other by- product are processed and used as pet food and rendered product. Fat is to be converted into tallow and used in other industries. They can be mixed with other materials used for organic manure.	On regular basis during processing phase	Daily	Process section personnel	DEP
	Waste water	Water from cleaning, washing and rinsing.	Effluent Treatment Plant for water reuse and conservation. Sanitary wastewater should be channelled to a septic tank.	Regularly during processing phase	Daily	Plant Engineer	DEP
	Packaging	Nylon, plastic containers, cartons	The Packaging materials should be received back for recycling under the Extended Producer Responsibility Policy	Regularly	Daily	Farm management	DEP
Goat		**PRODUCTION PHASE**					
	Waste Generated	Source	Mitigation Measures	Implementation Schedule	Frequency	Institutional Responsibility for Implementation	Institutional Responsibility for Supervision
	Feed Waste	Dry Grass, clover, forbs and hay	Regulated quantity of feed should always be served. Proper storage, handling of feed should be practiced.	Regularly	Every 3days	Farm Personnel	DEP
	Dung	Animal faeces	Dungs should be used as manure on farmland	Regularly	Daily	Farm Personnel	DEP

	Dead Animal	Dead sheep, Dead Rodent	proper animal care and disease prevention. Collect carcasses on a regular basis to prevent putrefaction. Compost only disease-free carcasses and ensure that the composting process is managed to prevent leachate and odours. Regular veterinary check-up of animals.	On a need basis	Periodically	Farm Personnel, Veterinary officer	DEP MOLA
	Wastewater		Direct runoff from cleaning animal house and spillage of drinking water into a Septic tank	Regularly	Every 3days	Farm Personnel	DEP
	Hazardous and Veterinary Waste	Used Syringes, used needles, used drug packs, used vaccine bottles, expired drugs & vaccines	Purchase vaccines and drug on request to avoid stockpile of vaccines Designated waste bins with clearly marked label Proper disposal through incineration or landfill	On a need basis	Monthly	Farm management Veterinary officer	DEP
		PROCESSING PHASE					
	Waste Generated	Source	Mitigation Measures	Implementation Schedule	Frequency	Institutional Responsibility for Implementation	Institutional Responsibility for Supervision
	Animal waste	Inedible organs, animal hair, animal fats	Offal and other by- product are processed and used as pet food and rendered product. Fat is to be converted into tallow and used in other industries. They can be mixed with other materials used for organic manure.	On regular basis during processing phase	Daily	Process section personnel	DEP
	Waste water	Water from cleaning, washing and rinsing.	Effluent Treatment Plant for water reuse and conservation. Sanitary wastewater should be channelled to a septic tank.	Regularly during processing phase	Daily	Plant Engineer	DEP

	Packaging	Nylon, plastic containers, cartons	The Packaging materials should be received back for recycling under the Extended Producer Responsibility Policy	Regularly	Daily	Farm management	DEP
Poultry		**PRODUCTION PHASE**					
	Waste Generated	Source	Mitigation Measures	Implementation Schedule	Frequency	Institutional Responsibility for Implementation	Institutional Responsibility for Supervision
	Solid Waste components Feed waste	Perforated feed bag, spilled during storage, loading, and unloading or during animal feeding	Regulated quantity of feed should always be served. Appropriate feed-holder should be strictly adopted. Proper storage, handling of feed should be practiced.	Regularly	Daily	Farm Personnel	DEP
	Bird Excretes	Droppings	Processed into compost and as well processed into feed for fishes.	On a need basis	Every 3days	Farm Personnel	DEP
	Dead Birds	Disease, Flu, poor housekeep.	Proper animal care and disease prevention. Collect carcasses on a regular basis to prevent putrefaction. Compost only disease-free carcasses and ensure that the composting process is managed to prevent leachate and odours. Regular veterinary check-up of animals.	On a need basis	Frequently	Farm Personnel and Veterinary officer	DEP MOLA
	Veterinary waste	Used Syringes, used needles, used drug packs, used vaccine bottles, expired drugs & vaccines	Purchase vaccines and drug on request to avoid stockpile of vaccines Designated waste bins with clearly marked label Proper disposal through incineration or landfill	On a need basis	Monthly	Farm Personnel and Veterinary officer	DEP

	Hatchery Waste	Infertile hatching eggs, Methylbromide, Ethylene, eggshells, dead embryos, weaklings and packaging materials	Check hatcher temperature and relative humidity. Usage of Fresh feeds and addition of Vitamin E supplements to water Off-site rendering as mortality is recycled into protein by-product for animal feed	Regularly	Daily	Poultry Farm Manager	DEP
	Gaseous emission	Air emissions from poultry production include primarily ammonia (e.g. management of animal waste), odors (e.g. animal housing and waste management), and dust (e.g. feed storage, loading and unloading, and waste management activities).	•Control the temperature, humidity, and other environmental factors of manure storage to reduce emissions; •Consider composting of manure to reduce odour emissions. •Reduce emissions and odours during land application activities by applying a few centimetres below the soil surface and by selecting favourable weather conditions (e.g. wind blowing away from inhabited areas); •If necessary, apply chemicals (e.g. urinase inhibitors) to reduce conversion of nitrogen to ammonia •Install dust collection systems (including use of misters) in areas with dusty operations (e.g. feed grinding); •Implement fugitive dust-control measures (e.g. wetting vehicle parking lots and frequently travelled dirt roads, as necessary); •Ensure the prevention of bioaerosols emissions, which may contain disease causing agents, through the application of the above-reference dust and emissions control measures in manure production and storage facilities.	Regularly	Weekly	Farm Personnel and Poultry Farm Manager	DEP

	Wastewater	Poultry operations may generate effluents from various sources including runoff from poultry housing, feeding, and watering, from waste storage and management facilities. Waste management activities such as land application of manure, may generated non-point source effluents due to runoff.	•Reduce water use and spills from animal watering by preventing overflow of watering devices and using calibrated, well-maintained self watering devices. •Install vegetative filters to trap sediment. •Install surface water diversions to direct clean runoff around areas containing waste. •Implement buffer zones to surface water bodies, as appropriate to local conditions and requirements, and avoiding land spreading of manure within these area	Regularly	weekly	HSE Farm Personnel and Poultry Farm Manager	DEP
		PROCESSING PHASE					
	Waste Generated	Source	Mitigation Measures	Implementation Schedule	Frequency	Institutional Responsibility for Implementation	Institutional Responsibility for Supervision
	Dressing waste,	Feathers, non-edible organs	Processed with heat to hydrolyse the proteins for animal feed; Converting to manure or incinerate	On regular basis during processing phase	Daily	Process section personnel	DEP MOLA
	Wastewater from processing	Slaughtering process i.e. Blood flows, during cleaning of bird cages and sanitary use	Use of dripping trays to collect blood and ensure that it is transported to the blood tank rather than into the waste water stream Installation of Effluent Treatment Plant for water reuse and conservation.	On regular basis during processing phase	Daily	Process section personnel	DEP

			Sanitary wastewater should be channelled to a septic tank.				
	Packaging Materials	Plastics, Nylons, cartons, crates etc.	Based on the Extended Producer Responsibility (EPR) principle, the producer should bear the responsibility of taking back, recycling and final disposal of the packaging materials.	Regularly	Daily	Farm Management	DEP

Table 5-2 Screening Checklist for Future Monitoring of the Project

Type of waste	Source	Best Mitigation Practices	Site specific Conditions
HAZARDOUS WASTE			
Waste water	Water from cleaning and disinfecting farm equipment's, water from feeding and watering and washing of livestock, rinsing carcasses and by products livestock product processing (milk, meat, chicken)	Use floor drains and collection channels with grids, screens, and / or traps to reduce the amount of solids entering the wastewater stream Choose cleaning agents that do not have adverse impacts on the environment in general, on wastewater treatment reduce water consumption especially where it may be limited natural resources Reuse water used for cleaning equipment. Reduce water use and spills from animal watering by preventing overflow of watering devices and using calibrated, well-maintained self-watering devices; Install vegetative filters to trap sediment; Install grids to reduce or avoid the introduction of solid materials into the wastewater drainage system; Install surface water diversions to direct clean runoff around areas containing waste; Transport liquid effluent in sealed tankers	located at least 200 m away from settlement boundaries, sensitive land uses (schools, dispensaries, hospitals) any domestic borehole and slaughter house.

Sediments and sludge		Reuse of high-quality, low risk by-products and suspended solids and emulsified fats from flotation that are separated during pre-treatment processes; Use of aerobic and anaerobic stabilization improves the sludge applicability for agricultural use. Pathogens present in the sludge can be destroyed during controlled anaerobic digestion (biogas) or aerobic treatment (composting); Preventing the mixing of wastes or other streams that contain metals and complexing agents.	Existing natural drains and watercourses should not be tampered with on or in the vicinity of the site
Carcasses	Dead animals collected in farm	proper animal care and disease prevention; Collect carcasses on a regular basis to prevent putrefaction; Compost only disease-free carcasses and ensure that the composting process is managed to prevent leachate and odours;	located not less than 30 m from any water course.
Veterinary waste	Expired drugs, vaccines, syringes and other veterinary sharps.	Purchase of drugs and vaccine in small quantity Regular Collection of waste in a separated labelled bin. Proper disposal through incineration or landfill	
Chemical waste	Pesticides, disinfecting agents, antibiotic and hormonal products	Use good housekeeping practices in barns and other facilities to limit food sources and habitat for pests Improve drainage and reduce standing water around the farm Mixing and transfer of pesticides should be undertaken by trained personnel in ventilated and well-lit areas Used pesticide containers should not be used for any other purpose	
Non-Hazardous Waste			

Animal waste	Cow dungs and poultry droppings (manure), waste from processing.	Use quality, uncontaminated feed materials Keep manure as dry as possible Use low-phosphorus diets with highly digestible inorganic phosphates; Grind feed to increase utilization efficiency by the animals thereby reducing the amount of manure generated prevent manure contamination of surface water and ground water by using concrete floor for storage facilities covering manure storage areas with a fixed roof or plastic sheeting bones, trim, scraps, hooves, horns and other detritus (not otherwise used beneficially for the production of stable meals, for example, bone meal) Avoid processing of waste materials for same species feeding	Existing natural drains and watercourses should not be tampered with on or in the vicinity of the site
Waste feed	Hay, grains, silage and other feed supplement (protein, amino acids, heavy metals e.tc)	Use covered or protected feeders to prevent prevent spills and feed contact with the ground waste feed should be mixed with other recyclable materials to be used for fertilizer efficient storage, handling and use of feed by maintaining records of feed purchases and livestock feed use	

6. WASTE MANAGEMENT PLAN MONITORING

6.1 MONITORING PLAN

The efficient monitoring of this SLWMP shall comprise the ensuring of effective compliance for the entire life cycle of this project from planning through the construction, operational and decommissioning phases. This shall be guaranteed by pursuing the proper implementation of the Waste Management monitoring plan in Table 6-1 below.

Table 6-1 Livestock's Waste Management Monitoring Plan

ISSUE	METHOD OF MONITORING	AREAS OF CONCERN	POSITIVE INDICATOR (VALUES)	FREQUENCY	RESPONSIBLE AUTHORITIES
Air Pollution	Observations should be made on the level of dust, ammonia methane, greenhouse gas and odours generated during the livestock production on site. Using gas sensors in goats, sheep and poultry sheds Dampening and use of urinase chemicals should be carried out if levels are unacceptable.	Levels of bioaerosols, and dust emissions from (e.g. feed storage, loading, and unloading, feeding, and waste management, Level of ammonia from management of animal or poultry waste Level of methane, greenhouse gas, and nitrous oxide from (e.g. animal feeding and waste management), Explosive concentrations of methane may be released during liquid manure agitation and remain for several weeks after emptying the storages. Level of odours (Hydrogen sulphide) (e.g. animal housing and waste management- agitation of manure)	Deposition of dust on surfaces should decrease with increased dampening The minimum perceptible level for ammonia is 0.5 to 54 ppm Air mixtures containing from 50,000–150,000 pm or 5–15% CH4 are explosive. Typical concentrations of CO2 in well-ventilated buildings are in the 500–5000 ppm Concentrations reaching 200–300 ppm have been reported within a few minutes after the start of manure agitation and have been as high as 1000 ppm during vigorous agitation.	Daily / Regularly	Ministry of lands and Agriculture (MOLA) Ministry of Health Project PCU Environmental Specialist
Water resources	Water resources should be monitored on site and downstream through regular testing of water resources. Appropriate land use downstream is done and no pollution of crops from contaminated water from spillages occurs.	Watercourses and impoundments and boreholes. Surface water quality Ground Water Quality Recommended distances from watercourses. Possible lagoon/ dam construction sites.	Water sample to meet permissible limits prescribe by the Department of Environment regulation (See annex 1) and the respective state standards. Effluent treat plant installed. Techniques for treating process wastewater in this sector include: Sedimentation for suspended solids reduction using clarifiers or settling ponds; Flow and load equalization; biological treatment, typically anaerobic followed by aerobic treatment, for reduction of soluble organic matter (BOD); biological nutrient removal for reduction in nitrogen and	Tests for water pollution to be done regularly – monthly	Project PCU Department of Water DEP

ISSUE	METHOD OF MONITORING	AREAS OF CONCERN	POSITIVE INDICATOR (VALUES)	FREQUENCY	RESPONSIBLE AUTHORITIES
			phosphorus; chlorination of effluent when disinfection is required; Dewatering of residuals and composting or land application of wastewater treatment residuals of acceptable quality. Additional engineering controls may be required (i) if pass through of active ingredients (residual amounts of growth enhancers and antibiotics, among other hazardous constituents) is an issue, and (ii) to contain and neutralize nuisance odors.		
Complaints	The PCU should with respect to the record of complaints made by local residents, to be kept by the farmers, and should check that action is taken quickly and that the number of complaints do not rise significantly.	Complaints	Number and type of Complaints received, complaint responded to and resolved.	Regularly- quarterly	Project PMU Farm Manager

6.1.1 Monitoring Components

The monitoring programme under the plan shall establish the details and fundamental essentials of the environmental and socioeconomic monitoring parameters of each component of the environment that will be affected by the proposed project. The components shall include:

A. Air Quality

Monitoring of air quality shall be carried out by a combination of Visual Observation and air monitoring using standard method of sampling and analysis around the premises for SPM,
SO_2, CO, NO_X.CH_4

B. Noise

Noise levels shall be monitored using noise level measurement equipment, which shall ensure that acceptable noise level is lower than the OSHA (Occupational Safety and Health Standards) of 85 decibels.

C. Water

Water quality shall be monitored using standard methods of sampling and analysis on surface water around and downstream of the production and processing farms or facilities for pH, BOD5, COD, Temperature Increase, Total Nitrogen, Total Phosphorus, Total Suspended solids, Total Coliform Bacteria, Active ingredients/ Antibiotics on a case by case basis.

D. Soil

Collection of soil sample and subsequent analyzing shall be carried out in the laboratory to monitor temperature, PH levels and levels of K, SO2 and Calcium.

E. HSE and Waste management

Health shall be monitored by observation of frequency of work related illnesses or incidents, while Occupational Safety and health would be assessed by compliance with safety instructions and use of PPE. Waste management shall be monitored by implementation of the site waste management plan that each farm and applicable contractor will be required to submit.

6.1.2 Waste Management Monitoring Plan Schedules

Regular data collection, audits, inspections, and related monitoring activities will be required for each category at a pre-determined frequency, either based on the schedule established in the regulations for Regulatory Monitoring or based on the schedule established specifically for the proposed project. Subsequently, each monitoring programme will be guided by the established schedule, whereby monitoring may be performed daily, weekly, monthly, quarterly, or continuously, depending upon the resources, regulatory specifications for monitoring, and the project-specific requirements for monitoring programmes.

6.1.3 Monitoring Procedure

Each livestock production farm and processing facility shall develop an approach that will guide the analysis and review of monitoring data at regular intervals in a manner that will enable comparison with benchmarks and operational standards, where necessary. Monitoring should be conducted by trained individuals following best practice monitoring and recordkeeping procedures and using properly calibrated and maintained equipment.

6.2 ENVIRONMENTAL AUDITING

To promote compliance with the environmental and social issues identified in this SLWMP, an auditing of the project sites shall be carried out on every quarter during the construction phase; and annually when the project gets into operation phase or as directed by the PMU. The objectives of these Waste Management auditing shall include the following;

- Ensuring compliance with Waste Management Plan;
- Recommending areas of improvements in the current WMP;
- Updating database of environmental and social issues encountered on the project. The audit will include community liaison activities to review the social aspects of the project and highlight areas in which there may be need for support.

6.3 INCIDENT REPORTING

The farm manager and project contractor as applicable will be required to document environmental incidents such as spills, pollution incidents and near misses with a copy forwarded to the PIU environmental specialist and any other regulators, as may be directed.

Table 6-2. Shows the monitoring components for this project and corresponding costs.

Table 6-2 Summary of Monitoring Plan and Cost

COMPONENT	MONITORING PARAMETER/ACTION	METHOD	FREQUENCY	RESPONSIBLE
Air quality	SPM, SO_2, CO, NO_X	Visual Observation and *purchase* of equipment for, air monitoring using standard method of sampling and analysis around the premises	Ensure testing Once a week (night and day each time)	Environmental specialist/M&E unit
Noise	55dB	Noise measurement equipment	Same as above	Environmental specialist/M&E unit
Water	NO3, pH, BOD,	Collection of downstream surface and site ground water samples and analyzing in the laboratory	Monthly / quarterly Monitoring	Environmental specialist/M&E unit
Soil	K, SO2, pH, Ca, Temperature, BOD	Collection of soil sample and analyzing in the laboratory	Quarterly	Environmental specialist/M&E unit
Health, Safety & Environment (HSE)	Safety audit Health assessment	Regular visit to site	Bi-monthly	Contractor HSE officer/ Environmental Specialist/M&E officers
Waste Management	Ensure campaigns are carried out as scheduled	Regular visit to site	Monthly	M&E officers
Health and Sanitation	Flood, Water logging of surfaces, prevention of stagnant water	Visual assessment by regular visits to site	Routinely during construction	project monitoring and evaluation team

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IFAD
Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Annex 6: First (Annual) Work Plan and Budgets

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
Report No.	7326-BW

East and Southern Africa Division
Programme Management Department

Investing in rural people

Republic of Botswana

Botswana Livestock Commercialisation Project (BoLCoP)

Annual Work Plan and Budget

2026-27

Botswana: Botswana Livestock Commercialisation Project (BoLCoP)
Consolidated Annual Work Plan and Budget for Year 1

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CURRENCY EQUIVQLENTS

Currency Unit	=	**Pula (P)**
USD 1.0	=	P 13.6

Weights and Measures

1 kilogram	=	1000 g
1 kg	=	2.204 lb.
1 kilometre (km)	=	0.62 mile
1 metre	=	1.09 yards
1 square metre	=	10.76 square feet
1 acre	=	0.405 hectare
1 hectare	=	2.47 acres
1 Feddan	=	1 acre

FISCAL YEAR

1st April – 31st March

Abbreviations and Acronyms

ACC	Adaptation to Climate Change
AF	Adaptation Fund
ASSP	Agricultural Services Support Project
AWPB	Annual Work Plan and Budget
BAITS	Botswana Animal Identification & Traceability System
BAMB	Botswana Agricultural Marketing Board
BDIH	Botswana Digital and Innovation Hub
BIDPA	Botswana Institute for Development Policy Analysis
BITC	Botswana Investment and Trade Centre
BIUST	Botswana International University of Science and Technology
BMC	Botswana Meat Commission
BOBS	Botswana Bureau of Standards
BoLCoP	Botswana Livestock Commercialisation Project
BoTC	Botswana Trade Commission
BUAN	Botswana University of Agriculture and Natural Resources
BTC	Botswana Telecommunications Corporation
CBO	Community-Based Organisation
CEDA	Citizen Entrepreneurial Development Agency
COI	Core Outcome Indicator
COSOP	Country Strategic Opportunities Project
CPE	Country Project Evaluation
CPI	Corruption Perception Index
CPIA	Country Policy and Institutional Assessment
CSA	Climate-Smart Agriculture
CSN	Country Strategy Note
CSO	Civil Society Organisation
DAPH	Department of Animal Production and Health
DDC	District Development Council
DVS	Department of Veterinary Services
EMPs	Environmental Management Plans
ENRM	Environmental and Natural Resource Management
ERTP	Economic Recovery and Transformation Plan
ESMP	Environmental and Social Management Plan
FPIC	Free, Prior, and Informed Consent
GABS	Government Accounting and Budgeting System
GALS	Gender Action Learning System
GBV	Gender-based Violence
GCF	Global Climate Fund
GEF	Global Environment Facility
GHG	Greenhouse Gas
GoB	Government of Botswana
GRM	Grievance Redress Mechanism
HH	Household
ICARDA	International Centre for Agricultural Research in the Dry Areas
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
IOE	IFAD Independent Office of Evaluation
IP	Implementing Partner
IPRM	Integrated Project Risk Matrix
ISM	Implementation Support Mission

KM&C	Knowledge Management and Communication
LA	Loan Agreement
LEA	Local Enterprise Authority
LoC	Line of Credit
LSF	Lobu Smart Farm
M&E	Monitoring and Evaluation
MFI	Microfinance Institution
MoCWBE	Ministry of Child Welfare and Basic Education
MoET	Ministry of Environment and Tourism
MoF	Ministry of Finance
MIRA	Meat Industry Regulatory Authority
MIS	Management Information System
MoLA	Ministry of Lands and Agriculture
MoLGTA	Ministry of Local Government and Traditional Affairs
MoU	Memorandum of Understanding
MoTE	Ministry of Trade and Entrepreneurship
MoYGA	Ministry of Youth and Gender Affairs
MSMEs	Micro-, Small-, Medium-Sized Entreprises
NAIP	National Agricultural Investment Plan
NARDI	National Agriculture Research Development Institute
NDB	National Development Bank
NDC	Nationally Determined Contribution
NDP12	National Development Plan 12
NGO	Non-Governmental Organisation
NPC	National Planning Commission
NRM	Natural Resource Management
NST	National Transformation Strategy
OAG	Office of the Auditor General
O&M	Operations and Maintenance
ORMS	Operational results Management System
PCR	Project Completion Report
PEEPA	Public Enterprises Evaluation and Privatisation Agency
PEFA	Public Expenditure and Financial Accountability
PFI	Partner Financial Institution
PFM	Public Financial Management
PIM	Project Implementation Manual
PMO	Project Management Office
PMCU	Project Management and Coordination Unit
PMT	Project Management Team
PP	Procurement Plan
PPRA	Public Procurement Regulatory Authority
PSC	Project Steering Committee
PTCC	Project Technical Coordination Committee
PwD	People with Disability
RADs	Remote Area Dwellers
RDC	Rural Development Council
RIMS	Results and Impact Management System
RTA	Reimbursable Technical Assistance
RTCs	Regional Training Centres
SADC	Southern African Development Community
SECAP	Social, Environmental, and Climate Assessment Procedures
SIFB	Small-stock Industry Federation of Botswana
SOEs	State-Owned Enterprises

SSTC	South-South and Triangular Cooperation
SWC	Soil and Water Conservation
TA	Technical Assistance
ToC	Theory of Change
ToR	Terms of Reference
UB	University of Botswana
UMIC	Upper-Middle Income Country
UNDP	United Nations Development Project
UNECA	United Nations Economic Commission for Africa
USD	United States Dollar
VC	Value Chain
VCA	Value Chain Activities
WOAH	World Organisation of Animal Health
WTO	World Trade Organisation
YDF	Youth Development Fund

Map of BoLCoP Focal Area

To be inserted.

EXECUTIVE SUMMARY

Plan Objective – The objective of this inaugural Annual Work Plan and Budget (AWPB) is, essentially, to set the stage for the effective implementation of the Botswana Livestock Commercialisation Project (BoLCoP). This plan primarily focuses on establishing processes and procedures that will guide the effective and successful implementation of the Project following established guidelines.

Strategic Approach and Focus – BoLCoP seeks to help the Government of Botswana (GoB) to implement its economic diversification programme which identifies the small livestock sector as one that offers that opportunity. Accordingly, the implementation approach complements GoB's efforts in the diversification effort. The Project's implementation will also make use of lessons of experience generated by several ongoing or concluded Projects funded by IFAD and those funded by Botswana's other development partners.

This being the first year of BoLCoP implementation, the approach to be employed during the course of 2026-27 will largely focus on establishing firm, but simple, processes and procedures to serve as a solid basis for Project implementation in the subsequent years. Essentially, the approach will include the following:

a) Ensuring the Project Management and Coordination Unit (PMCU) core staff are recruited and adequately facilitated (in terms of skills and equipment) to work for the effective implementation of the Project;
b) Liaising with ongoing Projects/Projects (funded by either IFAD, GoB or other GoB development partners) to exploit any existent synergies as a way of avoiding duplication and, therefore, ensuring effective resource use;
c) Establishing effective collaboration between and among the different implementing institutions to ensure that the different activities are appropriately sequenced. This collaboration will also serve as a learning mechanism whereby some institutions will learn from others so as to pass on relevant experience and ensuring that past mistakes are avoided;
d) Developing, and effectively communicating to all stakeholders, a reasonable schedule to ensure that they all know what to do, when to do it, and respecting all the implicit approval processes.

Summary Description of the 2026-27 Plan – The plan contained herein is summarised hereunder by components and subcomponents.

1. **Component 1: Increased Climate-Resilient Small Livestock Production and Productivity** – This component seeks to facilitate increased production and productivity of small livestock thereby contributing to better incomes for women, men, and youth in the target group.

2. ***Subcomponent 1.1: Enhanced access to quality small livestock, and animal health services*** – This subcomponent seeks to support climate-resilient production and productivity enhancement in the small livestock sector, ensuring the active participation and equitable benefit of women, men, and youth. Following hereunder is a summary of the planned activities. The following activities are planned for BoLCoP's first year to gradually contribute to the subcomponent's objective:

- Enhance availability of small livestock breeds
  - Improvement of small livestock genetic resources[1]
  - Judicious use of pure breeds (100 animals)
- Comprehensive capacity-building package to small livestock producers for efficient and climate-smart production and management
  - Training of trainers (4 sessions)
  - Small livestock management - sheep, goats, and poultry (15 sessions)
  - Husbandry and record keeping (15 sessions)
  - Breeding and reproduction (15 sessions)
  - Livestock handling (15 sessions)
  - Animal health management, incl. flock health calendar Livestock handling (15 sessions)
  - Feeds + feeding management, incl. feed-lotting (15 sessions)
  - Equipping training centres[2]
- Small livestock Infrastructure investments
  - Silage making consumables – drums (500)
  - Farm level animal handling infrastructure - pens, sheds, fowl runs, etc (20).

3. ***Subcomponent 1.2: Improved capacity of farmers to adopt climate resilient production and management practices*** – This subcomponent aims at making the target beneficiaries more resilient to the different challenges they operate in. Activities planned for the first year include:

- Enhanced access to feed and fodder
  - Acquisition of forage seeds and germplasm suited to dry environs (5 tonnes);
  - Multiplication of adapted forage seed and germplasm (20 hectares);
  - Development of diets/rations from indigenous/rangeland plants.
- Digital Rangeland and Advisory Tools
  - Weather stations (5)
- Digital Extension and Animal Health Services
  - Digital BAITS system (1);
  - BAITS tags (10,000);
  - Mobile kraals/crush pens/scale/automated reader (1).

4. **Component 2: Strengthened Small Livestock Value Chains** – This component will improve functioning of the target value chains – goats, sheep and poultry. For goats and sheep, the focus will be on meat production whilst on poultry it will be on both broiler and layers. The target value chains will ensure deeper engagement and higher impact for the most vulnerable (rural women, youth, and remote subsistence farmers) while supporting those capable of transformation through commercialisation. The component consists of three Subcomponents.

5. ***Subcomponent 2.1: Strengthened clustering and capacity building of value chain actors*** – The subcomponent aims as at improving organisation of farmers within the target value chains. BoLCoP beneficiaries are scattered and operate on land with low carrying capacity and this affects the volume of produce each farmer offers to the market. They generally have low economies of scale (resulting in high input prices) in input acquisition as well as offer low and uneconomic volumes to buyers. Consequently, they are unable to negotiate favourable terms. The following farmer organisations have been identified: a) National Small Stock Federation; and b) Botswana Poultry Producers

[1]genetic improvement programme for indigenous smallstcok -NARDI/BUAN
[2]renovations at training centres -Impala, Lobu and 4xNARDI

Association. It is noted that existing small livestock producer associations are weak and do not provide benefits to their members. The following interventions are planned for the first year:

- Support to National Producer Organisations
  - Training in leadership, advocacy (12 sessions);
  - Support for member mobilisation
  - Support to operations of National Farmers Organisations
- Cluster Development
  - BDS Support for cluster Development (24 person months)
  - Cluster training Events (6 sessions);
  - Cluster infrastructural investments

6. ***Subcomponent 2.2: Improved access to input and output markets*** – This subcomponent seeks to address challenges faced by farmers in accessing inputs (especially feed, fodder and medicines) and output markets. A priority under Bolcop will be the establishment of formal market structures between producers, abattoirs and off-takers (supermarkets, hotels and public sector institutional buyers, etc.).

7. Some export market opportunities have been identified for goats, particularly to Saudi Arabia, Angola, Norway and Mozambique but these remain largely unexploited and require intermediary agents that will be able to respond to the specific market requirements. To ensure equitable participation and benefit-sharing, special attention will be given to addressing the specific barriers that often limit women and youth's access to export markets and commercial value chains. Operationalising the Government sponsored multi-species abattoir represents a unique opportunity to unlock value in the small livestock value chain, including exploiting export market opportunities. BoLCoP will support the establishment of out-grower schemes, contract farming, forward markets, multistakeholder platforms, etc. to encourage dialoguing for fair and transparent pricing mechanisms, including formal/negotiated off-taker arrangements that reduce or eliminate the need for collateral; an especially important barrier for women who often lack control over assets. The Project will also provide targeted support and training for women and youth-led enterprises to build their capacity to meet market standards and participate effectively in commercial partnerships. The following activities are planned for the first year:

- Improved Access to Input Markets
  - Collective Access to inputs by farmers
    - BDS support to facilitate access to inputs (24 Person months)
    - Conduct farmer Training on Input Technical Knowledge, Safe Use and Handling Skills
- Building a commercial cluster-focused agro-dealer network
    - Identify, select, profile and conduct needs assessment of new agro dealers (5 agro dealers)
    - Conduct Enterprise Management training for Agro-dealers/employees (4 sessions)
    - Conduct Training on Input Technical Knowledge, Safe Use and Handling Skills for new and existing Agro-dealers (6 sessions)
- Improved Access to Output Markets
  - Support for aggregation and Collective Marketing
    - Market opportunity assessment (1 study)
    - BDS support market linkage facilitation (24 Person months)
    - Marketing training for farmer and farmer clusters (6 sessions)
- Support for Market Transparency

- Market information support
- Multi Stakeholder value Chain Platforms

- Market Infrastructures
  - Market infrastructure support for clusters (5 infrastructure)
  - Rehabilitate/build animal markets (6 markets)
  - Support to public slaughter facilities (2 facilities)
- Support to Value Chain Actors
  - Assist in Business Plan Development for SMEs (5 business plans)
  - Support to modernise/build processing facilities (I facility);
  - Training and Incubation of youths (12 sessions)
  - Support to Youth and women enterprises (10 enterprises)

8. ***Subcomponent 2.3: Improved access to inclusive financial services for value chain actors –*** BoLCoP in its effort to structure and commercialize the small livestock sector, will need to de-risk investments in the targeted value chains and support government efforts in the efficient administration of financing to the small livestock sub-sector. The subcomponent aims at complementing the other Project activities by addressing access to finance constraints for beneficiaries with tailored options for each of the four targeted categories. This would enable them to invest further in activities of relevance to the other subcomponents with a primary focus on climate resilient practices, such as improved water management and use of solar energy. The following activities are planned for the first year:

- Credit/Loan Demand and Supply Analysis/Study for Small Livestock (1 study)
- Sovereign Line of Credit for Small Livestock
- 30% Beneficiary Contribution to Sovereign Line of Credit for Small Livestock
- Enhancement of the MoLA TLMS
  - System scoping, architecture upgrade planning (1 Session)

9. **Component 3: Enhanced Enabling Environment for Improved Small Livestock Development** – This will be a cross-cutting component servicing the technical components and facilitating pathways for BoLCoP's effective and efficient implementation. The component comprises the below subcomponents.

10. ***Subcomponent 3.1: Institutional Strengthening and Policy Support*** – The subcomponent will have a dual focus: institutional strengthening and policy support. The subcomponent will seek to facilitate the process of ensuring that a supportive policy environment is put in place for effective activity implementation during and after BoLCoP implementation. Below are the activities planned for the first AWPB under this intervention:

11. ***Institutional Strengthening*** – The Project will improve capacities of those institutions that will be responsible for overseeing and/or implementing Project activities.

- Institutional capacity gap assessment and production of a capacity development plan (1 study)
- Capacity Strengthening of District extension staff for effective BoLCoP implementation (1 session)
- Logistical Support to the participating districts for coordinating BoLCoP activities; 1 each per district (12 Double Cabin Vehicles)
- Implementation of other aspects of the capacity development plan (1 session)
- Vehicle O&M (12 Double Cabin Vehicles)
- Vehicle Insurance (12 Double Cabin Vehicles)

Botswana: Botswana Livestock Commercialisation Project (BoLCoP) Consolidated Annual Work Plan and Budget for Year 1

Summary Budget and Financing – Presented in this section are summary tables giving an overall picture of financial resources required for the BoLCoP's 2026-27 AWPB. The budget information is presented by component, financier and categories of expenditure. The total budget for BoLCoP's 2026-27 AWPB is about USD 6.01 million.

First Year Annual Work Plan and Budget by Financier and by Component (USD million)

Botswana
Botswana Livestock Commercialisation Project (BoLCoP) - First Year Workplan
Components by Financiers
(US$ '000)

	IFAD 13 BRAM		Government		Beneficiaries (In-Kind)		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%			
A. Increased Climate-Resilient Small Livestock Production and Productivity											
Enhanced Access to Quality Feed, Fodder and Animal Health Services	92	15	524	85	4	1	621	10	58	526	37
Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practices	48	22	167	77	3	2	218	4	19	174	25
Subtotal	140	17	691	82	7	1	839	14	78	699	61
B. Strengthened Small Livestock Value Chains											
Strengthened Clustering and Capacity Building of Value Chain Actors	452	95	25	5	-	-	477	8	19	433	25
Improved Access to Input and Output Markets	711	92	59	8	-	-	770	13	71	640	59
Improved Access to Inclusive and Green Financial Services For Value Chain Actors	365	100	-	-	-	-	365	6	-	365	-
Subtotal	1,528	95	84	5	-	-	1,612	27	90	1,438	84
C. Enhanced Enabling Environment for Improved Small Livestock Development											
Institutional Strengthening and Policy Support	734	92	67	8	-	-	801	13	65	669	67
Project Management and Implementation Support Services	2,120	77	638	23	-	-	2,758	46	167	2,458	133
Subtotal	2,854	80	705	20	-	-	3,559	59	232	3,127	200
Total PROJECT COSTS	4,522	75	1,480	25	7	0.1	6,010	100	400	5,264	346

First Year Annual Work Plan and Budget by Financier and by Category (USD million)

Botswana
Botswana Livestock Commercialisation Project (BoLCoP) - First Year Workplan
Expenditure Accounts by Financiers
(US$ '000)

	IFAD 13 BRAM		Government		Beneficiaries (In-Kind)		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%			
I. Investment Costs											
A. Civil Works	555	87	80	13	4	1	639	11	56	503	80
B. Equipment and Materials	1,540	76	487	24	-	-	2,027	34	179	1,609	239
C. Goods, Services and Inputs	228	57	166	42	3	1	398	7	23	358	17
D. Technical Assistance	751	97	22	3	-	-	774	13	61	704	9
E. Training	665	75	219	25	-	-	884	15	81	802	0
F. Line of Credit	250	100	-	-	-	-	250	4	-	250	-
Total Investment Costs	3,989	80	976	20	7	0.1	4,971	83	400	4,226	346
II. Recurrent Costs											
A. Salaries and Allowances	159	24	505	76	-	-	664	11	-	664	-
B. Operations and Maintenance	374	100	-	-	-	-	374	6	-	374	-
Total Recurrent Costs	533	51	505	49	-	-	1,038	17	-	1,038	-
Total PROJECT COSTS	4,522	75	1,480	25	7	0.1	6,010	100	400	5,264	346

Botswana: Botswana Livestock Commercialisation Project (BoLCoP)
Consolidated Annual Work Plan and Budget for Year 1

I. INTRODUCTION

1.1. Country Background and the Project Area

1. Botswana is widely considered to be a stable democracy, underpinned by strong institutions. It holds the record of being Africa's longest-standing multiparty democracy, with the Botswana Democratic Party (BDP) consistently dominating general elections[3]. However, in 2024, the country underwent landmark elections, where the governing Umbrella for Democratic Change (UDC) unseated the BDP, which governed the country for 58 years. The new administration has promised an array of reforms, notably diversifying the economy, lowering the unemployment rate, and reforming an array of social Projects[4].

2. The discovery of one of the world's largest diamond deposits turned Botswana into one of the fastest growing economies. The proceeds of diamond mining were used for infrastructure and human development, with basic services, such as electricity, water and sanitation rolled out to a wider segment of the population. As per capita income has grown rapidly over the last three decades, from USD 2,427 in 1989 to about USD 7,696 in 2024,[5] the country has transformed from an underdeveloped country to an upper-middle income country (UMIC), with the aspirations of becoming high income by 2036.

3. However, Botswana's economy is characterized by limited economic diversification, dominated primarily by diamond mining which provides 90% of Botswana's export revenues[6]. Moreover, the unemployment rate stands at 27.6%, and the country ranks in the top ten most unequal countries globally, with its Gini index over 30% higher than the average for UMICs[7]. This necessitates targeted interventions amongst resource poor communities, coupled with intentional strategies to diversify the economy.

4. According to the Sustainable Development Report, Botswana's progress on SDG 1 is stagnating, with a poverty rate of 21.37% under the USD 3.00 poverty line and 27% under the USD 3.65 a day[8]. When considering poverty rates under the UMIC poverty line of USD 6.85, 61.5% of the population fall below this line, further reinforcing the challenges the country is facing with eradicating poverty[9]. As of 2022 and based on the national poverty line, urban poverty stood at 4.7% and 25.4% in rural areas, underscoring the disparity between the rural and urban areas of the country[10].

5. The prevalence of undernourishment at 32% is considered high with the prevalence of moderate or severe food insecurity in the population at 22%[11]. The prevalence of stunting (among children under the age of 5) is also high at 31.2%[12]. With a global hunger index that ranks Botswana 90th out of 127 countries, it has a score of 20.7, equating to a level of hunger that is serious[13]. The sustainable development report notes that Botswana's SDG2

[3]Bertelsmann Stiftung, BTI 2024 Country Report — Botswana. Gütersloh: Bertelsmann Stiftung, 2024.
[4]Economist Intelligence Unit. 2025. One Click Report: Botswana https://viewpoint-eiu-com.ifad.idm.oclc.org/analysis?utm_source=pdf-report&utm_medium=One click%20report%20:%20Botswana&utm_campaign=cover-page-link.
[5]https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=BW
[6]https://thedocs.worldbank.org/en/doc/bae48ff2fefc5a869546775b3f010735-0500062021/related/mpo-bwa.pdf
[7]International Bank for Reconstruction and Development.2025. Macro Poverty Outlook for Sub-Saharan Africa: Country-by-country analysis and projections for the developing world.
[8]World Bank. 2022. Inequality in Southern Africa: An Assessment of the Southern African Customs Union.
[9]Ibid
[10] Statistics Botswana (2024). Advancing Botswana Poverty Estimates; Introducing the Survey of Well-Being Via Instant and Frequent Tracking (SWIFT).
[11]https://botswana.un.org/sites/default/files/2023-09/Brief-SDG%20Status%20Update.pdf
[12]Ibid
[13]Global Hunger Index. 2024. Botswana. https://www.globalhungerindex.org/pdf/en/2024/Botswana.pdf

score is decreasing with respect to the prevalence of undernourishment with the country ten times above its long-term objective of 2.5% undernourishment.

6. *Project Target Area* – BoLCoP will focus on 20 priority districts identified through a data-driven selection process aligned with IFAD's strategic targeting principles. A total of 18 of the 20 districts were grouped into five clusters as follows:

a) Greater Gaborone Cluster (Molepolole, Mogoditshane, Ramotswa, Kgatleng, Tlokweng, Letlhakeng);
b) Lobatse BMC Cluster (Good hope and Kanye);
c) Tsabong abbatoir Cluster (Tsabong, Ghanzi, Charleshill, Hukuntsi, Mabutsane);
d) Central cluster (Mahalpye, Palapye, Serowe); and
e) North East and Tonota Cluster.

7. In addition to the five clusters, BoLCoP will focus on Ngamiland region's two districts of North West and Okavango. Intervention's in this region will exclusively be on market linkage, given its high tourism potential. They were selected based on a combination of key criteria (please refer to Annex 14: Technical Note 3):

- High concentration of small livestock and value chain actors – this ensures critical mass for value chain development and economies of scale;
- Agroecological suitability for small livestock production – based on climate resilience, grazing conditions, and land-use potential;
- Potential for commercialisation of the subsector – BoLCoP's primary focus is commercialisation and this criterion ensures that the selected focal areas offer opportunities for achieving that objective with a particular focus on backward and forward market linkages;
- Availability of BoLCoP's target groups – this ensures that the Project reaches out to its target beneficiaries, including subsistence farmers (micro-scale), semi-commercial farmers; emerging commercial farmers and SMEs; and
- Potential for accessing rural finance facilities – this ensures the availability of demand for inclusive financial services for value chain actors; this is one of BoLCoP's target outputs.

1.2. Policy Environment for Agriculture

8. Botswana's Vision 2036 anchors the long-term ambition of the country, which is to be a high-income country by 2036. Central to this is an agricultural sector that is commercially viable, technologically driven, and inclusive. The country is in the process of finalizing its twelfth National Development Plan (NDP12) (2025-2030), which will commence towards the latter part of 2025. However, the plan will focus on economic diversification and fostering private sector-led job creation. This will require productivity gains in non-mining sectors, most notably, the agricultural sector. Botswana is in the process of updating its Agriculture Sector Policy (ASP): Turning Culture into Business - 2025, with an advanced draft circulated for discussion. The draft policy centres on the following: a) climate smart, science driven agriculture; b) expanding access to finance and insurance; c) strengthening land tenure and water rights; d) supporting the development of inclusive agricultural value chains; e) incentivizing agri-tech start-ups and entrepreneurship; f) ensuring the inclusion of women and vulnerable groups; and g) promoting sustainable practices that regenerate soil. BoLCoP seeks to contribute to all those focal areas.

9. BoLCoP is aligned with Botswana's long term development aspirations articulated in Vision 2036; it has been formally included in the NDP12 which puts particular emphasis on diversifying the economy in an inclusive and sustainable manner.

10. BoLCoP aligns with the: a) National Transformation Strategy (2023-2030); and b) NDP12; and c) ASP-2025. BoLCoP is designed to contribute variously to the

operationalisation of all these national policies/strategies, putting particular emphasis on the small livestock subsector.

11. The Project is aligned with the new 2025-2027 Country Strategy Note's (CSN), contributing directly to Strategic Objectives 1 and 2 of improved smallholder farming systems and stronger and more inclusive commercialisation of agricultural value chains. BoLCoP will contribute to sustainable development goals (SDGs) 1 (end poverty), 2 (end hunger), 5 (Gender Equality), 8 (Decent Work and Economic Growth), 13 (Climate Action) and 17 (Partnership for Sustainable Development).

12. BoLCoP complements current and pipeline initiatives in the livestock sector, notably the Conservation International's "Ecosystem-Based Adaptation and Mitigation in Botswana's Communal Rangelands" Project financed by the Green Climate Fund and the potential investment from the World Bank focused on the red meat value chain. In addition, ongoing interventions by the United Nations Food and Agriculture Organisation (FAO) and the United Nations Development Project (UNDP) on the national fodder production strategy[14] and the drylands support intervention[15] will allow for BoLCoP to scale up fodder production practices and equally support conservation practices in targeted districts.

1.3. Key Stakeholders and Involvement of Smallholders

13. GoB institutions at the national and district levels have an inherent interest in the successful implementation of this Project. These include all government ministries and parastatals whose mandates are directly related to the BoLCoP's development objective.

14. Communities/smallholders and their organisations are the central focus of BoLCoP; they will be involved variously during the course of Project implementation. Their involvement, not only as beneficiaries but also as active participants, will ensure ownership of the Project and sustainability of the different interventions. Community mobilisation, awareness creation and participation of the target communities in all Project activities would, *de facto*, make Community-Based Organisations (CBOs) key players in identifying the existent community/smallholders' problems, prioritizing them, and ensuring that they get reflected in the different AWPBs for eventual redress. The same community/farmer organisations will oversee the process of implementing the different interventions to ensure continued relevance and compliance to the target beneficiaries. The design process established that many of these institutions have various capacity limitations. Accordingly, the respective institutions' capacities will be augmented through capacity strengthening interventions.

1.4. Focus of the Project

15. Despite its UMIC status, Botswana still has a high incidence of food insecurity and multidimensional poverty[16], unemployment, and inequality – including gender inequality[17]. These inequities have a disproportionate impact in rural areas. Furthermore, the country is highly vulnerable to climate variability and change, notably droughts, due to its dependence on rain-fed agriculture and natural resource. Hence, the Government is committed to a reform agenda that aims at catalysing greater socio-economic progress.

16. The agricultural sector, particularly the small livestock sector[18], has been identified as a strategic economic diversification priority for Botswana that can bolster food security,

[14]World Bank. 2023. Botswana: Systematic Country Diagnostic: At a Crossroads Reigniting Efficient and Inclusive Growth.
[15]https://www.clgf.org.uk/default/assets/File/Country_profiles/Botswana.pdf
[16]African Union. 2023. Dakar 2: Botswana Country Food and Agriculture Delivery Compact.
[17]World Bank. 2023. Botswana: Systematic Country Diagnostic: At a Crossroads Reigniting Efficient and Inclusive Growth.
[18]Small stock refers to goats and sheep while small livestock is inclusive of goats and sheep, pigs, poultry and apiculture.

commercialisation (including exports) and poverty reduction for men and women. Small livestock in Botswana are less resource-and emission-intensive than its well-established cattle sector, providing a natural pathway for increased economic gains, climate resilience, and poverty eradication in rural communities. Accordingly, GoB invited IFAD to steer the needed interventions.

17. IFAD has considerable ability in the region with regard to supporting poor rural people increase their incomes, diversify their livelihoods, and participate in decisions that shape their lives. The Fund also has specific experience in the small livestock sector in Botswana through its technical support to the Government on the development of the Botswana Small stock Sector Strategy and the delivery of the Lobu Smart Farm Project through a reimbursable technical assistance initiative financed by the Government and the UNECA. IFAD will also draw on achievements and lessons learned from livestock projects across the East and Southern Africa, as a means of further integrating specific approaches that can respond to the needs of the country.

II. SUMMARY OF PRJECT DESCRIPTION

2.1 Goal, Objective and Strategic Approach

18. **Project Goal and Objective** – BoLCoP's goal is to '*contribute to the Government of Botswana's objective of inclusively and sustainably improving productivity and commercialization of the small livestock subsector*'. Its Development Objective is to 'enhance the incomes and resilience of rural households through more inclusive, sustainable and technology-driven small livestock value chains"'. The Project will be implemented over an eight-year period.

19. ***Approach*** – BoLCoP's target beneficiaries will be active participants in the Project's implementation. Community mobilization and empowerment will be the entry for planning and roll out of BoLCoP activities. This will be guided by District Development Plans (DDPs) working closely with community/village, sub-district/district and national government administrative structures in each area. Community empowerment will include community awareness, sensitization, prioritization of actions, participation in the AWPB preparation and in monitoring of the different interventions. The process will facilitate the identification and prioritisation of challenges which would need to be addressed to help the target beneficiaries to sustainably gain from the small livestock sector while, at the same time, live harmoniously in their respective ecosystems. The engagement/participation of the beneficiaries in the process would not only enable them grow the social capital between communities, it would also strengthen vertical engagements with local governments. The likelihood for sustainability will also be enhanced through this implementation approach since the process will be managed by the beneficiary communities themselves.

2.2 Target Group

20. The target population of BoLCoP includes smallholder farmers engaged in goat, sheep, and poultry production, as well as key value chain actors, such as traders and processors, who are essential for developing sustainable markets and driving small stock commercialisation. BoLCoP will directly reach 50,000 households (equivalent to about 200,000 people[19]), the majority being rural poor or vulnerable smallholder farmers, existing/emerging commercially oriented farmers, and/or remote area communities who will be supported to meaningfully participate in the target value chains. Direct beneficiaries will

[19]Assumes an average household size of 4 people.

be selected from the following broad socio-economic groups: a) Subsistence farmers (micro-scale) (20%, 10,000 HHs); b) Semi-commercial farmers (small-scale) (60%, 30,000 HHs); c) Emerging commercial farmers (medium scale) (15%, 7,500 HHs); and d) Small and Medium Enterprises ((SMEs), on-farm and off-farm SMEs)) (5%, 2,500 HHs).

2.3 Component Summary Description

21. The Project's Development Objective will be achieved through the effective implementation of two technical components and a third component that will focus on augmenting the capacity of communities, institutions, and contributing to a conducive policy environment towards BoLCoP implementation. The Project will focus on goats, sheep and poultry value chains. Following hereunder is a summary of the expected focus of the different components.

22. **Component 1: Increased Climate-Resilient Small Livestock Production and Productivity** – This component seeks to facilitate increased production and productivity of small livestock thereby contributing to better incomes for the target group; it would also contribute to food security and dietary diversity.

23. **Component 2: Strengthened Small Livestock Value Chains** – This component will improve functioning of the target value chains – goats, sheep and poultry. For goats and sheep, the focus will be on meat production whilst on poultry it will be on both broiler and layers. These value chains were determined to be pro-poor when assessed against the following considerations: a) level of participation of small-scale producers; b) inclusivity (relevance to women and youth); c) existence of growing market opportunities (market integration of the target group); d) offer high potential for resilience and nutrition; and e) profitability for small scale producers and other actors along the respective value chains. Thus, the target value chains will ensure deeper engagement and higher impact for the most vulnerable (rural women, youth, and remote subsistence farmers) while supporting those capable of transformation through commercialisation.

24. **Component 3: Enhanced Enabling Environment for Improved Small Livestock Development** – This will be a cross-cutting component servicing the technical components and facilitating pathways for the effective and efficient implementation of BoLCoP interventions. It will strengthen institutions for sustainable management of investments under the Project. Policy support will facilitate the development, review and update of policies and strategies in areas identified as essential for an effective and sustainable small livestock sector. For effectiveness, interventions for institutional strengthening will be informed by a needs assessment that will be undertaken to identify gaps.

2.4 Project Costs and Financing Plan

25. The estimated costs for BoLCoP, including base costs and price and contingencies are estimated at USD 86.84 million. The overall investment costs have been estimated at USD75.3 million (88% of base costs), and recurrent costs at USD10.05 million (12% of base costs). Price contingencies have been estimated at USD1.3 million. BoLCoP will be financed as follows: a) IFAD-13 Borrowed Resources Allocation Mechanism (BRAM) for a total of USD31.52 million (36% of the total cost) ;b) Global Environment Facility (GEF) for a total of USD 5 million (6%) (the entry into pipeline process has commenced, pending further National Operational Focal Point engagement following the GEF-9 Replenishment (Second Meeting) in Botswana to be held between October 8-10, 2025); c) Adaptation Fund (AF) for a total of USD 20 million (23%) (for which the revised concept note linked to BOLCOP has been submitted for 5th technical review and nomination letter is awaiting submission by the Ministry of Environment and Tourism to the AF Secretariat); d) Government of Botswana counterpart funding estimated at USD5.088 million (6%); e) beneficiary contributions (in-

kind) and SSTC grant is estimated at US$ 1.75 million (USD1.5 million and USD0.25 million, respectively) (2%). The Project is being designed with a financing gap of USD 23.48 million (27%) to be filled with additional BRAM funds or from other external sources as may be identified during implementation. While it is highly unlikely that this gap will not be filled, the financing plan will be reviewed at the MTR and, when necessary, adjusted to ensure that the effective implementation of the Project and achievement of the broad development objectives will not be affected should the funds not materialize. The BoLCoP costs by component and by categories of expenditure are shown in the below tables.

Table 1: Costs by Components/Subcomponents) and Financier (`000 USD)

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Components by Financiers
(US$ '000)

	IFAD 13 BRAM		Financing Gap		GEF		Adaptation Fund		SSTC Grant		Government		Beneficiaries (In-Kind)		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
A. Increased Climate-Resilient Small Livestock Production and Productivity																
Enhanced Access to Quality Feed, Fodder and Animal Health Services	6,283	28	8,341	38	-	-	4,989	23	-	-	1,961	9	643	3	22,216	26
Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practices	3,940	20	1,749	9	4,750	24	6,913	35	-	-	1,692	9	857	4	19,901	23
Subtotal	10,223	24	10,090	24	4,750	11	11,902	28	-	-	3,653	9	1,500	4	42,117	49
B. Strengthened Small Livestock Value Chains																
Strengthened Clustering and Capacity Building of Value Chain Actors	3,017	64	1,488	31	-	-	-	-	-	-	229	5	-	-	4,734	6
Improved Access to Input and Output Markets	5,950	49	4,463	37	-	-	810	7	-	-	940	8	-	-	12,163	14
Improved Access to Inclusive and Green Financial Services For Value Chain Actors	2,607	41	2,762	43	-	-	1,000	16	-	-	-	-	-	-	6,369	7
Subtotal	11,574	50	8,713	37	-	-	1,810	8	-	-	1,170	5	-	-	23,267	27
C. Enhanced Enabling Environment for Improved Small Livestock Development																
Institutional Strengthening and Policy Support	2,562	39	636	10	-	-	2,970	46	250	4	95	2	-	-	6,513	8
Project Management and Implementation Support Services	6,761	49	3,441	25	250	2	3,318	24	-	-	171	1	-	-	13,942	16
Subtotal	9,323	46	4,077	20	250	1	6,288	31	250	1	266	1	-	-	20,455	24
D. RED (Lumpsum to be allocated incase of emergency)	400	40	600	60	-	-	-	-	-	-	-	-	-	-	1,000	1
Total PROJECT COSTS	31,520	36	23,480	27	5,000	6	20,000	23	250	0.3	5,088	6	1,500	2	86,838	100

Table 2: BoLCoP Costs by Category and Financier (`000 USD)

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Expenditure Accounts by Financiers
(US$ '000)

	IFAD 13 BRAM		Financing Gap		GEF		Adaptation Fund		SSTC Grant		Government		Beneficiaries (In-Kind)		Total		For. Exch.	Local (Excl. Taxes)	Duties & Taxes
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%			
I. Investment Costs																			
A. Civil Works	5,560	22	7,422	29	-	-	8,915	35	-	-	2,734	11	721	3	25,352	29	2,262	20,356	2,734
B. Equipment and Materials	4,471	49	2,112	23	-	-	1,607	17	17	0.2	1,015	11	-	-	9,221	11	821	7,386	1,015
C. Goods, Services and Inputs	5,169	29	3,510	20	4,750	27	2,400	14	-	-	1,098	6	779	4	17,706	20	1,290	15,319	1,098
D. Technical Assistance	5,334	48	2,380	21	-	-	3,030	27	112	1	241	2	-	-	11,098	13	1,020	9,837	241
E. Training	5,021	60	2,532	30	-	-	730	9	121	1	1	-	-	-	8,405	10	776	7,629	1
F. Line of Credit	2,250	45	2,750	55	-	-	-	-	-	-	-	-	-	-	5,000	6	-	5,000	-
Total Investment Costs	27,806	36	20,706	27	4,750	6	16,682	22	250	0.3	5,088	7	1,500	2	76,781	88	6,168	65,526	5,088
II. Recurrent Costs																			
A. Salaries and Allowances	2,508	36	2,148	30	250	4	2,158	31	-	-	-	-	-	-	7,065	8	-	7,065	-
B. Operations and Maintenance	1,206	40	626	21	-	-	1,160	39	-	-	-	-	-	-	2,992	3	-	2,992	-
Total Recurrent Costs	3,714	37	2,774	28	250	3	3,318	33	-	-	-	-	-	-	10,057	12	-	10,057	-
Total PROJECT COSTS	31,520	36	23,480	27	5,000	6	20,000	23	250	0	5,088	6	1,500	2	86,838	100	6,168	75,583	5,088

2.5 Project Organization and Implementation Arrangements

26. The Project delivery systems will be integrated into the Government organisational structures that cascade from the national to district. The Ministry of Lands and Agriculture will serve as BoLCoP's lead implementing agency. The Ministry will delegate the day-to-day operation of the Project to a Project Management and Coordination Unit (PMCU) reporting directly to the Permanent Secretary, Ministry on Lands and Agriculture.

14. A NPMCU will be established comprising a team of officers either recruited through a competitive process or seconded to the NPMCU by GoB on a fulltime basis to fully focus on

Project implementation. The following is the NPMCU composition: a) Project Director; b) Monitoring and Evaluation and Knowledge Management Specialist; c) Financial Management Specialist; d) Procurement Specialist; e) Livestock Specialist; f) Agribusiness and Marketing Specialist; g) Gender, Youth and Social Inclusion Specialist; h) Environmental Management, Climate Change and Social Safeguard Specialist; i) M&E/KM Assistant; j) Accountant; k) Procurement Analyst; l) Project Assistant; and m) Drivers. Detailed Terms of Reference/Job Descriptions are presented in the PIM.

15. The NPMCU responsibilities will include: a) availing a conducive environment for Project activities, including the multiple partnerships required for effective implementation; b) coordinating the implementation of Project activities in line with the Annual Work Plans and Budgets (AWPBs) approved by the Project Steering Committee (PSC) and provided with a 'No-Objection' from IFAD; c) development of operational strategies and establishment of effective tools for BoLCoP implementation; d) ensuring effective and efficient financial and administrative management of Project resources, preparation of AWPBs, mobilisation and coordination of implementation partners; e) monitoring, evaluation, knowledge management, learning and reporting implementation progress; and f) provision of the procurement function. The Project Director will ensure that NPMCU staff work in an integrated approach with the objective of exploiting existent complementarities and synergies for effective activity implementation.

27. *Project Steering Committee (PSC)* – A PSC, under the chairmanship of the MoLA Permanent Secretary, will be set up to provide overall policy and strategic guidance to the Project. The other members will be Permanent Secretaries from ministries whose mandates have a direct linkage to the effective implementation of the Project. These include Ministry of Finance, Ministry of Environment and Tourism; Ministry of Local Government and Traditional Affairs; Ministry of Water and Human Settlement; Ministry of Trade and Entrepreneurship; Ministry of Youth and Gender Affairs; District Commissioners of the participating districts, and representatives from the Botswana Meat Commission, LEA, and other government parastatals that will play a critical role in BoLCoP implementation. The NPMCU will serve as a secretariat to PSC with the Project Coordinator being its secretary.

16. The main responsibility of the PSC will be to ensure successful implementation of the Project. The PSC tasks will include policy and strategic guidance on the BoLCoP focus, priority setting and institutional strengthening to ensure that the Project achieves its objective and contributes to the higher-level sector policy and strategic goals. This will necessitate reviewing Project progress against targets, assessing management effectiveness, appraisal of annual performance and recommending renewal of contracts of PMCU staff, deciding on corrective measures where appropriate, identifying lessons learned and good practices, approving AWPBs and Procurement Plans.

17. *Project Technical Committee (PTC)* – The PTC will be part of the oversight function and will be co-chaired by the Director of Animal Production and the Director Veterinary Services. The PTC will be composed of Directors of the relevant departments in the key ministries involved in the Project's implementation. Its responsibility will be to: a) provide technical guidance of the Project; b) update the PSC on partnerships with stakeholders within the government to advance operational/coordination issues related to the Project; d) coordinate with technical counterparts of other government agents; e) update their respective mother institutions on any progress and challenges and plans of the Project; f) provide technical and operational guidance to Project quarterly and annual progress reports and work plans; and g) participate in periodic monitoring of the Project in the participating districts.

28. *Implementing Partners* – The Project will collaborate and enter into Memoranda of Understanding (MoUs) with those ministries and other government bodies whose mandates

directly relate to the Project's development objective. In addition, the Project will recruit qualified service providers, where needed and following appropriate procurement procedures, to facilitate activity implementation. Service providers could be other government ministries/parastatals, farmers organizations, civil society organisations, private sector stakeholders, research organizations, etc. The MoU/contractual agreement shall clearly specify, the scope of the work to be undertaken, staffing and institutional arrangements, budget, reporting and fiduciary requirements, implementation records, and performance evaluation criteria, where relevant.

2.6 Beneficiaries, Expected Benefits and Sources

29. BoLCoP will directly reach 50,000 households (equivalent to about 200,000 people[20]); details of the target beneficiaries are presented under Section 2.2: Target Group.

30. BoLCoP will use a graduated and inclusive approach by linking beneficiary outreach with thematic priorities based on need, potential, and to enhance equity. The targeting approach ensures that interventions address both social equity and economic potential within Botswana's small livestock sector to foster a more equitable and productive sector that delivers benefits for all. Key mechanisms will include: a) *Tailored Graduation Pathways* – BoLCoP will offer differentiated packages (inputs, finance, training, infrastructure) matched to producer typologies – from subsistence to emerging commercial farmers; b) *Women Empowerment* – BoLCoP will prioritize outreach strategies targeted at women smallholder farmers through enhancing their leadership and participation in producer groups, and through inclusive extension support; c) *Youth Inclusion* – Focusing on improving youth's access to productive resources, providing tailored skills training, provision of subsidized input packages, agri-business incubation, investment in youth-centred appropriate digital technologies, youth employment opportunities, etc.; d) *Family Farming Approach* – Support family farming as a key strategy to reduce rural poverty and enhance food security; e) *Household Methodologies* – Integrating the Gender Action Learning System (GALS). Among other objective, the methodology will be adapted to address GBV and HIV/Aids, identified as common social risks; f) *Cluster-based Approach* – Support for strengthening producer cooperatives and input/output hubs for chicks/seeds/vaccines including cold storage facilities in high-density livestock zones; and g) *Nutrition-sensitive Approaches* – Support for household dietary diversity, especially for children and female-headed households through small livestock and poultry products.

31. This targeting approach ensures that interventions address both social equity and economic potential within Botswana's small stock sector. By addressing the underlying barriers and scaling inclusive models, BoLCoP will foster a more equitable and productive sector that delivers benefits for all.

III. SUMMARY OF IMPLEMENTATION TO-DATE

32. This chapter is supposed to present the summary of achievements to date both in physical terms (physical achievements in relation to targets) and financial terms (disbursement status). It is also supposed to highlight the constraints encountered during implementation (thus far); the constraints highlighted are supposed to be addressed for improved implementation. Lastly, the chapter is supposed to state the number of target beneficiaries reached, disaggregated by gender. However, this is the first Project year of the 8-year Project and, as such, there is no implementation progress to report herein. But, as part of the design process, some steps, such as preparation of this draft AWPB,

[20]Assumes an average household size of 4 people.

Procurement Plan and the Project Implementation Manual, were undertaken. These will greatly help kick-start actual, on-the-ground, Project implementation once BoLCoP gets launched.

IV. THE 2025 WORK PLAN

4.1 The Planning Process

33. Ideally, the planning process for an Annual Work Plan and Budget should be participatory, involving all the relevant stakeholders through consultative meetings/workshops at various levels. Under such a situation, there are three major sources of information and these include:

a) Project Design Report – it provides the general framework for Project implementation;
b) the findings of the needs assessment and participatory planning exercises in the Project areas; and
c) the findings of annual strategic reviews and performance evaluation.

34. However, this being BoLCoP's first AWPB, its preparation was largely based on the Project Design Report and was prepared as part of the design process. It is expected that starting with the 2027-28 AWPB onwards, the decentralised, bottom-up and participatory planning process will take over where the process will, necessarily, utilise all three sources of information as listed above.

4.2 Plan Focus

35. This being the first BoLCoP Year, the focus of the plan is to put processes and procedures in place to facilitate a smoother implementation of the Project during the proceeding Project Years. This will include: a) establishing of the BoLCoP coordination structures at the national and district levels; b) establish the national Project Steering and Technical Committees and introduce BoLCoP to them. Agree on how to proceed with the provision of the oversight function (frequency and modality of meetings); c) initiate the undertaking of the BoLCoP baseline survey; d) conduct awareness creation on BoLCoP objectives and implementation arrangements; e) review and finalise the targeting strategy for the selection of the specific participating wards; f) undertake procurements of the equipment/vehicles needed for BoLCoP's smooth start-up, etc.

36. It is hoped that once the systems have been put in place, subsequent AWPBs will benefit and receive effective implementation. However, in the event that the specified activities get completed before the end of the Project year, the PMCU will revise the AWPB and include additional activities. When/if such a revision is done, the revised AWPB would be resubmitted to the PSC for review and approval and to IFAD for review and provision of a No Objection.

4.3 Description of the Work Plan

37. Following below is the description of the work plan; this has been done by component and subcomponent.

38. **Component 1: Increased Climate-Resilient Small Livestock Production and Productivity** – This component seeks to facilitate increased production and productivity of small livestock thereby contributing to better incomes for women, men, and youth in the target group.

39. ***Subcomponent 1.1: Enhanced access to quality small livestock, and animal health services*** – This subcomponent seeks to support climate-resilient production and productivity enhancement in the small livestock sector, ensuring the active participation and equitable benefit of women, men, and youth. Following hereunder is a summary of the planned activities. The following activities are planned for BoLCoP's first year to gradually contribute to the subcomponent's objective:

- Enhance availability of small livestock breeds
  - Improvement of small livestock genetic resources[21]
  - Judicious use of pure breeds (100 animals)
- Comprehensive capacity-building package to small livestock producers for efficient and climate-smart production and management
  - Training of trainers (4 sessions)
  - Small livestock management - sheep, goats, and poultry (15 sessions)
  - Husbandry and record keeping (15 sessions)
  - Breeding and reproduction (15 sessions)
  - Livestock handling (15 sessions)
  - Animal health management, incl. flock health calendar Livestock handling (15 sessions)
  - Feeds + feeding management, incl. feed-lotting (15 sessions)
  - Equipping training centres[22]
- Small livestock Infrastructure investments
  - Silage making consumables – drums (500)
  - Farm level animal handling infrastructure - pens, sheds, fowl runs, etc (20).

40. ***Subcomponent 1.2: Improved capacity of farmers to adopt climate resilient production and management practices*** – This subcomponent aims at making the target beneficiaries more resilient to the different challenges they operate in. Activities planned for the first year include:

- Enhanced access to feed and fodder
  - Acquisition of forage seeds and germplasm suited to dry environs (5 tonnes);
  - Multiplication of adapted forage seed and germplasm (20 hectares);
  - Development of diets/rations from indigenous/rangeland plants.
- Digital Rangeland and Advisory Tools
  - Weather stations (5)
- Digital Extension and Animal Health Services
  - Digital BAITS system (1);
  - BAITS tags (10,000);
  - Mobile kraals/crush pens/scale/automated reader (1).

41. **Component 2: Strengthened Small Livestock Value Chains** – This component will improve functioning of the target value chains – goats, sheep and poultry. For goats and sheep, the focus will be on meat production whilst on poultry it will be on both broiler and layers. The target value chains will ensure deeper engagement and higher impact for the most vulnerable (rural women, youth, and remote subsistence farmers) while supporting those capable of transformation through commercialisation. The component consists of three Subcomponents.

[21] genetic improvement programme for indigenous smallstcok -NARDI/BUAN
[22] renovations at training centres -Impala, Lobu and 4xNARDI

42. ***Subcomponent 2.1: Strengthened clustering and capacity building of value chain actors*** – The subcomponent aims as at improving organisation of farmers within the target value chains. BoLCoP beneficiaries are scattered and operate on land with low carrying capacity and this affects the volume of produce each farmer offers to the market. They generally have low economies of scale (resulting in high input prices) in input acquisition as well as offer low and uneconomic volumes to buyers. Consequently, they are unable to negotiate favourable terms. The following farmer organisations have been identified: a) National Small Stock Federation; and b) Botswana Poultry Producers Association. It is noted that existing small livestock producer associations are weak and do not provide benefits to their members. The following interventions are planned for the first year:

- Support to National Producer Organisations
    - Training in leadership, advocacy (12 sessions);
    - Support for member mobilisation
    - Support to operations of National Farmers Organisations
- Cluster Development
    - BDS Support for cluster Development (24 person months)
    - Cluster training Events (6 sessions);
    - Cluster infrastructural investments

43. ***Subcomponent 2.2: Improved access to input and output markets*** – This subcomponent seeks to address challenges faced by farmers in accessing inputs (especially feed, fodder and medicines) and output markets. A priority under Bolcop will be the establishment of formal market structures between producers, abattoirs and off-takers (supermarkets, hotels and public sector institutional buyers, etc.).

44. Some export market opportunities have been identified for goats, particularly to Saudi Arabia, Angola, Norway and Mozambique but these remain largely unexploited and require intermediary agents that will be able to respond to the specific market requirements. To ensure equitable participation and benefit-sharing, special attention will be given to addressing the specific barriers that often limit women and youth's access to export markets and commercial value chains. Operationalising the Government sponsored multi-species abattoir represents a unique opportunity to unlock value in the small livestock value chain, including exploiting export market opportunities. BoLCoP will support the establishment of out-grower schemes, contract farming, forward markets, multistakeholder platforms, etc. to encourage dialoguing for fair and transparent pricing mechanisms, including formal/negotiated off-taker arrangements that reduce or eliminate the need for collateral; an especially important barrier for women who often lack control over assets. The Project will also provide targeted support and training for women and youth-led enterprises to build their capacity to meet market standards and participate effectively in commercial partnerships. The following activities are planned for the first year:

- Improved Access to Input Markets
    - Collective Access to inputs by farmers
        - BDS support to facilitate access to inputs (24 Person months)
        - Conduct farmer Training on Input Technical Knowledge, Safe Use and Handling Skills
- Building a commercial cluster-focused agro-dealer network
        - Identify, select, profile and conduct needs assessment of new agro dealers (5 agro dealers)
        - Conduct Enterprise Management training for Agro-dealers/employees (4 sessions)

- Conduct Training on Input Technical Knowledge, Safe Use and Handling Skills for new and existing Agro-dealers (6 sessions)

- Improved Access to Output Markets
  - Support for aggregation and Collective Marketing
    - Market opportunity assessment (1 study)
    - BDS support market linkage facilitation (24 Person months)
    - Marketing training for farmer and farmer clusters (6 sessions)
- Support for Market Transparency
    - Market information support
    - Multi Stakeholder value Chain Platforms
- Market Infrastructures
    - Market infrastructure support for clusters (5 infrastructure)
    - Rehabilitate/build animal markets (6 markets)
    - Support to public slaughter facilities (2 facilities)
- Support to Value Chain Actors
    - Assist in Business Plan Development for SMEs (5 business plans)
    - Support to modernise/build processing facilities (I facility);
    - Training and Incubation of youths (12 sessions)
    - Support to Youth and women enterprises (10 enterprises)

45. ***Subcomponent 2.3: Improved access to inclusive financial services for value chain actors –*** BoLCoP in its effort to structure and commercialize the small livestock sector, will need to de-risk investments in the targeted value chains and support government efforts in the efficient administration of financing to the small livestock sub-sector. The subcomponent aims at complementing the other Project activities by addressing access to finance constraints for beneficiaries with tailored options for each of the four targeted categories. This would enable them to invest further in activities of relevance to the other subcomponents with a primary focus on climate resilient practices, such as improved water management and use of solar energy. The following activities are planned for the first year:

- Credit/Loan Demand and Supply Analysis/Study for Small Livestock (1 study)
- Technical Assistance to NDB
- Sovereign Line of Credit for Small Livestock[23]
- Enhancement of the MoLA TLMS
  - System scoping, architecture upgrade planning (1 Session)

46. **Component 3: Enhanced Enabling Environment for Improved Small Livestock Development** – This will be a cross-cutting component servicing the technical components and facilitating pathways for BoLCoP's effective and efficient implementation. The component comprises the below subcomponents.

47. ***Subcomponent 3.1: Institutional Strengthening and Policy Support*** – The subcomponent will have a dual focus: institutional strengthening and policy support. The subcomponent will seek to facilitate the process of ensuring that a supportive policy environment is put in place for effective activity implementation during and after BoLCoP implementation. Below are the activities planned for the first AWPB under this intervention:

[23]The BoLCoP sovereign line of credit (LoC) for small stock will be concessional, blending BRAM resources (estimated at $5m) and GoB/NDB/TLMS resources. The GoB/NDB/TLMS contribution is yet to be determined once negotiations between GoB and NDB have been undertaken.

48. ***Institutional Strengthening*** – The Project will improve capacities of those institutions that will be responsible for overseeing and/or implementing Project activities.

- Institutional capacity gap assessment and production of a capacity development plan (1 study)
- Capacity Strengthening of District extension staff for effective BoLCoP implementation (1 session)
- Logistical Support to the participating districts for coordinating BoLCoP activities; 1 each per district (12 Double Cabin Vehicles)
- Implementation of other aspects of the capacity development plan (1 session)
- Vehicle O&M (12 Double Cabin Vehicles)
- Vehicle Insurance (12 Double Cabin Vehicles)

49. ***Policy Support*** – The following policy type constraints to small livestock farmer integration in value chains have been identified: a) absence of an enforceable system of standards and grades in small livestock meat marketing; b) an import regime that crowds out local production; and c) lack of a policy framework to guide the development of the sheep value chain.

- No activity is planned under this intervention for the first Project year.

50. ***Subcomponent 3.2: Project Management and Implementation Support Services*** – The subcomponent will provide BoLCoP with efficient and effective coordination, including planning and implementation, financial management and control, procurement management, digital monitoring and evaluation system, knowledge management, and progress reporting. It will ensure liaison and linkages with all other projects being implemented in the target districts that seek to address similar constraints so as to take advantage of existent synergies and avoiding duplication. A national Programme Management and Coordination Unit (PMCU) will be established to coordinate the different BoLCoP activities. The following activities are planned:

- Project Management and Coordination Unit
    - Double-cabin Vehicles (7 Double cabins)
    - Station Wagon (1 vehicle)
    - Office Equipment for PMCU
        - Laptop (24)
        - Desktops (61)
        - Printer/Photocopier (13)
        - Safe box (13)
        - Projector (13)
        - Video Conference Equipment (13)
        - TV 85 in (13)
        - Server (14)[24]
        - Internet Network Equipment (13)
        - Office furniture (12 sets)
        - Furniture for the Conference Room
- Audit
    - External Audit
    - Internal Audit

[24]It includes: Server, software, uninterruptible power supply unit. 1 server for the NPMCU, 1 server for MoLA and the rest are for the participating districts (1 each per district).

- Monitoring and Evaluation
  - Development of M&E Manual and Plan (1 manual)
  - Establishment of MIS and tools (1 system)
  - MIS Licenses for MIS (1 system)
  - Tablets for data collection (240)
  - Training of staff in M&E (1 session)
  - Baseline Survey (1 survey)
  - Routine Monitoring (1 session)
  - Annual review meetings (1 meeting)
  - Learning workshops (1 workshop)
  - Supervision Missions (1 mission)
- Knowledge Management and Communication
  - Development of KM Strategy and Tools (1 strategy)
  - Knowledge Product Development (1 Session)
  - KM Capacity Building (1 Session)
  - Communication & Outreach (1 Session)
  - KM Monitoring, Reporting, and Synthesis (1 report)
  - Website development
- GALS training
- Empowerment Indicator Baseline Survey (1 survey)
- Workshops
  - Start-up workshop (13)[25]
  - Annual planning & review workshop (1 workshop)

- Staff Salaries
  - PMCU
    - Project Director (12 months)
    - Monitoring and Evaluation and KM Specialist (12 months)
    - Financial Management (12 months)
    - Procurement Specialist (12 months)
    - Livestock Specialist (12 months)
    - Agribusiness and Marketing Specialist (12 months)
    - Gender, Youth and Social Inclusion Specialist (12 months)
    - Environmental Management, Climate Change and Social Safeguard Specialist (12 months)
    - M&E/KM Assistant (12 months)
    - Accountant (12 months)
    - Procurement Assistant (12 months)
    - KM Officer (12 months)
    - Project Assistant (12 months)
    - Drivers (84 months)
  - Operation and Maintenance costs
    - Office space (PMCU)
    - PMCU General operating expenses
    - General operating expenses for the participating districts
    - Vehicle O&M (PMCU vehicles)

[25]One national start-up workshop and 12 (one each in the 12 participation districts)

- Vehicle insurance (PMCU vehicles)
- Field per diem
- Allowances for frontline extension for data collection

V. BUDGET ESTMATES AND FINANCING ARRANGEMENTS

5.1 Summary Budget and Funding

51. Presented in this section are summary tables giving an overall picture of financial resources required for the BoLCoP 2026/27 AWPB. The budget information is presented by component, financier and categories of expenditure. The total budget for BoLCoP's 2026/27 AWPB is about USD 6.01 million. A total of about USD 0.83 million (or 14% of the budget) is allocated to Component 1: Increased Climate-Resilient Small Livestock Production and Productivity; about USD 1.61 (or 27% of the budget) is allocated to Component 2: Strengthened Small Livestock Value Chains; and about USD 3.56 million (or 59% of the budget) is allocated to Component 3: Enhanced Enabling Environment for Improved Small Livestock Development. About 75% of the budget will be financed by the IFAD-13 BRAM and the remainder will be from the Government and beneficiaries. The following tables present the BoLCoP AWPB costs by component, category and financier.

Table 3: First Year Annual Work Plan and Budget and Financing by Component (USD million)

Botswana
Botswana Livestock Commercialisation Project (BoLCoP) - First Year Workplan
Components by Financiers
(US$ '000)

	IFAD 13 BRAM		Government		Beneficiaries (In-Kind)		Total		For.	Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
A. Increased Climate-Resilient Small Livestock Production and Productivity											
Enhanced Access to Quality Feed, Fodder and Animal Health Services	92	15	524	85	4	1	621	10	58	526	37
Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practices	48	22	167	77	3	2	218	4	19	174	25
Subtotal	140	17	691	82	7	1	839	14	78	699	61
B. Strengthened Small Livestock Value Chains											
Strengthened Clustering and Capacity Building of Value Chain Actors	452	95	25	5	-	-	477	8	19	433	25
Improved Access to Input and Output Markets	711	92	59	8	-	-	770	13	71	640	59
Improved Access to Inclusive and Green Financial Services For Value Chain Actors	365	100	-	-	-	-	365	6	-	365	-
Subtotal	1,528	95	84	5	-	-	1,612	27	90	1,438	84
C. Enhanced Enabling Environment for Improved Small Livestock Development											
Institutional Strengthening and Policy Support	734	92	67	8	-	-	801	13	65	669	67
Project Management and Implementation Support Services	2,120	77	638	23	-	-	2,758	46	167	2,458	133
Subtotal	2,854	80	705	20	-	-	3,559	59	232	3,127	200
Total PROJECT COSTS	4,522	75	1,480	25	7	0.1	6,010	100	400	5,264	346

Table 4: First Year Annual Work Plan and Budget and Financing by Category (USD million)

Botswana
Botswana Livestock Commercialisation Project (BoLCoP) - First Year Workplan
Expenditure Accounts by Financiers
(US$ '000)

	IFAD 13 BRAM		Government		Beneficiaries (In-Kind)		Total		For.	Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
I. Investment Costs											
A. Civil Works	555	87	80	13	4	1	639	11	56	503	80
B. Equipment and Materials	1,540	76	487	24	-	-	2,027	34	179	1,609	239
C. Goods, Services and Inputs	228	57	166	42	3	1	398	7	23	358	17
D. Technical Assistance	751	97	22	3	-	-	774	13	61	704	9
E. Training	665	75	219	25	-	-	884	15	81	802	0
F. Line of Credit	250	100	-	-	-	-	250	4	-	250	-
Total Investment Costs	3,989	80	976	20	7	0.1	4,971	83	400	4,226	346
II. Recurrent Costs											
A. Salaries and Allowances	159	24	505	76	-	-	664	11	-	664	-
B. Operations and Maintenance	374	100	-	-	-	-	374	6	-	374	-
Total Recurrent Costs	533	51	505	49	-	-	1,038	17	-	1,038	-
Total PROJECT COSTS	4,522	75	1,480	25	7	0.1	6,010	100	400	5,264	346

5.2 Detailed Budget by Component

52. Presented in this section are the detailed cost tables giving an overall picture of financial resources required for the 2026/27 AWPB and corresponding activities on which funds will be utilised.

BoLCoP 2026/27 AWPB Detailed Budget by Component and Subcomponents

Component 1: Increased Climate-Resilient Small Livestock Production and Productivity

Subcomponent 1.1: Enhanced access to quality small livestock, and animal health services

Botswana
Botswana Livestock Commercialisation Project (BoLCoP) - First Year Workplan
Table 1.1. Enhanced Access to Quality Feed, Fodder and Animal Health Services

Detailed Costs	Unit	Quantities Year 1	Quantities Total	Unit Cost (US$)	Totals Including Contingencies (US$ '000) Year 1	Totals Including Contingencies (US$ '000) Total
I. Investment Costs						
A. Enhance availability of small livestock breeds						
Improvement of small livestock genetic resources /a	Lumpsum	0.1	0.1	300,000	30	30
Judicious use of pure breeds	Animals	100	100	500	50	50
Subtotal					80	80
B. Comprehensive capacity-building package to small livestock producers						
Training of trainers (ToT)	Session	4	4	12,000	48	48
Small livestock management - sheep, goats, and poultry	Session	15	15	2,000	30	30
Husbandry and record keeping	Session	15	15	2,000	30	30
Breeding and reproduction	Session	15	15	2,000	30	30
Livestock handling	Session	15	15	2,000	30	30
Animal health management, incl. flock health calendar	Session	15	15	2,000	30	30
Feeds + feeding management, incl. feedlotting	Session	15	15	3,000	45	45
Equiping training centres /b	Lumpsum	1	1	220,000	251	251
Subtotal					494	494
C. Small livestock Infrastructure investments						
Silage making consumables - drums	Number	500	500	5	3	3
Farm level animal handlig infrastructure. - pens, sheds, fowl runs, etc	Number	20	20	1,925	44	44
Subtotal					47	47
Total					621	621

\a genetic improvement programme for indigenous smallstcok -NARDI/BUAN
\b rennovations at training centres -Impala, Lobu and 4xNARDI

Botswana: Botswana Livestock Commercialisation Project (BoLCoP)
Consolidated Annual Work Plan and Budget for Year 1

Subcomponent 1.2: Improved capacity of farmers to adopt climate resilient production and management practices

Botswana
Botswana Livestock Commercialisation Project (BoLCoP) - First Year Workplan
Table 1.2. Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practices

Detailed Costs	Unit	Quantities Year 1	Quantities Total	Unit Cost (US$)	Totals Including Contingencies (US$ '000) Year 1	Totals Including Contingencies (US$ '000) Total
I. Investment Costs						
A. Enhanced access to feed and fodder						
Acquisition of forage seeds and germplasm suited to dry environs.	Tonnes	5	5	6,600	38	38
Multiplication of adapted forage seed and germplasm	Hectare	20	20	1,000	23	23
Development of diets/rations from indigenous/rangeland plants	Lumpsum	0.2	0.2	200,000	46	46
Subtotal					106	106
B. Digital Rangeland and Advisory Tools						
Automated Weather stations	Units	5	5	5,000	29	29
C. Digital Extension and Animal Health Services						
Digital BAITS system	Unit	1	1	15,000	15	15
BAITS tags	Units	10,000	10,000	2	23	23
Mobile kraals/crush pens/scale/automated reader	Units	1	1	40,000	46	46
Subtotal					84	84
Total					218	218

Botswana: Botswana Livestock Commercialisation Project (BoLCoP)
Consolidated Annual Work Plan and Budget for Year 1

Component 2: Strengthened Small Livestock Value Chains

Subcomponent 2.1: Strengthened clustering and capacity building of value chain actors

Botswana
Botswana Livestock Commercialisation Project (BoLCoP) - First Year Workplan
Table 2.1. Strengthened Clustering and Capacity Building of Value Chain Actors

Detailed Costs	Unit	Quantities		Unit Cost	Totals Including Contingencies (US$ '000)	
		Year 1	Total	(US$)	Year 1	Total
I. Investment Costs						
A. Support to National Prducer Organisations						
Training in leadership, advocacy, professional services (drought contigency,climate smart animal health	Session	12	12	6,000	72	72
Support for member mobilisation	Lumpsum	1	1	40,000	40	40
Support to operations of National Farmers Organisations	Lumpsum	1	1	150,000	150	150
Subtotal					262	262
B. Cluster Development						
BDS Support for cluster Development	Person Month	24	24	2,650	73	73
Cluster training Events	Session	6	6	4,000	24	24
Cluster climate proofed infrstructural investments	Lumpsum	1	1	100,000	118	118
Subtotal					215	215
Total					477	477

Botswana: Botswana Livestock Commercialisation Project (BoLCoP)
Consolidated Annual Work Plan and Budget for Year 1

Subcomponent 2.2: Improved access to input and output markets

Botswana
Botswana Livestock Commercialisation Project (BoLCoP) - First Year Workplan
Table 2.2. Improved Access to Input and Output Markets

Detailed Costs	**Unit**	**Quantities**		**Unit Cost**	**Totals Including Contingencies (US$ '000)**	
		Year 1	**Total**	**(US$)**	**Year 1**	**Total**
I. Investment Costs						
A. Improved Access to Input Markets						
1. Collective Access to inputs by farmers						
BDS support tofacilitate access to inputs	Person Month	24	24	1,000	24	24
Conduct farmer Training on Input Technical Knowledge, Safe Use and Handling Skills	Session	30	30	1,500	45	45
Subtotal					69	69
2. Building a commercial cluster-focused agro-dealer network						
Identify, select, profile and conduct needs assessment of new agro dealers	Agrodealers	5	5	1,000	5	5
Conduct Enterprise Management training for Agrodealers for Agrodealers/employees	Session	4	4	1,000	4	4
Conduct Training on Input Technical Knowledge, Safe Use and Handling Skills for new and existing Agrodealers	Session	6	6	1,000	6	6
Subtotal					15	15
Subtotal					84	84
B. Improved Access to Output Markets						
1. Support for aggregation and Collective Marketing						
Market opportunity assessments	Study	1	1	500	1	1
BDS support market linkage facilitation	Person Month	24	24	2,000	48	48
Marketing training for farmer and farmer clusters	Session	6	6	1,000	6	6
Subtotal					55	55
2. Support for Market Transparency						
Market information suppport	Lumpsum	1	1	40,000	40	40
Multi Stakeholder value Chain Platforms	Lumpsum	1	1	15,000	15	15
Subtotal					55	55
3. Market Infrastructures						
Climate proofed Market infrastructure suppport for clusters	Units	5	5	18,000	105	105
Rehabilitate/build animal markets	Number	6	6	30,000	209	209
Support to public slaughter facilities	Facilities	2	2	35,000	81	81
Processing facility management risk management training	Session	1	1	2,500	3	3
Subtotal					398	398
4. Suppport to Value Chain Actors						
Assist in Business Plan Development for SMEs	Business Plan	5	5	2,000	10	10
Support to modernise/build processing facilities	Facilities	1	1	70,000	81	81
Training and Incubation of youths	Session	12	12	5,000	60	60
Support to Youth and women enterpises	Number	10	10	2,643	26	26
Subtotal					178	178
Subtotal					686	686
Total					770	770

Botswana: Botswana Livestock Commercialisation Project (BoLCoP)
Consolidated Annual Work Plan and Budget for Year 1

Subcomponent 2.3: Improved access to inclusive financial services for value chain actors

Botswana
Botswana Livestock Commercialisation Project (BoLCoP) - First Year Workplan
Table 2.3. Improved Access to Inclusive and Green Financial Services For Value Chain Actors
Detailed Costs

		Quantities		Unit Cost	Totals Including Contingencies (US$ '000)	
	Unit	Year 1	Total	(US$)	Year 1	Total
I. Investment Costs						
A. Credit/Loan Demand and Supply Analysis/Study for Small Livestock	per 6 months	1	1	10,000	10	10
B. Technical Assistance to NDB	TA	1	1	100,000	100	100
C. Sovereign Line of Credit for Small Livestock /a	Lumpsum	0.05	0.05	5,000,000	250	250
D. Enhancement of the MoLA TLMS						
System scoping, architecture upgrade planning	Session	1	1	5,000	5	5
Total					365	365

a The BoLCoP sovereign line of credit (LoC) for small stock will be concessional, blending BRAM resources (estimated at $5m) and GoB/NDB/TLMS resources. The GoB/NDB/TL
con

Botswana: Botswana Livestock Commercialisation Project (BoLCoP)
Consolidated Annual Work Plan and Budget for Year 1

Component 3: Enhanced Enabling Environment for Improved Small Livestock Development

Subcomponent 3.1: Institutional Strengthening and Policy Support

Botswana
Botswana Livestock Commercialisation Project (BoLCoP) - First Year Workplan
Table 3.1. Institutional Strengthening and Policy Support

Detailed Costs	**Unit**	**Quantities**		**Unit Cost**	**Totals Including Contingencies (US$ '000)**	
		Year 1	**Total**	**(US$)**	**Year 1**	**Total**
I. Investment Costs						
A. Institutional Strenghtening						
Institutional capacity gap assessment and production of a capacity development plan	Study	1	1	50,000	50	50
Capacity Strengthening of District extension staff for effective BoLCoP implementation /a	Session	1	1	50,000	50	50
Logistical Support to the participating districts for coordinating BoLCoP activities; 1 each p	Vehicle	12	12	40,000	547	547
Implementation of other aspcts of the capacity development plan	Session	1	1	70,000	70	70
Total Investment Costs					717	717
II. Recurrent Costs						
A. Vehicle O&M	Vehicle	12	12	5,000	60	60
B. Vehicle Insurance	Vehicle	12	12	2,000	24	24
Total Recurrent Costs					84	84
Total					801	801

\a Includes IFAD climate advisory, Automatic weather, SECAP.EWS

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Subcomponent 3.2: Project Management & Implementation Support Services

Botswana
Botswana Livestock Commercialisation Project (BoLCoP) - First Year Workplan
Table 3.2: Project Management and Implementation Support Services

Detailed Costs	Unit	Quantities Year 1	Quantities Total	Unit Cost (US$)	Totals Including Contingencies (US$ '000) Year 1	Totals Including Contingencies (US$ '000) Total
I. Investment Costs						
A. Project Management Unit						
Double-cabin Vehicles /a	Vehicle	7	7	50,000	399	399
Station Wagon /b	Vehicle	1	1	60,000	68	68
Subtotal					467	467
B. Office Eqipment for PMU						
Laptop /c	Number	24	24	2,000	55	55
Desktop /d	Number	61	61	1,500	104	104
Printer/Photocopier /e	Number	13	13	2,500	37	37
Safe box /f	Number	13	13	2,000	30	30
Projector /g	Number	13	13	2,000	30	30
Video Conference Equipments	Set	13	13	2,000	30	30
TV 85 in	Number	13	13	3,000	44	44
Server /h	Number	14	14	3,000	48	48
Internet Network Equipment /i	Package	13	13	5,000	74	74
Office furniture /j	Set	12	12	1,000	14	14
Furniture for the Conference Room /k	Set	1	1	10,000	11	11
Subtotal					477	477
C. Audit						
External audit	Number	1	1	30,000	30	30
Internal audit	Number	1	1	5,000	5	5
Subtotal					35	35
D. Monitoring and Evaluation						
Development of M&E Manual and Plan, including SECAP	Manual	1	1	20,000	20	20
Establishment of MIS and tools	System	1	1	80,000	80	80
MIS Licenses for MIS	License	1	1	4,000	4	4
Tablets for data collection	Tablets	240	240	500	137	137
Training of staff in M&E, inclusive of SECAP	Session	1	1	7,000	7	7
Baseline Survey	Survey	1	1	90,000	90	90
Routine Monitoring, including SECAP monitoring sessions	Session	2	2	10,000	20	20
Annual review meetings	Per Year	1	1	20,000	20	20
Learning workshops	Workshop	1	1	10,000	10	10
Supervision Missions	Per Year	1	1	20,000	20	20
Subtotal					408	408
E. Knowledge Management and Communication						
Development of KM Strategy and Tools	Study	1	1	70,000	70	70
Knowledge Product Development	Session	1	1	8,000	8	8
KM Capacity Building	Session	1	1	10,000	10	10
Communication & Outreach	Session	1	1	5,000	5	5
KM Monitoring, Reporting, and Synthesis	Report	1	1	4,000	4	4
Website development	Lumpsum	1	1	5,000	5	5
Subtotal					102	102
F. GALS training /l	Lumpsum	1	1	50,000	50	50
G. Workshops						
Startup workshop	Workshop	13	13	20,000	260	260
Annual planning & review workshop	Workshop	1	1	5,000	5	5
Subtotal					265	265
Total Investment Costs					1,804	1,804
II. Recurrent Costs						
A. PMCU Staff						
Project Director	Per Month	12	12	4,625	55	55
Monitoring and Evaluation and Knowledge Management Specialist	Per Month	12	12	4,263	51	51
Financial Management Specialist	Per Month	12	12	4,263	51	51
Procurement Specialist	Per Month	12	12	4,263	51	51
Livestock Specialist	Per Month	12	12	4,263	51	51
Agribusiness and Marketing Specialist	Per Month	12	12	4,263	51	51
Gender, Youth and Social Inclusion Specialist	Per Month	12	12	4,263	51	51
Environmental Management, Climate Change and Social Safeguard Specialist	Per Month	12	12	4,263	51	51
M&E/KM Assistant	Per Month	12	12	1,714	21	21
Accountant	Per Month	12	12	3,918	47	47
Procurement Assistant	Per Month	12	12	1,714	21	21
Project Assistant	Per Month	12	12	1,714	21	21
Driver	Per Month	84	84	461	39	39
Subtotal					561	561
B. Operations and Maintenance						
Office rent (NPMCU)	Per Month	12	12	5,000	60	60
General operating expenses for PMCU	Per Month	12	12	2,500	30	30
General operating expenses for the participating districts	Per Month	144	144	1,000	144	144
Subtotal					234	234
C. Vehicle O & M						
Vehicle O & M	Vehicle	8	8	5,000	40	40
Vehicle insurance	Vehicle	8	8	2,000	16	16
Subtotal					56	56
D. DSA/Field Per Diem						
Field per diem /m	Person/Year	12	12	5,000	60	60
Allowances for frontline extension for data collection /n	DSA	144	144	300	43	43
Subtotal					103	103
Total Recurrent Costs					954	954
Total					2,758	2,758

\a Double Cabin trucks for the PMCU
\b Station Wagon for the Project Director
\c 1 Laptop for each of the PMCU officer and 1 for each of the District Coordinators. Laptop with software and antivirus.
\d Desktop with softwares and antivirus. 1 Desktop is for the PMCU and the other 60 are for the 12 participating district; 5 desktops per district
\e 12 of the printers are for the 12 districts (1 for each district) and the other one if the NPMCU
\f 12 of the safe boxes are for the 12 districts (1 for each district) and the other one if the NPMCU
\g 5 of the Projectors are for the five provinces (1 for each province)
\h It includes: Server, softwares, uninterruptible power supply unit. 1 server for the NPMCU, 1 server for MoLA and the rest are for the participating districts (1 each per
\i 5 of the packages are for the five provinces (1 for each province)
\j 1 set for each Officer of the NPMCU. Set consists of a desk, chair, lamp and a file cabinet. Assumes that the district Management and Coordination Units would be pro
\k Set consists of a big table (sitting 12 people) and 20 chairs.
\l Assumes an average of USD 5,000 per staff (technical staff and drivers) per year
\m Assumes an average of USD 5,000 per staff (technical staff and drivers) per year
\n 12 months *12 districts *$1152/month/district

VI. IMPLEMENTATION ARRANGEMENT

6.1 Overall coordination and Link to the Review and Approval Process

53. Project Year 2026/27, being BoLCoP's inaugural implementation period, many of the Project's activities during the first few months will mainly be preparatory in nature. The PMCU will work to put processes, procedures and structures in place for effective BoLCoP's implementation. It is expected that after the inaugural implementation period, the rate of activity implementation will pick up fast.

54. As the PMCU and the participating districts coordinate the different BoLCoP activities, due regard will be given to the time needed for the different institutions (IFAD and GoB, and other co-financiers) to review and approve the different aspects of Project implementation. This will be important to avoid implementation delays. This will be particularly important for the procurement function. The PMCU and the participating will have to ensure that proper procedures with regard to prior review are adhered to. The time needed to accommodate the review and approval of the different procurements is incorporated in the Procurement Plan. The Project Implementation Manual (PIM) also provides guidance on all aspects of Project implementation. The BoLCoP district teams will have to coordinate with the respective district administrations during the process of activity implementation; this should include planning, implementation, management, reporting, monitoring and evaluation.

55. In order to implement Project activities effectively, areas which lack capacity will be addressed by providing the relevant capacity that is specific to the identified capacity gaps. Capacity building is the responsibility of one of BoLCoP's subcomponents. Accordingly, capacity building interventions have been allowed for in the AWPB.

6.2 Progress Reporting

56. The PMCU and the BoLCoP district teams will aim at providing informative progress reports; this is a formal requirement stipulated in the Financing Agreement. The six-monthly and annual reports will be prepared and submitted to IFAD, the GoB and all collaborating institutions. The PMCU will produce a consolidated report for all Project activities. The consolidated implementation progress report will be submitted to the oversight body (PSC/PTC) for review, comment and endorsement. The PMCU would address any comments emanating from the oversight body before submitting the reports to IFAD. Efforts will be made to ensure a timely submission of the reports to IFAD. The progress reports will provide:

a) a review of implementation progress compared to planned activities, and expenditures compared to budgets;
b) details of problems encountered during the reporting period and any remedial actions taken to resolve the problems;
c) an analysis of strength and weaknesses, opportunities and threats;
d) a discussion of quantitative and qualitative progress made in achieving the overall objectives; and,
e) the strategic direction for the next planning cycle.

57. In the process of producing progress reports, the PMCU and the participating district teams will reflect on outputs, evaluate performance, and identify weaknesses that can be

improved and successes that can be up-scaled. It is hoped that this process would lead to better plans and implementation in the future.

6.3 Monitoring and Evaluation & Knowledge Management

58. Performance monitoring will be the primary responsibility of the Monitoring & Evaluation/Knowledge Management team at the PMCU and the participating district. The team will ensure that there are enough resources for all entities involved in implementing Project activities. These will be assigned specific M&E duties, to enable them to play an active part in the participatory M&E process. Resources will be provided for the operational costs related to M&E activities. The essence of the M&E system is the ability to supply regular data, to monitor progress towards the achievement of set objectives and to detect emergence of unexpected developments and to draw those developments to the attention of management.

59. In situations where Project activities are to be implemented by qualified Service Providers, monitoring responsibilities may be formally agreed between the Service Providers as part of the agreements to be signed by the parties. Each of those Service Providers/Participating Institutions will be responsible for monitoring the activities they implement. Heads of the various institutions will take the lead role and responsibility for monitoring, especially in setting implementation milestones, collection of the necessary data, and reporting to the PMCU. They will also take the lead role in interpreting outcomes of performance and impact M&E in terms of policy adaptations and requirements. To that end, the PMCU will provide a clear common framework for planning and progress reporting, and to ensure that all parties have a clear understanding of the tools, formats, definition and applicability of indicators, and the means to conduct quality assurance. The PMCU will be responsible for receiving and collating M&E data from the different institutions and producing consolidated progress reports. Results of M&E will be shared with other implementing partners during the M&E and national planning and review workshops. The focus will be to ensure a continuous process of feedback to stakeholders and management to enhance timely responses.

60. During the course of 2026-27 Project year, a baseline survey will be conducted to provide information about verifiable indicators as a benchmark for assessing impact of BoLCoP interventions in line with the Project's goal, objectives and activities as contained in the Logical Framework. Such benchmarks will be developed as a reference point when organising repeat surveys and or when conducting Project Mid-term Review and end-of-Project evaluation.

61. It is planned that supervision/monitoring exercises will be jointly undertaken by IFAD and the GoB at least once every year.

62. With regard to Knowledge Management (KM), the focus of this first year AWPB will be on the preparation of BoLCoP's KM strategy and tools whose objectives would be to: a) identify knowledge gaps and prioritization of knowledge products to be developed; b) systematically document methods to ease the up-scaling of best practices in Botswana or repackaging of innovative approaches developed elsewhere; c) disseminate knowledge using various communication tools. The dissemination will serve as an avenue for sharing relevant information among implementing partners and other stakeholders.

6.4 Procurement, Disbursements, Accounts and Finance Management

63. Financial management will involve budgeting, receipt of funds, procurement, making of payments, justification, generating withdrawal applications and reporting on all Project activities implemented. The PMCU will establish a sound financial management system for the Project, consistent with the requirements of IFAD Guidelines on Financial Management

covering the financial management cycle from Project start-up to financing closing, including budgeting, accounting and financial reporting; establishing internal controls with internal audit arrangements; funds flow management including disbursements; and statutory audit throughout the Project cycle.

64. The authority to incur expenditure is the approval of the AWPB with expenditure incurred outside the approved AWPB declared ineligible for financing from the Project funds.

65. Regarding procurement, each contract to be financed by proceeds of IFAD's investment will be included in the Project Procurement Plan (PP) prepared by the PMCU[26], certified by the PSC and receiving No Objection from IFAD. The PMCU procurement unit will be in charge of, inter alia, procurement planning, handling of the bidding process, conducting bid openings and evaluations of bids, and contract monitoring. A Procurement Committee will be established at the PMCU and would be expected to review and certify the following documents or actions: procurement plan, draft advertisements and bidding documents, evaluation reports and contract award recommendations, rejection of bids, contracts or contract amendments above pre-defined thresholds.

66. It should be noted that this being the inaugural year of BoLCoP implementation, the Procurement Plan was prepared by the design team. In the subsequent years, the Procurement Plan will be prepared from a consolidated list of goods and services for the different cost centres.

VII. EXPECTED BENEFITS AND BENEFICIARIES

67. The planned period (2026-27) being the inaugural year of an 8-year implementation period, the focus is expected to be on putting in place processes and procedures to help guide BoLCoP implementation for the rest of the Project period. Therefore, it is assumed that the number of beneficiaries to be reached will be less than in subsequent years. This is consistent with BoLCoP's projected disbursement by semester which is expected to be low at the beginning of the Project and will increase in subsequent years.

68. With regard to benefits, BoLCoP will promote interventions that seek to improve productivity, performance and profitability of the small livestock sector. However, there will also be non-quantifiable benefits to accrue to different institutions and/or individuals and these will likely be immediate. For example, the introduction of inclusive and sustainable infrastructure, such as solar-powered boreholes and predator-proof kraals will contribute to climate adaptation and mitigation. Also, as a result of the BoLCoP planned interventions, there will be more capacity to coordinate and oversee effective Project implementation. In addition, the planned support for enterprise development will lead to employment creation and an overall contribution to the stability/livelihood improvement of the target communities.

VIII. CONSTRAINTS, RISKS AND MITIGANTS

69. Presented in the below table are the possible constraints and risks that may hamper the implementation of the BoLCoP 2026/27 AWPB. The table also provides the suggested mitigation measures.

Table 6: Possible Constraints and Risks and Suggested Mitigation Measures

[26]For the first AWPB, the BoLCoP design process prepared the draft Procurement Plan. The PMCU would need to review and finalise the draft AWPB and the associated Procurement Plan.

Risk	Risk Mitigation Measures
1. Delay in procurement resulting in delay in implementation.	• Ensure the application/use of efficient procurement planning.
2. Delay in disbursement of funds resulting in delay in implementation.	• Follow proper financial management procedures and ensure submission of all supporting documentation when asking for replenishments.
3. Delayed receipt of No Objection from IFAD resulting in delay in implementation.	• Ensure proper planning that gives adequate time for receipt of requisite approvals.

IFAD
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Botswana Livestock Commercialization Project

Project Design Report

Annex 7: Financial Management Assessment

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
Report No.	7326-BW

East and Southern Africa Division
Programme Management Department

Template for FM arrangements in the Project Design Report (PDR) (Annex 7)

10 November 2015

I. Summary of Financial Management arrangements

The FM capacity and risk assessment has been completed according to the PFM guidelines. The mission visited 8 of the 12 target districts to FM capacity at the local level and interact with farmers on the proposed components. The mission also meets with key staff from the Ministry of Finance and Economic Development and the Ministry of Lands and Agriculture.

The Ministry of Land and Agriculture (MoLA), as Lead Project Agency, will oversee the financial management of the project through a dedicated Project Management and Coordination Unit (PMCU). Leveraging experience from past IFAD and ongoing EU-funded projects, MoLA will manage budgeting, disbursement, monitoring, and financial reporting. The World Bank also uses the country systems on staffing, budgeting, flow of funds, financial reporting and external audits. These pillars are said to be strong, although there were some weaknesses that has been noted with planned mitigation is the detail FM risks assessments document.

Project funds will be released against approved Annual Work Plans and Budgets (AWPB), prepared in line with IFAD and Government of Botswana regulations, and endorsed by the Project Steering Committee prior to IFAD's no-objection. Participating districts will follow standardized financial management procedures outlined in Implementation Manual (PIM), which requires IFAD's no-objection as a disbursement condition. Disbursement modalities include advance withdrawals to designated USD accounts and, exceptionally, direct payments with prior IFAD Finance Officer approval. Each financier will operate a separate designated account to avoid commingling, while government contributions will be disbursed through a bank account under the TSA from MoLA. In-kind contributions will be tracked by the PMCU, and the AWPB will delineate financing sources by activity.

Qualified, full-time finance staff who would be either seconded or competitively recruited will manage the accounting functions using the GABS/IFMIS system. Regular analytical financial reports and quarterly Interim Financial Reports (IFRs) will support both disbursement and monitoring. Field-level financial oversight will be reinforced through district visits and capacity-building support.

Internal audit will be conducted by a dedicated internal auditor staff, in collaboration with MoLA's internal audit manager. External audit will be conducted by the Supreme Audit Institution of Botswana, guided by IFAD's audit standards, ensuring adequate coverage of funds and risk areas. Audit reports will be submitted within IFAD's required timeliness of 6 months after the end of fiscal year. To safeguard fiduciary integrity, IFAD's Anti-Corruption Guidelines will be enforced, with mechanisms in place to prevent fraud, mis-procurement, and abuse of authority. These include annual audits, strong FM procedures, regular IFRs, internal audits, grievance redress mechanisms, and IFAD's independent reviews. The overall FM risk is rated moderate, with mitigation measures embedded in implementation. Risk ratings will be revisited during supervision based on ongoing assessments.

The mission did not note any exceptions to the general conditions that should be brought to the attention of senior management of PFM.

II. Project financial profile

The goal is to 'contribute to the Government of Botswana's objective of inclusively and sustainably improving productivity and commercialization of the small livestock subsector'. The Project Development Objective (PDO) is to "enhance the incomes and resilience of rural households through more inclusive, sustainable and technology-driven small livestock value chains". BoLCoP will be implemented for a total of eight years. The project outcomes are: (i) Increased Climate-Resilient Small Livestock Production and Productivity; (ii) Strengthened

Small Livestock Value Chains and (iii)Enhanced Enabling Environment for Improved Small Livestock Development.

The overall cost of the Project of USD 87.08 million is expected to be disbursed over eight years. Of this total financing, IFAD's contribution amounts to USD 31.5 million from Botswana's IFAD13 BRAM allocation and a financing GAP of USD 23.4 million, representing 63.2% of the total financing. The Project will leverage financing from Green Environment Facility (GEF) estimated at USD 5.0 million (5.7%) and Adaptation Fund, estimated at USD 20 million (23 per cent of the total allocation). The Government of Botswana's contribution is expected to be USD 5.08 million. Which is 6% of total project costs in the form of in-kind and/or cash contributions. The SSTC grant will contribute with USD 0.5 million, representing 0.57 per cent of the total allocation. Beneficiaries will contribute to the project in cash or in kind, amounting to at least USD 1.5 million, which represents 1.7% of the total project cost. The expenditures are earmarked for co-financing to avoid challenges due to timing of release of funds by co-financiers.

The project disbursements categories comprise of: - i) Civil Works, ii) Equipment and Materials, iii) Goods, Services and Inputs, iv) Technical Assistance, v) Training, vi) Line of Credit, vii) Salaries and Allowances, viii) Operations and Maintenance. The GEF and Adaptation Fund would include grants and subsidies as part of investment costs. The overall programme recurrent costs are 11% for the total programme while under IFAD financing it results to 15% which is within acceptable limits. Trainings and Lines of Credits are considered high risks expenditure categories which will be monitored closely to ensure it is adequately supported and incurred as per procedures. Retroactive financing is not planned for this project.

III. Implementation Arrangements

The Ministry of Finance and Economic Development (MFED) will represent the Government of Botswana as the borrower of IFAD funds. The MoLA will serve as the lead implementing agency, providing policy oversight and strategic direction. Day-to-day implementation will be carried out by a dedicated and independent PMCU within MoLA.

The PMCU will be responsible for the programme's overall financial management, including the release of funds based on approved AWPBs, payment processing, and financial reporting. MoLA technical departments will support the PMCU by providing subject matter expertise. The project will be implemented across 12 districts nationwide. Because the project would use the computerised GABS accounting systems, all internal controls already built into the GABS would be enforced and monitored from the PMCU.

MoLA brings prior experience from IFAD and World Bank projects and has maintained clean audit opinions over the last three years, despite recurring delays in financial and audit report submissions. While prior financial management performance has been strong, improvement in reporting timeliness will be necessary.

The project will utilize the national GABS/IFMIS for budgeting and financial reporting. Internal audits will be conducted by MoLA's internal audit team, while the Office of the Auditor General (OAG) will oversee external audits. Where capacity gaps exist, the OAG may outsource audit execution to private firms, but will retain accountability by formally signing all audit reports. Appointment of key finance staff is a prerequisite to meeting disbursement conditions.

IV. Financial Management Risk Assessment

Table 2. Summary of FM Risks and mitigating actions:

Risk Category	Initial FM Risk Rating (H/M/L)	Proposed Risk Mitigating Measures	Residual Risk Rating (H/M/L)
A. Inherent Risks			
Country Level • In 2024, Botswana scored 57 on the TI Corruption Perceptions Index, maintaining its position from 2023. • Ranked 43rd out of 180 countries, well above the global average score of 43/100. • A score above 50 indicates relatively strong control over public sector corruption. • The 2024 Mo Ibrahim Governance Index ranks Botswana 5th out of 54 African countries, highlighting its leadership in governance. • Demonstrated consistent progress over the last decade, especially in Accountability, Transparency, and Anti-corruption. • The 2020 PEFA assessment (following 2013) shows steady improvements in Botswana's PFM system. • The GABS/IFMIS platform enables reliable and credible national budgeting and comprehensive, transparent budget documentation and improved budget execution (alignment between planned and actual expenditures) • Improvements noted in comprehensiveness of fiscal reporting, oversight of fiscal risks from public entities and predictability of fund releases for budget execution. • Areas for further improvement include audit coverage and timeliness of external audit reporting.	M		
Entity and project design **Strengths** • MoLA is the designated Lead Project Agency with prior	**M**		

experience managing IFAD and other donor-funded projects. • Operates under a comprehensive financial management manual, aligned with IFAD's procedures, ensuring a sound internal control framework. • Organizational structure is adequate, with staff either seconded or competitively recruited. • Strong national pool of finance professionals in Botswana. • Counterpart funding performance is strong, with ~95% disbursed in ongoing projects. **Risks** • Capacity gaps among finance staff at the district level. • High competition for skilled financial professionals from neighboring South Africa. • Potential fiscal pressure from declining diamond revenues, possibly affecting government commitments. • Delays in submission of audit reports and late financial reporting in past projects.			
B. Project Control Risks			
1.**Organization & Staffing** • MoLA has a solid track record with IFAD and World Bank projects and established institutional structures. • Qualified finance staff at national level (CIMA, ACCA, University of Botswana graduates). • Capacity constraints persist at district level, with many staff lacking professional qualifications. • High staff turnover and inter-ministerial transfers risk disrupting financial continuity, especially in districts. • Recruitment challenges for remote areas; difficulty aligning staff capacity with IFAD standards.	**M**	• MoLA to provide active project oversight and strategic direction. • Develop a tailored training plan on IFAD-specific disbursement, financial reporting, and anti-corruption procedures. • Implement continuous fraud awareness training for all project staff, including new recruits. • Use staff retention agreements, enforce formal handover protocols, and build capacity at both PMCU and district levels. • Early recruitment of qualified finance staff	**M**

• Fraud awareness training is not consistently applied across government projects. • Decentralized project structure increases the risk of weak financial oversight at local levels.		before project start-up, prioritizing knowledge of IPSAS/IFRS and proficiency in GABS accounting systems. • Maintain a clear staffing structure with dedicated finance staff at national and district levels.	
2.**Budgeting** • Budgeting framework is generally strong and recorded in GABS/IFMIS, with structured, multi-tiered consolidation and Parliamentary approval. • Integration challenges for donor-funded projects into the national budget cycle, including the livestock project. • Risk of disbursement delays if Annual Work Plans and Budgets (AWPBs) are not submitted on time for inclusion in national budget votes. • Internal controls are sound, overseen by MFED and the Accountant General, but delays and coordination gaps can hinder activity execution. • Low budget execution rates observed in past projects due to implementation bottlenecks. • Complex, multi-level budgeting process requires strong coordination across national and district levels.	**M**	• Oversight provided by MoLA Permanent Secretary to ensure strategic alignment. • PMCU to prepare and submit detailed AWPBs aligned with the national budget cycle for timely parliamentary inclusion. • Adhere to Government-issued budget circulars to enable proper integration of project funds into national votes. • Develop a dedicated AWPB preparation calendar to track deadlines and enhance stakeholder coordination. • Convene quarterly budget review meetings to monitor execution, resolve implementation delays, and propose budget revisions to IFAD. • Maintain a bottom-up budgeting approach, engaging District offices, Department heads, PMCU component leads and Project Steering Committee.	**M**
3. **Funds Flow & Disbursements** • Delays in submitting Withdrawal Applications (WAs), Interim Financial Reports (IFRs), and audit reports.	**M**	• Maintain a dedicated DA within the TSA, with sub-accounts and unique IFMIS codes for	**M**

• Liquidity and compliance risks due to delayed disbursements. • Risk of weak documentation and reporting of in-kind contributions, despite available guidelines. • Co-financing risks related to the late availability of government and beneficiary contributions.		better tracking and audit trails. • Conduct targeted FM training, process mapping, and enhanced oversight during project start-up to address capacity gaps. • Ensure MFED engagement in fund flow design and monitoring to support compliance and disbursement timelines. • To mitigate exchange rate risk, funds will remain in foreign currency DA and be converted into Pula monthly, based on need. • Annual audits will review and validate fund flow arrangements. • PMCU, MoLA, and MoFED will coordinate early identification and budgeting of counterpart and beneficiary contributions in the AWPB. • Establish a dedicated committee (component heads and finance staff) to oversee documentation and reporting of in-kind contributions.	
4**. Internal Control** • Limited capacity at district level to enforce controls and segregate financial duties due to staffing gaps. • Weak linkage between internal and external audit follow-up, leading to recurring control lapses. • Delays in transaction approvals due to unclear delegation and absent signatories.	**M**	• Train district finance officers on controls, compliance, and documentation standards. • Update the Project Implementation Manual (PIM) to aligned with national and donor standards.	**M**

• Inadequate anti-fraud controls, with prior audits highlighting some instances of inaccurate staff DSA claims. • Delayed implementation of audit recommendations, especially in procurement, asset, and contract oversight.		• Require annual Conflict of Interest Declarations from key stakeholders. • Conduct fraud awareness training regularly for all staff, including districts. • Ensure internal audits include reconciliation and signatory compliance reviews. • Introduce digital logs and checklists for fuel, asset issuance, and inventory tracking. • Assign a dedicated internal auditor to the PMU, reporting to both MoLA's Chief Internal Auditor and the Project Coordinator. • Digitize audit recommendation tracking and integrate findings into quarterly performance reviews.	
5. **Accounting Systems, Policies & Procedures** • MoLA follows cash basis accounting, aligned with national practices; full IPSAS accrual adoption is pending. • GABS/IFMIS is used for transaction recording but cannot produce project-specific financial statements. • Inconsistent documentation at the district level, including incomplete documentation and delayed filing.	**M**	• Continue using IPSAS cash-basis standards for all project financial reporting. • Utilize IFMIS/GABS for processing, with a custom chart of accounts reflecting IFAD categories/components.	**M**
6.**Reporting & Monitoring** • Manual preparation and reconciliation of annual financial statements and IFRs is required. • Delays in collecting financial data from districts impact timely reporting. • Weak integration between financial reporting and project results frameworks.	**M**	• Deliver hands-on training to finance staff on GABS operations and IFAD-specific reporting requirements. • Digitize accounting records to enhance security and accessibility. • Establish and enforce standardized filing protocols at PMCU and district levels.	**M**

• Limited use of financial data for decision-making and management oversight.		• Include detailed financial procedures and record retention policies in the Project Implementation Manual (PIM). • Improve integration of financial reporting with procurement and M&E units.	
7.**Internal Audit** • Potential weak accountability and oversight at the district level without dedicated internal audit coverage. • Inconsistent internal control implementation across entities receiving project funds. • Limited field-level monitoring may affect timely identification of control lapses.	**M**	• MoLA's qualified auditors will conduct internal audits covering both PMCU and districts. • Internal audits will evaluate the effectiveness of internal controls across all fund-receiving entities. • A dedicated annual budget line will be allocated for bi-annual internal audits, focusing on field-level implementation. • Emphasis on accountability and audit coverage in participating districts to strengthen financial oversight.	**M**
8**. Auditing** • The Office of the Auditor General (OAG) has a strong legal mandate and experience auditing IFAD and World Bank projects. Risks include: • In sufficient audit coverage at the district level • Significant delays in issuing annual audit reports (e.g., FY 2022/23 and 2023/24 reports delayed by over 20 months) • Slow follow-up on audit recommendations and PAC resolutions. • OAG applies ISSAIs and is a member of INTOSAI and AFOSAI, but OAG-Botswana's operational autonomy is limited due to	**M**	• Include OAG in the Financing Agreement as the official auditor, with flexibility to subcontract private firms (e.g., Big 4 Audit firms) if needed. • Initiate early engagement between PMCU and OAG to plan and schedule audits in advance. • Monitor implementation of audit recommendations and PAC resolutions on a quarterly basis • Improve district-level audit coverage and adopt risk-based audit	**M**

Ministry of Finance control over staffing and budgeting. • PEFA 2020 score was low (D) for audit coverage (<50% of public expenditure audited annually).		planning that includes field activities. • Request latest assessment reports on OAG's independence and performance for continuous oversight. • Collaborate with IFAD and World Bank fiduciary teams to monitor audit processes and timelines. • Provide logistical and capacity-building support to the OAG to ensure audit completion within six months after fiscal year-end.	
Project Fiduciary Risk @ Design			
• OVERALL FM RISK • Capacity gaps and high staff turnover at the district level. • Delays in budget approvals, risking alignment with national budget systems. • Disbursement bottlenecks if AWPBs are not timely or properly integrated. • Weak internal controls at district level, especially in segregation of duties, inventory management and documentation practices. • IFMIS/GABS is reliable, but manual adjustments are needed for project-level reporting • Audit delays and limited coverage by the Office of the Auditor General (OAG)	**M**	• Recruit qualified FM personnel at both PMCU and district levels, supported by tailored training and staff retention strategies. • Align budgeting with national systems via timely AWPB submission and adherence to budget circulars. • Establish a dedicated Designated Account in the TSA, with clear reporting codes and defined chart of accounts. • Strengthen internal controls through Updated PIM, and assign a dedicated internal auditor. • Improve financial reporting by training staff on GABS/IFMIS and IFAD reporting, digitizing records and ensuring consistent document retention. • Ensure timely external audits by early	**M**

		engagement with OAG and allowing outsourcing to private audit firms if needed	

V. Financial Management and Disbursement Arrangements

1) Financial management organization and staffing

The financial management structure for BOLCOP will be led by a Financial Management Specialist, supported by an Assistant Accountant at the Project Management and Coordination Unit (PMCU). At the district level, existing MoLA finance and administration staff will be responsible for recording transactions in the GABS/IFMIS system in line with the approved Annual Work Plan and Budget (AWPB).

The Financial Management Specialist must be appointed at project inception and will oversee all financial operations. This role requires a master's degree in finance or accounting or full CPA/ACCA membership. Assistant Accountant roles require a minimum of a bachelor's degree in accounting or finance. All other finance positions are to be filled within the first three months of implementation.

Staffing may be through full-time secondment from the Public Service Commission (initially for three years, renewable) or through competitive fixed-term contracts managed by MoLA (two years, renewable based on performance). Detailed job descriptions are provided in the Terms of Reference annexed to the Project Design Report (PDR). Capacity-building training will be conducted at project start-up to ensure staff are fully oriented on IFAD financial management requirements.

2) Budgeting

Project budgeting will follow the national public finance process, beginning with MoLA preparing the budget for submission to the Ministry of Finance and Economic Development (MFED). Upon MFED's endorsement, the budget is escalated to Cabinet, and subsequently to Parliament for final approval. Botswana operates on a three-year budget cycle, guided by annual budget circulars issued 6–8 months before the fiscal year.

The project budget will be fully integrated into the GABS/IFMIS system, ensuring consistency with both government and IFAD reporting requirements. The PMCU will prepare the Annual Work Plan and Budget (AWPB) in accordance with IFAD guidelines and national financial regulations, using the approved chart of accounts. The AWPB will provide detailed breakdowns by activity, component, financier, and funding proportions. It must be submitted to IFAD at least 60 days before the start of the fiscal year, endorsed by the Project Steering Committee, and receive IFAD's no-objection prior to implementation.

3) Disbursement Arrangements and Flow of Funds

The project will utilize two disbursement modalities: Advance Withdrawal and, on an exceptional basis with prior approval, Direct Payments (DPs). IFAD funds will be disbursed into designated USD accounts, with quarterly replenishments based on cash forecasts

submitted via Interim Financial Reports (IFRs), in alignment with the approved Annual Work Plan and Budget (AWPB). To prevent commingling, separate designated accounts will be opened for each co-financier, supported by corresponding local currency accounts at the PMCU level. Government contributions will be managed through a separate Pula account, while in-kind contributions from both the government and beneficiaries will be monitored and recorded by the PMCU. Financing proportions for each activity will be detailed in the AWPB to guide proper allocation.

Each participating district or implementing agency will maintain a dedicated sub-project bank account in the GABS/IFMIS in local currency to receive funds from the PMCU. All accounts will be held either at the Bank of Botswana or at commercial banks acceptable to IFAD. The fund flow arrangement will be integrated within Botswana's Single Treasury Account (TSA) framework and supported by the GABS/IFMIS system. A dedicated Designated Account will be established within the TSA and managed by the PMCU under MoLA. While this structure aligns with IFAD's requirements and supports financial autonomy, there are operational risks such funds must be allocated to districts to be available for use. Funds will disbursed when key personnel are recruited and the chart of accounts in GABS/IFMIS is updated with the project accounts codes.

4) **Internal Controls**

The project will rely on the existing financial management policy manual of the Ministry of Finance and Economic Development (MFED) and the Ministry of Land and Agriculture (MoLA), which provides clear definitions on conflict of interest and corruption. While project staff are required to sign a conflict-of-interest declaration upon recruitment, the practice does not yet require annual renewals, which is a deviation from international best practice.

Internal controls over transaction authorization are considered adequate based on the MFED accounting manual. There are detail controls over disbursement of various categories of expenditures. There are clear guidelines on the expected documentation required for each category of expenditures. For example, all payments and withdrawals require at least two signatories, ensuring proper segregation of duties between accounting, payment processing, and procurement. Authorized signatories for project bank accounts include two senior officials (Permanent Secretary and Director of Finance at MoLA) and two PMU-level officials (Project Coordinator and Finance/Accounts Manager). One signatory from each level (A and B) is required for all financial transactions, in compliance with national and donor regulations. Signatory mandates are formally registered with the relevant banks, and any changes must be approved by the Ministry of Finance.

5) **Accounting systems, policies and procedures**

MoLA, as the Lead Project Agency (LPA), will implement the project using the Government of Botswana's established financial management framework for donor-funded projects. This include i) adherence to the Public Finance Management Act and Treasury Instructions and segregation of duties, budgetary controls, authorization thresholds, and documentation standards aligned with national policy and international financial management best practices.

The project will apply the International Public Sector Accounting Standards – Cash Basis (IPSAS-Cash). The project would use a GABS/IFMIS computerized accounting system, which has multi-currency capability and is able to produce reports such as Quarterly Interim

Financial Reports (IFRs), Disbursement summaries, Bank reconciliation reports, and Asset and advance registers.

The accounting system is networked and centralized, with in-built controls over User access rights based on roles, System audit trails and time-stamped transactions, Automated validation checks (e.g., duplicate entry prevention, vote code limits), Bank reconciliation modules, and Predefined reporting templates for budget-to-actual comparisons.

The project will maintain a fixed asset register (FAR), integrated with the accounting system, with key controls such as tagging of all assets upon delivery with unique identifiers, periodic physical verification by the internal audit unit or project logistics team, insurance arrangements for high-value assets and proper documentation for asset movement, handover, and disposal.

6) **Financial reporting**

The project will utilize Botswana's Government Accounting and Budgeting System (GABS/IFMIS), which is capable of generating financial reports in line with IFAD requirements with minimal manual adjustments. MoLA and MFED will implement the government's financial management policy manual alongside the IFAD Project Implementation Manual (PIM), ensuring consistency with both national and donor standards.

Quarterly Interim Financial Reports (IFRs) will be generated directly from IFMIS using coded data elements, minimizing the risk of manual errors. IFRs will be prepared on a cash basis, in compliance with IPSAS standards, and submitted to IFAD within 30 days of quarter-end. Dedicated financial staff will be assigned to the PMCU to ensure timely and accurate reporting. Standardized financial reporting templates for all co-financiers will be established at project start-up, and fixed asset records will be maintained and reported quarterly to IFAD and the external auditor. All required templates are included in the PIM.

Although Botswana's financial reporting framework is based on IPSAS Cash Basis, both ROSC and PEFA assessments note that reporting remains heavily dependent on national regulations and lacks full accrual elements such as commitments and liabilities. While GABS (SmartStream) provides partial support for commitment accounting, full alignment with international accrual-based IPSAS is still in progress.

Given IFAD and World Bank fiduciary expectations, the project will apply modified accrual principles where necessary, such as recognition of advances, payables, and receivables. IFRs and annual financial statements will conform to donor requirements, and audits will be conducted in line with International Standards on Auditing (ISAs), ensuring accountability and compliance.

7) **Internal Audit**

Internal audit functions will be carried out by qualified auditors from MoLA, covering both the PMCU and participating districts. District-level entities will also conduct their own internal reviews, guided by MoLA's audit team. Internal audits will assess the effectiveness of internal controls across all entities receiving project funds. To strengthen accountability at the field level, the project will allocate a dedicated annual budget line for bi-annual internal audits, with emphasis on implementation performance in participating districts.

8) **External Audit**

The external audit of the project will be conducted by Botswana's Supreme Audit Institution, the Office of the Auditor General (OAG) which has a long-standing mandate to audit public entities and donor-financed projects, including IFAD and World Bank operations. The OAG applies International Standards of Supreme Audit Institutions (ISSAIs), has qualified staff , and typically delivers quality audit reports. For this project, the OAG will prepare an annual audit work plan to ensure adequate coverage of high-risk expenditure areas and implementing agencies.

However, systemic weaknesses persist. The OAG has faced delays in issuing audit reports, time lag exceeding 20 months for recent fiscal years (2022/23 and 2023/24), and district-level coverage remains limited. The 2020 PEFA assessment rated audit coverage poorly (score D), with less than 50% of public expenditure audited annually. In addition, follow-up on audit recommendations and Public Accounts Committee (PAC) resolutions is slow. While the OAG maintains professional independence in principle, its operational autonomy is constrained by reliance on the Ministry of Finance for staffing and budgeting.

To ensure timely reporting, the project is required to submit unaudited and audited financial statements to IFAD within four and six months, respectively, after the financial year-end. The Project Management Unit must work closely with the OAG to ensure timely preparation and submission of accounts.

VI. Implementation Readiness

Table 3: FM Actions Summary: The actions needed to mitigate FM risks are summarised below:

	Action	Responsible Party / Person	Target Date / Covenants
1	Recruitment of key staff including FM staff. Training of all finance staff at national and district level to be conducted within the start-up phase of the project.	MoLA	Recruitment of staff will be an effectiveness condition.
2	Open designated and operational bank accounts for each project financier to facilitate traceability of funds. DA for each financier to the project and corresponding operational accounts immediately after signing in the GABS systems.	MoLA	Disbursement condition.
3	Organize a capacity building training for all finance staff at all implementing districts to sensitize staff on financial management and reporting requirements.	MoLA	Immediately once financing agreement is signed
4	Include the new project in the annual plan of the internal audit department and ensure internal audit reviews are done at least twice every year.	MoLA	Within the first year of entry into force

5	Engage with the OAG-Botswana to ensure the project is included in their audit plan from the first year of operation.		Within the first year of entry into force

FM Supervision plan

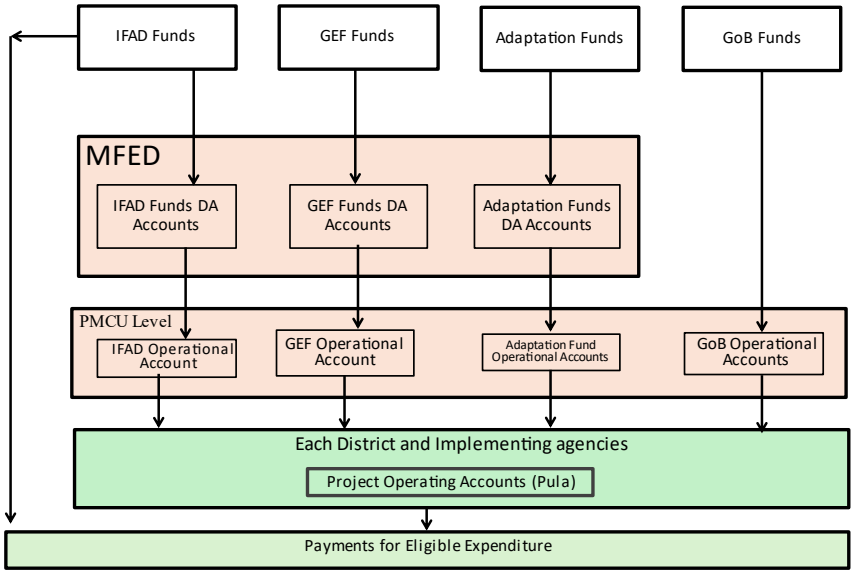
The financial management (FM) supervision plan for the Botswana agricultural project emphasizes four key focus areas.
1. Targeted capacity building will be provided to project finance staff through remote support and supervision missions, covering interim financial reporting, compliance with IFAD standards, and timely submission of withdrawal applications.

2. Financial performance will be closely reviewed at both national and district levels, including visits to implementing agencies to identify FM-related bottlenecks, with particular attention to early recognition and reporting of counterpart contributions.

3. Regular engagement with internal and external auditors will be pursued to strengthen assurance, especially for areas not covered during routine supervision.

4. The use of the GABS/IFMIS accounting system will be monitored throughout implementation, with periodic assessments to ensure reports are reliable and any system limitations are promptly addressed to enhance financial reporting quality. IFAD FM consultants would provide support to set the project chart of accounts to ensure compatibility between GoB and IFAD reporting requirements.

Appendix 1: BOLCOP Project Flow of Funds Chart



Annex 7B: Comments on Flow of Funds Chart – BoLCoP

The flow of funds structure for the Botswana Livestock Commercialisation Project (BoLCoP) ensures transparency, efficiency, and fiduciary accountability across multiple funding sources and implementation levels.

Designated Accounts (DAs) and Currency Structure

- Separate USD Designated Accounts will be opened for each co-financier (IFAD, GEF, Adaptation Fund, etc.).
- Local currency (BWP) accounts will correspond to each DA to facilitate payments.
- Government counterpart funding will be managed via the Treasury Single Account (TSA).

Fund Flow to Implementation Units

- The National PMCU (under MoLA) will manage all DAs and coordinate disbursements.
- Funds will flow to District PMCU units based on approved AWPBs.
- Procurement is decentralized for low-value items and centralized for high-value or complex contracts.

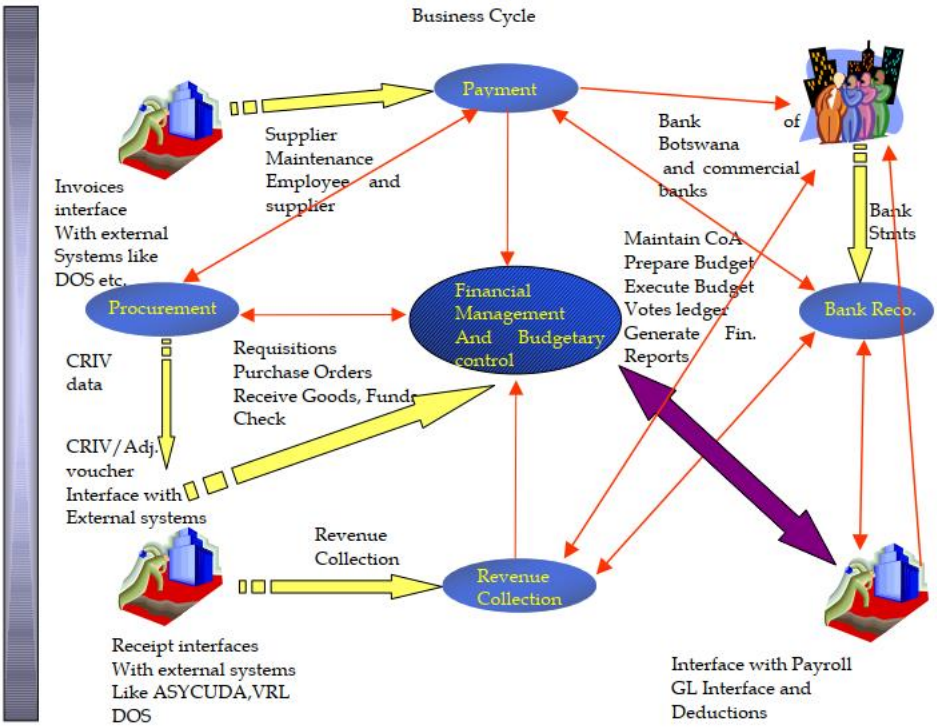
Disbursement Mechanism

- IFAD disbursements will use the IFR-based method via the IFAD Client Portal.
- Quarterly withdrawal applications supported by forecasts and expenditure justifications.
- Direct payments to suppliers may be used for large contracts in foreign currency.

A Financial Management Manual (part of the PIM) will define fund flow protocols, reporting standards, and compliance requirements.

Interrelationship of GABS Modules

The following diagram provides a holistic view of the interrelationships among various modules in GABS.



Appendix 2: FMAQ

FMAQ document is not to be attached, but retained on x-desk cluster corner.

IFAD
Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Annex 8: 18-month Procurement Plan

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
Report No.	7326-BW

East and Southern Africa Division
Programme Management Department

Procurement Plan SUMMARY

Country:	Republic of Botswana
Project Name:	Botswana Livestock Commercialisation Project (BoLCoP)
Project ID:	2000005356
Version	1.0
Version Date	15-Aug-25
Prepared by:	P. Kadonya
Approved by:	P. Kadonya

Procurement Category	**Plan**		**Actual**	
Currency	**USD**	**LCU**	**USD**	**LCU**
Goods	2 384 089.55	-	-	-
Works	864 747.08	-	-	-
Consulting Services	890 183.80	-	-	-
Non-Consulting Services	-	-	-	-
Grants	-	-	-	-
TOTAL	**4 139 020.43**	**-**	**-**	**-**

The threshold tables below are based on the new LTB Template 2020.
Please fill in the fields that are applicable based on the provisions in the LTB for the project.

Prior Review Thresholds					
Category	Goods and goods-related Non-Consulting Services	Works and works-related Non-Consulting Services	Consulting Services and related Non-Consulting Services and/or MoU/Agreements	Individual Consultants	Decisions concerning Abnormally Low Bids shall be subject to the No Objection of IFAD:
Threshold	≥ US$ 70,000.00	≥ US$ 175,000.00	≥ US$ 50,000.00	≥ US$ 30,000.00	Only for procurement activities subject to prior review ***OR*** For all procurement activities

All Direct Contracting and Single-Source Procurements are ***Prior Review*** *(in alignment with IFAD Procurement Handbook), or based on the thresholds stipulated in the PPA*

The exchange rate at time of submission will be used for reviews.

Procurement Method Thresholds						
	CQS	**QBS/LCS/FBS**	**QCBS**	**Shortlisting**	**SSS - Firms**	**SSS - Individuals**
Consulting Services and related Non-Consulting Services	≤ US$ 80,000.00	< US$ 80,000.00	≥ US$ 80,000.00	≥ US$ 80,000.00	≤ US$ 0.00 *(subject to prior review. Justification required if above threshold)*	≤ US$ 0.00 *(or with a contract duration of 3 months or less; subject to prior review)*
	Direct Contracting	**Shopping**	**NCB**	**ICB**	Other Procurement Methods or Arrangements	
Goods and goods-related Non-Consulting Services	>= US$ 0.00 *(subject to prior review. Justification required if above threshold)*	≤ US$ 70,000.00	< US$ 150,000.00	≥ US$ 150,000.00	**Force Account**	*Up to a maximum aggregate amount of:* US$ 0.00 *(subject to prior review)*
Works and works-related Non-Consulting Services	>= US$ 0.00 *(subject to prior review. Justification required if above threshold)*	≤ US$ 175,000.00	< US$ 500,000.00	≥ US$ 500,000.00	**Community Participation**	Allowed ***OR*** Not Allowed

Procurement Plan - Goods

Republic of Botswana

Botswana Livestock Commercialisation Project (BoLCoP)

Project ID: 2000005356

Prepared by: P. Kadonya

Approved by: P. Kadonya

	USD	LCU	
Total Amount	**2 384 089.55**	**0.00**	Plan
	0.00	**0.00**	Actual
Non-Consulting:	*0.00*	*0.00*	*Plan*
	0.00	*0.00*	*Actual*

Procurement Methods
NS: National Shopping
IS: International Shopping
NCB: National Competitive Bidding
ICB: International Competitive Bidding
LIB: Limited (International)

Version 1.0 15-Aug-25

			Basic Data								Pre-Qualification						Bidding Process				Bid Evaluation					Contract Award & Signatu				
AWPB/Component Ref	**№**	**Description**	**Plan vs. Actual**	**Pre-or Post Qualification**	**Prior or Post Review**	**Procurement Method**	**Envelopes**	**Amount (USD)**	**Amount (LCU)**	**Plan vs. Actual**	**Submission of PreQual Docs**	**No Objection Date**	**PreQual Invitation Date**	**PreQual Closing Date**	**Submission of PreQual Report**	**No Objection Date**	**Submission of BD**	**No-objection Date**	**Bid Invitation Date**	**Bid Closing-Opening**	**Submission Tech Eval Rpt**	**No-objection Date**	**Submission Combined Eval Rpt***	**No-objection Date**	**Plan vs. Actual**	**Issue of NOITAB/Standstill**	**Date Contract Award**	**Submission of Draft Contract**	**No-Objection Date**	**Date Contract Signature**
1.1.1	1	Improvement of small livestock genetic resources (genetic improvement programme for indigenous smallstock - NARDI/BLIAN)	Plan	Post-Qual	Prior Review	NS	1	30 000.00		Plan	N/A	N/A	N/A	N/A	N/A	N/A	6-Apr-26	13-Apr-26	14-Apr-26	28-Apr-26	N/A	N/A	5-May-26	12-May-26	Plan	N/A	18-May-26	23-May-26	30-May-26	3-Jun-26
			Actual					-	-	Actual															Actual					
1.1.7	2	Judicious use of pure breeds	Plan	Post-Qual	Post Review	NS	1	50 000.00		Plan	N/A	N/A	N/A	N/A	N/A	N/A	6-Apr-26	N/A	7-Apr-26	21-Apr-26	N/A	N/A	28-Apr-26	N/A	Plan	N/A	4-May-26	9-May-26	N/A	13-May-26
			Actual					-	-	Actual															Actual					
1.1.3	3	Equiping training centres (renovations at training centres -Impala, Lobu and 4xNARDI)	Plan	Post-Qual	Prior Review	NCB	1	293 607.00		Plan	N/A	N/A	N/A	N/A	N/A	N/A	6-Apr-26	13-Apr-26	15-Apr-26	15-May-26	N/A	N/A	29-May-26	5-Jun-26	Plan	8-Jun-26	23-Jun-26	28-Jun-26	5-Jul-26	9-Jul-26
			Actual					-	-	Actual															Actual					
1.1.4	4	Silage making consumables - drums	Plan	Post-Qual	Post Review	NS	1	2 907.00		Plan	N/A	N/A	N/A	N/A	N/A	N/A	6-Apr-26	N/A	7-Apr-26	21-Apr-26	N/A	N/A	28-Apr-26	N/A	Plan	N/A	4-May-26	9-May-26	N/A	13-May-26
			Actual					-	-	Actual															Actual					
1.2.1	5	Acquisition of forage seeds and germplasm suited to dry environs.	Plan	Post-Qual	Post Review	NS	1	30 000.00		Plan	N/A	N/A	N/A	N/A	N/A	N/A	6-Apr-26	N/A	7-Apr-26	21-Apr-26	N/A	N/A	28-Apr-26	N/A	Plan	N/A	4-May-26	9-May-26	N/A	13-May-26
			Actual					-	-	Actual															Actual					
1.2.3	6	Procurement of five (5) Weather stations	Plan	Post-Qual	Post Review	NS	1	30 546.87		Plan	N/A	N/A	N/A	N/A	N/A	N/A	6-Apr-26	N/A	7-Apr-26	21-Apr-26	N/A	N/A	28-Apr-26	N/A	Plan	N/A	4-May-26	9-May-26	N/A	13-May-26
			Actual					-	-	Actual															Actual					
1.2.5	7	Procurement of 10,000 BAITS tags	Plan	Post-Qual	Post Review	NS	1	23 488.56		Plan	N/A	N/A	N/A	N/A	N/A	N/A	6-Apr-26	N/A	7-Apr-26	21-Apr-26	N/A	N/A	28-Apr-26	N/A	Plan	N/A	4-May-26	9-May-26	N/A	13-May-26
			Actual					-	-	Actual															Actual					
1.2.6	8	Procurement of one (1) Mobile kraals/crush pens/scale/automated reader	Plan	Post-Qual	Post Review	NS	1	46 977.12		Plan	N/A	N/A	N/A	N/A	N/A	N/A	6-Apr-26	N/A	7-Apr-26	21-Apr-26	N/A	N/A	28-Apr-26	N/A	Plan	N/A	4-May-26	9-May-26	N/A	13-May-26
			Actual					-	-	Actual															Actual					
3.1.2 3.2.1 3.2.2	9	Procurement of one (1) Station Wagon and nineteen (19) Double Cabin Vehicles for NPMCU and logistical Support to the participating 12 districts	Plan	Post-Qual	Prior Review	ICB	1	1 179 243.00		Plan	N/A	N/A	N/A	N/A	N/A	N/A	8-Jan-26	15-Jan-26	17-Jan-26	3-Mar-26	N/A	N/A	24-Mar-26	31-Mar-26	Plan	3-Apr-26	18-Apr-26	23-Apr-26	30-Apr-26	4-May-26
			Actual					-	-	Actual															Actual					
3.2.3 3.2.4 3.2.5 3.2.7	10	Procurement of Computer equipment (laptops, desktops, printers/ photocopiers and projections) for the NPMCU and participaing districts.	Plan	Post-Qual	Prior Review	NCB	1	225 720.00		Plan	N/A	N/A	N/A	N/A	N/A	N/A	8-Jan-26	15-Jan-26	17-Jan-26	16-Feb-26	N/A	N/A	2-Mar-26	9-Mar-26	Plan	12-Mar-26	27-Mar-26	1-Apr-26	8-Apr-26	12-Apr-26
			Actual					-	-	Actual															Actual					
3.2.6	11	Procurement of Safe boxes (1 safe box for the NPMCU and 12 safe boxes for the 12 districts, 1 for each district)	Plan	Post-Qual	Post Review	NS	1	29 640.00		Plan	N/A	N/A	N/A	N/A	N/A	N/A	8-Jan-26	N/A	9-Jan-26	23-Jan-26	N/A	N/A	30-Jan-26	N/A	Plan	N/A	5-Feb-26	10-Feb-26	N/A	14-Feb-26
			Actual					-	-	Actual															Actual					
3.2.8 3.2.9	12	Procurement of Video Conference Equipments and TV 85" sets for NPMCU and participating districts	Plan	Post-Qual	Post Review	NS	1	74 100.00		Plan	N/A	N/A	N/A	N/A	N/A	N/A	8-Jan-26	N/A	9-Jan-26	23-Jan-26	N/A	N/A	30-Jan-26	N/A	Plan	N/A	5-Feb-26	10-Feb-26	N/A	14-Feb-26
			Actual					-	-	Actual															Actual					
3.2.10	13	Procurement of Servers (hardwares, softwares, uninterruptible power supply unit) for MoLA, NPMCU and participating districts.	Plan	Post-Qual	Prior Review	NS	1	47 880.00		Plan	N/A	N/A	N/A	N/A	N/A	N/A	8-Jan-26	15-Jan-26	16-Jan-26	30-Jan-26	N/A	N/A	6-Feb-26	13-Feb-26	Plan	N/A	19-Feb-26	24-Feb-26	3-Mar-26	7-Mar-26
			Actual					-	-	Actual															Actual					
3.2.11	14	Procurement of Internet Network Equipment for the 5 provinces	Plan	Post-Qual	Prior Review	NS	1	74 100.00		Plan	N/A	N/A	N/A	N/A	N/A	N/A	8-Jan-26	15-Jan-26	16-Jan-26	30-Jan-26	N/A	N/A	6-Feb-26	13-Feb-26	Plan	N/A	19-Feb-26	24-Feb-26	3-Mar-26	7-Mar-26
			Actual					-	-	Actual															Actual					
3.2.12 3.2.13	15	Procurement of Office furniture sets for each of the NPMCU Officer and the NPMCU Conference Room.	Plan	Post-Qual	Post Review	NS	1	25 080.00		Plan	N/A	N/A	N/A	N/A	N/A	N/A	8-Jan-26	N/A	9-Jan-26	23-Jan-26	N/A	N/A	30-Jan-26	N/A	Plan	N/A	5-Feb-26	10-Feb-26	N/A	14-Feb-26
			Actual					-	-	Actual															Actual					
3.2.15 3.2.16	16	Establishment of MIS, tools and Licenses	Plan	Post-Qual	Post Review	NS	1	84 000.00		Plan	N/A	N/A	N/A	N/A	N/A	N/A	6-Apr-26	N/A	7-Apr-26	21-Apr-26	N/A	N/A	28-Apr-26	N/A	Plan	N/A	4-May-26	9-May-26	N/A	13-May-26
			Actual					-	-	Actual															Actual					
3.2.17	17	Procurement of Tablets for data collection	Plan	Post-Qual	Prior Review	NCB	1	136 800.00		Plan	N/A	N/A	N/A	N/A	N/A	N/A	6-Apr-26	13-Apr-26	15-Apr-26	15-May-26	N/A	N/A	29-May-26	5-Jun-26	Plan	8-Jun-26	23-Jun-26	28-Jun-26	5-Jul-26	9-Jul-26
			Actual					-	-	Actual															Actual					

Procurement Plan - WORKS

Republic of Botswana

Botswana Livestock Commercialisation Project (BoLCoP)

Project ID: 2000005356

Prepared by: P. Kadonya

Approved by: P. Kadonya

	USD	LCU	
Total Amount	**864 747.08**	**0.00**	Plan
	0.00	**0.00**	Actual
Non-Consulting:	*0.00*	*0.00*	*Plan*
	0.00	*0.00*	*Actual*

Version	1.0	15-Aug-25	**Basic Data**											
AWPB/ Component Ref	**№**	**Description**	**Non Consulting**	**Funding**	**Lot №/Description**	**Project Area or Procuring Entity**	**Plan vs. Actual**	**Pre-or Post Qualification**	**Prior or Post Review**	**Procurement Method**	**Envelopes**	**Amount (USD)**	**Amount (LCU)**	**Plan vs. Actual**
1.1.5	1	Farm level animal handlig infrastructure (pens, sheds, fowl runs, etc.)		IFAD		Beneficiaries	Plan	Post-Qual	Post Review	**NS**	1	58 140.00		Plan
							Actual					-	-	Actual
2.1.4	2	Cluster infrstructural investments		IFAD		Beneficiaries	Plan	Post-Qual	Post Review	**NS**	1	116 280.00		Plan
							Actual					-	-	Actual
2.2.11	3	Market infrastructure suppport for clusters		IFAD		Beneficiaries	Plan	Post-Qual	Post Review	**NS**	1	140 077.88		Plan
							Actual					-	-	Actual
2.2.12	4	Rehabilitate/build animal markets		IFAD		Beneficiaries	Plan	Post-Qual	Prior Review	**NCB**	1	336 186.90		Plan
							Actual					-	-	Actual
2.2.13	5	Support to public slaughter facilities		IFAD		Beneficiaries	Plan	Post-Qual	Post Review	**NS**	1	112 062.30		Plan
							Actual					-	-	Actual
2.2.15	6	Support to public slaughter facilities		IFAD		Beneficiaries	Plan	Post-Qual	Post Review	**NS**	1	102 000.00		Plan
							Actual					-	-	Actual

Procurement Plan - WORKS

Republic of Botswana

Botswana Livestock Commercialisation Project (BoLC

Project ID: 2000005356

Prepared by: P. Kadonya

Approved by: P. Kadonya

Version	1.0	15-Aug-25	Pre-Qualification						Bidding Process				
AWPB/ Component Ref	№	Description	Submission of PreQual Docs	No Objection Date	PreQual Invitation Date	PreQual Closing Date	Submission of PreQual Report	No Objection Date	Submission of BD	No-objection Date	Bid Invitation Date	Bid Closing-Opening	Submission Tech Eval Rpt
1.1.5	1	Farm level animal handlig infrastructure (pens, sheds, fowl runs, etc.)	N/A	N/A	N/A	N/A	N/A	N/A	4-May-26	N/A	5-May-26	19-May-26	N/A
2.1.4	2	Cluster infrstructural investments	N/A	N/A	N/A	N/A	N/A	N/A	1-Jul-26	N/A	2-Jul-26	16-Jul-26	N/A
2.2.11	3	Market infrastructure suppport for clusters	N/A	N/A	N/A	N/A	N/A	N/A	1-Jul-26	N/A	2-Jul-26	16-Jul-26	N/A
2.2.12	4	Rehabilitate/build animal markets	N/A	N/A	N/A	N/A	N/A	N/A	4-May-26	11-May-26	13-May-26	12-Jun-26	N/A
2.2.13	5	Support to public slaughter facilities	N/A	N/A	N/A	N/A	N/A	N/A	1-Jul-26	N/A	2-Jul-26	16-Jul-26	N/A
2.2.15	6	Support to public slaughter facilities	N/A	N/A	N/A	N/A	N/A	N/A	1-Jul-26	N/A	2-Jul-26	16-Jul-26	N/A

Procurement Plan - WORKS

Republic of Botswana

Botswana Livestock Commercialisation Project (BoLC

Project ID: 2000005356

Prepared by: P. Kadonya

Approved by: P. Kadonya

Procurement Methods
NS: National Shopping
IS: International Shopping
NCB: National Competitive Bidding
ICB: International Competitive Bidding
LIB: Limited (International)

Version	1.0	15-Aug-25	Bid Evaluation				Contract Awa				
AWPB/ Component Ref	№	Description	No-objection Date	Submission Combined Eval Rpt*	No-objection Date	Plan vs. Actual	Issue of NOITA&Standstill	Date Contract Award	Submission of Draft Contract	No-objection Date	Date Contract Signature
1.1.5	1	Farm level animal handlig infrastructure (pens, sheds, fowl runs, etc.)	N/A	26-May-26	N/A	Plan	N/A	1-Jun-26	6-Jun-26	N/A	10-Jun-26
						Actual					
2.1.4	2	Cluster infrstructural investments	N/A	23-Jul-26	N/A	Plan	N/A	29-Jul-26	3-Aug-26	N/A	7-Aug-26
						Actual					
2.2.11	3	Market infrastructure suppport for clusters	N/A	23-Jul-26	N/A	Plan	N/A	29-Jul-26	3-Aug-26	N/A	7-Aug-26
						Actual					
2.2.12	4	Rehabilitate/build animal markets	N/A	26-Jun-26	3-Jul-26	Plan	6-Jul-26	21-Jul-26	26-Jul-26	2-Aug-26	6-Aug-26
						Actual					
2.2.13	5	Support to public slaughter facilities	N/A	23-Jul-26	N/A	Plan	N/A	29-Jul-26	3-Aug-26	N/A	7-Aug-26
						Actual					
2.2.15	6	Support to public slaughter facilities	N/A	23-Jul-26	N/A	Plan	N/A	29-Jul-26	3-Aug-26	N/A	7-Aug-26
						Actual					

Procurement Plan - Consulting

Republic of Botswana

Botswana Livestock Commercialisation Project (BoLCoP)

Project ID: 2000005356

Prepared by: P. Kadonya

Approved by: P. Kadonya

	USD	LCU	
Total Amount	**890 183.80**	**0.00**	Plan
	0.00	**0.00**	Actual
Non-Consulting:	*0.00*	*0.00*	*Plan*
	0.00	*0.00*	*Actual*
Grants:	*0.00*	*0.00*	*Plan*
	0.00	*0.00*	*Actual*

Version 1.0 15-Aug-25

			Basic Data											EOI Shortlist Procedure						Proposal Process				Evaluation					
AWPB/Component Ref	Nr	Description*	Grant	Non Consulting	Funding	Project Area or Procuring Entity	Plan vs. Actual	Shortlist (Yes|No)	Prior or Post Review	Procurement Method	Amount (USD)	Amount (LCU)	Plan vs. Actual	Submission of REOI	No Objection Date	REOI Launch Date	EOI Submission Deadline	Submission of Shortlist Report	No Objection Date	Submission of RFP/RCQ	No-objection Date	RFP/RCQ Launch Date	Proposal submission deadline	Submission of TER	No-objection Date	Submission of CER	No-objection Date	Plan vs. Actual	Issue of NOITA&Standstill
1.1.3	1	Consultancy services forTraining of trainers (ToT) for Comprehensive capacity-building package to small livestock producers.			IFAD	PMU	Plan	Yes	Post Review	CQS	48 964.80		Plan	6-Apr-26	N/A	8-Apr-26	29-Apr-26	13-May-26	N/A	17-May-26	N/A	19-May-26	9-Jun-26	N/A	N/A	23-Jun-26	N/A	Plan	N/A
							Actual				-	-	Actual															Actual	
1.2.4	2	Consultancy services for Digital BAITS system			IFAD	PMU	Plan	Yes	Post Review	ICS	15 105.00		Plan	6-Apr-26	N/A	8-Apr-26	29-Apr-26	13-May-26	N/A	17-May-26	N/A	19-May-26	9-Jun-26	N/A	N/A	23-Jun-26	N/A	Plan	N/A
							Actual				-	-	Actual															Actual	
2.1.1	3	Consultancy services to support for member mobilisation			IFAD	PMU	Plan	Yes	Prior Review	CQS	50 000.00		Plan	12-Jan-26	19-Jan-26	21-Jan-26	11-Feb-26	25-Feb-26	4-Mar-26	8-Mar-26	15-Mar-26	17-Mar-26	7-Apr-26	N/A	N/A	21-Apr-26	28-Apr-26	Plan	N/A
							Actual				-	-	Actual															Actual	
2.1.3	4	Consultancy services for BDS Support for cluster Development			IFAD	PMU	Plan	Yes	Prior Review	QCBS	72 000.00		Plan	8-Jul-26	15-Jul-26	17-Jul-26	31-Jul-26	14-Aug-26	21-Aug-26	25-Aug-26	1-Sep-26	3-Sep-26	18-Oct-26	1-Nov-26	8-Nov-26	22-Nov-26	29-Nov-26	Plan	2-Dec-26
							Actual				-	-	Actual															Actual	
2.2.1	5	Consultancy services for BDS support to facilitate access to inputs			IFAD	PMU	Plan	Yes	Post Review	CQS	36 000.00		Plan	8-Jul-26	N/A	10-Jul-26	31-Jul-26	14-Aug-26	N/A	18-Aug-26	N/A	20-Aug-26	10-Sep-26	N/A	N/A	24-Sep-26	N/A	Plan	N/A
							Actual				-	-	Actual															Actual	
2.2.2	6	Consultancy services to Conduct farmer Training on Input Technical Knowledge, Safe Use and Handling Skills			IFAD	PMU	Plan	Yes	Prior Review	QCBS	60 000.00		Plan	6-Apr-26	13-Apr-26	15-Apr-26	29-Apr-26	13-May-26	20-May-26	24-May-26	31-May-26	2-Jun-26	17-Jul-26	31-Jul-26	7-Aug-26	21-Aug-26	28-Aug-26	Plan	31-Aug-26
							Actual				-	-	Actual															Actual	
2.2.7	7	Consultancy services for BDS support market linkage facilitation			IFAD	PMU	Plan	Yes	Prior Review	QCBS	60 000.00		Plan	8-Jul-26	15-Jul-26	17-Jul-26	31-Jul-26	14-Aug-26	21-Aug-26	25-Aug-26	1-Sep-26	3-Sep-26	18-Oct-26	1-Nov-26	8-Nov-26	22-Nov-26	29-Nov-26	Plan	2-Dec-26
							Actual				-	-	Actual															Actual	
2.2.9	8	Consultancy services for Market information suppport			IFAD	PMU	Plan	Yes	Prior Review	CQS	50 000.00		Plan	8-Jul-26	15-Jul-26	17-Jul-26	7-Aug-26	21-Aug-26	28-Aug-26	1-Sep-26	8-Sep-26	10-Sep-26	1-Oct-26	N/A	N/A	15-Oct-26	22-Oct-26	Plan	N/A
							Actual				-	-	Actual															Actual	
2.2.10	9	Consultancy services for Multi Stakeholder value Chain Platforms			IFAD	PMU	Plan	Yes	Post Review	LCS	20 000.00		Plan	8-Jul-26	N/A	10-Jul-26	31-Jul-26	14-Aug-26	N/A	18-Aug-26	N/A	20-Aug-26	4-Oct-26	18-Oct-26	N/A	1-Nov-26	N/A	Plan	4-Nov-26
							Actual				-	-	Actual															Actual	
2.2.16	10	Consultancy services for Training and Incubation of youths			IFAD	PMU	Plan	Yes	Prior Review	QCBS	60 000.00		Plan	8-Jul-26	15-Jul-26	17-Jul-26	31-Jul-26	14-Aug-26	21-Aug-26	25-Aug-26	1-Sep-26	3-Sep-26	18-Oct-26	1-Nov-26	8-Nov-26	22-Nov-26	29-Nov-26	Plan	2-Dec-26
							Actual				-	-	Actual															Actual	
3.1.1	11	Consultancy services for Institutional capacity gap assessment and production of a capacity development plan			IFAD	PMU	Plan	Yes	Prior Review	CQS	50 500.00		Plan	6-Apr-26	13-Apr-26	15-Apr-26	6-May-26	20-May-26	27-May-26	31-May-26	7-Jun-26	9-Jun-26	30-Jun-26	N/A	N/A	14-Jul-26	21-Jul-26	Plan	N/A
							Actual				-	-	Actual															Actual	
3.1.2	12	Consultancy services for Capacity Strengthening of District extension staff for effective BoLCoP implementation			IFAD	PMU	Plan	No	Prior Review	CQS	50 500.00		Plan	6-Apr-26	13-Apr-26	15-Apr-26	6-May-26	20-May-26	27-May-26	31-May-26	7-Jun-26	9-Jun-26	30-Jun-26	N/A	N/A	14-Jul-26	21-Jul-26	Plan	N/A
							Actual				-	-	Actual															Actual	
3.1.3	13	Consultancy services for Implementation of other aspcts of the capacity development plan			IFAD	PMU	Plan	Yes	Prior Review	QCBS	72 114.00		Plan	6-Apr-26	13-Apr-26	15-Apr-26	29-Apr-26	13-May-26	20-May-26	24-May-26	31-May-26	2-Jun-26	17-Jul-26	31-Jul-26	7-Aug-26	21-Aug-26	28-Aug-26	Plan	31-Aug-26
							Actual				-	-	Actual															Actual	
3.2.14	14	External Audit services			IFAD	PMU	Plan	Yes	Prior Review	LCS	30 000.00		Plan	8-Jul-26	15-Jul-26	17-Jul-26	7-Aug-26	21-Aug-26	28-Aug-26	1-Sep-26	8-Sep-26	10-Sep-26	25-Oct-26	8-Nov-26	15-Nov-26	29-Nov-26	6-Dec-26	Plan	9-Dec-26
							Actual				-	-	Actual															Actual	
3.2.18	15	Consultancy services for Baseline Survey			IFAD	PMU	Plan	Yes	Prior Review	CQS	90 000.00		Plan	8-Jan-26	15-Jan-26	17-Jan-26	7-Feb-26	21-Feb-26	28-Feb-26	4-Mar-26	11-Mar-26	13-Mar-26	3-Apr-26	N/A	N/A	17-Apr-26	24-Apr-26	Plan	N/A
							Actual				-	-	Actual															Actual	
3.2.19	16	Consultancy services for Development of KM Strategy and Tools			IFAD	PMU	Plan	Yes	Prior Review	QCBS	70 000.00		Plan	6-Apr-26	13-Apr-26	15-Apr-26	29-Apr-26	13-May-26	20-May-26	24-May-26	31-May-26	2-Jun-26	17-Jul-26	31-Jul-26	7-Aug-26	21-Aug-26	28-Aug-26	Plan	31-Aug-26
							Actual				-	-	Actual															Actual	

Procurement Plan - Consulting

Republic of Botswana

Botswana Livestock Commercialisation Projec

Project ID: 2000005356

Prepared by: P. Kadonya

Approved by: P. Kadonya

Selection Methods
QCBS: Quality and Cost-Based Selection
QBS: Quality-Based Selection
CQS: Selection by Consultants' Qualifications (shortlist is required for t
LCS: Least-Cost Selection
FBS Fixed Budget Selection
ICS: Individual Consultants Selection (shortlist is required for this meth
SSS: Sole Source Selection
Selection (Design/PIM): Single Sourcing established in the project desi
implementation manual

Version 1.0 15-Aug-25			Contract Award & Si				
AWPB/Component Ref	**№**	**Description***	**Date Contract Award**	**Negotiations completed**	**Submission of Draft Contract**	**No-objection Date**	**Date Contract Signature**
1.1.3	1	Consultancy services forTraining of trainers (ToT) for Comprehensive capacity-building package to small livestock producers.	29-Jun-26	13-Jul-26	18-Jul-26	N/A	22-Jul-26
1.2.4	2	Consultancy services for Digital BAITS system	29-Jun-26	13-Jul-26	18-Jul-26	N/A	22-Jul-26
2.1.1	3	Consultancy services to support for member mobilisation	4-May-26	18-May-26	23-May-26	30-May-26	3-Jun-26
2.1.3	4	Consultancy services for BDS Support for cluster Development	17-Dec-26	1-Jan-27	6-Jan-27	13-Jan-27	17-Jan-27
2.2.1	5	Consultancy services for BDS support to facilitate access to inputs	30-Sep-26	14-Oct-26	19-Oct-26	N/A	23-Oct-26
2.2.2	6	Consultancy services to Conduct farmer Training on Input Technical Knowledge, Safe Use and Handling Skills	15-Sep-26	30-Sep-26	5-Oct-26	12-Oct-26	16-Oct-26
2.2.7	7	Consultancy services for BDS support market linkage facilitation	17-Dec-26	1-Jan-27	6-Jan-27	13-Jan-27	17-Jan-27
2.2.9	8	Consultancy services for Market information suppport	28-Oct-26	11-Nov-26	16-Nov-26	23-Nov-26	27-Nov-26
2.2.10	9	Consultancy services for Multi Stakeholder value Chain Platforms	19-Nov-26	4-Dec-26	9-Dec-26	N/A	13-Dec-26
2.2.16	10	Consultancy services for Training and Incubation of youths	17-Dec-26	1-Jan-27	6-Jan-27	13-Jan-27	17-Jan-27
3.1.1	11	Consultancy services for Institutional capacity gap assessment and production of a capacity development plan	27-Jul-26	10-Aug-26	15-Aug-26	22-Aug-26	26-Aug-26
3.1.2	12	Consultancy services for Capacity Strengthening of District extension staff for effective BoLCoP implementation	27-Jul-26	10-Aug-26	15-Aug-26	22-Aug-26	26-Aug-26
3.1.3	13	Consultancy services for implementation of other aspcts of the capacity development plan	15-Sep-26	30-Sep-26	5-Oct-26	12-Oct-26	16-Oct-26
3.2.14	14	External Audit services	24-Dec-26	8-Jan-27	13-Jan-27	20-Jan-27	24-Jan-27
3.2.18	15	Consultancy services for Baseline Survey	30-Apr-26	14-May-26	19-May-26	26-May-26	30-May-26
3.2.19	16	Consultancy services for Development of KM Strategy and Tools	15-Sep-26	30-Sep-26	5-Oct-26	12-Oct-26	16-Oct-26

Day Ranges

These tables provide estimated timelines by procurement methods, based on experience and guidance in the Procurement Handbook where specified.
The approximate number of days are used in the default Procurement Plan Formulas. Timelines in the Approx fields/Formulas ***are not prescriptive, and may be modified by the project.***
Approx figures entered will be highlighted/flagged, if below the Minimun number of days. Zero indicates steps that are not applicable to the method, and are indicated as N/A in the Formulas.

Goods & Works

Procurement Method	Submission of PreQual docs			No Objection Date			PreQual Invitation Date			PreQual Closing Date			Submission of PreQual Report			No Objection Date			Submission of BD			No-objection Date		
	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx
Single Envelope																								
RFQ/Shopping (NS/IS)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	N/A-Start Date	7	10	7
NCB (no PreQual)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7
ICB (no PreQual)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7
LIB (no PreQual)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7
NCB (with PreQual)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	30	14	21	14	7	10	7	1	14	10	7	10	7
ICB (with PreQual)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	30	14	21	14	7	10	7	1	14	10	7	10	7
LIB (with PreQual)	1	4	N/A-Start Date	5	10	7	1	3	2	14	30	30	14	21	14	7	10	7	1	14	10	7	10	7
Direct Contracting/ Force Account	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	N/A-Start Date	7	10	7
Two Envelope																								
NCB (no PreQual)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7
ICB (no PreQual)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7
LIB (no PreQual)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A-Start Date	7	10	7
NCB (with PreQual)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	30	14	21	14	7	10	7	1	14	10	7	10	7
ICB (with PreQual)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	30	14	21	14	7	10	7	1	14	10	7	10	7
LIB (with PreQual)	1	4	N/A-Start Date	7	10	7	1	3	2	14	30	30	14	21	14	7	10	7	1	14	10	7	10	7

Services

Selection Method	Submission of REOI			No Objection Date			REOI Launch Date			EOI Submission Deadline			Submission of Shortlist Report			No Objection Date			Submission of RFP/RCQ			No-objection Date		
	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx
QCBS (w/Shortlist)	1	4	N/A- Start Date	7	10	7	1	3	2	14	30	14	14	21	14	7	10	7	1	7	4	7	10	7
FBS (w/Shortlist)	1	4	N/A- Start Date	7	10	7	1	3	2	14	30	21	14	21	14	7	10	7	1	7	4	7	10	7
LCS (w/Shortlist)	1	4	N/A- Start Date	7	10	7	1	3	2	14	30	21	14	21	14	7	10	7	1	7	4	7	10	7
QBS (w/Shortlist)	1	4	N/A- Start Date	7	10	7	1	3	2	14	30	21	14	21	14	7	10	7	1	7	4	7	10	7
CQS (w/Shortlist)	1	4	N/A- Start Date	7	10	7	1	3	2	14	30	21	14	21	14	7	10	7	1	5	4	7	10	7
ICS (w/Shortlist)	1	4	N/A- Start Date	7	10	7	1	3	2	14	30	21	14	21	14	7	10	7	1	5	4	7	10	7
QCBS (noShortlist)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A- Start Date	7	10	7
FBS (noShortlist)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	N/A- Start Date	7	10	7
LCS (noShortlist)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A- Start Date	7	10	7
QBS (noShortlist)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A- Start Date	7	10	7
SSS/ Selection (Design/PIM)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	N/A- Start Date	7	10	7

NOTE

1. Some procurement methods for low-value processes might require No Objections based on the Prior Review Thresholds. Where they do not require, No Objection number of days should be zero.
2. **RFP**: Request for Proposals: standard procurement document used for Services.
3. **RCQ**: Requests for Consultants Qualifications: Procurement document used for CQS and LCS. The RFP is used for all other procurement methods
4. Consulting services and Good/Works methods could either be used for Non-Consulting Services
5. All days are calendar days

Day Ranges

Goods & Works

Procurement Method	Bid Invitation Date			Bid Closing-Opening			Submission Tech Eval Rpt			No-objection Date			Submission Combined Eval Rpt/Bid Evaluation Report			No-objection Date			Issue of NOITA & Standstill			Date Contract Award		
	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx
Single Envelope																								
RFQ/Shopping (NS/IS)	1	3	1	5	21	14	0	0	0	0	0	0	1	7	7	7	10	7	0	0	0	4	-	6
NCB (no PreQual)	1	3	2	30	45	30	0	0	0	0	0	0	3	21	14	7	10	7	1	3	3	14	-	15
ICB (no PreQual)	1	3	2	45	70	45	0	0	0	0	0	0	3	21	21	7	10	7	1	3	3	14	-	15
LIB (no PreQual)	1	3	2	45	70	45	0	0	0	0	0	0	3	21	21	7	10	7	1	3	3	14	-	15
NCB (with PreQual)	1	3	2	30	45	30	0	0	0	0	0	0	7	21	14	7	10	7	1	3	3	14	-	15
ICB (with PreQual)	1	3	2	45	70	45	0	0	0	0	0	0	7	21	21	7	10	7	1	3	3	14	-	15
LIB (with PreQual)	1	3	2	45	70	45	0	0	0	0	0	0	7	21	21	7	10	7	1	3	3	14	-	15
Direct Contracting/ Force Account	1	3	1	7	30	14	0	0	0	0	0	0	3	21	7	7	10	7	0	0	0	4	-	6
Two Envelope																								
NCB (no PreQual)	1	3	2	30	45	30	3	21	3	7	10	7	3	14	14	7	10	7	1	3	3	14	-	15
ICB (no PreQual)	1	3	2	45	70	45	3	21	21	7	10	7	3	14	14	7	10	7	1	3	3	14	-	15
LIB (no PreQual)	1	3	2	45	70	45	3	21	21	7	10	7	3	14	14	7	10	7	1	3	3	14	-	15
NCB (with PreQual)	1	3	2	30	45	30	7	21	14	7	10	7	3	14	14	7	10	7	1	3	3	14	-	15
ICB (with PreQual)	1	2	2	45	70	45	7	21	21	7	10	7	3	14	14	7	10	7	1	3	3	14	-	15
LIB (with PreQual)	1	2	2	45	70	45	7	21	21	7	10	7	3	14	14	7	10	7	1	3	3	14	-	15

Services

Selection Method	RFP/RCQ Launch Date			Proposal submission deadline			Submission of TER			No-objection Date			Submission of CER			No-objection Date			Issue of NOITA & Standstill			Date Contract Award		
	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx
QCBS (w/Shortlist)	1	3	2	45	60	45	14	21	14	7	10	7	7	14	14	7	10	7	1	3	3	14	-	15
FBS (w/Shortlist)	1	3	2	45	60	45	14	21	14	7	10	7	7	14	14	7	10	7	1	3	3	14	-	15
LCS (w/Shortlist)	1	3	2	45	60	45	14	21	14	7	10	7	7	14	14	7	10	7	1	3	3	14	-	15
QBS (w/Shortlist)	1	3	2	21	60	45	14	21	14	7	10	7	0	0	0	0	0	0	1	3	3	14	-	15
CQS (w/Shortlist)	1	3	2	14	30	21	0	0	0	0	0	0	14	21	14	7	10	7	0	0	0	4	-	6
ICS (w/Shortlist)	1	3	2	14	30	21	0	0	0	0	0	0	14	21	14	7	10	7	0	0	0	4	-	6
QCBS (noShortlist)	1	3	2	45	60	45	14	21	14	7	10	7	7	14	14	7	10	7	1	3	3	14	-	15
FBS (noShortlist)	1	3	2	14	30	21	7	21	14	7	10	7	7	14	14	7	10	7	1	3	3	14	-	15
LCS (noShortlist)	1	3	2	21	30	25	7	21	14	7	10	7	7	14	14	7	10	7	1	3	3	14	-	15
QBS (noShortlist)	1	3	2	21	60	45	14	21	14	7	10	7	0	0	0	0	0	0	1	3	3	14	-	15
SSS/ Selection (Design/PIM)	1	3	2	7	30	30	0	0	0	0	0	0	7	21	14	7	10	7	0	0	0	4	-	6

Day Ranges

Goods & Works

Procurement Method	Submission of Draft Contract			No-objection Date			Date Contract Signature			Totals			
	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Approx Months/Days
Single Envelope													
RFQ/Shopping (NS/IS)	3	7	5	7	10	7	4	7	4	40	78	58	1m 27d
NCB (no PreQual)	3	7	5	7	10	7	4	7	4	78	123	94	3m 3d
ICB (no PreQual)	3	7	5	7	10	7	4	7	4	93	148	116	3m 25d
LIB (no PreQual)	3	7	5	7	10	7	4	7	4	93	148	116	3m 25d
NCB (with PreQual)	3	7	5	7	10	7	4	7	4	126	208	164	5m 12d
ICB (with PreQual)	3	7	5	7	10	7	4	7	4	141	233	186	6m 4d
LIB (with PreQual)	3	7	5	7	10	7	4	7	4	139	233	186	6m 4d
Direct Contracting/ Force Account	3	7	5	7	10	7	4	7	4	44	101	58	1m 27d
Two Envelope													
NCB (no PreQual)	3	7	5	7	10	7	4	7	4	88	147	104	3m 13d
ICB (no PreQual)	3	7	5	7	10	7	4	7	4	103	172	137	4m 16d
LIB (no PreQual)	3	7	5	7	10	7	4	7	4	103	172	137	4m 16d
NCB (with PreQual)	3	7	5	7	10	7	4	7	4	136	232	185	6m 3d
ICB (with PreQual)	3	7	5	7	10	7	4	7	4	151	256	207	6m 25d
LIB (with PreQual)	3	7	5	7	10	7	4	7	4	151	256	207	6m 25d

Services

Selection Method	Negotiations completed			Submission of Draft Contract and MoN Date			No-objection Date			Date Contract Signature			Totals			
	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Min	Max	Approx	Approx Months/Days
QCBS (w/Shortlist)	10	28	15	3	7	5	7	10	7	4	7	4	172	268	193	6m 11d
FBS (w/Shortlist)	10	28	15	3	7	5	7	10	7	4	7	4	172	268	200	6m 18d
LCS (w/Shortlist)	10	28	15	3	7	5	7	10	7	4	7	4	172	268	200	6m 18d
QBS (w/Shortlist)	10	28	15	3	7	5	7	10	7	4	7	4	134	244	179	5m 27d
CQS (w/Shortlist)	7	14	14	3	7	5	7	10	7	4	7	4	113	195	142	4m 21d
ICS (w/Shortlist)	7	14	14	3	7	5	7	10	7	4	7	4	113	195	142	4m 21d
QCBS (noShortlist)	10	28	15	3	7	5	7	10	7	4	7	4	128	190	145	4m 24d
FBS (noShortlist)	10	28	15	3	7	5	7	10	7	4	7	4	90	158	121	3m 30d
LCS (noShortlist)	10	28	15	3	7	5	7	10	7	4	7	4	97	160	125	4m 4d
QBS (noShortlist)	10	28	15	3	7	5	7	10	7	4	7	4	90	166	124	4m 3d
SSS/ Selection (Design/PIM)	7	21	21	3	7	5	7	10	7	4	7	4	55	126	103	3m 12d

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Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Annex 9: Project Implementation Manuals

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
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East and Southern Africa Division
Programme Management Department

Investing in rural people

Republic of Botswana

Botswana Livestock Commercialisation Project (BoLCoP)

PROJECT IMPLEMENTATION MANUAL (PIM)

Document Date: August 2025

Project ID. 2000005356

East and Southern Africa Division

Department for Country Operations

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Currency equivalents

Currency Unit	=	Pula
USD 1.0	=	P 13.36

Weights and measures

1 kilogram	=	1,000 g
1 000 g	=	2.204 lb.
1 kilometre (km)	=	0.62 mile

1 metre	=	1.09 yards
1 square metre	=	10.76 square feet
1 acre	=	0.405 hectare
1 hectare	=	2.47 acres

ABBREVIATIONS AND ACRONYMS

ACC	Adaptation to Climate Change
AF	Adaptation Fund
ASSP	Agricultural Services Support Project
AWPB	Annual Work Plan and Budget
BAITS	Botswana Animal Identification & Traceability System
BAMB	Botswana Agricultural Marketing Board
BDIH	Botswana Digital and Innovation Hub
BIDPA	Botswana Institute for Development Policy Analysis
BITC	Botswana Investment and Trade Centre
BIUST	Botswana International University of Science and Technology
BMC	Botswana Meat Commission
BOBS	Botswana Bureau of Standards
BoLCoP	Botswana Livestock Commercialisation Project
BoTC	Botswana Trade Commission
BUAN	Botswana University of Agriculture and Natural Resources
BTC	Botswana Telecommunications Corporation
CBO	Community-Based Organisation
CEDA	Citizen Entrepreneurial Development Agency
COI	Core Outcome Indicator
COSOP	Country Strategic Opportunities Programme
CPE	Country Programme Evaluation
CPI	Corruption Perception Index
CPIA	Country Policy and Institutional Assessment
CSA	Climate-Smart Agriculture
CSN	Country Strategy Note
CSO	Civil Society Organisation
DAPH	Department of Animal Production and Health
DDC	District Development Council
DVS	Department of Veterinary Services
EMPs	Environmental Management Plans
ENRM	Environmental and Natural Resource Management
ERTP	Economic Recovery and Transformation Plan
ESMP	Environmental and Social Management Plan
FPIC	Free, Prior, and Informed Consent
GABS	Government Accounting and Budgeting System
GALS	Gender Action Learning System
GBV	Gender-based Violence
GCF	Global Climate Fund
GEF	Global Environment Facility
GHG	Greenhouse Gas
GoB	Government of Botswana
GRM	Grievance Redress Mechanism
HH	Household
ICARDA	International Centre for Agricultural Research in the Dry Areas
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
IOE	IFAD Independent Office of Evaluation
IP	Implementing Partner
IPRM	Integrated Project Risk Matrix
ISM	Implementation Support Mission
KM&C	Knowledge Management and Communication
LA	Loan Agreement
LEA	Local Enterprise Authority

LSF	Lobu Smart Farm
M&E	Monitoring and Evaluation
MFI	Microfinance Institution
MoCWBE	Ministry of Child Welfare and Basic Education
MoET	Ministry of Environment and Tourism
MoF	Ministry of Finance
MIRA	Meat Industry Regulatory Authority
MIS	Management Information System
MoLA	Ministry of Lands and Agriculture
MoLGTA	Ministry of Local Government and Traditional Affairs
MoU	Memorandum of Understanding
MoTE	Ministry of Trade and Entrepreneurship
MoYGA	Ministry of Youth and Gender Affairs
MSMEs	Micro-, Small-, Medium-Sized Enterprises
NAIP	National Agricultural Investment Plan
NARDI	National Agriculture Research Development Institute
NDB	National Development Bank
NDC	Nationally Determined Contribution
NDP12	National Development Plan 12
NGO	Non-Governmental Organisation
NPC	National Planning Commission
NRM	Natural Resource Management
NST	National Transformation Strategy
OAG	Office of the Auditor General
O&M	Operations and Maintenance
ORMS	Operational results Management System
PCR	Project Completion Report
PEEPA	Public Enterprises Evaluation and Privatisation Agency
PEFA	Public Expenditure and Financial Accountability
PFI	Partner Financial Institution
PFM	Public Financial Management
PIM	Project Implementation Manual
PMO	Project Management Office
PMU	Project Management Unit
PMT	Project Management Team
PP	Procurement Plan
PPRA	Public Procurement Regulatory Authority
PSC	Project Steering Committee
PTCC	Project Technical Coordination Committee
PwD	People with Disability
RADs	Remote Area Dwellers
RDC	Rural Development Council
RIMS	Results and Impact Management System
RTA	Reimbursable Technical Assistance
RTCs	Regional Training Centres
SADC	Southern African Development Community
SECAP	Social, Environmental, and Climate Assessment Procedures
SIFB	Small-stock Industry Federation of Botswana
SOEs	State-Owned Entreprises
SSTC	South-South and Triangular Cooperation
SWC	Soil and Water Conservation
TA	Technical Assistance
ToC	Theory of Change
ToR	Terms of Reference
UB	University of Botswana
UMIC	Upper-Middle Income Country
UNDP	United Nations Development Programme

UNECA	United Nations Economic Commission for Africa
USD	United States Dollar
VC	Value Chain
VCA	Value Chain Activities
WOAH	World Organisation of Animal Health
WTO	World Trade Organisation
YDF	Youth Development Fund

Map of the Project Area

IFAD

The designations employed and the presentation of the material in this map do not imply the expression of any opinion whatsoever on the part of IFAD concerning the delimitation of the frontiers or boundaries, or the authorities thereof.

Map compiled by IFAD | 30-09-2025

PART I: FRAMEWORK AND RESPONSBILITIES

I.1: DEFINITIONS

1. **Farmer Field School (FFS)/Livestock Field School (LFS) approach** – It is a methodology that was originally developed by the Food and Agriculture Organization (FAO) as a participatory approach for people-centred learning. Practical field exercises using direct observation, discussion and decision making encourage learning-by-doing and participants can exchange knowledge in a risk-free environment. Local knowledge and outside scientific insights are tested, validated and integrated directly in farmers' fields, under their localized ecosystems and socio-economic settings.

2. **Food Insecurity** – It is the inability to obtain sufficient food (in terms of calories) and other essential goods and services to lead a healthy life.

3. **Implementing Agencies (IA)** – It is the agency assigned the responsibility of implementation of the project. It leads the participatory process of preparing the Annual Work Plan and Budget (AWPB) and receives funding to support implementation of the approved activities.

4. **Nutrition-related Knowledge, Attitude and Practices (KAP) survey** – It assess and explore peoples' KAP relating to nutrition, diet, foods and closely related hygiene and health issues. KAP studies are mainly used to: a) collect key information during a situation analysis, feeding into the design of nutrition interventions; and b) to evaluate nutrition education interventions.

5. **Project Implementation Manual (PIM)** – It is an annex to the Project Design Report (PDR). It provides practical guidance to Project implementers on key implementation aspects. It describes in detail how the Project components and activities outlined in the PDR are intended to be implemented. The PIM outlines the detailed mechanisms, processes and procedures, formats, eligibility criteria, etc. which will ensure efficient Project implementation and achievement of the envisaged results. The PIM is a living document and may be updated at any time, as needs arise, during implementation.

6. **Time and Labour-Saving Technologies (TLST) and practices** – These are tools and equipment that reduce the drudgery and/or improve the efficiency of performing various farming, off-farm and household activities. These may include: a) the use of draught animals for land preparation, planting, weeding and rural transport; b) cooking on fuel efficient stoves; c) harvesting roof water for domestic purposes, agro processing and value addition, etc.

I.2: TARGETING STRATEGIES

7. **Project Goal** – BoLCoP's goal is to '*contribute to the Government of Botswana's objective of inclusively and sustainably improving productivity and commercialization of the small livestock sub-sector*'.

8. **Project Development Objective (PDO)** – The PDO is to '*enhance the incomes and resilience of rural households through more inclusive, sustainable and technology-driven small livestock value chains*'.

9. **Project Area** – BoLCoP will focus on 21 priority districts identified through a data-driven selection process aligned with IFAD's strategic targeting principles. A total of 19 of the 21 districts were grouped into five clusters as follows:

a) Greater Gaborone Cluster (Molepolole, Mogoditshane, Ramotswa, Kgatleng, Tlokweng, Letlhakeng);
b) Lobatse BMC Cluster (Good hope and Kanye);
c) Tsabong Abattoir Cluster (Tsabong, Ghanzi, Charleshill, Hukuntsi, Mabutsane);
d) Central cluster (Mahalpye, Palapye, Serowe); and
e) North East and Tonota Cluster; and
f) Boteti (part of both Central and North East clusters)

In addition to the five clusters, BoLCoP will focus on Ngamiland region's two districts of North West and Okavango. Intervention's in this region will exclusively be on market linkage, given its high tourism potential.

10. The overall selection of the districts is based on a combination of key criteria (please refer to Annex 14: Technical Note 3):

- High concentration of small livestock and value chain actors – this ensures critical mass for value chain development and economies of scale;
- Agroecological suitability for small livestock production – based on climate resilience, grazing conditions, and land-use potential;
- Potential for commercialisation of the subsector – BoLCoP's primary focus is commercialisation and this criterion ensures that the selected focal areas offer opportunities for achieving that objective with a particular focus on backward and forward market linkages;
- Availability of BoLCoP's target groups – this ensures that the Project reaches out to its target beneficiaries, including subsistence farmers (micro-scale), semi-commercial farmers; emerging commercial farmers and SMEs; and
- Potential for accessing rural finance facilities – this ensures the availability of demand for inclusive financial services for value chain actors; this is one of BoLCoP's target outputs.

11. These districts also span a diversity of **agroecological zones and livestock production systems**, enabling BoLCoP to pilot and scale context-specific support packages. For instance, the dry western regions such as Ghanzi and Tsabong are suitable for extensive pastoral systems, while districts like Mahalapye offer opportunities for semi-intensive production.

12. The targeting strategy **at the pre-implementation stage** will address the challenge of sparse populations by using data-driven mapping to identify areas with high livestock potential and prioritizing sub-village or ward-level clusters based on human and animal populations and production viability.

13. **Target Population and Beneficiaries** – The beneficiary targeting strategy is designed to ensure inclusive and equitable support to small livestock farmers across Botswana by identifying target groups that are viable for sustainable transformation and commercialization, as well as the vulnerable in need of support to transform their livelihoods. Direct beneficiaries will be selected from the following broad socio-economic groups: a) subsistence farmers (micro-scale) (20%, 10,000 HHs); b) semi-commercial farmers (small-scale) (60%, 30,000 HHs); c) emerging commercial farmers (medium scale) (15%, 7,500 HHs); and d) small and Medium Enterprises ((SMEs), on-farm and off-farm SMEs)) (5%, 2,500 HHs). :

14. Subsistence farmers (micro-scale) (20%, 10,000 HHs);
15. Semi-commercial farmers (small-scale) (60%, 30,000 HHs);
16. Emerging commercial farmers (medium scale) (15%, 7,500 HHs); and
17. Small and Medium Enterprises ((SMEs), on-farm and off-farm SMEs)) (5%, 2,500 HHs).

Below is a description and key characteristics of the identified farmer groups:

CATEGORY	DESCRIPTION	KEY CHARACTERISTICS	SPECIFIC CHALLENGES FACED
Subsistence Farmers (Micro-scale)	Farmers primarily producing for	Small herd size (below 100), mixed crops and	Low productivity, limited assets, poor market access due to infrastructure and

	household consumption	livestock, limited market engagement	distance, and lack of credit or insurance.
Semi-Commercial Farmers (Small-scale)	Farmers with some market orientation	Moderate herd size (100-400), some mechanization, part-time off-farm income	Limited technical knowledge, inadequate access to veterinary services, feeds, water, and extension support, and vulnerability to climate risks.
Emerging Commercial Farmers (Medium-scale)	Transitioning from smallholder to full-time commercial	Medium herd size (400-800), use of improved breeds, access to input markets, participate in cooperatives	Insufficient capital, lack of advanced training, difficulty meeting export standards and limited market competitiveness and bargaining power.
Small and Medium Enterprises (SMEs) (On-farm and off-farm SMEs)	Fully market-oriented, high investment with backward linkages with the farmers (producers) in categories 1, 2, & 3	Large herd size (above 800), access to finance, fenced ranches, export compliant	High operational costs, limited finance, weak linkages with producers/processors, limited managerial and technical skills and challenges in supply consistency, quality, and demand.

18. Drawing on IFAD's principles of poverty alleviation, gender equity, youth empowerment, and climate resilience, the beneficiary strategy will further prioritize three specific marginalized beneficiary groups:
19. Women small-holder farmers, who are often excluded from formal markets;
20. Youth aged 18–35 showing strong entrepreneurial interest but facing barriers such as lack of capital, training, and market access; and
21. Vulnerable groups (including persons with disabilities, elderly, persons living with HIV/Aids and remote area communities).

Target Group	**Rationale**	**Estimated Reach**
Subsistence and semi-commercial women farmers	Dominate low-input systems and play a key role in enhancing house-hold food security and informal trade	40%
Youth (18–35 years)	Play a crucial role in transforming agriculture and food systems, but face barriers like limited access to resources and opportunities	30%
Vulnerable groups (Including PWDs, elderly, persons living with HIV/Aids, Remote Area Communities)	Empowering vulnerable groups is crucial for enhancing food security, promoting sustainable livelihoods, and fostering inclusive economic growth. Start-up grants for livestock as key resilience assets including indigenous poultry and goats.	5%

22. **Targeting Mechanism** – BoLCoP will use a tailored and inclusive approach by linking beneficiary outreach with thematic priorities based on need, potential, and to enhance equity. The targeting approach ensures that interventions address both social equity and economic potential within Botswana's small livestock sector. By addressing the underlying barriers and scaling inclusive models, the Project will foster a more equitable and productive sector that delivers benefits for all. Key mechanisms will include:

23. **Tailored pathways** – The project will offer differentiated packages (inputs, finance, training, infrastructure) matched to producer typologies—from subsistence to emerging commercial farmers;

24. **Women Empowerment** – The project will prioritize outreach strategies targeted at women small holder farmers through enhancing their leadership and participation in producer groups, and through inclusive extension support in identified priority value chains;

25. **Youth Inclusion** – This will focus on improving youth's access to productive resources and providing tailored skills training on production and marketing. The project will support subsidized input packages, agri-business incubation for youth-led enterprises, investment in appropriate digital technologies to improve access to finance, markets and climate information for youth farmers and focus on youth employment opportunities e.g. training community animal health workers (CAHWs) and peer to peer and mentorship approach.

26. **Family farming approach** – Support family farming as a key strategy to reduce rural poverty and enhance food security through access to land, resources, and markets while promoting climate-smart, sustainable agricultural practices;

27. **Household Methodologies** – The project will integrate the Gender Action Learning System (GALS) used by IFAD and other agencies across the globe with inspiring results. The methodology will be adapted to address GBV and HIV/Aids which have been identified as common social risks in the context of Botswana;

28. **Cluster-based approach** – Support for strengthening producer cooperatives and input/output hubs for chicks/seeds/vaccines including cold storage facilities in high-density livestock zones through BAMB and private sector actors; and

29. **Nutrition-sensitive approaches** – Support for household dietary diversity, especially for children and female-headed households through small livestock and poultry products.

30. **Climate-resilient Targeting** – Use climate vulnerability mapping to prioritise communities most exposed to drought, heat and land degradation.

31. This targeting approach ensures that interventions address both social equity and economic potential within Botswana's small stock sector. By addressing the underlying barriers and scaling inclusive models, the project will foster a more equitable and productive sector that delivers benefits for all.

I.2.2: Gender and Youth Strategies

32. *Gender* – Women play a major role in agriculture and the rural household economy in Botswana and assume overall responsibility for household food security. Despite Botswana's upper-middle-income status, rural women remain disproportionately affected by poverty, food insecurity, and limited access to productive resources. Others include: a) limited access to land and grazing rights; b) inadequate access to finance; c) weak extension and veterinary service coverage in remote areas, combined with a lack of gender-responsive delivery mechanisms; d) low participation in cooperatives or producer organizations; e) time poverty, stemming from unpaid care work and disproportionate

burden for household responsibilities; f) limiting cultural norms; and g) gender-based violence (GBV).

33. To address these challenges and promote women's participation in the small stock value chains and enhance their resilience, the project will prioritize the following key interventions/strategies: a) Inclusive Targeting and Tailored Pathways; b) gender-sensitive extension and business support; c) market and infrastructure access; d) gender-responsive financial inclusion; and e) voice, leadership through capacity building and f) labour and time saving technologies.

34. *Youth* – The small stock sector in Botswana plays a vital role in rural economic development. Despite its potential, the sector is underutilized by youth, who face systemic barriers to full engagement. Youth (aged 18–35) make up a minority of small stock farmers. Most producers are older adults (50+), especially in communal and traditional systems. Surveys and anecdotal evidence suggest youth show interest in agribusiness, including goats and sheep, but struggle to enter due to limited access to land, finance, knowledge, and market barriers. Also, youth involvement is somewhat higher in regions with NGO or government-supported youth agri-projects but remains small-scale and informal.

35. To address these challenges, BoLCoP seeks to increase the participation, productivity, and prosperity of youth in the small stock sector by creating enabling conditions, skills development opportunities, and access to finance, markets, and innovation through: a) improving access to productive resources, including land; b) facilitating access to finance; c) promoting youth leadership and networks; skills development, technology and innovation; d) promoting decent jobs across the target value chains; and strengthening youth climate resilience.

36. *Other Vulnerable Groups* – BoLCoP seeks to adopt a pro-poor and inclusive approach, recognizing that achieving sustainable commercialization requires deliberate efforts to uplift all vulnerable groups. To ensure that no one is left behind, the Project will provide tailored support, equitable access to services, and stakeholder partnerships, to support the following vulnerable and marginalized groups including: a) People Living with Disabilities (PWDs); b) Elderly-Headed Households; c) HIV/AIDS-Affected Households; and d) Remote Area Communities through RADPs.

I.2.3: Food and Nutrition Security Strategies

37. Botswana faces persistent challenges related to food and nutrition security, largely due to semi-arid climatic conditions, dependence on food imports, and limited agricultural productivity. While the country has achieved relative food availability at the national level through imports, household-level food access and dietary diversity remain a concern, especially in rural areas with rising food prices and climate shocks further exacerbating vulnerability. In response to these challenges, BoLCoP will seek to promote small stock as a source of affordable animal protein (meat, eggs and milk) to help improve dietary diversity and reduce malnutrition. The Project will also train farmers in improved breeding, nutrition, and health management to boost productivity.

I.3: Climate and Environment

1.3.1 Climate and Environment SECAP Compliance and risk management

38. Botswana's semi-arid climate and recurrent droughts present major challenges for livestock systems, making climate resilience and environmental sustainability central to BoLCoP's approach. The project prioritizes climate adaptation under Component 1 and will mainstream adaptation measures across Components 2 and 3. It will implement SECAP recommendations through targeted interventions aimed at reducing climate risks, strengthening adaptive capacity, and protecting ecosystem health. Environmental and social safeguards will be fully embedded in project design and execution.

39. **Sub-project compliance:** The IFAD ESCMF will be used to screen all sub-projects. In the event that unidentified risks are found or the nature of the risk requires further studies then the sub-project will be required to submit to the PMCU an Environmental Impact Assessments (EIAs) or Environmental Social Climate Management Plans (ESCMPs). All statutory requirements and permits/approvals from competent authorities are mandatory pre-conditions to commencement of sub-projects, especially as pertain to procurement and works commencement. Contractor's ESCMPs will be required for all civil works. Climate risk will be screened for every subproject and addressed using the overall Targeted Adaptation Assessment (TAA) provided as well as activity-specific climate measures which might warrant site-specific studies. Oversight will be provided by the PMCU Environmental Officer in coordination with the Department of Environmental Affairs to ensure both ESCMF and national requirements are met. **Key environment and climate priorities**: Human–wildlife conflict remains a major concern in Botswana's rangelands, particularly in areas adjacent to protected zones. To address this, BoLCoP will invest in predator-proof kraals designed and approved by the Department of Wildlife and National Parks (DWNP), using materials and designs proven to reduce predation. Training will be provided to communities, including women and youth, on safe herding practices, nighttime kraaling, and the strategic use of herding dogs. Awareness campaigns will emphasize buffer zone management and conflict mitigation strategies that are socially acceptable and environmentally sound.

40. Additionally, climate-smart livestock strategies will include the conservation of drought-tolerant indigenous breeds, such as Tswana cattle and Boer goats, complemented by improved veterinary care and modern reproductive technologies like Artificial Insemination and Multiple Ovulation Embryo Transfer (MOET)

41. Rangeland rehabilitation will be pursued through reseeding degraded areas with climate-resilient species such as Cenchrus ciliaris and Stylosanthes, combined with rotational grazing systems managed by local committees using GPS-based grazing maps. These efforts aim to restore soil fertility, enhance forage availability, and improve livestock productivity.

42. Water scarcity and salinity, which are major climate-induced threats to livestock production and human livelihoods, will be addressed through sustainable water innovations. BoLCoP will promote renewable energy solutions by upgrading communal desalination units in Rappelspan and Struizendam and piloting solar-powered desalination modules in salinity-prone areas. These systems will operate under formal service-level agreements with the Water Utilities Corporation, supported by clear operational and maintenance protocols to ensure longevity. In addition, district slaughter facilities will install biogas digesters that transform organic waste into clean energy for cooking and produce nutrient-rich bio-slurry for use as organic fertilizer, reducing greenhouse gas emissions while creating a closed-loop waste management system that benefits both climate and soil health.

43. The project also addresses invasive species management, particularly Prosopis juliflora, which has degraded grazing areas. Community-based groups, prioritizing women and youth, will be trained to harvest and process Prosopis into charcoal briquettes and livestock feed blocks, creating green business opportunities and contributing to a circular economy.

44. To further strengthen adaptive capacity, BoLCoP will enhance climate information systems and promote agroecological diversification. Early warning mechanisms will integrate meteorological data, drought indices, and satellite-based pasture monitoring to guide rangeland and livestock management. Seasonal forecasts and alerts for drought and disease outbreaks will be disseminated through SMS and community radio, ensuring timely decision-making. In parallel, extension services will promote integrated crop-livestock systems, agroforestry with indigenous multipurpose species such as Faidherbia albida and Vachellia spp., and climate-smart cropping practices including drought-tolerant legumes

and dual-purpose cereals. These actions will diversify income sources, improve soil fertility, and reduce climate vulnerability at household and community levels.

45. **Key climate priorities**. (a) drought-smart water security (solarised boreholes, water efficiency, leak management); (b) rangeland restoration and rotational grazing; (c) climate-resilient breeds and veterinary prevention; (d) heat-resilient, energy-efficient facilities; (e) circularity (waste-to-biogas/bio-slurry); (f) human–wildlife coexistence; (g) climate information services and early warning.

1.3 2. SECAP Implementation Procedures

46. **Roles:** The Environmental Management, Climate Change and Social Safeguard Specialist will lead SECAP compliance and climate integration; the Gender/Youth/Social Inclusion Specialist co-leads on social risk, FPIC and GRM; District Coordinators ensure field execution. SECAP procedures must be followed even if not provided for by national statute and policy. Conflicts between SECAP and national law will be referred to IFAD for resolution.

I.4: ORGANISATION AND MANAGEMENT

47. BoLCoP's implementation will be mainstreamed into the GoB system, both at national and district levels.

48. *Lead Implementing Agency (LIA)* – The Ministry of Lands and Agriculture will serve as BoLCoP's lead implementing agency. However, MoLA will delegate the day-to-day operation of the Project to a National Project Management and Coordination Unit (NPMCU) reporting directly to MoLA's Permanent Secretary.

I.4.1: National Project Management and Coordination Unit (NPMCU)

49. A NPMCU will be established comprising a team of officers either recruited through a competitive process or seconded to the NPMCU by GoB on a fulltime basis to fully focus on Project implementation. The following is the NPMCU composition: a) Project Director; b) Monitoring and Evaluation and Knowledge Management Specialist; c) Financial Management Specialist; d) Procurement Specialist; e) Livestock Specialist; f) Agribusiness and Marketing Specialist; g) Gender, Youth and Social Inclusion Specialist; h) Environmental Management, Climate Change and Social Safeguard Specialist; i) M&E/KM Assistant; j) Accountant; k) Procurement Analyst; l) Project Assistant; and m) Drivers (7). Detailed Terms of Reference/Job Descriptions are presented in this PIM. The NPMCU will be located in Gaborone and will be housed by GoB as part of its counterpart contribution to BoLCoP. The Project will avail the NPMCU will the equipment, including logistical, needed for effective coordination of Project activities.

50. The NPMCU will have to coordinate BoLCoP implementation with those ministries and other government bodies whose mandates directly relate to the Project's development objective (refer to the section on PSC below). In addition, the Project will recruit qualified service providers, where needed and following appropriate procurement procedures, to facilitate activity implementation. Service providers could be other government ministries/parastatals, farmers organizations, civil society organisations, private sector stakeholders, research organizations, etc.

51. The NPMCU responsibilities will include: a) availing a conducive environment for Project activities, including the multiple partnerships required for effective implementation; b) coordinating the implementation of Project activities in line with the Annual Work Plans and Budgets (AWPBs) approved by the Project Steering Committee (PSC) and provided with a 'No-Objection' from IFAD; c) development of operational strategies and establishment of effective tools for BoLCoP implementation; d) ensuring effective and efficient financial and administrative management of Project resources, preparation of AWPBs, mobilisation and coordination of implementation partners; e) monitoring, evaluation, knowledge management, learning and reporting

implementation progress; and f) provision of the procurement function. The Project Director will ensure that NPMCU staff work in an integrated approach with the objective of exploiting existent complementarities and synergies for effective activity implementation.

I.4.2: District Project Management and Coordination Unit (DPMCU)

52. *At District Level* – A District Project Management and Coordination Unit (DPMCU), headed by a dedicated District Project Coordinator, will be established and will be responsible for the day-to-day implementation of Project activities. The DPMCU will comprise staff seconded from the districts on a fulltime basis; this will enable the staff to fully focus on implementing BoLCoP activities. Composition of the DPMCU will seek to mirror the NPMCU for technical positions.

53. The responsibility of the dedicated DPMCU team shall be:

a) facilitation of a conducive environment for Project activities at the district level, including the multiple partnerships required for effective implementation;
b) identification of Project beneficiaries in close collaboration with the NPMCU and the district local administration officials;
c) implementation of the Project activities in line with the approved district AWPBs;
d) development of operational strategies and establishment of effective tools for Project implementation at the district level;
e) financial and administrative management of Project resources, coordination of the preparation of district AWPBs arising from the community consultations;
f) mobilisation and coordination of implementation partners;
g) monitoring, evaluation, knowledge management, learning and reporting implementation progress; and
h) provision of the delegated procurement function.

I.4.3: Project Governance Structures

54. **Project Steering Committee (PSC)** – A PSC, under the chairmanship of the MoLA Permanent Secretary, will be set up to provide overall policy and strategic guidance to the Project. The other members will be Permanent Secretaries from ministries whose mandates have a direct linkage to the effective implementation of the Project. These include Ministry of Finance, Ministry of Environment and Tourism; Ministry of Local Government and Traditional Affairs; Ministry of Water and Human Settlement; Ministry of Trade and Entrepreneurship; Ministry of Youth and Gender Affairs; District Commissioners of the participating districts, and representatives from the Botswana Meat Commission, LEA, and other government parastatals that will play a critical role in BoLCoP implementation. The NPMCU will serve as a secretariat to PSC with the Project Coordinator being its secretary.

55. The main responsibility of the PSC will be to ensure successful implementation of the Project. The PSC tasks will include policy and strategic guidance on the BoLCoP focus, priority setting and institutional strengthening to ensure that the Project achieves its objective and contributes to the higher-level sector policy and strategic goals. This will necessitate reviewing Project progress against targets, assessing management effectiveness, appraisal of annual performance and recommending renewal of contracts of PMCU staff, deciding on corrective measures where appropriate, identifying lessons learned and good practices, approving AWPBs and Procurement Plans.

56. The NPSC will meet at least twice in a year and on a need basis to deliberate on Project matters. The Project Director will serve as the secretary to the NPSC and in this regard will prepare and circulate to members a calendar of meetings at the beginning of the Financial Year. The Committee will work closely with the PMCU and the BoLCoP District Teams.

57. **Project Technical Committee (PTC)** – The PTC will be part of the oversight function and will be co-chaired by the Director of Animal Production and the Director

Veterinary Services. The PTC will be composed of Directors of the relevant departments in the key ministries involved in the Project's implementation. Its responsibility will be to:

a) provide technical guidance of the Project;

b) update the PSC on partnerships with stakeholders within the government to advance operational/coordination issues related to the Project;

c) coordinate with technical counterparts of other government agents;

d) update their respective mother institutions on any progress and challenges and plans of the Project;

e) provide technical and operational guidance to Project quarterly and annual progress reports and work plans; and

f) participate in periodic monitoring of the Project in the participating districts.

I.4.3: Partnerships

58. *Implementing Partners* – The Project will collaborate and enter into Memoranda of Understanding (MoUs) with Project partners drawn from the private sector and relevant Government Agencies (Ministries or Parastatals). The MoU/contractual agreement shall clearly specify, the scope of the work to be undertaken, staffing and institutional arrangements, budget, reporting and fiduciary requirements, implementation records, and performance evaluation criteria, where relevant.

59. In addition, BoLCoP will seek to coordinate and harmonize with the projects/programmes financed by the Government of Botswana and various development partners that support thematic areas related to its development objective. Essentially, this aims at taking advantage of synergies and avoid duplications. The list of potential partners for collaboration is presented below.

Potential BoLCoP's Collaboration Partners

Donor/Agency	Project	Geographical Area	Remarks
AfDB	• Zambezi Integrated Agro-Commercial Development Project (*Technical Assistance Intervention)*	• Pandamatenga	• Ongoing (*completion scheduled for May 2025*) • Exploring key value chains i.e., maize and sunflower which could serve as raw material for animal feeds required under BoLCoP.
AfDB	• Public Private Partnership Capacity Strengthening Project (*Technical assistance intervention)*	• National	• Ongoing (*completion for November 2025)* • Lessons learned from the Project can inform the institutional ambitions and narrative in BoLCoP, especially those that concern partnerships between public and private sector

Donor/Agency	Project	Geographical Area	Remarks
AfDB	• Public Procurement Technical Assistance Project (*Technical assistance intervention)*	• National	• Approved (completion in December 2027). • Linkages between this Project and the procurement workstream under BoLCoP have already been identified and linkages on a coherent procurement approach that will facilitate Project implementation are required.
European Union	• Support to Digital Transformation in Botswana	• Countrywide	• Ongoing • The aim of the intervention is to ensure a digital ecosystem is established in the country. • BoLCoP can leverage the existing work undertaken and build on critical digital services that show potential for scalability and replicability in the small livestock sector.
GCF-Conservation International	• Ecosystem-Based Adaptation and Mitigation in Botswana's Communal Rangelands	• Ngamiland, Bobirwa, Kgalagadi	• Ongoing (*completion scheduled for 2030)* • The Project is a livestock intervention and there are lessons to be learned primarily due to the underlying overlaps. • The Project also has a strong environmental lens in a district that is a potential BoLCoP site (Kgalagadi), therefore, overlaps with the herding for health model can be sought for improved rangeland management. • The Project also has the ambition of branding meat and facilitating a market premium that can incentivise farmers – it is envisaged that synergies will be sought between both Project s on the commercialisation pathway established.

Donor/Agency	Project	Geographical Area	Remarks
IFAD	• Non-Sovereign Operation with a local commercial bank.	• Countrywide	• The Project will be going to the September Executive Board for approval. • A concerted focus between BoLCoP and the NSO will be established where finance will be channelled to MSME's with catalytic potential i.e., feed producers who can bring down the cost of inputs for farmers.
GEF-UN FAO	• Integrated Sustainable and Adaptive Management of Natural Resources to Support Land Degradation Neutrality and Livelihoods in the Miombo-Mopane Landscapes of North-east Botswana	• Chobe	• Ongoing GEF Financed intervention implemented by FAO. • Focused on sustainable land management interventions which could be replicated and scaled up under the BoLCoP, especially where there is a natural resource management focus.
UN FAO	• Development of National Fodder Production Strategy (Technical Assistance)	• National	• Ongoing (completion in 2025). • Findings from the strategy could feed into BoLCoP as fodder is a critical input in driving greater livestock development.
World Bank	• Pipeline intervention in the red meat value chain	• Sites to be determined	• Pipeline intervention which is still being negotiated. • The intervention will have a robust focus in the red meat (cattle) value chain. • Discussions already ongoing with respect to joint synergies around common policy areas coupled with financing for relevant public goods that allow for greater commercialisation across the small livestock and red meat sectors.

Donor/Agency	Project	Geographical Area	Remarks
UNDP	• Managing the Human-Wildlife Interface to Sustain the Flow of Agro-Ecosystem Services and Prevent Illegal Wildlife Trafficking in the Kgalagadi and Gantzi Drylands	• Gantzi and Kgalagadi	• Ongoing intervention implemented by UNDP. • Synergies will be explored as the Project operates within a prospective target site (Kgalagadi). • Lessons attained from conservation practices will also be analysed for scalability and replicability under the BoLCoP.
UNDP	• Support to Economic Diversification and Inclusive Growth in Botswana	• Countrywide	• Ongoing intervention. • The intervention had a concerted focus on developing a supplier enterprise development pathway programme. • There are existing discussions on how to link some of the existing enterprises supported under this Project to the BoLCoP
UNDP	• Promoting Production and Utilisation of Biogas from Agro-Waste in South-Eastern Botswana	• Southern Districts	• Closed. • Lessons can be learned with respect to the uptake of biogas and whether it is a technology that can be promoted under BoLCoP.

PART II: DETAILED IMPLEMENTATION MODALITIES

II.1: START-UP

60. The Ministry of Lands and Agriculture (MoLA) will develop a workplan and the associated budget for preparatory activities and liaise with IFAD to organize a start-up workshop. Such preparatory activities could include:

Action	Who
a) Sign the financing agreement (following IFAD board approval)	GoB/IFAD
b) Establishment of the national Project Management and Coordination Unit (PMCU) and the BoLCoP District Teams	MoLA and the District Administrations of the 12 target districts in consultation with IFAD
c) Open Designated Accounts and identify signatories (ID and signature specimen).	GoB
d) Sign MoUs/Memoranda of Cooperation between the national Government and the participating districts and between MoLA and the other participating line Ministries, specifying the expected responsibilities and outcomes.	Ministry of Finance /MoLA/participating districts

Action	Who
e) Review and finalise the first year AWPB and Procurement Plan	PMCU/BoLCoP District Teams
f) Review and finalise draft PIM	PMCU/ BoLCoP District Teams
g) Establish the Project Steering Committee and Project Technical Committee and introduce BoLCoP to them. Agree on how to proceed with the provision of the oversight function (frequency and modality of meetings)	MoLA and the District Administrations of the 12 target districts in consultation with IFAD
h) Hold the official BoLCoP start-up workshops (I national and 12 district level workshops). This would be used to orient the PMCU/ BoLCoP District Teams and other stakeholders.	MoLA and the District Administrations for the 10 target counties in consultation with IFAD
i) Initiate the undertaking of the BoLCoP baseline survey	PMCU/ BoLCoP District Teams
j) Initiate the process of undertake a capacity and system's needs assessment to elaborate capacity building plan	PMCU/Consultant
k) Conduct awareness creation on Project objectives and implementation arrangements	PMCU/ BoLCoP District Teams
l) Review and finalise the targeting strategy for the selection of subdistricts, villages, and specific beneficiary communities. Initiate the process of selecting the subdistricts, villages, and specific beneficiary communities.	PMCU/ BoLCoP District Teams

COMPONENT 0: RESPONSE TO EMERGENCIES AND DISASTERS (RED)

61. The RED component is designed to provide rapid and flexible support to address emergencies and disasters that may occur during project implementation. Botswana faces high rainfall variability, with approximately 70% of the country falling under desert conditions, and is increasingly vulnerable to the impacts of climate change, such as intensified droughts, prolonged heatwaves, floods, and outbreaks of livestock diseases. These shocks pose a serious threat to the livelihoods of small livestock farmers and the sustainability of the livestock value chain.

62. To mitigate these risks, BoLCoP will establish mechanisms for emergency response and post-disaster recovery to safeguard livestock assets, restore production systems, and reduce the vulnerability of affected communities. This may include financing of urgent measures such as animal health interventions, restoration of damaged infrastructure (e.g., water points, kraals), provision of feed and water during critical periods, and other climate-resilient recovery services aligned with the project's objectives. Humanitarian relief activities, however, will not be financed under this component.

63. A total of USD 1,000,000 has been earmarked for the RED component, representing a contingency fund to be accessed only under defined circumstances. The funds will cover eligible categories such as works, goods, services, and inputs required for emergency response and recovery.

64. The RED component will be activated upon meeting the following triggers:

a) Official Declaration of Emergency: The competent national authority formally declares a disaster or emergency situation (such as severe drought, flooding, or disease outbreak) based on verified data. Examples include meteorological services confirming

severe drought conditions or the Department of Veterinary Services confirming a livestock disease outbreak threatening herd survival.

b) Damage Assessment: Local assessments conducted by government entities, NGOs, or community-based organizations confirm that the event has caused significant adverse impacts, including at least 50% loss of livestock assets or critical production infrastructure in the affected areas.
c) Official Request from Government: The Government of Botswana submits a formal request to IFAD for the activation of the RED component.

65. The Country Director (CD) for IFAD will hold delegated authority to approve the financing of activities under the RED component, ensuring that response actions are initiated promptly and in alignment with IFAD's guidance and policies.

66. Once activated, the RED component will finance time-sensitive activities required for disaster response and recovery, such as:

a) Emergency supply of feed and water for livestock during droughts or floods.
b) Repair or rehabilitation of critical infrastructure (e.g., water points, fencing, animal handling facilities).
c) Animal health interventions, including vaccination and treatment during disease outbreaks.
d) Deployment of mobile veterinary services and support for disease surveillance.
e) The component will also allow the use of by-products from recovery interventions (such as treated effluent for irrigation) to strengthen climate adaptation and resilience.

67. Disbursements under RED will follow expedited procedures agreed between IFAD and the Government to ensure rapid response.

68. The RED component will finance rapid, time-bound support to protect small stock from drought and heat stress. Eligible costs include emergency water at communal boreholes (repairs, temporary pumps/storage), emergency feed and veterinary inputs (vaccines, drugs, mobile clinics via e-vouchers), and quick repairs to kraals/handling facilities. Early recovery will fund rangeland rehabilitation around water points, limited criteria-based restocking with climate-tolerant breeds where water/grazing plans exist, disease surveillance and early warning with MoLA/DVS. Targeting will prioritize women, youth and remote-area communities using climate-vulnerability and shock data.

69. All activities financed under RED must be documented and reported in line with IFAD's operational and fiduciary requirements.

II.2: COMPONENT 1: INCREASED CLIMATE-RESILIENT SMALL LIVESTOCK PRODUCTION AND PRODUCTIVITY

70. Small livestock producers face challenges that include poor access to adapted and productive breeds; inadequate veterinary and other extension services; inability to provide sufficient feed for the animals, especially during the dry season and drought periods; difficulty in accessing water for livestock and inability to respond and mitigate adverse weather and climatic conditions. This component seeks to facilitate increased production and productivity of small livestock thereby contributing to better incomes for the target group; it would also contribute to food security and dietary diversity. The component's objectives will be achieved through two subcomponents.

II.2.1: *Subcomponent 1.1: Enhanced Access to Quality Small Livestock, and Animal Health Services*

71. *Enhanced availability of small livestock breeds adapted to the local environment* through the following set of activities:

72. **Increasing access to quality breeding stock**: The project will ensure that farmers have easy and continuous access to quality breeding animals. This involves

supplying additional parent stock to breed multiplication centres, where commercial and elite farmers can purchase through auctions and poor farmers through an exchange programme (two ewes/does for an improved male). Vulnerable groups such as women and youth farmers will be assisted in acquiring improved small livestock genetics through targeted grant programme under *Thuo Letlotlo*.

73. BoLCoP will collaborate with Botswana University of Agriculture and Natural Resources (BUAN) and the National Agricultural Research and Development Institute (NARDI) to develop and multiply improved breeding stock for different regions. This partnership will also focus on producing improved chicken breeds. Indigenous and drought-resilient breeds (Meatmaster, Kalahari Red, etc.) and high-performing commercial breeds (Ross broilers) will be maintained and multiplied through controlled breeding programs.

74. **Capacitate Breeder Societies**: The project will support local Breed Societies in registering and maintaining stud books. Ensure that small stock stud breeders are registered and maintain performance records in compliance with the Livestock Improvement Act of 2009. The project will facilitate the development of anchor farmers who will serve as local breed hubs.

75. **Support Community-Based Breeding Programs (CBBP)**1: BoLCoP will implement programs that allow farmers to identify and select superior performing small livestock as the next parents in their flocks. NARDI will collaborate with the project to implement and coordinate the CBBP, which will include (i)introducing fenced areas to keep bucks for controlled breeding, which helps improve flock management and overall productivity, and address uncontrolled breeding on communal lands, as it is detrimental to breed improvement efforts and (ii) monitoring the rotation of male animals among farmers to minimize in-breeding.

76. **Promote Artificial Insemination (AI)**: The project will expand existing AI programs for livestock improvement. Support will be provided to both public and private sector players in delivering efficient AI services to farmers. Lobu Small Stock Farm and Impala Training Centre will be developed and capacitated to (i) maintain and multiply elite breeding males, (ii) harvest semen from the elite sires, (iii) develop a climate-smart semen preservation and storage facility, (iv) train and capacitate artificial insemination service providers, and (v) distribute elite semen to small livestock producers through the trained inseminators and district extension services. Small livestock farmers will be provided with financial incentives for accessing AI services.

77. **Focus on Climate-Resilient Breeds**: The outcome of the above set of activities is to promote breeding programs that develop more **resilient and efficient animals**. BoLCoP will prioritize the selection of indigenous or indigenous crossbred animals for breeding based on their **heat and disease tolerance** and their suitability for harsh environments.

78. *Comprehensive capacity-building package to small livestock producers for efficient and climate-smart production and management*. This activity will develop tailored capacity building programmes, harnessing contemporary national workstreams, to capacitate small livestock producers within the various value chains. The programmes will introduce farmers to practices that improve fertility, growth rates and carcass quality of small livestock, while also being contextually appropriate in terms of farmer characteristics, local conditions, and climate change impacts. Capacity building will be undertaken from specialized training centres, such as Lobu Small stock Farm, Impala Training Centre, and NARDI research stations, with backstopping and demonstrations on farmers' fields. The Project will also develop and make use of e-extension services to disseminate small livestock production messages.

1 Community-based livestock breeding | ICARDA

The capacity building programme will involve the following key activities:

79. **Training of trainers and identification of training needs** of small livestock farmers. Conduct baseline assessments to determine current knowledge and practices. Train extension officers and animal health workers, as key training of trainers and facilitators. Train local community-based facilitators and peer educators.

80. **Training modules and on-farm demonstrations** delivered through structured, modular training curricula with practical, field-based learning.

81. Module 1: Animal Husbandry & Health

- Housing, hygiene, and biosecurity.
- Vaccination schedules, parasite and disease control.
- Animal welfare and handling techniques.

82. Module 2: Nutrition and Feeding

- Introduction to supplementary feeding and feed formulation.
- Use of hydroponic fodder, drought-resilient forage crops.
- Feed budgeting and quality feed access strategies.

83. Module 3: Breeding and Reproduction

- Basics of genetics and breed selection.
- Assisted Reproduction Techniques (e.g., artificial insemination).
- Local breed conservation and selective breeding.

84. Module 4: Climate-Smart Livestock Management

- Adaptive grazing systems (rotational resting, holistic grazing).
- Drought-resilient breeds and feed systems.
- Water harvesting, borehole and solar systems.
- Manure management and methane reduction.

85. Module 5: Digital and Smart Farming

- Use of mobile apps for animal tracking, health alerts.
- Digital record-keeping (BAITS) and access to inputs.
- ICT for extension: SMS, IVR, WhatsApp groups.
- E-extension and drone technologies for rangeland mapping.

86. *Support for improved livestock healthcare*

87. **Strengthen Veterinary Extension Services**: Expand and strengthen veterinary services, especially in remote and underserved areas, to improve disease management, vaccination programs, and parasite control. This also includes addressing the high cost of veterinary services and limited access to drugs.

88. **Capacitate and equip district and village level veterinary and animal production extension staff**, to better offer animal health care to small livestock. This includes improving their mobility and acquisition of veterinary kits. Veterinary and animal production staff will also be capacitated to provide animal production extension services. BoLCoP will capacitate and equip the livestock inoculators to be able to offer effective animal health and production services to small livestock farmers. Further, the veterinary extension staff and technical scientific officers (crop) at village level will be capacitated to handle animal production issues. Para-veterinarians and private vets will be equipped and capacitated through certification and continuous professional development. Service level agreements will be established with private vets to supplement government veterinary services in underserved districts.

89. **Establish a Community Animal Health Worker (CAHW) Scheme**: Capacitate young people to provide direct advice and supply inputs to livestock owners, bridging gaps in professional veterinary coverage. Offer scholarships for certificate training in animal health for youth mainly through BUAN. A cohort of youth trained as community animal health workers (CAHWs), male and female, to provide animal health services; this would be one of the avenues to integrate youth into the small livestock sector.

90. **Implement Digital Health Surveillance Systems**: Introduce smart animal health surveillance systems, including digital tracking of livestock health data, and equip agro-vets and community disease reporters with smart devices for real-time monitoring and reporting. The disease surveillance system will be instituted and administered by NARDI's Botswana National Veterinary Laboratory (BNVL).

91. **Develop Disease Contingency Plans**: BoLCoP will reinforce preparedness for sanitary crises by supporting the development of contingency plans and organizing simulation exercises for major outbreaks like Foot and Mouth Disease (FMD), Contagious Bovine Pleuropneumonia (CBPP), and Newcastle Disease (NCD).

92. *Infrastructure investments* will include support towards rehabilitation and/or construction of:

93. **Boreholes and livestock watering facilities** to improve water availability and access to small livestock. The boreholes will be solar powered with water reticulation and water troughs for livestock constructed. Boreholes will be constructed at community/cluster level. The project will drill the boreholes and construct the tanks and water troughs. Water user committees will be constituted to oversee and manage the boreholes, including collection of fees for operation and maintenance of the infrastructure. Local government will have overarching control and oversight of the boreholes and watering facilities and make budgetary provisions for major equipment breakdowns. These costs can be recovered through the water user associations.

94. **Small-scale irrigation equipment to enhance fodder production**. This will be promoted for households with access to water from boreholes or other water bodies. These will be drip irrigation kits for forage production under CSA practices. Households will access grants and loans to acquire the irrigation equipment. Training on water-efficient irrigation will be integrated into Farmer Field Schools curricula.

95. **Forage planting, management, harvesting and processing equipment** to increase feed availability. Small livestock producers will be facilitated to acquire equipment such as hand-held planters, cultivators/weeders, knapsack sprayers, forage harvesters and grinding mills. Concessionary loans and grants (depending on beneficiary classification) will be extended to households to acquire the equipment.

96. **Linkages with the DeSIRA+ EU funded IFAD project.** The project will also build synergies with the planned IFAD DeSIRA+ project funded by the EU to enhance efficient water use practices, agro-ecological practices such as manure management and use, and community-based rangeland management in integrated small livestock and horticulture systems. More attention will be paid to working with districts with potential for integrated small livestock and horticulture systems to pilot the DeSIRA+ approach across 500-1000 households.

97. **Animal handling facilities and shelters** at household level to enhance small livestock management and humane handling. The project will design model housing and handling facilities and construct demonstration units at selected locations. Individual households will be assisted to access loans and building materials. Predator-proof kraals, crush pens, and dip tanks will be designed in collaboration with local contractors, ensuring designs minimize wildlife conflicts and reduce livestock losses.

98. **Animal health infrastructure at cluster level** to enhance animal health services. Communities and clusters will be assisted to construct dip tanks, crush pens and handling pens. These will be used for external and internal pest control, vaccinations and

tagging, etc. BoLCoP will construct the facilities for communities with identified/proven need. Community management committees will oversee the operation and maintenance of the infrastructure with oversight from Local Authorities and DVS.

99. **Feed processing equipment** to enhance feed-lotting and feed availability for poultry. Where a viable business case is identified, youth and women groups will be capacitated to acquire and operate feed processing equipment to supply local small livestock producers will stockfeed.

100. **Bio-gas digesters** will be introduced via demonstration units built with imported expertise, followed by training local builders for scale-up. Targeted to manure-sufficient households or groups, they will include local-language manuals, with slurry promoted as organic fertiliser through Farmer Field Schools. Oxidation pond systems will be built at high-wastewater cluster facilities, designed with the Department of Environmental Affairs to meet standards.

101. Borehole, water storage infrastructure and irrigation investments for climate resilience will be co-financed by the Adaptation Fund, with implementation beginning in Year 3. All assets will integrate sustainability features such as solar energy and water-efficient systems. Moreover, the adaptation fund will finance climate-resilient innovation pilots which may include underground dams, sand dams and ultra-efficient irrigation systems. These pilots will be implemented in selected sites with high climate risk exposure and will be accompanied by rigorous monitoring and evaluation to assess technical performance, cost-effectiveness, and scalability.

II.2.2: *Subcomponent 1.2: Improved capacity of farmers to adopt climate resilient production and management practices*

102. *Enhance access to feed, fodder, and environmentally sustainable rangeland management* – Support will be provided to small livestock producers to enhance their capacity to establish and manage productive, drought-resilient pastures, conserve surplus forage, and implement efficient feeding practices, thereby reducing dry-season feed shortages and improving livestock productivity.

103. In collaboration with the Botswana University of Agriculture and Natural Resources (BUAN) and the National Agricultural Research and Development Institute (NARDI), BoLCoP will explore **alternatives of availing adaptable fodder varieties for semi-arid conditions and feeding packages** that tap into indigenous plants. Encourage fodder cultivation, especially using drought-tolerant species. This includes species like spineless cactus, safflower, lablab, annual clover and vetch cultivars, and indigenous browse species. It will also pilot the use of Prosopis, an invasive woody species as fodder, ensure safeguards are in place to control its numbers. Fodder production should be promoted year-round to ensure consistent availability.

104. **Development of climatic adapted fodder crop varieties** (Crops for Fodder production). NARDI will lead this activity and will (i) set up seed multiplication sites for breeders, basic seed across selected sites (cereals, legumes, oil crops, fodder), (ii) establish community seed banks, and (iii) conduct cost benefit analysis of introduced fodder crops and local varieties, participatory variety evaluation (demand led breeding).

105. **Fodder/forage crops** will be grown under climate smart agriculture (CSA) methods (i.e. conservation agriculture (CA), ponding, intercropping, crop rotations). Maximize the use of old lands and smaller homestead gardens to produce green fodder. BoLCoP will also promote the use of **hydroponic fodder systems** as an alternative method for continuous green fodder production, regardless of climate change impacts. This technology allows for production in small structures, year-round, and can reduce enteric methane emissions while improving feed use efficiency. With Adaptation Fund financing, BOLCOP will also introduce cultivation pilots for perennial grains such as perennial sorghum and pulses, in partnership with CIMMYT and The Land Institute. This will involve establishing demonstration plots managed by farmer cooperatives, monitoring growth and productivity under semi-arid conditions

106. **Fodder/forage will be conserved as silage and hay**, and each farmer should have enough feed for dry season feeding and for feeding during critical periods (i.e. lambing/kidding, and feed-lotting for marketing). BoLCoP will facilitate the acquisition of equipment and materials for fodder conservation, such as hay sheds, baling equipment, and plastic barrels for small-scale silage making.

107. **Capacity building and training of small livestock producers on pasture establishment and conservation**, focusing on efficient feeding practices and feed management. This includes detailed modules on fodder cultivation, hay and silage making, and exposure to alternative feed sources. Training should also cover home poultry feed formulation to reduce costs. NARDI, Lobu and Impala Farms and BUAN will be contracted to provide the capacity building in collaboration with the Department of Animal Production.

108. Capacity building will follow the training modules and schedule outlined below.

109. **Module A: Pasture Species Selection & Seed Sourcing**

Focus: Semi-arid adapted species, drought tolerance, and local seed systems.

- Recommended species:
  a. Grasses: *Cenchrus ciliaris* (Buffel grass), *Panicum maximum* (Guinea grass), *Chloris gayana* (Rhodes grass).
  b. Legumes: *Lablab purpureus* (Lablab), *Stylosanthes scabra* (Stylo), *Clitoria ternatea* (Butterfly pea), *Sorghum halepense* (perrenial sorghum).
  c. Drought fodder shrubs/trees: *Leucaena leucocephala*, *Acacia* spp. (Faidherbia albida), *Opuntia* (spineless cactus), *Prosopis spp*. (for controlled fodder production and rangeland rehabilitation)

- Seed storage: Keep dry, protected from pests; test germination before planting.

110. Module B: Land Preparation & Establishment Techniques

Timing: Start land prep in September–October, plant with first effective rains (mid-November to early December).

- Minimal tillage, ponding or ripping for moisture conservation.
- Sow grasses & legumes in mixtures for balanced nutrition.
- Sow legume seeds with rhizobium inoculants where possible.
- Row planting vs broadcasting: Demonstrate advantages.
- Plant on contour to prevent erosion.

111. Module C: Post-Establishment Care

Rainy season tasks (Nov–April):

- Weed control at 2–4 weeks after germination.
- Fertility: Apply kraal manure at establishment or top-dress with phosphate for legumes.
- Gap filling if germination is poor after early rains.
- Monitor establishment of perennial grains and Prosopis for early growth and weed competition.

112. Module D: Grazing Management & Pasture Utilization

- First-year pastures: Avoid grazing until plants set seed (usually 3–4 months after planting).

- Rotational grazing: Divide grazing areas into paddocks; rest periods of 30–45 days in rainy season, longer in dry season.
- Stocking rate: 4–6 ha per LSU (Large Stock Unit) in semi-arid areas; avoid overgrazing.
- Integrate perennial grains into grazing rotations to provide continuous ground cover and reduce overgrazing pressure.

113. Module E: Feed Conservation

- Dry-season feed scarcity is a major issue in Botswana → training focuses on harvesting and storing during the rainy season.
- Hay: Cut *Cenchrus* or *Rhodes grass* at 50% flowering; lablab when pods start forming.
- Silage: Use forage sorghum, maize, or lablab mixes; ensile in pits or plastic-lined trenches.
- Fodder banks: Harvest and store surplus for the dry season.
- Crop residues: Collect and store maize/sorghum stover; treat with urea where possible.

114. Module F: Feed Budgeting & Rationing

- Estimate feed needs from **May–October** using simple DM requirement (2–3% of liveweight/day).
- Match pasture, crop residues, hay/silage, and supplements to animal categories (lactating, pregnant, growing).
- Introduce low-cost supplements (salt licks, mineral blocks, sunflower cake, safflower cake).

115. Module G: Feed Storage & Quality Management

- Store hay under cover on raised platforms.
- Protect silage from air and water ingress.
- Monitor for moulds and discard spoiled feed.

116. Module H: Record Keeping & Economics

- Record pasture establishment costs, conservation yields, feeding quantities.
- Track livestock performance: weight gain, milk yield, lamb/kid crop.

117. Module I: Climate-Smart Practices & Risk Management

- Promote drought-tolerant species and early maturing forage crops.
- Use water-harvesting structures (contour bunds, infiltration pits).
- Establish fodder banks near kraals for emergency feeding.
- Integrate Prosopis control with rangeland rehabilitation to avoid invasive spread while providing feed.

118. Module J: Gender, Youth & Inclusivity

- Schedule trainings at times suitable for women's workloads.

- Engage youth in hay baling, feed mixing, and small-scale feed selling as income streams.

119. Seasonal Training Calendar — Botswana (Semi-Arid, Mid-Nov to April Rainfall)

Month	Activity	Training Focus
Sept–Oct	Land prep, seed procurement	Module A, B
Nov–Dec	Planting after first rains	Module B
Jan–Feb	Weed control, top-dressing, grazing planning	Module C, D
Mar–Apr	Start hay/silage making, fodder bank establishment	Module E
May–Aug	Feed rationing, budgeting, storage, dry season feeding	Module F, G
Sept–Oct	Review performance, pasture renovation planning	Module H, I, J

120. ***Dedicated community-based rangeland management***. The Project will promote integrated interventions for climate-resilient rangeland management, funded through GEF and Adaptation Fund investment. This will include *interventions* such as **rotational resting/grazing**, coupled with rehabilitation measures, like gully reclamation and removal of bushes. Bush encroachment and desertification are some of the threats that Botswana rangelands are faced with and require concerted efforts to control and manage consistently. Rangelands will be mapped using satellite-based tools and geotagging, enabling the development of participatory land-use plans that demarcate grazing zones, rest areas, and sites for rehabilitation. The grazing area or rangeland will be demarcated into a minimum of three camps; two camps will be rotationally grazed during the rainy season whilst the third camp will be rested for the whole rainy season from October to May. The rested camp will only be grazed from June to October. Small livestock will be herded as a single herd per village/cluster, or where not feasible, each household will herd their own livestock in a camp designated by the village rangeland management committee. Camps will not be fenced; the herders will ensure that livestock graze in the designated camp. Rangeland monitors, under the direction of village rangeland management committees, will enforce compliance. Natural features will define the boundaries of each camp. Rangeland restoration and rehabilitation, i.e. closing of gullies, control of sheet erosion, removal of invasive species, and agro-grassing, will be performed in the rested camp.

121. Extension officers will **develop grazing plans** tied to rainfall forecasts. Community herd movement maps will be updated semi-annually. MoLA and DWNP will coordinate grazing calendars aligned with rainfall variability. District officers will validate herd movement maps quarterly to prevent overgrazing hotspots.

122. Conflict mitigation measures will also be implemented. Predator-proof kraals will be constructed or upgraded using durable materials and designs tested locally, with training provided to livestock owners on their maintenance and proper night-time use, significantly reducing livestock losses to wildlife such as jackals and leopards.

123. *Improved responsiveness to adverse climate/weather events through improved access to digital weather and climate information* – The Project will support the expansion of automatic/manual weather stations in selected Project sites to enhance access to weather and climate information and advisories by farmers and value chain actors. This will be done through platforms, such as SMS, local level meetings, radio transmissions, etc. BoLCoP will partner with the departments of Meteorological Services and Disaster Management in strengthening the existing early warning and emergency response systems and provision of climate and weather information.

124. *Promote inclusive infrastructure and ethical animal handling and management practices* – BoLCoP will focus on energy efficient practices that contribute to increased climate resilience of the target communities. Capacity building of small livestock farmers will include exposure to basic principles of husbandry practices that reduce stress levels in livestock as well as limit conflicts with wildlife – this relates to fencing, handling, housing, and transportation of livestock. Similarly, buildings and other infrastructure need to be designed or modified to be energy efficient (including materials, orientation, and aspect). The integration of solar as an energy source for powering pumps, lighting, heating and cooling will be promoted.

125. *Identify and operationalise digitalisation services* – Under this intervention, BoLCoP will support the following: a) enhancement of the Botswana Animal Identification and Traceability System (BAITS) allowing it to be operationalized and user-friendly for small livestock producers. In this regard, mobile electronic scales and tagging equipment will be placed in each intervention district to enhance animal identification; b) digital Livestock Management System that will allow further livestock attributes in line with compliance requirements; and c) development of a platform to provide digital climate information services to small livestock farmers through mobile technologies, such as USSD which enables extended reach to diverse target groups. Solar will be explored as a critical enabler of digitalisation, especially in remote, off-grid settings.

II.3: COMPONENT 2: STRENGTHENED SMALL LIVESTOCK VALUE CHAINS

126. This component will improve functioning of the target value chains – goats, sheep and poultry. For goats and sheep, the focus will be on meat production whilst on poultry it will be on both broiler and layers. These value chains were determined to be pro-poor when assessed against the following considerations: a) level of participation of small-scale producers; b) inclusivity (relevance to women and youth); c) existence of growing market opportunities (market integration of the target group); d) offer high potential for resilience and nutrition; and e) profitability for small scale producers and other actors along the respective value chains. Thus, the target value chains will ensure deeper engagement and higher impact for the most vulnerable (rural women, youth, and remote subsistence farmers) while supporting those capable of transformation through commercialisation. A value chain study has been conducted as part of the design of the project. This identified the key actors, constraints faced by each of the actors and required intervention strategies and activities to address these constraints. The project will adopt a value chain approach. Inputs and output markets will be identified and producers then identified and supported and formally linked to those markets. While operating in a free-market environment, BoLCoP will collaborate with the following public sector entities: (i) LEA in its business development services (BDSs) and incubation activities (ii) Ministry of Trade and Entrepreneurship for clustering; (iii) Botswana Trade and Investment Center (BITC) to support the establishment of outgrower schemes, contract farming, forward markets, multistakeholder platforms - MSPs, etc. and (iv) MoLA with the authority to convene all stakeholders onto the MSPs and to encourage the development of an enabling environment. BoLCoP will also seek to work with other service providers and private sector to provide project services where necessary.

I.3.1: *Subcomponent 2.1: Strengthened clustering and capacity building of value chain actors*

127. The subcomponent aims at improving organisation of farmers within the target value chains. Producers in target value chains operate on small land sizes that limit the volume of produce they offer to the market. They generally enjoy low economies of scale in input acquisition as well as offer low and uneconomic volumes to market intermediaries. This activity will seek to strengthen horizontal alliances between farmers in input and output markets for improved economies of operation. Working with existing regional and

national farmer organisations this activity will provide support for building of such alliances allowing farmers to share market information, build economies of scale for input supply, product assembly, transport, and storage as well as to effectively negotiate and enter into supply agreements with market intermediaries. The following farmer organisations have been identified: National Small Stock Federation and the Botswana Poultry Producers Association. These have regional/ district level affiliates generally at inception level. Given the rather loose classification of small scale farmers (up to 10.000 birds), the Poultry Association is largely dominated by medium to large scale producers. Existing producer associations are very weak and do not provide benefits for their members. This makes associations fail to attract more participation which could boost their bargaining power and enable them achieve economies of scale in the value chains.Experienced service providers will be secured to a) build capacities of farmer clusters/associations in member mobilisation, group organisation, governance, management of collective initiatives b) strengthen the capacity of farmer organisation to deliver production and market support services to their members. The following interventions and activity are planned:

128. ***Capacity Building of Farmer Organisations***. This will involve provision of training and capacity building to existing local, regional and national farmer associations with a view to promote and defend the economic interests of their members. Competent service provider will be engaged to undertake institutional assessments of the identified farmer organisations to determine their level of organisation, membership and capacity building requirements. This will lead to the development of an institutional capacity building agenda for each of the organisations. In additional to training of leaders in various themes (governance, lobbying and advocacy) the project will provide support in member mobilisation, organisation of annual general meetings to improve their democratic functioning. Special attention will be given to identification and design of service delivery schemes that seek to address needs of members and thus improve the attractiveness for joining the respective organisations. A key a focus will be support to FOs to develop sustainable service delivery systems. These will include drought contingency planning, rangeland stewardship (rotational grazing, reseeding), and climate-smart animal health protocols. Institutional support including support for establishment of a secretariat for the Small Stock Federation is planned, for at least three years during which period the organisation is expected to have gained the desired institutional strength.

129. ***Cluster Building***: This will support organisation of local farmers into clusters for the purpose of accessing inputs and/or output markets. The objective of these interventions will be to strengthen collective action by farmers operating in input and output markets to either reduce unit costs of inputs, aggregate produce and increase negotiating power when dealing with suppliers or buyers. The project will build on the experiences of the Ministry of TRADE in cluster building, initially focusing on such existing clusters. The project will secure the services of a service provider(this could be the same as the one required for farmer organisation development) to promote organisation of farmers into clusters, build capacities of such clusters/associations in member mobilisation, group organisation, governance, management of collective marketing initiatives, bargaining and negotiation. and other areas as may be identified during implementation. In building such clusters the following considerations should be observed i) promote self-selection of cluster members to ensure harmony ii) include farmers that are actively producing for the market iii) identify a market opportunity that would be object for clustering iv) ensuring geographical proximity of members v) ensure that the size of the cluster is manageable (up to 20 farmers in proximity of each other). Clusters will be equipped with shared climate-smart assets in line with sub-component 1.1 and 1.2, including solar pumps, shaded and ventilated holding areas and emergency feed reserves linked to the RED component, alongside basic heat-stress and drought standard operating procedures (SOPs).

II.3.2: *Subcomponent 2.2: Improved access to input and output markets*

130. This subcomponent seeks to address challenges faced by farmers in accessing inputs (especially feed, fodder and medicines) and output markets. Goats and sheep are

ether sold as live animals on the hoof for meat, live animals for breeding purposes or slaughtered (locally or through abattoirs) for meat products. Depending on the type of product, main markets include local sales to other farmers, local butcheries, abattoirs, agents of larger abattoirs/end markets and institutions. Poultry will be for meat and/or egg production although the majority of participating beneficiaries will be for the former. Sales channels for poultry are similar to those of other small stock. An additional market exploited by poultry producers is sale to government institutions, especially schools for the feeding programmes, hospitals and Botswana Defence Forces. A priority under BoLCoP will be the establishment of formal market structures between producers, abattoirs and offtakers (supermarkets, hotels and public sector institutional buyers), embedding climate-resilient input supply (e.g., drought-tolerant fodder seeds, climate-safe vaccines) and climate-aligned quality standards across transactions. Some export market opportunities have been identified for goats, particularly to Saudi Arabia, Angola, Norway and Mozambique but these remain largely unexploited and require intermediary agents that will be able to respond to the specific market requirements. Operationalising the Government sponsored multi-species abattoir represents a unique opportunity to unlock value in the small stock value chain, including exploiting export market opportunities. The Following are the planned activities:

a) Access to Inputs

131. *Collective Acquisition of Inputs*: Farmers that have been organised into clusters will be encouraged to aggregate their demand for inputs and potential suppliers identified. The cluster facilitator will assist in facilitating linkages between interested clusters and identified suppliers. Training and capacity building is planned to build knowledge in product handling and storage to ensure safe handling of inputs including chemicals. Training of farmers in home production of feeds will be emphasized.

132. *Capacity Building of local Input Suppliers* (Agro dealers) There is limited local input suppliers in remote areas and limited stock, especially of concentrate feed, drugs, and vaccines. The Project will mobilize the services of a BDS provider to provide support to local input stockists through training and linkages with wholesale suppliers. The main activities conducive to achievement of the objective include:

- **Identification, selection, profiling and conduction of needs assessment for new agro-dealers**: The project will in partnership with Input Suppliers identify new potential agro-dealers to integrate into the project. The identification and selection process will take into consideration the business acumen, geographical location, business historical data and credibility, and willingness to integrate into the program. A particular attention will be given to women entrepreneurs.
- **Conduction of enterprise management training for existing and new agro-dealers**: Capacity building of rural entrepreneurs is crucial to ensure that they improve their business skills and run their business in a profitable manner. The project will conduct tailor-made training in management of input businesses for agro-dealers engaged in the project.
- **Identification financial services for agro-dealers**: The project will identify potential source of commercial and non-commercial services that apply for agro-dealers. This includes capacity building and provision of individual support for development of business plans and applications for working capital or investment credit

b) Access to Output Markets

Facilitation in small livestock value chains will be done at various levels as outlined below:

- *Market opportunity Assessments*: The project will undertake annual market opportunity assessments to identify actors and demand for small stock products. This information will be used to organise producers around such identified opportunities.

- *Aggregation and Collective Marketing*: The project will secure the services of a service provider to a) support clusters to undertake local aggregation of produce for sale to market intermediaries and off takers b) provide training to cluster leaders and members in market opportunities, management of collective marketing c)) facilitate business relationships with abattoirs, wholesale outlets, through contract arrangements, ensuring that producers are connected to reliable off-takers.
- *Market information support:* The Project will invest in measures to improve market transparency. It will make investments in the development of market information systems building on similar initiatives of the Ministry of lands and Agriculture. A gap analysis will be conducted to determine market information needs of the various actors, existing market information systems including their delivery mechanisms and needs to be able to reach project target groups and thus investments that can be supported by the project.
- *Value Chan Platforms:* Following the identification and engagement of the various actors along stock value chains the project will facilitate their organisation into multi stakeholder platforms (VCP). These are a mechanism that allow active interaction between value chain actors – input suppliers, farmers, private sector market operators (buyers) etc. They may also involve the participation of service providers such as extension agents, financial institutions. The ultimate objective of these platforms is to facilitate exchange of information that may lead to firming of business relations between the value chain actors. Their organisation can take various forms including regular stakeholder meetings and/or virtual interactions taking advantage of electronic communication channels. In the initial stages of setting up such platforms the project, through its own staff or contracted agents could serve as facilitator. An exit route for the project should be defined in the early stages to ensure that relevant capacities are built in the identified exit agent. The role of the Ministry of Lands and Agriculture as well as National Farmers Organisations in facilitating such platforms should be explored.
- *Marketing Infrastructures*. The project will support investments required by clusters to make effective aggregation. This includes establishment of goats'/ sheep sales market pens complete with watering facilities (including through upgrading existing cattle sales pens). Clusters involved in joint procurements of inputs may also require storage facilities. In identification of such marketing infrastructure a value chain approach will be adopted seeking to respond to infrastructure needs of actors organised as clusters and marketing groups. Private sector stakeholders will be actively consulted to ensure that the infrastructure aligns with their operational requirements. For comprehensiveness a rapid infrastructure needs assessment should be undertaken at the start of the programme and reassessed on an annual basis.
- With adaptation fund co-financing, the project will introduce solar-powered processing machines for activities such as small-scale feed mixing, and meat or milk value addition. These machines will be strategically located at cluster aggregation points or community processing hubs, with operational management assigned to farmer organisations or cooperatives. solar-powered cold storage rooms will be installed at these hubs to preserve perishable products and designed to accommodate seasonal production peaks, with training provided on maintenance, temperature management, and inventory tracking. Solar dryers and ovens will be introduced, allowing communities to convert surplus produce into stable, storable products, extending shelf life and securing incomes and food security during dry seasons. Dryers and ovens will be accompanied by training modules on appropriate use, hygiene standards, drying techniques, and energy-efficient operation.

c) Support to SMES

133. The project will mobilise the services of a business development service provider (BDS) to support establishment and growth of SMEs along the small stock value chains. The project will support SMEs interested in making investments that increase demand for small stock These include butchers, abattoirs and processors of emerging by products eg hides and skins. The strategy will be to provide business development support and linkages to service providers allowing them to start and grow their businesses.

134. Youth Enterprise Development: Under this subcomponent, particular emphasis will be placed on improving youth participation in small livestock/agri-business. The programme will target rural youth who are willing to start small livestock production and processing enterprises and will assist them in establishing viable and profitable businesses and enter in the productive alliance arrangements The support package will include initial intensive technical and business management support, continuous tutoring through business incubation, provision of start-up capital for investment and initial working capital through the matching grant facilities. The project will seek to enter into partnership with LEA to leverage its youth incubation initiatives.

d) Environmental and Social

135. In promoting SME investments, the following environmental and safeguard measures will be adopted **i) Management Plans:** Conduct environmental screening for all abattoirs and market infrastructure. Design protocols for solid waste segregation, effluent treatment, and wastewater reuse in collaboration with DoEnv and WUC. Facilitate training for operators on compliance and environmental hygiene. Ii) **Climate-Proof Logistics:** Map existing meat processing and transportation routes and assess climate risks (flooding, heatwaves). Pilot solar-powered refrigeration units and cold-chain infrastructure at selected nodes to maintain product quality under high temperatures. iii) **Green Enterprise Development:** Provide technical and business training to community groups producing Prosopis-based feed blocks and charcoal briquettes. Support development of market linkages and tracking systems for production costs and inventory.

II.3.3: *Subcomponent 2.3: Improved access to inclusive financial services for value chain actors*

136. The subcomponent[2] focuses on issues plaguing the financing of the small livestock sector in Botswana.

137. A brief assessment of the existing small livestock financing programmes: Currently, many value chain actors are financing their investments from four principal sources in the following order of relative importance – government subsidies and grants, own savings, subsidized/concessional loans from the Government, and from a few from commercial loans. The main government financing programme that covers the livestock sector is the Thuo Letlotlo Livestock Management System (TLMS). TLMS provides grants, matching grants and subsidized loans to qualified livestock farmers and value chain actors. An e-voucher system also within the TLMS helps channel government subsidies through the financial system to qualified farmers to access inputs, and including access to other services, such as insurance. Other financial services offered to value chain actors include loans from formal financial service providers, such as: a) private sector commercial banks (e.g. Bank Gaborone - BG); and b) state-supported financial service providers (e.g. the National Development Bank (NDB), the Botswana Savings Bank (BSB), the Citizen Entrepreneurial Development Agency (CEDA), with its Youth Development Fund (YDF), the Local Enterprise Authority (LEA), etc.). Some financial risk management programmes also exist but are not fully operational; they include a sovereign drought insurance programme and a sovereign Partial Credit Guarantee Fund (PCGF).

[2] Read this subcomponent narrative in tandem with (i) BoLCoP Technical Note #1 - The 2022 Scoping of Botswana Financial Landscape; and (ii) The Thuo Letlotlo Livestock Management System (TLMS) Guidelines Version 1, 2024, Ministry of Livestock and Agriculture (MoLA), Republic of Botswana.

138. An assessment of the existing rural financial services provided to value chain actors shows a significant underperformance characterized by: a) inefficient use of grants and matching grants; b) very high non-performing loans (NPLs); c) very risk-averse value chain actors who have very low appetites to take up loans but have but have a preference for subsidies and grants; and d) limited ability and capacity by government agencies administering the funds to effectively monitor and follow up on beneficiaries leading to the high default rates. Also, women, youth, and PwDs face additional barriers due to lack of appropriate collateral such as land.

139. To address the underlying issues, BoLCoP in its effort to structure and commercialize the sector, will need to derisk the value chains and support government efforts in the efficient administration of financing to the livestock sub-sector. Below is a summary of the planned activities, presented in their order of importance/priority.

140. *Market-led Production for Effective Financing*; For effective financing, BoLCoP will identify actual and viable output markets for the targeted value chains (goats for meat, sheep for meat, and poultry for meat and eggs). This would be followed by producer identification and linkage to the existent markets. They would then be supported (see Component 1 & 2) to meet the market requirements of the identified markets. With regards to market linkages, BoLCoP will collaborate with several service providers, that include but not limited to the following agencies: a) LEA in its business development services (BDSs), to develop bankable business propositions for the targeted beneficiaries; b) Ministry of Trade and Entrepreneurship to cluster farmers for collective marketing and provision of project services such as training; c) Botswana Trade and Investment Center (BITC) to support the establishment of session agreements (for example, out-grower schemes, contract farming, forward markets, etc.,) multistakeholder platforms (MSPs), etc. see Subcomponents 2.1 and 2.2); d) MoLA with the authority to convene all stakeholders onto the MSPs to encourage the dialogue for fair and full cost-recovery pricing through formal/negotiated session agreements (for example, tripartite off-taker arrangements) that eliminate (or reduce) the need from financial service providers for collaterals and/or securitizations; and e) Botswana Trade Commission (BTC) to support policy aspects around local content purchase thereby enabling BoLCoP farmers to effectively supply supermarkets and retail stores.

141. *Exploring Systems for Fair Pricing[3]: The following concepts and/or systems must be explored to ascertain a win-win for all actors in the BoLCoP value chains:*

(i) Free market system: In economics, a free market is an economic system in which the prices of goods and services are determined by supply and demand expressed by sellers and buyers.

(ii) Outgrower schemes: Outgrower farmers are smallholder farmers who are linked to a larger company or nucleus farmer through a contractual agreement, often involving the supply of inputs, training, and a guaranteed market for their produce. This arrangement is a type of contract farming, where farmers agree to produce specific crops or products according to the buyer's requirements

(iii) Contract farming Arrangements: Contract farming is an agreement between farmers and buyers where the buyer agrees to purchase a farmer's produce at a predetermined price and quality, often with the buyer providing inputs and support. This system aims to link farmers to markets, provide price security, and potentially increase productivity and income. However, it also carries risks such as potential power imbalances and market fluctuations.

(iv) Forward markets: A forward market is a marketplace where participants agree to buy or sell an asset at a predetermined price for future delivery. It's essentially a way to lock in a price today for a transaction that will occur later, primarily used to manage price risk.

[3] The explanations shared here for the different systems are extracted from the google search engine.

(v) Multi-stakeholder platform: A multi-stakeholder platform (MSP) is a structured process that brings together diverse individuals, organizations, and institutions to address a common issue or achieve a shared goal. These platforms facilitate dialogue, decision-making, and action among participants with potentially conflicting interests. MSPs are often used to tackle complex challenges in areas like water management, natural resource governance, and sustainable development.

(vi) Full cost recovery pricing: Cost recovery pricing is a method where the price of a product or service is set to recover the total costs associated with its production or delivery, ensuring the business can cover its expenses. It's a common practice for both businesses and government entities, aiming for financial sustainability while potentially offering fair prices to consumers. This approach can involve various strategies, including setting prices based on cost-to-serve analysis, which considers all expenses related to delivering a product or service

142. *Identification and Categorization of all Potential Value Chain Actors:* BoLCoP will develop detailed criteria and support the identification and categorization of all potential value chain actors into one of the four categories as follows:

a) subsistence farmers (micro-scale) – this category will be financed from the TLMS grants and matching grants programme managed by CEDA/YDF. IFAD will provide technical assistance to CEDA and YDF to enhance their efficiency in the screening, disbursement, management and monitoring of the grants and matching grants. Because some farmers in the category may find grants insufficient, (maximum grant size in the current TLMS programme is 150,000 pulas), some farmers under this category that may qualify for loans could be funded by the concessional/sovereign LoC managed by NDB, provided they qualify for such loans;
b) semi-commercial farmers (small-scale) – To mitigate overlaps, over indebtedness, competition, and crowding-out commercial capital, this category will be financed mainly from the concessional/sovereign LoC managed by NDB. The LoC for this category will be financed from blending IFAD13 resources with TMLS programme loan resources from GoB. However, some farmers under this category that may qualify for commercial loans, could be funded by the NSO LoC managed, provided they qualify for such loans in accordance with the NSO credit policy/selection criteria;
c) emerging commercial farmers (medium scale) – To mitigate overlaps, over indebtedness, competition, market distortion by concessional loans, this category will crowd-in private capital by accessing finance from the commercial LoC from the NSO in accordance with their credit policy/selection criteria. There is an MoU being discussed between BG and NDB in which BG could finance short term credit needs (including working capital), NDB would complement with financing long term capital investment needs. Both complementing financing will be done in accordance with their respective credit policies and selection criteria; and
d) on-farm and off-farm small and medium enterprises (SMEs) and including larger commercial farmers providing backward and forward linkages to and session agreements (tripartite off-taker arrangements) with Categories 1, 2, & 3 – this category will be financed from the commercial NSO LoC in accordance with their credit policy and selection criteria.

143. *Partnership with National Development Bank (NDB) and Financial Product Development*: BoLCoP will partner with NDB to undertake a detailed demand segmentation analysis after Project start-up, to qualify and quantify the differentiated financial needs of the four categories of the selected value chain actors, including identified marginalized groups. NDB (as the state-supported financial institution of choice by both GoB and IFAD), will domiciliate and manage the sovereign line of credit (LoC) for the financing of BoLCoP farmers/value chain actors under Categories 1 and 2. BoLCoP will support NDB, first, to undertake a detailed demand segmentation analysis after project start-up, to qualify and quantify the differentiated financial needs of the four categories of value chain actors,

including identified marginalized groups (i.e. NDB will determine loan ticket sizes according to the segments in the categories).

144. Based on the recommendations of the planned demand and supply analysis, different financial products (including, for example, concessionally priced loans that incorporate affordability and reasonable Returns on Investment (RoIs) for the borrower and sustainability for NDB) will be developed These will include products promoting investments that enhance climate adaptation and resilience, such as climate-smart infrastructure, drought-tolerant fodder systems, and water-efficient technologies.. The products will be appropriately tailored to respond to the characteristics of the different potential borrowers in the different categories and the different segments in each of the selected value chains. BoLCoP has preliminarily assigned a lump sum amount of: a) USD 10,000 for the proposed credit/loan demand and supply analysis; and b) at most USD 5 million (as a placeholder) to the sovereign line of credit. A more realistic quantification for the line of credit will be done by NDB in the demand study they will be conducting at start-up. In addition, and based on their demand studies, the NSO will allocate and manage a special commercial line of credit currently estimated at US$ 5,185,185 (P 70 million) to finance "BoLCoP Value Chains" for Categories 3 and 4.

145. Sustainability of the NDB LoC will be enhanced through promotion of bankable/profitable business propositions under components 1 and 2; de-risking the three selected value chains through training provision, farmer organisation and aggregation, collective access to inputs and markets, insurance etc. It is also expected that all bankable business proportions will take loans and make repayments and the repayments plus interests will replenish and even increase the capital stock that will be revolved into next cycles of loans over a much longer period after the BoLCoP phases out. To further enhance sustainability, the project will engage the NDB on the possibility of wholesale on-lending to bankable MFIs and SACCOs, to increase reach, recovery levels and reflows. Further, the project will pilot pay-as you go-models applied successfully in East Africa, to enhance repayment and reduce default rates in promotion of lendable investments such as solar kits, water related technologies etc for individual farmers.

146. Further, financial graduation pathways will be developed for target groups 1 and 2 to help them eventually access loans under category 2 and linkage with the NSO LoC respectively.

147. *Partnering with Existing Financial Risk Management Programmes:* BoLCoP, in collaboration with NDB, will support existing financial risk management programmes (especially, the sovereign and non-sovereign agricultural insurance underwriters and maybe any existing/good-performing PCGFs) that cover the small livestock sector. The partnership with financial risk management service providers will result in a) partly resolving demand by lenders for collaterals/securitizations from borrowers (i.e., qualified BoLCoP beneficiaries); and b) crowding-in/leveraging more loanable resources to the BoLCoP value chains.

148. *Technical assistance (TA) support:* NDB has identified their internal Technical Assistance (TA) needs to work effectively with BoLCoP and BoLCoP will be supporting/financing those needs. BoLCoP has allocated TA support to NDB. On the other hand, the NSO also has some TA needs and they will be exploring ways to finance such needs. The external TA needs for the farmers and other value chain actors, including the different service providers and partners, have been incorporated and costed within the production and productivity enhancement and good livestock practices in the technical interventions in Components 1 and 2.

149. *An IFAD supported Non-Sovereign Operation (NSO): An IFAD supported USD 10 m NSO has been established with a local commercial bank; the NSO is a subordinated loan priced at market terms, designed with a 100% leveraging factor over the 7-year loan tenure. The NSO has earmarked USD 5.1 million from its own line of credit as part of the*

matching contribution to the IFAD-supported NSO,, to finance "BoLCoP Program Value Chains". In terms of synergizing with the NSO, BoLCoP will identify pipeline activities from the four client categories (especially from Categories 3 and 4) that would qualify for commercial lending and recommend them for the NSO financing. The selection of pipeline activities for the NSO will be done in such a way to avoid duplications or overlaps with NDB. BoLCoP will not finance the same pipeline recommended for the NSO. The proposed demand and supply study will be conducted in the first half of Project Year One (PY1) in order to inform the lending that should start only after the study has been concluded. The lending is proposed to start in the second half of PYI or latter, if only there will be target categories readied with profitable/bankable business proposals qualified for financing through the private bank and NDB's credit/loan policies, free of any incumbrances like non-business undue influences and political meddling.

150. Digitalisation *of the Financial Services:* Working with Smarbots and the ICT Ministry, BoLCoP will support the enhancement of the TLMS to make its e-voucher platform more accessible, inclusive, and easy to use, particularly for women and small-scale rural farmers. The upgraded system will use simple mobile technologies, like USSD codes and WhatsApp to allow farmers with basic phones and low digital skills to access subsidies and services. Integration with other systems, such as BAITS, will help ensure transparency and better targeting. The Project will also strengthen the TLMS grant management module to improve tracking, approval, and timely disbursement of support to eligible farmers. To boost adoption, BoLCoP will pilot community-based digital champions with a deliberate focus on training women and youth, and partner with local fintech and agritech companies to co-create farmer-friendly e-wallets and input redemption tools. In addition, digital linkages between TLMS and financial service providers will be enhanced to support mobile payments and digital savings, expanding financial inclusion for rural women and youth farmers.

151. Moreover, working with SmartBots and service providers through the ongoing EU and GoB funded Extopay Digital Transformation Initiative, BoLCoP will support digitalization of payments and rural financial services for wider reach and enhance the TLMS to make its e-voucher platform more accessible, inclusive, and easy to use, particularly for women, youth and small-scale rural farmers. Extopay is expected to introduce a low-cost digital payment system, designed to address the lack of affordable payment switch infrastructure in Botswana. By offering both offline and online capabilities, Extopay is expected to support financial inclusion for underserved and unbanked groups such as youth, women, and vulnerable/marginalised groups.

II.4: COMPONENT 3: ENHANCED ENABLING ENVIRONMENT FOR IMPROVED SMALL LIVESTOCK DEVELOPMENT

152. This is a cross-cutting component servicing the two technical components and facilitating pathways for the effective and inclusive implementation of all Project interventions. The objective of the component is twofold to: a) provide targeted support to selected policy areas and augment the capacity of selected institutions to facilitate participatory planning and development processes and oversee BoLCoP implementation; and b) manage the Project in an efficient and effective manner by providing overall coordination, including planning and implementation, financial management and control, procurement support, Monitoring and Evaluation, knowledge management, and progress reporting. It will also ensure liaison and linkage with all other relevant projects/programmes being implemented in the country that seek to address similar or related constraints. This would be aimed at taking advantage of existent synergies and avoiding duplications. Accordingly, the component has two subcomponents: a) Subcomponent 3.1: Institutional Strengthening and Policy Support; and b) Subcomponent 3.2: Project Management and Implementation Support Services.

II.4.1: *Subcomponent 3.1: Institutional Strengthening and Policy Support*

153. The subcomponent will have a dual focus: institutional strengthening and policy support. The subcomponent will seek to facilitate the process of ensuring that a supportive policy environment is put in place for effective activity implementation during and after BoLCoP implementation.

154. ***Institutional Strengthening*** – The Project will improve capacities of those institutions that will be responsible for overseeing and/or implementing Project activities. In order to ensure targeted interventions, a limited capacity needs assessment was undertaken during the design Mission. Interventions to address some of the identified capacity gaps are included in the technical components. Some of the other areas identified as needing redress include: a) capacity building of the PMCU staff on a number of social inclusion aspects for effective BoLCoP coordination; b) logistical support at the district level to facilitate coordination and monitoring of BoLCoP activities; c) SECAP training and institutionalization of climate/environmental risk screening within MoLA, district technical teams and producer organisations; d) Strengthening of district-level monitoring, early warning systems. Lastly, a more detailed capacity needs assessment will be undertaken as part of BoLCoP activities to identify additional capacity gaps; the information will be used to prepare an institutional capacity development plan whose implementation will be funded by BoLCoP. BoLCoP will prioritize supporting the PMCU and BoLCoP District Teams to enhance their coordination abilities, financial management, procurement, planning, monitoring and evaluation, and knowledge management. Considering that BoLCoP is a gender transformative Project and, therefore, guidelines will be prepared and training will be provided on Gender Transformative Approaches (GTA) to institutionalize the approaches in all implementing agencies. The PMCU skills in GTA will be improved following a rigorous capacity assessment that will inform the delivery of tailored training package.

155. Further priorities include climate-responsive planning and budgeting, forecast-based action (linking RED triggers to early warning), remote-sensing–enabled rangeland monitoring, basic GHG and water accounting for small livestock, gender-responsive climate services, and enhanced access to climate finance (e.g., GEF/AF) for scaling up interventions.

156. Additionally, adaptation fund co-financing will be mobilised to strengthen multisectoral coordination for climate-resilient water and land management. Starting in Year 3, a formal multi-stakeholder coordination platform will be established at national level, with representation from key ministries (water, agriculture, environment, trade), research and academic institutions, community-based organisations and private sector. The platform, supported by complementary activities such as stakeholder mapping, enhanced capacity needs assessment and applied research is expected to promote improved understanding on climate-water-energy challenges and foster the development of integrated policy opportunities.

157. All extension officers will complete SECAP/ESCMF orientation. Training-of-trainers (ToT) sessions will be held for DWNP officers and district council planners to use screening tools.

158. Maintenance Planning – All desalination and solar systems will be linked to a preventive maintenance schedule with budget lines in annual AWPBs. WUC will co-sign O&M protocols in each implementing district.

159. ***Policy Support*** – The following policy type constraints to small livestock farmer integration in value chains have been identified: a) absence of an enforceable system of standards and grades in small livestock meat marketing; b) an import regime that crowds out local production; and c) lack of a policy framework to guide the development of the sheep value chain. To that effect, BoLCoP will support interventions to address the identified policy constraints. It is highlighted that these policy interventions will be implemented in partnership with the following government parastatals: a) Business Botswana – which is responsible for policy advocacy and coordination of the private sector players in the country; b) Botswana Trade Commission – responsible for ensuring fair trade and tariffs coordination as well as representing the country in the Southern Africa

Customs Union, where Botswana is a member; c) Botswana Trade and Investment Center – Responsible for market related coordination, sourcing markets, coordinating partners, reporting on market trends and policy coordination; and d) Botswana Institute of Development Policy Analysis – the agency is responsible for conducting research and policy related analysis to inform government and other stakeholders on appropriate policy positions, based on empirical evidence. The following policy interventions will be supported:

a) *Small Livestock Meat Grading System* – The country currently has a legislative framework with provision for a system of grading for small livestock meat. However, the marketing system continues to be largely informal thus creating an environment that does not provide incentives to market actors to apply a grading system in small livestock meat trading. BoLCoP will facilitate the process of introduce a formal marketing system for small livestock where payments to producers will be based on a system of grades that would reward for quality. The Project will support the relevant institutions in reviewing the existing regulatory provisions and introduce an enforceable system of grades and grading in domestic marketing;
b) *Introducing a Requirement for Minimum Local Content* – The country is a member of the Southern Africa Customs Union (SACU), and this allows for free flow of goods and services between member states. A challenge is that agriculture production and productivity between Botswana and South Africa, its neighbour, is not at the same level; this makes unit cost of imported agricultural products cheaper than locally produced products. The Government is currently studying options for introducing a minimum local content requirement for local trade. In order to have a good understanding of the likely impact of such a policy move, it is recommended that a study be undertaken to look at different aspects and advise the Government to make informed decisions. BOLCOP will support the relevant government department in undertaking such policy reviews as will be considered necessary; and
c) *Sheep value Chain Development Strategy* – The Project will support formulation of the sheep value chain development strategy and investment plan. This will include the: i) provision of specialized expertise; ii) collation of data and evidence; and iii) support to inclusive stakeholder consultation processes.

II.5: ANNUAL SUPERVISION

160. The Project will be jointly supervised by IFAD and GoB to assess achievements and lessons learned and, when required, provide implementation support with the objective of ensuring effective Project implementation and increase the likelihood of achieving the target objective. Missions would be fielded at least once every twelve months. However, and depending on the extent and quality of implementation progress, implementation support Missions would be fielded as frequently as warranted by conditions on the ground so as to address any emergent issues that may have the potential to negatively impact BoLCoP implementation. The composition of the supervision/implementation support Missions would be influenced by the issues identified as needing redress.

161. As part of the annual missions' objectives, a review of the effectiveness of implementation arrangements will be undertaken to ascertain whether any adjustment/restructuring is needed to ensure optimum performance. ToRs for the supervision missions will be prepared by the IFAD Country Director except those for the: a) Financial Management consultant; IFAD's Procurement and Financial Management Division (PFM) would be responsible for preparing the ToRs and recruitment of the Financial Management consultant for the mission; and b) Procurement – the Head of the regional Procurement team in Nairobi will be responsible for preparing the ToRs and for allocating the Specialist to the Mission. The timing of the supervision missions will be influenced by factors, such as the status of AWPB implementation, coordinated with the production of interim financial statements, in accordance with IFAD interim financial

reporting guidelines. This will enable Supervision Missions to measure the progress at the specific cut-off dates.

II.6: MTR

162. An MTR will be undertaken halfway through BoLCoP implementation (PY4); it will evaluate whether the Project is on course to achieve the development objective. It will identify any prevailing constraints and recommend such re-orientation as may be required to help BoLCoP to get back on course to achieve its objectives. The MTR will be preceded by a midline survey which will be commissioned by the NPMCU and undertaken by a qualified service provider. IFAD will be involved in reviewing and provision of a No Objection for the midline survey ToRs. Findings of the midline survey will be used to inform the MTR process.

163. There will be four outputs of the MTR: a) an Aide Memoire summarizing the mission's findings; b) MTR report, detailing the findings and recommendations on the way forward; c) a revised PDR (if the MTR has necessitated a restructuring of the Programme) to reflect the mission's recommendations; and d) a detailed Project closure plan. This will be accompanied with: a) a revised budget to guide utilization of the remaining funds; and b) an updated PIM.

II.7: PROJECT COMPLETION

164. IFAD will lead and coordinate the undertaking of the Project Completion Review; the review will be done after Project completion but before Project closure. GoB will play an active role in the process. The process will cover the elements described in the general conditions of the Financing Agreement as described in the 2023 PCR guidelines.

165. The main purposes of the completion review process will be to promote accountability, reflect on performance and elicit lessons learned to inform future programme/project design and to define an appropriate post-project strategy. The learning dimension of the completion process will be used by both IFAD and the Government as the foundation for improvements in future programme/project design and implementation. The completion review process will also be critical for identifying opportunities for scaling-up best practices. The completion review will be preceded by an end-line survey which will be commissioned by the NPMCU and undertaken by a qualified service provider. IFAD will be involved in reviewing and provision of a No Objection for the end-line survey ToRs. Findings of the end-line survey will be used to inform the Project Completion Report.

166. It should be noted that if a detailed project closure plan does not get developed at MTR, it should get developed subsequently but, certainly, earlier than the last year of implementation.

167. *Recruiting the Completion Review Team* – About six months before the planned start of the completion review mission, it is recommended that IFAD takes the necessary actions to identify and recruit the members of the Completion Review Team. By that time, IFAD, in liaison with GoB, would have agreed on the composition of the Completion Review Team (number of persons and types of expertise required) during the last supervision mission. Given BoLCoP's specific domains of intervention, the expertise will be selected to ensure coverage of all Project domains. The 2023 PCR guidelines should be consulted every step along the process to ensure compliance with requirements.

PART III: PROJECT PROCEDURES

III.1: PLANNING AND AWPB DEVELOPMENT

168. The planning cycle will follow the GoB's planning and budgeting cycle. The cycle will commence with preparation of the AWPB, as a key instrument for implementation and

operational control. The Project will follow a bottom-up participatory planning process for the AWPB.

169. The first stage of planning and preparation of the AWPB will be carried out at the village level, following the devolved local government administration framework. At this level, the target communities will identify and prioritise the interventions for support by BoLCoP. These priorities will be summarised into community plans (CPs). The CPs will then be consolidated into village level plans. The village plans will then be consolidated at the subdistrict level to make the subdistrict plans. The subdistrict plans will then be consolidated at district level by the BoLCoP District Team to prepare the district level plans and budgets. The respective District M&E Officers will check the quality of the plans and alignment to available budgetary resources as per established guidelines for budgeting, before consolidation. The twelve District Plans and Budgets will then be submitted to the national PMCU for review, compilation and consolidation of the overall BoLCoP Annual Workplan and Budget.

170. The M&E Officers within the respective twelve the BoLCoP District Team will, in consultation with the PMCU, M&E Specialist and Technical Component Heads, disseminate Planning and budgeting guidelines to guide the lower-level units' preparation of the annual plans.

171. The BoLCoP wide annual work plan and budget will be reviewed and approved by the PSC before submission to IFAD for expression of a No Objection. The approved AWPB will be the only mechanism through which Project resources would be spent and the basis for progress monitoring. Preparation of the AWPB will be led by the PMCU in liaison with the BoLCoP District Teams and will follow the approved GB planning cycle.

172. The Project will review the AWPB every six months to assess progress in reaching annual targets, including factors affecting attainment of the targets, and will adjust it accordingly

173. Each AWPB will budget for ESCMP implementation, climate training, and environmental monitoring. Screening classifications will be appended to each infrastructure proposal. Dedicated line items should includer:

a) Borehole and desalination maintenance;
b) Kraal reinforcement and solar fencing;
c) Composting and biogas units;
d) Prosopis management and briquetting activities; and
e) Operation of wastewater recycling facilities at slaughter points.

III.2: MONITORING AND EVALUATION

174. **M&E System** – BoLCoP will implement a robust Monitoring and Evaluation (M&E) system that is fully aligned with IFAD's operational requirements, including the use of core indicators, mandatory impact domains, and knowledge learning loops. The M&E system will support results-based management by systematically tracking progress, outcomes, and impacts at all levels of the project's results hierarchy.

175. The PMCU M&E staffing will include a dedicated M&E and KM Officer and M&E focal points at district level, with capacity strengthening provided throughout the Project cycle. The Project Steering Committee (PSC) will regularly review M&E outputs to guide strategic decision-making. These institutional roles are complemented by mechanisms for participatory monitoring and feedback from beneficiaries and other stakeholders.

176. The project's M&E approach will include the establishment of a comprehensive M&E framework linked to the Logical Framework, and consistent with IFAD's Operational Results Management System. A baseline study will be conducted within the first year of implementation to establish reference values for outcome and impact indicators. A comprehensive baseline survey will be conducted at the outset of the project to establish reference points for all key performance indicators (KPIs) defined in the Results

Framework. This survey is critical for assessing pre-project conditions, setting realistic and evidence-based targets, and informing the project's Monitoring and Evaluation (M&E) strategy over the full eight-year implementation period.

177. The baseline values will inform the clear definition and quantification of project-specific indicators, with objective targets such as an increase of X% over X years have been included and these will be revised after the baseline survey . Key indicators will be disaggregated by sex, age, and household type, and cover domains such as:

a) inclusive outreach to small livestock producers and households;

b) improved livelihoods through increased income and employment opportunities;

c) climate-smart small livestock production and enhanced resilience;

d) strengthened small livestock value chains and market access;

e) expanded access to inclusive financial services;

f) empowerment and participation in decision-making processes, and (vii) an enabling policy and institutional environment for sustainable small livestock development.

178. A Management Information System (MIS) will be developed and maintained by the PMCU to support real-time data capture and analysis. Routine monitoring data will be collected by CAHW and service providers, verified through field missions, and consolidated into semi-annual and annual progress reports. The project will utilize digital tools such as Kobo Toolbox for mobile data collection. The project MIS will be integrated with the GoB MIS to ensure alignment, data consistency, and streamlined reporting. The system will build on ongoing initiatives with the EU project on digitisation and experiences from the Lobu Smart Farm Initiative.

179. An MTR and PCR will be undertaken. Refer to sections II.6 (MTR) and II.7 (Project Completion) for details. These evaluations will be complemented by outcome surveys and thematic assessments to inform policy dialogue and scaling pathways. All evaluations will adhere to IFAD's methodological guidelines, including counterfactual-based impact assessment approaches where feasible. The M&E budget will cover costs on baseline and end-line surveys, MIS development, training, and external evaluations.

180. **Logical Framework** – A comprehensive Project logical framework has been developed, incorporating both core and Project-specific indicators. Where possible, these indicators have been quantified to allow for effective measurement. Monitoring indicators—disaggregated by gender where applicable—will be used to assess programme performance annually against the targets outlined in the Annual Work Plan and Budget (AWPB). Outcome-level indicators will be evaluated through Core Indicators (COI) surveys conducted at baseline, midline, and endline stages. To support this process, the Programme will finance a baseline survey to establish benchmarks for key performance indicators and enable ongoing monitoring and evaluation of outcomes and impact.

181. The Line of Credit (LOC) Monitoring Framework outlines a comprehensive system of oversight to ensure responsible use of funds, compliance with financing terms, and early detection of risks throughout the project lifecycle. It includes covenant monitoring to assess adherence to financial and performance conditions, borrowing base monitoring for asset-backed credit lines, and regular tracking of credit utilization to ensure funds are used appropriately. Payment and delinquency monitoring will identify delays or defaults, while credit risk assessments will evaluate borrower creditworthiness over time. The framework also mandates systematic monitoring of credit limits, maturity dates, and overall portfolio risk to manage exposure. Additional safeguards include collateral verification, KYC and AML compliance checks, and an early warning system to detect signs of financial or operational stress. These mechanisms will be embedded within the project's financial management system and reviewed periodically to maintain strong fiduciary standards and project alignment.

182. **Indicators** – The BoLCoP Logframe includes a comprehensive set of relevant indicators, which have been quantified where possible to support robust monitoring and results-based evaluation. These indicators cover the hierarchy of results levels consisting of output, outcome, and impact and include both IFAD Core Indicators (COIs) and project-specific indicators. Anchored in the project's Theory of Change, the logframe outlines the causal pathways across results levels: output, outcome, and impact, facilitating systematic analysis of progress toward achieving the project's development objectives. This approach enables early assessment of whether the project is on track, even during the initial years when higher-level results may not yet be observable. Annual monitoring will assess performance against the targets set in the Annual Work Plan and Budget (AWPB), providing a structured basis for tracking progress and informing adaptive management. At the project start-up phase, the logframe may be revised to incorporate GEF financing and corresponding reporting requirements. Specifically, IFAD CI 3.1.4 – "Number of hectares of land brought under climate-resilient management" – may be adopted to align with GEF Core Indicator 4, which measures area of landscapes under improved practices.

183. BoLCoP logframe indicators, definition and collection methodolog**y**

CoI indicator	Definition	Collection methodology
2.2.1 Persons with new jobs/employment opportunities	Number of new full-time or recurrent seasonal on-farm and off-farm jobs created since project start-up, either as independent individuals (self-employed) or as employees of micro, small and medium-sized enterprises. Jobs created within farmers' organizations that received project support are also included, but temporary jobs created for a limited period (e.g. for road construction) shall be excluded.	COI survey This information might already be available thanks to project´s M&E system. If so, no need to include the questions in the COI questionnaire. If collected through the COI survey, data collection: - is conducted at household level but applied to beneficiaries involved in rural enterprises promoted by the project for employment in rural enterprises - should be applied to producer organizations supported by the project
2.2.2 Supported rural enterprises reporting an increase in profit	Number/percentage of project-supported rural enterprises surveyed reporting an increase in profit over the previous 12 months, as shown by sales, income and expenditure patterns. Profit is estimated by deducting all expenditures and recurrent costs from total income or sales.	COI survey The data may be collected or calculated by project M&E staff, using the income and expenditure data that should be routinely recorded by beneficiary enterprises. If so, no need to include the questions in the COI questionnaire.
SF.2.1 Households satisfied with project-supported services	Percentage of interviewed target group households reporting that they: (a) easily accessed or used the services provided by the public/private entities supported by the project, and (b) were satisfied with the quality of the services provided by the public/private entities supported by the project. The indicator aims determining whether the main services delivered	COI survey Separate questions should be asked for each main service delivered by the public/private entities supported by the project (maximum three main services should be identified per project), to be

	by the public/private entities supported by the project adequately meet target groups' productive/business/employment/livelihood needs. The indicator indirectly assesses (1) the responsiveness of the project in reflecting target groups' views and needs during the design, delivery and adaptation of services, and (2) the impact of the project's capacity building support to the service providers towards improving their service delivery capacities	determined at project design (or start-up). Selection criteria for main services provided might include planned level of beneficiary outreach and budget allocated to the service.
1.2.4 Households reporting an increase in production	Refers to the percentage of beneficiary households interviewed (e.g. livestock owners, fishers) who claim that project-supported activities (e.g. training, input provision) have helped them increase in livestock production (e.g. increased milk production, reduced animal mortality, improved fertility), as compared to the pre-project situation.	COI Survey
3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices	Refers to the percentage of surveyed project beneficiaries who were trained in environmentally sustainable practices and/or the management of climate-related risks, and who claim that: (a) they have fully mastered these practices; and (b) they are now routinely using these technologies and practices.	COI survey
3.2.1 Number of tons of greenhouse gas emissions avoided or sequestered	Refers to the extent to which the project succeeded in avoiding or reducing greenhouse gas emissions (CO2e) as a result of the introduction and uptake of technologies and practices promoted by the project. The indicator is measured in tons of emissions avoided and/or sequestered, either during the past 12 months (annual reporting) or since project start-up (for cumulative reporting).	Data collection method: This indicator can be measured with tools such as FAO's EX-Ante Carbon balance Tool (EX-ACT). Technical support for measurement will be provided by IFAD's Environmental Climate and Gender Division. IFAD is applying the Ex-Ante Carbon-Balance Tool (EX-ACT) in partnership with FAO to generate ex ante estimates of the mitigation potential of projects more systematically. In line with the commitment of ensuring that 25% of IFAD11 programme of loans and grants (PoLG) is invested in climate focused activities, projects are screened for climate finance at design. Mitigation finance is identified if (a) they include eligible mitigation activities and (b) they include an ex-ante estimate of GHG potentially avoided/reduced thanks to project interventions. These

		projects will also be expected to report on their GHG results during implementation and at completion, so an EX-ACT analysis should be undertaken at mid-term and completion as well (contact ECG for support).
IE.2.1 Individuals demonstrating an improvement in empowerment	FAD's empowerment indicator is an index based on the project-level Women's Empowerment in Agriculture Index (pro-WEAI) developed by IFPRI, OPHI and USAID. The pro-WEAI is rooted in Kabeer's (1990, 2005) framework of empowerment which describes empowerment as a process of change on the interrelated dimensions of resources, agency, and achievements and focuses on measuring agency or the ability of individuals, who were unable to do so previously, to make strategic choices. (Malapit, et al, 2019). IFAD's empowerment indicator is a simplified version of the pro-WEAI. It aims at measuring individuals empowerment in the communities where IFAD's projects are implemented, in the domains relevant to IFAD's operations. IFAD's empowerment indicator includes 10 of the 12 dimensions for the pro-WEAI, focusing on those IFAD can influence through its supported activities. Similarly to the pro-WEAI, these dimensions are mapped to three domains of empowerment: intrinsic agency (power within), instrumental agency (power to), and collective agency (power with) which are linked to the definition of empowerment. The 10 dimensions are mapped to the three domains of agency as follows: 4. - Intrinsic agency: Autonomy in income, Self-efficacy and Attitudes about intimate partner violence. 5. =Instrumental agency: Input in productive decisions, Ownership of land and other assets, Access to and decisions on financial services (if any provided by IFAD supported project), Control over use of income and Work balance. 6. - Collective agency: Group membership and Membership in influential groups The indicator must be disaggregated by sex in order to compare empowerment between women and men.	COI survey: The survey unit corresponds to the household but the gender of the respondent matters; it is indeed important to ensure that the proportion of women (men) respondent reflect the proportion of women (men) targeted by the project. If the project is defined as Gender-Transformative, the COI questionnaire then includes all the questions with a IE.2.1 (IFAD´s Empowerment Indicator CI NUMBER) mention included in the modules of the COI questionnaire, as well as all the questions included in the empowerment-dedicated sub-modules of the module [H] PARTICIPATION AND EMPOWERMENT listed below: [[H2] GROUP MEMBERSHIP AND INFLUENCE [H3] TIME ALLOCATION [H4] AUTONOMY IN DECISION-MAKING [H5] NEW GENERAL SELF-EFFICACY SCALE [H6] ATTITUDES ABOUT DOMESTIC VIOLENCE
1.1.3 Rural producers accessing production inputs and/or	Refers to farmers, livestock owners or other rural producers who received support to access production inputs (e.g. chemical or organic fertilizers, pesticides, improved seeds, stocked	Information is collected by service providers (if inputs/technical packages are provided by external

technological packages	livestock, veterinary medicines, etc.) or technological packages (e.g. processing equipment, farming tools, animal health and artificial insemination kits, drip irrigation systems, etc.) thanks to project interventions. Such inputs or technological packages and options may be provided on a free basis, or against some beneficiary contribution.	entities) or by project staff (if the support is provided by them). Data are collected by project M&E staff and recorded in the project M&E system. It is also input in ORMS at least once a year. Note: If the same person has received more than one input/technological package during the considered period, he/she should be counted only once in order to avoid double-counting of beneficiaries.
3.1.1 Groups supported to sustainably manage natural resources and climate-related risks	Groups (whether formally registered or not, and also including indigenous peoples' communities) involved in the management of natural resources (rangelands, common property resources, water resources, forests, pastures, fishing grounds and other natural resources) for agricultural production that have received project support during the considered period, to improve the sustainability of services provided to the resource base and to manage climate-related risks. Natural resource management groups involved in promoting technologies and practices for environmental protection, combating deforestation and desertification, or promoting soil/water conservation initiatives to prevent or increase resilience to climate-related risks should also be considered. Climate-related risks are those resulting from climate change that affect natural and human systems and regions. Direct climate change risks are expected especially for productive sectors that rely heavily on natural resources, such as agriculture, fishing and forestry. The aim of such engagement is ultimately to enable these individuals/groups to take better and more resilient decisions that can avoid losses and damage to their livelihoods resulting from climate-related events.	Data are collected by project M&E staff and recorded in the project M&E system. It is also input in ORMS at least once a year. Data to be collected by service providers (if support is provided by external entities) or project staff (if support is provided by them). Note: (a) If the same group has received more than one type of support during the considered period, this group should be counted only once in order to avoid double-counting; (b) groups formed or supported in earlier years, but that have not received any additional support in the considered period, should not be counted for annual reporting.
3.1.2 Persons provided with climate information services	Individuals reached by weather, climate or seasonal forecasts and/or disaster early-warning information during the considered period, according to the procedures agreed upon by government and other data providers. It includes individuals registered in message recipient lists that are regularly contacted, or those using the service. Households that have received advice in the considered period (annual reporting) regarding expected climate impacts on crops, livestock and fisheries, to enable better decision-making as to the type, timing and location of agricultural practices and to prevent, reduce	Data are collected by project M&E staff and recorded in the project M&E system. It is also input in ORMS at least once a year. Data to be collected by service providers (if support is provided by external entities) or project staff (if support is provided by them).

	and/or manage risks, should also be included. This indicator only refers to climate information services provided through extension workers, disaster preparedness or response teams, community volunteers or community leaders. Among modern communications media, only the recipients of SMS messages are to be considered. Persons reached through mass media (radio or television) are not to be reported under this indicator.	
2.2.6 Households reporting improved physical access to markets, processing and storage facilities	Beneficiary households interviewed who claim that, as compared to the pre project situation: (a) they can now more easily access the required market, processing or storage facilities; and that (b) these facilities are fully functional.	COI survey conducted at Baseline, Mid-Term and Completion. Data should be reflected in ORMS in these 3 points in Time.
1.2.5 Households reporting using rural financial services	Refers to the proportion of beneficiary households interviewed who state that they are fully satisfied with and are using the financial products and services facilitated by the project, in order to invest in a productive or income generating activity (i.e. as opposed to being used for consumption or other non-productive purposes).	COI survey Note: The outcome survey could also ask questions on the main use made of the financial services received. Data can also be collected at FSP level and then used for triangulation. The FSPs should submit their "usage" indicator (typically "Number of active clients or accounts
2.1.3 Rural producers' organizations supported	First-level groups of farmers or other rural producers, whether formally registered or not, that have been newly formed or created, or strengthened with project support during the considered period, in order to enhance agricultural, livestock or fishery production, processing or marketing, and provide services to their members. These rural producers' organizations should be distinguished from groups formed to manage natural resources (natural resource management groups are reported only under SO3).	7. Data to be recorded by service providers, rural producers' organizations themselves, or by project staff (if support is provided by them).
3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices		
2.1.1 Rural enterprises accessing business development services	Rural enterprises that have accessed business development services promoted by the project during the considered period. Rural enterprises are structured businesses that have a well-defined physical location, normally with legal status, a bank account and some employees.	Data are collected by project M&E staff and recorded in the project M&E system. It is also input in ORMS at least once a year.

	They include pre-entrepreneurial activities such as self-employment initiatives, and microenterprises with semi-structured activities. Both formal and informal enterprises can be considered, only upstream and downstream activities (processing, marketing) are to be included but production activities are excluded22. As generally defined, business development services aim to improve the performance of the enterprise, its market access and its ability to compete. They include an array of services such as training in income-generating and value-adding activities, organizational management, consultancy and technical advice, business planning, marketing and market research, technology development and transfer, facilitation of linkages with traders, or product quality control or certification. Such services may be strategic (addressing medium- to long-term issues that improve performance) or operational (day-to-day issues). Project-facilitated financial support (e.g. equity support, start-up financing, venture capital, insurance mechanisms) should not be reported here.	
2.1.6 Market, processing or storage facilities constructed or rehabilitated	Market, processing or storage facilities that have been fully constructed or rehabilitated by the project during the considered period. Market facilities are the structures used to sell produce, such as marketplaces and shading structures. Processing facilities include equipment and machinery that are used for the transformation of agricultural produce (such as mills, hullers, shellers, extractors) where value is added. Storage facilities include structures used for mid- to long-term storage or preservation of produce. The facilities may be on-farm storage structures such as containers and small silos, or village/community facilities such as warehouses, granaries and large silos.	Data to be collected from routine M&E activities. For each planned infrastructure item, project records should include at least the following key data on physical works: contract start date and planned completion date; type of infrastructure (markets/processing/storage); actual completion date, volume and type of produce expected to be treated/stored annually. Note: To avoid double-counting, reporting should only concern the infrastructure for which physical works were fully completed during the considered period (even though construction may have started earlier). Infrastructure for which physical works have started during the considered period, but are not yet complete, will be reported in the next reporting period (or upon completion).

1.1.5 Persons in rural areas accessing financial services	This refers to the number of individuals who have accessed a financial product or service specifically promoted/supported by the project and its partner financial service provider (FSP), at least once during the considered period (annual reporting). Such services include loans and micro-loans, saving funds, micro-insurance/insurance, remittances, and membership of a community-based financial organization (e.g. savings and loan group). Note: When rural enterprises access financial services promoted/supported by the project, only owners and co-owners of enterprises receiving financial services are counted as persons accessing services. This also applies to Outreach CI 1: Persons receiving services promoted or supported by the project: only owners and co-owners of enterprises are counted as persons receiving services.	Data are collected by project M&E staff and recorded in the project M&E system. It is also input in ORMS at least once a year. Importantly, when the data is provided by partner FSP, these should track the numbers of rural clients separately from the outreach numbers of other clients they may service.
1.1.7 Persons in rural areas trained in financial literacy and/or use of financial products and services	Refers to the individuals in rural areas who received capacity-building from the project, during the considered period, enabling them to acquire the knowledge, skills and confidence to make responsible financial decisions or handle household economics and investments more effectively. Financial literacy programmes usually cover topics such as basic numeracy training, budgeting, saving or credit management.	Information is to be collected by service providers or external trainers (if training sessions are outsourced) or by project staff (if training is provided by them). Data are collected by project M&E staff and recorded in the project M&E system. It is also input in ORMS at least once a year. Note: If the same person has been trained more than once on the same topic (whether within the same year or spreading over several years), as part of a multi session training, he/she should be counted only once in order to avoid double-counting of beneficiaries.

367. **Financial Indicators for BoLCoP and Interaction with NSO:** The BoLCoP project includes the financial indicator CI 1.1.5: "Persons in rural areas accessing financial services," under which it monitors access to savings, loans, grants, and matching grants; disaggregated by gender, age, and source of financing. It is projected that all 50,000 target beneficiaries will have savings accounts, with 25,000 reached by midline and the full target achieved by endline. For loans, it is projected that 50% of beneficiaries in target Categories 2, 3, & 4 (50% of 40,000, i.e., 20,000 HHs) will access credit by endline. Of these, 1,000 will receive commercially priced larger loans through the NSO facility managed by the private bank, while 19,000 will receive smaller loans under the Sovereign Line of Credit (LOC) through BoLCoP and managed by the public bank (NDB). At midline, 10,000 households are expected to access loans—500 through NSO, and 9,500 via the Sovereign LOC—rising to 1,000 and 19,000 respectively by endline. Loans will be disaggregated by gender, youth, and financing source; however, the 20% for women and 10% for youth as projected at design, may

not fully align with BoLCoP targets as they will be further discussed with the two participating financial institutions during project start-up. All 10,000 beneficiary HHs - Category 1, will access only grants and matching grants from the TLMS resources managed by YDF & CEDA. The project is measuring CI 1.1.7 Persons in rural areas trained in financial literacy and/or use of financial products and services. Additionally, each of the 50,000 households receiving either (i) loans (for target Categories 2, 3, & 4), or (ii) grants or matching grants (for Categories 1), are expected to undergo financial literacy (FL) training, with 25,000 trained by midline and all beneficiaries trained by endline. Those to be trained in financial literacy include the 500 and 1,000 NSO beneficiaries trained at midline and endline, respectively; 9,500 and 190,000 Sovereign LOC beneficiaries trained at midline and endline, respectively; and 5,000 and 10,000 grants and matching grant recipients in Category 1 trained at midline and endline, respectively.

368. Financial indicators for monitoring partner financial institutions will be defined and customized at project startup in collaboration with the institutions themselves. Throughout implementation, these indicators will guide performance monitoring, focusing on maintaining strong portfolio quality, profitability, and operational efficiency. Key areas of assessment will include portfolio at risk, return on assets, cost control, and operational ratios such as client-to-loan officer levels and operating expense ratios. Institutions will also be monitored for sustainable portfolio growth, adequate risk coverage through loan loss provisioning, and minimal loan write-offs. Collectively, these indicators are intended to ensure sound credit risk management, financial sustainability, and institutional resilience over the course of the project

369. **Project Level indicators:** Besides the M&E indicators in the logframe, several project-level indicators can be tracked as highlighted below. The project-level indicators for the 8-year implementation period will incorporate objective, quantifiable targets—such as percentage increases and absolute values—while allowing flexibility for contextual adaptation based on baseline data and evolving conditions. Baseline survey results will inform the setting of realistic and measurable targets for tracking project impact. The indicators are designed to support a phased and practical approach to implementation and scaling, and where relevant, will be disaggregated by gender and youth to ensure inclusive monitoring and equitable outcomes. In terms of access to financial services, the indicators will also capture Line of Credit (LOC) performance and broader financial inclusion outcomes. This will require close collaboration between the National Project Management Unit (NPMU) and participating financial institutions (FIs) to develop standardized templates for consistent and accurate reporting. These indicators provide a broader lens to assess the project's performance, effectiveness, and transformative impact across its key result areas. They serve as complementary indicators to the core logframe and can inform adaptive management and strategic learning throughout project implementation. The sample of project level indicators are highlighted in the table below:

370. Table on Project Level Indicators

Sub-component	Proposed Indicator

1.1 Enhanced Access to Quality Small Livestock, and Animal Health Services	***1.Breeds & Genetic Improvement*** • Number of improved breeding animals given to farmers Goal: Give out 80,000 improved breeding animals by Year 8. Half (50%) should go to women, and 30% to young people. • Number of breeding centers working well Goal: Have 20 breeding centers fixed or built and working properly by Year 6. • Percentage of farmers using improved small livestock breeds Goal: 65% of farmers should be using improved breeds by Year 8. • Number of breeder groups set up or supported Goal: Support or start 25 breeder groups by Year 5. • Percentage of breeders keeping good records Goal: 70% of breeders should keep proper stud books and performance records by Year 6. • Number of community breeding programs set up Goal: Start 40 community-based breeding programs by Year 6. • Percentage decrease in inbreeding cases Goal: Cut inbreeding cases by 50% in project areas by Year 8 using methods like buck rotation and fenced breeding. • Number of artificial insemination (AI) services given Goal: Deliver 100,000 AI services by trained technicians by Year 8. • Percentage increase in use of climate-resilient or native breeds Goal: Increase the use of climate-resilient or indigenous breeds by 60% by Year 8. **2. Capacity Building & Farmer Training** • **Number of small livestock farmers trained** Goal: Train 50000 farmers by Year 8. Half (40%) should be women, and 30% young people. • **Number of extension workers and para-vets trained** Goal: Train 1,000 extension workers and para-vets by Year 6. • **Number of e-extension messages sent or seen by farmers** Goal: Send or have farmers access 5 million e-extension messages by Year 8. • **Percentage of trained farmers using better farming methods** Goal: 70% of trained farmers should use at least one improved practice by Year 6. • **Number of on-farm demonstrations and training sessions held** Goal: Hold 8,000 on-farm demos and training sessions by Year 6. • **How happy farmers are with training and services** Goal: 85% of farmers say they are satisfied with training and extension services by Year 5.

	3. Animal Health & Veterinary Services • Indicator: Number of vaccination campaigns conducted Target: 200 mass vaccination campaigns conducted by Year 8. • Indicator: % of small livestock covered under vaccination and parasite control programs Target: 75% of small livestock population vaccinated annually by Year 8. • Indicator: Number of veterinary kits distributed to extension staff Target: 5,000 veterinary kits distributed over 8 years. • Indicator: Number of veterinary officers, para-veterinarians, and CAHWs trained and deployed Target: 6,000 trained and deployed, including 3,000 new CAHWs by Year 8. • Indicator: % of underserved areas receiving veterinary support (incl. via private sector SLAs) Target: 90% of underserved areas receiving veterinary services by Year 6. • Indicator: Number of disease surveillance reports submitted using digital tools Target: 15,000 digital reports submitted by Year 8. • Indicator: Number of functional digital animal health surveillance systems Target: 5 regional digital surveillance systems operational by Year 5. • Indicator: Number of youth trained and certified as Community Animal Health Workers (CAHWs) Target: 3,000 youth trained and certified as CAHWs by Year 8, with 40% women. **4. Infrastructure and Input Support** • Indicator: Number of boreholes constructed or rehabilitated (with solar systems and troughs) Target: 400 boreholes constructed or rehabilitated with solar pumps and livestock troughs by Year 8. • Indicator: % of targeted households with improved access to livestock water points Target: 80% of targeted households reporting improved access to livestock water by Year 6. • Indicator: Number of small-scale irrigation kits distributed and used for fodder production Target: 3,000 irrigation kits distributed and in use by Year 5. • Indicator: Area (ha) under forage production using CSA techniques Target: 15,000 hectares under climate-smart forage production by Year 8. • Indicator: Number of producers supported with forage planting, harvesting, or feed processing equipment

	Target: 6,000 producers supported with forage and feed-related equipment by Year 6. • Indicator: Number of animal handling and housing facilities constructed/upgraded Target: 2,000 animal housing and handling facilities constructed or upgraded by Year 6. • Indicator: Number of predator-proof kraals and dip/crush pens constructed Target: 1,500 predator-proof kraals and dip/crush pens constructed by Year 5. • Indicator: % of facilities managed by community committees with user-fee systems in place Target: 70% of facilities sustainably managed with user-fee systems by Year 6. • Indicator: Number of youth/women groups supported to operate feed processing businesses Target: 250 youth and women-led groups supported to establish feed processing businesses by Year 5.
1.2: Improved capacity of farmers to adopt climate resilient production and management practices	**1. Feed and Fodder Production** • Indicator: Area (ha) under fodder/forage cultivation (disaggregated by crop type) Target: 20,000 hectares under fodder/forage cultivation by Year 8, with crop-type disaggregation recorded annually. • Indicator: Number of farmers adopting drought-tolerant fodder species (e.g. spineless cactus, lablab) Target: 15,000 farmers adopting drought-tolerant fodder species by Year 6. • Indicator: % of target farmers using climate-smart forage production methods (CSA, intercropping, etc.) Target: 70% of target farmers using CSA forage methods by Year 6. • Indicator: Number of hydroponic fodder units established and operational Target: 500 hydroponic fodder units operational across targeted regions by Year 5. • Indicator: % of households with adequate conserved feed for dry season (silage, hay, etc.) Target: 65% of livestock-keeping households with adequate conserved feed for the dry season by Year 6. • Indicator: Number of feed conservation equipment and storage facilities (e.g. hay sheds, silage barrels) distributed Target: 5,000 pieces of feed conservation equipment and storage facilities distributed by Year 5. • Indicator: % of trained farmers applying improved feed conservation techniques Target: 75% of trained farmers applying improved conservation methods by Year 5. **2. Capacity Building on Climate-Smart Practices** • Indicator: Number of small livestock farmers trained on pasture establishment, fodder production, and feed management Target: 18,000 small livestock farmers trained by Year 6, disaggregated by gender and youth.

	• Indicator: Number of training sessions conducted on silage/hay making and poultry feed formulation Target: 200 training sessions conducted by Year 6. • Indicator: % of trained farmers reporting adoption of improved feeding practices Target: 75% of trained farmers adopting improved feeding practices by Year 6. • Indicator: Number of demonstration plots/learning sites established for fodder production Target: 120 demonstration plots established by Year 5. • Indicator: Number of extension officers trained in climate-resilient livestock management Target: 400 extension officers trained by Year 5. **3. Community-Based Rangeland Management** • Indicator: Number of functional rangeland management committees established Target: 100 functional committees established by Year 5. • Indicator: Area (ha) under rotational grazing or managed rangeland systems Target: 25,000 hectares under managed grazing systems by Year 7. • Indicator: Number of grazing camps established with defined boundaries and herd movement plans Target: 75 grazing camps established with boundary and movement plans by Year 6. • Indicator: Number of rangeland restoration activities undertaken (e.g. gully closures, bush removal) Target: 200 rangeland restoration activities completed by Year 6. • Indicator: % reduction in signs of land degradation in targeted rangelands (based on baseline/follow-ups) Target: 40% reduction in land degradation signs by Year 7. • Indicator: Number of validated herd movement maps updated and used per year Target: 60 validated herd movement maps updated and used annually by Year 5. • Indicator: % compliance with community grazing plan Target: 80% compliance rate by Year 6. **4. Climate & Weather Information Services** • Indicator: Number of new/rehabilitated weather stations installed in project sites Target: 25 weather stations installed or rehabilitated by Year 5. • Indicator: % of target farmers accessing weather/climate advisories (via SMS, radio, etc.) Target: 70% of target farmers accessing advisories by Year 5. • Indicator: Frequency of dissemination of weather forecasts and early warnings Target: Forecasts and warnings disseminated at least twice weekly during critical seasons by Year 4. • Indicator: Number of advisories issued through digital platforms per season Target: 150 advisories issued per season via digital platforms by Year 5.

	• Indicator: % of farmers using weather information to adjust production or grazing plans Target: 65% of farmers using weather info to adapt plans by Year 6. **5. Infrastructure and Ethical Animal Management** • Indicator: Number of climate-resilient animal shelters or handling facilities constructed Target: 250 climate-resilient shelters or handling facilities constructed by Year 6. • Indicator: % of shelters and infrastructure incorporating energy-efficient or solar-powered elements Target: 75% of new and upgraded shelters with energy-efficient or solar-powered features by Year 6. • Indicator: Number of farmers trained in ethical livestock handling and transport practices Target: 8,000 farmers trained by Year 5. • Indicator: Number of solar-powered systems installed for water pumping, heating, or lighting Target: 120 solar-powered systems installed by Year 6. **6. Digitalisation of Livestock Services** • Indicator: % of small livestock producers using BAITS or other digital livestock management tools Target: 60% of producers using digital livestock management tools by Year 6. • Indicator: Number of tagging equipment and mobile scales deployed in target districts Target: 1,200 tagging units and mobile scales deployed by Year 5. • Indicator: % of livestock in project areas registered and traceable via BAITS Target: 80% of livestock registered and traceable via BAITS by Year 6. • Indicator: Number of users accessing the digital livestock management platform Target: 12,000 active users on the platform by Year 6. • Indicator: Number of farmers receiving climate services through digital channels (e.g. USSD, WhatsApp) Target: 20,000 farmers receiving climate services digitally by Year 5. • Indicator: % increase in use of mobile-based services for livestock management Target: 70% increase in mobile service use by Year 6.
2.1: Strengthened clustering and capacity building of value chain actors	**1. Organisation and Functionality of Farmer Groups** • Indicator: Number of functional farmer clusters formed (disaggregated by value chain and district) Target: 400 functional farmer clusters formed by Year 8. • Indicator: Average number of members per cluster (disaggregated by gender and youth) Target: Average cluster size of 50 members with at least 45% women and 35% youth by Year 8. • Indicator: Number of farmer organisations supported (national, regional, district levels) Target: 180 farmer organisations supported across all levels by Year 8.

	• Indicator: % of farmer organisations with operational governance structures (e.g., AGMs held, secretariat established) Target: 95% of supported organisations with functional governance structures by Year 7. • Indicator: % increase in active membership in supported farmer organisations Target: 60% increase in active membership over baseline by Year 8. • Indicator: % of supported associations reporting improved service delivery to members Target: 90% of associations reporting improved services by Year 8. • Indicator: Number of institutional assessments conducted for farmer organisations Target: 90 institutional assessments completed by Year 7. **2. Capacity Building and Training** • Indicator: Number of farmer organisation leaders trained (disaggregated by gender, youth) Target: 3,000 leaders trained by Year 8, with at least 50% women and 40% youth. • Indicator: Number of training sessions conducted on governance, leadership, marketing, and advocacy Target: 220 training sessions conducted by Year 8. • Indicator: % of trained leaders applying improved governance or business practices Target: 80% of trained leaders applying improved practices by Year 8. • Indicator: Number of farmer organisations with documented institutional capacity building plans Target: 150 organisations with formal capacity building plans by Year 8. • Indicator: Number of members trained in collective marketing and negotiation Target: 6,500 members trained by Year 8. **3. Cluster-Based Economic Activities** • Indicator: Number of farmer clusters engaged in joint input procurement or output marketing Target: 350 clusters engaged in collective economic activities by Year 8. • Indicator: % reduction in input costs through collective purchasing Target: 25% reduction in input costs for participating clusters by Year 8. • Indicator: % increase in volume of produce aggregated and sold collectively Target: 75% increase in aggregated volume sold by Year 8. • Indicator: Number of formal agreements signed between clusters and market intermediaries (e.g., off-take agreements) Target: 130 formal agreements signed by Year 8. • Indicator: % of farmers in clusters reporting improved market access or better prices Target: 85% of cluster farmers reporting better access or prices by Year 8.

	4. Institutional Strengthening • Indicator: Existence of operational secretariat for the National Small Stock Federation Target: Fully operational secretariat established and functional by Year 2 and maintained through Year 8. • Indicator: Number of advocacy or lobbying actions undertaken by supported organisations Target: 50 advocacy or lobbying actions undertaken by Year 8. • Indicator: Number of service delivery schemes developed and implemented by farmer organisations Target: 30 service delivery schemes operational by Year 8. • Indicator: % of farmer organisations with sustainable revenue models or service fees in place Target: 85% of supported organisations with sustainable revenue models by Year 8. • Indicator: Duration (in years) of institutional support provided to farmer federations Target: Minimum of 8 years of continuous institutional support by Year 8. **5. Inclusion and Targeting** • **Indicator:** % of cluster members actively producing for the market **Target:** 75% of cluster members actively producing for the market by Year 8. • **Indicator:** % of women and youth among cluster and association membership **Target:** At least 50% women and 40% youth membership in clusters and associations by Year 8. • **Indicator:** % of clusters formed through self-selection and with geographical proximity **Target:** 90% of clusters formed through self-selection and geographical proximity by Year 6, maintained through Year 8. • **Indicator:** % of clusters linked to identified market opportunities **Target:** 80% of clusters linked to market opportunities by Year 8.
2.2: Improved access to input and output markets	**Access to Inputs** • **Indicator:** Number of farmer clusters engaging in collective procurement of inputs **Target:** 150 farmer clusters engaged in collective procurement by Year 8. • **Indicator:** % reduction in input costs through collective purchasing **Target:** 20% reduction in input costs for participating farmers by Year 8. • **Indicator:** Number of input suppliers/agro-dealers supported (disaggregated by location, gender) **Target:** 250 input suppliers/agro-dealers supported by Year 8, with at least 40% women. • **Indicator:** Number of new agro-dealers trained and integrated into the supply chain

	Target: 100 new agro-dealers trained and integrated by Year 8. • **Indicator:** % increase in availability of key inputs (feed, drugs, vaccines) in remote areas **Target:** 50% increase in availability of key inputs in remote areas by Year 8. • **Indicator:** Number of input suppliers linked to wholesalers or manufacturers **Target:** 200 input suppliers linked to wholesalers or manufacturers by Year 8. • **Indicator:** Number of agro-dealers accessing finance through business plans or credit linkages **Target:** 120 agro-dealers accessing finance by Year 8. • **Indicator:** % of farmers trained in home-based feed production techniques **Target:** 70% of target farmers trained in home-based feed production techniques by Year 8. **2. Output Market Access and Marketing** • **Indicator:** Number of functional aggregation centres or marketing groups established **Target:** 100 aggregation centres or marketing groups operational by Year 8. • **Indicator:** % increase in volume of livestock or poultry aggregated and marketed collectively **Target:** 40% increase in aggregated volume marketed collectively by Year 8. • **Indicator:** Number of contract arrangements signed with off-takers, abattoirs, or institutional buyers **Target:** 80 contract arrangements signed by Year 8. • **Indicator:** Number of producers accessing institutional/government markets (e.g., schools, BDF) **Target:** 1,000 producers accessing institutional markets by Year 8. • **Indicator:** % of producers reporting improved market access or better prices **Target:** 75% of producers reporting improved access or prices by Year 8. • **Indicator:** Number of market opportunity assessments conducted annually **Target:** 5 market opportunity assessments conducted annually by Year 8. • **Indicator:** Number of farmer clusters linked to formal markets **Target:** 120 farmer clusters linked to formal markets by Year 8 **3. Market Information Systems and Value Chain Platforms** • **Indicator:** Number of farmers accessing market information via ICT or extension platforms **Target:** 15,000 farmers accessing market information through ICT platforms by Year 8. • **Indicator:** Number of market information systems enhanced or developed

	Target: 6 market information systems enhanced or developed by Year 8. • **Indicator:** Number of value chain platforms (VCPs) established and functional **Target:** 10 functional value chain platforms established by Year 8. • **Indicator:** Number of VCP meetings held annually **Target:** 40 VCP meetings held annually by Year 8. • **Indicator:** % of value chain actors participating in VCP meetings (disaggregated by actor type) **Target:** 70% participation rate of value chain actors in VCP meetings by Year 8. • **Indicator:** Number of partnerships facilitated through VCPs **Target:** 25 partnerships facilitated through VCPs by Year 8. • **4. Marketing Infrastructure** • **Number of livestock market pens upgraded or constructed (with water facilities):** Target: 25 livestock market pens constructed or upgraded with water facilities by Year 8. • **Number of storage units constructed for input and output use:** Target: 30 storage units constructed for inputs and outputs by Year 8. • **% of clusters using project-supported infrastructure for marketing or procurement:** Target: 75% of farmer clusters using the project-supported marketing/procurement infrastructure by Year 8. • **Number of infrastructure needs assessments conducted (baseline and annually):** Target: 1 baseline assessment and 5 annual infrastructure needs assessments completed by Year 8. • **% of marketing infrastructure compliant with environmental and hygiene standards:** Target: 90% of marketing infrastructure compliant with environmental and hygiene standards by Year 8. **5. Support to SMEs and Youth Enterprises** • **Number of SMEs receiving Business Development Services (BDS) support (disaggregated by type and ownership):** Target: 200 SMEs supported with BDS, including at least 50% women- or youth-owned enterprises by Year 8. • **Number of SMEs linked to finance or investors:** Target: 150 SMEs linked to finance or investors by Year 8. • **% increase in demand for small stock products through supported SMEs:** Target: 35% increase in demand for small stock products through supported SMEs by Year 8. • **Number of youth-led agribusinesses supported or incubated:** Target: 80 youth-led agribusinesses supported or incubated by Year 8. • **% of youth businesses accessing matching grants or start-up capital:**

	Target: 60% of youth-led businesses accessing matching grants or start-up capital by Year 8. • **Number of youth businesses reaching operational break-even:** Target: 50 youth-led businesses reaching operational break-even by Year 8. **6. Environmental & Social Safeguards** • **Number of environmental screenings and management plans developed:** Target: 40 environmental screenings and management plans developed by Year 8. • **Number of SMEs trained on environmental compliance and waste management:** Target: 100 SMEs trained on environmental compliance and waste management by Year 8. • **Number of solar-powered or climate-resilient logistics systems piloted:** Target: 15 solar-powered or climate-resilient logistics systems piloted by Year 8. • **Number of green enterprises supported (e.g., feed blocks, charcoal briquettes):** Target: 20 green enterprises supported by Year 8. • **Volume of alternative feed or energy products produced through green enterprises:** Target: 50 tons of alternative feed or energy products produced annually by Year 8. • **Number of environmental audits or compliance reports submitted:** Target: 8 environmental audits or compliance reports submitted by Year 8.
2.3 Improved access to inclusive financial services for value chain actors	**1.Access to Finance and Inclusion Indicators** **Indicator:** Volume and value of loans disbursed through sovereign and commercial lines of credit **rget:** BWP 350 million disbursed through combined sovereign and commercial channels by Year 8 **Disaggregation by source:** • Sovereign credit (e.g., TLMS/NDB) • Commercial credit **Demographic disaggregation:** • Women and youth (where feasible, based on partner reporting systems) **Indicator:** Portfolio at Risk (PAR > 30 days) as a percentage of total loan portfolio **Target:** Less than 5% by Year 8 **Disaggregation:** • By credit type (sovereign vs. commercial) • By region (if applicable) • By demographic (where feasible) **Indicator:** Return on Assets (ROA) of participating financial institutions

	Target: Greater than 1.5% by Year 8 **Disaggregation:** • By institution • Annual tracking of change from Year 1 baseline **Indicator:** Clients per loan officer in partner financial institutions **Target:** Greater than 250 clients per loan officer by Year 8 **Disaggregation:** • By institution • By region or branch (where applicable) **Indicator:** Average cost per borrower (operational efficiency) **Target:** Less than BWP 550 (or ~$40) per borrower by Year 8 **Disaggregation:** • By institution • By loan type **Indicator:** Annual loan portfolio growth rate **Target:** Average of 15% year-on-year portfolio growth over 8 years **Disaggregation:** • By institution • By product line (e.g., livestock, grants, youth loans **Indicator:** Coverage ratio (Loan loss provisions to PAR > 30 days) **Target:** 100% or higher maintained annually **Disaggregation:** • By institution • By loan type or sector **Indicator:** Loan write-off ratio (annual) **Target:** Less than 1% of total loan portfolio written off annually **Disaggregation:** • By institution • By region or loan category ▪ **Indicator:** Number of bankable business plans developed with support from BoLCoP (via LEA/BDS) **Target:** 2,500 bankable business plans developed by Year 8. ***Disagregation:*** *- Target at least 40% women-led businesses (1,000)* *- Target at least 35% youth-led businesses (875)* *- Inclusion of Indigenous people and PWDs as identified via BDS tracking tools and support services.* ▪ **Indicator:** Proportion of women, youth, and PwDs accessing financial services via TLMS/NDB/NSO mechanisms **Target:** 45% women, 35% youth, and 5% PwDs among financial service recipients by Year 8.

	*Disaggregation: Tracked across all disbursements from TLMS, NDB, NSO (national systems). Additional effort will be made to track **indigenous participation**, informed by baseline and targeting mechanisms.* ▪ **Indicator:** Number of digital transactions conducted through TLMS e-voucher system **Target:** 500,000 digital transactions completed by Year 8. *Disaggregation: Disaggregate by user demographics (gender, age group, disability status) based on TLMS registration data.* ▪ **Indicator:** Percentage increase in financial inclusion among smallholder livestock producers **Target:** 40% increase in financial inclusion from baseline by Year 8. *Disaggregation: Tracked via household surveys and financial access mapping, disaggregated by:* *- Gender* *- Age (youth/adult)* *- PWD status* *- Indigenous group affiliation (as identified through baseline and community profiling)* **2. Risk Management and Financial Product Innovation Indicators** • **Indicator:** Number of new or adapted financial products developed for BoLCoP target groups **Target:** 8 new/adapted products developed (e.g., microloans, weather-index insurance) by Year 8. • **Indicator:** Number and percentage of borrowers benefiting from risk mitigation tools (e.g., guarantees, insurance) **Target:** 10,000 borrowers (33% of total) covered by risk mitigation instruments by Year 8. • **Indicator:** Reduction in non-performing loan (NPL) rates among BoLCoP beneficiaries **Target:** NPL rate reduced to below 5% among BoLCoP-financed enterprises by Year 8. • **Indicator:** Proportion of loans using structured market arrangements in place of collateral **Target:** 50% of loans issued under structured arrangements by Year 8 (e.g., off-take contracts, group guarantees). **3. Persons trained in financial literacy** ➢ **Indicator**: Training completion rate by Year 8. **Target**: At least **90% of enrolled participants** will have completed the full training program by Year 8. **Disaggregation**: Completion rates will be disaggregated by gender and age group to ensure equitable participation and retention. ➢ **Indicator**: Improvement in financial knowledge as measured by pre- and post-training assessments by Year 8. **Target**: Participants will demonstrate an average **25% improvement** in financial literacy scores across the program lifecycle.

	Disaggregation: Knowledge gains will be analyzed across key beneficiary groups, including NSO recipients, grant recipients, and LOC beneficiaries. ➢ **Indicator**: Uptake of financial services within six months of training by Year 8. **Target**: A minimum of **60% of all trainees** will be actively using at least one formal financial product or service within six months of completing training. **Disaggregation**: Uptake data will be disaggregated by type of service (e.g., savings, loans, mobile money, insurance) and by participant demographics. ➢ **Indicator**: NSO beneficiaries trained by Year 8. **Target**: **100% of NSO beneficiaries (1,000 individuals)** will have received training by Year 8. **Disaggregation**: As this is a defined group, no further disaggregation is required. ➢ **Indicator**: Grant and Matching Grant (MG) beneficiaries trained by Year 8. **Target**: By Year 8, **10,000 grant or MG beneficiaries** will have completed training. **Disaggregation**: Additional disaggregation may be done by business type or sector focus, if needed. ➢ **Indicator**: Sovereign Line of Credit (LOC) beneficiaries trained by Year 8. **Target**: A total of **19,000 LOC beneficiaries** will be trained by the end of Year 8. **Disaggregation**: Further analysis may consider type of loan or enterprise category. ➢ **Indicator**: Participant satisfaction rate by Year 8. **Target**: At least **85% of participants** will report satisfaction with the training experience in Year 8. **Disaggregation**: Feedback will be categorized by gender, age, and training modality (in-person, virtual, blended). ➢ **Indicator**: Trainees accessing follow-up support services by Year 8. **Target**: A minimum of **30% of trained individuals** will have accessed follow-up support such as mentoring, digital tools, or refresher sessions by Year 8. **Disaggregation**: Usage will be broken down by type of support and participant demographics. **4. Digital Finance and Systems Indicators** • **Indicator:** Number of farmers using digital channels (e.g., USSD, WhatsApp, apps) for subsidies, loans, or inputs **Target:** 20,000 farmers using digital channels for financial services by Year 8. Disaggregated by: - Gender (target 50% women) - Age group (target 40% youth) - Disability status, where possible Tracking through TLMS/MIS and partner platforms • **Indicator:** Number of financial institutions digitally linked to the TLMS platform **Target:** 15 financial institutions integrated with TLMS platform by Year 8.

	• Disaggregated by type: - Commercial banks - Development finance institutions (DFIs) - Microfinance institutions (MFIs) Integration includes Application Programming Interface (API or system-level connection enabling data sharing, loan processing, or payment transactions • **Indicator:** Number of digital champions trained and deployed (disaggregated by gender and youth) **Target:** 600 digital champions trained and deployed (60% youth, 50% women) by Year 8. Disaggregated by: - Gender: at least 50% women (300) - Age: at least 60% youth (360) Digital champions will support farmers in adopting digital financial tools and services • **Indicator:** Functionality and user satisfaction score of TLMS enhancements **Target:** Minimum 85% user satisfaction with TLMS platform features by Year 8 (based on annual surveys). Surveys will be conducted annually starting from Year 2 or post-deployment of key features Feedback to be disaggregated by user type (farmer, institution), gender, and age group to inform improvements **5. Policy and Institutional Strengthening Indicators** • **Indicator:** Number of financial service providers adopting inclusive lending policies or adapted credit assessment tools **Target:** 10 financial institutions adopt inclusive lending policies or tailored credit assessment tools by Year 8. • **Indicator:** Number of MoUs or formal agreements signed between BoLCoP and financial institutions (e.g., NDB, BG, fintechs) **Target:** 15 formal MoUs signed with public and private financial institutions by Year 8. • **Indicator:** Existence and implementation status of demand segmentation study and credit product roadmap **Target:** 1 national demand segmentation study and product roadmap developed and fully implemented by Year 3, with updates by Year 6. • **Indicator:** Amount of technical assistance (TA) disbursed to NDB and FSPs to improve livestock lending capacity **Target:** BWP 20 million in TA disbursed to NDB and partner FSPs by Year 8. **5 Market and Commercial Linkages Indicators** • Indicator: Number of structured market arrangements facilitated (e.g., outgrower schemes, contracts, MSPs) Target: 40 structured market arrangements established by Year 8.

	• Indicator: Number of producers linked to formal markets through BoLCoP-supported financial arrangements Target: 15,000 producers linked to formal markets through credit-enabled interventions by Year 8. • Indicator: % of producers reporting improved market access as a result of project-supported financing Target: 70% of supported producers report improved market access and better prices by Year 8. **6. Impact and Outcome Indicators (Medium to Long-Term)** • **Indicator:** Change in average income of financed producers (by borrower category) **Target:** 45% increase in average annual income of financed producers by Year 8 (disaggregated by gender, youth, PwDs). • **Indicator:** % of BoLCoP-financed enterprises that remain operational 1 year after loan disbursement **Target:** 85% of financed enterprises operational one year post-disbursement by Year 8. • **Indicator:** % increase in small livestock sector investment attributable to BoLCoP-supported financial instruments **Target:** 50% increase in private and public investment in the small livestock sector attributable to BoLCoP financing by Year 8. • **Indicator:** % of TLMS-supported farmers transitioning from grants to loans **Target:** 40% of farmers originally supported through grants access loans by Year 8.

371. **Data Collection** – Data collection to support the ongoing update of the operational M&E framework will be facilitated through a web-based Management Information System (MIS). This system will leverage cloud-based servers for centralized administration, electronic tablets for field-level data collection, and real-time online transmission. Additionally, the collection of GPS coordinates will enable precise geolocation of project beneficiaries and interventions. The MIS servers will be administered at both District and National levels to support data storage, processing, and accessibility. Physical progress monitoring will be based on two core principles: a) AWPB-based Progress Monitoring**:**

372. This approach involves tracking and reporting the implementation status of each activity outlined in the Annual Work Plan and Budget (AWPB), providing a direct comparison between planned and actual performance. b) Registers of Physical Progress**:**

373. These registers will systematically capture key data on selected project activities, serving as a cumulative historical record of implementation. Their primary purpose is to provide a structured overview of activities and results over time, enabling deeper insights into project achievements and trends. They serve as cumulative, historical sources of information that support analysis of project trends, outcomes, and resource use. The registers will be fully integrated into the web-based MIS, ensuring automated data updates, reporting, and linkage to GPS-enabled mapping.

374. The following physical progress registers are envisaged:

375. **Contracts Register:** This register will capture all contractual agreements under the project, including those for construction, rehabilitation, veterinary services, procurement of livestock inputs (such as drugs or feed), capacity-building consultants, and service providers. Information will include contract type, contractor, value, start and end dates, location, and implementation status.

376. **Training Activities Register:** Designed to record all livestock-related training and capacity-building activities supported by the project, including farmer field schools, animal health training, breed improvement workshops, feed and fodder management, rangeland management, and marketing. The register will document details such as the topic, facilitator, date, venue, number of participants (disaggregated by gender, age, and youth), and training materials distributed.

377. **Infrastructure Register:** This register will track the construction and rehabilitation of key livestock infrastructure, such as cattle crushes, holding grounds, water troughs, livestock markets, dip tanks, veterinary clinics, and livestock corridors. Entries will include location (with GPS), type and size of infrastructure, implementing contractor, status, and photographic documentation.

378. **Farmer Groups Register:** This register will catalogue all livestock-focused producer organizations, common interest groups (CIGs), cooperatives, and grazing associations supported by the project. It will contain data on group membership (with gender and youth disaggregation), legal status, production focus (e.g., beef, dairy, poultry, small stock), training received, financial access, market linkages, and involvement in collective input supply or marketing.

379. These registers, collectively, will enable a robust and structured approach to progress monitoring, ensuring that the BoLCoP has accurate, timely, and verifiable data on its implementation footprint. Furthermore, they will support accountability, transparency, and learning throughout the project lifecycle and beyond. These registers shall be kept and updated regularly at the PMCU, and district implementation units. The district level, agencies, state departments and other partner implementation level registers will be submitted at least on a quarterly basis to the district M&E officer for review and consolidation and transmission to the PMCU. To support accurate and consistent reporting, the PMCU will develop and disseminate standardized data collection formats aligned with the structure of the web-based MIS. These formats will be distributed to relevant subject matter specialists and M&E officers at the district and lower implementation levels to ensure data compatibility and quality across all reporting units.

380. The AWP&B-based progress monitoring will follow the detailed activities exactly as presented in the Annual Work Plan and Budget (AWPB) tables. The core task will be to systematically track, for each activity, the extent of progress made, outputs achieved, any relevant observations, and whether corrective or follow-up actions are required. To facilitate this process, the original AWPB planning files will be made accessible to the respective District Implementation Units for reference and day-to-day monitoring purposes.

381. Emphasis will be placed on integrating planning and monitoring as core responsibilities of all project implementers. Ensuring that progress information is recorded regularly and consistently will be a priority at all levels of implementation. In principle, Monitoring and Evaluation Officers from the districts, together with designated CAHW and the frontline extension workers, will be responsible for collecting and submitting data to be uploaded into the web-based Management Information System (MIS).

382. Progress information will be systematically analyzed by the Monitoring and Evaluation (M&E) Units at both the district and PMCU. The purpose of this analysis is to identify implementation constraints, track performance against targets, and generate insights to inform project management decisions. The analyzed data will also be used to prepare quarterly, semi-annual, and annual progress reports, which will include comprehensive activity-by-activity progress tables.

383. Each district will be responsible for preparing these reports at the district level, which will then be consolidated by the PMCU into a project-wide performance report**.** These consolidated reports will be submitted to relevant Government agencies, IFAD, and other BoLCoP funding partners. The reports will provide:

a) An overview of intervention activities conducted during the reporting period and cumulatively over the fiscal year;
b) Progress and outputs measured against agreed M&E indicator targets;
c) Lessons learned and identified knowledge or capacity gaps; and
d) Constraints encountered, along with recommendations or requests for management guidance to address them.

384. Progress reporting will reflect cumulative achievements from the beginning of the financial year to the reporting period. For example, the third quarter report will include both the results achieved during the third quarter and the cumulative progress from the start of the financial year up to that point. Additionally, reports will include cumulative programme-wide progress from the inception of the BoLCoP Project, allowing for an ongoing assessment of progress toward the programme's overall targets in line with IFAD's Operational Results Management System (ORMS).

385. To ensure consistency and data integrity, standardized reporting formats will be developed as part of the Monitoring and Evaluation Framework and M&E Plan. These formats will provide clear guidance to all monitoring focal persons and implementing institutions across national and district levels, ensuring harmonized data collection, analysis, and reporting practices throughout the project lifecycle.

386. Regular Project Implementation Review (PIR) meetings will be conducted on a quarterly basis to assess project implementation progress, evaluate performance against targets, and facilitate experience sharing among stakeholders. These reviews will serve as critical platforms for reflection, joint learning, and adaptive management. Participation will include all stakeholders involved in project activity implementation, such as members of the District Implementation Units, implementing partners, relevant government departments, and selected sector actors. The hosting of this review meetings will follow a rotational arrangement among the districts, fostering ownership, inclusiveness, and cross-district learning within the BoLCoP.

387. **Progress Reporting** – The primary source of information for programme management and oversight will be the progress reports produced by the Programme's M&E system. To ensure consistency and comparability, standardized reporting formats will

be developed and applied at all levels of implementation. M&E officers at district and national levels will be responsible for validating the data prior to submission to the next reporting level.

388. Consolidation of information will involve both quantitative and qualitative analysis, integrating physical progress (outputs and activities) with financial execution, and assessing cumulative achievements against programme targets and outcomes. The reporting structure will consist of the following:

389. **Quarterly Progress Reports (QPRs):** All BoLCoP activities integrated into the workplans of district, units, or implementing sections will be reported on a quarterly basis (every 3 months). Each implementing unit will submit its report to the respective district implementing unit. In cases where the private sector is involved in implementing project activities, the district implementing units will be responsible for ensuring compliance with monitoring and reporting obligations as stipulated in the service providers' contracts. Reports will highlight progress, challenges encountered, and key results achieved during the quarter.

390. **Bi-Annual Progress Reports (BPRs):** These reports will be prepared every six months based on the consolidation of the quarterly progress reports submitted by the districts and implementing partners. The PMCU will compile a consolidated six-month progress report to be shared with the Government of Botswana, IFAD, and other development partners/co-financiers, as required. These reports will present a summary of progress made against the Annual Work Plan and Budget (AWPB) targets and include key lessons learned. Reports will be submitted within six weeks of the end of the reporting period.

391. **Annual Progress Reports (APRs):** The Annual Progress Report will be a comprehensive synthesis of achievements made over the financial year. It will provide an assessment of the overall performance of the BoLCoP project against the objectives and results defined in the project logframe. Annual reports will be prepared jointly by the DIU and PMCU and submitted to stakeholders, including the Government and IFAD, in accordance with agreed timelines.

392. **Back-to-Office Reports (BTORs):** These reports will be generated following field visits conducted by project staff, consultants, or supervisors. BTORs will document the purpose of the visit, stakeholders and beneficiaries engaged, key findings, observations, lessons learned, and recommendations for action or follow-up. BTORs are to be submitted within one week of completing the field activity.

Summary of BoLCoP Reporting Requirements

Report Type	Prepared By	Frequency	Submission Deadline	Key Contents
Quarterly Progress Report	Implementing Units / DIUs	Every 3 months	Within 4 weeks of quarter end	Activity progress, implementation status, challenges, outputs
Bi-Annual Progress Report	PMCU (based on DIU reports)	Every 6 months	Within 6 weeks of period end	Consolidated achievements, analysis vs AWPB, emerging lessons

Annual Progress Report	DIUs and PMCU	Annually	Within 8 weeks of fiscal year end	Comprehensive performance review, logframe-based results, challenges, lessons
Back-to-Office Report	Project staff / consultants	As needed	Within 1 week post-field visit	Visit purpose, findings, stakeholders met, lessons, recommendations

393. **Baseline and Impact Evaluation** – A comprehensive baseline study will be conducted during the first year of project implementation to establish benchmark values for key project indicators. This study will serve as a critical reference point for measuring outcomes and evaluating project impact over time. The BoLCoP project will adopt and, where necessary, adapt the standard IFAD Core Outcome Indicator (COI) survey guidelines and methodology to align with the specific context of the livestock sector in Botswana. The PMCU, in collaboration with the DIUs, will lead the development and customization of the baseline study's Terms of Reference (ToR), COI survey instruments, and Request for Proposals (RFP). The study will be executed by an independent external consulting firm, procured through a competitive bidding process, in accordance with national procurement procedures and IFAD guidelines.

394. **Timeline for Baseline Survey Implementation:** The baseline survey will be implemented in the first 6 to 9 months of the project, as outlined below:

Activity	Timeline
Recruitment of M&E specialists and baseline consultants	Months 0–2
Development and validation of survey tools and protocols	Months 1–3
Training of enumerators and pilot testing	Months 3–4
Field data collection	Months 4–5
Data cleaning, analysis, and validation	Months 5–6
Finalization of Baseline Report	By end of Month 6 (latest by Month 9)

395. This survey is critical for assessing pre-project conditions, setting realistic and evidence-based targets, and informing the project's Monitoring and Evaluation (M&E) strategy over the full eight-year implementation period

396. **Baseline Survey Timeline and Integration into M&E Framework:**

397. The survey will be designed and implemented in coordination with relevant government agencies, implementing partners, and technical specialists to ensure methodological rigor and contextual appropriateness.

398. **Use of Baseline Data in M&E Planning and Orientation:** Upon completion of the baseline survey and validation of results, the project M&E team will be formally oriented on the achievement targets to be pursued across the project's phased implementation. This orientation will take place during the start-up period, no later than the end of Project Year 1, and will serve the following purposes: (i) Align the M&E team's understanding of current baseline conditions. (ii) Calibrate intermediate and final outcome targets based on empirical data, ensuring they are realistic, time-bound, and measurable. (iii) Disaggregate targets by geographic area, beneficiary group, or component, where applicable. (iv) Define phase-specific benchmarks (e.g., Years 1–2 as Phase I; Years 3–5 as Phase II; Years 6–8 as Phase III) to support ongoing performance monitoring and adaptive management.

399. The results will also inform updates to the M&E Operational Plan, including the scheduling of midline and endline evaluations, indicator tracking schedules, and reporting responsibilities. This phased, data-driven approach to target setting will ensure that monitoring activities are grounded in measurable outcomes and that progress across the 8-year implementation period can be assessed accurately and consistently.

400. **Outcome and Impact Assessments:** To measure the broader achievements of the BoLCoP Project, outcome and impact assessments will be conducted, focusing on the programme's overall goal and specific development objectives as articulated in the project logframe. These assessments will analyze medium- to long-term changes in the livelihoods, productivity, and resilience of targeted livestock producers and communities.

401. **Key Evaluations:** The following major evaluations will be undertaken by independent consultants, with facilitation from the PMCU and DIUs:

402. **For the MTR and PCR,** refer to sections II.6 (MTR) and II.7 (Project Completion). The template for the Baseline/Midterm or Completion Survey Terms of Reference are presented in Annex 18.

403. **Evaluation Data Sources:** The outcome and impact evaluations will draw on a variety of data sources to ensure robust, triangulated findings:

404. Accumulated and interpreted data from the routine monitoring system (including MIS and field reports);

a) Analysis of completion reports from community-level livestock investments and interventions;

b) Findings from bi-annual and annual progress reports at all implementation levels;

c) Specific impact evaluation exercises conducted during the mid-term and project completion stages; and

d) Feedback and responses from beneficiaries, Sub-district and village-level stakeholders, on the effectiveness and responsiveness of project interventions and procedures.

405. **Annual Outcome Survey (AOS)** – AOS will be a key tool for tracking progress towards BoLCoP's intended outcomes on an annual basis. It will serve as a complementary data source to routine monitoring and progress reporting by capturing qualitative and quantitative changes in the livelihoods, productivity, resilience, and wellbeing of targeted beneficiaries.

406. The AOS will focus on selected intermediate outcome indicators from the project logframe, including both IFAD Core Outcome Indicators (COIs) and project-specific indicators. Particular attention will be paid to capturing progress on gender equality, youth inclusion, household resilience, and livestock productivity improvements. It will be taken after the MTR.

III.3: KNOWLEDGE MANAGEMENT, LEARNING AND COMMUNICATION

407. *Role of M&E in Knowledge Management and Learning*: The Monitoring and Evaluation (M&E) system will play a central role in driving evidence-based planning, decision-making, and accountability. It will serve as the foundation for the Programme's Knowledge Management (KM) and learning framework, supporting a culture of continuous improvement through data-driven insights.

408. KM will be fully integrated into BoLCoP's implementation strategy to ensure systematic capture, analysis, and dissemination of both quantitative and qualitative information. This includes routine monitoring data, thematic evaluations, success stories, and field-level experiences Effective knowledge management and communication are essential to ensure that lessons learned, best practices, innovations, and results are documented, shared, and used for decision-making, learning, and scaling up. This Knowledge Management and Communication Plan (KMCP) sets out the strategy for capturing, sharing, and communicating the impact of BoLCoP. The M&E system will serve not only as a performance tracking tool against the results framework but also as a central repository for data and a key instrument for knowledge generation.

409. In BoLCoP, ensuring strong linkages between KM and M&E will be achieved through the following steps. First, aligning the objectives of KM and M&E is crucial: M&E collects data on livestock health, productivity, and outcomes, while KM ensures this information is captured, shared, and used to improve decision-making. Second, integrating data flows by systematically capturing M&E data into accessible repositories, such as databases or dashboards, allows the project team to transform raw data into actionable knowledge like lessons learned about effective feeding or disease control practices. Third, establishing feedback loops through regular after-action reviews, learning workshops, and knowledge-sharing sessions helps ensure M&E findings directly inform ongoing project improvements. Fourth, developing shared tools and templates that include sections on lessons learned and implications for future livestock management encourages joint reflection between M&E and KM teams. Fifth, fostering cross-functional collaboration through joint planning and clear roles for knowledge capture strengthens accountability and ensures continuous learning. Sixth, using learning agendas to focus data collection on critical knowledge gaps ensures M&E remains learning-driven and KM targets key insights. Finally, translating M&E results into user-friendly formats like briefs or infographics and sharing them with farmers, field staff, and stakeholders, supports evidence-based decisions for scaling or modifying interventions. By following these steps, the project will effectively link KM and M&E systems to enhance learning and improve outcomes.

410. Various KM tools such as case studies, stakeholder interviews, surveys, and field stories will be employed to deepen the understanding of factors behind success and failure, support adaptive management, and document the project's contribution to impact. Case studies will be produced on desalination O&M, predator-proofing, briquette microenterprises, and biogas systems. A dedicated KM budget is included in component 3 and includes content development such as videos, briefs, newsletters etc. Capacity building will be provided for digital literacy and knowledge sharing.

411. Knowledge Management Strategy and Action Plan: A dedicated Knowledge Management Strategy will be developed based on three core pillars of KM:

- People – Engaging and capacitating stakeholders at all levels;
- Processes – Embedding KM into project systems, tools, and workflows;
- Technology – Leveraging ICT for storage, dissemination, and feedback loops.

412. The KM strategy will be operationalized through a KM and Communication Action Plan that defines how knowledge will be identified, validated, analyzed, documented, and disseminated. This plan will outline targeted KM activities across technical components and will be integrated into the Annual Work Plan and Budget (AWPB).

- The KM & Communication Action Plan will emphasize: Effective use of communication channels for internal learning and external visibility;
- Mainstreaming of cross-cutting issues such as gender, youth, nutrition, and indigenous inclusion in KM outputs;
- Regular quarterly review meetings with implementing districts, government departments, and private sector actors, to track progress and extract lessons learned;
- Organization of study tours, exchange visits, and learning routes to promote horizontal knowledge sharing among stakeholders.
- Exchange visits will pair anchor farmers from Ghanzi/Kgalagadi with others from Kweneng and Southern District.

413. Digital Platforms and Communication Tools: To ensure effective dissemination and accessibility of knowledge products, a Knowledge Management Portal will be established and integrated with the Ministry of Agriculture's digital platforms. This portal will act as a repository and access point for learning materials, reports, case studies, and multimedia resources. Additionally, the project will explore the use of: social media, SMS platforms, WhatsApp and other mobile-based services; E-extension materials, interactive voice response (IVR), radio broadcasts, and press releases;

- Climate, weather, and market information platforms to support livestock value chain actors.

414. Stakeholder Engagement and Two-Way Information Flow:

- To promote ownership and reinforce participation, the project will institutionalize two-way communication mechanisms between national stakeholders and local beneficiaries. Systems for downward and upward information sharing will include:
- Stakeholder review forums and planning workshops;

415. A periodic newsletter targeting key grassroots organizations such as farmer organizations (FOs), and cooperatives; print materials (flyers, posters, manuals)

- Regular consultations and feedback loops involving partner departments, extension agencies, and implementing entities.

416. The M&E and Knowledge Management Specialist within the PMCU will oversee all KM-related activities in close coordination with the M&E/KM Assistant and technical leads. Collaboration with research and academic institutions, as well as other knowledge networks, will be encouraged to enrich the learning agenda and support evidence-based advocacy and policy influence.

417. To support learning, decision-making, and adaptive management throughout BoLCoP, a Knowledge Management (KM) Plan will be developed and implemented. This plan will guide how knowledge is generated, shared, and used within the project and among stakeholders. It aims to systematically collect and disseminate knowledge, promote continuous learning and transparency, and support policy influence through documented evidence. The plan will use various tools, including monitoring data, surveys,

case studies, digital platforms (website portal, social media, SMS), and face-to-face activities like review meetings and workshops. Collaboration with research institutions will also help generate valuable insights.

Table 1: Knowledge Management Plan – BoLCoP Livestock Project

Components	Description
1. Objectives	- Promote continuous learning and adaptation during implementation. - Enhance access to knowledge for decision-making and policy dialogue. - Support accountability and transparency. - Support the scaling-up of successful models and practices.
2. KM Approaches	- Integration with M&E system. - Use of digital tools (MIS, KM Portal, social media). - Stakeholder interviews, case studies, outcome surveys. - Collaboration with research institutions.
3. Key Activities	- Develop and disseminate newsletters, policy briefs, case studies. - Organize quarterly review and learning meetings. - Conduct exchange visits, learning routes. - Produce and broadcast audio-visual materials.
4. Knowledge Products	- Annual Outcome Survey reports. - Field success stories and lessons learned. - Good practice briefs. - Thematic and gender/youth reports. - Training manuals and guides.
5. Target Audiences	- Project implementers (PMCU, District implementation Units, implementing partners). - Community-based organizations (FOs, poultry/sheep/goats associations) - National government, donors, policy makers. - General public and media. **(refer to table 2 below)**
6. Dissemination Tools	- KM Portal linked to Ministry of Agriculture. - Social media, SMS/IVR, radio, video. - Newsletters, reports, brochures. - Workshops and planning forums. - Learning exchanges and study tours, including SSTC **(refer to Annex 17)** - **Communities of practice (CoPs)** to foster dialogue among extension officers, producer organizations, and youth entrepreneurs.
7. Resource Needs	- M&E and KM & Communication Officer (PMCU). - Budget for content production, digital infrastructure, training. - Staff training on KM tools and storytelling techniques. - Supporting digital champions at community level to promote the use of e-platforms and facilitate peer learning.
8. Performance Monitoring	- Number and type of knowledge products developed. - Stakeholder engagement levels. - Use of knowledge in planning and decision-making. - KM indicators integrated in M&E Framework.
Review and Update	- KM Plan to be updated periodically (e.g., annually).

	- Revisions based on evolving project needs and stakeholder feedback.

Table 2 BolCoP KM Stakeholders:

Stakeholders	What do they want/need to know? What do we want to communicate to them?
Local • Beneficiaries • Local communities • Project staff • Local offices of government agencies and project partners	• Purpose and activities of the project • Opportunities to partner, participate, or benefit • Notifications about project events and meetings • Project results and impacts • Experiences of beneficiaries • Relevant lessons learned Results of successful pilots and trials of new technologies, crops etc. • Guidelines and methodologies • Results of studies, surveys and assessments undertaken Policy relevant lessons
National • Project partners • Other similar projects • Government agencies • General Public and media	
International • Donors/financiers • Development agencies Communities of practice/interest groups • Other projects • Policy makers	

III.4: FINANCIAL MANAGEMENT

Attached as a separate file.

III.5: PROCUREMENT

418. **Introduction.** The purpose of the Procurement Section of the PIM is to simplify the understanding of the procurement process and act as a guide for the implementation of the Procurement of goods, works and services for the BoLCoP project. The section contains a description of procurement methods and procedures and aims to ensure that project procurement is conducted in an efficient and cost-effective manner and that the project obtains value for money. The Section complements the procedures in force; it does not substitute the provisions of the applicable legal framework mentioned below, the IFAD Procurement Guidelines and the procedures in the IFAD Procurement Handbook.

419. **Applicable legal and regulatory framework.** Public procurement in Botswana is governed by the Public Procurement Act (PPA) of 2021, the Public Procurement Regulations (PPR) of 2023 and the Public Procurement Operations Manual (PPOM) of 2024, supplemented with periodic circulars. The Act has established an oversight body, the Public Procurement Regulatory Authority (PPRA) and procuring entities responsible for management of procurement activities, evaluation and monitoring of performance of contracts in accordance with the Act.

420. The procurement assessment during design revealed that overall procurement risk is Moderate. The procurement regulatory framework is well structured with an Act, Regulations and Operations Manual with their precedence firmly established. However,

some gaps were observed including but not limited to: the time for submission of bids for international competitive bidding (ICB) and national competitive bidding (NCB) not in compliance with IFAD Procurement Guidelines; NCBs restrict participation only to bidders domiciled in Botswana; and the national standard bidding documents (SBDs) are not in full compliance with IFAD guidelines, including the Social, Environmental and Climate Assessment Procedures (SECAP) requirements.

421. Therefore, the BoLCoP procurement will be conducted in accordance with the National Procurement Framework to guide the processes and the governance structures, while the IFAD project Procurement Guidelines[4] and SBDs shall be used in lieu of National Framework in the gaps identified.

422. **Guiding principles.** The Procurement of goods, works and services (consulting and non-consulting services) shall be conducted by competitive methods, promoting transparency and accountability, and fair and equal opportunities for all bidders. The processes must foster impartiality, integrity and financial prudence. Ultimately, the procurement must achieve value for money by obtaining the desired quality of services, supplies and/or works at the best price-quality ratio. The acquisition of goods, works and services using international competitive bidding may allow for margins of national preference with a view to granting incentive to the development of the national industry and services of the country benefiting from the funding.

423. **Management of Procurement Process.** The BoLCoP Procurement team will be responsible for the implementation of procurement activities within the scope of the Project, with the Procurement Specialist and Procurement Analyst ensuring the quality and compliance with the bidding procedures of the GoB and IFAD. The procurement specialist and procurement analyst are responsible for preparing and implementing the procurement plan, providing technical assistance to users in the preparation of technical specifications for goods/works and terms of reference (ToR) for consultancy services, preparing bidding documents, evaluation reports and drafting of contracts.

424. The Procurement Analyst shall report to the Procurement Specialist, who reports to the NPCMU Project Director. The Project Director shall be responsible for the overall oversight of the project and the conduct of procurement activities in the Project. The Project Director shall also be responsible for the technical coordination of all users who are responsible for preparing ToR and technical specifications and for clearance of the TORs/specifications for the acquisition of services, goods and works.

425. The MoLA's Procurement Oversight department will approve the bidding documents and procurement notices, evaluation reports, negotiation minutes and the draft contract. The approvals are coordinated through the Procurement and Project Management department as per the National procurement framework.

426. The BoLCoP procurement team and other project staff will need induction training on applicable rules and regulations, guidelines and procedures to:

(i) get acquainted with the procurement guidelines, procedures and processes.
(ii) get a clear understanding of the role of procurement in project implementation.
(iii) get a clear understanding of their roles in the procurement process, and
(iv) ensure close coordination of effort of all participants.

427. There will be a further need for extensive training for BoLCoP project staff to build and strengthen their capacity to address the following areas of capacity needs:

(i) IFAD Procurement guidelines[5] (including Procurement Arrangements Letter)

[4] Any reference to IFAD Project Procurement Guidelines also includes the IFAD Procurement Handbook. Ensuring that applicable procurement rules are consistent with IFAD's Project Procurement Guidelines is mandatory; the Handbook is used as a guidance document for the borrower/recipient. The regulations set out in these Procurement Arrangements supersede the Handbook in case of conflict. For both the Guidelines and the Handbook, the latest version shall always apply.
[5] Ibid

(ii) Procurement planning
(iii) Contract management
(iv) Use of the OPEN system and the contract monitoring tool (CMT)
(v) SECAP performance standards

428. IFAD shall organize the necessary in country procurement training at the beginning and throughout the Project implementation for all stakeholders involved in the BoLCoP procurement on IFAD procurement requirements including preparation of specifications and terms of references, bidding documents, evaluation of bids/proposals and contract management.

429. In addition, procurement staff competitively hired or seconded for the BoLCoP shall be provided with training through the IFAD funded procurement capacity building program (BUILDPROC) delivered by the International Training Centre of the International Labour Organization (ITCILO).

Procurement Process/cycle. The Procurement process comprises the following steps:

430. **Requirements Identification.** The first step is to identify project needs and to gather information that could have an impact on the procurement strategy. The needs are usually included in the Annual Work Plan and Budget (AWPB). After the needs are identified and estimated, they are included in the procurement plan (PP).

431. **Preparation of the Procurement Plan.** IFAD's Project Procurement Guidelines require the borrower/recipient to prepare a procurement plan (PP) covering at least the first 18 months of the project, followed by successive 12-month plans synchronized with the AWPB during the project implementation period. The PP is prepared after conclusion of the Project Procurement Strategy (PPS) and must be coordinated to suit the project's implementation schedule and must be feasible considering the workloads and resources allocated by the IA to procurement implementation. The Procurement Plan is a critical document that provides both the project and IFAD with an important tool for monitoring project implementation. Procurement planning should be integrated with financial planning through the AWP/B to synchronise yearly budgets and cash flows with the progress in the delivery of the project's procurement and to avoid payment delays to suppliers/ contractors/consultants who are engaged in project implementation.

432. Procurement planning will follow the GoB planning calendar. BoLCoP procurement planning, implementation and the IFAD prior review and No Objection shall be routed through the IFAD's Online Procurement End-to-End (OPEN) system, which enforces a step-by-step documentation of the workflow for the entire procurement process. Each procurement entity in BoLCoP will have a sub-profile in OPEN to facilitate transmission of procurement actions for prior review by IFAD.

433. All procurement will be executed against approved PP and AWPB. Items procured outside the PP and the related AWPB will be declared mis-procurement, and the related expenditure will be ineligible for financing from the Loan proceeds. The key contracts incorporated in the PP like all ICB for goods and works as well as all consultancy contracts of interest to the international business community must be publicized through the general procurement notice (GPN) as soon as the Financing Agreement is signed and subsequently ratified by the competent authority in Botswana.

434. **Procurement Requisition.** Once the PP is approved, the users will initiate procurement based on project needs by filing requisition forms. The forms should include the technical requirements and specifications of the required goods, works and services including their estimated costs.

435. **Confirmation of Funds**. The requisitions are subjected to budget checks and confirmation of funds availability by the BoLCoP Financial Management Specialist.

436. **Review of Specifications, terms of reference and scope of work.** To ensure that the purpose of the procurement activity is clearly defined for the potential suppliers. All terms of reference for consulting services will be submitted for IFAD's No Objection.

437. **Preparation of Bidding Documents.** Open competitive bidding shall be the default method of procurement for the Project, to open the procurement opportunity to a greater number of suppliers or contractors who compete among themselves in providing the best goods or services value to the project. This shall enable the project to obtain goods, works and services (both consulting and non-consulting services) at better prices and terms, thus optimizing the use of project resources. In addition, it will allow for greater transparency of the procurement process.

438. However, the law recognizes that certain unique circumstances require the use of other methods of procurement. Bidding conditions shall be consistent, exhibiting fairness, value for money, competition, efficiency, and should provide for bidders' rights with respect to requests for information/clarifications and to file complaints against default by the implementing agency. Qualification criteria shall only concern the bidder's capability and resources to perform the contract considering objective and measurable factors. Such criteria for qualification of bidders shall be clearly specified in the bidding documents.

439. **Approval of bidding documents.** The MoLA's Procurement Oversight department will approve all the bidding documents and procurement notices, evaluation reports, negotiation minutes and the draft contract prior to the same being submitted for IFAD's No Objection. The approvals are coordinated through the Procurement and Project Management department as per the National procurement Act. IFAD's approval will be required in the case of prior review procurements only.

440. **Issuance of the bidding documents.** The procurement opportunities shall be advertised through the relevant media, including in the IFAD website, to identify suppliers and service providers who wish to participate in the tender procedure.

441. **Receipt and opening of bids.** At the end of the bidding period, bidders will deliver their bids to the location specified in the bidding document. The bids shall be opened in public immediately after the bid closing date and time as stated in the bidding documents and in accordance with the relevant provisions of the National procurement Act.

442. **Evaluation.** Evaluation starts after offers are received and opened. The quotations, bids or proposals, received from suppliers/services providers in response to an IFB/RFP shall be evaluated in accordance with the evaluation criteria and weights specified in the bidding document. No information other than that submitted by the suppliers and no evaluation criteria other than those previously specified in the bidding document shall be used. The evaluation shall be carried out by an Ad hoc Evaluation Committee appointed in accordance with the National procurement Act. After bid evaluations, evaluation reports shall be prepared and submitted to the Competent Authority for approval and after its approval, reports shall be submitted to IFAD for review (if applicable).

443. **Awarding.** Awarding is the act by which the procuring entity informs the bidders and the public in general of the decision to award the contract to a particular entity (future supplier/service provider), to provide precedence to contract signature.

444. **Negotiation.** This takes place before the contract is signed. It generally applies for consulting services or non-competitive Procurement activities; and generally, excludes the negotiation of prices, except in cases where these have not been evaluated.

445. **Contract Signing.** The signing of the contract takes place after the negotiations (where applicable) are finalized. A contract is considered signed, after both parties sign the contract document. The implementation of a contract shall start after the effectiveness conditions stated in the contract.

446. **Contract Management.** All resulting contracts will be recorded in the Contract Management Module (CMT) within the OPEN system and frequently updated to monitor the implementation progress and to provide reporting data. The CMT should provide

information on all the awarded contracts for the whole life of the project. The NPMCU will update regularly the contract management data and information in the CMT.

447. Effective contract management ensures that supplier, contractor, and service provider deliverables and obligations are met as agreed under the contract. The BoLCoP team shall closely administer the contract to ensure that vendors meet the agreed project specifications and completion timeline. The responsibility for managing the quality and technical performance of the contract rests with the user units that requested the goods, works or services. In case of large contracts, the functions of the contract management may be designated to a contract manager.

448. A contract manager will be nominated to manage each contract including managing necessary changes through contract variations, dealing with claims and disputes, verifying all requests for contract payments and ensuring that payments being processed are commensurate with physical progress and the contract terms, and closing out the contract in an orderly manner. Monitoring and managing supplier performance should be a priority when the value and the risks associated with the procurement are high such as in the case of complex contracts with high scheduling risks that could affect the commencement and implementation of other planned activities.

449. The Management of contracts shall be carried out through the contract monitoring tool (CMT) in the OPEN. The NPMCU shall establish an appropriate contract management procedure that shall include: (i) management of contract start-up issues (including site handover and take over for civil works); (ii) regularly updating and monitoring of contract implementation through the IFAD's CMT; (iii) claims management; (v) implementation of penalty clauses; (vi) contract amendments; and (vii) contract completion and closure.

450. The Project shall have a Contract Management Plan (CMP) for each major contract, containing clear administrative procedures for managing contract activities. The Plan can be used as a tool to expedite and ensure timely delivery.

451. Depending on the value and risk associated with the contract, the CMP may include the following information:

- a summary of milestones, including any review of the contract and the lead time needed for any re-tender/proposal or renewal.
- a list of the main individuals and their responsibilities (for both the project and the supplier) – e.g., the contract manager and the supplier representative(s).
- a schedule of risks that have been identified and that are being monitored and managed.
- the frequency and content of a supplier's reporting, and the content, frequency, and distribution of any reporting within the project – e.g., monthly reporting to the PMU and the implementing agency on important service statistics.
- a schedule of meetings, and any standard agenda items.
- the processes by which some of the contractual obligations are to be achieved.
- the procedures for managing any specific activities in the contract.
- details of the process and authorities for approving variations to contracts (including delegations).
- details of any ordering procedures, such as ordering of materials, travel services, and printing, and
- payment procedures, such as the level of detail to be provided in invoices, and the format for any electronic invoices.

452. **Contract Closeout.** The Contract Closeout Process includes review of the contract to ensure that all requirements of the agreement have been fulfilled, all outstanding contractual issues are settled, and all documentation requirements have been met. The designated contract manager shall be responsible for completing contracts and closing the procurement file.

453. Before closing a procurement file, the contract manager should check that:

- all goods have been delivered, works completed and handed over, services performed, and contract deliverables received.
- there are no warranties or guarantees still in place.
- there are no outstanding claims for missing or damaged items against either the supplier or an insurance company.
- all necessary payments have been made.
- the total payment total is correct, considering any contract amendments, variations, price variations and the amortization of any advance payment.
- all guarantees and securities have been returned.
- all necessary documentation is in place and correct; and
- the overall performance of the contract has been reviewed, and any serious failings have been identified and resolved.

454. **Performance evaluation.** This aims at identifying ways to improve procurement implementation. After completing the review, the Project should prepare a report that includes recommendations on the lessons learned.

455. **Methods of Procurement and related thresholds**.

456. **For Goods, Works, and Non-Consulting Services**. All project procurement shall be undertaken through open competitive bidding as required by the National procurement framework and in line with the IFAD Procurement Guidelines. Depending on the size of the contracts, procurement will be done either under ICB or under NCB using IFAD Standard Bidding Documents until the Botswana SBD's gaps have been addressed and assessed to be acceptable to IFAD. Small value goods may be procured under shopping procedures.

457. Limited International Bidding (LIB) and procurement under Framework Agreements may also be used where appropriate.

458. The use of direct contracting/single source selection requires IFAD's No Objection for all procurement categories (Goods/Works/Services) and is always subject to prior review in accordance with the provisions of the Module F2 paragraph 6 of the IFAD Procurement Handbook, except for low value contracts below the threshold and the aggregate annual amount stipulated in the Procurement Arrangements Letter.

459. **Selection of consultants**. The selection methods for procurement of consulting services will be Quality and Cost Based Selection (QCBS) method whenever possible. Contracts for specialized assignments estimated to cost less than US$80,000 equivalent may be contracted through Consultant Qualifications Selection (CQS), Fixed Budget Selection (FBS), and Least-Cost Selection (LCS) as appropriate. The Quality Based Selection (QBS) may be applied to contracts of highly technical services for any value with a proper justification is provided.

460. Short lists of consultants for services estimated to cost less than the equivalent of US$80,000 per contract may be composed entirely of national consultants in accordance with the provisions of the Procurement Arrangements Letter. However, if foreign firms express interest, they will not be excluded from consideration.

461. All services of Individual Consultants will be procured using Individual Consultant Selection (ICS) method regardless of value. Shortlisting of Expressions of Interest shall be mandatory for all ICS and CQS contracts. Shortlisting will also be mandatory for all consulting services contracts costing US$100,000 or more.

462. Single Source Selection (SSS) may be employed with prior approval of IFAD and in accordance with Module F2 paragraphs 6 of the IFAD Procurement Handbook.

463. However, prior approval will not be required for low-value unforeseen procurement of consulting services with estimated cost of US$ 500 or less per purchase up to an aggregate amount of US$ 5,000 per annum.

464. The Quality Based Selection (QBS) may be applied to contracts of any value if a proper justification is provided.

Thresholds for Procurement of Good, Works and Services in US$

Expenditure Category	Contract Value Threshold (USD)	Procurement/Selection Method	Prior Review Thresholds
Works	≥500,000	ICB	≥ 175,000
	< 500,000	NCB	
	≤ 175,000	Shopping	
	All values	Direct Contracting	All values
Goods	≥ 150,000	ICB	≥ 70,000
	< 150,000	NCB	
	≤ 70,000	Shopping	
	All values	Direct Contracting	All values
Consulting services	≥ 80,000	QCBS	≥ 50,000
	< 80,000	LCS & FBS	
	≤ 50,000	CQS & ICS	
	All values	Single Source Selection	All values

465. The above thresholds may be modified by IFAD during project implementation. All requests for IFAD prior review and No Objection (including AWPB, Procurement Plan, procurement documents at different stages of procurement subjected to IFAD prior review, will be managed through the IFAD's Online Procurement End-to-End (OPEN) system.

466. **Prior review requirements**. IFAD will undertake to review the provisions for the procurement of goods, works and services to ensure that the procurement process is carried out in conformity with the IFAD Project Procurement Guidelines. The following procurement decisions shall be subject to prior review by the IFAD for the award of any contract for goods, equipment, materials, works, consultancy and services under BoLCoP.

467. **Procurement of goods, works and non-consultancy services**:

- Prequalification documents and shortlist when prequalification is undertaken.
- Draft bidding document, and draft procurement notice.
- Evaluation report and supporting documents.
- Draft contract and the minutes of contract negotiation, and
- Contract amendments if any.

468. **Procurement of consultancy services**:

- Draft Term of Reference (TOR), and request for expression of interest (REOI).
- EOI evaluation report, shortlist and supporting documents when prequalification is undertaken.
- Draft request for proposal.
- Technical evaluation report and supporting documents.
- Combined evaluation report and supporting documents.
- Draft contract and the minutes of contract negotiation, and
- Contract amendments if any.

469. **Procurement of individual consultants**:

- Draft Term of Reference, and the draft request for expression of interest (REOI).
- Evaluation report and supporting documents.
- Draft contract and the minutes of contract negotiation, and
- Contract amendments if any.

470. **Anti-Corruption and other Complementary Policies**. All procurement of goods, works and services financed from IFAD funds under the Project shall require the inclusion of the following safeguard provision requiring suppliers, contractors and consultants:

- To permit IFAD to inspect their accounts, records and other documents relating to the procurement and contract performance and to have them audited.
- Compliance with the IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations and with its Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse, and IFAD's Anti-Money Laundering and Countering the Financing of Terrorism Policy.

471. In compliance with IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations and with its Policy on Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse, Annexes on Additional Provisions and Self-Certification Form shall be included in bidding document/RFP and contract documents. The self-certification form will be signed by bidder/supplier/service provider/consultant as an integral part of bid/proposal and contract documents.

472. **Procurement Risk Mitigation**. The BoLCoP has been assessed as having a moderate inherent risk rating for both the country procurement risk and project institutional risk. Measures for mitigation of project procurement risks are:

- Using IFAD OPEN system for procurement plan to monitor and update regularly implementation progress of the procurement plan.
- Request bidders, contractors, service providers and suppliers signing Self Certification Form on anticorruption, sexual harassment, sexual exploitation and abuse, anti-Money laundering and countering the financing of terrorism policy as a part of bids/ proposals and contract documents.
- Conduct prior and ex-post reviews, annual audits to strengthen enforcement of the debarment system.
- Carry on-the-job trainings and refresher trainings for procurement and other project staff on IFAD project procurement guidelines, procurement planning, contract management, SECAP procedures and on the use of the OPEN system.
- Develop a project procurement manual with detailed guidelines on selection of procurement methods in compliance with IFAD project procurement guideline, the Financing Agreement and the Procurement Arrangements Letter.

473. **Mis-Procurement**. IFAD Project Procurement Guidelines section H article 68 states that "IFAD will not finance expenditures for goods, works or services that have not been procured in accordance with the IFAD Procurement Guidelines, the financing agreement, and the Procurement Arrangements Letter. In such cases, IFAD may, in addition, take other remedial action under the Financing Agreement, including cancellation of the amount in question from the loan account by declaring it ineligible. Even if the contract was awarded following IFAD's "no objection" statement, IFAD may still declare mis-procurement if it concludes that this statement was issued based on incomplete, inaccurate or misleading information furnished by the Borrower/Recipient.

474. **Documentation and records**. Procurement records are an essential resource and contain invaluable information which that can be used as an audit trail as they provide proof of a specific activity thus enabling the verification of transparency, accountability, and effectiveness. The procurement officer shall maintain a separate file for each procurement activity from the initial receipt of procurement requisition to the closing out of the contract for future reference and for monitoring and control purposes.

475. Procurement records shall be kept orderly in file records in shelves or other safe place, but preferably the procurement records shall be saved orderly electronically and uploaded to the cloud or other safe electronic environment (including a protected in-house server). Paper file records should not be cramped. Excess papers shall be kept in additional

volumes in one or more additional lever- arch folders and in chronological order. Bids and proposals submitted by bidders may be left out of the lever arch file and kept in appropriately labelled box files. Lever arch folders should have a side label and a file index.

476. File Index shall include request to initiate a procurement (procurement requisition), the rationale for the procurement, solicitation document including TOR/specifications/bid documents, selection of the contract type, advertisement, record of sale of bids, record of receipt of bids (both successful and successful bids), record of opening of bids, evaluation minutes and report, the justification for contract award, award letter, acceptance letter, contracts including amendments if any, and other correspondences related to the procurement, including approvals and No Objections.

477. Additionally, it is advisable for the BoLCoP procurement team to maintain in each procurement file the documents listed in Module B of the IFAD Procurement Handbook. The procurement files, including procurement activities not successfully completed, to be stored and retained for the duration prescribed by the Procurement Act and Regulations.

478. The Sections 82 of the Procurement Act and Regulations 126 of the Procurement Regulations require "a procuring entity shall keep and maintain a record of a procurement and contract management for at least five (5) years from the date of a decision to terminate the contract or the date of expiration of the contract, except where there is a dispute relating to such contract in which case the record shall be kept for an additional year after the expiration of the contract or the settlement of the dispute, whichever comes later. Under IFAD General Conditions, records are kept for ten years after project closure.

479. **Capacity Building**. Procurement is a collaborative process, involving multiple stakeholders. As such, procurement knowledge, skills and capacity are necessary for all stakeholders involved to ensure efficient implementation of the Project. Based on lessons learned with previous IFAD funded projects in Botswana, a dedicated procurement capacity building for all stakeholders at all levels will be key in ensuring the project procurement activities are carried out efficiently and in accordance with the provisions of the GoB and IFAD procurement guidelines.

480. IFAD shall organize the necessary in country procurement training at the Project Start-up and throughout the Project implementation for all stakeholders involved in BoLCoP procurement. The training will cover IFAD procurement requirements including preparation of specifications and terms of references, bidding documents, evaluation of bids/proposals and contract management.

481. In addition, capacity of procurement staff competitively hired or seconded for BoLCoP shall be strengthened through the IFAD funded procurement capacity building program (BUILDPROC) delivered by International Training Centre of the International Labour Organization (ITCILO). The program offers relevant, comprehensive, accessible and sustainable procurement certification programme to procurement officers working for agricultural and rural development.

482. **SECAP Risks Relevant to Procurement.** Procurement under the Project will be undertaken in such manner as to reduce the risks identified in the SECAP Guidance to the SPO (see Annex throughout the procurement cycle. These will cover specific actions in procurement process including, but not limited to:

- *Technical specifications*: Use of ethically sourced materials and avoid use of large quantities of natural materials such as wood for construction; use of only allowable chemicals; refer to approved chemicals in specifications; WHO-FAO approved chemicals and WHO-FAO codes for safe labelling, packaging, handling, storage, application and disposals of chemicals are respected.
- *Bid Evaluation criteria*: Suppliers of chemicals will be required to operate in accordance with SECAP standard 2 (reference to the exclusion list); To include evaluation of proposed safe Chemical Management Plans by the bidders as necessary.

- *Contract clauses*: Adhere to the relevant labour laws, ensure compliance to national and international laws on Labour; compliance to International Labour Law for prohibition of child labour by referring to the directives of the ILO on the minimum working age and available National Labour Law; Establishment of work place specific Grievance Mechanism; Compliance to occupational safety and health (OSH) requirements including Safety and health training on the proper use and maintenance of personal protective equipment; comply to IFAD Policy to Preventing and Responding to Sexual Harassment, Sexual Exploitation and Abuse, including the assessment of risks of project-related gender-based violence, risks of sexual harassment, sexual exploitation, human trafficking and abuse to project-affected people and communities.

483. The table below provides indication to the BoLCoP Project team on the SECAP risks to be incorporated into procurement. While the general integration of SECAP requirements into procurement documents is described into Annex 4, Volume 1 of the SECAP Guidelines 2021, the project specific risks are as identified by the SECAP online tool. The ES specialist and Procurement specialist have identified, through the SECAP environmental & social screening checklist, the issues below that need to be mitigated through procurement.

PART IV: ANNEXES

ANNEX 1. THEORY OF CHANGE

1. The Theory of Change (ToC) for BoLCoP addresses key challenges hindering the commercialisation of Botswana's small livestock sector, including low productivity, weak market access, and vulnerability to climate change impacts. Underlying causes include limited adoption of climate-smart technologies, weak access to veterinary and extension services, fragmented value chains, high production costs, limited infrastructure, food and nutrition insecurity and inadequate access to land, finance, and markets. These constraints disproportionately affect women, youth and vulnerable groups.

2. The ToC addresses these constraints in a sequenced approach, beginning with the strengthening of foundational production systems and culminating in enhanced market integration. The ToC is structured around three interlinked outcomes: a) Increased climate-resilient small livestock production and productivity; b) Strengthened and inclusive small livestock value chains; and c) Enhanced enabling environment for small livestock development. A cross-cutting emergency response component (RED) is also embedded throughout to address the increasing frequency of climate-related shocks and disasters.

3. While interdependencies exist between all three outcomes, the design recognizes the critical sequencing between Outcomes 1 and 2. Specifically, significant progress in improving climate-resilient livestock production (Outcome 1) is a precondition for achieving sustainable commercialization through value chain development (Outcome 2). Parallel achievement of both outcomes is therefore not expected nor feasible in the early stages of implementation. The ToC adopts a phased approach.

4. During Phase 1: (Years 1–4), the Project will focus on increasing small livestock productivity and resilience by: a) Enhancing access to animal health services and small livestock inputs, drought and salinity tolerant feed and fodder, and labour-saving infrastructure, such as solar powered boreholes, particularly for women and youth; b) Promoting climate-smart practices and adapted breeds through inclusive, community-based breeding programmes, including training in GALS and nutrition education; c) Training of community animal health workers (CAHWs) in veterinary services; d) Investing in climate-resilient infrastructure, such as animal housing, water harvesting systems, and rangeland restoration; and e) Expanding access to digital advisory services and digital literacy to value chain actors. These investments will stabilize production, reduce climate-related risks, and build household capacity to participate in formal markets.

5. In Phase 2: (Years 5–8), the Project is Scaling Market Participation by building on the production gains achieved in Phase 1. The second phase will concentrate on integrating smallholders into competitive and inclusive value chains. Key interventions will include: a) Strengthening farmer clustering and cooperatives; b) Upgrading inclusive value chain infrastructure (e.g., slaughter slabs, cold chains, aggregation centres); c) Expanding access to finance and digital tools tailored to smallholder needs; d) Facilitating market linkages, grading systems, and digital platforms for price transparency; and e) Supporting multi-stakeholder coordination platforms for value chain governance.

6. For Outcome 3: Strengthening the Enabling Environment (Years 1–8), interventions will be undertaken throughout the Project to ensure long-term sustainability. It will focus on: a) Institutional capacity building for government and farmer organizations; b) Policy and regulatory reforms (e.g., sheep value chain strategy, grading systems, local content clauses); c) ICT strategy development for the Ministry of Livestock and Agriculture; and d) Effective Project management, M&E, and knowledge sharing systems. These activities provide a more supportive and coherent enabling environment for inclusive small livestock development.

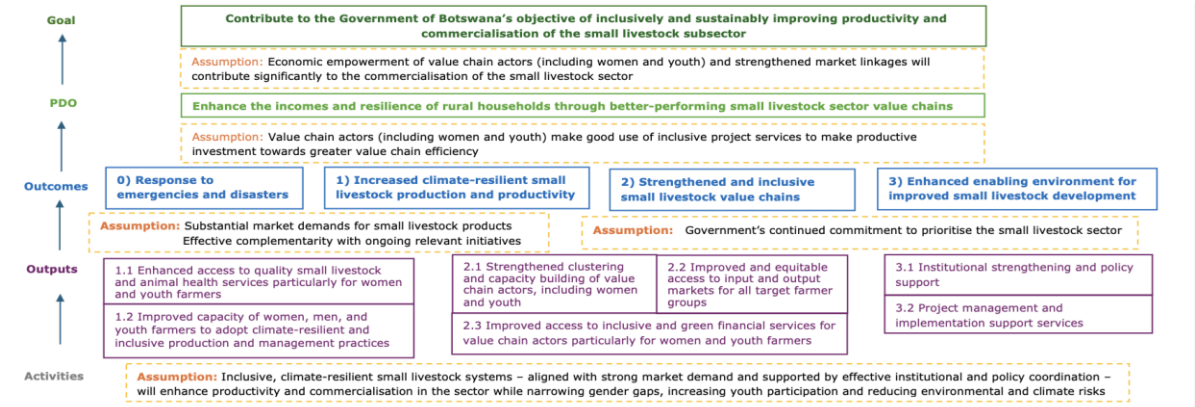
7. The RED component is integrated across outcomes to enhance preparedness and responsiveness to droughts, disease outbreaks, and climate shocks.

8. The phases allow for a gradual but transformative shift, aligning BoLCoP's outputs with its development goal. These outputs include: a) Enhanced access to quality small livestock

and animal health services, particularly for women and youth farmers; b) Improved capacity of women, men, and youth farmers to adopt climate-resilient and inclusive production and management practices; c) Strengthened clustering and capacity building of women, youth, and other value chain actors; d) Improved and equitable access to input and output markets for all target farmer groups.; e) Improved access to inclusive financial services, particularly for women and youth farmers; and f) Institutional strengthening and policy support, and Project management and implementation support services.

9. The cumulative result is a livestock sector that is more inclusive, productive, and resilient to climate change. The TOC guiding BoLCoP emphasizes environmental sustainability, gender equality, and youth empowerment. The ToC assumes that inclusive, climate-smart practices and improved ecosystem governance will enhance productivity, market access, and gender equity, while reducing vulnerability to climate impacts.

Figure 1: BoLCoP Theory of Change



ANNEX 2. LOGICAL FRAMEWORK

[See attached file]

ANNEX 3. FIRST YEAR ANNUAL WORK PLAN AND BUDGET

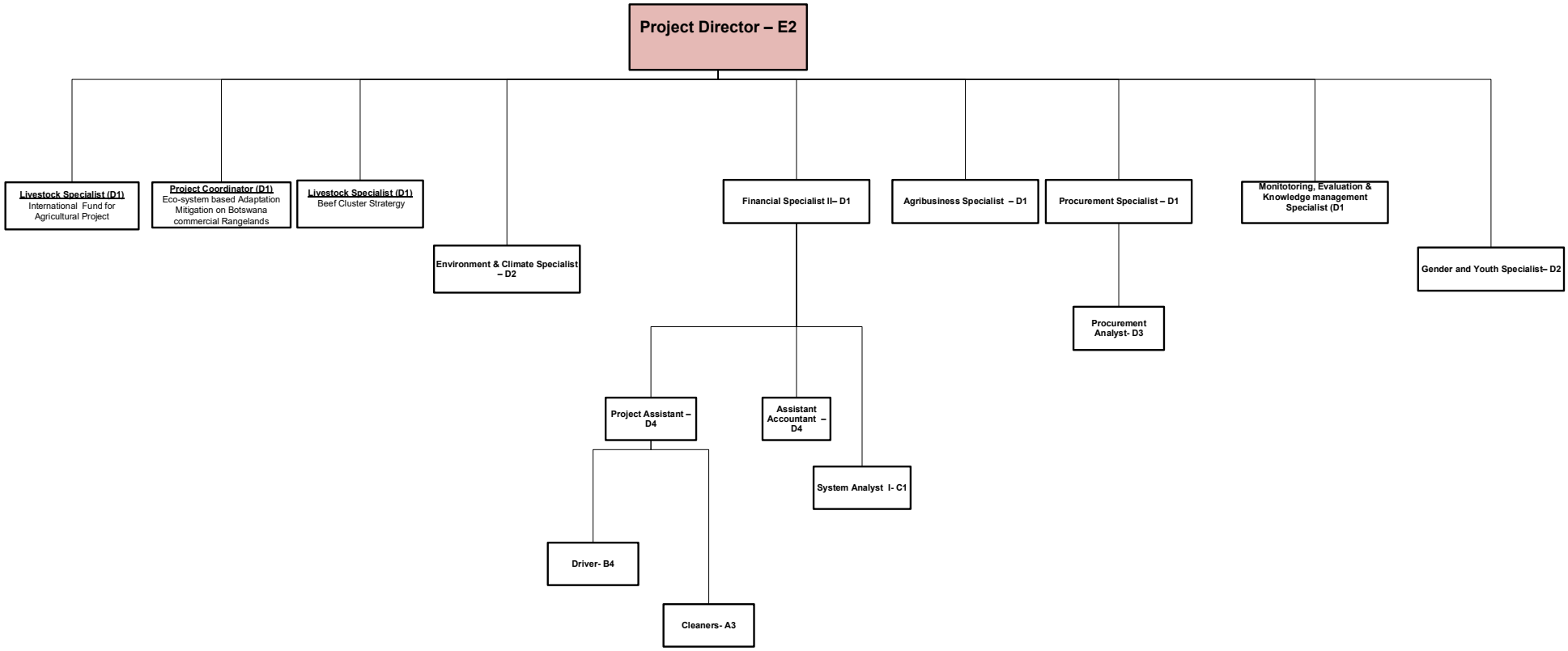
[See attached file]

ANNEX 4. 18-MONTH PROCUREMENT PLAN

[See attached file]

ANNEX 5. ORGANISATIONAL CHARTS

IFAD and the Government of Botswana jointly developed a draft organisational chart of PMU[6]:



[6] The draft organisational chart jointly developed by IFAD and GoB will be finalised at the pre-implementation stage.

ANNEX 6. TERMS OF REFERENCE (TORS) OF NPMCU STAFF AND DISTRICT PROJECT MANAGEMENT AND COORDINATION UNIT (DPMCU)

NPMCU Staff ToRs

A. Project Director

The Project Director (PD) will head the PMCU and will provide the overall leadership in the Project implementation. He/she will: a) coordinate the day-to-day planning and execution of the project activities and ensure timely achievement of intended results; b) oversee and ensure timely procurement of works, goods and services (including training), preparation of AWB&P, procurement plans, project supervision and reviews and day to day monitoring of the project implementation; c) ensure timely project data capture and reporting; d) provide sound administration of project staff and project finances; e) promote harmonious and close working relationship between the project, the relevant national and districts administrations; f) coordinate and ensure timely execution of activities assigned to partners and service providers; and g) promote good governance and participatory planning. He/she will be Secretary to the Project Steering Committee (PSC) and the Project Technical Committee (PTC). The PD will be answerable to the Permanent Secretary (PS), Ministry of Lands and Agriculture (MoLA).

I. Detailed responsibilities include:

a) Overall coordination of the project management in accordance with the policies, procedures, and guidelines set forth in the Financing Agreement, Project Design Documents and Project Implementation Manual (PIM);

b) Oversee work performance of the NPMCU staff, undertake their performance appraisals and performance evaluation and submit to PSC for decision making;

c) Coordinate and work with relevant Government ministries and departments, District Administrations, implementation partners, service providers, private sector participants, beneficiaries, Community Based Organizations (CBOs) – where they exist, and local communities to ensure smooth execution of the Project activities;

d) Lead the district and local administrations in developing a robust and objective criterion for the selection of the sub-districts, villages and target Project beneficiaries;

e) Ensure the timely preparation, clearance, and approval of consolidated AWPBs and Procurement Plans (PPs), and their execution in accordance with the overall Project objectives, PIM, and IFAD and GoB regulations and guidelines, including fiduciary requirements;

f) Facilitate procurement process of all works, goods and services, adhering to IFAD and GoB rules, procedures, and regulations;

g) Oversee and facilitate supervision of works contractors, goods suppliers, and service providers for timely and quality execution of their responsibilities;

h) Develop parameters to ensure social inclusion of women, youth and vulnerable groups are identified in accordance with the design document and Project Implementation manual;

i) Sensitize implementation teams and partners on the project poverty targeting, youth and gender mainstreaming strategies and their rationale and implementation arrangements;

j) Create and promote conducive work environment that promotes knowledge sharing and learning from experiences among members of the Project staff, district teams and those of the implementing partners and service providers, and participating Government institutions at the National and District levels;

k) Develop synergy between the Project with other relevant Projects, financed by the GoB or its development partners, to maximize BoLCoP's development impact;

l) Develop guidelines to ensure information is disseminated timely and appropriately to all key stakeholders, including the PSC, PTC, other government ministries and parastatals, and IFAD regarding Project-related activities;

m) Control and monitor implementation of all project activities and, on a quarterly basis, prepare and submit progress and performance reports to the GoB, IFAD and the Project Steering Committee, as per the design document;

n) Manage with integrity and transparency the Project funds, monitor expenditures, submit to IFAD, the GoB, PSC and responsible line agencies quarterly financial reports;

o) Oversee timely preparation of the Project accounts, and audit in line with the Project Financing Agreement (PFA);

p) Facilitate and support joint IFAD/GoB supervision and implementation support, follow-up, midterm, and completion missions, and ensure that their recommendations are implemented fully and in a timely manner;

q) Build and maintain strong collaborative relationships with all Project stakeholders (including beneficiaries), local networks and contacts and partner organizations, engaging them on a regular basis to integrate their feedback into the implementation and progress of the Project;

r) Coordinate the scaling up of the technological packages promoted by the Project in coordination with IFAD, PSC, the participating districts, and Project implementing partners;

s) Ensure that Project activities at the district level are fully harmonized with the different district development plans;

t) Serve as the Secretary to the Project Steering Committee and Project Technical Committee; and

u) Undertake any other duty and responsibilities that may be assigned by the PSC and PS.

II. Academic Qualifications and Other Requirements for the Position:

a) Minimum Requirements:

- A master's degree in MBA, Animal Science, Agricultural Economics, Environment, Development, Project Management, Social Sciences, or any other relevant discipline.

- Relevant professional work experience of at least fifteen (15) years, five (5) years of which should be in a similar position as Project Manager of a development project; preferably a donor funded project.

b) Other Requirements:

- Post Graduate qualification in project management will be an added advantage.
- Excellent analytical skills, sound judgment, resourcefulness, ability to take initiatives, capacity to self-manage and ability to create a team-based, participatory work environment.
- Sound understanding of the Botswana's multi-level government systems, their governance and administration modalities, their differences, and linkages.
- Skills in process facilitation, strategic planning, and partnership building.
- Excellent understanding of the social, economic, political, and historical trends underpinning poverty alleviation strategies and policy reform processes in Botswana.
- Adequate understanding of Botswana's diverse agro-ecological zones, including the gazetted lands, different livestock/agricultural systems, and development needs.
- Ability to work and interact with people from diverse, professional, social, and cultural backgrounds.
- Ability to work under pressure and meet strict deadlines and work with minimum supervision.
- Good interpersonal and Communication skills.
- Knowledge of computer packages.

B. Monitoring, Evaluation and Knowledge Management Specialist

The Monitoring, Evaluation and Knowledge Management (ME&KM) Specialist will play a critical role in supporting evidence-based implementation, adaptive management, and continuous learning under the Botswana Livestock Commercialization Project (BoLCoP). Reporting to the Project Director, the Specialist will be responsible for the overall coordination, establishment, operation, and maintenance of the project's M&E and learning systems. This includes tracking project performance against defined indicators, overseeing the collection, validation, and analysis of data, and ensuring the timely production of accurate progress reports, knowledge products, and communication materials. The ME&KM Specialist will also lead the design and implementation of baseline, midterm, and endline evaluations, and manage the M&E/KM Assistant. Furthermore, the role will support the dissemination of project achievements, lessons learned, and innovations, ensuring alignment with IFAD guidelines and national priorities, while promoting knowledge sharing and stakeholder engagement throughout the project lifecycle. The following are the duties and responsibilities:

a) Assist in the collection, validation, and entry of data from implementing partners, district M&E officers, and field activities.
b) Support the rollout and application of the M&E system and indicator framework across project sites.
c) Contribute to the preparation of quarterly, biannual, annual, and thematic M&E reports.
d) Assist in revising the logframe by collecting and organizing indicator data, especially gender-sensitive and socially inclusive metrics.
e) Help track project progress against the Annual Work Plan and Budget (AWPB).
f) Support the ME&KM Specialist in coordinating and following up on baseline, midterm, and endline surveys.
g) Assist in the development and maintenance of data collection tools, templates, and digital forms (paper-based and tablet-based).
h) Support the input, cleaning, and updating of data in the Management Information System (MIS).
i) Generate basic analytical tables, dashboards, and visualizations to support decision-making.
j) Coordinate with district-level staff to ensure timely and quality data flow from the field.
k) Help maintain databases and ensure backup and proper filing of all M&E data.
l) Assist in the documentation of good practices, case studies, innovations, and lessons learned.
m) Support the preparation and layout of communication products including newsletters, learning briefs, presentations, and reports.
n) Help manage the digital and physical knowledge repository of the project.
o) Assist in implementing the Knowledge Management and Communications Strategy, including content development for web, social media, and stakeholder engagement.
p) Support the logistics and organization of M&E training workshops for project staff and partners.
q) Assist in developing and disseminating training materials, guides, and manuals.
r) Provide on-the-ground support during field monitoring missions, surveys, and evaluations.
s) Help document proceedings and follow-up actions from capacity building activities.
t) Contribute inputs for progress reports and ensure timely submission of data from districts and partners.
u) Maintain a well-organized system of M&E records, files, and reference materials.
v) Support the ME&KM Specialist in preparing the Annual Work Plan and Budget (AWPB).
w) Assist in organizing review and planning sessions, including preparing background data and documentation.
x) Undertake any other relevant tasks as assigned by the ME&KM Specialist or the Project

Director.

Minimum Requirements

a) A Masters degree in Monitoring and Evaluation, Development Studies, Statistics, Demography, Economics, Rural Development, or a related field.
b) The Specialist must have demonstrated experience in designing and implementing M&E systems in a multi- faceted rural development Project.
c) Demonstrated experience in designing and implementing M&E systems, including large-scale surveys and evaluations.
d) Demonstrated experience of at least 3 years of application of Computer statistical packages and/ or data analysis software (e.g. SAS, SPSS, and Advanced Excel) and basic computer skills (word-processing, power point, and databases) are a must.
e) At least seven years direct experience in a position of monitoring and evaluation of rural development, agriculture, or livestock projects.
f) Possession of additional training in impact evaluation, familiarity with the operations and use of IT in monitoring and evaluation are added advantages.
g) Strong experience in conducting research studies including the entire evaluation cycle, from design and formulation to implementation, analysis and presentation of results and recommendations.
h) Good oral and written communication skills. Should be fluent in English.
i) Proven high level of integrity in handling public resources and in executing duties.
j) A high level of interpersonal and management skills and ability to work with teams.
k) Must be result focused and be able to work under pressure and tight deadlines.
l) High level of integrity

Other Requirements

a) Strong knowledge in the development of performance-based indicators.
b) Demonstrated experience in the techniques of data collection, data entry, data analysis and design of management information systems to facilitate the planning and decision- making processes within the institution/s.
c) Proficiency in software packages (e.g., SPSS, R, SAS, or Advanced Excel).for data analysis and technical reports.
d) Proficient in data management, analysis and reporting in Projects
e) Experience in MIS development and implementation, including offline and online data platforms.
f) Proven experience in developing M&E tools, indicator frameworks, and training materials.
g) Strong track record in knowledge management and communications within development projects.
h) Proficiency in GIS tools and spatial data management is an added advantage.
i) Excellent written and verbal communication skills in English. Working knowledge of local language is an advantage.
j) High proficiency in MS Office Suite (Word, Excel, PowerPoint, Access).
k) Familiarity with online collaboration and knowledge sharing tools/platforms.

Performance indicators

a) M&E system and strategy developed and implemented.
b) Project teams trained in M&E and reporting tools.
c) Data collection and reporting coordinated across components.
d) Timely preparation of quarterly, bi-annual, and annual reports.
e) Regular monitoring of project progress against AWPB targets.
f) Baseline, mid-term, and end-line evaluations designed and implemented.
g) Accurate and timely data entry from all project sites.

h) MIS system functional and regularly updated.
i) Support provided for M&E and KM capacity-building activities.
j) Contribution to reports, knowledge products, and communications.
k) Lessons learned and success stories documented and shared.

C. Financial Management Specialist

The Financial Management Specialist is responsible for financial management of the project and for maintaining all project accounts in good order. As head of the finance unit for the project, the financial controller will take charge of all matters in the project accounting cycle. The project accounting cycle to be overseen by the financial controller starts from financial-related inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management aspects. The Financial controller will be responsible for expediting all loan management and disbursement activities. He/she will be answerable to the Project Director for the following duties and responsibilities:

i. Update the financial information in the in the GABS/IFMIS systems to ensure that the PMU and especially the Project Director are regularly informed of on-going financial status and transactions.
ii. Ensure timely capture of project in the Government of Botswana budget as required by the GoB budgeting processes and calendars including access to counterpart funding. Evaluate annual work plan and budgeting procedures, and budgetary control systems applied to monitor actual expenditures versus budget including commitment controls to avoid commitments beyond available resources.
iii. Communicate to all districts and implementing partner institutions and service providers their financial responsibilities, the funds available and how to access it, and the requirements of reporting and record keeping in accordance with prevailing government practices which are acceptable to IFAD.
iv. Ensure that all project funds are used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided.
v. Assess compliance with Government of Botswana laws and regulations governing public financial management including adherence to international accounting standards, audits and financial reporting.
vi. Ensure that all necessary supporting documents, records, and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers.
vii. Ensure that designated account and operational accounts are maintained in accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures.
viii. Contribute to the preparation of the Project Implementation and Financial Manuals.
ix. Ensure the Project's Financial Procedures as detailed in the Project Implementation and Financial Manuals are strictly adhered to by all Project staff and executing agencies at the national and local levels.
x. Ensure that the financial statements are prepared in accordance with the prevailing standards.
xi. Liaise with external auditors to audit the project accounts to meet the required submission dates by both Government of Botswana and IFAD. Review external auditor's reports (Audit Opinions and management letters), including any qualifications and whether any concerns raised by auditors have been adequately addressed.
xii. Liaise with the other project districts and implementing agencies to ensure that Interim Financial Reports are prepared in timely manner and forwarded to IFAD.
xiii. Process documentation and follow up on disbursements from the government and IFAD to ensure that releases are not delayed. Ensure that funds for project implementation are disbursed in a timely manner to enable project interventions to be carried out on time.
xiv. Review eligibility of expenditure in accordance with the financing agreement.

xv. Report on the operation of internal control including budget controls and report any deviations.
xvi. Assist the Project Director with the Resource Mobilization of the Project.
xvii. Deputize the Project Director in matters project administration
xviii. Any other duty as may be assigned by the Project Director.

Academic qualifications and other requirements for the Position:

Minimum Requirements:

- An Advanced Degree in Business Administration, Finance, Accounting, or Economics from a recognized University.
- Professional Qualification in ACCA or CPA qualification would an added advantage.
- A minimum of 7 years' experience working in a similar field and level, 5 of which in Development Partner funded project.
- Demonstrated experience with financial management/accounting in a government ministry/department and donor-funded project.
- Strong computer skills; electronic spreadsheets and other accounting packages.
- Working knowledge of government financial control procedures.

Fluent in English (written and spoken).

Other Requirements:

i. Demonstratable experience with financial management/accounting in a government ministry/department and donor-funded Project.
ii. Strong computer skills; electronic spreadsheets and other accounting packages.
iii. Ability to work under pressure and meet strict deadlines and work with minimum supervision.
iv. Ability to work and interact with people from diverse, professional, social, and cultural backgrounds.

v. Good interpersonal and Communication skills, excellent planning, organizing and recordkeeping skills.

vi. Ability to work as a team player, self-motivated and creative thinker, good analytical skills and report writing and excellent coordination and negotiation skills.

D. Procurement Specialist

The Procurement Management Specialist will be responsible for the management of the procurement activities needed for Project. He/she will provide leadership and guidance to all PMCU and District level project staff and implementing partners on procurement matters for goods, services and works contracts by the Project and maintain all procurement documents in good order. He/she will report to the Project Director.

Duties and Responsibilities:

i. Review and provide more detail, where required, on the procurement section of the draft PIM and update the project procurement strategy (PPS) for the Project.
ii. In collaboration with other members of the PMCU, Districts and implementing partners, and based on the AWPB, update the first 18-month procurement plan.
iii. Lead and coordinate the collaborative preparation of subsequent annual procurement plans for works, goods and services required by the Project in the IFAD's Online Procurement End-to-End (OPEN) system in consultation with technical experts in the PMCU, Districts and implementing partners and submit same for approval by IFAD.
iv. Ensure timely and transparent procurement of goods, works and services identified in the procurement plan and in accordance with the provisions of the Financing Agreement, Project Procurement Arrangement letter, IFAD's Project Procurement Guidelines, National Regulations and the PIM.
v. Coordinate timely preparation of relevant procurement inputs such as terms of reference (TORs), technical specifications, statement of requirements and bills of quantities by technical staff or consultants.
vi. Prepare procurement documents (bidding documents, request for proposals, request for quotations, and contract documents) in the required format and using the IFAD standard procurement documents.
vii. Prepare and issue the procurement notices, including the General Procurement Notice (GPN), requests for Expressions of Interest, specific procurement notices (SPN) for bid opportunities, and issuing bid documents to the prospective bidders.
viii. Provide guidance on public bid opening sessions and providing clarifications.
ix. Convene and guide the bid/proposal evaluation committees to undertake evaluation of bids or proposals for supply of goods, works and services and ensure the committees have people with appropriate expertise;
x. Preparing evaluation reports and recommendations for contract awards, including obtaining necessary internal clearances by the Procurement Oversight Unit in the MoLA and IFAD's No-Objection.
xi. Prepare minutes of contract negotiation (where relevant) and contract documents for necessary approval and signature by the Accounting Officer.
xii. Ensure publication of contracts award in IFAD and GoB/PPRA websites and attend to procurement queries, disputes and complaints as necessary.
xiii. Ensure appointment of contract managers and monitor implementation of contracts, reporting status and challenges to the Project Director and intervene to address contract administration issues upon request by the Project Director.
xiv. Monitor progressive payments to suppliers, contractors and consultants against the agreed milestones & ensure regular update of contract monitoring tool (CMT) data.
xv. Prepare quarterly and annual procurement reports on the implementation of the Procurement Plan and regularly inform the Project Director of any challenges and make proposals to overcome bottlenecks.
xvi. Maintain all procurement records in a form appropriate for regular review/auditing.

xvii. Any other duty as may be assigned by the Project Director.

Academic qualifications and other requirements for the Position:

Minimum Requirements:

i. A minimum of a Bachelor's degree in Procurement or Supply chain or Engineering or Business Administration or Law or any other relevant field is **required**.
ii. Professional certification in Procurement and must be member of a professional body such the Chartered Institute of Procurement and Supply (CIPS) or equivalent.
iii. At least ten (10) years of practical experience in procurement and contracting and 5 years of which must have been in Government/Donor funded projects in Botswana.
iv. Working experience with IFAD or World Bank or African Development Bank funded projects in similar position is an added advantage.

Other Requirements:

v. *Languages*: Fluency in spoken and written English is required.
vi. *Communication*: Ability to communicate effectively with diverse audiences on procurement-related matters, good negotiation, analytical and writing skills to prepare a variety of written documents (contracts, reports, etc.) in a clear and concise manner.
vii. *Ethics and Integrity*: Must be a person of proven honesty and integrity with no criminal record, and no situation of conflict of interest.
viii. *Technology Awareness*: Computer literacy and competency in Microsoft Word, Excel, Access, PowerPoint and Internet applications.
ix. *Teamwork*: Good interpersonal skills and ability to establish and maintain effective working relations with people from diverse professional, social, and cultural backgroundsin with sensitivity and respect for diversity.
x. *Planning*: Excellent planning and coordination skills, ability to work under pressure and meet strict deadlines and work with minimum supervision.

E. Gender, Youth and Social Inclusion Specialist

Reporting to the Project Director, and working very closely with the other technical Specialists, the staff will be responsible for coordinating timely and effective implementation of all Gender, Youth and Social Inclusion-related activities to achieve the project's strategic objectives. This role will build on work undertaken during project design phase, to deepen the gender, youth, targeting and social inclusion strategies and oversee implementation. Detailed responsibilities are as follows:

a) Review and validate the key poverty, livelihood and gender and social-related issues in Botswana's livestock sector to be addressed by the project, disaggregating data by sex, age and other relevant variables where possible.
b) Ensure project interventions address all three objectives of IFAD's gender policy:
c) economic empowerment; (ii) equal voice; and (iii) equitable workloads.
d) Set and monitor targets for engagement across all target groups (including women, youth and other vulnerable groups e.g. people living with disabilities, remote area communities etc)
e) Ensure Gender and Women's Empowerment (GEWE) and social inclusion-related activities are as much as possible integrated into the main project components and pathways leading to the main project outputs and outcomes (not as standalone activities).
f) Prepare an itemised budget and a timebound action plan for the GEWE and SI-related activities of BoLCoP.
g) Facilitate the planning, management, and implementation of the community-based mobilization activities of the Project.
h) In collaboration with other relevant technical officers at the National and District levels, coordinate the awareness creation to stakeholders and beneficiaries on Project objectives and implementation arrangements.
i) In collaboration with national and district-level officers, identify community-based institutions and promote strategies to foster the leadership and participation of women and youth in relevant national, district and community committees.
j) Organize training for the district implementing teams on PRA/PLA and other participatory community mobilization techniques and backstop the training of the community-based institutions by the district teams.
k) Facilitate the Community Action Plan (CAP) development process by the district and sub-District teams and the conversion of the plans into interventions and work plans.
l) Coordinate training in group management, organization, and governance in collaboration with the District Gender, Youth and Social Development Officers.
m) Develop a strategy for awareness creation and capacity building on gender equality, participation of women, youth and vulnerable groups in project-supported activities, HIV/AIDS prevention and mitigation, environmental management, and other cross-cutting issues.
n) Support the identification and recruitment of relevant partners and service providers with strong gender and SI experience to assist with implementation.
o) In collaboration with other technical Officers, coordinate implementation of nutrition related interventions.
p) Establish strong linkages and relevant communication channels between, the project and other stakeholders working on gender and social inclusion issues in the sector including from government, implementing agencies, women and youth-led associations, UN, NGOs, CSOs, IFIs and other development partners including IFAD.
q) Coordinate the timely preparation of project documents including work plans, budgets, and progress reports for the component.
r) Work with the MEL staff to establish an M&E system that collects, analyses and interprets disaggregated data on GEWE and youth's engagement.

s) Track progress on the composition of beneficiaries in each project component to ensure (i) women and youth are empowered through their engagement with substantive aspects of project activities, and (ii) there are no adverse impacts/unintended consequences on target groups. Make recommendations, if necessary, for strengthening project performance on GEWE.
t) Monitor the potential risks to project outcomes if the project fails to address persistent gender inequalities (for example, gender-based violence) and exclusion and identify appropriate mitigation measures.
u) Facilitate compliance with the processes and requirements outlined in the Ethnic Minority Peoples Planning Framework/Free and Prior Informed Consent-Implementation Plan (IPPF/FPIC-IP) and with the Stakeholders' Engagement Plan/Grievance and Redress Mechanism (SEP/GRM) – refer to Project Implementation Manual (PIM) for details.
v) Compile baseline data for refining SECAP reports and ESCMP, with a focus on Gender, Youth, Vulnerable groups.
w) Document and present evidence-based information on good practices, lessons learnt and case study examples on gender and social inclusion from BoLCoP in district and national forums.
x) Ensure gender and social inclusion-related issues are well addressed during supervision missions and mid-term review and reported on in various progress reports.
y) Undertake any other duty assigned by the PD.

Qualifications

a) Master's Degree in Gender, Sociology, Social Work, Community Development, Public Administration or related field from a recognized university.
b) Strong leadership experience and at least five years' experience working on GEWE
c) Experience in agricultural and rural development projects
d) Experience in designing and delivering training and capacity building modules
e) Highly motivated and committed to GEWE and Social Inclusion.
f) Working knowledge of spoken and written English and national language
g) Have experience in participatory methodologies such as Participatory Rural Appraisal (PRA), Participatory Planning, Participatory Learning and Action etc.
h) Have experience in integrating GEWE and Social Inclusion considerations in project planning, implementation, management, monitoring and evaluation.
i) Excellent proposal and report writing skills.
j) Excellent communication and facilitation skills.
k) Strong coordination and stakeholder management skills.
l) Good overall understanding of gender and social issues in Botswana and the project areas.

F. Environmental Management, Climate Change and Social Safeguard Specialist

Reporting to the Project Director, the Specialist will be responsible for coordinating the implementation of all environment, climate change-related activities of the Project and to ensure the requisite compliances. The following are specific responsibilities:

a) In collaboration with other implementing partners, raise awareness and level of education on environment issues among the communities;
b) Coordinate the conduct of environmental impact assessments of project activities and ensure the integration of environmental aspects in all project activities.
c) Coordinate the project-assisted environmental, off-farm soil and water conservation interventions undertaken by communities with support from Project partners;
d) Provide technical assistance for the implementation of climate-smart livestock practices (e.g., drought-tolerant breeds, rotational grazing, agroforestry).
e) In collaboration with the M&E Specialist, develop a system of monitoring and evaluation of project supported and environmental related activities.
f) Coordinate the preparation of the work plans, budgets and progress reports for all environment, climate change-related activities of the Project;
g) Continuously review and update the developed project SECAP risk management instruments in line with current SECAP developments.
h) Support the BoLCoP in the co-ordination, management and implementation of the project SECAP risk management instruments in compliance with the SECAP Policies and the Government of Botswana' Environmental standards.
i) Support the BoLCoP Project Management Unit in the co-ordination, management and implementation of the project's environment and climate related SECAP risk management instruments, including Targeted Adaptation Assessment and ESCMP, in compliance with the SECAP Policies and the Government of Botswana' Environmental standards, while coordinating with the social inclusion specialist.
j) Develop and deliver training modules for BoLCoP staff, extension officers, and community groups on environmental safeguards and climate adaptation.
k) Support the line ministries to achieve the maximum SECAP risk management efficiency in their assigned tasks.
l) Support the project to ensure that safety and health concerns of the workers and the general public are addressed during design, setting up/construction and implementation phases of the project.
m) Provide assistance to BoLCoP and applicant communities in screening of proposed sub-projects and assigning environmental categories.
n) Visit proposed sub-project sites to assess baseline conditions and potential site-specific impacts.
o) Advise on anticipated environmental impacts and possible mitigation measures, and on the relevant type of environmental review to be undertaken and documentation to be prepared (e.g., sub-project specific Environmental Assessment and/or Environmental Management Plan).
p) review sub-project specific environmental documentation and give recommendations as needed, to applicant communities and designers, for finalizing the documents.
q) Participate in evaluation of sub-project proposals and advise on environmental eligibility and acceptability of proposals, based on guidance provided in the ESCMF and on personal experience.

r) Working with BoLCoP Procurement staff, ensure that environmental compliance is incorporated as appropriate in contracts for goods and services (mainly civil works contracts), including ensuring climate resilience is embedded in infrastructure designs and ensure that contractors are fully aware of their responsibilities in this regard.
s) During implementation of the approved sub-projects, undertake regular environmental monitoring and supervision in order to verify whether and how provisions of the project ESCMF and sub-project specific ESCMPs are followed by all relevant stakeholders (designers, contractors, beneficiaries).
t) Report regularly to the BoLCoP PD in writing on the results of monitoring visits, promptly identify any environmental issues or cases of non-compliance, and make recommendations for dealing with those issues. In conjunction with the BoLCoP PD, discuss compliance status and measures to re-establish compliance with contractors and/or beneficiaries as appropriate, including agreeing on specific steps and timing for any remediation/corrective actions.
u) Closely collaborate with technical staff and engineers to ensure that environmental measures are incorporated at all stages of sub-project preparation and implementation, including site selection, sub-project design, preparation and evaluation of bidding documents and bids, preparation and supervision of contracts.
v) Provide contribution to the BoLCoP's regular progress reports on the project implementation.
w) Undertake any other duties assigned by the PD.

Qualifications

a) Have a Master's degree in Environment, Natural Resources Management, or a related field.
b) Have a minimum of 7 years technical and managerial experience in natural resources management and rural community development, five (5) of which must be in a senior management position in a donor funded project.
c) Be able to work closely with other stakeholders including communities, and other government agencies.
d) Have proposal and report writing skills.
e) Have strong leadership and communication skills.
f) At least 3 years of experience related to social and environmental standards and impact assessment in an international development context.
g) Technical background and experience in developing safeguards for agriculture, livestock production, land use and management projects.
h) Knowledge of Human rights (including human rights-based approaches and human rights impact assessment); gender equality and women's empowerment (including gender mainstreaming and gender analysis).
i) Demonstrated knowledge of cultural heritage (including chance find procedures, physical and intangible cultural resources).

G. Agribusiness and Marketing Specialist

Reporting to the Project Director (PD), and working closely with the other specialists, the Agribusiness Specialist will be responsible for promotion and coordination of Agribusiness activities in the Project. Specific responsibilities include:

- Capacity building project beneficiaries on agribusiness issues and other business-related aspects.
- Guiding service providers in provision of value chain support activities to target beneficiaries including the promotion of entrepreneurial skills in farmer organizations and other stakeholders.
- Facilitating in identification of capacity needs of the target beneficiaries and relevant value chain actors and designing training modules to address the gaps.
- Coordinating the development of marketing strategies for commodities promoted by the Project and monitoring the implementation of these strategies.
- Facilitating linkages and formal/negotiated tripartite offtaker arrangements between (i) farmers/producer groups/formalized clusters, (ii) business development service providers (stakeholders) including distributors, aggregators, cluster leads, local promoters etc., and (iii) financial service providers (FSPs). These formal triptartite arrangements will replace needs for collaterals and securitizations by FSPs.
- Ensure adequate synergies and linkages between aggregators, processors and other value chain actors.
- Championing the formation of clusters/aggregations, apex organizations including farmers unions/ associations, cooperatives, user groups etc. among the project beneficiaries for the various enterprises promoted by the Project.
- Facilitating the linkage of income generating activity (IGA) groups with financial service providers, in liaison with the other Project Specialists.
- In liaison with Knowledge Management and Learning Officer, identifying and supporting innovative business models to ensure systematic documentation of the same for learning, adaptation and sharing through the project knowledge management system.
- In liaison with other Specialists, review business plans of the common interest groups, Community Forest Association/Water Resource User Associations and other project groups and advising them on how to develop bankable business proposals for their enterprises.
- In liaison with M&E Officer, develop appropriate monitoring and evaluation tools and initiate appropriate impact surveys/studies.
- Support and train beneficiaries in effective enterprise organization and management with emphasis on farming as a business and good governance.
- Guiding the preparation and implementation of the various value chain related activities /studies.
- Participating in preparation of the Annual Work Plan &Budgets and periodic progress reports; and
- Undertake any other relevant duties assigned by the Project Director.

Qualifications

- A Batchelor ’s degree in Agribusiness, Agricultural Economics, or any other related /equivalent qualification from a recognized institution.
- Ten (10) years of working experience in a similar field, five (5) of which must have been at a senior Management position in donor funded projects,
- Demonstrated experience in facilitating agribusiness development, value chain analysis and building capacities of value chain actors.

- Previous private sector experience at middle to senior management levels would be an advantage
- Team player and can work with minimum supervision.
- Knowledge of technologies and issues in value chain development, inclusive financial services, business development and rural livelihoods.
- Strong computer skills; and
- Strong leadership and communication skills (oral and written).

H. Livestock Specialist

Under the supervision of Project Director, the Livestock Specialist will be in charge of the technical coordination and oversight of Project's activities with related to the BoLCoP's target value chains. The specific tasks of Livestock are:

- Provide expertise and support the implementation of the Project activities in livestock production and productivity enhancement (goats, sheep and poultry).
- Contribute to the production of technical training manuals and related capacity building materials, coaching and mentoring on livestock production.
- Coordinate with relevant project partners, service providers, NGOs and other stakeholders on the plan and implementation of livestock support activities.
- Evaluate the technical soundness of activities on livestock designed to improve production and productivity.
- Establish strategic partnerships with pertinent public institutions, implementing partners, private sector, national and regional civil society organizations for enhancing effectiveness, and efficiency in delivery of livestock related extension and support services such as veterinary service delivery and disease control, rangelands management, forage production and conservation (hay/silage), etc.
- Ensure that the livestock production activities are aligned with the activities of Ministry of Lands and Agriculture such as Thuo Letlotlo and with priorities of BOLCOP districts.
- Coordinate all activities related to input subsidies for the supported livestock value chains.
- In collaboration with the Agribusiness Specialist, coordinate the development of marketing strategies for livestock commodities produced under the Project and monitor the implementation of these strategies.
- In collaboration with the Agribusiness Specialist, promote a market orientation among project beneficiaries under the livestock value chains.
- Coordinate the preparation of the annual work plans and budgets (AWPB), and progress reports for the relevant activities.
- Undertake any other duties assigned by the PD.

Qualifications

- Master's Degree in Animal Sciences, Animal Production and Veterinary sciences or related field with complementary knowledge in rural development.
- At least seven (7) years practical experiences in animal resource management and good livestock sector in Botswana, five (5) of which should be in donor funded project at a technical Specialist level.
- Excellent communication skills and proven writing ability.

I. Procurement Analyst

Under the direct supervision of the Procurement Management Specialist (PMS), the Procurement Analyst will be responsible to support the PMS in procurement for the goods, works and services required by the Project and for maintaining all procurement documentation in good order.

Specific responsibilities

a) Assist the Procurement Specialist in coordinating the preparation and updating of annual procurement plans for works, goods and services required by the Project in the IFAD's Online Procurement End-to-End (OPEN) system.
b) Manage the low value procurement of goods, works and services identified in the procurement plan in accordance with the provisions of the Financing Agreement, Project Procurement Arrangement letter, IFAD's Project Procurement Guidelines, National Regulations and the PIM.
c) Assist the Procurement specialist in following up the timely preparation of relevant procurement inputs such as terms of reference (TORs), technical specifications, statement of requirements and bills of quantities by technical staff or consultants.
d) Prepare procurement documents (bidding documents, request for proposals, request for quotations, and contract documents) in the required format and using the IFAD standard procurement documents.
e) Prepare and issue procurement notices and issuing tender documents to the prospective bidders.
f) Provide guidance on public bid opening sessions and providing clarifications.
g) Guide and support the bid/proposal evaluation committees to undertake evaluation of bids or proposals for supply of goods, works and services.
h) Support in preparing evaluation reports and recommendations for contract awards.
i) Prepare minutes of contract negotiation (where relevant) and contract documents for necessary approval and signature by the Accounting Officer.
j) Support publication of contracts award in IFAD and GoB/PPRA websites and attend to procurement queries, disputes and complaints as necessary.
k) Monitor progressive payments to suppliers, contractors and consultants against the agreed milestones and regularly update the data in contract monitoring tool (CMT).
l) Support the Procurement Specialist in preparing quarterly and annual procurement reports on the implementation of the Procurement Plan.
m) Maintain a register of approved suppliers for smaller items procured locally.
n) Maintain all procurement records in a form appropriate for regular review/auditing.
o) Any other duty may be assigned by the Procurement Management Specialist.

Qualifications and experience:

d) A Bachelor's degree in purchasing and supply, economics, finance or law; or equivalent management qualifications is **required**.
d) At least 5 years of practical experience in procurement and contracting in government and projects funded by international institutions/Donors.
d) A sound understanding of procurement within the Government and the protocols and procedures applying to public procurement in the Botswana
d) Demonstrable understanding of the public procurement laws and supply markets in Botswana.

Competencies:

e) Must possess working knowledge and skills of Microsoft Office applications (Word, Excel and PowerPoint).
e) Ability to work well in teams and to interact with a wide range of private sector partners and government representatives.
e) Knowledge of work planning and reporting.
e) Be honesty and of high integrity, with no records of conflict of interest in procurement.
e) Strong written and oral communication skills in English, and

Able to work independently, with limited supervision.

J. Assistant Accountant

Background

The Ministry of Lands and Agriculture (MoLA) is responsible for the implementation and administration of agricultural projects financed by the Government of Botswana and other international donors.

MoLA has established Programme Management Coordination Unit (PMCU) to implement Botswana Livestock Commercialization Project (BoLCoP) in the country.

The Overall Scope of Work for BOLCOP Financial Management Unit

The Financial Management Specialist reports directly to the Project Director and is responsible for the financial management of the project. As Head of Finance and Administration, the Financial Manager will deputize the Project Director and take charge of all matters in the project financing cycle. The project financing cycle to be overseen by the Financial Management Specialist starts from financial-related inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management aspects. The Financial Management Specialist also supports the Project Director in the resource mobilization of the Project. The Financial Management Specialist will be responsible for expediting all loan management and disbursement activities through the Ministry of Finance. The Financial Management Specialist is assisted by Assistant Accountant.

Main tasks and Responsibilities of Assistant Accountant

Specific responsibilities of the Assistant Accountant include but are not limited to the following:

- Manage the financial reporting systems to ensure that the accounting records and information is updated to date at any given time.
- Support the Financial Management Specialist and component heads to prepare the annual work plan and budgets for approval by GoB and IFAD.
- Assist to manage approved budget to ensure AWPB procedures and controls are applied to monitor expenditures to avoid commitments beyond available resources.
- Ensure that all project funds are used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided.
- Ensure compliance with Government of Botswana laws and regulations governing public financial management including adherence to international accounting standards, audits and financial reporting.
- Ensure that all necessary supporting documents, records, and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers.
- Ensure that designated account and operational accounts are maintained in accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures.
- Assist the Financial Management Specialist to prepare interim financial reports and financial statements in accordance with the prevailing standards.
- Assist the Financial Management Specialist in the prepare and make the books of the project available for both internal and external audits to meet the dates set by both Government of Botswana and IFAD.
- Assist the Financial Management Specialist to implement audit recommendations in a timely manner.

- Review eligibility of expenditure in accordance with the financing agreement.
- Any other duty as may be assigned by the Project Financial Management Specialist.

2. Institutional Organization

The project Assistant Accountant will work closely with BOLCOP staff, all partners, implementing districts and agencies of the project and its components, government agencies and other organizations that have a direct link to the project implementation.

3. Reporting and Aapproval

The Project Assistant Accountant will report to Financial Management Specialist who will evaluate performance of his/her responsibilities every year.

4. Qualifications and Experience

The Project Assistant Accountant should satisfy the following qualifications and criteria:

- A bachelor's degree in business administration, Finance, Accounting from a recognized University.
- Professional Qualification in ACCA or CPA qualification is an advantage.
- At least a minimum of 5 years' experience working in a similar field and level, 3 of which in Development Partner funded project.
- Demonstrated experience with financial management/accounting in a government ministry/department and donor-funded project.
- Strong computer skills; electronic spreadsheets and other accounting packages.
- Working knowledge of government financial control procedures.
- Fluent in English (written and spoken).

K. M&E and KM Assistant

The Monitoring & Evaluation and Knowledge Management (M&E/KM) Assistant will be an integral part of the BoLCoP PMCU team, supporting the effective implementation of the livestock project through quality data management and knowledge documentation. Under the direct supervision of the Provincial M&E and KM Specialist, the Assistant will be responsible for supporting data collection, data verification, analysis, and reporting functions across project districts.

S/he will also play a key role in managing the Monitoring and Information System (MIS) at the district level, ensuring databases are accurate, sex- and age-disaggregated, and regularly updated. Additionally, the Assistant will provide technical support to field staff and implementing partners to ensure high-quality data and timely reporting, while also contributing to knowledge management processes and tools.

2. Key Duties and Responsibilities

A. Monitoring and Evaluation Support

- Assist in the collection and verification of data from implementing partners and field teams.
- Support the maintenance of the project's M&E database and ensure timely data entry.
- Help prepare data collection tools (questionnaires, checklists, etc.) in coordination with the ME&KM Specialist.
- Conduct routine data quality checks and follow up on discrepancies with implementing partners or field officers.
- Assist in the implementation of baseline, midterm, and endline surveys.

B. Management Information System (MIS)

- Support the implementation and maintenance of the MIS, ensuring that data is entered accurately and on time.
- Generate basic reports and summaries from the MIS as requested.
- Provide support for tablet-based data collection and offline reporting tools.

C. Knowledge Management and Communication

- Assist in the compilation of case studies, success stories, field updates, and lessons learned.
- Help maintain an organized repository of project documents, reports, and publications.
- Assist in preparing communication materials, such as newsletters, brochures, and presentations.
- Support knowledge-sharing events and workshops.

D. Capacity Building and Field Support

- Assist in the organization of training sessions and workshops related to M&E and KM.
- Support project teams and implementing partners in using data collection tools and reporting formats.
- Participate in field visits to monitor implementation, collect data, and provide on-site support.
- Support the preparation of periodic project progress reports (quarterly, biannual, annual).
- Assist in producing data summaries, visualizations (charts, tables), and presentations for internal and external reporting.
- Ensure that M&E files (both physical and electronic) are systematically stored and updated.

- Perform any other relevant duties assigned by the ME&KM Specialist or Project Director.

3. Qualifications and Competencies

- Bachelor's degree in economics, Statistics, Agricultural Economics, Development Economics, Business Administration, Social Sciences, or a related field.
- Postgraduate diploma/training in Monitoring & Evaluation is a strong advantage.
- Training in statistics or applied data analysis will be an added benefit.
- Demonstrated proficiency in the use of GIS or geo-spatial technologies.
- Strong analytical and reporting skills with attention to detail.
- Proficient in computer applications including MS Excel, Word, Access, PowerPoint, and statistical packages such as STATA.
- Excellent communication skills in written and spoken English.
- Ability to work effectively with a multidisciplinary team and under minimal supervision.

4. Required Work Experience

- Minimum of 3 years of relevant experience in data collection, entry, and analysis, preferably within a development or agricultural/livestock project context.
- Experience supporting digital data collection tools and MIS platforms is an advantage.
- Experience working with government institutions or international development organizations will be an asset.
- Familiarity with rural development, agriculture, or livestock-related programs is an advantage.

L. Project Assistant

Reporting to: Project Director

➢ Responsibilities

- Assist in extracting and inputting data as may be required;
- Respond to enquiries from IFAD's stakeholders/partners and supply readily available information from office files, databases, by liaising with other offices as appropriate;
- Prepare routine correspondence using standard letters/templates or exchange straightforward, fact-oriented messages not requiring discussion or elaboration;
- Search for, retrieve, compile, assemble and archive a variety of statistical data from computer files, records, reports or from other sources for internal/external use;
- Operate a variety of office equipment such as photocopier, facsimile, printer, scanners, and maintain supplies; produce photocopies of materials as required and collate pages when necessary;
- Check accuracy of basic calculations, coding, and data;
- Receive telephone calls and office visitors and refer them to the appropriate source or reply personally to simple queries when possible;
- Collect, sort and distribute correspondence, reports and other material and transmit correspondence, documents, etc, via electronic mail, fax, courier service or other means;
- Set up, classify and maintain office files;
- Perform other related duties as required.

➢ Expected Results

- Work assigned is performed accurately, and following standard procedures; Limited number of routine tasks requiring rudimentary understanding are carried out with care where supervisor's close guidance and feedback is essential to facilitate learning; assistance is requested when work assignments are unclear or incomplete; active contribution to work and interaction with colleagues in the office ensures quality results.

➢ Critical Success Factors

- Ability to use computers; ability to handle a large volume of work quickly and accurately under time constraints. Ability to write and spell correctly. Courtesy, tact and ability to work effectively with people of different national and cultural backgrounds.

➢ Minimum Qualifications

- Secondary school education;
- At least 7 years of experience in support functions; keyboard skills and knowledge of simple record-keeping procedures;
- Experience utilising computers, including word processing, spreadsheets and other software Packages.

➢ Knowledge

- Experience utilising computers, including word processing, spreadsheets and other software packages.

- **Language**

- Fluency in both oral and written communication in English.

- **Desirable skills**

- Experience using MS Word, MS Excel, and MS PowerPoint. Some Knowledge of IFAD administrative regulations and rules, and IFAD policies and procedures in the area of work. Proven knowledge of typing/keyboarding skills.

M. Driver

Reporting to: Project Director

- **Responsibilities**

- Provide reliable driving services by using assigned transport means for the transport of authorised IFAD staff members, officials and visitors as per authorized routing following UN safety and security rules and regulations;
- Deliver and collect goods, mail, documents and other items;
- Meet official personnel at the airport and facilitate immigration and customs formalities as required;
- Take care of the day-to-day efficient maintenance of the assigned means of transport, check oil, water, battery, brakes, tires, etc;
- Perform minor repairs and arrange for other repairs and ensure that the vehicle is kept clean and in good running condition at all times;
- Log official trips, daily mileage, gas consumption, oil changes, greasing, etc;
- Produce weekly records of mileage travelled and tonnage moved;
- Negotiate, liaise and coordinate with local authorities to facilitate vehicle movements in designated areas;
- Check means of transport for mechanical fitness and the security of the cargo, ensuring that cargo is protected against all weather conditions;
- Identify any apparent problems during field deliveries and report them to the supervisor;
- Take the steps required in accordance with the rules and regulations in case of an accident;
- Perform other related duties as required.

- **Expected Results**

- Driving assignments are carried out safely, efficiently and on time; Good judgement is used in planning routes.

- **Critical Success Factors**

- Trustworthy, high sense of responsibility, alertness; physical fitness on duty, emotional stability, neat and courteous. Good knowledge of the area and the current conditions of roads and highways. Ability to deal patiently and tactfully with people of different national and cultural backgrounds. Ability to read and understand specific vehicle operating manuals to ensure safe and appropriate operations of the vehicle.

- **Minimum Qualifications**

- Secondary school education; formal drivers training with a valid driver's license and clean driving record;
- At least seven years of work experience as a driver; safe driving record; experience in driving various makes of cars.

- **Knowledge**

- Knowledge of driving rules and regulations and skills in minor vehicle repairs. Knowledge of radio, email, telephone and other applications.

- **Language**

- Fluency in both oral and written communication in English.

- **Desirable skills**

- Experience in driving a variety of makes and models of vehicles, including vans and other kinds of motorised vehicles; experience in the applications of software technology (use of MS Word and/or MS Excel). Defensive driving and first aid training.

ANNEX 7. IMPLEMENTATION AGREEMENTS

To be finalised at the pre-implementation stage with PMU and GoB.

ANNEX 8. CODE OF CONDUCT OF PROJECT PARTIES (2023)

Attached as a separate document.

ANNEX 9. FINANCIAL MANAGEMENT MANUAL

Attached as a separate document.

ANNEX 10. MONITORING AND EVALUATION PLAN

To be prepared by PMU.

ANNEX 11. RACI MATRIX

To be prepared by PMU at the pre-implementation stage.

ANNEX 12. REPORTING TEMPLATE

To be prepared by PMU at the pre-implementation stage.

ANNEX 13: TECHNICAL NOTE #1 – BOTSWANA: RURAL FINANCE SCOPING 2022

[1] INTRODUCTION

This is a review of the current situation of inclusive rural finance in Botswana, its challenges and opportunities regarding the demand for and supply of financial services in the context of the rural economy and its key actors, that is, market and/or population segments and the financial institutions which addresses their needs.

The purpose for this scoping report is to explore inclusive finance gaps and opportunities[7] to which IFAD[8] may be well placed to add value to the efforts of the people and government of Botswana in the pursuit of its rural development agenda.

[2] KEY FINDINGS, OBSERVATIONS AND ANALYSIS

(a) Micro Level: Demand Side

(i) *The pool of users of rural financial services in Botswana has continued to decline.* First, has been the rising urbanization rates. Botswana has an urbanized population with only 29% of its people in the rural areas in 2020. Urbanization has occurred at a consistent pace over the years with the first post-independence census recording a 91% rural population declining to 32.8% in 2015, and to 29% in 2020[9]. The classification used to measure urbanization indicate the positive correlation between the decline in the proportion of the population in the rural areas and those employed in agriculture-related activities. For instance, 57.3% of employed persons were in traditional agriculture[10] in 1985[11] but only 7.4% of the labour force was reported to be working in the formal segments of agriculture, forestry and fishing sectors[12]. Agriculture, the dominant economic activity in the rural areas, makes a low contribution to GDP of 1.9% holding relatively steady around the 2014 level of 2.1%. But the sector remains critical to the country as a source of income and food security. The potential to expand financial services via less stringent KYC requirements remain positive with the high level of national identification cards (95% of the adult population) and national passports (53%).

45% of the unbanked adult population reside in the rural areas with a further 40% in urban villages. Only 15% of the unbanked are in the cities and towns. With 54% of the unbanked segment attaining secondary education and a further 5% tertiary, it is observed that there exists a high level of literacy to encourage more adults in this pool to adopt more financial services. It was noted that a third (33%) of the unbanked adult population use mobile money of which 45% live in the rural areas[13].

The lack of a critical mass for rural financial services in rural Botswana increases the challenge of delivering low-value finance to widely dispersed smallholders but also presents opportunities for leveraging digital financial services and other innovations to enhance outreach, especially given their high adoption of mobile money services. It may

[7] The report gleans findings and observations from a review of secondary information which is analyzed with a view to identifying possible pathways for IFAD collaboration with Botswana.
[8] In the context of the IFAD Rural Finance Policy 2009, this is an initial assessment and subject to a detailed analysis within a project design framework.
[9] Central Statistics Office, (Feb 2008): 2005/06 Labour Force Report
[10] Traditional agriculture refers to persons who own their land, cattle post or farm, as well as some paid employees in traditional agriculture – Ministry of Finance: Labnour Force Survey 1984-85
[11] Botswana Ministry of Finance: Labour Force Survey 1984-85 (Table 29)
[12] Statistics Botswana: Quarterly Multi-Topic Survey: Labour Force Module Report - Quarter 3: 2019. Published 2020. – measuring only the formal sector workers. Fig 1.7
[13] FinScope Botswana 2000

be worth exploring the promotion, supporting, and strengthening of agricultural or farmer associations to aggregate outputs and acquire inputs to gain economies of scale.

(ii) *Regarding financial needs and demands, there has been an overall improvement in the number of adults saving in Botswana, but the declining trend in borrowing continues to persist as credit fall behind as a source of capital for business ventures.* Savings with banks decreased (from 32% in 2014 to 30% in 2020), whilst increasing with other formal or non-banks providers from 32% to 33% and informal savings from 37% to 39% in 2014 and 2020 respectively. Interestingly, saving at home among the adult population doubled from 15% to 31% over the same period, with the strong uptake here driving the overall trends upwards. Unpacking these trends reveal that 39% of rural people do not save when only 26% are in the same category in the urban areas.

Batswana adults are reducing their credit usage over the years with persons not borrowing increasing from 74% in 2014 to 83% in 2020, perhaps with some partial impact from the Covid pandemic's effects on economic activities. Of the 17% borrowing, 12% were from the banks and 5% the other formal (non-bank) sector. At 90%, there are 10% more rural dwellers not borrowing than those in the urban areas with the common reasons cited for not borrowing including interest rates (65%), repayment period (43%) and affordability of monthly instalments (37%). Reasons for borrowing in Botswana are far more likely to be developmental, that is, borrowing to finance education (10%), expand business (9%), buy land (8%), build/extend a house (35%) and buy a house (10%). The most common reasons for clients being refused loans in Botswana are low income (45%), no pay slips (16%) and being unemployed (15%), an indication of the over-emphasis on formal employment as a basis for access to credit, thus constraining the informal sector including those engaged in farming activities with limited formal employment opportunities.

It is therefore not surprising that the main sources of capital for informal sector businesses (including in agriculture) are own cash savings (70%), loans from relatives and friends (6%), commercial banks (1%) and CEDA (1%). Government agencies such as CEDA (1%) would need to cover more ground to be able to meaningfully support the financial needs of the informal sector as they rely more on their own means (70%).

With 58% of respondents[14] indicating trust as a predominant consideration in selecting a saving or investment product, followed by customer services (49%), interest rates (38%) and convenience (32%), among others, there is opportunity to increase overall savings even further especially in the rural areas with appropriate products which addresses the felt needs of prospective customers. Furthermore, it is uncertain the extent to which the increase in saving at home in 2020 is related to the restriction in movements during the covid pandemic. This may be presenting an opportunity for the deployment of appropriate products such as the increasing use of mobile savings products.

Borrowing for developmental purposes as prevails in Botswana bodes well for growing entrepreneurial activity. This is unlike the tendency to borrow for consumption purposes in the SADC sub-region, for example, which fuels over-indebtedness. With credit already being low in 2014, the further decrease in 2020 should attract further interest from stakeholders.

The hesitancy to borrow, albeit mainly for productive purposes as the case tends to be in Botswana, is stifling the development of business activities with the over-reliance on own savings for entrepreneurial ventures stalling business initiatives and expansions. There is opportunity to expand the capacity of institutions such as CEDA to increase their support

[14] FinScope Botswana 2020

for private sector development, including targeting rural enterprises and the agricultural sector, with assistance in both liquidity and business support services.

It will therefore be prudent to facilitate well targeted credit to productive ventures to acquire productive assets and finance working capital by strengthening existing institutions on the supply of credit side as well as supporting enterprise development activities on the demand side. This may include targeting specific enclaves such as women (who play important entrepreneurial roles in the informal sector) and the youth through the government's Youth Development Fund, for instance, to support startup activities of young farmers.

(iii) *Financial services continue to expand in Botswana but services to rural areas remain sluggish.* Financial exclusion rates continue to decline in Botswana, reducing from 24% to 16% between 2014 and 2020 (targets of 12%) and formal inclusion at 52% in 2020 (target of 57%), mainly due to growth in the mobile money business; 54% of Batswana now use mobile money. Whilst 31% of rural adults were financially excluded (above the national average), less than 10% were excluded from towns, cities and urban villages, even though in all cases both male and female were excluded at a rate of 16% with the youth (18yrs-35yrs) marginally higher at 17%. The peculiar development in Botswana has been the reported 21% mobile money usage in rural areas compared with the average of 7% in other SADC countries. Also, 21% of those earning income from the farming sector were financially excluded, even though 44% were banked, 32% with other formal non-banks, and 3% dealing with the informal FIs only.

The financial exclusion rate at 16% fell short of the 12% targeted but the trend highlights a potential for the introduction of new financial technologies to offer financial services to achieve higher financial inclusion rate, including in the rural areas. This approach is supported by the fact that most Batswana (76%) are receptive to learn new technologies, particularly if these serve the unbanked and underbanked. The high access to mobile phones (at 93% of adults) provides room for optimism in that respect.

(iv) *A look into the livelihoods and income generation activities indicate that fewer households are involved in farming in Botswana, and of these, a small proportion make their living exclusively from agriculture.* The trend was no different at the individual level. In terms of household involvement in farming, 29% of households are involved in farming of which 12% of households are involved in farming only and 17% engaged concurrently in farming and other work. Thus, 71% were not involved at all in farming of any kind.

At the individual level, 65,000 of the adult population (4.2% of 1.53m) receive their income exclusively from farming. Of these, farming for consumption only or subsistence farming accounted for 63%, farming for both consumption and selling surpluses was reported by 33%, and farming solely for commercial purposes was reported by 3%. Farming activities, in order of priority, mainly involved crops (maize, cowpeas and sorghum) and animal husbandry (cattle, poultry, donkey, sheep) but with the top income generating farming activities being cattle, maize and goats, in that order .

In FinScope 2014, it was reported that 50% of adults were involved in arable agriculture with many owning livestock, even though then as well as in recent times, farming was not a major source of income for most of them. Overall, the proportion of the adult population in farming has been declining.

The importance of agriculture in Botswana is reflected in (a) its small but strategic contributions to GDP, (b) its selection as a priority sector in the National Development Plan

(NDP), (c) its selection among policies developed through consultative political process, (d) its contribution to employment (which is disproportionately higher than its contribution to GDP), and (e) its potential and actual role in the informal sector and the development of micro, small and medium enterprises (MSMEs). Unemployment in Botswana has averaged around 20% in the last few years even improving to 17.7% in 2015 but made worse by the Covid pandemic which appears to be partially contributing to the deterioration in unemployment to 24.5% in 2020. Thus, employment generation from the agricultural sector would support livelihoods and increase farming and value chain related incomes especially in the rural areas.

In the past, there has been several government interventions to improve the agricultural sector targeting productivity and production outcomes. Further opportunities to target these sectors exists, especially at the smallholder level, but these should be exploited by building on the experiences and lessons of the past interventions. Thus, opportunities to strengthen the off-taking role of the Botswana Meat Commission (BMC), which will strategically enhance its support to smallholders e.g. with value chain support services, and similarly with the Livestock Management and Infrastructure Development Programme (LIMID) which has programmes for both commercial and communal farmers, would be worthwhile. Similar measures regarding crops, collaboration with the Integrated Support Programme for Arable Agriculture Development (ISPAAD), including the component leveraging loan guarantees could be reviewed and supported if the existing arrangement could benefit from IFAD expertise. The focus should, however, be on improving access to credit to the rural areas and for smallholder farmers who have limited financing options.

(b) Micro Level: Supply Side

(i) *Banking services in Botswana are provided by dominant commercial banks with limited coverage in the rural areas and among the non-formal population.* Among the nine commercial banks listed by Bank of Botswana[15], five of them[16] controlled 84.7%, 85.3% and 87.5% of the total assets, deposits and loans and advances respectively in 2019[17], reflecting a high level of concentration in the sector. There seems to be some competition in service delivery, though, with FNBB for instance attracting over half of the banked adult population when it only holds about 30% of the market share. 45% of the unbanked adult population reside in the rural areas which still have disproportionately fewer banking service points; there were a total of 135 commercial bank branches and over 514 ATMs across Botswana in 2019, but generally these ATMs and branches were largely concentrated in the urban areas with the South East District and Central District, for example, having 65 and 35 branches respectively[18].

The profile of the dominant commercial banks and their key features are presented below.

First National Bank Botswana (FNBB) is a licensed commercial which claims a 29% market share[19] with total assets of P30 Billion (and P16 Billion in gross loans) with a customer base of over 550,000 served by 1,513 staff through 24 branches and 169 ATMs, 69 of which have deposit-taking capabilities. FNBB has the largest capitalization on the Botswana stock exchange and maintains strong alternative

[15] BoB Directory of Financial Institutions Operating in Botswana as at December 31, 2020
[16] These commercial banks are Absa (formerly Barclays), Standard Chartered, First National Bank of Botswana (FNBB), Stanbic, and African Banking Corporation of Botswana (BancABC).
[17] MAP 2021 Botswana: Financial Inclusion
[18] Finmark. (2019). Measuring Progress: Financial Inclusion in SADC.
19 FNBB Integrated Report, 2020

delivery channels with a mobile banking Bank-on-Wheels (2018) services targeting underserved areas and digital platforms including online banking (2004), eWallet and cardless money transfer service that allows customers to send money instantly to anyone in the country with an active mobile number (2010), a mobile application called the FNB Banking App (2013), a rewards embedded digital Savings Pocket account for small deposit customers (2018), among others. These strategic choices have positioned the bank to represent 56.2% of adults with bank accounts in Botswana[20] even though it does not have the widest branch network in the country. This market presence is probably a result of its larger ATM network which allows for deposits and similar offerings targeted at consumers such as e-wallets.

ABSA Bank Botswana Limited (ABSAB) is a listed company with total assets of P20.6 billion[21] relying on 1,089 employees, 113 ATMs, 4,147 PoS devices and the widest branch network across 33 locations to serve almost 15%[22] of adults with bank accounts in Botswana. The bank's investment in its digital platforms included Chat Banking (a chatbox using artificial intelligence), SkyBranch (a virtual branch providing core banking services including through telephone services), NovoFX App (for managing international payments), the Absa Mobile Banking App, Absa Access (a single sign-on for corporate and investment clients) and contactless payment cards (a tap-n-go feature on its debit and credit cards). These platforms and access options, however, tend to cater to higher income and corporate clients with higher e-skills and income. The bank provides access to finance and training in areas such as finance, human resource management, marketing, operations and business management to small and medium enterprises through its Enterprise Supply Chain Development Programme which targets local companies working with the value chains of large corporate entities. Unfortunately, these services are not yet available at the micro-enterprise level yet.

Standard Chartered Bank Botswana (SCBB) holds the business of 6.2%[23] of Batswana adults with a bank account in the country with its total assets at P14 billion[24]. The bank has approximately 600 employees working through a network of 19 branches, agencies and business banking centres which are all supported by a loan centre and 24- hour customer call centre. The bank has well-articulated digitization, SME and gender-promoting strategies but yet to focus these to the lower end of the market with its focus on commercial, corporate and formal segments of the retail market. In its analysis of loans by sector, no credit was attributed to the agricultural sector[25].

Stanbic Bank Botswana Limited (SBB) operates through 13 branches with total assets of P18.8 billion. In articulating its risk management posture, the bank indicates its continuing intention to "…..manage portfolio concentrations, including concentrations in specific client sectors, such as agriculture and real estate[26]." 6.1% of adults with bank accounts, however, have business relationships with SBB[27].

African Banking Corporation of Botswana (BancABC) has 8 branches, 4 service centres and 19 ATMs through which it leverages its P8.8 billion total assets with its

20 FinScope Botswana, 2020
21 ABSA Bank Botswana Annual Report 2020
22 FinScope Botswana 2020
23 FinScope Botswana 2020
24 Standard Chartered Bank Botswana Annual Report 2020
25 Standard Chartered Bank Botswana Annual Report 2020 (Para 4.2 on Credit Risk)
26 Stanbic Bank Botswana Annual Report 2020 (Para 42 on Financial Risk Management)
27 FinScope Botswana 2020

404-employee base, and whose management has 62% females[28]. In FinScope Botswana 2020, 4.2% of adults with bank accounts indicated they had business with BancABC, but their reach is limited and barely have a rural presence nor credit to the agricultural sector.

The total assets of *Bank Gaborone (P6.2 billion), First Capital Bank Limited (P3.6 billion), Bank of Baroda (Botswana) Limited (P2.1 billion)* and *Bank SBI Botswana Limited (P347.9 million)* altogether worth about P12.2 billion, and operating through 21 branches mostly in cities, towns and urban villages, provide insignificant access to the rural areas and to the agriculture sector. Indeed, Bank Gaborone owns 57% of these 21 branches with Bank Baroda operating from one city branch. Altogether, theses banks are responsible for about 1.6% of Batswana adults with bank accounts.

Thus, the strengths of the commercia banking sector lies in their robust platforms, and for those like FNBB, the distribution network and focus on retail clients include some at the bottom of the pyramid. The combination of relevant products, good retail platforms with digital reach, and a culture that values retail business provides a basis for collaboration to extend banking services into the rural areas with low population density and dominated by farming. Most commercial banks, however, have insignificant interest in the rural areas and the agricultural sector.

(ii) *Development-oriented government financial institutions provide an intentional focus on rural and enterprise financing, but their potential and impact continue to be hampered by legacy and operating challenges.* Rural, agricultural and enterprise finance has been receiving more attention from several government institutions over the years, an indication of the inadequacy of private sector banking institutions to meet emerging needs of these sectors. However, as a closer review shows, these institutions suffer operational inefficiencies, resource and technical limitations, and therefore their various programmes would benefit from efficiency enhancing interventions to better focus their delivery, strengthen their outcomes and entrench their impact. A detailed review explains these observations further.§

Botswana Development Corporation Limited (BDC) is the largest of the government institutions in development finance by asset size (P4.2 billion[29]) which was set up in 1970 to invest in agricultural, commercial, and industrial projects through the provision of loans and equity finance. It has typically concentrated on medium and large-scale projects. Its portfolio of P3.8 billion has a minimum deal size of P30 million and hence lacks a focus on the rural poor.

Botswana Savings Bank (BSB) has total assets of P2.9 billion, 196 employees, and operates through 6 dedicated branches (and 14 ATMs) but with services available countrywide through special savings bank counters within post offices in most parts of the country[30], giving it the most extension financial services network in the country. BSB is a government-owned bank established in 1992 through the Botswana Savings Act (Cap. 56:03) to mobilise domestic savings (deposit-taking), grant loans on commercial terms and offer any other financial services as it considers necessary under the supervision of the Bank of Botswana. Operating through various incarnations since 1911, BSB has the longest continuous existence of any financial institution in Botswana. Historically, BSB has played an important role in allowing poor and rural people a chance to have savings accounts but has

[28] African Banking Corporation of Botswana (BancABC) Annual Report 2020
[29] Botswana Development Corporation Annual Report 2020
[30] BSB Annual Report 2019/20

been criticized for generally concentrating its lending activities on the formally employed in the urban centres to the detriment of the poor in the rural areas. 1.1% of Batswana adults who have bank accounts save with BSB.

The Citizen Entrepreneurial Development Agency (CEDA) was established in 2001 by the government of Botswana to strengthen the entrepreneurial capacity of small, micro and medium enterprises (SMMEs) augmenting it with provision of finance targeting agriculture, mining, tourism, services, property and manufacturing sectors. CEDA's current asset size of P1.8 billion, a portfolio of P1.0 billion[31] loans and P123 million in equity investments and operating through 11 branch offices[32] nationwide, belies its potential to provide critical interventions to key segments of Botswana, including agribusiness and rural development. Its business model of building the capacity of entrepreneurs through training, coaching and mentorship in technical and business development services with financing facilities in support of start-ups and going concerns, can be strengthened to achieve greater impact. Among CEDA's dedicated facilities are a Venture Capital Fund with a window for larger businesses, the Credit Guarantee Fund which provides partial guarantees for commercial bank loans to SMMEs, and a dedicated Young Farmers Fund, which was established to provide access to capital by young people to engage in sustainable primary agricultural projects. CEDA has also been providing microfinance through the Mabongo Dinku product for small micro entrepreneurs which is a group guarantee scheme which has funded 3,000 individuals since 2016. Since 2016, CEDA has supported investment of P2.343 billion. CEDA has also partnered with commercial banks to provide loans to the informal sector.

CEDA was established in response to felt needs emerging from the July 1999 edition of the National Conference on Citizen Economic Empowerment (NCCEE) and led to the streamlining of previous government grant-based programmes and initiatives into more ambitious loan-based interventions, albeit on concessionary basis comprising subsidized interest rates and generous moratoria and grace periods. These terms, well-intentioned and necessary in many instances, nevertheless, create sustainability challenges which continue to plague its operations. This was accentuated by the year-on-year 17.2% erosion of capital and reserves in 2020 to P1.8 billion; this was likely associated with the inability of customers (mostly SMMEs) to service their loan obligations, a situation worsened by the negative effects of the Covid-19 pandemic containment measures[33].

CEDA is addressing the issue of inadvertently not emphasizing enough the targeting of micro enterprises with the introduction in July 2020 of Revised Guidelines which seeks to make its loans more accessible by adjusting loan limits, interest rates and repayment periods in response to emerging needs of prospective and current clients. Since inception, the CEDA has invested P3.8 billion and created 54 954 jobs in Batswana[34].

National Development Bank (NDB) is a non-deposit taking development finance institution (DFI) supervised by Bank of Botswana (BoB) which was established in 1963 under the National Development Bank Act (Cap 74:05) to provide financial services to business ventures in agriculture, tourism, commerce, manufacturing and industry, real estate and human development sectors.

[31] Bank of Botswana Annual Report 2020
[32] BoB Directory of Financial Institutions Operating in Botswana as at December 31, 2020
[33] Bank of Botswana Annual Report 2020
[34] https://www.ceda.co.bw/publications

With a total asset base of P1.3 billion, NDB operates in 5 locations, including its head office in Gaborone[35]. Despite the sectoral diversity its portfolio, NDB has a focus on developing agriculture with 37% of its loans invested in the sector. The total value of NDB approved loans has been steadily increasing. In 2016, the value stood at P47 million. This increased to P167.5 million in 2017 and increased further to P243.1 million in 2018[36]. Compared with commercial bank credit which was P68.3 billion in September 2020, the contribution of NDB is relatively small. In its efforts to transform and commercialize NDB into a more formidable banking institution, the government has engaged the African Development Bank (AfDB) which is yet to complete its assessment and recommendations for a renewal process as at mid- Q4 2021.

Botswana Building Society (BBS) has an asset base of P4.1 billion[37], and was established in 1976 under the Building Societies Act, from which it derives its deposit-taking authority. It is owned by members, who have voting power in relation to the number of shares they hold. Although it originally had a majority government shareholding, the government is now a minority shareholder as funds have been raised from other depositors. BBS primarily offers mortgage loans as well as savings services, transactional products and short-term loans.

During its first ten years of operation, BBS was restricted by law to lend only against the security of immovable urban property. *The Act was amended in April 1986 to permit lending in rural areas.* Up until 1986, BBS restricted its lending only to residential properties, but since that time it has also ventured into commercial property lending. In April 2018, BBS was demutualized under the Companies Act (Cap.42:01) which has opened its clientele to help account for its retention of 1.1%[38] of adult Batswana who reported holding a bank account, a level which is higher than at least three commercial banks (Bank of Baroda, First Capital and Bank Gaborone). BBS has, however, been making losses since 2017 and seeking a banking license to broaden its mandate to that of a commercial bank to leverage its customer market position and thereby diversify its income base[39].

Credit Guarantee Schemes sponsored by the government of Botswana are available in the financing market. Among these is the Agricultural Credit Guarantee Scheme (ACGS) available for dry land farming since 1986 and which assists farmers with debt obligations in case of crop failure due to drought, floods, frost and hail. The scheme covers seasonal inputs and working capital, farm and field development and farm machinery and equipment. The assistance available under the Scheme, which offers coverage of between 0% to 85% of the installment falling due in a cropping year, is drought relief or contributions to instalments for loans taken under the ACGS[40].The ACGS is prone to moral hazard resulting in excessive borrowing, especially in a situation where it is likely for the loan to be written off[41].

Also available are *guarantees* from *Botswana Export Credit Insurance and Guarantee Company (BECI)* which was founded in 1996 wholly owned by Botswana Development Corporation Limited (BDCL). BECI's core function is to develop and

[35] BoB Directory of Financial Institutions Operating in Botswana as at December 31, 2020
[36] National Development Bank Annual Report 2017/2018.
[37] BoB Directory of Financial Institutions Operating in Botswana as at December 31, 2020
[38] FinScope Botswana 2020
[39] BBSL Annual Report 2020
[40] Lesego Machete, R. (2020). Towards a Sustainable Agricultural Credit Guarantee Scheme.
[41] Jefferis, K., von Rudloff, L., Kenewendo, B., Sigwele, H., Tlali, B., & Moyo, T. (2012). Status of Agricultural and Rural Finance in Botswana.

equip businesses with trade credit Insurance policies to protect them from the danger of non-payment by credit customers. It is currently managing the government's COVID-19 Loan Guarantee Scheme as part of its economic response to the impact of offering a partial Government guarantee of 80% to Banks against losses on qualifying loans to eligible applicants. It has been observed that these guarantees have not been accessible by small and microenterprises in the absence of a strong banking and credit record.

Credit guaranteee schemes of the kind deployed under the ACGS and by BECI present the challenges captured as lessons from IFAD's rural finance experience[42]. Thus, among the general challenges facing loan guarantee schemes such as the ACGS include high, unsustainable operating costs, inadequate capitalization, inadequate recoveries, and distortions caused by domestic and international donors.

There are however possible entry points for IFAD's engagement into the Botswana rural finance space leveraging the clout of a government entity which has a focus on the agricultural sector, SMME development, rural development in general and support to marginalized groups such as the youth and women. Such potential partners should also manifest a business model which combine financing with capacity development in skills development, entrepreneurship and financial management, etc, both as a risk mitigation measure and human capital development strategy. These appear to come together in the operations of CEDA and to a lesser extent, NDB and BSB. NDB's significant portfolio in agriculture provides an important entry point and should be a potential leverage to collaborate with them with a view on IFAD targets and instruments. In collaborating with CEDA, it would be important to review possible synergies with the Local Enterprise Authority (LEA), which was established under the Small Business Act of 2004 (Cap 43:10) under the Ministry of Investment, Trade and Industry, to champion entrepreneurship and enterprise development in Botswana and currently has a nationwide 15-branch footprint, in addition to 5 incubation centres[43].

Such collaboration would, however, require the capacity development of these partner institutions themselves given the operational weaknesses discernible from their operations.

(iii) *Other non-bank financial service providers in Botswana are active but have relatively small consumer (rather than productive) micro-lending operations to salaried workers and overall have minimal impact, even in rural areas*. These are mainly formal credit institutions primarily engaged in consumer lending against the security of payroll deductions. Prominent among these "term lenders" are Letshego, a Botswana-based multi-national operation which started in 1998, now listed on the local stock exchange targeting employees with the central and local governments, other public sector entities as well as the private sector. Now operating in 11 countries in West, East and Southern Africa, 1,497 employees in 199 branches and 5.18 million customers[44], Letshego relies on its tested business model of payroll lending. In Botswana, Letshego has 148 employees, 16 branches and 29,500 customers and accounts for 65% of the MFI market with a loan book of P2.6 billion[45]. Letshego makes minimal effort to target IFAD clients and has no particular interest in rural finance. Other competitors in this space are Blue Financial Services, Penrich Employee Benefits (operating in collaboration with various trade unions), Peo Micro (associated with Penrich), and First Funding. Peo

[42] IFAD. (2014). Loan Guarantee Funds
[43] https://www.lea.co.bw/lea-mandate
[44] Letshego Group Interim Results, June 2021
[45] MAP 2021 Botswana: Financial Inclusion

Micro and Penrich are affiliated with the Capricorn Investment Holdings, which owns Bank Gaborone (and incidentally Bank Windhoek in Namibia), and First Funding is also affiliated with FNB Botswana. Important operators in this sector are Bayport and Afritec, both very much in the consumer finance space with the latter in a major partnership with the Furnmart Group, the furniture retailers through its 30 branches in Botswana.

Another category of similar but smaller microlenders, referred to as "cash lenders", are typically members of the Microlenders Association of Botswana (MAB), which provides a platform to regulate its members since its formation in 1998.

Traditional microfinance, that is, mobilizing savings to provide credit, is not well-developed in Botswana. Two institutions, Tokafala and Women's Finance House, are currently the only ones permitted by the Bank of Botswana to engage in such operations and do service the SMME market albeit to the extent of their limited capacity and footprint[46].

Thus, whilst conventional wisdom would dictate that micro level financial institutions would play a more active role in rural finance, their impact in Botswana is limited. As noted by NBFIRA, nonbank lenders in Botswana predominantly service the employed and includes: the life insurers, micro-lenders, pawnshops, finance and leasing companies which fall under the regulatory purview of NBFIRA. Most rural actors in need of financing for various entrepreneurial ventures are not in salaried employment and therefore do not fit the typical business model deployed by both "term lenders" and "cash lenders". And the few institutions with promising models have limited scope and resources. Their models may also not be easy to replicate without significant and perhaps, unsustainable financial support as these have tended to be NGOs.

(c) Meso Level

(i) *Bankers Association of Botswana (BAB,)* comprising the Bank of Botswana and the major banks, is an advocacy body lobbying for the interest of the banking sector with important stakeholders in government, and the private sector and the public. BAB works to maintain performance standards in the banking industry guided by a self-regulatory Code of Conduct revised in 2011[47]. The Code sets the minimum standards of good banking practice and relations with clients. BAB also launched a P1.5 million electronic Know-Your Customer (eKYC) system[48] provides commercial banks with online instant verification of identity card against the national database. a vital pillar in ensuring that banks adhere to the structures of Know-Your-Customer (KYC) compliance, which is a critical component of an effective national Anti-Money Laundering (AML) regime. BAB contributed to the development in the development of the National Financial Inclusion Roadmap but does not appear to have any appetite in rural development beyond limited corporate social responsibility interventions.

(ii) *The Microlenders Association of Botswana (MAB)* is made up of smaller microlending institutions also referred to as "cash lenders" and continues to provide a platform to regulate its members via the use of various business conduct rules. These rules which govern member operations include subscribing to agreed interest

[46] Non-Bank Financial Institutions Regulatory Authority (NBFIRA) 2020/2021 Bulletin. https://www.nbfira.org.bw/sites/default/files/2020%20-%202021%20Research%20Bulletin.pdf
[47] https://www.mmegi.bw/business/banks-launch-new-code-of-conduct/news
[48] https://news.thevoicebw.com/2021/04/bankers-association-launches-ekyc/

rate caps (e.g. not to exceed 30% per month), subscription to the use of Compuscan (now Experian Botswana (Pty) Ltd, a credit information service headquartered in South Africa), develop a credit referencing practice for all loans using Experian and a commitment to adhere to the MAB's Code of Conduct which each member is expected to display in visible locations of its operating premises to reassure its clients. MAB members, as their "term lender" colleagues, operate under the oversight of NBFIRA who exercise regulatory and supervisory powers over these institutions. The common feature of these microlenders is their lack of strategic focus on productive loans, thus, whilst some of their loans end up financing productive activities of clients, these are neither addressed with bespoke products nor are sensitive to the cashflow cycle of those activities as would obtain in the cashflow associated with a crop cycle.

(iii) *Credit information infrastructure* in supported by subsidiaries of major South African companies in Esperian, Compuscan and TransUnion with credit bureau and information services. They collect, provide and protect quality data on individuals and businesses to assist companies across multiple industries with consumer verification, application processing, consumer management, lending decisions, tracing and collections. There is currently a Credit Information Bill to enhance the operating framework to promote availability of reliable, timely, and complete consumer information for assessing eligibility for credit; provide data providers with access to comprehensive, consistent and validated consumer information; provide consumers with protection from unfair conduct by data providers; and to provide governing regulations for credit bureaus. The Credit Information Bill being drafted by MFED, in coordination with BoB, will make it mandatory for credit and data providers to submit data to the credit bureaus that will transmit it to a credit registry, thus enabling financial institutions to better assess the credit worthiness of clients before granting credit. It will establish an efficient credit reporting system that will reduce the cost of credit and thus enhance access to credit and improve financial inclusion, as well as address the problem of over-indebtedness. BoB is the regulatory authority for drafting and implementing the legislation[49].

(iv) *Technical and Training Service Providers* in Botswana are used by bilateral and multilateral development partners as well as financial institutions to improve the knowledge and skill levels of their staff and clientele. Where necessary, additional resources have been available from the larger market in South Africa

At the meso level, the support institutions on the supply side have advocacy operations which promote their interests but advance the functioning of their markets. The apex bodies and apex groups on the demand side, however, such as consumer associations were not identified to be equally resourced or visible.

There is adequate financial market infrastructure to support the activities of banks and their clients. Where gaps may exist, additional skills can be procured from nearby markets in South Africa, particularly with regards to technical and training support services.

(d)Macro Level

(i) *Physical:* Botswana is a low density (small but highly urbanized population with large land mass) landlocked country located in an arid region. The rapidly declining 30% rural population continues to contend with challenges to agriculture such as the effects of climate change and infrastructural deficits in its developmental agenda.

(ii) *Economy:* Agriculture's share of GDP in Botswana has been stagnant at 2% historically as has been its growth which during 2017/18 and 2018/19 was at 2.5%,

[49] Government of Botswana (2018): Volume 1 Mid-Term Review of NDP 11

the slowest real sector growth node of the economy. The available agricultural sector employment data indicate the sector provided jobs for 80,000 adults, equivalent to 12%[50] of the employed population. The sector's highest contribution to export revenues is from beef, hides and skins which adds only 2% and has been in long term decline.

(iii) *Development Policies*: The overarching development paradigm in Botswana is the Vision 2036 whose four pillars encapsulates a vision to achieve key goals in sustainable economic development, human social development, sustainable environmental management and good governance, peace and security. This is being pursued through the 11th National Development Plan (NDP) 11 (2017 - 2023) themed "Inclusive Growth for the Realisation of Sustainable Employment Creation and Poverty Eradication". This theme is being pursued through the implementation of six national priorities, namely: developing diversified sources of economic growth; human capital development; social development; sustainable use of national resources; consolidation of good governance and strengthening of national security; and implementation of an effective monitoring and evaluation system. Thus, the development of the rural, agriculture and financial services sectors are an integral part of diversifying sources of economic growth. As part of this effort, the national Financial Inclusion Roadmap and Strategy (2015-2021), aims to promote inclusive economic growth as it strives to accomplish three inter-linked goals: improving livelihoods, driving economic growth and driving industrialization through five priorities: Improvement of the Payments Eco-System; Facilitation of Low Cost, Accessible Savings Products; Development of Accessible Risk Mitigation Products; and Improvement of the Credit Market and Consumer Empowerment and Protection.

(iv) FI Regulation and Supervision: The Ministry of Finance and Economic Development (MFED) retains policy-making responsibilities, with regulatory and supervisory duties split between the Bank of Botswana (for banks and deposit-taking MFIs, forex bureaus and payment systems), and NBFIRA (for all other credit providers, insurers, pension funds and capital market) and the MFED overseeing residual sub-sectors such as building societies and state-owned financial institutions (e.g. NDB and BSB established by statute) and other government DFIs (e.g. BDC and CEDA registered as companies). Although statutory banks do not require banking licenses and are ultimately under the control of the Minister of Finance and Development Planning, the Banking Act gives the BoB powers to supervise such banks, as well as building societies established under the Building Societies Act. Hence, the BoB carries out regular examinations of the Botswana Savings Bank, the National Development Bank and the Botswana Building Society. BDC and CEDA remain unregulated as financial institutions.

There are regulatory gaps needing modernizing and clarity to keep pace with emerging technologies (e.g. mobile money) and related distribution channels to reach a low density population in a cost efficient manner. That said, there remains several FSPs (mainly micro-lenders) operating outside the regulatory bubble serving clients predominantly in the unbanked, underserved and excluded segments, including in the rural areas.

The challenging physical environment in Botswana contributes to the high urbanization, but it does offer opportunities for interventions which might be favoured by climate smart agricultural practices and climate finance assistance.

The agricultural sector retains the potential to drive the diverse economy of Botswana and to absorb more of the unemployed from the labour market. Improvement in agricultural

[50] Statistics Botswana BMTHS 2015/16

production will strengthen domestication or import substitution with benefits on both the balance of trade and foreign currency management.

The agricultural sector, despite its declining contribution to GDP and growth, has a relatively higher proportion of employed people with the potential to absorb additional persons, especially of the youth and women, given the necessary motivations and structures. Fortunately, there are several institutions operating in the inclusive financing and enterprise development space which can be empowered and whose synergies can be leveraged to drive economic growth in a positive direction.

The policy, regulatory and supervisory framework is on course to sustain the effective management of the financial sector. The earmarked plans, especially those identified under both the NDP 11 Mid-term review process, and the MAP 2021 Financial Inclusion Diagnostic should be adequate to resolve identified regulatory gaps provided they are diligently implemented.

[3] CONCLUSIONS AND RECOMMENDATIONS

Conclusions: Botswana continues to experience high urbanization or rural-urban migration which may be fueled in part by lack of employment opportunities and less infrastructure thereby effecting the quality of life. The various stakeholders in the rural areas have inadequate access to finance to fund economic opportunities. The low population density demand cost-effective financial services and appropriate products. Financial market infrastructure would need enhancements to the mobile telephony system to strengthen coverage to the rural areas where programmes to increase use of services including internet usage will strengthen the use of e-banking services, that is, in payments, savings, credit, etc. To this end, the various recommendations to minimize regulatory gaps to buttress these improvements should be diligently implemented as they adequately address the identified needs.

Potential to partner with existing government institutions with a strategic interest, culture, experience and expertise in rural, agricultural and enterprise financing tolerant of IFAD clients exist in CEDA (with LEA), NDB and BSB. It will be imperative to package assistance to these institutions themselves to address their internal weaknesses to ensure their effectiveness in any potential partnerships.

Recommendations: First, as an initial assessment, and in line with the IFAD Rural Finance Policy, it will be important to undertake a more detailed assessment of the identified institutional to evaluate their suitability more specifically for partnership, interest in a collaboration especially as pertains to the IFAD target group. Second, study in more detail the core issues related to the technologies available for developing, rolling out and maintaining e-services, the regulatory gaps regarding these emerging technologies and existing recommendations to resolve these, but more importantly, the likelihood of their imminent implementation to ensure expectations of distribution platforms would be realistic.

ANNEX 14: TECHNICAL NOTE ON DISTRICTS SELECTION

Rationale for selection of districts for BOLCOP Project

BoLCoP districts and intervention areas have been selected based on concept note and design missions' consultations, field observations and meetings with Government of Botswana. The selection of BoLCoP districts is informed by a set of criteria as follows:

1. high concentration of small livestock and value chain actors – this ensures critical mass for value chain development and economies of scale;
2. agroecological suitability for small livestock production – based on climate resilience, grazing conditions, and land-use potential, high livestock and human populations;
3. presence of existing small livestock infrastructure and support systems;
4. potential for commercialisation and accessibility to markets;
5. strong representation of priority target groups - these include women, youth, and poor rural households who depend on small livestock for income and food security;
6. elevated levels of food insecurity and malnutrition – as reported in recent district-level surveys and nutrition vulnerability assessments; and,
7. high poverty incidence and rural marginalization – particularly in inland and, remote zones underserved by past investments.

Accordingly, the following districts were selected based on the above criteria

Rationale 1: Clusters of districts with high potential for commercialization, high presence of value chain actors, rural finance, including high human and small livestock populations

a) Greater Gaborone (Molepolole, Thamaga-Mogoditshane, Ramotswa, Tlokweng and Kgatleng, Letlhakeng) Cluster;
b) North East, Tonota – Botswana Meat Commission Cluster;
c) Mahalapye, Serowe, and Palapye – Central cluster;
d) Kanye and Good hope – Botswana Meat Commission Cluster; and
e) Boteti (part of both Central and North East clusters).

These districts are close to each other and have high populations, which will help the project reach its outreach figures in a cost-efficient manner. The proximity of the districts provides a good opportunity for clustering and market-oriented production. Some level of commercialization is already on going, hence these districts form a low-lying fruit for the project to promote commercialization.

The districts also have a good network of infrastructure and a strong presence of small livestock value chain actors. The markets e.g. retail stores, institutions such as schools and hospitals, and government agencies are well developed. Poultry value chain players from primary production to retail are concentrated around these districts, which include marketing infrastructure and training facilities. For sheep and goats, the majority are micro scale producers and also emerging commercial farmers of boer goat and meatmaster stud breeders.

The districts' strength also lies in the growing demand for poultry, chevon, lamb and mutton. Potential for mixed farming systems due to availability of agricultural land and farms will also provide an added advantage to align with the IFAD funded DeSIRA+ grant, which will finance mixed livestock and horticulture systems.

The North East, Kanye and Lobatse districts offer a good opportunity to leverage on existing Botswana Meat Commission (BMC) facilities, including the proposed small stock

slaughter lines. The BUAN training centre in Lobatse also provides opportunities for traing farmers and value chain actors in small stock and the use of their slaughter slabe. Francistown has several value chain actors, service providers and a well-developed market given it's the country's second city. The proximity of Tonota to Francistown will give better access to farmers in Tonota to these facilities. There are several financial institutions supporting these districts, including the National Development Bank and the commercial bank that will manage the NSO, hence the potential for rural financial inclusion is very high.

Rationale 2: The Tsabong Abattoir cluster districts

The project has been requested by the GoB to work with districts surrounding the Tsabong Abattoir, which is a state-of-the-art facility that was constructed to serve the Kgalagadi and surrounding districts. The government is working with the BMC to operationalize the abattoir. The cluster of districts expected to serve the abattoir include Ghanzi, Charleshill, Hukuntsi, Tsabong, and Mabutsane.

The GoB invested over P161 million (US$ 11.5M) in the construction of the Multi Species abattoir in Tsabong, with a capacity to slaughter 200-300 goats/sheep daily. The selected districts are arid zones, traditional goat and sheep farming areas with high productivity indicators, low disease prevalence and resilient breeds (Boer goat, meatmaster and dorper sheep). They also offer opportunities for the implementation of climate smart interventions, strengthening/establishment of cooperatives e.g. Molopo Smallstock Cooperative, as well as market-oriented production. These areas also have good browse zones for goats and grassland savanna zones which favour sheep production.

There are few economic activities in these areas and livelihoods are dependent on livestock production especially Mabutsane, Tsabong, Hukuntsi and Charleshill. The poverty and child malnutrition levels are also high, as well as low participation of women and youth in agricultural activities in an economically meaningful manner.

Given the vastness and low populations of these districts, it will be important that at pre-implementation, the PMU clusters the region further, based on human and livestock populations as well as the viability to reach project milestones. The distances of the districts to the abattoir also need to be taken into consideration, looking at the possibility of having aggregation points or other value chain actors handling logistical aspects.

Ngamiland Region – Proposed by the GoB but IFAD has reservations

NB: The GoB has requested that we consider extending investments to the Ngamiland region – namely, the Northwest and Okavango.

This region is in a Foot and Mouth Disease (FMD) endemic area or red zone, therefore meat products from the region have limited access to premium markets. The region's frequent FMD outbreaks will elevate the project's risk levels and require heightened and stringent safeguards measures, including IFAD having to deal with the reputational risks associated with food safety issues. The main markets are hotels, restaurants and government institutions, given the region is a valued tourist destination. The Ngamiland region is also considered a world heritage area, with the world's most highly endangered animals, which would further require higher safeguards measures and high intensity of monitoring of project interventions.

The mission therefore recommends that this region is not considered for IFAD financing for production-related activities but can serve as a market zone for other districts intending to supply meat and poultry products to the various hotels and institutions. This is also due

to the limited ability of the local populations to sufficiently supply these markets and low demand associated with FMD prevalence.

ANNEX 15: BOLCOP DIGITAL TOOLS AND SOLUTIONS – TECHNICAL ANNEX AND IMPLEMENTATION GUIDE

Implementation Guidance by Component

Digital Extension and Animal Health Services

To implement these tools effectively, BoLCoP should initiate with a needs assessment among smallholder producers to understand preferred communication channels and digital literacy levels. The SMS and IVR content should be co-developed with extension experts, local language translators, and user-testing groups to ensure clarity and relevance. Anton Tech's AI diagnostic tool should be piloted with a sample of CAHWs, with integration into their workflows and training. For the CAHW mobile registry app, collaboration with BUAN, NARDI or local startups should support app development, data synchronization features, and compatibility with existing systems. A phased rollout with embedded monitoring will guide scale-up.

Digital Rangeland and Advisory Tools

The integration of weather data and seasonal forecasts should be done in partnership with the Department of Meteorological Services, ensuring automated data feeds to the digital platforms. Messaging should be localized using region-specific forecasts and disseminated via SMS/USSD. Pest alerts and rangeland indices should be shared weekly with practical grazing recommendations. Mobile geo-tagging tools should be introduced to track livestock movement and rangeland degradation, with training provided to extension officers. The potential of leveraging the planned Botswana Satellite Technology (BotsSat) should be explored to strengthen climate-smart grazing insights and remote diagnostics.

Drone Use for vaccine delivery, rapid damage, disease-risk scans, and monitoring of pasture and degradation

BoLCoP will use drones primarily to speed up vaccine and medicine delivery and strengthen disease surveillance, while also monitoring pasture condition and land degradation. Each target district will form a small drone team (prioritizing trained youth and women), secure permissions, and follow clear safety and community-notification steps. On a fixed schedule and whenever outbreaks or shocks are suspected, teams will fly rapid damage and disease-risk scans to identify safe routes, blocked roads, flood damage, carcass hotspots (biosecurity risks), and the closest accessible delivery points for CAHWs and district vets. Routine flights will also capture up-to-date imagery that is converted into easy-to-read pasture and degradation maps (e.g., bare soil, erosion spots, stressed grazing blocks, water-point status) to guide grazing plans and maintenance. All maps and alerts will be uploaded to the MIS and summarized for field teams so vaccination drives, treatment rounds, grazing adjustments, and repairs can be scheduled and redirected in near-real time as conditions change. Drone teams will maintain simple routines for batteries, spares, and software updates, and each pilot will complete an annual refresher to stay current and safe.

Digitalization of Livestock Identification and Management

Upgrading BAITS will involve customizing its data fields for goats and sheep and linking records to health, location, and market readiness. Mobile-compatible interfaces should be designed to function offline, syncing when connectivity is available. Each district should receive tagging kits and mobile electronic scales, with CAHWs and vet officers trained as frontline implementers. Livestock Management Systems (like Modisar) should be piloted in two to three districts to gather feedback before scale-up. Integration with TLMS and national databases will support traceability and service eligibility.

Climate Advisory and Solar Enablement

To support digitalization in off-grid areas, BoLCoP should deploy solar kits for powering tagging equipment, tablets, and network boosters. For climate advisory platforms, weather forecast dissemination through USSD and WhatsApp bots should be automated using scripts and integrations with weather APIs. Training content should include interpreting weather information for action (e.g., early destocking). Digital champions within communities should support the dissemination of climate alerts and technical advisory.

BoLCoP Digital Payments: ExtoPay Implementation

BoLCoP will use ExtoPay as its digital payment tool to run e-voucher subsidies, pay producers, and support group savings and loans, with strong reach into remote areas. Farmers will be onboarded through simple options that keep costs low: (i) a basic QR "ExtoCard" (about $0.20–$0.40) issued by local agents; (ii) a merchant/agent kit using a biometric card (about $25–$40) with either with a low-cost Android device, or a small $15 'soundbox' POS (a simple box that confirms transactions by voice); and (iii) for those with smartphones, a free mobile wallet app. Hardware will be provided at cost, and a small transaction fee (around 0.20%–0.30%) will apply. E-vouchers will be "purpose-bound," meaning they can only be spent on approved farm inputs at registered shops to reduce misuse and improve targeting. To reach communities with weak network coverage, agents will be able to record transactions offline and sync later; USSD for basic phones will also be enabled. Personal data and biometrics will be managed by a regulated Banking partner (Bank of Gaborone as ExtoPay will only supply the technology and will not hold customer funds). BoLCoP will start with a fast, closed-loop pilot and then connect the system to national payment rails and bank APIs so money moves easily between the project and the wider financial system. The pilot will be completed in roughly eight months (driven mainly by a four-to-five-month lead time for biometric card production). This payments layer will link with the project MIS and e-voucher modules and can integrate with the national livestock traceability system (BAITS) to strengthen transparency, targeting, and service delivery.

Market Information Systems and e-Voucher Enhancement

A livestock MIS platform should be co-developed with local partners using existing mAgri architecture, with market price data sourced from abattoirs and buyers. The system should

allow real-time updates via a mobile dashboard and farmer-facing menu. WhatsApp-based market alerts and radio linkages should complement the MIS.

The Table below outlines all the digital solutions proposed under BoLCoP to support small-scale livestock producers. It includes deployment details, implementing partners, and functionality.

Digital Tool / Solution	Functionality	Target Users	Implementing Partners	Deployment Details	Key Remarks
USSD and IVR e-extension services	Dissemination of livestock management tips, market updates, weather info	Small-scale livestock producers	Dept. of Extension, BUAN, NARDI, Ministry of Comms and Innovtions	Piloted in 3 districts in Year 1; scaled in Year 2-4	Accessible on basic phones, local language support
Mobile CAHW Registry App	Tracking CAHW visits, treatment history, e-extension, and follow-ups	Community Animal Health Workers (CAHWs)	Dept. of Veterinary Services, Agritech startups	Developed by Year 1; rolled out via CAHW trainings	Enhances accountability and coverage of animal health services
AI diagnostic tools (e.g., Anton Tech)	Mobile-based disease identification using AI and photos	Farmers, CAHWs, Vet Officers	Private sector (Anton Tech), BUAN	Pilots launched in Year 2 in 2 districts	Requires smartphone access; to be bundled with CAHW kits
BAITS enhancement for small stock	Digital registration, movement tracking, health & vaccination records	Livestock producers, veterinary officers	DVS, IT firm (current BAITS service provider)	Upgrade planned Year 1-2; district-level rollout from Year 3	Link with LMS, TLMS, and extension apps
Climate info integration (SMS/WhatsApp)	Seasonal advisories, weather alerts, pest info	Farmers, cluster leaders	Dept. of Meteorology, Agritech firms	Bundled into e-extension system by Year 2	Localized forecasts to support resilience
Market Information System (MIS)	Price alerts, buyer–seller matching, digital grading tools	Producers, aggregators	Private tech partners, Ministry of Trade and Industry	Co-developed Year 1, piloted in Year 2, scaled by Year 4	Linked to USSD/mAgri, builds market trust
Digitally enhanced TLMS e-voucher	Subsidy access, input redemption, e-wallet interface	Small-scale producers	MoLA, BG, Extopay	Upgrade and pilot Year 1; integrated in TLMS Year 2+	Improves equity, transparency
Digital Grant and Loan Management for TLMS	Improved application tracking,	NDB, MoLA staff	MoLA, Financial IT vendors	Developed Year 2; used to support	Reduces bottlenecks in subsidy access

	disbursement logs			PMU reporting	
Solar kits for powering digital devices	Powering devices and network routers in off-grid areas	CAHWs, Extension staff	Private solar suppliers	Procured Year 2; distributed with device kits	Critical for remote service delivery

ANNEX 16: THUO LETLOTLO GUIDELINES

Attached as a separate document.

ANNEX 17: SOUTH-SOUTH AND TRIANGULAR COOPERATION PLAN

South-South and Triangular Cooperation (SSTC) provides a platform for countries to share development successes and collaborate in addressing common challenges. Under BoLCoP, SSTC will be mainstreamed across all three project components to complement planned activities, through knowledge exchange, technical assistance, and policy dialogue in support of target rural communities and government institutions.

The integration of SSTC in BoLCoP will build on the IFAD grant, Scaling Livestock Innovations through Cross-Country Exchange and Learning (SCALE), which aims to promote regional and international learning on small ruminant husbandry among IFAD livestock projects in Botswana, Lesotho, Zambia, Bolivia, and Brazil. It will also leverage previous engagement with Brazil through a learning route that has identified opportunities for Botswana to draw from Brazilian best practices in cooperative/association establishment and management, as well as promoting the family farming. Additional collaboration opportunities will be explored within the African region, as well as with the Asia and Pacific region.

By leveraging both investment resources and the SCALE grant, BoLCoP will integrate relevant lessons and technical knowledge from regional and international partners to strengthen its implementation and enhance its development outcomes.

Under Component 1. Climate-Smart Small Livestock Production and Productivity, BoLCoP aims to improve quality and climate resilience of small livestock breeds. It also aims to improve inclusive rangeland management interventions in collaboration with local partners on various erosion control measures and infrastructure such as re-seeding, gabions, swells and catch dams and restoration.

By leveraging regional collaboration opportunities, BoLCoP will benefit from other country experiences and technical assistance on breeding and small ruminant development. These include rangeland restoration from Lesotho and sustainable and community-based fodder production for animal feed from Zambia. Furthermore, SSTC activities will be centred on technical exchanges and regional visits for breed improvement through sire multiplication and regional benchmarking against South Africa and Namibia; climate-smart grazing models and community-driven rangeland restoration from Lesotho and Zambia; enhanced fodder production and feed systems adapted to Botswana's agro-ecological features from Brazil; and promotion of best practices for indigenous knowledge conservation and dissemination from the African and Latin American regions.

Under Component 2: Strengthened Small Livestock Value Chains, BoLCoP will support the growth of structured, competitive, and inclusive small livestock value chains by improving marketing infrastructure, market systems, and product quality.

A lesson learned from a study visit to Brazil was the significant role of farmers cooperatives, associations, and the family farming model in improving livestock value chains. Notably, the expansion of family farming emerged as a cornerstone for building robust rural institutions, enhancing transparency and accountability, and promoting equitable income sharing at the household level.

In collaboration with the Brazilian Cooperation Agency (ABC), EMBRAPA, and other regional partners, BoLCoP will pursue strengthened partnerships with Brazil to facilitate the transfer of best practices related to cooperative development and family farming. Planned activities may include knowledge exchange visits for representatives from Botswana such as the Smallstock Industry Federation of Botswana (SIFB) and local

authorities to engage with counterparts in Brazil. BoLCoP will also explore opportunities for long-term technical cooperation, including the secondment of Brazilian experts to provide hands-on capacity building and advisory support to farmers' organizations and local/national actors in Botswana in clustered production through farmers' organisations and family farming.

Through SSTC, BoLCoP will also explore learning from other countries' experiences with digital traceability systems and automated marketing technologies to enhance quality control, and food safety. BoLCoP will particularly seek case studies focused on strengthening linkages to domestic and export markets, including the use of market information systems and producer–exporter matchmaking platforms. Comparative research on models from Asia (for example India, Indonesia, Thailand and Vietnam), Africa, and Latin America could be conducted to identify approaches best suited for adaptation in Botswana.

A regional learning visit to Bolivia could also enable BoLCoP to explore the framework for commercialisation, value addition, and enhanced market access for niche livestock products, namely camelid products.

The expected outcomes of SSTC under Component 2 is to equip farmers' organisations and government actors in Botswana with the knowledge, skills, and practical tools to improve collective organisation and clustering, strengthen traceability systems and quality assurance, and enhance their access to markets and their bargaining power in price negotiations.

Under Component 3. Enhanced Enabling Environment for Improved Small Livestock Development, BoLCoP will support the roll out of key national frameworks including the National Small Stock Strategy, Small Stock Cluster Production Strategy, National Breeding Strategy and policies on small livestock branding and marketing, aimed at establishing a more competitive, coordinated, and market-oriented small livestock sector.

SSTC will also assist in establishing and enhancing a Management Information System (MIS) to collect, consolidate, and streamline small livestock-related data across relevant line ministries which will be led by the ICT department of the Ministry of Lands and Agriculture (MoLA). A direct outcome will be strengthened institutional capacity in data management and monitoring, supported by training and technical assistance focused on the harmonisation of indicators and standardisation of data collection methods.

In addition, BoLCoP will also convene key stakeholders to develop an ICT strategy for the small livestock sector to establish a coordinated digital approach to sector development. BoLCoP will work closely with Smart Botswana, which leads the country's digitalization and innovation. This strategy will support the scaling up of proven innovations and best practices, such as digital traceability systems, e-extension platforms, digital tools for animal health management, and automation technologies along the small livestock value chains. The establishment of this strategy could be supported by SSTC-driven policy dialogues to inform policy formulation and provide advisory services to government actors on key issues such as data management.

Financing of SSTC Activities

BoLCoP's planned budget for SSTC is US$550,000 of which US$250,000 is funded by the SCALE grant.

The matrix below presents indicative SSTC activities and outputs. During detailed annual work-planning, and progress reviews, BoLCoP and partners may revise, sequence, drop,

or add actions to respond to emerging evidence, funding levels, and evolving national or regional priorities. Any adjustment will continue to follow the project's results framework and maintain a clear South-South and Triangular Cooperation focus to equips Botswana's farmers organisations and government actors with the most relevant knowledge, skills, and tools for the development of the small livestock sector.

Component	Key Activity	Main SSTC Partners	Botswana Stakeholders	Budget (USD) and Funding Source	Expected SSTC-Focused Outputs / Outcomes
Climate-Smart Production	**Technical exchanges on sire multiplication and breed improvement**	Lesotho (SCALE); Namibia and South Africa	Ministry of Lands and Agriculture (MoLA); Smallstock Industry Federation of Botswana (SIFB)	100,000 (SCALE:50,000 and BoLCoP: 50,000)	Farmers' organisations and government actors acquire practical skills to select, multiply and disseminate superior sires, improving climate-resilient genetics and productivity.
	Climate-smart grazing, rangeland restoration & infrastructure works (rotational grazing models, rangeland monitoring, reseeding, gabions, fodder production, etc)	Brazil, Lesotho, Zambia (SCALE)	Land Boards; CBOs; district councils	150,000 (SCALE:100,000 and BoLCoP: 50,000)	Local communities and extension officers equipped with practical skills and community mobilization methodologies from Brazil, Lesotho and Zambia for implementing grazing management and rangeland monitoring interventions, erosion control measures and establishing sustainable fodder plots.
	Training and dissemination of indigenous knowledge for sustainable livestock and pasture management	Brazil, Bolivia, Zambia	Village and district leadership; Extension officers; Community Animal Health Workers	40,000 funded by BoLCoP	Preservation and transfer of local knowledge and techniques for climate-resilient livestock production, including: (i) using indigenous plants as feed resources; (ii) applying traditional plant-based remedies for livestock health; and (iii) promoting seasonal feeding and breeding practices. ToT approach builds local capacity and strengthens traditional animal health systems for drought-resilient pasture management.
Value Chain Strengthening	Knowledge-exchange visit on **cooperative development & family farming models**	Brazil (ABC, EMBRAPA)	SIFB; Cooperative Development Department; local authorities	30,000 funded by BoLCoP	Farmers' Organizations and MoLA equipped with the knowledge and practical frameworks from Brazil to establish and manage robust livestock cooperatives.
	Secondment of Brazilian experts for hands-on capacity building in clustered	Brazil (ABC, EMBRAPA)/(SCALE)	SIFB; agricultural colleges, Community-Based Organisations (CBOs)	100,000 (SCALE:70,000 and BoLCoP: 30,000)	Botswana extension agents and farmer organisations receive tailored coaching to scale clustered production, for raised market volumes and bargaining power.

	production & family farming				
	Comparative research & virtual clinics on **digital traceability and automated marketing technologies**	India, Indonesia, Thailand, Vietnam; regional African and Latin-American cases	MoLA ICT Unit; Botswana Meat Commission; technology firms	30,000 funded by BoLCoP	National stakeholders are provided with key knowledge products and information from regional and international benchmarking for the development of traceability and e-marketing solutions suited to Botswana
	Regional learning visit to **Bolivia** on commercialisation & value-addition, including collective branding for niche livestock products (camelids)	Bolivia (SCALE)	SIFB; Botswana Investment and Trade Centre; CBOs	30,000 funded by SCALE	Value chain actors and government agencies equipped with strategies and practical insights from Bolivia's model for developing high-value, niche markets for Botswana's small livestock products (e.g., leather, specialty meats).
Enabling Environment	**Technical assistance for the development of a Management Information System (MIS)** for small livestock data	TBD – Ethiopia, Kenya, India	Statistics Botswana; MoLA, ICT Unit; relevant line ministries	45,000 funded by BoLCoP	Government technical staff equipped with standardized protocols and functional templates from other Southern partners to operationalize a harmonized Management Information System (MIS) for improved data-driven decision-making.
	Policy dialogue, advisory support & guideline development for an ICT strategy covering traceability, e-extension, animal-health apps & automation in the small livestock sector	Brazil; India; regional e-agriculture hubs	MoLA ICT Unit; Innovation Hub; private start-ups, Relevant line ministries	25,000 funded by BoLCoP	Botswana government policymakers equipped with regionally informed guidelines for the development of the ICT strategy framework to digitally transform the small livestock sector and scale proven innovations.

ANNEX 18: BASELINE SURVEY TERMS OF REFERENCE TEMPLATE

ALSO USED FOR MIDTREM OR COMPLETION SURVEY

The Terms of References (ToRs) are meant for a firm to develop and successfully implement some or all aspects of outcome-related surveys as described in the COI guidelines. They should cover all important aspects of implementing the survey as well as analysing the data and report writing. This template TORs only intends to give guidance on the key elements which should be included in the TORs. It is indicative and can and should be adapted according to project and country´s characteristics. [The main elements to be adjusted and adapted according to the project´s characteristics and to the stage of the survey (Baseline, mid-term or completion) appear in yellow and in brackets]. General instructions and explanations about the section are presented in italic and blue. Prior to issuing the ToRs, the Project Team should submit the ToRs to IFAD´s review and clearance. Indicative table of Content:

1. BACKGROUND AND CONTEXT

2. DESCRIPTION OF THE PROJECT

3. PURPOSE AND OBJECTIVES OF THE CONSULTANCY

4. METHODOLOGICAL REQUIREMENTS

5. DETAILED LIST OF ACTIVITIES AND DELIVERABLES

6. COMPETENCIES REQUIRED

7. ADMINISTRATIVE AND OTHER ASPECTS

Technical Annexes:

1. DETAILED TARGETING STRATEGY

2. LOGFRAME

3. TOC

4. PROJECT AREA AND NUMBERS

5. DRAFT QUESTIONNAIRE

1. BACKGROUND AND CONTEXT

This section includes general information about the project.

1.1. General presentation of the project:

- Short description
- Dates of approval, entry into force, start-up,etc.
- State of implementation, first results if any
- Budget: IFAD financing and others

12.. Institutional framework:

- Ministry and Lead Programme agency
- Implementing agency/agencies
- Legal framework
- Other relevant aspects

2. DESCRIPTION OF THE PROJECT

This section describes the project´s main features.

2.1. Objectives

2.2. Duration of the project

2.3. Project Area

2.4. Target group: This section describes the target group as validated by the project prior to the elaboration of the ToRs (see STEP 1 in COI measurement guidelines). This paragraph must be complemented with a detailed description of the targeting strategy in technical annex of the ToRs.

2.5. Theory of change: This section briefly describes the theory as validated by the project prior to the elaboration of the ToRs (see STEP 1 in COI measurement guidelines). This paragraph must be complemented with a detailed description of the theory of change and related logframe in technical annexes 2 and 3 of the ToRs.

2.6. Components and main activities

2.7. Budget

3. PURPOSE AND OBJECTIVES OF THE CONSULTANCY

This section explains the purpose and the objectives of the survey. Please note that they might differ according to the stage of the project: baseline/mid-term/completion.

3.1. Purpose. The planned study aims at carrying out a [baseline / mid-term / completion] survey which will consist of quantitative [and qualitative] information. It will examine the effects of the projects on [Choose thematic areas addressed by the project: livestock production – Employment - Financial services – Producers Organizations – Rural enterprises – Climate resilience – and any other impact or project specific thematic area included in the questionnaire] and will compare the situation with and without the project. This study constitutes one of the stages of the project evaluation process and is part of a global evaluation plan.

3.2. Objectives. The main objective of the study is to develop the sample design, conduct the data collection and analysis and report writing of the [Baseline/Mid-term/Completion: choose according to stage of implementation] survey to be used for the project evaluation process. survey. The information to be collected includes information related to project activities in order to derive data on [Outcome and/or impact: adapt according to indicators included in the questionnaire (CIs, PSIs and Impact)]. [Specify for: Baseline: The survey will measure the baseline values of project outcomes [and impact if included] indicators and individual/household characteristics at project start. The baseline survey will be conducted on a sample of [Beneficiaries if identified or Potential beneficiaries from the eligible population]. Baseline data provide information on beneficiaries and comparison groups before the programme is implemented and are important for measuring pre-

intervention outcomes and establish benchmark information for selected indicators. The analysis of baseline data will also be used to assess targeting effectiveness, that is, whether or not the [name of project] is going to reach its intended beneficiaries. Mid-Term: The survey will measure the mid-term values of project outcomes [and impact if included] indicators on the same indicators used for the baseline to compare midterm with baseline data. Mid-term data provide early evidence of progress towards objectives assessing whether or not the project is on right tracks. The mid-term survey will be conducted on the same sample of beneficiaries as for baseline if feasible. Completion: The survey will measure the final values of project outcomes [and impact if included] indicators on the same indicators used for baseline and midterm surveys. The completion survey will be conducted on a sample of beneficiaries (treatment group) and non-beneficiaries (comparison group). If feasible on the same sample as for baseline and midterm. Completion data finalize the evaluation process and allow to measure attributable changes at outcomes [and impact if included] level due to project´s intervention and the degree at which the programme reached its objectives

4. METHODOLOGICAL REQUIREMENTS FOR QUALITATIVE SURVEY

This section presents the methodological requirements the firm is expected to take into account in its proposal. The Project Team, in collaboration with IFAD, should define and explicit these requirements based on the COI measurement guidelines. The Programme intends to conduct a [Baseline/Mid-term/Completion: choose according to stage of implementation] survey to obtain quantitative data that will enable to monitor and evaluate the Programme's results. The scope of the services required under this Terms of Reference include the collection of data at the appropriate levels of analysis: [Individual/Household/Producers Organization/Rural Enterprises: choose according to programme]. The set of indicators to be collected will be based on Programme's log-frame indicators The study will follow a quasi-experimental approach [with both a treatment and control group: according to stage of implementation]

4.1. Questionnaire and variables. The survey questionnaire to be developed by the firm should include the list of questions identified by the project and presented in technical annex of the ToRs (Draft COI questionnaire). The elaboration of the draft COI questionnaire is based on the COI questionnaire template presented in technical appendix 1 of the COI measurement guidelines: See STEP 2 of the COI measurement guidelines for further details. The draft questionnaire presented in technical annex of the TORs integrates the logframe outcomes [and impact and any other if included] indicators, it might be reorganized and complemented but the outcome related questions from the draft questionnaire should remain the same when relevant to a particular group or stage of the project and should not be rephrased.

4.2. Sample frame. This paragraph provides information on the desired sample frame based on the stage of implementation (baseline, mid-term or completion) and the information available at that stage. To ensure the representativeness of the sample, many factors should be taken into account based on a good understanding of the targeting strategy. It should indeed clearly define who are the different groups targeted by each of the project´s activities and how the beneficiaries might overlap. The project´s targets in terms of specific groups' participation, such as women and youth for instance, also have to be taken into account. All these elements then have to be adequately reflected in the sample. See STEP 3.1 of the COI measurement guidelines for further details. The sample frame is the list of all the units in the desired population, from which random samples of units are selected to build the survey samples. [Baseline: According to the project situation at baseline, depending on whether or not beneficiaries have been identified and whether

or not a preliminary listing of potential beneficiaries has been carried out, there are 3 options:

i. The Project Team will provide the firm with the sample frame including the list of projects beneficiaries OR

ii. The Project Team will provide a listing of potential beneficiaries in order to facilitate the drawing of the sample within the eligible population. OR

iii. The Project Team will provide project and secondary data (in technical annex) for the firm to conduct a listing of potential beneficiaries in order to facilitate the drawing of the sample within the eligible population. Mid-term and Completion: The Project Team will provide the firm with the sample frame including the list of projects beneficiaries as well as the composition of the samples at baseline (and mid-term if completion)].

4.3. Sampling method. This paragraph provides basic information on the recommended sampling method to be used for the survey. The project defines here if the sampling method will follow a panel data structure. According to the stage of implementation, the project also describes here if the sample should include a comparison group (mandatory at completion). The baseline, midterm and completion should, as far as possible, use the same sample. It is necessary that the contracted party maintains an accurate register of households sampled in both the treatment and comparison groups for future reference See STEP 3.2 of the COI measurement guidelines for further details.

4.4. Sample size. This paragraph determines how the sample size should be calculated: using a statistical formula or the Rule of Thumb. If the sample size is to be calculated using the power formula from the world bank, it should be presented in this paragraph. See STEP 3.3 of the COI measurement guidelines for further details.

4.5. Probability sampling: This paragraph presents the project´s characteristics in terms of potential clusters or strata: it describes the different administrative/geographical units and possible strata (value chains, different agroecological areas, etc.). The sample should those characteristics. See STEP 3.4 of the COI measurement guidelines for further details. The probability sampling refers to the sampling method in which all the members of the population has an equal chance to be a part of the sample and it uses random selection to select the sample within the desired population. Note that decisions on the final sampling strategy will be made upon IFAD´s approval.

4.6. Data quality control. The process of ensuring data quality is vital to the accuracy and usefulness of the survey. Data quality control requires a significant effort. This paragraph describes the main elements to consider in order to ensure the data quality control. See STEP 5.1 of the COI measurement guidelines for further details. As data is collected and entered into a storage mechanism, checking for errors and data quality is an important step and sufficient time should be allocated to review the data and assure its quality. The following strategies should be used:

- Double data entry.
- Spot checking.
- Sort data to find missing data, outliers, high, or low values.
- Use automation, such as drop-down menus.
- Format a database to accept only numbers.
- Review data for anomalies.

- Discuss data discrepancies and/or findings with implementers. Data-quality checks can be implemented while collecting the data rather than ex-post as in the case of paper -based surveys by using electronic devices for the data collection.

4.7. Computer entry. This paragraph explains the modalities of computer data entry recommended by the PROJECT TEAM if any. See STEP 5.3 of the COI measurement guidelines for further details. The use of electronic devices and georeferencing is recommended.

4.8. Analysis and report

- *Analysis.* This paragraph presents the type of analysis expected from the firm. It depends on the stage of the project (baseline, mid-term and completion) and the level of analysis (complex or simplified) required. It also explains how the estimation, interpretation and presentation of the results should be done. See STEP 5.3 of the COI measurement guidelines for further details.
- *Report.* This paragraph presents the main elements to be included in the final report. This paragraph might also include an indicative table of content for the report. See STEP 5.3 of the COI measurement guidelines for further details. While writing the report, the firm will work in close collaboration with the Project Team and other implementing partners, to enable a learning process and to maximise transparency and accountability. Once the surveys have been conducted and their quality controlled, the analysis of the results should be presented in a report. The report summarizes the conclusions emerging from the analysis and includes the following elements: the description of the methodology used the questionnaire the list of villages/communities surveyed the results of the survey the updated logframe (at least CIs at outcome levels) the ToC and its description based on the results of the survey the analysis and interpretation of the results (detailed analysis with statistical significance and summarized tables for each indicator) The survey database should also be provided to project staff and IFAD. [The qualitative data will be presented in a separate chapter: if qualitative survey also included in the ToRs]

5. DETAILED LIST OF ACTIVITIES AND DELIVERABLES

This section presents the list of activities expected to be performed by the firm. It also describes the main deliverables to be provided. The firm will work in close collaboration with the general experts concerned of the implementing agency and under the supervision of the Project Team and IFAD in the development and supervision of all phases of data collection and following analysis of the dataset.

5.1. List of activities

- Phase 1 - Inception phase - Initial situational analysis - review of project materials and data: The identification of the beneficiaries (and non-beneficiaries) interviewed at previous stage will enable the firm to construct a panel survey. The technical annex 4 of the ToRs presents the main data regarding the characteristics of the project area and the population: list of considered administrative/geographical units (provinces, municipalities or communities, etc.) with respective population, incidence of poverty, farm´s productive orientation, etc. The Project Team shall be responsible for providing key background documentation to the firm (financing agreements, Logframe, ToC, startup reports, supervision reports, etc). In particular, existing and previous data to be provided by the project: [For baseline: Logframe, ToC, List of beneficiaries if any or preliminary listing of potential beneficiaries, secondary data, etc. For Mid-term: Logframe, ToC, List of

beneficiaries, Baseline data and survey sample, secondary data, etc. For Completion: Baseline and Mid-term data and survey samples, List of beneficiaries, etc.] - Collect and analyze secondary data (from multiple sources where available). - Household Listing Survey if needed. If the Project Team has not carried out a listing of potential beneficiaries (see Step 3.1 of COI Measurement guidelines), this listing should be carried out by the firm directly and it should be included in the list of activities. [To facilitate the drawing of the sample within the eligible population, a listing of potential beneficiaries can be conducted in the field. Enumerators will collect basic information from each household in the enumeration area, taking on average no more than 5 minutes per household to assess household eligibility, basic demographic and re-contact information. The household sample will then be constructed on the basis of this listing. An initial identification and selection of enumeration areas may also be required, for instance, the preliminary listing could be done only on the primary cluster (if clusters are defined in the sampling design).]

- Phase 2 –Sampling strategy and survey instrument development See previous section IV on methodological requirement for details - Development of the survey questionnaire based on the draft provided by the project. Development of the sampling design Clearance by Project Team and IFAD of pilot sampling design and the questionnaire. Develop interview manuals and instructions for field staff. Training of interviewers for the pilot study. Pilot study fieldwork. Revision of the pilot study questionnaires. Analysis of pilot study results, introducing adjustments to the draft questionnaire. Development of the Final Questionnaire. Development of an appropriate data management system with adequate quality controls. Clearance of the final questionnaire and sampling design by Project Team and IFAD.

- Phase 3 – Fieldwork Activities See STEP 4 of the COI measurement guidelines for further details. - Preparation for field work (recruitment of interviewers, printing of questionnaires and other fieldwork documents). Staffing and Enumerator training administrative approval from necessary authorities' Qualitative data collection at the appropriate level of analysis: [Individual/Household/Producers Organization/Rural Enterprises: choose according to programme]. - - Data quality control [Quantitative data collection (focus group discussion/semi structured in-depth interviews, etc.): if qualitative survey also included in the ToRs]

- Phase 4 - Data Processing, Analysis and Final Report Preparation See STEP 5 of the COI measurement guidelines for further details. - Database formation. - - - - - Data entry and cleaning. Statistical analysis of the data. Preparation of the final report. Translation of the final report. Clearance of the report.

5.2. Deliverables. Once selected, the firm will produce the following deliverables for this project:

- Deliverable 1: Updated working calendar and delivery schedule
- Deliverable 2: Survey design describing the sampling strategy, data collection instruments and data entry methodology
- Deliverable 3: Final questionnaire including electronic format (Stata, SPSS or SAS).
- Deliverable 4: List of households to be interviewed and list of communities/villages surveyed
- Deliverable 5: Training manual for field staff and enumerators
- Deliverable 6: Training of field staff and enumerators

- Deliverable 7: Final Survey Report Analysis and Reporting
- Deliverable 8: Clean dataset. The firm should deliver all the material in electronic format. The expected tasks for the firm should be performed in accordance with a mutually agreed schedule. Final deliverables should be submitted according to this schedule and within the limits of the contract duration. Deliverables are subject to agreement by the Project Team and IFAD and preliminary versions should therefore be submitted by the firm in time allowing for comments to be shared and if required changes to be introduced by the firm.

6. COMPETENCIES REQUIRED

This section presents key competencies required for the firm and staff. It also list the key professional and support staff positions required for the elaboration and implementation of the survey. The description below is indicative and might be adapted to Project and country´s characteristics.

6.1. Firm expertise and required qualifications. The selected firm shall possess the following qualifications:

- Previous experience in carrying out evaluation surveys is a compulsory requirement, including demonstrated experience in designing and conducting evaluations and of organizing surveys on the scale of this project (including survey and sampling design)
- Strong capacity and experience in planning and organizing survey logistics
- Good network of experienced enumerators, supervisors and data entry clerks
- Strong capacity in data management and statistics
- Strong capacity in survey analysis and reporting of results
- Strong interpersonal skills and a team-oriented spirit
- Experience doing household survey work and carrying out evaluations in [country].
- Strong background in statistics and econometrics.

6.2. Key staff/ required staff. The proposed team should consist of reasonable number of qualified and experienced professionals having proven track record in designing and implementing socio-economic and baseline studies and/ or evaluation studies and having good depth of understanding of rural development as well as of and gender and social inclusion. The bidders are expected to propose a study coordinator/Team Leader and appropriate number of experts, field supervisors, enumerators and support staff. Minimum key professional staff positions (recommended):

- One study coordinator/team leader: Advanced degree in economics, statistics, agricultural economics or related field. At least five years relevant experiences in conducting impact evaluations, large quantitative survey implementation and analysis, experience in household and agricultural data collection and analysis required, ability to coordinate teams and ensure timely reporting. The study coordinator/Team Leader will be in charge of coordinating the planning, implementation of the studies and ensuring that the work is conducted following the highest professional standards. The individual will be in charge of ensuring that the quality control and supervision mechanism in place for the survey is effective, manage the data collection team and ensure that each member performs their specific scope of work.

- One expert in survey implementation and field supervision: Minimum five years' experience with large survey implementation, experience in implementing household and agricultural surveys required. Preferably with previous experiences in conducting surveys in [country].
- One socio-economic researcher: Advanced degree in economics, agricultural economics or related fields, at least five years' experience in analysing survey data using STATA or equivalent software. Strong background and experience in statistics and econometrics is required. Ability to write clearly and concisely in English. Previous experience in impact evaluation is preferred.
- One computer specialist in data entry and data bases: Minimum experience of three years with large survey data sets and data entry software required. The data specialist will develop appropriate data management system with adequate quality controls and finalize the data management system before the data collection team moves to the field. The data management system would also be organized in such a way as to deliver partial datasets on a regular basis to the Project Team. Minimum key support staff positions (recommended):
- Field supervisors: Minimum of 2-3 field supervisors should be hired (best ratio would be 1 supervisor every 4 enumerators). They should be chosen based on the firm's best practices. Some degree of knowledge of local languages is expected at least from a sufficient number of the supervisors. At least two years' experience in conducting or managing household surveys is required.
- Survey enumerators: Minimum of 8-10 enumerators should be hired. Minimum qualifications include knowledge of local language. Preference should be given to candidates with experience in quantitative data collection in rural [country], namely, on the themes of the questionnaire.
- Data entry technicians: Minimum qualifications include knowledge of local language and advanced computer skills. Preference should be given to candidates with experience in quantitative data entry and/or previous experience in survey work.

7. ADMINISTRATIVE AND OTHER ASPECTS

This section presents administrative and other aspects concerning the bidding process. The elements presented below are only indicative and might be changed or adapted; the procurement process may vary based on country-specific procurement rules. Some elements might also be added.

7.1. Proposal content. Interested consulting companies should submit their applications consisting of the following documents/information to demonstrate their qualifications:

- Technical Proposal will include: the profile of the company, relevant experience for the assignments, staffing (CV of each team member), proposed methodology to perform the assessment, the size of the sample to be analyzed, the work plan and schedule (activities) and resources (including number of person-day).
- Financial proposal will obligatorily include the consulting fee and operational expenditures related to the assignment. The survey company will provide a break-down of the budget by the activities mentioned in the Activities section above. 83 Indicative example of technical evaluation criteria10: Required criteria (Pass or Fail): - Firm has at least 5 years of experience in conducting surveys - Firm has conducted minimum 3 data collection surveys in the past 5 years Evaluation criteria (Weighed Evaluation): - Company's experience and expertise in evaluation surveys: The firm/consortium has robust expertise and previous experience

evaluating rural development projects based on households surveys and data. - Understanding of the requirements and responsiveness of the proposal: The firm understands the requirements of the exercise and fulfills expectations in terms of both the proposed methodology and the adequacy of the means proposed to deliver the expected services. - Company has experience with data collection and management (using electronic) - Local experience doing household survey work and carrying out evaluations in [country].

7.2. Conditions for offer's submission. To be considered interested companies should submit their proposal (technical and financial offer) in original and a copy in separate sealed envelopes. Each envelope will consist of the technical and financial offer sealed in separate envelopes as well (a total of 2 envelopes, each with 2 envelopes inside).

7.3. Selection Process. The consulting company will be selected in accordance with [country´s procurement procedures in effect for the Project]. The final score obtained by each firm being composed of [X %] of the score for the parameter "Quality" (evaluated based on technical bid) and [(100-X) %] - score obtained for the parameter "Cost" (established based on financial bid). The financial offer will be opened only if the provided technical offer will pass the minimum technical score of [xx] points.

7.4. Budget and mode of payment. Budget should cover all costs for remuneration of experts/staff including their travel and miscellaneous cost. If the applicant is a firm or a company, Value-added tax certificate is a must. Prevailing national rules will be applied for tax purpose. According to the estimated timeframe and schedule of execution, payments for the services provided will be made, after the products/deliverables are submitted timely and cleared by the PROJECT TEAM and IFAD. A table presenting the payment schedule and conditions according to the delivery of the products might be included.

7.5. Future Use of the Data. The clean dataset as well as the resulting reports will be property of the Project Team and IFAD. The example provided here should not be included in the TORs but provides example of technical evaluation criteria for the assessment of the firms 'proposal resulting from the TORs procurement process.

ANNEXES of the TORs: The ToRs should also include the following annexes:

1. **Detailed targeting strategy.** This technical annex details the project´s eligibility/selection criteria of the eligible or target beneficiaries' population. Eligibility and beneficiaries' selection procedures should be described since they help determine the strategy for the selection of appropriate treatment and comparison groups. See STEP 2 of the COI measurement guidelines for further details.

2. **Logframe**

3. **Theory of Change (ToC).** The ToC highlights how project activities (inputs) lead to/are linked to results (outputs and outcomes) and impacts. It is necessary to make explicit the assumptions behind those links, and the possible impact pathways. The relationship between projects activities and results, will need to be described in detail and will help identifying intermediate indicators to be collected as part of the baseline survey. Intermediate outcomes are the direct changes that are generated by the project intervention, and that as shown in the theory of change, will lead to projects impacts. It is also important to single out the indirect changes or unexpected changes that the project will produce and that will ultimately have an impact on the projects results (impacts). The logframe indicators will serve as a basis for the assessment by project component.

4. **Project´s data:** This technical annex presents the main data regarding the characteristics of the project area and the population: list of considered administrative/geographical units (provinces, municipalities or communities, etc.) with respective population, incidence of poverty, farm´s productive orientation, etc. Electronic dataset should also be provided in addition to the tables presented in this annex.

5. **Draft questionnaire:** This appendix presents the mandatory questions to be included in the final questionnaire based on the CIs (and PSIs/Impact if included) indicators identified in the logframe. See STEP 4 of the COI measurement guidelines for further details.

IFAD
Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Annex 10: Integrated Project Risk Matrix

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
Report No.	7326-BW

East and Southern Africa Division
Programme Management Department

Overall Summary

Risk Category / Subcategory	Inherent risk	Residual risk
Country Context	**Substantial**	**Substantial**
Political Commitment	*Low*	*Low*
Governance	*Substantial*	*Substantial*
Macroeconomic	*Substantial*	*Substantial*
Fragility and Security	*Substantial*	*Substantial*
Sector Strategies and Policies	**Moderate**	**Moderate**
Policy alignment	*Low*	*Low*
Policy Development and Implementation	*Moderate*	*Moderate*
Environment and Climate Context	**Substantial**	**Substantial**
Project vulnerability to environmental conditions	*Substantial*	*Substantial*
Project vulnerability to climate change impacts	*Substantial*	*Substantial*
Project Scope	**Substantial**	**Substantial**
Project Relevance	*Substantial*	*Substantial*
Technical Soundness	*Moderate*	*Moderate*
Institutional Capacity for Implementation and Sustainability	**Substantial**	**Substantial**
Implementation Arrangements	*Substantial*	*Substantial*
Monitoring and Evaluation Arrangements	*Substantial*	*Substantial*
Project Financial Management	**Moderate**	**Moderate**
Project Organization and Staffing	*Moderate*	*Moderate*
Project Budgeting	*Moderate*	*Moderate*
Project Funds Flow/Disbursement Arrangements	*Moderate*	*Moderate*
Project Internal Controls	*Moderate*	*Moderate*
Project Accounting and Financial Reporting	*Moderate*	*Moderate*
Project External Audit	*Moderate*	*Moderate*
Project Procurement	**Moderate**	**Moderate**
B.1 Assessment of Project Complexity	*Moderate*	*Moderate*
B.2 Assesment of Implementing Agency Capacity	*Moderate*	*Moderate*
Project Procurement Overall	*Moderate*	*Moderate*
A.1 Legal, Regulatory and Policy Framework	*Moderate*	*Moderate*
A.2 Institutional Framework and Management Capacity	*Moderate*	*Moderate*
A.4 Accountability, Integrity and Transparency of the Public Procurement System	*Moderate*	*Moderate*
A.3 Public Procurement Operations and Market Practices.	*Moderate*	*Moderate*
Environment, Social and Climate Impact	**Substantial**	**Substantial**
Biodiversity Conservation	*Moderate*	*Moderate*
Resource Efficiency and Pollution Prevention	*Substantial*	*Substantial*
Cultural Heritage	*Low*	*Low*
Indigenous People	*Low*	*Low*
Labour and Working Conditions	*Moderate*	*Moderate*
Community health, safety and security	*Moderate*	*Moderate*

Risk Category / Subcategory	Inherent risk	Residual risk
Physical and Economic Resettlement	*Low*	*Low*
Financial intermediaries and direct investments	*Moderate*	*Moderate*
Climate change	*Substantial*	*Substantial*
Stakeholders	**Substantial**	**Substantial**
Stakeholder Engagement/Coordination	*Substantial*	*Substantial*
Stakeholder Grievances	*Substantial*	*Substantial*
Overall	**Substantial**	**Substantial**

Country Context	**Substantial**	**Substantial**
Political Commitment	***Low***	***Low***
Risk: Botswana's enduring political stability, transparent institutions, and effective corruption control remain key national assets. In 2024, the country experienced a peaceful transition of power as the opposition coalition, the Umbrella for Democratic Change (UDC), won the general elections—ending the Botswana Democratic Party's (BDP) 58-year rule since independence. While the shift may bring changes in government priorities, agriculture remains central, particularly in driving commercialization and economic diversification. To reduce reliance on diamonds and beef, the Government of Botswana views BoLCoP as a catalyst for inclusive growth by unlocking the potential of the small livestock sector. The government has demonstrated strong commitment to co-financing BoLCoP and is working closely with IFAD on key arrangements, including establishing a pre-Project PMCU and groundwork to enable implementation by Q1 2026.	Low	Low
Mitigations: The design of BoLCoP was initiated at the request of the Government of Botswana (GoB). To mitigate the risk of the Financing Agreement not being signed, IFAD Botswana and mission members have maintained continuous engagement with government counterparts from the outset. Regular updates were shared on progress, including outcomes from the previous Reimbursement Technical Assistance (RTA) for the Lobu Smart Farm Initiative. IFAD's technical expertise has been well received, and the design process has involved extensive consultations, including a Stakeholder Validation Workshop and farm visits alongside government focal points. A comprehensive feedback report was produced to guide Project refinement. This consultative approach will continue to ensure strong government ownership, alignment with national priorities, and support for climate finance mobilization and private sector engagement. IFAD has also proposed the formation of an inter-ministerial reference group, led by the Ministry of Lands and Agriculture, to further strengthen ownership and policy coherence.		
Governance	***Substantial***	***Substantial***
Risk: In 2024, the Transparency International's Country Corruption Perception Index (CPI) assessed Botswana at the moderate level of risk with a score of 57, ranking 43 out of 180 countries. According to the 2023 World Bank's Good Governance Indicator, Botswana is scored 62.75 percentile rank for Voice and Accountability; 87.2 for Political Stability and Absence of Violence/Terrorism; 66.98 for Government Effectiveness and Regulatory Quality; 61.32 for Rule of Law; and 73.58 for Control of Corruption, all of which points to the fact that Botswana has a reputation for strong, sound governance, with particular institutional strength in political stability and anti-corruption. There is room for further improvement given the CPI was rated as 65 in 2012.	Substantial	Substantial

Mitigations: GoB has dedicated increasing efforts to preventing corruption and strengthening governance across sectors. The Directorate on Corruption and Economic Crime (DCEC), established under the Corruption and Economic Crime Act (CECA) of 1994, plays a central role in investigating corruption and economic crimes within public institutions, including through regular audit processes. In a further effort to enhance transparency, the GoB launched a Forensic Audit Initiative requiring in-depth audits of 30 state-owned enterprises (SOEs) to detect and prevent misappropriation of public resources. To promote accountability and efficiency in service delivery, Botswana's Decentralization Policy and Vision 2036 prioritize inclusive governance and poverty reduction through enhanced public sector performance. In this context, BoLCoP will contribute to improving governance in the small livestock sector by supporting the review and implementation of national policies and strategies, and establishment of Management Information System (MIS) while addressing regulatory gaps in small livestock quality, grading, and certification standards. BoLCoP will engage the Smallstock Industry Federation of Botswana (SIFB) to identify and address sector gaps, collaborating with key bodies such as the Meat Industry Regulatory Authority (MIRA) and the Botswana Bureau of Standards (BOBS) to develop and enforce standards, including food safety protocols (HACCP). Additionally, BoLCoP will partner with the Botswana Meat Commission, the Botswana Agricultural Marketing Board, and the Department of Animal Health and Production to strengthen small livestock operations. To promote inclusive governance in the sector and strengthen market transparency, the Ministry of Lands and Agriculture (MoLA), in collaboration with IFAD, will convene a consultative workshop with key stakeholders in the small livestock sector. The workshop will bring together suppliers and buyers to discuss pricing structures and explore differentiated pricing models based on production systems (e.g., open grazing, feedlot, etc.). Through this inclusive and consultative approach, BoLCoP will promote transparent governance, enhance coordination, fair systems and ensure shared ownership of the sector's development.		
Macroeconomic	***Substantial***	***Substantial***
Risk: According to the IMF's 2024 Article IV Consultation, Botswana's economic growth slowed to 1% in 2024, primarily due to weakened diamond demand and production. The World Bank projects a fiscal deficit of 9% of GDP for FY2024, driven by declining mineral revenues and rising capital spending. The Government of Botswana has announced an annual depreciation of the Pula, set at 2.6 per cent. Although public debt remains relatively low at 27.4% of GDP, government savings have notably declined over the past decade. Yet, its reliance on public revenues and the extractive sector makes it highly vulnerable to external shocks. These shocks have aggravated domestic fiscal pressures, particularly in light of rising costs for fertilizers, feed imports, veterinary supplies, agricultural equipment, and fuel, all of which have placed added pressure on farmers and disrupted supply chains. While some parts of Botswana's small livestock sector have been less affected by inflationary impacts—due to traditional, grass-fed grazing and browsing systems—the sector is not insulated. Rising costs still pose challenges, especially as access to feed, vaccines, and veterinary inputs remains essential to improving the productivity and quality of the small livestock value chains. These dynamics underscore the urgent need to strengthen resilience of rural livelihoods and promote a more diversified and shock-resistant agricultural economy.	Substantial	Substantial

Mitigations: Botswana aspires to transition into a high-income, knowledge-based economy, as outlined in Vision 2036 and the forthcoming National Transformation Plan 12 (NTP 12), which prioritizes economic diversification, inclusive growth, and commercialisation of agriculture. Achieving these ambitions requires robust reforms in revenue mobilization, public expenditure efficiency, and debt management to create fiscal space for increased investment in priority social sectors and productive areas. Reducing dependence on mineral revenues and enhancing resilience to external shocks is essential. Within this framework, BoLCoP will contribute by promoting sustainable rural financing mechanisms—including public-private partnerships—to unlock investment in the small livestock sector and support the development of agribusinesses and micro, small, and medium-sized enterprises (MSMEs). The Project will support commercialisation pathways, especially for smallholder farmers, and strengthen value chains to boost productivity, market access, export and rural incomes through the engagement of the private sector. Social inclusion aspect will be considered extensively with a priority on vulnerable groups such as women and youth, addressing the triple challenge of inequality, poverty and unemployment. These efforts align with NTP 12's emphasis on commercialising agriculture and building an inclusive, and diversified economy resilient to external shocks.		
Fragility and Security	***Substantial***	***Substantial***
Risk: Botswana faces a range of risks that threaten its stability, including its heavy reliance on diamond mining and growing environmental challenges like droughts, floods, and water shortages, all exacerbated by climate change. These climate-related issues threaten food security and economic stability, with an estimated 54.8% of the population experiencing moderate to severe food insecurity. Despite being classified as an upper-middle-income country, Botswana remains economically vulnerable, with 64% of its population living on less than US$6.85 per day, an unemployment rate of 27.6%, and youth unemployment at a concerning 45.6%. The Gini Index of 53.3 indicates significant income inequality. Social disparities, especially in rural areas, worsen fragility, as marginalized groups—such as women, youth, and small-scale farmers—have limited access to resources and opportunities. Issues like livestock theft and gender-based violence further disrupt small livestock farming, a sector that is predominantly managed by women, further exacerbating their vulnerabilities and hindering their economic empowerment and livelihood stability. External shocks, such as volatile global commodity prices and regional instability, add to the country's fragility. Additionally, Botswana's status as an upper-middle-income country reduces its access to grants while increasing the costs associated with certifications and registration for regional trade, which further weakens its resilience and heightens the risk of social unrest.	Substantial	Substantial

Mitigations: Targeted strategies will be designed to strengthen the livelihoods of disadvantaged rural populations, including small livestock and subsistence farmers, poor households, youth, women, and women-headed households. Special focus will be placed on people with disabilities, unemployed youth, and women, who often lack access to productive resources, fostering greater social inclusion. Gender-based violence and farm-level insecurity will be addressed through community engagement, training, and sensitization, along with the principles of IFAD's Gender Action Learning System (GALS), which promotes women's empowerment by engaging both men and women as co-planners and decision-makers. BoLCoP will enhance farmers' capacity by tackling production and productivity challenges, ensuring sustained access to quality feed, veterinary supplies, animal health services, and climate-smart management practices. Farmers' associations and cooperatives will be strengthened and capacitated, allowing farmers to work collectively to influence market prices and consolidate products. The value chain will be strengthened through improved market access, better infrastructure (such as aggregation centres and marketing facilities), enhanced financial services, and stronger connections between farmers, MSMEs, and commercial farms. Additionally, BoLCoP will strengthen the resilience of rural people by providing farmers with climate-smart technologies, essential livestock inputs, and access to timely market and weather information to better adapt to external shocks including climate change.		
Sector Strategies and Policies	**Moderate**	**Moderate**
Policy alignment	***Low***	***Low***
Risk: Risk: The policy environment for small livestock development in Botswana is favourable and aligned with national priorities for economic diversification, food security, and inclusive rural development set under the National Transformation Plan 12 (NTP 12). Small livestock farming, particularly goat and sheep production, has been prioritised due to its adaptability to Botswana's semi-arid climate and its potential to uplift vulnerable groups, especially women and youth in rural communities. The National Transformation Strategy (NTS) and Vision 2036 emphasise the transformation of agriculture from subsistence-based to a modern, competitive, and market-driven sector. Within this framework, small livestock development is being promoted through commercialisation, improved productivity, and full integration into formal value chains. This includes breeding programmes, veterinary support, access to affordable finance – especially for the subsistence farmers (micro-scale) and the semi-commercial farmers (small-scale), and infrastructure investment such as improved abattoirs, feedlots, and cold storage facilities. Notably, a multi-species abattoir in Tsabong is set to operate, specialising in small livestock, in partnership with the Botswana Meat Commission. The National Agricultural Investment Plan (NAIP) further supports small livestock commercialisation through targeted support for farmer cooperatives, public-private partnerships, and increased access to domestic and export markets. Financial institutions such as the National Development Bank (NDB) have been supporting the implementation Government's flagship initiative such as Temo Letlotlo that provides loans and input subsidies for enhanced productivity and food security. NDB has also been supporting campaigns like Feed the Nation, encouraging youth and women to invest in small livestock farming and engage in value-added activities like meat processing, leather production, and packaged meat sales. In terms of youth entrepreneurship and MSME development in the agricultural space, the Citizen Entrepreneurial Development Agency administers loans, while the Local Enterprise Authority provides business development and training services. The Youth Development Fund (YDF) is administered by the Ministry of Youth and Gender Affairs (MoYGA). Despite such policy support, work needs to be done in terms of setting small livestock nutrition and health safety standards, value addition, marketing, and branding, given that much of the policy centres on beef. Food safety standards such as HACCP and certification traceability systems, and the capacity of farmers, should be strengthened to address compliance.	Low	Low

Mitigations: To address gaps in policy implementation and monitoring and evaluation, BoLCoP will support strengthening its multi-ministerial coordination system and establishing an MIS to gather agriculture-related data across relevant line ministries. IFAD has requested the Ministry of Lands and Agriculture (MoLA) to take the lead in forming an interministerial reference group for Project design and will collaborate closely to ensure effective stakeholder consultation and engagement. Through BoLCoP, IFAD will support the government's policies and strategies, including reviewing and aiding the implementation of the National Breeding Plan. Additionally, IFAD will assist in the development of the national small livestock investment strategy, focusing on all targeted value chains, including marketing, branding, and value addition. In addressing gaps in the regulatory framework affecting market access, IFAD will work with GoB to reinforce small livestock nutrition and health systems, certification and traceability standards, ensuring compliance with food safety, quality, and grading requirements. This will involve collaboration with the Meat Industry Regulatory Authority (MIRA) and the Botswana Bureau of Standards (BBS) to ensure industry-wide compliance. At the grassroots level, recognizing the fragmented nature of farmer organizations in Botswana, IFAD will partner with the SIFB to provide training and capacity building to farmers, encouraging them to work collectively to produce and supply bulk products and influence market prices. Further, collaboration with the MoLA's Department of Animal Health and Production, Department of Veterinary Services, and the Botswana Agricultural Marketing Board will ensure farmers have better access to essential veterinary services and livestock inputs. This integrated approach will help address existing gaps and support the growth and sustainability of Botswana's small livestock sector.		
Policy Development and Implementation	***Moderate***	***Moderate***
Risk: During the stakeholder validation workshop held as part of the Concept Note Design Mission, the team identified several critical areas where IFAD engagement with the GoB is required to strengthen policy development, review, and implementation. It was highlighted that policies inclusive of the small livestock sector and BoLCoP's target groups—particularly smallholder farmers, youth, and women—need to be developed or refined to ensure equitable participation in agricultural value chains. Key policy gaps were noted in areas such as financial and land access, regulations and strategic plans focused on small livestock production, marketing and branding, as well as standards and services related to animal health, nutrition, traceability, and certification. During the Project Design Mission, the IFAD team engaged with smallholders and small- to medium-scale farmers. Almost all the farmers consulted (particularly women and youth) identified limited access to land and water as key challenges. In particular, lack of secure land ownership restricts their ability to drill boreholes and also makes them ineligible for existing youth grants, which require land. In a meeting with the Land Board, the team was informed of ongoing land redistribution efforts, though currently only one-third of the redistributed land is being utilised. The discussions also highlighted the need to decentralize land application processes, as district offices must still travel to the Central Office for application review, creating delays and inefficiencies. Additional concerns raised throughout the stakeholder engagement process include farm-level insecurities, such as livestock theft, gender-based violence (GBV) and high youth unemployment, underscoring the need for collaborative efforts with the MoYGA and the Ministry of Local Government and Traditional Affairs (MoLGTA). These partnerships are essential for the development of targeted policy documents, including youth-in-agriculture strategies, extension service guidelines, and grievance redress mechanisms (GRM). Despite the availability of numerous evidence-based policy and research documents, there are persistent gaps in information dissemination and uptake at the farmer level. This highlights the urgent need for robust knowledge management, extension and outreach systems, and strengthened monitoring and evaluation (M&E) frameworks to ensure that policies translate into tangible benefits for farmers on the ground.	Moderate	Moderate

Mitigations: To mitigate the risks associated with policy development and implementation in Botswana's small livestock sector, IFAD will support the formulation and review of targeted sector strategies, an investment plan, and regulatory frameworks. These will include provisions for grading systems, food safety, environmental sustainability on farms, quality standards, and certification protocols. In addition, IFAD will assist in refining the official definition of smallholder farmers to enhance the targeting and effectiveness of policies and programs. In response to fragmented data systems and limited interministerial coordination, IFAD will support the development of a comprehensive ICT strategy and digital roadmap tailored for the small livestock sector. This will include the design of a harmonised MIS that aggregates and streamlines small livestock-related data across key ministries. Improved data management will support evidence-based decision-making, facilitate performance monitoring, and enhance policy coherence across the agriculture sector. Given the concerns raised during stakeholder consultations regarding women's safety and livestock theft at the farm level, IFAD will work with local authorities and communities to promote community-based livestock theft prevention models. In parallel, a Gender-Based Violence (GBV) Prevention Plan will be developed to address the risks faced by women involved in small livestock production. Additionally, a Grievance Redress Mechanism (GRM) will be designed to help farmers—especially vulnerable groups—seek redress for losses and damages arising from climate shocks and other external disruptions. To further support equitable access to productive resources, IFAD will collaborate with relevant line ministries to review the Land Use Policy, focusing on increasing access to land for youth, women, and emerging farmers. The issue of idle or underutilized agricultural land will be addressed through policy intervention and incentive structures to encourage more efficient land use and investment. Lastly, to ensure alignment with national priorities and institutional sustainability, IFAD will work closely with the Government of Botswana to integrate BoLCoP into the national budget cycle and existing government initiatives, such as Thuo Letlotlo and the National Development Plan 12 (NDP 12). This will enhance Project complementarity, promote coherence with ongoing programs, and support long-term government ownership and policy continuity.		
Environment and Climate Context	**Substantial**	**Substantial**
Project vulnerability to environmental conditions	***Substantial***	***Substantial***
Risk: The key environmental and climate challenges facing the Project include increasing climate variability, characterized by erratic rainfall and a higher frequency of extreme weather events such as droughts, floods, and heatwaves. These impacts are felt most acutely by vulnerable groups—including women, who are often responsible for managing small livestock and securing water, fodder, and fuel for their households. Land degradation, driven by overgrazing, continues to threaten pasture quality and long-term agricultural productivity. Poor manure management is a significant concern, contributing to elevated greenhouse gas emissions—particularly methane and nitrous oxide—and posing risks to both soil and water quality when not properly handled. In rural areas, the heavy reliance on biomass for fuel contributes to deforestation, accelerating land degradation and increasing the risk of desertification. Invasive species and bush encroachment further compound the problem by reducing available grazing land, depleting soil nutrients, increasing erosion, and diminishing biodiversity. These environmental pressures collectively undermine the productivity and resilience of small livestock farmers.	Substantial	Substantial

Mitigations: BoLCoP tackles environmental risks and vulnerabilities by incorporating climate-smart production and management practices, establishment of climate-resilient infrastructure, improved water management, early warning systems and capacity building including manure and rangeland management. These interventions will be designed to ensure the full participation of women, youth, and other marginalized groups, recognizing their critical roles in small livestock production and natural resource management. The Project prioritizes sustainable land management, reducing grazing pressure through improved breeding, livestock health, and feeding practices, alongside the introduction of drought-tolerant and multi-purpose crops and fodder, with support from national research institutions. Key actions include climate-resilient infrastructure, precision irrigation for efficient water use, and renewable energy solutions like biogas and solar power at the farm and value chain levels. Women-headed households and female farmers—who often have limited access to energy and technology—will be specifically targeted to ensure equitable access and benefits from these innovations. Community-level reforestation and bush clearing, especially replanting indigenous grass species, will enhance soil fertility, reduce erosion, and boost biodiversity, contributing to carbon sequestration and reducing greenhouse gas emissions. Finally, providing farmers with access to early warning systems for extreme weather events, including timely weather updates and insurance options, will strengthen their resilience to climate change. The capacity building targeted at the smallholders will include climate smart agriculture techniques that also ensure environmental sustainability such as indigenous seed harvesting, integrated soil fertility management and diversified fodder cropping systems. Training will be delivered in formats and languages that are inclusive and responsive to the needs of women and other vulnerable groups, including considerations for time constraints and caregiving responsibilities. Environmental Management Plans (EMPs) will be developed for the infrastructure sites articulating mitigation measures that account for differentiated environmental impacts on women and men. In addition, water use efficiency will be promoted in the in the sector and rainwater harvesting will be promoted, with specific efforts to ensure that women—who are often responsible for water collection—benefit from reduced labor burdens and improved water access. Environmental and Natural Resource Management (ENRM) in general will be promoted in the rangelands, ensuring the engagement of both women and men in resource planning and governance.		
Project vulnerability to climate change impacts	***Substantial***	***Substantial***
Risk: Botswana ranks 86th on the ND-GAIN Index with an overall score of 50, placing it in the quadrant of countries with high vulnerability but relatively high readiness to adapt to climate change. While Botswana has made progress in building institutional capacity and policy frameworks, it remains significantly exposed to climate risks. The country is particularly vulnerable to prolonged droughts, erratic rainfall, and rising temperatures—factors that directly impact water availability, rangeland health, and agricultural productivity, especially in the small livestock sector, which is critical for rural livelihoods. Prolonged droughts have occurred in the recent past leading to livestock and crop losses and negatively impacting agricultural dependent livelihoods. Water stress will also increase as a result of climate change as well as incidence of pests and diseases. These climate-related challenges have a disproportionate impact on women, who play a central role in small livestock farming and are often responsible for securing water, fodder, and fuel for their households. Notably, Botswana scores among the lowest on the ND-GAIN Vulnerability sub-index in areas such as dam capacity and disaster preparedness, underscoring the urgent need for investment in climate-resilient infrastructure and comprehensive disaster risk management.	Substantial	Substantial

Mitigations: The climate change shifts in Botswana underscore the urgent need for climate-resilient infrastructure, improved water management, water harvesting and early warning systems. Climate change adaptation measures will be promoted through the climate smart agriculture approaches that are inclusive of both women and men, ensuring that gender-specific barriers and needs are addressed in all interventions Capacity building of the smallholders will also include measures such as integrated pest management and conservation agriculture techniques, with a focus on ensuring equitable access to training and resources for women, youth, and other marginalized groups who are often excluded from agricultural extension services The infrastructure rehabilitated or developed under BoLCoP will be climate resilient to improve water use efficiency and harvest rainwater for productive use. The climate risks will be mitigated by increasing the ability of the affected communities to adapt to environmental and economic variability, and long-term changes. As per IFAD requirements, a detailed desk-based Climate Risk Analysis will be undertaken during the pre-implementation, including details of mitigating actions. Some of the climate smart technologies to be promoted include a) rainwater harvesting; b) drought tolerant and early maturing fodder crop varieties; c) drought tolerant forage and agroforestry fodder species; d) watershed conservation and management; e) afforestation; and f) solar and other forms of renewable energy sources, and energy saving approaches etc.		
Project Scope	**Substantial**	**Substantial**
Project Relevance	***Substantial***	***Substantial***
Risk: Risk: The primary risk to BoLCoP's relevance lies in the inherent volatility of the small livestock value chain in Botswana. External factors such as climate variability, shifts in trade and export opportunities (often influenced by regional and global geopolitical developments) and major infrastructure investments can rapidly alter supply and demand dynamics. These factors may disproportionately affect women, who tend to have less access to resources, markets, and decision-making power within the value chain. In addition, the lack of quality standards, certification systems, and compliance mechanisms poses a significant challenge to maintaining competitiveness in domestic and export markets. These evolving conditions require BoLCoP to remain flexible and responsive, adapting its support strategies in a timely manner to align with emerging sectoral needs. Another key risk is the targeting of beneficiaries. While BoLCoP is designed to prioritise vulnerable smallholder farmers, Botswana's small livestock sector also includes larger commercial producers, some of whom fall outside IFAD's core target group. Without a refined and gender-responsive targeting strategy, there is a risk of elite capture, where better-resourced producers- who may be predominantly male - benefit disproportionately from concessional Project support.	Substantial	Substantial

Mitigations: To mitigate the risks associated with the market dynamics, BoLCoP will adopt a market-responsive and adaptive programming approach. This includes establishing strong market information systems and conducting regular value chain and market assessments to monitor trends in production, prices, and consumer preferences both locally and regionally. These assessments will inform adjustments in Project interventions, allowing for timely and accessible support, particularly for women smallholders who may face more barriers to accessing market information and resources. To further stabilise supply, the Project will promote climate-resilient small livestock production systems and strengthen farmer resilience through improved access to climate-smart inputs, veterinary services, and feed. Support will also be provided to increase smallholders' productivity and compliance to quality standards through training, certification, and access to improved breeds. Gender-sensitive approaches in training and the provision of inputs will be employed to ensure that women are equally equipped to take advantage of these opportunities. On the demand side, BoLCoP will engage with private sector actors, including aggregators, traders, processors, and exporters, to create sustained demand for small livestock products and build stronger market linkages. Additionally, the Project will prioritise the strengthening of farmer associations and cooperatives to improve aggregation, quality control, and market readiness. Small livestock farmers organisations, including those led by women and youth, will play a key role in supplying their products to the newly established multi-species abattoir in Tsabong, ensuring that there are sufficient and consistent outputs to support its operations and long-term viability. BoLCoP will also support the development of contractual arrangements with buyers to create predictable demand and reduce market uncertainty across the value chain. To minimise any risk of elite capture, the Project will adopt a robust gender-responsive targeting strategy and details on how it should be implemented in the project implementation manual. The targeting strategy will include a description of the target groups and eligibility criteria and will include specific measures to ensure that women, youth, and other marginalized groups, such as people with disabilities, are prioritized and benefit equitably from the Project. Beneficiary selection results will be presented through the traditional and local governance structures in each location with the presence of parties to be identified at project design that can attest to the compliance between target groups and actual beneficiaries selected. Community members in target locations will be informed on the need to denounce any occurrences against these principles through the Project´s GRM. Additional measures to be explored at project design include the engagement of reputable organizations defending rural women's and youth's rights as well as organizations of PWDs to obtain information on the quality of targeting through their constituents.		
Technical Soundness	***Moderate***	***Moderate***
Risk: The design of BoLCoP spans a broad set of multidisciplinary and interlinked areas, reflecting the multiple challenges faced across all levels of the small livestock value chain in Botswana, including production and productivity, input and service delivery, access to affordable finance – especially for the subsistence farmers (micro-scale) and the semi-commercial farmers (small-scale), market linkages, low adaptation to climate change, and policy and institutional gaps. In the absence of major development partners working comprehensively in the small livestock sector compared to the cattle/beef sector, BoLCoP is required to address these bottlenecks in a harmonised and integrated manner to ensure the Project delivers in the development, investment and full operationalisation of the sector. This integrated approach results in a moderate level of complexity in the Project design, which is, however, typical for value chain development interventions. While the number of components is limited to two, the scope of activities particularly under Component 2, which addresses both market access and access to affordable finance – especially for the subsistence farmers (micro-scale) and the semi-commercial farmers (small-scale), may result in a relatively high number of outputs and sub-activities. Strong coordination, Project management and monitoring under Component 3 will be essential to ensure smooth implementation, addressing policy and regulatory gaps.	Moderate	Moderate

Mitigations: To address the moderate complexity of BoLCoP's design, the Project will adopt a streamlined implementation strategy, maintaining a limited number of components while ensuring clear, phased sequencing of activities. This approach will prioritise strengthening foundational elements—such as production systems, farmer organisations, and animal health services—through targeted training, capacity building, and sensitisation efforts before progressing to market access and financial inclusion interventions. Additionally, a phased geographic rollout will be employed, starting in selected areas and gradually scaling up to national coverage. A dedicated Project Management Office (PMO) staffed with qualified, full-time personnel will be established ahead of implementation to support early planning and effective Project preparation. To ensure robust cross-sectoral technical coordination, policy alignment and policy dialogue, an interministerial reference group will be formed among relevant ministries and stakeholders.		
Institutional Capacity for Implementation and Sustainability	**Substantial**	**Substantial**
Implementation Arrangements	***Substantial***	***Substantial***
Risk: IFAD's last Project in Botswana—the Agricultural Services Support Project (ASSP)—was implemented between 2012 and 2018, marking a 13-year gap before re-engagement through BoLCoP. According to the ASSP evaluation by IFAD's Independent Office of Evaluation (IOE), the Government of Botswana's performance in Project management and coordination was rated as moderately unsatisfactory. Inadequate staffing was found during the midterm review, where significant Project Management Team (PMT) positions had not been filled or were occupied on a part-time basis. Most staff were seconded from line ministries and continued to carry out their original responsibilities alongside Project duties. Compounding these challenges, the Project manager role changed three times before the midterm review, significantly disrupting implementation progress. The lack of dedicated and fully capacitated staff led to delays in following up on mission recommendations and executing activities effectively. Moreover, the recruitment of Project personnel through open-market procurement was time-consuming, further delaying the establishment of a fully functional PMT. Notably, the M&E officer was only appointed during the final three years of the Project. These lessons underscore the importance of early recruitment of Project staff through open-market processes, avoiding dual responsibilities for seconded government staff, and ensuring the early onboarding and training of the PMO. This will allow the team to have sufficient time to internalize Project objectives and prepare for timely and effective implementation.	Substantial	Substantial
Mitigations: To enhance PMO capacity and ensure its early formation, IFAD has engaged with the GoB to establish an interministerial reference group for the Project design phase. Multiple meetings with key staff from the MoLA, including those responsible for procurement, HR, and M&E, have been held to ensure early planning. The issue of PMO capacity and full staffing will be addressed through proactive collaboration between IFAD and MoLA, where both parties have agreed to recruit PMO staff on a competitive basis. While some staff may be seconded by the GoB, IFAD will request that these staff members commit fully to the Project, ensuring they do not face dual responsibilities, which could hinder effective Project management and execution. By recruiting PMO staff well before implementation, IFAD and GoB aim to provide sufficient time for the team to internalise the Project 's objectives and prepare essential documents such as the M&E logframe, annual workplans and budget (AWPB) and procurement plan. This will allow PMO to implement operational activities in a timely manner, helping to fast-track and improve Project implementation. Clear ToRs, accountability frameworks, and performance monitoring systems will be put in place to ensure timely execution and continuous learning.		
Monitoring and Evaluation Arrangements	***Substantial***	***Substantial***

Risk: Since 2022, IFAD has supported the small ruminant sector by providing Reimbursable Technical Assistance (RTA) to the GoB's Lobu Smart Farm Transformation Initiative. With funding from the United Nations Economic Commission for Africa (UNECA), IFAD also supported the establishment of a semi-automated animal health monitoring system. Prior to the RTA, IFAD supported the GoB through the ASSP from 2012 to 2018. An evaluation of the ASSP found that the Project 's M&E system was largely non-existent, with poor data quality and limited availability—even at the output level. There was no outcome-level data collection, and no baseline survey was conducted. In addition to the absence of a robust M&E system, the quality of Project data was compromised due to a lack of mechanisms to verify field-level data provided by farmers and extension officers. M&E was treated as a low priority, and the M&E officer position was only filled in the last three years of the Project. Moreover, there was no end-of-Project survey conducted to assess Project impacts. During the Concept Note Design Mission for BoLCoP, the IFAD team observed the continued absence of a harmonised MIS across relevant line ministries. Data collection remains fragmented, with no unified indicators, underscoring the need for an interministerial system that supports evidence-based planning and decision-making. Issues such as the sampling of overlapping populations were also raised, pointing to the need for staff training in defining, monitoring, and evaluating output and outcome-level activities.	Substantial	Substantial
Mitigations: BoLCoP's M&E system will integrate both IFAD's core outcome indicators and Project -specific output indicators, with gender-disaggregated data collected and analyzed to monitor the differential impacts of project activities on women, youth and other marginalized groups A dedicated M&E officer will be recruited within the Project Management Office (PMO) prior to implementation and will be responsible for developing the Project logframe and establishing an Excel-based results management system to regularly update and track data, ensuring alignment with IFAD's Operational Results Management System (ORMS). IFAD will provide extensive support to train the M&E officer in developing a reliable data verification framework and will also support the training of farmers and extension officers in using digital tools to collect high-quality, representative data aligned with Project targets. Given the lack of up-to-date data on IFAD's target groups and the small livestock value chains—particularly regarding market dynamics, investment gaps, and opportunities—IFAD will engage a local consultancy firm during the Project design phase to carry out baseline studies. These will include socioeconomic profiling of smallholder farmers and profitability analyses of relevant value chains to inform targeted and evidence-based investments		
Project Financial Management	**Moderate**	**Moderate**
Project Organization and Staffing	***Moderate***	***Moderate***
Risk: The Ministry of Lands and Agriculture (MoLA), serving as the LPA, has a solid track record implementing donor-financed projects and possesses institutional structures and technical expertise established through prior engagements with World Bank and IFAD. While the core finance personnel at the national level are qualified and competent, most holding professional certifications such as CIMA, ACCA or accounting degrees from the University of Botswana, capacity constraints persist at the district level where staff often lack professional accounting qualifications. A key risk stems from the high staff turnover and inter-ministerial transfers, which can disrupt financial management continuity, especially at the district level. Although Botswana has a strong accounting profession with global links, challenges remain in recruiting suitably skilled staff for remote postings, aligning staff capacity with IFAD requirements, and ensuring continuity throughout the project cycle. Furthermore, fraud awareness training is not universally applied in all government projects, raising concerns given the anticipated decentralized structure of the new project.	Moderate	Moderate

Mitigations: A tailored training plan will be developed, focusing on IFAD-specific disbursement, financial reporting, and anti-fraud procedures. Continuous fraud awareness training will be implemented throughout the project to ensure all staff, including new recruits, can detect and report fraud. To mitigate the effects of staff redeployment, the project will adopt staff retention agreements, enforce formal handover protocols, and build capacity across the entire finance team from PMCU to district level. IFAD and the Ministry of Finance will engage to secure commitments to retain key FM staff during critical phases. Finance personnel will be recruited early before project start-up. Selection will prioritize candidates with proven knowledge of IPSAS or IFRS, proficiency in accounting systems, and relevant qualifications such as ACCA or an MBA in Finance. MoLA will actively lead in project oversight, providing strategic direction. The Terms of Reference for the external auditor will include tracking the frequency and effectiveness of Project Steering Committee meetings as part of governance assurance. A clear staffing structure will be maintained, with dedicated project finance personnel at both national and district levels to ensure accountability, continuity, and compliance with IFAD financial management standards. These measures are expected to ensure the financial integrity, capacity continuity, and effective oversight of the new livestock project throughout its lifecycle.		
Project Budgeting	***Moderate***	***Moderate***
Risk: The budgeting framework within the Government of Botswana, including MoLA, is generally sound and anchored in the Government Accounting and Budgeting System (GABS) and IFMIS platform. Budget preparation follows a structured, multi-tiered consolidation process, with final approvals by Parliament. However, the integration of donor-funded projects such as the proposed livestock project into the national budget cycle presents several implementation risks. While MoLA has the institutional capacity to prepare budgets aligned with IFAD's requirements, delays in submitting AWPBs could result in the exclusion of project allocations from national budget votes, potentially delaying disbursements. Although the budget is implemented within an effective internal control framework overseen by the MFED and the Accountant General's Department, delays and coordination gaps can limit the timely execution of activities. Previous IFAD-funded projects under MoLA demonstrated the ability to prepare detailed budgets, recent external audit reports noted low budget execution due to bottlenecks in project implementation. Lastly, the complex, multi-stakeholder budget process, ranging from national to district levels requires strong coordination to ensure timely approvals and responsiveness to implementation realities.	Moderate	Moderate
Mitigations: PMCU should prepare and submit detailed Annual Work Plans and Budgets to MoLA and MoFED in line with the national budget cycle to ensure inclusion in the parliamentary vote and avoid funding delays. The PMCU must adhere to Government-issued budget circulars to facilitate timely integration into the national budgeting process, a prerequisite for donor disbursements. A dedicated AWPB preparation calendar should be developed to track key deadlines, enhance coordination among stakeholders, and ensure all necessary inputs are consolidated in time. The PMCU should convene quarterly meetings to monitor budget execution, address implementation delays, and propose timely budget revisions to IFAD where necessary. The budgeting process should continue using the bottom-up approach, ensuring inclusive participation from district-level offices, department heads, PMCU component leads, and the steering committee, under the strategic oversight of the MoLA Permanent Secretary. These measures aim to ensure that project resources are properly planned, timely approved, and efficiently used in line with national procedures and IFAD's fiduciary requirements.		
Project Funds Flow/Disbursement Arrangements	***Moderate***	***Moderate***

Risk: Botswana operates a well-functioning Single Treasury Account (TSA) supported by a robust GABS / IFMIS. For the new project, a separate Designated Account (DA) will be established within the TSA, managed by the PMCU under MoLA. While this arrangement aligns with IFAD's disbursement procedures and promotes autonomy, several operational risks persist. Despite MoLA's experience in managing disbursements from IFAD and other donors, past performance has highlighted capacity issues, including delays in the preparation and submission of Withdrawal Applications (WAs), Interim Financial Reports (IFRs), and annual audit reports. These delays can negatively affect project liquidity and compliance. There is also a risk of underperformance in documenting and reporting in-kind contributions, despite the existence of relevant guidelines. Moreover, while co-financing performance by the government has historically been strong, risks related to the timely availability of counterpart and beneficiary contributions may arise if coordination is not well managed.	Moderate	Moderate
Mitigations: The project will maintain a dedicated DA within the TSA, complemented by sub-accounts with unique reporting codes in the IFMIS. This will enhance financial tracking, maintain alignment with national systems, and simplify financial reporting and audit trails. The project will address identified FM capacity gaps during the start-up phase through targeted training, process mapping, and intensified oversight. MFED's active involvement in designing and monitoring fund flow arrangements will be prioritized to ensure compliance and timely support. To mitigate exchange rate risks and optimize liquidity, it is recommended that funds remain in the foreign currency DA and only be converted into Botswana Pula in the operational accounts on a monthly, needs-driven basis. Annual audits will assess and confirm the appropriateness of fund flow practices. The PMCU will work closely with MoLA and MoFED to ensure that both government and beneficiary contributions are identified early and fully reflected in the AWPB. This will promote accountability and ensure timely co-financing availability. A dedicated committee comprising component heads and finance staff will be established to oversee the documentation and reporting of in-kind contributions. Specific tools, tracking templates, and verification procedures will be developed and integrated into the Project Implementation Manual. In-kind data will be reported through IFRs and included in the audit scope of the Office of the Auditor General (OAG). By institutionalizing these controls, the project will ensure timely disbursements, strengthen fiduciary compliance, and enhance transparency in the use of IFAD and government resources.		
Project Internal Controls	***Moderate***	***Moderate***
Risk: Limited capacity at the district level to enforce expenditure controls, properly document transactions, and segregate financial functions due to staffing constraints. Weak linkages between internal and external audit recommendations, leading to recurring control lapses across project cycles. Operational gaps in document management, with delayed record updates, inadequate use of digital archiving tools, and poor inventory management in some district offices. Delays in transaction approvals caused by absent signatories and unclear delegation protocols. Inadequate anti-fraud controls at the operational level, despite the existence of national frameworks; fraud risks such as procurement irregularities, asset misuse, and staff claim abuse were flagged in past audits. Limited verification of service delivery, particularly for consulting and training services. Delayed reporting and follow-up on audit findings, especially around procurement, fixed asset management, and contract oversight.	Moderate	Moderate

Mitigations: Strengthen financial management by training district finance officers on expenditure controls and compliance, and by deploying adequate finance and logistics staff to ensure segregation of duties. Update the Project Implementation Manual to include a dedicated Financial Management Manual aligned with national and donor standards, with provisions for annual reviews. Establish a robust Anti-Fraud and Corruption (AFC) framework, including annual conflict of interest declarations, fraud awareness training, and integration of fraud indicators into internal audit tools. Formalize the authorized signatory structure with clear thresholds, backup protocols, and periodic internal audit checks. Improve asset and inventory controls using digital checklists, regular stock-taking, and independent verification procedures. Assign a dedicated internal auditor to the PMCU, include the project in MoLA's annual audit plan, and conduct regular risk-based audits. Train internal auditors on donor procedures and digitize audit tracking. Strengthen overall governance by ensuring timely reporting, audit follow-up, and monitoring of steering committee effectiveness. These measures will strengthen fiduciary safeguards, enhance operational accountability, and ensure effective delivery of project results within the prescribed internal control frameworks.		
Project Accounting and Financial Reporting	***Moderate***	***Moderate***
Risk: MoLA currently applies a cash basis of accounting, aligned with national public financial management practices. Although Botswana is transitioning toward IPSAS standards, full adoption of accrual-based IPSAS has not yet occurred. Ongoing projects use the national IFMIS (GABS) for transaction recording, but the system cannot generate project-specific financial statements. Consequently, reports such as annual financial statements and IFRs are manually prepared and reconciled. While reliable at the national level, the district-level documentation is inconsistent, with issues like missing receipts and delayed filing. Additional concerns include delays in collecting financial data from districts, limited integration with results frameworks, and insufficient use of financial reports for decision-making.	Moderate	Moderate
Mitigations: To address these challenges, the following actions are recommended: Adhere strictly to IPSAS cash-basis standards for all project financial reporting. Use the national IFMIS/GABS system for transaction processing, with a tailored chart of accounts capturing IFAD categories and components. Provide hands-on training to project finance staff on IFMIS use and IFAD reporting procedures. Digitize accounting records to improve accessibility and security, and establish clear filing protocols at both PMCU and district levels. Include detailed financial procedures and retention requirements in the PIM. Strengthen internal coordination between MoLA and the PMCU finance teams, and enhance reporting linkages with procurement and M&E. Improve timeliness and analytical quality of financial reporting by automating variance analysis and linking financial data with project results. These measures aim to improve reliability, timeliness, and usefulness of financial reports for effective project management and donor compliance.		
Project External Audit	***Moderate***	***Moderate***
Risk: Botswana's Supreme Audit Institution (SAI), the Office of the Auditor General (OAG), has a solid legal mandate, experienced staff, and a history of auditing both public and donor-funded projects, including IFAD and World Bank projects. However, several weaknesses were identified. These include limited audit coverage at the district level, delays in the issuance of annual audit reports such as those for FY 2022/23 and 2023/24. Audit report time lag is more the 20 months. There is also slow follow-up on audit recommendations and Public Accounts Committee (PAC) resolutions. While the OAG applies ISSAIs and is a member of INTOSAI and AFOSAI, operational autonomy is somewhat constrained due to reliance on the Ministry of Finance for staffing and budgeting. The PEFA 2020 assessment gave the OAG a low score (D) for audit coverage, with less than 50% of public expenditure audited annually.	Moderate	Moderate

Mitigations: Include OAG in the Financing Agreement as the designated auditor, with a provision that allows them to contract private audit firms (e.g., PwC) if internal capacity is limited. The World Bank projects are currently audit by private external auditors (Big 4) under the supervision of the OAG. Establish early engagement between the Project Management Unit (PMCU) and the OAG to ensure timely planning and scheduling of audits. Strengthen audit follow-up mechanisms, including quarterly monitoring of audit recommendations and PAC resolutions. Improve audit coverage at the district level and ensure risk-based audit planning that includes field-level activities. Request the latest assessment reports on the OAG's performance and independence, and maintain regular collaboration with the IFAD and World Bank fiduciary teams to monitor audit progress. Support the OAG with logistical or capacity-building assistance if needed, to facilitate timely completion of the project audit within the required six-month window after the end of the fiscal year. These measures aim to ensure timely, comprehensive, and high-quality external audit coverage, in line with fiduciary standards required by the IFAD.		
Project Procurement	**Moderate**	**Moderate**
B.1 Assessment of Project Complexity	***Moderate***	***Moderate***
Risk: The key issues identified include the need for effective coordination and sequencing across central and district levels, the complexity of managing logistics due to the project's wide geographic coverage, and the moderate environmental, social, and climate risks. Additionally, while security risks are negligible, they still require monitoring, and ensuring effective public procurement remains a challenge despite Botswana's robust governance structures.	Moderate	Moderate
Mitigations: The proposed mitigation measures include providing specialized training to procurement personnel and utilizing tools such as IFAD OPEN for contract sequencing and management. Preference schemes for local contractors will be applied in accordance with the Public Procurement Act, and environmental, social, and security risks will be carefully monitored and managed to mitigate potential impacts.		
B.2 Assesment of Implementing Agency Capacity	***Moderate***	***Moderate***
Risk: The Implementing Agency's (IA) procurement planning aligns with its annual development plans but lacks market research and inclusion of procurement units in annual budgeting. National Standard Bidding Documents do not meet IFAD guidelines, and contract management procedures need improvement. Procurement activities are well-tracked with secure documentation and a centralized repository. While the IA has a dedicated procurement department, staff lack specific IFAD project experience and require capacity building to meet upcoming project demands. No sustainable procurement practices were observed, and bidding documents follow PPRA templates but not IFAD standards.	Moderate	Moderate
Mitigations: The project will implement a project procurement strategy that includes timely submission and coordination of annual work and procurement plans, use of IFAD's SPDs with SECAP requirements, and registration in the OPEN system for contract monitoring. The Project shall prepare detailed Contract Management Plans for major contracts and obtains IFAD approval for significant contract amendments. Procurement capacity will be strengthened by recruiting or seconding experienced specialists, providing necessary resources, and training personnel through the BUILDPROC program. The IFAD OPEN system will be used for tracking procurement processes, supporting SME contract awards, and integrating sustainable procurement provisions within the public procurement framework using IFAD standard bidding documents.		

Project Procurement Overall	***Moderate***	***Moderate***
Risk: Part A. The procurement regulatory framework is well structured with the Public Procurement Act of 2021, the Public Procurement Regulations of 2023 and the recently launched Public Procurement Operations Manual of 2024, but the framework exhibits non-compliance with IFAD guidelines, including restricted bidder participation and inadequate bid submission periods. Challenges identified include procurement delays, weak contract management, lack of effective data systems, and absence of procurement as a recognized profession. Public access to procurement opportunities and compliance reports is limited, with insufficient engagement with private sector and civil society stakeholders. Auditing processes are lacking in transparency, expertise, and follow-up, while corruption prevention and integrity training measures are absent, highlighting significant gaps in procurement governance and oversight. Part B. The key issues identified include the need for effective coordination and sequencing across central and district levels, the complexity of managing logistics due to the project's wide geographic coverage, and the moderate environmental, social, and climate risks. Additionally, while security risks are negligible, they still require monitoring, and ensuring effective public procurement remains a challenge despite Botswana's robust governance structures. The IA's procurement planning aligns with its annual development plans but lacks market research and inclusion of procurement units in annual budgeting. National Standard Bidding Documents do not meet IFAD guidelines, and contract management procedures need improvement. Procurement activities are well-tracked with secure documentation and a centralized repository. While the IA has a dedicated procurement department, staff lack specific IFAD project experience and require capacity building to meet upcoming project demands. No sustainable procurement practices were observed, and bidding documents follow PPRA templates but not IFAD standards.	Moderate	Moderate
Mitigations: Part A. IFAD-funded projects shall be conducted in accordance with the National Procurement Framework to guide the approval processes and the governance structures, while the IFAD project Procurement Guidelines shall be used in lieu of National Framework to address the identified gaps, including minimum bid submission periods and provisions for foreign bidders in national competitive bidding. Projects must use IFAD Standard Procurement Documents, establish strong contract management with appointed managers, and provide procurement training to staff. Efforts should be made to consolidate common procurement needs, publish procurement-related information online, and engage stakeholders through conferences. Project management units must monitor audit findings and ensure procurement staff uphold impartiality and confidentiality while preventing fraud and corruption. Part B. The proposed mitigation measures include providing specialized training to procurement personnel and utilizing the IFAD OPEN for contract sequencing and management. Preference schemes for local contractors will be applied in accordance with the Public Procurement Act, and environmental, social, and security risks will be carefully monitored and managed to mitigate potential impacts. The project will implement a project procurement strategy that includes timely submission and coordination of annual work and procurement plans, use of IFAD's SPDs with SECAP requirements, and registration in the OPEN system for contract monitoring. The Project shall prepare detailed Contract Management Plans for major contracts and obtains IFAD approval for significant contract amendments. Procurement capacity will be strengthened by recruiting or seconding experienced specialists, providing necessary resources, and training personnel through the BUILDPROC program. The IFAD OPEN system will be used for tracking procurement processes, supporting SME contract awards, and integrating sustainable procurement provisions within the public procurement framework using IFAD standard bidding documents.		
A.1 Legal, Regulatory and Policy Framework	***Moderate***	***Moderate***

Risk: The Procurement Regulatory Framework is well structured and comprises the Public Procurement Act of 2021, the Public Procurement Regulations of 2023, and the Public Procurement Operations Manual of 2024, but minimum bid submission periods do not comply with IFAD guidelines. Open Domestic Bidding limits participation to Botswana-based bidders unless waived by the Minister, and national Standard Bidding Documents are limited and focus solely on price without technical or financial evaluation criteria. Additionally, the World Bank's 2023 report highlights procurement delays and weak contract management, while sustainable procurement is only briefly mentioned without evaluation methods for total cost of ownership.	Moderate	Moderate
Mitigations: IFAD-funded projects shall be conducted in accordance with the National Procurement Framework to guide the approval processes and the governance structures, while the IFAD project Procurement Guidelines shall be used in lieu of National Framework to address the identified gaps. Procurement in IFAD-funded projects shall requires prior IFAD review for less competitive methods exceeding thresholds, adherence to IFAD procurement guidelines including minimum bidding periods, and allowance for foreign bidders in national competitive bids. Projects must use IFAD Standard Procurement Documents until national documents and contract management systems are fully developed, strengthen contract management capacity, appoint contract managers for large contracts, and incorporate SECAP standards in procurement documents and contracts.		
A.2 Institutional Framework and Management Capacity	***Moderate***	***Moderate***
Risk: The Public Procurement Act (PPA) mandates the preparation of a procurement plan aligned with its approved budget each financial year; however, a World Bank review highlighted several challenges including inadequate project budgeting, lack of operationalized centralized procurement for common items, absence of published bids or contract awards on the PPRA website, and no effective system for public procurement data access. Additionally, procurement has yet to be recognized as a profession, and compliance monitoring by the PPRA lacks publicly available reports to confirm its execution.	Moderate	Moderate
Mitigations: IFAD projects shall prepare annual procurement plans (PP) in the OPEN system aligned with approved annual work plan and budget (AWPB), consolidate common item requirements for competitive bidding, and ensure transparency by publishing bids and contract awards on project websites. Project procurement staff shall receive procurement training during the project start-up and throughout project implementation and certification through the IFAD funded BUILDPROC certification programs, and projects shall comply with PPRA monitoring, audits, and IFAD supervision findings.		
A.4 Accountability, Integrity and Transparency of the Public Procurement System	***Moderate***	***Moderate***

Risk: PPRA was established under the PPA 2021 from the former Public Procurement and Asset Disposal Board (PPADB). So far, PPRA doesn't provide sufficient public procurement opportunities and award decisions on its website. There is no evidence that the PPRA had directly engaged with the CSO for stakeholder consultations. The office of AG undertakes audit of various ministries and agencies and Procurement is also subject to audit. However, no co- ordination controls appear to exist. Latest OAG audit reports are not available in the public domain to ascertain their effectiveness. The PPRA has authority to undertake periodic procurement, contract and performance audits, but it doesn't appear to have been operationalised. There is no evidence of follow up on audit findings and implementation of their recommendations. No system of defining the qualification of staff and providing training to them to conduct procurement audits. There is no requirement for the auditors to have knowledge of procurement and there is no formal training program, and no technical support is provided to the auditors. The National SBDs doesn't elaborate on various provisions on prohibited practices. There seems to be no systematic detection, prevention, and enforcement of procurement-related corruption cases. Integrity training of stakeholders is absent. Civil society doesn't seem to influence to improve integrity of public procurement, there is no evidence that their views are used for strengthening the integrity of the system.	Moderate	Moderate
Mitigations: IFAD project management units shall engage stakeholders including chambers of commerce and civil society organizations during procurement processes, ensuring transparency by publishing procurement information on Project and PPRA websites. They collaborate with PPRA to provide procurement audit training for AGO staff and monitor audit findings, reporting non-compliance to Project Steering Committees. Supervision missions review audit reports and follow-ups, with audit teams including qualified procurement specialists. IFAD ICO and SPO shall work with the government to provide integrity training and consult civil society to strengthen procurement frameworks. All procurement staff must sign a Declaration of Impartiality and confidentiality and avoid fraud and corruption.		
A.3 Public Procurement Operations and Market Practices.	***Moderate***	***Moderate***
Risk: Few Procuring Entities have published procurement plans on the PPRA website, with no publicly available procurement data or recent reports to verify compliance. The review identified weaknesses in project procurement performance, particularly in contract management. There is an absence of formal mechanisms for open dialogue with the private sector, and limited public availability of bid opportunities restricts market access. While the Public Procurement Act includes preference and reservation schemes for citizen contractors, their operational status remains unclear.	Moderate	Moderate
Mitigations: IFAD projects shall publish their procurement plans and contract awards on both the Project and PPRA websites, while also developing contract management skills among project staff early on. Engagement with public and private sector stakeholders by PPRA through conferences is encouraged, and projects may apply domestic preference provisions within international competitive procurement methods as per the procurement arrangement letter (PAL) provisions.		
Environment, Social and Climate Impact	**Substantial**	**Substantial**
Biodiversity Conservation	***Moderate***	***Moderate***

Risk: If farmers' capacity building and training are not effectively implemented, BoLCoP could unintentionally increase the risk to biodiversity. Unsustainable practices in small livestock farming, such as overgrazing and improper manure disposal, would place additional pressure on natural ecosystems, hindering vegetation regeneration and accelerating desertification. These risks are further exacerbated by unequal access to training, information, and resources, particularly among women and marginalized groups who play a central role in small livestock management Land is already under significant pressure due to bush encroachment and the invasion of non-native species, which contribute to soil erosion and declining soil quality. Furthermore, escalating human-wildlife conflicts could arise, with wild animals threatening grazing and browsing small livestock, disrupting the balance between wildlife conservation and agricultural activities. The risks include Incentive for livestock production in view of agribusiness may create a risk of devastation of forest populated areas and reduce biodiversity. Some cultural practices and the desire for new land for production can destroy available trees and affect biodiversity. There are pressures on biodiversity due to population pressures. Also, smallholders may also reduce the diversity of their farms as they become integrated in specific value chains thus adversely impacting agro-biodiversity.	Moderate	Moderate
Mitigations: Mitigations: To mitigate risks to biodiversity, BoLCoP will promote sustainable small livestock farming through targeted training and capacity building for farmers with deliberate efforts to ensure the inclusion and empowerment of women, youth, and other marginalized groups. This will include the adoption of grazing management techniques to prevent overgrazing, the implementation of proper manure management systems, and the integration of climate-smart agricultural practices that support ecosystem health and promote vegetation regeneration. Community sensitisation efforts will encourage de-bushing and the replanting of indigenous species to restore degraded landscapes. In response to rising human-wildlife conflicts, BoLCoP will work in close collaboration with the Ministry of Environment and Tourism, relevant wildlife authorities, and local communities to develop and implement wildlife management strategies, such as protective fencing, early warning systems, and other locally appropriate measures to safeguard small livestock from predation. Project area siting will create buffer zones and distance between project sites and protected areas within a district.		
Resource Efficiency and Pollution Prevention	***Substantial***	***Substantial***
Risk: Inadequate access to clean and reliable water sources poses a significant risk to small livestock productivity, particularly during the dry season, with disproportionate impacts on women and other vulnerable groups who are often responsible for water collection and livestock care. Limited water availability can compromise animal health, reduce productivity, and negatively impact hygiene standards for both on-farm handling and downstream value chain processes such as slaughter and processing. Furthermore, without appropriate infrastructure and training, there is a risk of inefficient resource use and improper waste disposal, including unmanaged manure and wastewater, which can contribute to soil and water contamination and lead to environmental pollution. The use of artificial fertilizer and pesticides for enhanced fodder crop production can give room for pollution.	Substantial	Substantial

Mitigations: To address the risks associated with inadequate water access, environmental pollution, and resource inefficiency, BoLCoP will invest in climate-resilient water infrastructure such as irrigation, rainwater harvesting systems, storage tanks, and solar-powered pumps - ensuring equitable access for women, men, and marginalized groups, particularly those who bear the burden of water collection and on-farm care. The Project will also improve water distribution at the farm level, with attention to gender-specific needs and constraints in infrastructure design and access Comprehensive and gender-responsive farmer training will be provided on efficient water use, proper manure and wastewater management, and hygiene practices across the farm and small livestock value chain. Importantly, BoLCoP will incorporate training on climate-smart feeding practices, including the use of locally available, drought-tolerant fodder and feed to enhance animal productivity while reducing pressure on natural resources. An Environmental and Social Management Plan (ESMP) will include materials on banned substances in terms of pesticides and herbicides, which are in any case being controlled by MoLA/Regulatory Services. The project will develop an integrated pest management plan to manage the risk of promoting increased pesticide use.		
Cultural Heritage	***Low***	***Low***
Risk: BoLCoP poses a very low risk of degrading cultural heritage. The construction of animal sheds will be carried out at the household or farm level, ensuring minimal disruption to traditional practices. Additionally, the selection of locations for aggregation centres will involve comprehensive consultations with relevant stakeholders to prevent conflicts and safeguard indigenous ancestral practices and traditions. There is little reason to believe that the Project areas would be exposed to or put at risk in terms of any protected cultural heritage artifacts. However, during excavations for a construction, archaeological chance finds may occur. Also sacred places, graveyards and places of worship may be encountered.	Low	Low
Mitigations: Mitigations: To mitigate the risk of degrading cultural heritage, IFAD's SECAP will be comprehensively applied to assess and address the social impacts of the Project. SECAP will guide the implementation of preventive measures, ensuring that cultural heritage is respected, and that any potential negative impacts on indigenous practices and traditions are effectively mitigated. Further training of Project team and stakeholders on SECAP procedures, and close monitoring by the country team will mitigate against cultural heritage damages. The Project will develop a chance finds procedure which will be implemented in case of any chance finds of archaeological artifacts in the process of construction or rehabilitation. The PMCU will include representatives from the Ministry of loval government and traditional affairs.		
Indigenous People	***Low***	***Low***
Risk: In Botswana, Indigenous Peoples are often referred to as Remote Area Dwellers (RADs), a term used in government policies, planning, and service delivery. These communities are typically located in climate-sensitive regions such as Gantsi District, Kgalagadi, Ngamiland, and Central District. Due to their geographical isolation, socio-economic marginalization, and limited access to infrastructure, basic services, and formal land tenure, these groups are at high risk of exclusion.	Low	Low

Mitigations: Given that BoLCoP is national in scope, Indigenous Peoples—particularly RDAs—may be eligible beneficiaries if they align with the Project 's targeting criteria. To ensure their equitable inclusion, representation and access to land, resilience to climate change, IFAD will work closely with the MoLGTA, integrating Indigenous knowledge systems and practices into Project planning and implementation. BoLCoP community mobilisers will be well versed with the communities to ensure that the Project targets group are reached and that there are no threats to or loss of resources for indigenous people. A grievance mechanism and strong feedback mechanisms will be put in place for reporting on targeting. Indigenous people will be engaged in a consultative and participatory process through Free, Prior, and Informed Consent (FPIC).		
Labour and Working Conditions	***Moderate***	***Moderate***
Risk: The potential risk is that BoLCoP may cause an increase in gender-based violence, discriminatory and unsafe/unhealthy working conditions for people employed to work specifically in relation to the Project, including third parties and primary suppliers. There is a risk that zero grazing and intensified small livestock farming practices may increase the workload for women, children, and marginalized groups, who are often responsible for multiple roles, including domestic tasks. The added responsibilities related to animal care, such as collecting fodder and water, feeding, cleaning, and ensuring animal security, may overburden them. Furthermore, poor working conditions could affect youth and women, especially in areas where labour standards and occupational safety are inadequately addressed. This might lead to the exploitation of these groups, particularly if fair wages, health and safety measures, and access to training opportunities are not provided. There is also a risk of poor labour rights protection, insufficient formal contracts, and an absence of social protection for workers, resulting in increased vulnerability, reduced productivity, and social tensions within farming communities.	Moderate	Moderate
Mitigations: To address risks related to labour and working conditions, BoLCoP will promote fair and equitable work practices by integrating labour safeguards into Project activities. The Project will support equitable workload distribution and ensure that intensified livestock practices, such as zero grazing, do not disproportionately burden women and children. This will be achieved through sensitisation, training, increasing access to social protection systems, and the introduction of IFAD's Gender Action Learning System (GALS) to empower women to engage in decision-making and share workloads equitably within households and communities. Capacity building and targeted training will also be provided to enable farmers to adopt time and labour-saving technologies (e.g., water harvesting and feed processing equipment) to reduce manual workloads. BoLCoP will collaborate with relevant ministries, including the Ministry of Labour and Home Affairs, the MoYGA, and the MoLGTA, to ensure compliance with national labour standards, particularly with respect to youth and women's employment. The Project will encourage the use of formal contracts, promote fair wage employment, and provide occupational health and safety training and appropriate PPE. Additionally, it will support the development of inclusive cooperatives and farmers' associations with strong governance systems to promote equitable benefit-sharing, improve working conditions, and ensure inclusive representation across small livestock value chains. Thus, BoLCoP will promote viable enterprises that generate enough income for decent labour practices. The Project will raise awareness against gender-based violence, and unsafe working conditions. Required clauses will be included in contracts with sector players, microenterprises and lead value chain enterprises. BoLCoP will also engage targeted households on the benefits of equitable sharing of labour through GALs. The contracts for infrastructure development will also include clauses to ensure decent working conditions.		
Community health, safety and security	***Moderate***	***Moderate***

Risk: The potential community health and safety risks could arise from exposure to agro-chemicals, zoonotic diseases, pollution from Project interventions and from gender-based violence. There is a risk of animal-to-human diseases such as Rift Valley Fever, Bovine Brucellosis, and Tuberculosis, which can be transmitted from small livestock to humans. Gaps in the regulatory framework for small livestock health, safety, and standards, along with poor management of veterinary supplies, contaminated feed, and waste disposal, exacerbate the risk and public health concerns. Effective training and stronger regulations are needed to ensure compliance and improve farm hygiene. Additionally, social tensions arising from resource competition, such as land and water access, may lead to conflict, while food insecurity could result if small livestock productivity declines due to health or environmental issues. Food insecurity can be further exacerbated by limited access to markets, high food prices, and poor small livestock productivity, leading to nutritional deficits, particularly among children and vulnerable groups. Furthermore, small livestock theft poses a significant security risk, especially in rural areas affected by high poverty, as it is directly linked to farmers' livelihoods. Gender-based violence also remains a concern, with women often being more vulnerable, particularly in rural areas, where social safety nets are weak, compromising their safety and security.	Moderate	Moderate
Mitigations: With BoLCoP prioritizing the commercialization of the small livestock sector, strengthening the policy framework around animal health, nutrition, and quality and safety standards is crucial to ensuring both product quality and consumer safety, which is key prerequisites for accessing export markets. IFAD's SECAP framework offers a comprehensive approach to identifying and mitigating risks related to production, compliance, and public health concerns (e.g., overuse of veterinary supplies, contaminated feed, improper waste disposal) through social safeguard mechanisms. IFAD will work to address regulatory gaps and enhance policy advocacy through extensive engagement at the country level, promoting sustainable practices and inclusive market access while offering technical support, including policy review. To address food insecurity, BoLCoP will focus on improving livestock productivity through training and supporting farmers with climate-resilient practices and better access to markets. In terms of farm-level insecurity, including gender-based violence and small livestock theft, BoLCoP will implement community consultation and sensitization mechanisms, including Kgotla meetings, and provide support for grievance redress to strengthen security and ensure safety for farmers. Additionally, BoLCoP will advocate for improved disease surveillance systems and stronger veterinary services to monitor and address zoonotic diseases, preventing their spread and safeguarding public health. The ESMP for each site will include measures to minimise the risks. Capacity building for smallholders will also include safe use and handling of agro-chemicals. Communities will access training on gender-based violence, reproductive health rights, child feeding and nutrition education as part of other mainstream topics, financial literacy etc. Labour and time saving technologies will improve the health and well-being of women.		
Physical and Economic Resettlement	***Low***	***Low***
Risk: BoLCoP will not promote activities that would result in the physical or economic resettlement of smallholder farmers. The construction sites for aggregation centres will be chosen through comprehensive consultations with stakeholders, including farmers and relevant line ministries such as the Ministry of Lands and Agriculture, the Ministry of Trade and Entrepreneurship (MoTE), and the MoLGTA. These consultations will ensure that the selected locations do not displace or negatively impact local communities or farmers' livelihoods.	Low	Low

Mitigations: To mitigate the risk of physical and economic resettlement, BoLCoP will ensure that the construction of aggregation centres and other infrastructure is carried out with full stakeholder engagement. This will include thorough consultations with local communities, farmers, and relevant government agencies to ensure that proposed sites for development do not displace or negatively impact the livelihoods of smallholder farmers. Additionally, the Project will adopt a "no-resettlement" policy, with careful consideration of land tenure and usage rights before selecting sites. Alternative solutions, such as utilizing existing public infrastructure or underused lands, will be explored to avoid any displacement. The Project will also develop a grievance redress mechanism to address any concerns or disputes arising during the site selection process.		
Financial intermediaries and direct investments	***Moderate***	***Moderate***
Risk: BoLCoP will provide a line of credit financed by PoLG to support its activities, managed through a financial intermediary—likely the National Development Bank (NDB), a government-owned institution. Preliminary assessments indicate that neither NDB nor similar national intermediaries currently operate Environmental and Social Management Systems (ESMS) equivalent to IFAD's SECAP 2021 standards. Existing practices are largely manual and ad hoc, with no formal exclusion list, and past loan portfolios commonly include high-risk sectors such as mining. This creates the risk of inadvertently financing activities that conflict with BoLCoP's environmental and social sustainability objectives.	Moderate	Moderate
Mitigations: Mitigations: To mitigate risks associated with the use of a financial intermediary, BoLCoP has conducted a comprehensive assessment of the intermediary's Environmental and Social Management System (ESMS), ensuring its accessibility, transparency, and alignment with IFAD's SECAP exclusion list. Where gaps were identified during design, an Environmental and Social Action Plan (ESAP) was developed to identify and specify corrective measures and implementation timelines. To strengthen compliance, capacity-building efforts will be aligned with ESMS requirements, supported through targeted technical assistance and safeguard training and appointment of an E&S focal point. The intermediary will also be required to adhere to regulatory obligations set by the Non-Bank Financial Institutions Regulatory Authority (NBFIRA) and integrate these requirements into its operational policies. Furthermore, to promote accountability and transparency, the intermediary's safeguard policies will be made publicly accessible.		
Climate change	***Substantial***	***Substantial***
Risk: Botswana is highly vulnerable to climate change due to its dependence on rain-fed agriculture, high reliance on natural resources, and widespread rural poverty. Key climate vulnerability hotspots include Kgalagadi District, Bobirwa Sub-District (Central District), Ngamiland (Okavango Delta region), Gantsi, and the Makgadikgadi Pans, where communities and ecosystems face heightened exposure to droughts, floods, heatwaves, and land degradation. The country's heavy reliance on imported cereals, including feed, heightens food system fragility. Prolonged heatwaves, droughts, and waterlogging—often accompanied by outbreaks of pests and diseases—further threaten crop yields and increase small livestock mortality. According to the World Bank, shifts in precipitation patterns are expected to intensify soil erosion and reduce soil fertility; the total annual cost of land degradation in Botswana is estimated at US$353 million, equivalent to 3.2% of the country's GDP, underscoring the economic impact of environmental stressors	Substantial	Substantial

Mitigations: Mitigations: To address the growing risks posed by climate change, BoLCoP will strengthen the agricultural extension system to equip farmers—especially women, youth, and marginalized groups— with the knowledge and tools needed to manage climate impacts, including pest and disease outbreaks. The Project will promote climate-resilient small livestock production and climate-smart management practices by improving access to drought-tolerant small livestock breeds, multi-purpose crops, drought-resistant fodder, and conservation agriculture technologies, supported by gender-sensitive extension services to ensure women and youth have equal access to improved genetics, husbandry practices, and input supply chains. BoLCoP will support community-based fodder systems, prioritizing women and youth cooperatives in cultivating drought-resilient forage species and Prosopis-based fodder processing. The Project will introduce composting systems for manure and agricultural waste as part of an integrated circular economy model, targeting women's and youth-led enterprises for organic fertilizer production and value addition. Conservation agriculture technologies will also include solar-powered systems, precision irrigation, and soil and water conservation techniques to maintain fodder production and reduce climate vulnerability. These include solar-powered systems, precision irrigation, and soil and water conservation techniques. BoLCoP will also seek opportunities to introduce weather-index insurance to enhance farmers' resilience against climate shocks. In close collaboration with the interministerial coordination reference group, BoLCoP will engage the Ministry of Environment and Tourism and the National Climate Change Committee to ensure climate adaptation interventions are effectively integrated into policy and implementation frameworks. A detailed climate risk study will be prepared, which will cover both the risks from the climate to the population and from the Project to the population in terms of climate vulnerability. The study will include sex-disaggregated data and a gender lens to assess differential vulnerabilities and coping capacities. Soil and water conservation structure will help reduce this effect and this will be compounded by small irrigation systems.		
Stakeholders	**Substantial**	**Substantial**
Stakeholder Engagement/Coordination	***Substantial***	***Substantial***
Risk: BoLCoP may face challenges in stakeholder engagement due to limited capacity of farmer groups and cooperatives, particularly at the local level. Many small livestock associations lack the technical and financial skills needed to manage infrastructure like aggregation centres and slaughter facilities, leading to inefficiencies, poor financial management and ineffective functionality, which works to weaken market linkages. Women-led and youth-led groups are particularly disadvantaged, as they often face additional barriers to accessing training, finance, and leadership opportunities. At the national level, while platforms like the SIFB exist, they often lack inclusive representation, with smallholder farmers, women, and youth underrepresented in key decision-making spaces. Many of these organisations also face financial sustainability issues, being heavily reliant on external funding. Additionally, fragmented coordination among government ministries and support agencies involved in small livestock development can lead to overlapping responsibilities and fragmented support, reducing the effectiveness of stakeholder engagement and service delivery.	Substantial	Substantial
Mitigations: To mitigate stakeholder engagement and coordination risks under BoLCoP, the Project will strengthen the capacity of small livestock farmer groups and cooperatives—particularly those led by women and youth— through targeted training in governance, financial management, and infrastructure operation. It will promote inclusive representation by supporting platforms like the SIFB to better involve smallholders, women, and youth in decision-making. A structured stakeholder engagement framework will be established to enable continuous dialogue between farmers, lead enterprises, and government. Coordination will be improved through a multi-stakeholder reference group involving key ministries, ensuring alignment with national strategies. To enhance sustainability, the Project will support institutional self-reliance by encouraging income-generating services and integrating support into existing government programmes.		

Stakeholder Grievances	***Substantial***	***Substantial***
Risk: As BoLCoP prioritises the inclusion of smallholder farmers, particularly women and youth, by linking them to commercial or lead enterprises through contractual arrangements or wage employment, several potential risks of stakeholder grievances may arise. These arrangements, which include engaging smallholders as service providers for small livestock inputs or in off-farm value chain activities, can create power imbalances and expose vulnerable groups to exploitation if not carefully managed. Key risks include delays in payments, unfavourable input-output arrangements, and disagreeable pricing structures that may disadvantage smallholders. In some cases, contract breaches or lack of transparency in agreements can further erode trust. There is also the risk of elite capture, where better-connected individuals disproportionately benefit from commercial linkages, sidelining more vulnerable producers. Additionally, inequitable representation of women, youth, and remote farmers in decision-making processes may lead to feelings of exclusion and dissatisfaction, especially if they lack the means to voice concerns or seek redress.	Substantial	Substantial
Mitigations: Mitigations: In recognition of the potential for stakeholder grievances, BoLCoP will prioritise inclusive consultation processes during the design and implementation of key interventions. Targeting strategies will be refined through the clear definition of small livestock producers, subsistence farmers, and associated value chain actors, with a strong emphasis on preventing elite capture and ensuring inclusive and equitable representation, especially for women, youth, and other vulnerable groups. BoLCoP will establish clear and fair contractual frameworks for engaging smallholder farmers including women, youth and PWDs, particularly in service provision, input supply, off-farm activities, and wage employment. It will promote transparent pricing mechanisms to ensure that smallholder producers receive fair compensation for their small livestock, preventing market exclusion of the Project 's intended beneficiaries. Mechanisms will also be put in place to support women and youth in overcoming barriers related to land access, livestock ownership, and farm-level security, including theft prevention and gender-responsive interventions. To strengthen smallholder engagement in commercialisation, BoLCoP will promote equitable benefit-sharing models and fair contract terms. This will be complemented by efforts to build robust grievance redress systems that address disputes and protect the rights of all stakeholders. Continuous support will be provided to capacitate and organise farmer organisations and associations, empowering them to negotiate better terms, monitor contract compliance, and collectively bargain for better market conditions. Furthermore, the Project will support increased access to sovereign line of credit that provides affordable finance – especially for the subsistence farmers (micro-scale) and the semi-commercial farmers (small-scale). . The sovereign LoC will be operationalized in (i) parallel with other state-supported rural/smallholder financing mechanisms that will be receiving TA from BoLCoP (for example, the Thuo Letlotlo Livestock Management System (TLMS) that provides grants, matching grants and subsidized loans to qualified value chain actors and the e-voucher system also within the TLMS that helps channel the government subsidies through the financial system to qualified farmers to access inputs, and including access to other services such, as insurance; and (ii) complement the NSO (non-sovereign/private sector-based LoC) that will finance the emerging commercial farmers (medium scale) and the small and medium enterprises ((SMEs), on-farm and off-farm SMEs)). This dual approach will incentivize inclusive procurement from smallholders while enabling value addition and profitable market integration.		

Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Annex 11: Country Level Policy Engagement

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Programme Management Department

Annex 11: Country Level Policy Engagement

In Botswana, several key policies and regulations govern the management of sheep, goats, and poultry. These include the Animal Information and Traceability System Regulations (2018)[1], which require identification, movement permits, and herd registration to support disease control and food safety. The Livestock Improvement Act (2009)[2] regulates breeding programs, genetic material use, and livestock development strategies. For meat production, the Meat Inspection and Control of Red Meat Abattoir Regulations and Producers' Agent Regulations[3] provide standards for slaughter, processing, and agent licensing. The Control of Livestock Regulations (Chapter 36:01)[4] manage livestock movement and buyer licensing, while feed and veterinary product safety is regulated by the Botswana Medicines Regulatory Authority (BoMRA). Additionally, animal welfare, humane transport, and slaughter are protected under national animal welfare guidelines. The Diseases of Animals Regulations further ensure disease surveillance, quarantine enforcement, and movement restrictions. These laws are implemented by institutions like the Department of Veterinary Services, Department of Animal Production, and BoMRA to ensure safe, ethical, and sustainable livestock production in the country.

On the economic empowerment side, these policies provide a framework for improving livestock quality, disease control, and market access, which can help rural farmers increase productivity, gain access to formal markets, and receive fair prices. For example, animal identification and traceability systems improve herd management and reduce disease outbreaks, which protects farmers' investments. Breeding improvement programs help raise livestock quality and value. Also, regulation of meat processing and marketing can open opportunities for rural producers to participate in higher-value supply chains.

However, there are some constraints. Compliance with regulations, such as licensing, traceability, and veterinary requirements—can be costly and complex for small-scale farmers with limited resources or technical knowledge. Limited access to veterinary services, infrastructure, and markets in remote areas may also reduce the benefits of these policies. Sometimes enforcement is uneven, and bureaucratic hurdles can discourage rural producers from formalizing their businesses.

Regarding effective implementation, the picture is mixed. While Botswana's government has a relatively strong institutional framework with departments like Veterinary Services and BoMRA, in practice, rural areas often face challenges such as

[1] Botswana- Statutory law - Animal production - SWM Programme
[2] Livestock Improvement Act, 2009 (No. 9 of 2009) - Botswana Legal Resources Website
[3] LIVESTOCK AND MEAT INDUSTRIES (MEAT INSPECTION AND CONTROL OF RED MEAT ABATTOIR) REGULATIONS, S. I. NO. 56 OF 2007.pdf
[4] Control of Livestock Industry Act (Chapter 36:01).

insufficient staffing, limited extension services, and logistical difficulties. These gaps can lead to delays in veterinary care, incomplete disease monitoring, and weaker enforcement of welfare or traceability rules. Some farmers report low awareness or difficulties complying with all regulations. While the policies have the potential to empower rural livestock producers economically by improving animal health, quality, and market access, but to fully realize these benefits, more investment in local support services, farmer education, and streamlined procedures is needed. Effective, widespread implementation remains a work in progress, with positive outcomes often concentrated near better-served areas.

The stakeholders interviewed by the mission acknowledged that while relevant policies and regulations are largely in place, there is a significant gap in enforcement and implementation at both national and local levels. Weak institutional capacity, limited resources, and poor inter-agency coordination were cited as major constraints to effective policy delivery. A specific concern raised was the need to protect local farmers from the unregulated influx of imported inputs, which can distort markets, undermine local production, and raise concerns around quality and biosecurity. Addressing policy enforcement gaps and regulating imports are critical areas for BoLCoP's policy engagement.

Policy making process: In Botswana, policy formulation, debate, and approval follow a structured process within the national governance system. Typically, the process begins with the relevant government ministry or department—for livestock policies, this is often the Ministry of Agricultural Development and Food Security or its agencies like the Department of Veterinary Services or Department of Animal Production. These bodies conduct research, stakeholder consultations, and draft policy proposals based on identified needs and development priorities.

Once a draft policy or regulation is prepared, it is usually circulated for broader consultation, including other government ministries, local authorities, industry stakeholders (such as farmer associations), and sometimes civil society organizations. This stage may involve workshops, public hearings, or written submissions to gather input and build consensus. The feedback informs revisions to the draft.

The revised policy is then submitted to the Cabinet or relevant Parliamentary committees for debate and approval. Once endorsed, it becomes government policy or law, often followed by subsidiary regulations to enable implementation. Parliament enacts legislation when required, providing legal authority and budget allocations.

National and local level interaction in policy making: In Botswana, while major policy formulation and regulatory decisions are made at the national level, subnational and local governments hold important responsibilities for implementing, monitoring, and enforcing livestock and agricultural policies. Local authorities, including district councils and extension officers, play a key

role in delivering veterinary services, supporting farmers, and reporting disease outbreaks, though their authority to formulate policies is limited. The integration of systems between national and local levels exists but is often uneven, with resource constraints, capacity gaps, and communication challenges hindering effective implementation, especially in remote areas. Local actors benefit from strong community ties and existing extension networks but face weaknesses such as insufficient funding, limited training, and poor data systems. IFAD can strengthen these local actors by investing in capacity building, enhancing data and communication tools, supporting local institutions and farmer organizations, and facilitating multi-stakeholder collaboration. By empowering local structures and improving system integration, IFAD can help ensure that national policies translate into meaningful economic empowerment and sustainable development for rural livestock producers.

IFAD can effectively contribute to and utilize existing policymaking spaces in Botswana by engaging early with government stakeholders such as the Ministry of Agriculture to align its projects with national priorities and ongoing policy cycles, thereby avoiding duplication. Participation in multi-stakeholder platforms—where government agencies, private sector actors, NGOs, and farmer groups collaborate on agricultural and rural development issues—will enable IFAD to support and strengthen these forums, ensuring smallholder voices are included and policies become more inclusive. Additionally, IFAD can promote evidence-based policymaking by providing relevant data, research findings, and pilot project outcomes that inform policy options and improve regulatory effectiveness for livestock and rural livelihoods. Investing in capacity building for government institutions and local authorities involved in policy implementation will help enhance enforcement and farmer support. IFAD can also facilitate policy dialogue and advocacy to bring together diverse stakeholders, including marginalized rural producers, ensuring policies address their needs and gain wider acceptance. Finally, by embedding its programs within Botswana's existing legal and institutional frameworks—such as ministries, advisory boards, and veterinary services—IFAD can build on established processes and promote sustainable, integrated development rather than creating parallel systems.

BoLCoP aims to address the systemic challenges facing Botswana's small livestock subsector. The sheep value chain is fragmented, with low productivity, limited market access, and minimal private investment due to poor infrastructure and weak coordination among actors. There is no enforceable meat grading system for small livestock, resulting in inconsistent quality, lack of consumer trust, and unregulated informal slaughter practices. The sector also suffers from over-reliance on imports and limited domestic value addition, as there are few incentives for local sourcing or investment in rural processing. Finally, the Ministry of Livestock and Agriculture (MoLA) lacks a coherent ICT strategy, leading to outdated data systems, inefficient service delivery, and poor access to real-time information. Addressing these gaps through targeted policy action is critical to improving competitiveness, ensuring quality standards, promoting rural development, and modernizing sector governance.

Prioritised policy areas under BoLCoP: Through consultations with stakeholders—including the Ministry of Agriculture, as well as analysis guided by the Theory of Change and the Integrated Policy and Results Matrix (IPRM), the design mission has identified and prioritized four key policy areas for BoLCoP: (1) development of a comprehensive sheep value chain strategy to enhance productivity, market access, and competitiveness; (2) review and strengthening of the legislative framework to introduce an enforceable meat grading system for small livestock, essential for quality assurance, transparency, and consumer confidence; (3) advocacy for a minimum local content requirement in the sector to promote domestic value addition, reduce import reliance, and boost rural economies; and (4) support to the Ministry of Livestock and Agriculture (MoLA) in formulating an ICT strategy for improved data and service systems. BoLCoP will provide technical inputs, conduct feasibility studies, and engage stakeholders throughout these areas to ensure alignment with IFAD's Country-level Policy Engagement (CLPE) principles, fostering inclusive, evidence-based, and results-oriented policy development.

In addition to the prioritised policy areas, the outcomes of the Theory of Change (ToC) and the Integrated Programme Risk Matrix (IPRM) also highlight several potential areas for future policy engagement under BoLCoP. These areas aim to address systemic challenges within Botswana's small livestock sector and to ensure that the project achieves both sustainability and inclusivity.

Firstly, agricultural extension and knowledge systems require urgent policy attention to improve the adoption of climate-smart, nutrition-sensitive, and productivity-enhancing practices. Strengthening extension services through inclusive methodologies like the Gender Action Learning System (GALS) and building the capacity of frontline officers will help bridge knowledge gaps, especially among women and youth.

Secondly, climate resilience and environmental sustainability stand out as critical policy domains. BoLCoP identifies a need to integrate livestock-specific adaptation measures into national frameworks such as the National Adaptation Plans (NAPs) and the Nationally Determined Contributions (NDCs). Related policy engagement includes promoting sustainable rangeland management, efficient water use, and climate-sensitive land use planning.

Another key area is governance and institutional coordination. The cross-sectoral nature of BoLCoP demands strong inter-ministerial collaboration, especially between agriculture, finance, trade, and environment sectors. The ToC highlights the importance of establishing an interministerial reference group and integrating BoLCoP activities into national planning and budgeting systems such as NDP 12 and Thuo Letlotlo.

Financial inclusion also emerges as a priority. Policy efforts should focus on improving access to financial services—credit, insurance, and digital payments—tailored to smallholder needs. This includes working with financial regulators to mandate Environmental and Social Management Systems (ESMS) and ensure that financial institutions meet sustainability standards, particularly those using public funds.
Furthermore, value chain development and market access require supportive policy frameworks. BoLCoP identifies a need for reforms in food safety, certification, traceability, and marketing standards for small stock products, which are currently underrepresented in existing regulations that favour beef. Enhancing trade policies, infrastructure, and logistics will support market integration.

The ToC and IPRM also highlight social inclusion and equity as key pillars for engagement. BoLCoP's policy dialogue should ensure representation of vulnerable groups—including women, youth, and Remote Area Dwellers—through inclusive beneficiary selection, grievance redress mechanisms, and protection of land rights using Free, Prior and Informed Consent (FPIC) protocols.

Additional policy areas include animal health and veterinary services, where reform is needed to improve quality assurance, input regulation, and service delivery. Also essential is the strengthening of data systems and monitoring frameworks through the development of a harmonized agricultural Monitoring and Information System (MIS), aligned with government platforms to support evidence-based decision-making.

Lastly, the IPRM identifies weaknesses in procurement and public financial management systems. Policy engagement should address misalignments between national laws and IFAD guidelines, build procurement capacity, improve budget planning, and increase transparency and stakeholder participation.

The following is a table summarizing the key policy influence and dialogue areas emerging from the BoLCoP Theory of Change IPRM, and stakeholder consultations including the corresponding policy domains, responsible institutions, policy focus areas, and relevant monitoring indicators.

Policy Area	Responsible Institutions	Policy Focus	Monitoring Indicators
Sheep Value Chain Strategy Development	Ministry of Agriculture (MoA), Ministry of Trade, Botswana Meat Commission (BMC)	Developing a comprehensive sheep value chain strategy for productivity and competitiveness	Completion and adoption of strategy; increase in sheep productivity; market share growth

Small Livestock Meat Grading Legislation	Department of Veterinary Services (DVS), BOBS, MoA	Introducing enforceable grading and certification for small livestock meat	Legal framework adopted; % of graded meat; consumer satisfaction/awareness surveys
Minimum Local Content Requirement	Ministry of Trade, MoA, Ministry of Finance	Promoting domestic value addition and reducing reliance on imports	Local content policy adopted; % of domestic input in value chain; rural employment increase
ICT Strategy for Livestock Sector	MoA, Ministry of Communications	Developing and implementing ICT tools for data management and service delivery	ICT strategy developed and adopted; system uptime; user satisfaction rate
Extension & Knowledge Systems	Ministry of Agriculture (MoA), Local Authorities	Strengthening extension services and adoption of climate-smart practices	% of farmers using improved practices; extension outreach coverage
Climate Resilience Integration	MoA, Ministry of Environment & Tourism (MET), Meteorology Dept., NAP Coordination Units	Integrating livestock into national climate strategies and adaptation plans	Number of livestock-related climate actions in NAPs/NDCs; resilience indicators
Financial Inclusion	Ministry of Finance, Financial Institutions, Bank of Botswana	Expanding access to credit, insurance, and digital finance tailored to smallholders	% of smallholders accessing financial products; loan repayment rates
Veterinary & Regulatory Reform	Department of Veterinary Services (DVS), BoMRA, Botswana Bureau of Standards (BOBS)	Improving animal health services, quality assurance, certification, and compliance	Number of certified products; disease incidence; inspection reports
Data, M&E, and MIS Integration	MoA, Statistics Botswana, NDP Planning Units	Harmonising agricultural data systems and improving monitoring and decision-making	Operational MIS; frequency of reporting; integration with government systems

Social Inclusion & Gender Equity	Ministry of Youth, Gender, Sport & Culture (MoYGA), Ministry of Local Govt. (MoLGTA)	Mainstreaming gender/youth tools (e.g. GALS), equitable access to resources and decision-making	Representation of women/youth in programs; GALS rollout coverage
Value Chain Development & Markets	MoA, Ministry of Trade, BOBS, BMC	Enhancing market access, branding, certification, infrastructure, and pricing	Volume/value of small livestock exports; number of smallholders in formal markets
Land Tenure & Use Planning	Ministry of Lands and Water Affairs, Land Boards	Ensuring land tenure security, no resettlement, support for infrastructure planning	% of project participants with secure land access; number of resettlement cases prevented
Remote Area Dwellers & FPIC	MoLGTA, Civil Society, Traditional Authorities	Ensuring inclusion of Remote Area Dwellers (RADs), integrating indigenous knowledge	Number of consultations using FPIC; RAD participation rates
One Health & Public Safety	DVS, Ministry of Health, MET	Zoonotic disease surveillance, One Health policy, agro-chemical regulation	Disease surveillance coverage; One Health strategy milestones
Institutional Capacity & Staffing	MoA, MoF, Office of the President	Ensuring dedicated staff, reducing turnover, institutionalising project units	% of positions filled; staff retention rates; capacity-building sessions
Procurement & Financial Governance	Ministry of Finance, Auditor General, PPADB	Aligning national procurement with IFAD rules; promoting transparency and efficiency	Procurement compliance audits; delays in procurement; transparency scorecards
Trade & Regional Integration	Ministry of Trade, SADC Secretariat	Reducing certification barriers, facilitating regional trade of small livestock products	Number of certified products exported; trade volumes; SADC compliance status

Environmental Safeguards & ESMS	MET, Financial Regulators, Lending Institutions	Mandating ESMS in agri-finance, promoting sustainability and biodiversity-sensitive investments	Number of institutions with ESMS; compliance audit reports
Farmer Cooperatives & Contract Farming	MoA, Cooperative Development Dept., Legal Affairs	Reforming cooperatives, ensuring fair contracts, building governance capacity	Number of registered/reformed cooperatives; contract enforcement cases

IFAD
Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Annex: Technical Note

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Programme Management Department

Annex 13: Technical Note #1 – BOTSWANA: Rural Finance Scoping 2022

[1] INTRODUCTION

This is a review of the current situation of inclusive rural finance in Botswana, its challenges and opportunities regarding the demand for and supply of financial services in the context of the rural economy and its key actors, that is, market and/or population segments and the financial institutions which addresses their needs.

The purpose for this scoping report is to explore inclusive finance gaps and opportunities[1] to which IFAD[2] may be well placed to add value to the efforts of the people and government of Botswana in the pursuit of its rural development agenda.

[2] KEY FINDINGS, OBSERVATIONS AND ANALYSIS

(a) Micro Level: Demand Side

(i) *The pool of users of rural financial services in Botswana has continued to decline.* First, has been the rising urbanization rates. Botswana has an urbanized population with only 29% of its people in the rural areas in 2020. Urbanization has occurred at a consistent pace over the years with the first post-independence census recording a 91% rural population declining to 32.8% in 2015, and to 29% in 2020[3]. The classification used to measure urbanization indicate the positive correlation between the decline in the proportion of the population in the rural areas and those employed in agriculture-related activities. For instance, 57.3% of employed persons were in traditional agriculture[4] in 1985[5] but only 7.4% of the labour force was reported to be working in the formal segments of agriculture, forestry and fishing sectors[6]. Agriculture, the dominant economic activity in the rural areas, makes a low contribution to GDP of 1.9% holding relatively steady around the 2014 level of 2.1%. But the sector remains critical to the country as a source of income and food security. The potential to expand financial services via less stringent KYC requirements remain positive with the high level of national identification cards (95% of the adult population) and national passports (53%).

45% of the unbanked adult population reside in the rural areas with a further 40% in urban villages. Only 15% of the unbanked are in the cities and towns. With 54% of the unbanked segment attaining secondary education and a further 5% tertiary, it is observed that there exists a high level of literacy to encourage more adults in this pool to adopt more financial services. It was noted that a third (33%) of the unbanked adult population use mobile money of which 45% live in the rural areas[7].

The lack of a critical mass for rural financial services in rural Botswana increases the challenge of delivering low-value finance to widely dispersed smallholders but also

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[1] The report gleans findings and observations from a review of secondary information which is analyzed with a view to identifying possible pathways for IFAD collaboration with Botswana.

[2] In the context of the IFAD Rural Finance Policy 2009, this is an initial assessment and subject to a detailed analysis within a project design framework.

[3] Central Statistics Office, (Feb 2008): 2005/06 Labour Force Report

[4] Traditional agriculture refers to persons who own their land, cattle post or farm, as well as some paid employees in traditional agriculture – Ministry of Finance: Labnour Force Survey 1984-85

[5] Botswana Ministry of Finance: Labour Force Survey 1984-85 (Table 29)

[6] Statistics Botswana: Quarterly Multi-Topic Survey: Labour Force Module Report - Quarter 3: 2019. Published 2020. – measuring only the formal sector workers. Fig 1.7

[7] FinScope Botswana 2000

presents opportunities for leveraging digital financial services and other innovations to enhance outreach, especially given their high adoption of mobile money services. It may be worth exploring the promotion, supporting, and strengthening of agricultural or farmer associations to aggregate outputs and acquire inputs to gain economies of scale.

(ii) *Regarding financial needs and demands, there has been an overall improvement in the number of adults saving in Botswana, but the declining trend in borrowing continues to persist as credit fall behind as a source of capital for business ventures.* Savings with banks decreased (from 32% in 2014 to 30% in 2020), whilst increasing with other formal or non-banks providers from 32% to 33% and informal savings from 37% to 39% in 2014 and 2020 respectively. Interestingly, saving at home among the adult population doubled from 15% to 31% over the same period, with the strong uptake here driving the overall trends upwards. Unpacking these trends reveal that 39% of rural people do not save when only 26% are in the same category in the urban areas.

Batswana adults are reducing their credit usage over the years with persons not borrowing increasing from 74% in 2014 to 83% in 2020, perhaps with some partial impact from the Covid pandemic's effects on economic activities. Of the 17% borrowing, 12% were from the banks and 5% the other formal (non-bank) sector. At 90%, there are 10% more rural dwellers not borrowing than those in the urban areas with the common reasons cited for not borrowing including interest rates (65%), repayment period (43%) and affordability of monthly instalments (37%). Reasons for borrowing in Botswana are far more likely to be developmental, that is, borrowing to finance education (10%), expand business (9%), buy land (8%), build/extend a house (35%) and buy a house (10%). The most common reasons for clients being refused loans in Botswana are low income (45%), no pay slips (16%) and being unemployed (15%), an indication of the over-emphasis on formal employment as a basis for access to credit, thus constraining the informal sector including those engaged in farming activities with limited formal employment opportunities.

It is therefore not surprising that the main sources of capital for informal sector businesses (including in agriculture) are own cash savings (70%), loans from relatives and friends (6%), commercial banks (1%) and CEDA (1%). Government agencies such as CEDA (1%) would need to cover more ground to be able to meaningfully support the financial needs of the informal sector as they rely more on their own means (70%).

With 58% of respondents[8] indicating trust as a predominant consideration in selecting a saving or investment product, followed by customer services (49%), interest rates (38%) and convenience (32%), among others, there is opportunity to increase overall savings even further especially in the rural areas with appropriate products which addresses the felt needs of prospective customers. Furthermore, it is uncertain the extent to which the increase in saving at home in 2020 is related to the restriction in movements during the covid pandemic. This may be presenting an opportunity for the deployment of appropriate products such as the increasing use of mobile savings products.

Borrowing for developmental purposes as prevails in Botswana bodes well for growing entrepreneurial activity. This is unlike the tendency to borrow for consumption purposes in the SADC sub-region, for example, which fuels over-indebtedness. With credit already being low in 2014, the further decrease in 2020 should attract further interest from stakeholders.

[8] FinScope Botswana 2020

The hesitancy to borrow, albeit mainly for productive purposes as the case tends to be in Botswana, is stifling the development of business activities with the over-reliance on own savings for entrepreneurial ventures stalling business initiatives and expansions. There is opportunity to expand the capacity of institutions such as CEDA to increase their support for private sector development, including targeting rural enterprises and the agricultural sector, with assistance in both liquidity and business support services.

It will therefore be prudent to facilitate well targeted credit to productive ventures to acquire productive assets and finance working capital by strengthening existing institutions on the supply of credit side as well as supporting enterprise development activities on the demand side. This may include targeting specific enclaves such as women (who play important entrepreneurial roles in the informal sector) and the youth through the government's Youth Development Fund, for instance, to support startup activities of young farmers.

(iii) *Financial services continue to expand in Botswana but services to rural areas remain sluggish.* Financial exclusion rates continue to decline in Botswana, reducing from 24% to 16% between 2014 and 2020 (targets of 12%) and formal inclusion at 52% in 2020 (target of 57%), mainly due to growth in the mobile money business; 54% of Batswana now use mobile money. Whilst 31% of rural adults were financially excluded (above the national average), less than 10% were excluded from towns, cities and urban villages, even though in all cases both male and female were excluded at a rate of 16% with the youth (18yrs-35yrs) marginally higher at 17%. The peculiar development in Botswana has been the reported 21% mobile money usage in rural areas compared with the average of 7% in other SADC countries. Also, 21% of those earning income from the farming sector were financially excluded, even though 44% were banked, 32% with other formal non-banks, and 3% dealing with the informal FIs only.

The financial exclusion rate at 16% fell short of the 12% targeted but the trend highlights a potential for the introduction of new financial technologies to offer financial services to achieve higher financial inclusion rate, including in the rural areas. This approach is supported by the fact that most Batswana (76%) are receptive to learn new technologies, particularly if these serve the unbanked and underbanked. The high access to mobile phones (at 93% of adults) provides room for optimism in that respect.

(iv) *A look into the livelihoods and income generation activities indicate that fewer households are involved in farming in Botswana, and of these, a small proportion make their living exclusively from agriculture.* The trend was no different at the individual level. In terms of household involvement in farming, 29% of households are involved in farming of which 12% of households are involved in farming only and 17% engaged concurrently in farming and other work. Thus, 71% were not involved at all in farming of any kind.

At the individual level, 65,000 of the adult population (4.2% of 1.53m) receive their income exclusively from farming. Of these, farming for consumption only or subsistence farming accounted for 63%, farming for both consumption and selling surpluses was reported by 33%, and farming solely for commercial purposes was reported by 3%. Farming activities, in order of priority, mainly involved crops (maize, cowpeas and sorghum) and animal husbandry (cattle, poultry, donkey, sheep) but with the top income generating farming activities being cattle, maize and goats, in that order .

In FinScope 2014, it was reported that 50% of adults were involved in arable agriculture with many owning livestock, even though then as well as in recent times, farming was

not a major source of income for most of them. Overall, the proportion of the adult population in farming has been declining.

The importance of agriculture in Botswana is reflected in (a) its small but strategic contributions to GDP, (b) its selection as a priority sector in the National Development Plan (NDP), (c) its selection among policies developed through consultative political process, (d) its contribution to employment (which is disproportionately higher than its contribution to GDP), and (e) its potential and actual role in the informal sector and the development of micro, small and medium enterprises (MSMEs). Unemployment in Botswana has averaged around 20% in the last few years even improving to 17.7% in 2015 but made worse by the Covid pandemic which appears to be partially contributing to the deterioration in unemployment to 24.5% in 2020. Thus, employment generation from the agricultural sector would support livelihoods and increase farming and value chain related incomes especially in the rural areas.

In the past, there has been several government interventions to improve the agricultural sector targeting productivity and production outcomes. Further opportunities to target these sectors exists, especially at the smallholder level, but these should be exploited by building on the experiences and lessons of the past interventions. Thus, opportunities to strengthen the off-taking role of the Botswana Meat Commission (BMC), which will strategically enhance its support to smallholders e.g. with value chain support services, and similarly with the Livestock Management and Infrastructure Development Programme (LIMID) which has programmes for both commercial and communal farmers, would be worthwhile. Similar measures regarding crops, collaboration with the Integrated Support Programme for Arable Agriculture Development (ISPAAD), including the component leveraging loan guarantees could be reviewed and supported if the existing arrangement could benefit from IFAD expertise. The focus should, however, be on improving access to credit to the rural areas and for smallholder farmers who have limited financing options.

(b)Micro Level: Supply Side

(i) *Banking services in Botswana are provided by dominant commercial banks with limited coverage in the rural areas and among the non-formal population.* Among the nine commercial banks listed by Bank of Botswana[9], five of them[10] controlled 84.7%, 85.3% and 87.5% of the total assets, deposits and loans and advances respectively in 2019[11], reflecting a high level of concentration in the sector. There seems to be some competition in service delivery, though, with FNBB for instance attracting over half of the banked adult population when it only holds about 30% of the market share. 45% of the unbanked adult population reside in the rural areas which still have disproportionately fewer banking service points; there were a total of 135 commercial bank branches and over 514 ATMs across Botswana in 2019, but generally these ATMs and branches were largely concentrated in the urban areas with the South East District and Central District, for example, having 65 and 35 branches respectively[12].

[9] BoB Directory of Financial Institutions Operating in Botswana as at December 31, 2020
[10] These commercial banks are Absa (formerly Barclays), Standard Chartered, First National Bank of Botswana (FNBB), Stanbic, and African Banking Corporation of Botswana (BancABC).
[11] MAP 2021 Botswana: Financial Inclusion
[12] Finmark. (2019). Measuring Progress: Financial Inclusion in SADC.

The profile of the dominant commercial banks and their key features are presented below.

First National Bank Botswana (FNBB) is a licensed commercial which claims a 29% market share[13] with total assets of P30 Billion (and P16 Billion in gross loans) with a customer base of over 550,000 served by 1,513 staff through 24 branches and 169 ATMs, 69 of which have deposit-taking capabilities. FNBB has the largest capitalization on the Botswana stock exchange and maintains strong alternative delivery channels with a mobile banking Bank-on-Wheels (2018) services targeting underserved areas and digital platforms including online banking (2004), eWallet and cardless money transfer service that allows customers to send money instantly to anyone in the country with an active mobile number (2010), a mobile application called the FNB Banking App (2013), a rewards embedded digital Savings Pocket account for small deposit customers (2018), among others. These strategic choices have positioned the bank to represent 56.2% of adults with bank accounts in Botswana[14] even though it does not have the widest branch network in the country. This market presence is probably a result of its larger ATM network which allows for deposits and similar offerings targeted at consumers such as e-wallets.

ABSA Bank Botswana Limited (ABSAB) is a listed company with total assets of P20.6 billion[15] relying on 1,089 employees, 113 ATMs, 4,147 PoS devices and the widest branch network across 33 locations to serve almost 15%[16] of adults with bank accounts in Botswana. The bank's investment in its digital platforms included Chat Banking (a chatbox using artificial intelligence), SkyBranch (a virtual branch providing core banking services including through telephone services), NovoFX App (for managing international payments), the Absa Mobile Banking App, Absa Access (a single sign-on for corporate and investment clients) and contactless payment cards (a tap-n-go feature on its debit and credit cards). These platforms and access options, however, tend to cater to higher income and corporate clients with higher e-skills and income. The bank provides access to finance and training in areas such as finance, human resource management, marketing, operations and business management to small and medium enterprises through its Enterprise Supply Chain Development Programme which targets local companies working with the value chains of large corporate entities. Unfortunately, these services are not yet available at the micro-enterprise level yet.

Standard Chartered Bank Botswana (SCBB) holds the business of 6.2%[17] of Batswana adults with a bank account in the country with its total assets at P14 billion[18]. The bank has approximately 600 employees working through a network of 19 branches, agencies and business banking centres which are all supported by a loan centre and 24- hour customer call centre. The bank has well-articulated digitization, SME and gender-promoting strategies but yet to focus these to the lower end of the market with its focus on commercial, corporate and formal segments of the retail market. In its analysis of loans by sector, no credit was attributed to the agricultural sector[19].

Stanbic Bank Botswana Limited (SBB) operates through 13 branches with total assets of P18.8 billion. In articulating its risk management posture, the bank indicates its continuing intention to "…..manage portfolio concentrations, including concentrations in

13 FNBB Integrated Report, 2020
14 FinScope Botswana, 2020
15 ABSA Bank Botswana Annual Report 2020
16 FinScope Botswana 2020
17 FinScope Botswana 2020
18 Standard Chartered Bank Botswana Annual Report 2020
19 Standard Chartered Bank Botswana Annual Report 2020 (Para 4.2 on Credit Risk)

specific client sectors, such as agriculture and real estate[20].” 6.1% of adults with bank accounts, however, have business relationships with SBB[21].

African Banking Corporation of Botswana (BancABC) has 8 branches, 4 service centres and 19 ATMs through which it leverages its P8.8 billion total assets with its 404-employee base, and whose management has 62% females[22]. In FinScope Botswana 2020, 4.2% of adults with bank accounts indicated they had business with BancABC, but their reach is limited and barely have a rural presence nor credit to the agricultural sector.

The total assets of *Bank Gaborone (P6.2 billion), First Capital Bank Limited (P3.6 billion), Bank of Baroda (Botswana) Limited (P2.1 billion)* and *Bank SBI Botswana Limited (P347.9 million)* altogether worth about P12.2 billion, and operating through 21 branches mostly in cities, towns and urban villages, provide insignificant access to the rural areas and to the agriculture sector. Indeed, Bank Gaborone owns 57% of these 21 branches with Bank Baroda operating from one city branch. Altogether, theses banks are responsible for about 1.6% of Batswana adults with bank accounts.

Thus, the strengths of the commercia banking sector lies in their robust platforms, and for those like FNBB, the distribution network and focus on retail clients include some at the bottom of the pyramid. The combination of relevant products, good retail platforms with digital reach, and a culture that values retail business provides a basis for collaboration to extend banking services into the rural areas with low population density and dominated by farming. Most commercial banks, however, have insignificant interest in the rural areas and the agricultural sector.

(ii) *Development-oriented government financial institutions provide an intentional focus on rural and enterprise financing, but their potential and impact continue to be hampered by legacy and operating challenges.* Rural, agricultural and enterprise finance has been receiving more attention from several government institutions over the years, an indication of the inadequacy of private sector banking institutions to meet emerging needs of these sectors. However, as a closer review shows, these institutions suffer operational inefficiencies, resource and technical limitations, and therefore their various programmes would benefit from efficiency enhancing interventions to better focus their delivery, strengthen their outcomes and entrench their impact. A detailed review explains these observations further.§

Botswana Development Corporation Limited (BDC) is the largest of the government institutions in development finance by asset size (P4.2 billion[23]) which was set up in 1970 to invest in agricultural, commercial, and industrial projects through the provision of loans and equity finance. It has typically concentrated on medium and large-scale projects. Its portfolio of P3.8 billion has a minimum deal size of P30 million and hence lacks a focus on the rural poor.

Botswana Savings Bank (BSB) has total assets of P2.9 billion, 196 employees, and operates through 6 dedicated branches (and 14 ATMs) but with services available countrywide through special savings bank counters within post offices in most parts of

[20] Stanbic Bank Botswana Annual Report 2020 (Para 42 on Financial Risk Management)
[21] FinScope Botswana 2020
[22] African Banking Corporation of Botswana (BancABC) Annual Report 2020
[23] Botswana Development Corporation Annual Report 2020

the country[24], giving it the most extension financial services network in the country. BSB is a government-owned bank established in 1992 through the Botswana Savings Act (Cap. 56:03) to mobilise domestic savings (deposit-taking), grant loans on commercial terms and offer any other financial services as it considers necessary under the supervision of the Bank of Botswana. Operating through various incarnations since 1911, BSB has the longest continuous existence of any financial institution in Botswana. Historically, BSB has played an important role in allowing poor and rural people a chance to have savings accounts but has been criticized for generally concentrating its lending activities on the formally employed in the urban centres to the detriment of the poor in the rural areas. 1.1% of Batswana adults who have bank accounts save with BSB.

The Citizen Entrepreneurial Development Agency (CEDA) was established in 2001 by the government of Botswana to strengthen the entrepreneurial capacity of small, micro and medium enterprises (SMMEs) augmenting it with provision of finance targeting agriculture, mining, tourism, services, property and manufacturing sectors. CEDA's current asset size of P1.8 billion, a portfolio of P1.0 billion[25] loans and P123 million in equity investments and operating through 11 branch offices[26] nationwide, belies its potential to provide critical interventions to key segments of Botswana, including agribusiness and rural development. Its business model of building the capacity of entrepreneurs through training, coaching and mentorship in technical and business development services with financing facilities in support of start-ups and going concerns, can be strengthened to achieve greater impact. Among CEDA's dedicated facilities are a Venture Capital Fund with a window for larger businesses, the Credit Guarantee Fund which provides partial guarantees for commercial bank loans to SMMEs, and a dedicated Young Farmers Fund, which was established to provide access to capital by young people to engage in sustainable primary agricultural projects. CEDA has also been providing microfinance through the Mabongo Dinku product for small micro entrepreneurs which is a group guarantee scheme which has funded 3,000 individuals since 2016. Since 2016, CEDA has supported investment of P2.343 billion. CEDA has also partnered with commercial banks to provide loans to the informal sector.

CEDA was established in response to felt needs emerging from the July 1999 edition of the National Conference on Citizen Economic Empowerment (NCCEE) and led to the streamlining of previous government grant-based programmes and initiatives into more ambitious loan-based interventions, albeit on concessionary basis comprising subsidized interest rates and generous moratoria and grace periods. These terms, well-intentioned and necessary in many instances, nevertheless, create sustainability challenges which continue to plague its operations. This was accentuated by the year-on-year 17.2% erosion of capital and reserves in 2020 to P1.8 billion; this was likely associated with the inability of customers (mostly SMMEs) to service their loan obligations, a situation worsened by the negative effects of the Covid-19 pandemic containment measures[27].

CEDA is addressing the issue of inadvertently not emphasizing enough the targeting of micro enterprises with the introduction in July 2020 of Revised Guidelines which seeks to make its loans more accessible by adjusting loan limits, interest rates and repayment periods in response to emerging needs of prospective and current clients. Since inception, the CEDA has invested P3.8 billion and created 54 954 jobs in Batswana[28].

[24] BSB Annual Report 2019/20
[25] Bank of Botswana Annual Report 2020
[26] BoB Directory of Financial Institutions Operating in Botswana as at December 31, 2020
[27] Bank of Botswana Annual Report 2020
[28] https://www.ceda.co.bw/publications

National Development Bank (NDB) is a non-deposit taking development finance institution (DFI) supervised by Bank of Botswana (BoB) which was established in 1963 under the National Development Bank Act (Cap 74:05) to provide financial services to business ventures in agriculture, tourism, commerce, manufacturing and industry, real estate and human development sectors.

With a total asset base of P1.3 billion, NDB operates in 5 locations, including its head office in Gaborone[29]. Despite the sectoral diversity its portfolio, NDB has a focus on developing agriculture with 37% of its loans invested in the sector. The total value of NDB approved loans has been steadily increasing. In 2016, the value stood at P47 million. This increased to P167.5 million in 2017 and increased further to P243.1 million in 2018[30]. Compared with commercial bank credit which was P68.3 billion in September 2020, the contribution of NDB is relatively small. In its efforts to transform and commercialize NDB into a more formidable banking institution, the government has engaged the African Development Bank (AfDB) which is yet to complete its assessment and recommendations for a renewal process as at mid- Q4 2021.

Botswana Building Society (BBS) has an asset base of P4.1 billion[31], and was established in 1976 under the Building Societies Act, from which it derives its deposit-taking authority. It is owned by members, who have voting power in relation to the number of shares they hold. Although it originally had a majority government shareholding, the government is now a minority shareholder as funds have been raised from other depositors. BBS primarily offers mortgage loans as well as savings services, transactional products and short-term loans.

During its first ten years of operation, BBS was restricted by law to lend only against the security of immovable urban property. *The Act was amended in April 1986 to permit lending in rural areas.* Up until 1986, BBS restricted its lending only to residential properties, but since that time it has also ventured into commercial property lending. In April 2018, BBS was demutualized under the Companies Act (Cap.42:01) which has opened its clientele to help account for its retention of 1.1%[32] of adult Batswana who reported holding a bank account, a level which is higher than at least three commercial banks (Bank of Baroda, First Capital and Bank Gaborone). BBS has, however, been making losses since 2017 and seeking a banking license to broaden its mandate to that of a commercial bank to leverage its customer market position, and thereby diversify its income base[33].

Credit Guarantee Schemes sponsored by the government of Botswana are available in the financing market. Among these is the Agricultural Credit Guarantee Scheme (ACGS) available for dry land farming since 1986 and which assists farmers with debt obligations in case of crop failure due to drought, floods, frost and hail. The scheme covers seasonal inputs and working capital, farm and field development and farm machinery and equipment. The assistance available under the Scheme, which offers coverage of between 0% to 85% of the installment falling due in a cropping year, is drought relief or contributions to instalments for loans taken under the ACGS[34].The ACGS is prone to

[29] BoB Directory of Financial Institutions Operating in Botswana as at December 31, 2020
[30] National Development Bank Annual Report 2017/2018.
[31] BoB Directory of Financial Institutions Operating in Botswana as at December 31, 2020
[32] FinScope Botswana 2020
[33] BBSL Annual Report 2020
[34] Lesego Machete, R. (2020). Towards a Sustainable Agricultural Credit Guarantee Scheme.

moral hazard resulting in excessive borrowing, especially in a situation where it is likely for the loan to be written off[35].

Also available are *guarantees* from *Botswana Export Credit Insurance and Guarantee Company (BECI)* which was founded in 1996 wholly owned by Botswana Development Corporation Limited (BDCL). BECI's core function is to develop and equip businesses with trade credit Insurance policies to protect them from the danger of non-payment by credit customers. It is currently managing the government's COVID-19 Loan Guarantee Scheme as part of its economic response to the impact of offering a partial Government guarantee of 80% to Banks against losses on qualifying loans to eligible applicants. It has been observed that these guarantees have not been accessible by small and microenterprises in the absence of a strong banking and credit record.

Credit guaranteee schemes of the kind deployed under the ACGS and by BECI present the challenges captured as lessons from IFAD's rural finance experience[36]. Thus, among the general challenges facing loan guarantee schemes such as the ACGS include high, unsustainable operating costs, inadequate capitalization, inadequate recoveries, and distortions caused by domestic and international donors.

There are however possible entry points for IFAD's engagement into the Botswana rural finance space leveraging the clout of a government entity which has a focus on the agricultural sector, SMME development, rural development in general and support to marginalized groups such as the youth and women. Such potential partners should also manifest a business model which combine financing with capacity development in skills development, entrepreneurship and financial management, etc, both as a risk mitigation measure and human capital development strategy. These appear to come together in the operations of CEDA and to a lesser extent, NDB and BSB. NDB's significant portfolio in agriculture provides an important entry point and should be a potential leverage to collaborate with them with a view on IFAD targets and instruments. In collaborating with CEDA, it would be important to review possible synergies with the Local Enterprise Authority (LEA), which was established under the Small Business Act of 2004 (Cap 43:10) under the Ministry of Investment, Trade and Industry, to champion entrepreneurship and enterprise development in Botswana and currently has a nationwide 15-branch footprint, in addition to 5 incubation centres[37].

Such collaboration would, however, require the capacity development of these partner institutions themselves given the operational weaknesses discernible from their operations.

(iii) *Other non-bank financial service providers in Botswana are active but have relatively small consumer (rather than productive) micro-lending operations to salaried workers and overall have minimal impact, even in rural areas*. These are mainly formal credit institutions primarily engaged in consumer lending against the security of payroll deductions. Prominent among these "term lenders" are Letshego, a Botswana-based multi-national operation which started in 1998, now listed on the local stock exchange targeting employees with the central and local governments, other public sector entities as well as the private sector. Now operating in 11 countries in West, East and Southern Africa, 1,497 employees in 199 branches and 5.18 million customers[38], Letshego relies on its tested business model of payroll lending. In Botswana, Letshego has 148 employees, 16 branches

[35] Jefferis, K., von Rudloff, L., Kenewendo, B., Sigwele, H., Tlali, B., & Moyo, T. (2012). Status of Agricultural and Rural Finance in Botswana.
[36] IFAD. (2014). Loan Guarantee Funds
[37] https://www.lea.co.bw/lea-mandate
[38] Letshego Group Interim Results, June 2021

and 29,500 customers and accounts for 65% of the MFI market with a loan book of P2.6 billion[39]. Letshego makes minimal effort to target IFAD clients and has no particular interest in rural finance. Other competitors in this space are Blue Financial Services, Penrich Employee Benefits (operating in collaboration with various trade unions), Peo Micro (associated with Penrich), and First Funding. Peo Micro and Penrich are affiliated with the Capricorn Investment Holdings, which owns Bank Gaborone (and incidentally Bank Windhoek in Namibia), and First Funding is also affiliated with FNB Botswana. Important operators in this sector are Bayport and Afritec, both very much in the consumer finance space with the latter in a major partnership with the Furnmart Group, the furniture retailers through its 30 branches in Botswana.

Another category of similar but smaller microlenders, referred to as "cash lenders", are typically members of the Microlenders Association of Botswana (MAB), which provides a platform to regulate its members since its formation in 1998.

Traditional microfinance, that is, mobilizing savings to provide credit, is not well-developed in Botswana. Two institutions, Tokafala and Women's Finance House, are currently the only ones permitted by the Bank of Botswana to engage in such operations and do service the SMME market albeit to the extent of their limited capacity and footprint[40].

Thus, whilst conventional wisdom would dictate that micro level financial institutions would play a more active role in rural finance, their impact in Botswana is limited. As noted by NBFIRA, nonbank lenders in Botswana predominantly service the employed and includes: the life insurers, micro-lenders, pawnshops, finance and leasing companies which fall under the regulatory purview of NBFIRA. Most rural actors in need of financing for various entrepreneurial ventures are not in salaried employment and therefore do not fit the typical business model deployed by both "term lenders" and "cash lenders". And the few institutions with promising models have limited scope and resources. Their models may also not be easy to replicate without significant and perhaps, unsustainable financial support as these have tended to be NGOs.

(c) Meso Level

(i) *Bankers Association of Botswana (BAB,)* comprising the Bank of Botswana and the major banks, is an advocacy body lobbying for the interest of the banking sector with important stakeholders in government, and the private sector and the public. BAB works to maintain performance standards in the banking industry guided by a self-regulatory Code of Conduct revised in 2011[41]. The Code sets the minimum standards of good banking practice and relations with clients. BAB also launched a P1.5 million electronic Know-Your Customer (eKYC) system[42] provides commercial banks with online instant verification of identity card against the national database. a vital pillar in ensuring that banks adhere to the structures of Know-Your-Customer (KYC) compliance, which is a critical component of an effective national Anti-Money Laundering (AML) regime. BAB contributed to the

[39] MAP 2021 Botswana: Financial Inclusion
[40] Non-Bank Financial Institutions Regulatory Authority (NBFIRA) 2020/2021 Bulletin. https://www.nbfira.org.bw/sites/default/files/2020%20-%202021%20Research%20Bulletin.pdf
[41] https://www.mmegi.bw/business/banks-launch-new-code-of-conduct/news
[42] https://news.thevoicebw.com/2021/04/bankers-association-launches-ekyc/

development in the development of the National Financial Inclusion Roadmap but does not appear to have any appetite in rural development beyond limited corporate social responsibility interventions.

(ii) *The Microlenders Association of Botswana (MAB)* is made up of smaller microlending institutions also referred to as "cash lenders" and continues to provide a platform to regulate its members via the use of various business conduct rules. These rules which govern member operations include subscribing to agreed interest rate caps (e.g. not to exceed 30% per month), subscription to the use of Compuscan (now Experian Botswana (Pty) Ltd, a credit information service headquartered in South Africa), develop a credit referencing practice for all loans using Experian and a commitment to adhere to the MAB's Code of Conduct which each member is expected to display in visible locations of its operating premises to reassure its clients. MAB members, as their "term lender" colleagues, operate under the oversight of NBFIRA who exercise regulatory and supervisory powers over these institutions. The common feature of these microlenders is their lack of strategic focus on productive loans, thus, whilst some of their loans end up financing productive activities of clients, these are neither addressed with bespoke products nor are sensitive to the cashflow cycle of those activities as would obtain in the cashflow associated with a crop cycle.

(iii) *Credit information infrastructure* in supported by subsidiaries of major South African companies in Esperian, Compuscan and TransUnion with credit bureau and information services. They collect, provide and protect quality data on individuals and businesses to assist companies across multiple industries with consumer verification, application processing, consumer management, lending decisions, tracing and collections. There is currently a Credit Information Bill to enhance the operating framework to promote availability of reliable, timely, and complete consumer information for assessing eligibility for credit; provide data providers with access to comprehensive, consistent and validated consumer information; provide consumers with protection from unfair conduct by data providers; and to provide governing regulations for credit bureaus. The Credit Information Bill being drafted by MFED, in coordination with BoB, will make it mandatory for credit and data providers to submit data to the credit bureaus that will transmit it to a credit registry, thus enabling financial institutions to better assess the credit worthiness of clients before granting credit. It will establish an efficient credit reporting system that will reduce the cost of credit and thus enhance access to credit and improve financial inclusion, as well as address the problem of over-indebtedness. BoB is the regulatory authority for drafting and implementing the legislation[43].

(iv) *Technical and Training Service Providers* in Botswana are used by bilateral and multilateral development partners as well as financial institutions to improve the knowledge and skill levels of their staff and clientele. Where necessary, additional resources have been available from the larger market in South Africa

At the meso level, the support institutions on the supply side have advocacy operations which promote their interests but advance the functioning of their markets. The apex bodies and apex groups on the demand side, however, such as consumer associations were not identified to be equally resourced or visible.

[43] Government of Botswana (2018): Volume 1 Mid-Term Review of NDP 11

There is adequate financial market infrastructure to support the activities of banks and their clients. Where gaps may exist, additional skills can be procured from nearby markets in South Africa, particularly with regards to technical and training support services.

(d)Macro Level

(i) *Physical:* Botswana is a low density (small but highly urbanized population with large land mass) landlocked country located in an arid region. The rapidly declining 30% rural population continues to contend with challenges to agriculture such as the effects of climate change and infrastructural deficits in its developmental agenda.

(ii) *Economy:* Agriculture's share of GDP in Botswana has been stagnant at 2% historically as has been its growth which during 2017/18 and 2018/19 was at 2.5%, the slowest real sector growth node of the economy. The available agricultural sector employment data indicate the sector provided jobs for 80,000 adults, equivalent to 12%[44] of the employed population. The sector's highest contribution to export revenues is from beef, hides and skins which adds only 2% and has been in long term decline.

(iii) *Development Policies*: The overarching development paradigm in Botswana is the Vision 2036 whose four pillars encapsulates a vision to achieve key goals in sustainable economic development, human social development, sustainable environmental management and good governance, peace and security. This is being pursued through the 11th National Development Plan (NDP) 11 (2017 - 2023) themed "Inclusive Growth for the Realisation of Sustainable Employment Creation and Poverty Eradication". This theme is being pursued through the implementation of six national priorities, namely: developing diversified sources of economic growth; human capital development; social development; sustainable use of national resources; consolidation of good governance and strengthening of national security; and implementation of an effective monitoring and evaluation system. Thus, the development of the rural, agriculture and financial services sectors are an integral part of diversifying sources of economic growth. As part of this effort, the national Financial Inclusion Roadmap and Strategy (2015-2021), aims to promote inclusive economic growth as it strives to accomplish three inter-linked goals: improving livelihoods, driving economic growth and driving industrialization through five priorities: Improvement of the Payments Eco-System; Facilitation of Low Cost, Accessible Savings Products; Development of Accessible Risk Mitigation Products; and Improvement of the Credit Market and Consumer Empowerment and Protection.

(iv) *FI Regulation and Supervision:* The Ministry of Finance and Economic Development (MFED) retains policy-making responsibilities, with regulatory and supervisory duties split between the Bank of Botswana (for banks and deposit-taking MFIs, forex bureaus and payment systems), and NBFIRA (for all other credit providers, insurers, pension funds and capital market) and the MFED overseeing residual sub-sectors such as building societies and state-owned financial institutions (e.g. NDB and BSB established by statute) and other government DFIs (e.g. BDC and CEDA registered as companies). Although statutory banks do not require banking licenses and are ultimately under the control of the Minister of Finance and Development Planning, the Banking Act gives the BoB powers to supervise such banks, as well as building societies

[44] Statistics Botswana BMTHS 2015/16

established under the Building Societies Act. Hence, the BoB carries out regular examinations of the Botswana Savings Bank, the National Development Bank and the Botswana Building Society. BDC and CEDA remain unregulated as financial institutions.

There are regulatory gaps needing modernizing and clarity to keep pace with emerging technologies (e.g. mobile money) and related distribution channels to reach a low density population in a cost efficient manner. That said, there remains several FSPs (mainly micro-lenders) operating outside the regulatory bubble serving clients predominantly in the unbanked, underserved and excluded segments, including in the rural areas.

The challenging physical environment in Botswana contributes to the high urbanization, but it does offer opportunities for interventions which might be favoured by climate smart agricultural practices and climate finance assistance.

The agricultural sector retains the potential to drive the diverse economy of Botswana and to absorb more of the unemployed from the labour market. Improvement in agricultural production will strengthen domestication or import substitution with benefits on both the balance of trade and foreign currency management.

The agricultural sector, despite its declining contribution to GDP and growth, has a relatively higher proportion of employed people with the potential to absorb additional persons, especially of the youth and women, given the necessary motivations and structures. Fortunately, there are several institutions operating in the inclusive financing and enterprise development space which can be empowered and whose synergies can be leveraged to drive economic growth in a positive direction.

The policy, regulatory and supervisory framework is on course to sustain the effective management of the financial sector. The earmarked plans, especially those identified under both the NDP 11 Mid-term review process, and the MAP 2021 Financial Inclusion Diagnostic should be adequate to resolve identified regulatory gaps provided they are diligently implemented.

[3] CONCLUSIONS AND RECOMMENDATIONS

Conclusions: Botswana continues to experience high urbanization or rural-urban migration which may be fueled in part by lack of employment opportunities and less infrastructure thereby effecting the quality of life. The various stakeholders in the rural areas have inadequate access to finance to fund economic opportunities. The low population density demand cost-effective financial services and appropriate products. Financial market infrastructure would need enhancements to the mobile telephony system to strengthen coverage to the rural areas where programmes to increase use of services including internet usage will strengthen the use of e-banking services, that is, in payments, savings, credit, etc. To this end, the various recommendations to minimize regulatory gaps to buttress these improvements should be diligently implemented as they adequately address the identified needs.

Potential to partner with existing government institutions with a strategic interest, culture, experience and expertise in rural, agricultural and enterprise financing tolerant of IFAD clients exist in CEDA (with LEA), NDB and BSB. It will be imperative to package assistance to these institutions themselves to address their internal weaknesses to ensure their effectiveness in any potential partnerships.

Recommendations: First, as an initial assessment, and in line with the IFAD Rural Finance Policy, it will be important to undertake a more detailed assessment of the

identified institutional to evaluate their suitability more specifically for partnership, interest in a collaboration especially as pertains to the IFAD target group. Second, study in more detail the core issues related to the technologies available for developing, rolling out and maintaining e-services, the regulatory gaps regarding these emerging technologies and existing recommendations to resolve these, but more importantly, the likelihood of their imminent implementation to ensure expectations of distribution platforms would be realistic.

Annex 14: Technical Note on Districts Selection

Rationale for selection of districts for BOLCOP Project

BoLCoP districts and intervention areas have been selected based on concept note and design missions' consultations, field observations and meetings with Government of Botswana. The selection of BoLCoP districts is informed by a set of criteria as follows:

1. high concentration of small livestock and value chain actors – this ensures critical mass for value chain development and economies of scale;
2. agroecological suitability for small livestock production – based on climate resilience, grazing conditions, and land-use potential, high livestock and human populations;
3. presence of existing small livestock infrastructure and support systems;
4. potential for commercialisation and accessibility to markets;
5. strong representation of priority target groups - these include women, youth, and poor rural households who depend on small livestock for income and food security;
6. elevated levels of food insecurity and malnutrition – as reported in recent district-level surveys and nutrition vulnerability assessments; and,
7. high poverty incidence and rural marginalization – particularly in inland and, remote zones underserved by past investments.

Accordingly, the following districts were selected based on the above criteria

Rationale 1: Clusters of districts with high potential for commercialization, high presence of value chain actors, rural finance, including high human and small livestock populations

a) Greater Gaborone (Molepolole, Thamaga-Mogoditshane, Ramotswa, Tlokweng and Kgatleng, Letlhakeng) Cluster;

b) North East, Tonota – Botswana Meat Commission Cluster;

c) Mahalapye, Serowe, and Palapye – Central cluster;

d) Kanye and Good hope – Botswana Meat Commission Cluster; and

e) Boteti (part of both Central and North East clusters).

These districts are close to each other and have high populations, which will help the project reach its outreach figures in a cost-efficient manner. The proximity of the districts provides a good opportunity for clustering and market-oriented production. Some level of commercialization is already on going, hence these districts form a low-lying fruit for the project to promote commercialization.

The districts also have a good network of infrastructure and a strong presence of small livestock value chain actors. The markets e.g. retail stores, institutions such as schools and hospitals, and government agencies are well developed. Poultry value chain players from primary production to retail are concentrated around these districts, which include marketing infrastructure and training facilities. For sheep and goats, the majority are micro scale producers and also emerging commercial farmers of boer goat and meatmaster stud breeders.

The districts' strength also lies in the growing demand for poultry, chevon, lamb and mutton. Potential for mixed farming systems due to availability of agricultural land and farms will also provide an added advantage to align with the IFAD funded DeSIRA+ grant, which will finance mixed livestock and horticulture systems.

The North East, Kanye and Lobatse districts offer a good opportunity to leverage on existing Botswana Meat Commission (BMC) facilities, including the proposed small stock slaughter lines. The BUAN training centre in Lobatse also provides opportunities for training farmers and value chain actors in small stock and the use of their slaughter slabe. Francistown has several value chain actors, service providers and a well-developed market given it's the country's second city. The proximity of Tonota to Francistown will give better access to farmers in Tonota to these facilities. There are several financial institutions supporting these districts, including the National Development Bank and the commercial bank that will manage the NSO, hence the potential for rural financial inclusion is very high.

Rationale 2: The Tsabong Abattoir cluster districts

The project has been requested by the GoB to work with districts surrounding the Tsabong Abattoir, which is a state-of-the-art facility that was constructed to serve the Kgalagadi and surrounding districts. The government is working with the BMC to operationalize the abattoir. The cluster of districts expected to serve the abattoir include Ghanzi, Charleshill, Hukuntsi, Tsabong, and Mabutsane.

The GoB invested over P161 million (US$ 11.5M) in the construction of the Multi Species abattoir in Tsabong, with a capacity to slaughter 200-300 goats/sheep daily. The selected districts are arid zones, traditional goat and sheep farming areas with high productivity indicators, low disease prevalence and resilient breeds (Boer goat, meatmaster and dorper sheep). They also offer opportunities for the implementation of climate smart interventions, strengthening/establishment of cooperatives e.g. Molopo Smallstock Cooperative, as well as market-oriented production. These areas also have good browse zones for goats and grassland savanna zones which favour sheep production.

There are few economic activities in these areas and livelihoods are dependent on livestock production especially Mabutsane, Tsabong, Hukuntsi and Charleshill. The poverty and child malnutrition levels are also high, as well as low participation of women and youth in agricultural activities in an economically meaningful manner.

Given the vastness and low populations of these districts, it will be important that at pre-implementation, the PMU clusters the region further, based on human and livestock populations as well as the viability to reach project milestones. The distances of the districts to the abattoir also need to be taken into consideration, looking at the possibility of having aggregation points or other value chain actors handling logistical aspects.

Ngamiland Region – Proposed by the GoB but IFAD has reservations

NB: The GoB has requested that we consider extending investments to the Ngamiland region – namely, the Northwest and Okavango.

This region is in a Foot and Mouth Disease (FMD) endemic area or red zone, therefore meat products from the region have limited access to premium markets. The region's frequent FMD outbreaks will elevate the project's risk levels and require heightened and stringent safeguards measures, including IFAD having to deal with the reputational risks associated with food safety issues. The main markets are hotels, restaurants and government institutions, given the region is a valued tourist destination. The Ngamiland region is also considered a world heritage area, with the world's most highly endangered

animals, which would further require higher safeguards measures and high intensity of monitoring of project interventions.

The mission therefore recommends that this region is not considered for IFAD financing for production-related activities but can serve as a market zone for other districts intending to supply meat and poultry products to the various hotels and institutions. This is also due to the limited ability of the local populations to sufficiently supply these markets and low demand associated with FMD prevalence.

Annex 15: BoLCoP Digital Tools and Solutions – Technical Annex and Implementation Guide

Implementation Guidance by Component

Digital Extension and Animal Health Services

To implement these tools effectively, BoLCoP should initiate with a needs assessment among smallholder producers to understand preferred communication channels and digital literacy levels. The SMS and IVR content should be co-developed with extension experts, local language translators, and user-testing groups to ensure clarity and relevance. Anton Tech's AI diagnostic tool should be piloted with a sample of CAHWs, with integration into their workflows and training. For the CAHW mobile registry app, collaboration with BUAN, NARDI or local startups should support app development, data synchronization features, and compatibility with existing systems. A phased rollout with embedded monitoring will guide scale-up.

Digital Rangeland and Advisory Tools

The integration of weather data and seasonal forecasts should be done in partnership with the Department of Meteorological Services, ensuring automated data feeds to the digital platforms. Messaging should be localized using region-specific forecasts and disseminated via SMS/USSD. Pest alerts and rangeland indices should be shared weekly with practical grazing recommendations. Mobile geo-tagging tools should be introduced to track livestock movement and rangeland degradation, with training provided to extension officers. The potential of leveraging the planned Botswana Satellite Technology (BotsSat) should be explored to strengthen climate-smart grazing insights and remote diagnostics.

Drone Use for vaccine delivery, rapid damage, disease-risk scans, and monitoring of pasture and degradation

BoLCoP will use drones primarily to speed up vaccine and medicine delivery and strengthen disease surveillance, while also monitoring pasture condition and land degradation. Each target district will form a small drone team (prioritizing trained youth and women), secure permissions, and follow clear safety and community-notification steps. On a fixed schedule and whenever outbreaks or shocks are suspected, teams will fly rapid damage and disease-risk scans to identify safe routes, blocked roads, flood damage, carcass hotspots (biosecurity risks), and the closest accessible delivery points for CAHWs and district vets. Routine flights will also capture up-to-date imagery that is converted into easy-to-read pasture and degradation maps (e.g., bare soil, erosion spots, stressed grazing blocks, water-point status) to guide grazing plans and maintenance. All maps and alerts will be uploaded to the MIS and summarized for field teams so vaccination drives, treatment rounds, grazing adjustments, and repairs can be scheduled and redirected in near-real time as conditions change. Drone teams will maintain simple routines for batteries, spares, and software updates, and each pilot will complete an annual refresher to stay current and safe.

Digitalization of Livestock Identification and Management

Upgrading BAITS will involve customizing its data fields for goats and sheep and linking records to health, location, and market readiness. Mobile-compatible interfaces should be designed to function offline, syncing when connectivity is available. Each district should receive tagging kits and mobile electronic scales, with CAHWs and vet officers trained as frontline implementers. Livestock Management Systems (like Modisar) should

be piloted in two to three districts to gather feedback before scale-up. Integration with TLMS and national databases will support traceability and service eligibility.

Climate Advisory and Solar Enablement

To support digitalization in off-grid areas, BoLCoP should deploy solar kits for powering tagging equipment, tablets, and network boosters. For climate advisory platforms, weather forecast dissemination through USSD and WhatsApp bots should be automated using scripts and integrations with weather APIs. Training content should include interpreting weather information for action (e.g., early destocking). Digital champions within communities should support the dissemination of climate alerts and technical advisory.

BoLCoP Digital Payments: ExtoPay Implementation

BoLCoP will use ExtoPay as its digital payment tool to run e-voucher subsidies, pay producers, and support group savings and loans, with strong reach into remote areas. Farmers will be onboarded through simple options that keep costs low: (i) a basic QR "ExtoCard" (about $0.20–$0.40) issued by local agents; (ii) a merchant/agent kit using a biometric card (about $25–$40) with either with a low-cost Android device, or a small $15 'soundbox' POS (a simple box that confirms transactions by voice); and (iii) for those with smartphones, a free mobile wallet app. Hardware will be provided at cost, and a small transaction fee (around 0.20%–0.30%) will apply. E-vouchers will be "purpose-bound," meaning they can only be spent on approved farm inputs at registered shops to reduce misuse and improve targeting. To reach communities with weak network coverage, agents will be able to record transactions offline and sync later; USSD for basic phones will also be enabled. Personal data and biometrics will be managed by a regulated Banking partner (Bank of Gaborone as ExtoPay will only supply the technology and will not hold customer funds). BoLCoP will start with a fast, closed-loop pilot and then connect the system to national payment rails and bank APIs so money moves easily between the project and the wider financial system. The pilot will be completed in roughly eight months (driven mainly by a four-to-five-month lead time for biometric card production). This payments layer will link with the project MIS and e-voucher modules and can integrate with the national livestock traceability system (BAITS) to strengthen transparency, targeting, and service delivery.

Market Information Systems and e-Voucher Enhancement

A livestock MIS platform should be co-developed with local partners using existing mAgri architecture, with market price data sourced from abattoirs and buyers. The system should allow real-time updates via a mobile dashboard and farmer-facing menu. WhatsApp-based market alerts and radio linkages should complement the MIS.

The Table below outlines all the digital solutions proposed under BoLCoP to support small-scale livestock producers. It includes deployment details, implementing partners, and functionality.

Digital Tool / Solution	Functionality	Target Users	Implementing Partners	Deployment Details	Key Remarks
USSD and IVR e-extension services	Dissemination of livestock management tips, market	Small-scale livestock producers	Dept. of Extension, BUAN, NARDI, Ministry of	Piloted in 3 districts in Year 1; scaled in Year 2-4	Accessible on basic phones, local language support

	updates, weather info		Comms and Innovtions		
Mobile CAHW Registry App	Tracking CAHW visits, treatment history, e-extension, and follow-ups	Community Animal Health Workers (CAHWs)	Dept. of Veterinary Services, Agritech startups	Developed by Year 1; rolled out via CAHW trainings	Enhances accountability and coverage of animal health services
AI diagnostic tools (e.g., Anton Tech)	Mobile-based disease identification using AI and photos	Farmers, CAHWs, Vet Officers	Private sector (Anton Tech), BUAN	Pilots launched in Year 2 in 2 districts	Requires smartphone access; to be bundled with CAHW kits
BAITS enhancement for small stock	Digital registration, movement tracking, health & vaccination records	Livestock producers, veterinary officers	DVS, IT firm (current BAITS service provider)	Upgrade planned Year 1-2; district-level rollout from Year 3	Link with LMS, TLMS, and extension apps
Climate info integration (SMS/WhatsApp)	Seasonal advisories, weather alerts, pest info	Farmers, cluster leaders	Dept. of Meteorology, Agritech firms	Bundled into e-extension system by Year 2	Localized forecasts to support resilience
Market Information System (MIS)	Price alerts, buyer–seller matching, digital grading tools	Producers, aggregators	Private tech partners, Ministry of Trade and Industry	Co-developed Year 1, piloted in Year 2, scaled by Year 4	Linked to USSD/mAgri, builds market trust
Digitally enhanced TLMS e-voucher	Subsidy access, input redemption, e-wallet interface	Small-scale producers	MoLA, BG, Extopay	Upgrade and pilot Year 1; integrated in TLMS Year 2+	Improves equity, transparency
Digital Grant and Loan Management for TLMS	Improved application tracking, disbursement logs	NDB, MoLA staff	MoLA, Financial IT vendors	Developed Year 2; used to support PMU reporting	Reduces bottlenecks in subsidy access
Solar kits for powering digital devices	Powering devices and network	CAHWs, Extension staff	Private solar suppliers	Procured Year 2; distributed	Critical for remote service delivery

	routers in off-grid areas			with device kits	

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Botswana Livestock Commercialization Project

Project Design Report

Annex: Literature Review

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
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Programme Management Department

VALUE CHAIN ANALYSIS AND PROFITABILITY ASSESSMENT OF THE GOAT, SHEEP, PIGGERY, POULTRY AND APICULTURE SUBSECTORS IN BOTSWANA

31 JULY 2025

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ACRONYMS

BITRI	Botswana Institute for Technology Research and Innovation
BOBS	Botswana Bureau of Standards
BoLCoP	Botswana Livestock Commercialisation Project
BUAN	Botswana University of Agriculture and Natural Resources
CCARDESA	Centre for Coordination of Agricultural Research and Development for Southern Africa
CEDA	Citizen Entrepreneurial Development Agency
DAP	Department of Animal Health and Production
DVS	Department of Veterinary Services
FAO	Food and Agriculture Organization
GDP	Gross Domestic Product
IFAD	International Fund for Agricultural Development
ISPAAD	Integrated Support Programme for Arable Agriculture Development
LEA	Local Enterprise Authority
LIMID	Livestock Management and Infrastructure Development
MoA	Ministry of Agriculture
MoLA	Ministry of Lands and Agriculture
NARDI	National Agricultural Research and Development Institute
NDB	National Development Bank
NDP	National Development Plan
SME	Small and Medium-sized Enterprises
SDGs	Sustainable Development Goals
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa

EXECUTIVE SUMMARY

The Botswana Livestock Commercialization Project (BoLCoP) is an upcoming investment initiative led by the Government of Botswana with support from the International Fund for Agricultural Development (IFAD). The project aims to transform the country's small-stock sub-sector by targeting five value chains: goat, sheep, piggery, poultry, and apiculture. This report presents the findings of value chain analyses of the subsectors to support the project design process.

The main objectives of the study were (i) to evaluate the profitability, investment feasibility, and competitiveness of the goat, sheep, piggery, poultry, and apiculture value chains; (ii) to identify key challenges and opportunities along the value chains; (iii) to provide recommendations on geographical areas with high potential for small livestock commercialisation, including opportunities in linkages with existing players, private sector and marketing infrastructure; (iv) to identify partners and initiatives working within the value chains and propose potential synergies and (v) to identify market opportunities within value chains for local, regional, and international markets and propose interventions needed to enhance the market access and linkages. A desk-based study approach that relied on existing data and information sources rather than collecting new data through fieldwork or direct interaction with participants was used to address the stated objectives.

Activities and Key Challenges of the Value Chains

The main activities in the various value chains are input supply, primary production, primary processing, retailing and final consumption. The goat, sheep, piggery, poultry, and apiculture value chains face similar challenges that negatively affect productivity and competitiveness of the value chains:

a) Informal, undeveloped and dominated by subsistence smallholder producers operating in communal areas. There is general lack of commercialization of operations.
b) Majority of smallholder producers use low-yielding traditional methods of farming.
c) Shortage of / low quality of breeding stock.
c) Lack of husbandry/technical/entrepreneurial skills.
d) Low adoption of improved technologies in the segments of the value chains.
e) Limited value-addition (further processing) activities in the value chain.
f) Low performance of producer and other value chain actor associations.
g) Lack of resources (land, human, capital) and implementation capacity.
h) Limited access to credit and finance.
i) Limited access to organized/formal markets and market information;
j) Lack of grading and certification systems for products.
j) Inadequate production and marketing infrastructure.
k) Weak agricultural extension support system.
l) Inadequate legislative framework or lack of specific policy for the subsector.

Profitability and Investment Analysis of the Value Chains

The Private Sector Development Programme (PSDP), a Government of Botswana initiative demonstrated profitability and investment feasibility of piggery, goats, and poultry sectors through its "*Value chain analysis in emerging sectors (meat (piggery, goats and poultry), dairy and leather)*" studies. Gross margin (GM) analysis showed significant positive gross margins at primary production and processing segments of the value chains. The implications are that revenues received at those segments of the value chains were able to cover operating costs of the primary producers and processors. The marketing margins between production, processing and retail segments were also significant and attractive to existing and potential investors in those key points of the value chains (MoA, 2015).

Value Chain Prioritization

The sheep, goat, piggery, poultry, and apiculture value chains can be prioritized for selection and development based on the estimated farm gross margins and marketing margins.

Geographic Targeting

Geographically, the Botswana Livestock Commercialization Project (BoLCoP) proposes to first operate in the Central and Southern parts of the country. The review of literature and facts confirm that the proposed geographic targeting is appropriate. The targeting approach is based on relevant indicators (*largest concentration of small livestock; Most suitable for small livestock rearing; high poverty levels and developed support systems for the small livestock sector)* supported by facts pertaining to the selected project areas.

Local, Regional and International Market Potential and Access

In exception of the poultry subsector, domestic production from the goat, sheep, piggery and the apiculture value chains meets only about 20 % of national demand of the sector products. The national deficit is covered by imports from neighbouring countries, largely South Africa, Namibia, and Zambia. There is significant room for increasing domestic supply of products in the value chains and substitute imported products. There is growing demand for meat in the SADC region, Africa, and the world. This growth in demand for meat and honey products presents a great potential for local producers to export into regional and international markets. This is possible if local producers could increase production, engage in value-addition / further processing of products and satisfy traceability, health, and safety requirements of foreign markets.

Conclusions

1 The main activities in the goat, sheep, piggery, poultry, and apiculture chains are input supply, primary production, primary processing, retailing and final consumption.

2. The goat, sheep, piggery, poultry, and apiculture value chains face similar challenges that negatively affect productivity and competitiveness of the value chains:
   a) Informal, undeveloped and dominated by subsistence smallholder producers operating in communal areas. There is general lack of commercialization of operations.
   b) Majority of smallholder producers use low-yielding traditional methods of farming.
   c) Shortage of / low quality of breeding stock.
   d) Lack of husbandry/technical/entrepreneurial skills.
   e) Low adoption of improved technologies in the segments of the value chains.
   f) Limited value-addition (further processing) activities in the value chain.
   g) Low performance of producer and other value chain actor associations.
   h) Lack of resources (land, human, capital) and implementation capacity.
   i) Limited access to credit and finance.
   j) Limited access to organized/formal markets and market information;
   k) Lack of grading and certification systems for products.
   l) Inadequate production and marketing infrastructure.
   m) Weak agricultural extension support system.
   n) Inadequate legislative framework or lack of specific policy for the subsector.

3. The findings of the study confirm that the proposed geographic targeting of the Southern and Central districts for initial piloting of the Botswana Livestock Commercialization Project (BoLCoP) is appropriate. The targeting approach is based on relevant indicators (*largest concentration of small livestock; Most suitable for small livestock rearing; high poverty levels and developed support systems for the small livestock sector)* supported by facts pertaining to the selected project areas.

4 Farm gross margins and marketing margins for the sheep, goat, poultry, piggery and apiculture sector are different between the value chains and vary along the value chain from primary production to processing and retail segments. All the farm gross margins and marketing margins are positive and significantly high. The value chains are implementable and have potential to generate acceptable returns on investment for the producers, processors, and retailers.

5 Botswana has several opportunities in local, regional, and international markets for increased production, export trade, and foreign exchange earnings. Domestic production from the goat, sheep, piggery, and apiculture value chains satisfies less than 20 % of national demand of the sector products. There is lack of commercialization and value-addition or further processing of primary goods in all the value chains. The country has potential to increase local production to meet local demand, support value-addition or further processing of primary products in these value chains to unlock potential export trade in the region (South Africa, Namibia, Zambia, and Lesotho) and international markets (United Arab Emirates, India, Saudi Arabia and United States of America). satisfy traceability, health, and safety requirements of foreign markets.

Recommendations

1. The proposed investment or interventions to improve production, productivity, and competitiveness of the goat, sheep, piggery, poultry, and apiculture value chains are:

    a) Improvement of breeding stock and genetic diversity in the value chains
    b) Capacity building and knowledge transfer (farmers, associations, extension personnel)
    c) Veterinary services and health management
    c) Access to formal markets and market information (local and foreign markets)
    d) Access to credit, financial and insurance services
    e) Value-addition / further processing in the value chains
    f) Grading and certification systems for products
    g) Production and marketing infrastructure development
    h) Agricultural extension support systems
    i) Climate-resilient practices
    j) Sector-specific development policy reforms

2 Botswana Livestock Commercialization Project (BoLCoP) should first be piloted in the Central and Southern parts of the country.

3. Botswana Livestock Commercialization Project (BoLCoP) should consider selection and prioritize development of the sheep, goat, piggery, poultry, and apiculture sectors in the following order:

Sector (Value Chain)	Rank
Goat	1
Sheep	1
Apiculture	3
Poultry	4
Piggery	5

CHAPTER 1

INTRODUCTION

The Botswana Livestock Commercialization Project (BoLCoP) is an upcoming investment initiative led by the Government of Botswana with support from the International Fund for Agricultural Development (IFAD). The project aims to transform the country's small-stock sub-sector by targeting five value chains: goat, sheep, piggery, poultry, and apiculture. This report presents the findings of value chain analyses of the subsectors to support the project design process.

The main objectives of the study were:

1. To evaluate the profitability, investment feasibility, and competitiveness of each value chain, including opportunities and challenges including the monopolistic structures, especially observed in the poultry sector;
2. To identify key challenges and opportunities along the value chains including operational, institutional, marketing efficiency issues, and opportunities for scalable interventions;
3. To provide recommendations on geographical areas with high potential for small livestock commercialisation, including opportunities in linkages with existing players, private sector and marketing infrastructure (e.g., BMC, small stock multi-species abattoir in Tsabong and BUAN's Small Stock Learning Centre and existing programmes from the Botswana Trade and Investment Centre, Citizen Entrepreneurial Development Agency, Local Enterprise Authority, National Development Bank, Botswana Trade Commission, Meat Industry Regulatory Authority, and Botswana Burea of Standards etc).
4. To identify partners and initiatives working within the value chains and propose potential synergies;
5. To identify market opportunities within value chains for local, regional, and international markets and propose interventions needed to enhance the market access and linkages.

Scope of Work

1. Profitability and Investment Analysis and Market Assessment
    - A cost-benefit and profitability analysis for goat, sheep, piggery, poultry, and apiculture;
    - An analysis on operational gaps, access to inputs, services and output markets;
    - A market structure analysis with information on opportunities, complementarity, entry barriers etc; for domestic, regional and international markets

2. Geographic Targeting Validation and Value Chain Prioritisation
    - Geographical analysis to identify high-potential areas for interventions based on locations of smallholder farmers, production potential, infrastructure, and private sector presence

- Identification of key value chains and regions for focused investment and scaling
- Identification of priority value chains based on profitability and viability

3. Strategic Partnerships Scoping
   - Scoping of priviate sector actors (input suppliers, aggregators, processors, marketers, insurers and financial institutions);
   - Mapping of public programmes and subsidies and business development programmes (e.g. Thuo and Themo Letlotlo Programme, input and insurance schemes, loan, grants, credit gaurantees) relevant to small stock farmers;

4. Review of Secondary Literature and Existing Data
   Collection and synthesis of findings from existing studies and reports on smallholder livestock and value chains, in addition to census data and annual report from the statistics Botswana

Methodology

This assignment was a desk-based study that relied on existing data and information sources rather than collecting new data through fieldwork or direct interaction with participants. It involved analyzing and synthesizing information from the following sources to address the specified objectives of the consultancy:

a) Published Reports and Articles:

   Academic research journals, industry reports, market research reports, government publications (country reports, strategic frameworks, policies, development plans) and company reports.

b) Online Databases and Websites:

   Online repositories of data, academic databases, industry websites, and government statistical websites.

c) Books and other Media:

   Books, magazines, newspapers, podcasts, videos, and other media containing relevant information.

d) Internal Company Data:
   Company reports, sales data, customer databases, and other internal records.

CHAPTER 2

SHEEP AND GOAT SUBSECTORS

Livestock and livestock products, especially small stock (sheep and goats) have a reputation in Botswana and most other countries as ideal food security and poverty reduction assets. It is thus agreed in general that development programmes with a strong emphasis on these assets will result in improved livelihoods of Batswana by providing food, income, employment, and many other contributions to beneficiaries, the agricultural sector, and the national economy at large (MoA, 2016). Smallstock rearing is a widespread and increasingly becoming a popular livestock activity in Botswana, practised by both men and women, including youth, people living with disability and the poor. There are many factors to which to attribute this observation. Among the most obvious contributing factors is that sheep and goats are much easier to handle than cattle and other large animals. They are smaller in size, less labour intensive, generally good-tempered animals, and most importantly, their requirements for resources such as land, water and project start-up capital are much lower when compared to that of cattle and other large livestock. Most households desire to keep sheep and goats because their herd size build up quickly if well-managed and they are easy to sell when in need of cash to cater for household needs.

Value Chain Activities and Actors

Since goat and sheep are similar and are managed largely the same (sometimes kept in the same kraal) in Botswana, the goat value chain (See Figure 1) has been used to illustrate the smallstock (Sheep and Goat) value chain in Botswana. The smallstock (sheep and goat) value chain in is undeveloped. The main value chain activities consist of input supply, primary production, trading, processing, retailing and consumption, with the main actors being input suppliers, producers, traders, processors, retailers, and consumers (local and foreign).

Input suppliers

Input suppliers include breeders, feed suppliers, veterinary services providers and education and training providers. The breeders provide pure breeding stock to producers. However, there are very few sheep and goat breeders in the country. Majority of them run small scale operations and produce very few breeding animals per year. There are only three feed manufacturers (2 medium-scale and 1 small scale enterprise).

Primary producers

Sheep and goats are kept largely for their meat and skin in Botswana, even though some producers would consume milk and get wool from the sheep. The national herd of sheep and goats in Botswana is approximately 1.2 million goats and 250,000 sheep. Table 1 shows the distribution of national herd of sheep and goats by production system. Majority (95%) of the sheep and goats are within traditional, communally managed areas and are small household flocks of Tswana breed kept for subsistence purposes. Only 5% of sheep and goats are kept in fenced commercial production areas, of which 4% are improved breeds (crossbreeds) while 1% are stud flocks (pure breeds).

Table 1 Distribution of National Herd of Sheep and Goats by Production System

Segment / Production System	Goats		Sheep	
	Number	%	Number	%
Small flocks in traditional areas (communal areas) mainly Tswana breed	1,100,000	95	237,500	95
Moderate flocks in fenced production areas – improved breeds (crossbreds)	48,000	4	10,000	4
Stud flocks – Pure breeds	12,000	1	2,000	0.8
Farm level finishing	-	-	750	0.2
Total	1,160,000	100	250,000	100

Source: Adapted from MoA (2021).

Traders

Traders are middlemen that connect producers to consumers of their products. These are largely individuals in Botswana, but it can also be a company that buy sheep and goats from producers and sell them to larger traders or directly to markets (individual consumers, hotels, restaurants, or butchers).

Processors

Processors transform raw animal products into marketable goods. This includes activities like slaughtering, meat processing, and potentially dairy processing. The processors in the sheep and goat value chains are abattoirs and butchers (they are all small-scale operations) that engage in primary processing or slaughtering of live sheep and goats to convert them into carcasses. There is limited further processing (or secondary processing) of carcasses into processed products. Sheep and goats are sold as whole carcasses with little boneless meat sales.

Retailers

Retailers sell processed or live sheep and goats to consumers. They include butchers that directly sell meat, often purchasing live sheep and goats from traders or farmers and slaughtering them; Informal retailers such as roadside vendors and those selling from handcarts or baskets) and modern retailers (larger stores or supermarkets that offer a wider range of sheep and goat products, including processed items).

Final consumers

The final consumer purchases and uses the smallstock products such as meat, milk, or other byproducts and completes the value chain for sheep and goats. These may be local consumers (informal or formal). Table 2 presents annual demand, prices and value of sheep and goat meat in the local market.

Table 3 Annual Demand, Prices and Value of Sheep and Goat Meat (Local Market)

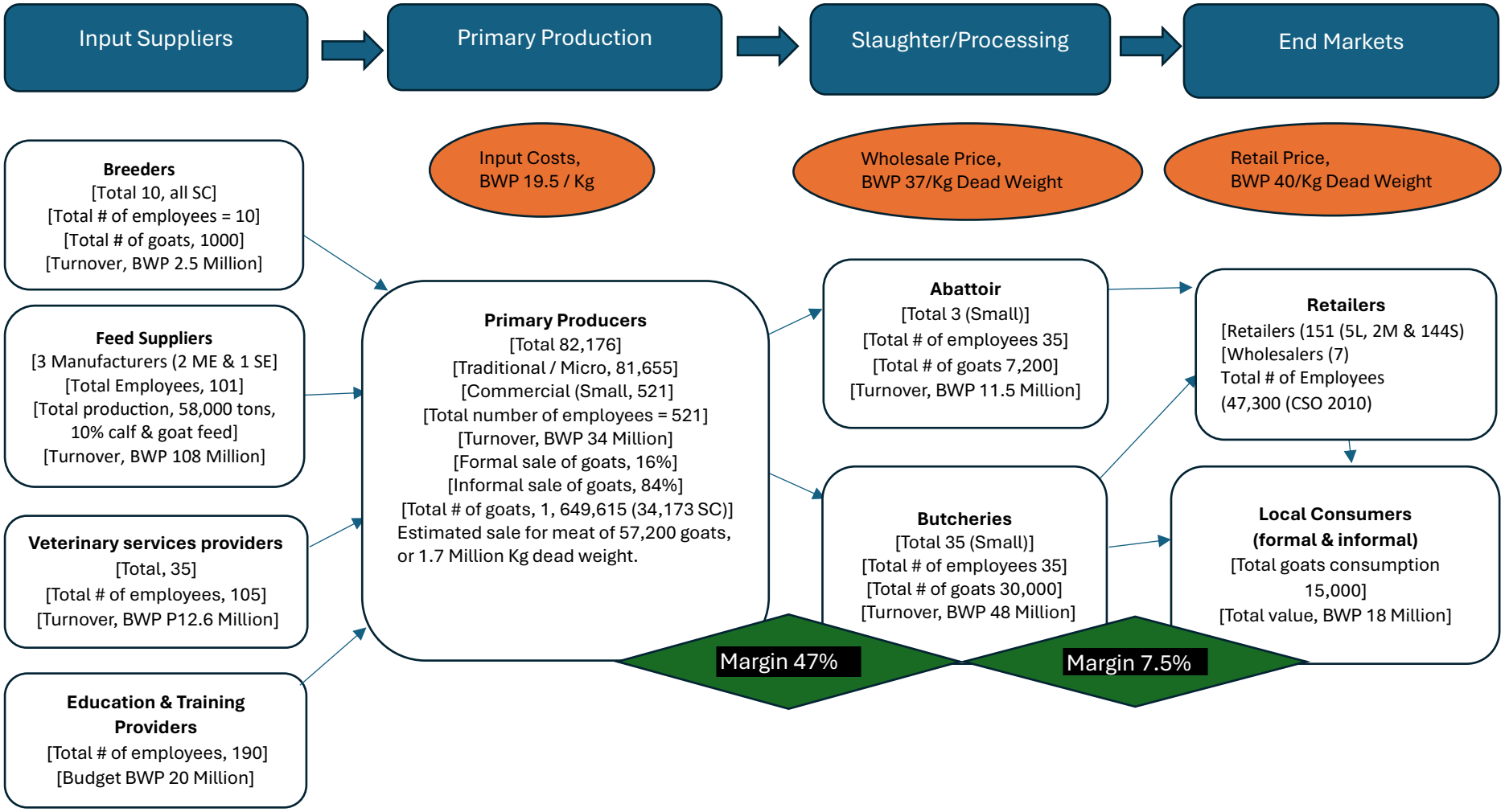
Outlet	Quantity (Kg) Per Annum	Unit Value (BWP) / Kg	Total Value (BWP)
Pick n'Pay	11,000	38	418,000
Fairgrounds	900	60	54,000
Avani Hotel	600	59	35,400
Grand Palm Hotel	600	42	25,200
Choppies Chain Retailers (Goat)	30,000	40	1,200,000
Quality (Lamb)	30,000	40	1,200,000
Quality (Goat)	12,000	42	504,000
Senn Foods	14,000	51	714,000
Ghanzi Beef	18,000	37	666,000
BidVest (Lamb)	12,000	70	840,000
TOTAL	129, 100		5,656,600

Source: Adapted from MoA (2018)

Key Challenges in the Sheep and Goat Value Chains

There are several challenges faced by actors in the smallstock value chains. Majority of the sheep and goats (95%) are kept within traditional, communally managed areas and are small household flocks raised largely for subsistence purposes or as a hobby. These subsistence smallstock farmers are mainly resource poor rural women with inherent problems regarding productivity. Smallstock farmers, including the few youths that are engaged in government-supported smallstock enterprises, lack husbandry/technical and entrepreneurship skills. There is lack of dedicated funding for smallstock businesses that inhibits growth of small, micro, and medium enterprises (SMMEs) in the sector. Most farmers have limited resources and access to inputs, services and output markets. This is exacerbated by inadequate infrastructure and absence of regulations and policies on small stock production and marketing, safety and quality standards, certification, and traceability of various smallstock products (MoA/IFAD 2021; MoA/IFAD/ECA, 2024; MoLA (2025).

Table 3 presents a set of challenges faced by various actors at the production, processing, marketing and consumption stages of the sheep and goats value chains in the country.



Source: Adapted from Hellyer et al (2015)

Figure 1 Goat (Sheep) Value Chain

Table 4 Challenges Faced by Actors in the Sheep and Goat Value Chains

Challenge	Narration
1. Low adoption of improved sheep and goat breeds	Most traditional farmers keep small stock for subsistence reasons and are not business-focused; there is limited knowledge and training on modern goat farming techniques.
2. Lack of resources	Subsistence farmers lack resources to invest in their smallstock and have limited access to investment funding because commercial lenders / financial institutions do not accept smallstock as collateral for personal loans.
3. Low performance of sheep/goat producer associations	Smallstock producer associations are very weak and do not provide benefits for their members. This makes associations fail to attract more participation which could boost their bargaining power and enable them achieve economies of scale in the value chains.
4. Lack of husbandry/technical skills	Herders are generally unskilled foreign nationals from neighbouring countries. Farmers use old and inefficient husbandry practices. Farmers have limited access to veterinary services / limited extension support and technical backup.
5. Low quality breeding stock	Farmers have limited access to high-quality breeding stock; Available stud breeders are unable to meet local demand for high-quality breeding stock. There is lack of improved indigenous Tswana breeds of sheep and goats.
6. Inadequate infrastructure for value-added products and marketing of smallstock products	There is lack of /limited ICT resources, access roads, water and electricity supply. These constrain movement of inputs and livestock and restricts growth of the smallstock sector.
6. Inadequate market access	Limited local input suppliers in remote areas and limited stock especially concentrate feed, drugs, and vaccines. Farmers do not have markets for their small stock, especially slaughter stock, and where the market is available it offers unattractive prices. There is no grading and classification system to support the market and improved pricing for quality. Traceability of smallstock products and compliance with food safety and health standards to facilitate marketing are important but are either weak or don't exist.
7. Persistent drought	This leads to loss of stock by farmers who cannot afford to feed, while for those who can, it leads to increased feed costs. Lack of adequate livestock water worsens the situation.
8. Lack of smallstock sector development policy	There is no specific policy to direct, regulate and guide development of the sector including production, processing and marketing of smallstock products.

Source: Adapted from MoA/IFAD (2021); *MoA/IFAD/ECA, 2024); MoLA (2025).*

Investment Opportunities

Interventions to address the challenges faced by various actors in the smallstock (sheep and goat) value chains provide investment opportunities for both the private sector and government (See Table 4). Tables 5, 6 and 7 present market opportunities for smallstock.

Table 5 Investment Opportunities and Strategies in the Smallstock Value Chains

Investment Opportunity	Strategy
Improvement of Breeding Stock and Genetic Diversity	o Promote selective breeding programs to enhance meat and milk production through the introduction of superior indigenous and commercial goat breeds, such as Boer goats, Kalahari Reds, and Botswana Browns. o Support the establishment of goat breeding centres and facilitate access to quality breeding stock for smallholder farmers.
Veterinary Services and Health Management	o Strengthen veterinary extension services to improve disease management, vaccination programmes, and parasite control. o Facilitate training for goat farmers on animal health, hygiene, and biosecurity practices.
Capacity-Building and Knowledge Transfer	o Invest in farmer training programmes on modern goat farming practices, including nutrition, breeding, and farm management. o Promote the use of digital tools and extension services to disseminate agricultural knowledge.
Market Access and Value Chain Development	o Develop and strengthen market linkages for goat products, particularly meat and skins, both domestically and internationally. o Support the development of goat processing infrastructure, such as abattoirs and meat-packing facilities, to improve product quality and reduce post-harvest losses. o Facilitate access to external markets by ensuring compliance with international standards for goat meat exports.
Access to Finance and Investment	o Develop financing mechanisms, including grants and affordable loans, specifically tailored to goat farmers, especially smallholders and women farmers. o Promote public-private partnerships to invest in the goat farming value chain and provide support for farmers' cooperatives.
Climate-Resilient Practices	o Promote climate-smart goat farming practices, such as rotational grazing, water conservation techniques, and the use of drought-tolerant forage species. o Encourage the use of technology for water harvesting and supplementary feeding during dry periods.
Smallstock Sector Development Policy	Develop specific and comprehensive smallstock sector development policy to direct, regulate and guide development of the sector including production, processing, and marketing of smallstock products.

Source: Adapted from MoLA (2025).

Local, Regional, Market Opportunities for Smallstock

Table 6 Market Characteristics

Variable	LOCAL	REGIONAL	INTERNATIONAL
Structure	-Unstructured -Government sets prices via ThuoLetlotlo procurement -No discrimination against competitive market forces that have allowed for perfect competition. - Speculators source for large butcheries & large chain supermarkets	**Perfect Competition** - Buying firms seek to maximize profits - Free entry and exit into the market - All firms sell homogenous goods i.e. goat and sheep meat - Consumer preferences are determined by price and quality of meat supplied.	International buyers are price setters.
Market Segments	Individuals, Farmers, - Butcheries, - Chain Retailers - Wholesalers (Senn Foods) - Government (ThuoLetlotlo)	Wholesalers	Wholesalers
Key Buyers	Senn Foods Choppies Spar Afro Butchery Pick n' Pay	South Africa Namibia Lesotho Zambia Mozambique Angola	United States of America China United Arab Emirates Asia

Source: Adapted from MoA (2018).

Table 7 Regional Market Potential and Market Access Agreements (Smallstock)

Country	*Market Potential*	*Market Access Agreement*
Angola	For the Angolan Market, Ethiopia shows the largest absolute difference between potential and actual exports in value terms, leaving room to realize additional exports worth US$ 288.0 k. Australia, as a major world exporter also exports to Angola and surpasses its export potential by an additional US$54.3k. There exists a total of US$334.2k of untapped export potential for the Angolan market.	SACU (Botswana, Lesotho, Namibia, South Africa, and Swaziland) attract customs duties at rates outlined in the Customs Tariff Book. Customs duties are paid against a prescribed ―form SAD 500, which is a declaration form, formally known as a bill of entry. The Southern African Development Community (SADC) is an inter-governmental organization that promotes socio-economic cooperation and integration and political and security cooperation among the fifteen member states. The SADC Free Trade Area (FTA) was launched in August 2008. The FTA is not yet in force and SADC members are reducing their tariffs at different rates. SADC intends to complete the tariff phase-down by 2012. This will allow for free movement of goods and services produced within the region, but each member state will still have its own external tariff to non-member states of SADC. The African Continental Free Trade Area (AfCFTA) agreement of 2018 aims to create a single market for goods and services across Africa, boosting intra-African trade and economic integration.
Mozambique	Ethiopia still depicts the largest absolute difference between potential and actual exports in value terms, leaving room to realize additional exports worth US$ 5.2 k. The world players, Australia and New Zealand have not tapped into the Mozambique market, leaving it as potential for growth. There exists a total of US$270.7k of untapped export potential for the Mozambique market.	
Lesotho	South Africa shows the largest absolute difference between potential and actual exports in value terms, leaving room to realize additional exports worth US$ 56.0 k. There exists a total of US$60.67k untapped export potential for the Lesotho market.	

Source: Adapted from MoA (2018).

Table 8 International Market Potential and Market Access Agreements (Smallstock)

Country / Region	*Market Potential*	*Market Access Agreement*
United States of America (USA)	Australia, as a major exporter to the USA, has the potential to export goat meat valued at US$ 95.4 million, but only exports US$ 90.9 million, with an untapped export potential of US$ 4.5 million. The total import of goat meat by the USA is valued at US$93.0 million. New Zealand is second in supplying the US, with a total export potential of US$4.3 million, and only exporting US $1.2 million leaving an untapped export potential of US$3.1 million. USA imposes a tariff of 38% on its imports from Botswana.	**The European Free Trade Association (EFTA) with SACU states** The EFTA states Iceland, Liechtenstein, Norway and Switzerland signed free trade agreement with the Southern African Customs Union (SACU) in June 2006. Trade in agricultural products form part of the agreement for concessions on processed agricultural products. This agreement which form part of the instrument establishing the free trade area are also asymmetrical giving SACU improved preferential treatment into the EFTA markets. Botswana is therefore bound to benefit from the said bilateral agreement.
United Arab Emirates (UAE)	The UAE total imports for goat meat stands at US $68 million. The UAE also imports most of its goat meat from Australia followed by New Zealand. Australia has an export potential of US$17.3 million and exports US$3.2 million leaving an untapped market of US$14.1 million. UAE imposes a tariff of 3% on its imports.	
Europe	European countries are not importing from African exporters, which leaves room for understanding the reasons advanced for the situation. It therefore presents an opportunity for Botswana to investigate the gap and capitalize on the potential that exists within the European import market. However, the European market proves a skeptical market due to the high 52% tariff. The European countries (United Kingdom, France & Germany) have a high tariff applied at the rate of 52%. It is therefore a deterring factor; therefore the need exists to forge trade negotiations that will reduce the tariffs if Botswana is to consider their market. China on the other hand applies a tariff of between 13% and 20%.	

Source: Adapted from MoA (2018).

Competitiveness Analysis of the Smallstock Value Chains

Table 8 presents competitive analysis of local smallstock breeding with Karoo Breeding in the Republic of South Africa.

Table 9 Competitive Analysis with Karoo Breeding (Republic of South Africa).

Variable	Company/Cluster/Coop.	Karoo Breeding	Individual Producers
Core competence	-Availability of quality small stock, unique vegetation, & low prevalence of pests & diseases in region. - Dedicated Producer and support cluster partnerships.	-Quality breeding stock. -Well established with infrastructure	High volumes of cumulative production
Customers' perception of superior product or service	-*Not yet established;* -Marketing strategy will place it as a luxury high end product of unique and high quality.	-Production of high quality stud breed. -Very expensive breeding stock - Quality brand.	-Price takers -Produces less quality stock -No branding.
Target or Niche Market served better than anybody else.	Mass market	Advanced farmers (Niche market)	Mass market
Unique Distribution Channel	- Producer to wholesalers-retailers-consumers -Producer to farmers -Mode of transport: refrigerated trucks, trucks	-Wholesalers -Retailers -consumers/farmers	Sells direct to farmers / consumers / retailers
Organizational Efficiency	Use of current manufacturing practices and economies of scale from clustering/ cooperative initiative.	Best breeding methods e.g. artificial insemination.	-Inefficient - Use traditional methods of farming.
Technology or Innovation	- Lack of technology - Indigenous / traditional method of farming	Advanced technology for breeding stock (artificial Insemination & feed formulation)	Indigenous methods of farming
Any weakness in product or service or internal organization, i.e. cash flow	-Sparsely distributed farmers -Lack of technology adoption - Price Takers	Limited market due to targeted consumers *(well-off and established).*	No structured market hence exploitation, selling in small units and forgoing the benefit of economies of scale.

Source: Adapted from MoA (2018).

CHAPTER 3

POULTRY SUBSECTOR

The poultry sector, worldwide, is a major agricultural sector and has experienced faster growth in both consumption and trade relative to other major agricultural sectors. Growing demand trends for poultry and poultry products, especially in urban markets, have resulted in structural changes in the production and marketing of poultry and poultry products. Poultry (mainly chickens) farming in Botswana is a growing sector and the most widespread of all livestock reared in the country, with almost every family owning chickens as a source of food, protein, and additional income. Experience in most countries has shown that smallholder poultry production systems offer an entry point for development programmes to address extreme poverty and food insecurity, especially where poultry production is a domain of women. A transition is possible from smallholder dominated poultry farming to a strong and internationally linked poultry industry through utilization of economies of scale and technology (FAO, 2008; Moreki, 2010).

Poultry Value Chain Activities and Actors in Botswana

The main poultry value chain activities consist of input supply, primary production, trading, slaughter/primary processing, retailing and consumption, with the main actors being input suppliers, producers, traders, processors, retailers, and consumers (See figure 2).

Input suppliers

Input suppliers include breeders, feed suppliers, veterinary services providers and education and training providers. The key inputs in the poultry value chain are day-old chicks and feed. Two large-scale companies (Ross and Irvines) supply the day-old chicks, with Ross and Irvines having 75% and 25% of market share, respectively. The same companies breed and provide layer chickens in the market. Feed is supplied by two large-scale manufacturers (Nutrifeed and Opti feeds), with Nutrifeed and Opti feeds having about 60% and 40% of market share, respectively. The feed manufacturers face a protectionist 70/30 law that requires 70% of feed inputs to be sourced within Botswana.

Primary producers

Broiler meat producers feed day-old chicks and grow them into mature birds for slaughter. Smallholder producers (about 200 of them) control only 10% of market share (with turnover of about BWP 60 Million). Medium-scale producers (only 6 enterprises) control 30% of market share (with turnover of about BWP 42 Million), while large scale producers (only three companies) account for 60% of market share (with turnover of about BWP 130 - 240 Million). There is a large degree of vertical integration amongst large and medium producers, feed manufacturers, breeders, processors, distributors / retailers, and their contract farmers through out-grower contract schemes. The very few large companies operating in the different segments of the poultry value chain are related, controlled, and owned by the same people.

Traders

Traders buy chickens and eggs from producers and sell them to larger traders or directly to markets (individual consumers, hotels, restaurants, or butchers).

Processors

Processors transform raw animal products into marketable goods. The main processing activity in the poultry industry is slaughtering. There are 21 poultry slaughtering facilities, with 18 small scale slaughter facilities, two medium scale (slaughtering 5000 birds per day; with turnover of about BWP 50 Million) and one large scale (slaughtering 30,000 birds per day, with turnover of about BWP 300 Million). There are three large scale processors, but they simply pluck, cut and chill carcasses. There is no further processing or any real value added to the carcasses.

Retailers

Retailers sell processed or live chickens and eggs to consumers. They include butchers that directly sell meat, often purchasing live chickens from traders or farmers and slaughtering them; Informal retailers such as roadside vendors and modern retailers (larger stores or supermarkets that offer a wider range of chicken and chicken products and eggs).

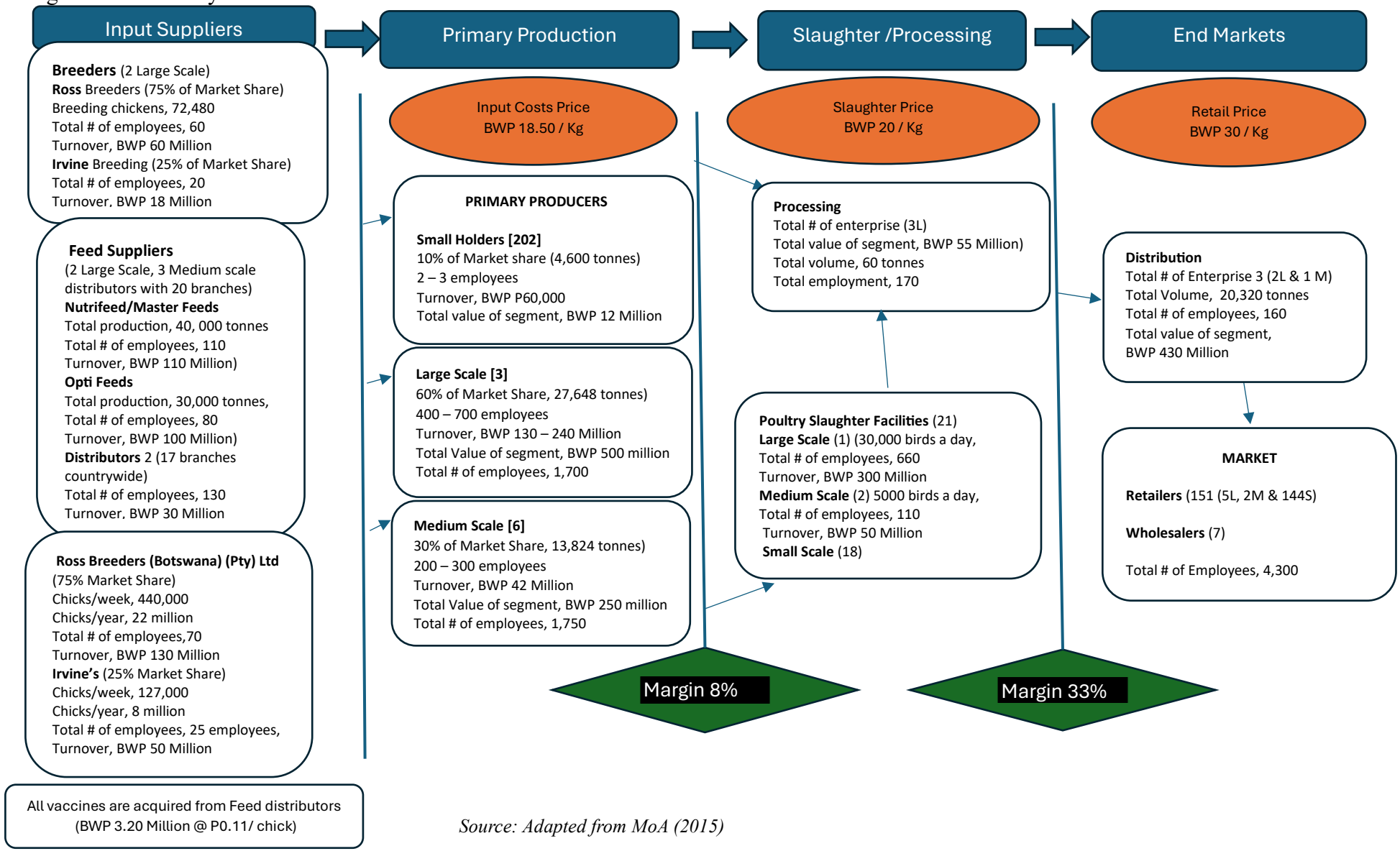
Final consumers

The final consumer purchases and uses eggs, chicken and chicken by products and completes the poultry value chain. The most common way of selling poultry meat in the formal markets is via cuts packaged in 2kg and 5kg bags. Small producers do not have direct access to big chain stores (supplied by large-scale producers and their contract farmers). They sell their chickens and eggs to individuals, restaurants, hotels, and Government departments at lower prices.

Key Challenges of the Poultry Subsector

The poultry subsector comprises of four (4) primary segments of production for layers and broilers including breeding, hatcheries, feed production, meat, and egg production (Business Botswana, 2024). Actors in these value chains face many challenges ranging from lack of resources, inadequate infrastructure, lack of husbandry/technical skills, high cost of feed and day-old chicks, high vertical coordination, lack of or limited access to markets to lack of supportive policy and regulations to make the subsector more competitive and inclusive (CA, 2014); Masole et. Al (2015); MoA (2015). Table 9 below presents a set of challenges faced by various actors at the production, processing, marketing, and consumption stages of the poultry value chains in the country.

Figure 2 The Poultry Value Chain



Source: Adapted from MoA (2015)

Table 10 Challenges Faced by Actors in the Poultry Value Chains

Challenge	Narration
1. Dominance of a few large private sector producers with little small scale indigenous production in the value chains	The poultry industry is dominated by very few large players (some with ties to South African companies) who have developed their own systems and support structures at breeder, processing, and retail levels of the value chains; potentially hindering smaller domestic poultry producers. Large poultry abattoirs seek to integrate backwards by developing contract grower relationships with the smaller poultry farmers. This arrangement can potentially eliminate the small farmers and decrease competition in the value chain.
2. High and rising cost of inputs (feed and day-old chicks)	The cost of poultry feed is high and accounts for between 50% and 70% of the total input costs. This could be partly due to government restrictions on feed importation; broiler producers must source at least 70% of their feed locally. Higher cost for day-old chicks could be partly due to the lack of economies of scale at the breeding level and government protectionist policy that bans imports of day-old broiler chicks in Botswana.
3. Use of unimproved genetic stock	A significant number of Batswana keep unimproved genetic stock of Tswana chickens in their backyards and farms; Limited access to advanced technology
4. Prevalence of pests and diseases	Most small-scale poultry producers experience high mortality of chickens due to prevalence of pests and diseases; owing to poor husbandry practices on the farm; inadequate biosecurity measures; limited veterinary services.
5. Lack of resources	Small-scale poultry farmers lack resources to invest in their poultry enterprises and have poor access to finance. They do not have collateral required by commercial lenders / financial institutions to obtain personal loans.
6. Ineffective Botswana Poultry Association	Botswana Poultry Association is weak. It has no dedicated resources and thus has limited capacity to provide benefits to its members.
7. Lack of husbandry / technical skills	Most poultry farmers have no training or requisite technical know-how in poultry farming. Poultry management is left to poorly trained/untrained workers. There is shortage of poultry specialists in the field.
8. Inadequate infrastructure	There is lack of / limited ICT resources, access roads, water, and electricity supply. These constrain movement of inputs and poultry products and restricts growth of the poultry subsector.
9. Lack of market or limited access to input and output markets	Limited local input suppliers in remote areas and limited stock especially feed, drugs, and vaccines. Small scale farmers do not have organized market for their chickens and poultry meat; where the market is available it offers unattractive prices (low prices offered by chain stores). There is no grading and classification system to support the market and improved pricing for quality. Limited or no traceability of poultry products and compliance with food safety and health standards to facilitate marketing.

	Majority of retailers require halaal certification. This is a barrier to trade in processed poultry products; it denies small-scale producers access to the market because they cannot afford to pay for halaal certification.
10.Tight trade restrictions / import controls on poultry inputs and products	Tight trade restrictions on poultry inputs and products limit external competition; protect dominant players from competition and can lead to higher domestic input (especially feed and day-old chicks) and poultry meat prices.
11. Lack of poultry sector development policy	There is no specific policy to direct, regulate and guide development of the subsector; Small-scale poultry farming lacks sufficient support.

Source: Adapted from CA (2014); Masole et. Al (2015); MoA (2015)

Investment Opportunities

The poultry industry is one of the key subsectors in Botswana's agricultural and economic landscape. However, the role of the poultry industry in the national economy could be enhanced by improving the poultry value chain through undertaking the strategic investments outlined in Table 10 below.

Table 11 Investment Opportunities and Strategies in the Poultry Value Chains

Investment Opportunity	**Strategy**
Access to Extension and Veterinary Services	Expand/strengthen extension and veterinary services tailored to poultry producers.
Access to Key Poultry Inputs	Provide subsidized day-old chick, feed and vaccination programmes to lower input costs.
Development of / Capacity Building for Poultry Cooperatives and Associations	-Support the formation of poultry cooperatives for shared input purchasing and marketing. -Strengthen Botswana Poultry Association
Infrastructure Development	-Develop small-scale poultry infrastructure including hatcheries and cold storage -Support investment in value-addition / further processing facilities for poultry products -Provide proper access roads, adequate supply of electricity and water, and avail information and communication technologies (ICT) to promote increased poultry production and facilitate marketing and trade.
Access to Credit and Insurance Services	Facilitate access to credit and insurance products designed for poultry enterprises.
Capacity Building for Poultry Farmers	Introduce training programmes on biosecurity, feed formulation, and financial management.
Market Access and Value Chain Development	o Develop and strengthen market linkages for poultry products, both domestically and internationally. o Support the development of poultry processing infrastructure, such as abattoirs and meat-packing facilities, to improve product quality and reduce post-harvest losses. o Facilitate access to external markets by ensuring compliance with international standards for poultry meat and egg exports.
Access to Finance and Investment	o Develop financing mechanisms, including grants and affordable loans, specifically tailored to poultry farmers, especially smallholders, youth, and women farmers. o Promote public-private partnerships to invest in the poultry farming value chain and provide support for farmers' cooperatives / associations
Poultry Sector Development Policy	Develop specific policy to direct, regulate and guide development of the poultry subsector

Source: Adapted from MoLA (2025).

MARKET POTENTIAL AND ACCESS FOR POULTRY PRODUCTS

The poultry sector has an estimated annual turnover of BWP 3 billion, with annual per capita egg and meat consumption of about 90 eggs and 23Kg, respectively. It is estimated that the poultry industry employs 25,500 people and contributes a share of about 1.3% to the national gross domestic product (GDP) (Business Botswana, 2024).

Local Market

Existing markets for live broiler meat in Botswana can be categorized into two types:
(i) Broiler Meat Market, and (ii) Abattoir / Slaughter Market.

a) *Broiler Meat Market*
Small-scale broiler producers sell through live broiler meat markets. These small-scale producers depend largely on hawkers and small retailers for distribution of broiler meat to consumers.

b) *Abattoirs / Slaughterhouse Market*
The abattoirs sell most of the broiler meat as carcasses to processors and packers. The processors may export, sell to retailers, or further processors and packers may sell to live broiler meat markets.

Demand for poultry meat (chicken) in Botswana is almost entirely met by domestic production, in exception of speciality cuts for the fast-food industry. The specialty cuts cannot be produced locally. They must be imported to meet local demand. Thus, development of the poultry value chain must focus on value-addition / further processing of chicken to offset the special cuts import demand and diversify local production to open potential export markets for chicken and other poultry products. Table 11 presents regional and international market potential and market access agreements for poultry trade.

Table 12 Regional and International Market Potential and Market Access Agreements

Country	Market Potential	Market Access Agreement
Mozambique	Mozambique imported poultry from South Africa ($1.92M), Eswatini ($1.55M), Malawi ($1.25M), Zimbabwe ($1.13M), and Zambia ($956k) in 2023. There exists untapped export potential for the Mozambiquan market.	SACU (Botswana, Lesotho, Namibia, South Africa, and Eswatini) attract customs duties at rates outlined in the Customs Tariff Book. Customs duties are paid against a prescribed ―form SAD 500, which is a declaration form, formally known as a bill of entry. The Southern African Development Community (SADC) is an inter-governmental organization that promotes socio-economic
Zambia	Zambia imported Poultry in 2023 mainly from United Kingdom ($4.93M), France ($223K), Germany ($191K), South Africa ($99.5K), and Spain ($69.8K) There exists untapped export potential for the Zambian market.	

Namibia	Namibia imports fresh or chilled whole poultry from South Africa, Brazil, and Spain. The country imported fresh or chilled whole poultry worth $97.10K in 2022. Brazil, Turkey, and Argentina were the major trading partners. Namibia also imports preserved or cooked eggs, primarily from South Africa. There exists an untapped export potential for the Namibian market.	cooperation and integration and political and security cooperation among the fifteen member states. The SADC Free Trade Area (FTA) was launched in August 2008. The FTA is not yet in force and SADC members are reducing their tariffs at different rates. SADC intends to complete the tariff phase-down by 2012. This will allow for free movement of goods and services produced within the region, but each member state will still have its own external tariff to non-member states of SADC. The African Continental Free Trade Area (AfCFTA) agreement of 2018 aims to create a single market for goods and services across Africa, boosting intra-African trade and economic integration.
Zimbabwe	Zimbabwe imported poultry meat worth $12.4 million in 2023 from South Africa ($5.65 million), Namibia ($4.33 million), and Brazil ($1.2 million). Zimbabwe also imported poultry incubators and brooders valued at $1,866.68K in 2023; supplied by Belgium, South Africa, and China. There exists untapped export potential for the Zimbabwean market.	
Ghana	Ghana imports over 80% of its chicken meat needs. Local production is estimated at only 57,871 metric tons against national demand of 400,000 metric tons per year. Key import partners are Belgium, the USA, Brazil, Poland, and the Netherlands. There exists huge untapped export potential for the Ghanaian market.	The African Continental Free Trade Area (AfCFTA) agreement of 2018 aims to create a single market for goods and services across Africa, boosting intra-African trade and economic integration.

Source: Adapted from MoA (2018); WITS / World Bank (2023).

CHAPTER 4

PIGGERY SUBSECTOR

Pig farming in Botswana is a growing but still relatively small industry in its early stages. The pig industry is one of the livestock subsectors playing an important role in improving the standard of living of youth, women, and Batswana in general by creating employment opportunities, providing a source of food, and generating income. Pork is traditionally not preferred but the growing tourism industry has contributed to increased pork consumption in the country. Development efforts in the pig subsector are currently focused on meeting local pork and bacon needs.

Piggery Value Chain Activities and Actors

The piggery value chain activities consist of input supply, primary production, trading, slaughter/primary processing, retailing and consumption, with the main actors being input suppliers, producers, traders, processors, retailers, and consumers (See figure 3).

Input suppliers

Input suppliers include breeders, feed suppliers, veterinary services providers and education and training providers. The key inputs in the pork value chain are feeder pigs, feeds, and veterinary services. Feeder pigs are provided by Sebele Multiplication Unit, a government-owned breeding unit. Otherwise, they are imported, largely from South Africa. There are 6 large-scale feed manufacturers, producing about 825 tonnes of feed per year, at a value of BWP 2.4 Million. They face a protectionist 70/30 law that requires 70% of feed inputs to be sourced within Botswana. There are 5 large-scale feed suppliers, supplying about 354 tonnes of feed per year, at a value of BWP 1.1 Million.

Primary producers

Pig farmers buy piglets from breeders for fattening and sell mature pigs to abattoirs or slaughter houses. The also produce piglets on the farm, fatten them and sell to abattoirs. Pig production is practised largely on micro farms (accounting for 84% of pig production) and smallscale farms (accounting for 16% of pig production). Pig farms are concentrated in urban centres and larger villages where pork demand is higher, with most producers keeping herds of fewer than 20 pigs. Only one large-scale operation exists and holds about 200 sow units.

Traders

Traders buy pigs from producers and sell them to directly to markets (individual consumers, hotels, restaurants, or butchers).

Processors

Processors transform raw animal products into marketable goods. The main processing activity in the pig industry is slaughtering. There are 2 micro pig slaughtering facilities, slaughtering

about 73% of the pigs per year (valued at about BWP 10.7 Million). The rest of the pigs are illegally slaughtered by farmers on their own farms (valued at about BWP 3.9 Million). There are also 2 registered pig processors, who are only processing 54% of the pigs (valued at about BWP 1.3 Million). The rest (46%) of the pigs are processed by farmers on their own farms (valued at about BWP 1.2 Million).

The registered processors are allowed to import live pigs and carcasses. However, the abattoirs / slaughterhouses / processing facilities just slaughter the pigs and undertake primary processing of the pigs (cut and chill the carcases). There is no real value added or further processing to the carcasses.

Retailers

Retailers sell processed or live pigs to consumers. They include butchers that directly sell meat, often purchasing live pigs from traders or farmers and slaughtering them; Informal retailers such as roadside vendors and modern retailers (larger stores or supermarkets that offer a wider range of piggery products. The processors and wholesalers sell the products to the retailers, institutional buyers, restaurants, butchers, and the hospitality industry.

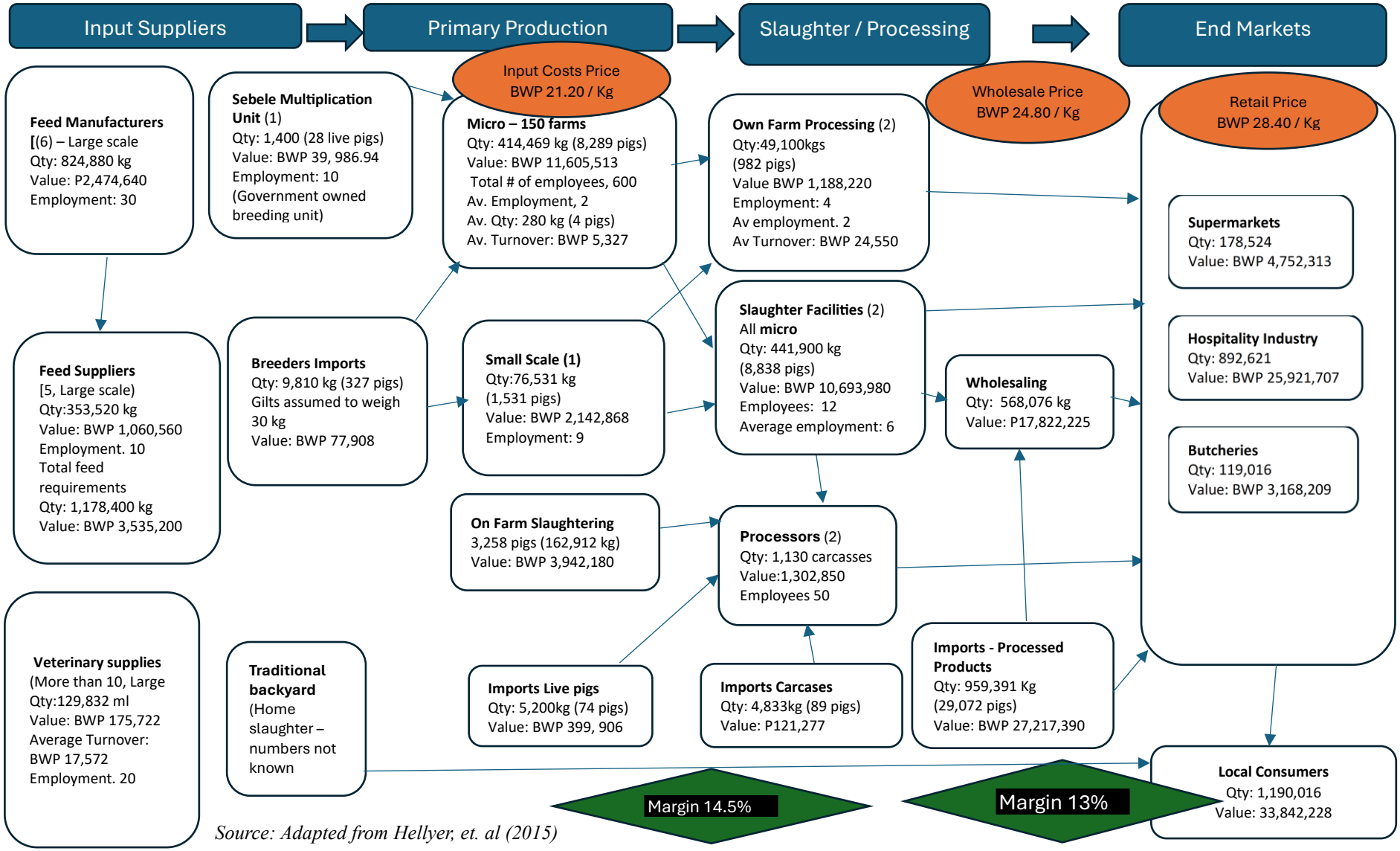
Final consumers

The final consumer purchases and uses pig products and completes the pig value chain. Consumption of pork in Botswana is dominated by the hospitality industry, which accounts for about 77% of sales. Supermarkets and butcheries account for only 14% and 10% of sales, respectively.

Key Challenges in the Piggery Value Chain

The piggery value chain experiences several challenges ranging from dominance of micro subsistence farms, poor husbandry practices and breeding stock, low productivity, high feed costs, inadequate slaughter / processing facilities, ineffective producer associations, unorganized marketing, inadequate extension support and transboundary diseases. Montsho and Moreki (2012); Hellyer, et al (2015); Table 12 presents a detailed narration of the key challenges in the piggery value chain.

Figure 3 The Piggery Value Chain



Source: Adapted from Hellyer, et. al (2015)

Table 13 Challenges Faced by Actors in the Piggery Value Chain

Challenge	Narration
1. Primary pig production is concentrated in non-commercial micro farms.	Majority of pig farmers are not business-oriented and keep pigs largely for subsistence purposes. The pigs (usually Tswana breed) are slaughtered and consumed by the households.
2. Low domestic supply of pigs and pig products	Only 19% of live pigs for processing are sourced in Botswana per year.
3. Low productivity in pig farming	Most pigs are local Tswana breed. They scavenge for their food and are given limited feed (domestic food leftovers or crop residues).
4. Lack of quality replacement breeding stock	Limited access to quality breeding stock; Most farms produce poor quality breeding stock; There is lack of stud breeders in the country; Most commercial pigs are exotic/imported breeds.
5. High and rising feed costs	The regulation on the "Control of Goods, Prices and Other Charges" requires pig producers to buy at least 70% of their feed requirements locally. This forces pig farmers to buy expensive (and sub-standard) feeds locally which adversely affect their productivity.
6. Limited number of processing facilities for pig and pig products in the country	Inadequate slaughter/processing facilities; Retailers of pork and pig products are supplied by only one processor.
7. High imports of processed pork products to meet national demand.	Imports of processed pork products are estimated at over 80% of the domestic requirement.
8. Low performance of the Botswana Pig Producers Association	Botswana Pig Producers Association has no dedicated resources; have limited capacity to provide necessary services (*research for policy advocacy, information dissemination, technical support and continuous training and development*) to members.
9. Lack of husbandry / technical skills	Farmers use old and inefficient husbandry practices. There is lack of or inadequate extension support and technical backup to adopt new technologies.
10. Inadequate infrastructure	There is lack of /limited ICT resources, access roads, water, and electricity supply. These constrain movement of inputs and pigs and pig products and restricts growth of the piggery subsector.
11. Lack of market or limited access to input and output markets	Fewer local input suppliers in remote areas. Farmers do not have organized marketing structures for their pigs, especially slaughter pigs; where the market is available it offers unattractive prices. Pork and other pig products are sold in selected retail outlets, with some outlets not selling pork because of religious beliefs. There is no grading and classification system for pigs and processed pig products to support the market and improved pricing for quality.

	Traceability of pigs and pig products and compliance with food safety and health standards to facilitate marketing are important but are either weak or don't exist.
Prevalence of transboundary diseases	Outbreaks of foot and mouth disease (FMD) and classical swine fever in Botswana and Republic of South Africa restricts movement of pigs and pig products among the two major trading partners.
12. There is no specific national development policy for the piggery subsector.	There is no specific policy to direct, regulate and guide development of the piggery subsector including production, processing and marketing of pigs and pig products.

Source: Adapted from Montsho and Moreki (2012); Hellyer, et al (2015);

Investment Opportunities

The pig industry is one of the key subsectors in Botswana's agricultural and economic landscape. However, the role of the pig industry in the national economy could be enhanced by improving the piggery value chain through undertaking the strategic investments outlined in Table 13 below.

Table 14 Investment Opportunities and Strategies in the Piggery Value Chains

Investment Opportunity	Strategy
Improvement of Breeding Stock and Genetic Diversity	o Promote selective breeding programmes to enhance meat production through the introduction of superior indigenous and commercial pig breeds. o Support the establishment of regional pig breeding centres and facilitate access to quality breeding stock for smallholder farmers.
Access to Extension and Veterinary Services	Expand/strengthen extension and veterinary services tailored to pig producers.
Access to Key Pig Production Inputs	Provide subsidized high-quality pig breeds, feed and vaccination programmes to lower input costs.
Development of / Capacity Building for Pig Cooperatives and Associations	-Support the formation of pig cooperatives for shared input purchasing and marketing. -Strengthen Botswana Pig Producers Association
Infrastructure Development	- Construct and upgrade slaughter facilities to meet sanitary and capacity standards -Support investment in value-addition / further processing facilities for pig products -Provide proper access roads, adequate supply of electricity and water, and avail information and communication technologies (ICT) to promote increased pig production and facilitate marketing and trade.
Capacity Building for Pig Farmers	-Introduce training programmes on biosecurity, feed formulation, and financial management. -Offer training programmes on best practices in pig farming and disease management.
Market Access and Value Chain Development	o Develop and strengthen market linkages for pig products, both domestically and internationally. -Develop organized marketing systems, including cooperatives and market information platforms. o Support the development of pig processing infrastructure, such as abattoirs and meat-packing facilities, to improve product quality and reduce post-harvest losses. o Facilitate access to external markets by ensuring compliance with international standards for pig and pork exports.
Access to Finance and Investment	o Facilitate access to credit and insurance products designed for pig enterprises. -Develop financing mechanisms, including grants and affordable loans, specifically tailored to pig farmers, especially smallholders, youth, and women farmers. -Provide subsidies or financial incentives for feed production and procurement. o Promote public-private partnerships to invest in the pig farming value chain and provide support for farmers' cooperatives / associations
Pig Sector Development Policy	Develop specific policy to direct, regulate and guide development of the pig subsector

Source: Adapted from MoLA (2025).

MARKET POTENTIAL AND ACCESS FOR PIG AND PIG PRODUCTS

The market for pig products in Botswana is estimated at P33.8 million, comprising of domestic production valued at P6.6 million (20% of national consumption) and imports valued at P27.2 million (80% of national consumption) per annum (MoA, 2015). Value chain development efforts need to be focused on expanding domestic production of pigs and pork and strengthening value addition / further processing of pig products to substitute for the heavy import bill.

Local Market

Existing markets for pig and pig products in Botswana can be categorized into four types:
(i) Retail Sector (Retailers / Supermarkets) Market, (ii) Abattoir / Slaughter /Butcher Market, (iii) Restaurants and Hospitality Industry Market and Informal Market.

a) *Retail Sector Market: Retailers / Supermarkets.*
The retailers and supermarkets purchase pigs and pig products from pig farmers, abattoir/slaughterhouse/butcher, and processors for resale. The products may comprise of domestic / imported live pigs, domestic/imported carcass, and domestic/imported processed products, specifically pork rashers, pork belly ribs, pork fillet, pork loin ribs, bacon, ham, polony, pickled gammon bone, sausages, and others. This market segment accounts for about 14% of sales (by value) of pork and pig meat in the country (MoA, 2015). The consumers purchase pigs and pig products in the retail stores/supermarkets for their final use.

b) *Butchers Market*
These are specialised retail outlets for pigs and pig meat. This market segment accounts for about 10% of sales (by value) of pork and pig meat in the country. They sell live pigs and raw pork directly to consumers or to supermarkets and restaurants. But the country has limited number of butcheries that sell pork and other pig products. Majority of pig farmers sell porkers, and very few farmers sell baconers. However, the dominant processor determines the selling price of live pigs in the country.

c) *Restaurants and Hospitality Industry Market*
Restaurants, hotels, and lodges source their inputs from the retailers/supermarkets, butchers, or wholesalers. This market segment accounts for about 77% of sales (by value), of pork and pig meat in the country. They use the pork and processed pig products in their meal preparation for sale to fast food consumers. Imports of processed pork products constitute about 80% of the final market whereas only about 20% of live pigs for processing are sourced locally (MoA, 2015).

d) *Informal market*
Most of the pigs in micro farms (about 60% of yearly production) are slaughtered on farm and sold to butchers as whole carcases or sold live to individuals for slaughter at their homes. This is a practice prohibited by the Livestock and Meat Industry Act. Tables 14 and 15 present regional and international market potential and market access agreements for pig products.

Table 15 Regional Market Potential and Market Access Agreements for Pig Products

Country	Market Potential	Market Access Agreement
Republic of South Africa	Domestic demand for pork ribs exceeds local production in South Africa. RSA imports pork ribs from Europe (Germany). While rib imports have remained relatively stable, other pork cuts have seen increased import volume. Pork ribs enter RSA tariff-free, while other pork cuts are charged a 15% import duty. There exists untapped export potential for the RSA market.	SACU (Botswana, Lesotho, Namibia, South Africa, and Eswatini) attract customs duties at rates outlined in the Customs Tariff Book. Customs duties are paid against a prescribed ―form SAD 500, which is a declaration form, formally known as a bill of entry. The Southern African Development Community (SADC) is an inter-governmental organization that promotes socio-economic cooperation and integration and political and security cooperation among the fifteen member states. The SADC Free Trade Area (FTA) was launched in August 2008. The FTA is not yet in force and SADC members are reducing their tariffs at different rates. SADC intends to complete the tariff phase-down by 2012. This will allow for free movement of goods and services produced within the region, but each member state will still have its own external tariff to non-member states of SADC. The African Continental Free Trade Area (AfCFTA) agreement of 2018 aims to create a single market for goods and services across Africa, boosting intra-African trade and economic integration.
Zambia	Zambia imported pig meat worth $1.11M from South Africa, Germany, Brazil, and Spain in 2023. This included fresh, frozen, and salted / smoked meat and preparations of swine meat. Botswana exports pig iron and spiegeleisen to Zambia. There exists untapped export potential for the Zambian market.	
Lesotho	Lesotho imports fresh or chilled swine carcasses and half-carcasses, frozen swine meat, salted or smoked swine meat, preparations of swine shoulders and cuts, and pig fat. South Africa is the primary trading partner. There exists an untapped export potential for the Lesotho market.	
Namibia	Botswana's pig exports are small and consist of live pure-bred breeding swine and fresh/chilled swine meat. The country exported live pure-bred breeding swine worth $8.83K and fresh or chilled swine meat worth $22.50K (5,790 kg) to Namibia in 2023. There exists untapped export potential for the Namibian market.	
Zimbabwe	Zimbabwe imported 295,030 kg of frozen swine meat (valued at $896. 43K), largely from South Africa, followed by Namibia. There exists untapped export potential for the Zimbabwean market.	

Source: Adapted from MoA (2018); WITS / World Bank (2023).

Table 16 International Market Potential and Market Access Agreements for Pig Products

Country / Region	Market Potential	Market Access Agreement
Ghana	80% of the pork consumed in Ghana is imported; The country imported pig meat worth 334.26 thousand kg of pig meat, valued at $464.00 thousand in 2022 and $2.27M in 2023. This included fresh, chilled, and frozen varieties and preparations of swine meat. Major trading partners were the Russian Federation, Germany, France, and the Netherlands. There exists untapped export potential for the Ghanaian market.	The African Continental Free Trade Area (AfCFTA) agreement of 2018 aims to create a single market for goods and services across Africa, boosting intra-African trade and economic integration.
Nigeria	80% of the pork consumed in Nigeria is imported. The country imported $27.4K of pure-bred breeding pigs in 2022; and imported pig meat from South Africa ($116K), Italy ($66.7K), Spain ($12.8K), Netherlands ($10.4k), and Argentina ($4.58K). There exists untapped export potential for the Nigerian market.	

Source: Adapted from MoA (2018; 2022); WITS / World Bank (2023)

CHAPTER 5

APICULTURE SUBSECTOR

The apiculture subsector falls under the mandate of the Department of Aquaculture and Apiculture in the Ministry of Lands and Agriculture. The Apiculture division promotes development of beekeeping through skills and technology transfer to enhance production of honey and develops policies and programmes to support the growth of the sub-sector. These divisional functions are generally driven by the National Policy on Agricultural Development of 1991, The National Vision 2036, National Development Plan (NDP 11), the Ministry Strategic Plan of 2017-2023 to promote beekeeping to enhance sustainable food production in the country (MoA, 2022). However, there are specific legislative, policy and strategic instruments that guide the operations of the subsector including (i) The Importation of Bees Act of 1910 and administrative directives, (ii) A Draft Beekeeping Policy of 2019 which is yet to be adopted and (iii) National Apiculture Strategy of Botswana (2022-2027) (Mutakela, 2024). These frameworks facilitate the Ministry of Lands and Agriculture to contribute to attainment of Sustainable Development Goals (SDGs).

Currently, the Apiculture division works to promote product compliance with four main commodity standards affecting the Apiculture subsector namely,

a) Honey - Specification (BOS 199:2014)
b) Good Beekeeping - Code of Practice (BOS 472:2012)
c) Beeswax - Specification (BOS 671:2014), and
d) Terrestrial Animal Health Code

There are very limited research studies that have been conducted in the Apiculture subsector todate. The few notable studies include:

(i) Commercialization of Beekeeping in Botswana (2006)
(ii) Transboundary pests and diseases (2016) supported by Food and Agriculture Organization (FAO)
(iii) Collection of data for monitoring the Diversity of Bees Relevant to Food and Agriculture (2022) supported by FAO and APIMONDIA (Mutakela, 2024).

The Ministry of Lands and Agriculture recognises the critical role that the beekeeping industry plays in socio-economic development of Batswana in terms of rural on-farm diversification, poverty alleviation, improvement of crop yields, creation of employment, increase in farm incomes and improvement of household and national food security. There is even greater potential for beekeeping (if well supported by developing the apiculture value chain) to make a significant contribution to the economy of Botswana by providing employment opportunities among rural communities and by increasing foreign exchange earnings through honey exports (MoA, 2022).

Value Chain Activities and Actors

The apiculture value chain in Botswana is undeveloped. The main value chain activities consist of input supply, primary production, trading, processing, retailing and consumption, with the main actors being input suppliers, honey producers, traders, processors, retailers, and consumers (local and foreign). Figure 4 presents a detailed apiculture value chain in Botswana.

Input Supply

The main input supplier is New Age Scientific Office Equipment but there are several formal and non-formal traders including Feed Centre, Kalahari Honey, Monate Food, and others. They sell protective clothing, hives, tools, and bee equipment mostly. Beekeepers outside Gaborone face challenges accessing basic tools and equipment because there is very low coverage of input supplies outside Gaborone, especially in the remote areas (MoA, 2021).

Production

This segment of the apiculture value chain recorded a total of 678 beekeepers in the period 2023-2024. It was dominated by adults (95.6%), while youth accounted for only 4.4% of total beekeepers. A larger proportion of the beekeepers were male (55%) while women accounted for 45%. Honey production is largely practised at subsistence level by small-scale beekeepers with 30 beehives or less. Honey is used as a food product for home consumption and the surplus honey is sold to friends and networks of acquaintances. Medium scale beekeepers are mostly small family businesses that own between 31 and 60 beehives, with a capacity to produce 500Kg of honey each year, and gross income generation potential of BWP 30,000 per annum. Large scale beekeepers own 61 beehives or more, harvest honey at least twice a year, with a capacity to produce between 1,000-1,200 Kg of honey per year, and gross income generation potential of BWP 66,000 per annum. Most beekeepers use traditional methods of honey production. There are two types of hives, with the traditional hive (Tanzanian top bar hive, TTBH) accounting for 68.1 % of hives used by beekeepers and commercial hive (Langstroth hive) accounting for only 31.9%. Beekeepers. Domestic honey production was estimated at 11.8 tonnes (or 11,800Kg) in the period 2023-2024. This accounted for only 19% of national demand. Honey was produced from only 1559 (50%) colonized hives out of a total of 3,117 beehives in the country. The other 1558 beehives were empty. The major production areas of honey are South-East, Kweneng, and Central districts which account for 25%, 16% and 15% of the total honey produced in the whole country, respectively (MoA, 2021; Mutakela, 2024).

Trading

Traders are value chain intermediaries between the beekeeper and final consumer. Majority of beekeepers (90%) sell their honey directly to local consumers in the village and urban areas without retail intermediaries. There are very few beekeepers that sell their honey to traders. This is attributed largely to lack of information and access to other markets except the villages in which they operate. The other factor is that the quantity of honey produced is low and unable to satisfy demand of potential external customers. The mode of trade chosen by the beekeepers depend largely on the quantity of honey they produce and to some extent the quality of the honey. There are two formal private processors traders (Kalahari Honey and Monate Food) that buy honey and bee products from local beekeepers, and they are both located in Gaborone.

Processing

Processors add value to beekeepers' products. However, there is limited further processing of honey and bee products. The main value adding activity is packaging using used packages, of re-used bottles which are cheap and easy to get. There are two formal private processors (Kalahari Honey and Monate Food) in the country. These two processors and traders get their packaging materials from within the country. However, they source honey from their own apiaries and buy limited quantities of honey from local producers. Most of the honey they use

is imported largely from Zambia and South Africa. The processors prefer imported honey to locally produced honey. The quantity of honey imported by the processors for the period 2023-2024 was 9,947.25 Kg (or about 9.9 tonnes), with a value of BWP 759,794.47. The main reasons advanced by the processors for their preference for imported honey are that local producers supply poor quality and expensive honey and local supply is inconsistent throughout the year.

Retailing

This segment of the value chain delivers honey to end users. The actors comprise of several shops (e.g. Choppies, Shoprite, Spar, pick n pay. etc) that buy honey directly from producers and processors and then sell to local consumers and whoever happens to pass through their shops. Reports showed that retailer shops worry about (i) lack of reliable and consistent supply of honey throughout the year, (ii) high prices of local crude honey, and (iii) perceived low quality of locally produced or processed honey due to lack of a grading and classification system for honey and bee products in the country.

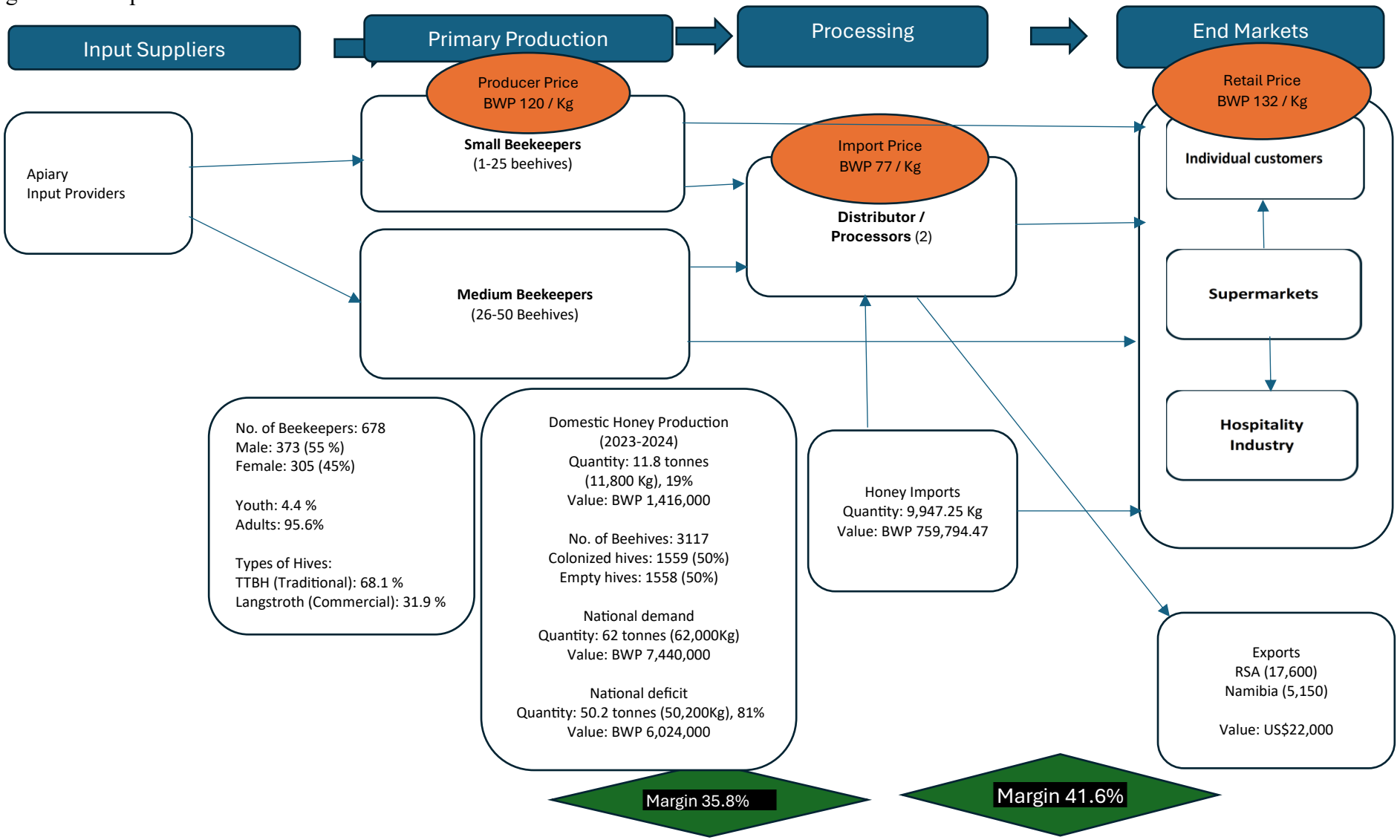
Consumption

Consumers buy honey and bee products from beekeepers, processors for their own consumption. The estimated annual national demand for honey in Botswana in the period 2023-2024 was 62 tonnes (or 62,000 Kg. Domestic honey production was only 11.8 tonnes. The national deficit of 50.2 tonnes (or 50,200 kg had to be met through imports. However, the processors sell honey to both local and foreign markets, largely South Africa and Namibia. The export markets could be penetrated further by exploiting industrial uses of honey, which are at present few in Botswana. A huge potential market exists for honey exports in the SADC region, especially Lesotho, Namibia, and South Africa. Total exports value shows a total trade in honey export of US$22 000. One processor, Kalahari Honey produced, processed, and exported honey (about 12 tonnes) to Namibia, Lesotho as well as United States of America (MoA, 2022).

Key Challenges Faced by Actors in the Apiculture Value Chain

Actors in the apiculture value chain face several challenges as outlined in Table 16 below. The challenges include, among others, low adoption of improved production technologies, shortage of resources, high cost of inputs, weak producer associations, limited processing facilities, unorganized market, lack of grading and classification system, and insufficient legal below framework to govern, promote and guide development of the apiculture subsector (MoA / FAO, 2022; Mutakela, 2024).

Figure 4 The Apiculture Value Chain



Source: Adapted from MoA (2022); Mutakela (2024)

Table 17 Challenges Faced by Actors in the Apiculture Value Chain

Challenge	Narration
1. Low adoption of improved production technologies	Most beekeepers produce honey in a very traditional manner for subsistence and use low-yielding production technologies.
2. Shortage of resources	There is shortage of basic tools and equipment, apicultural land, and capital to run the beekeeping enterprises.
3. High cost of inputs	Inputs are expensive, more especially the beehives, harvesting/processing equipment and required protective clothing.
4. Limited number of processing facilities for honey and honey products	Honey processing facilities are inadequate; There are only two processors located in Gaborone.
5. Local honey is expensive	Processors prefer to import honey because import price of honey is lower than the local market price.
6. Negative effects of climate change on production	Beekeepers experience inconsistent production of honey due to unfavourable climatic conditions such as drought, floods, hailstorms, frost, and extreme temperature regimes.
7. Weak producer associations	There are weak managerial, entrepreneurial, and technical skills in the associations; Producer associations have inadequate capacity to provide necessary services (research for policy advocacy, information dissemination, technical support and continuous training and development) to members.
8.Poor / inadequate infrastructure	Lack of / limited ICT resources, access roads, water, and electricity supply.
9. Lack of market or limited access to input and output markets	Lack of local producers of beekeeping equipment. Most farmers have no organized market for their honey and have limited access to formal markets and market information. There is no grading and classification system for honey and other apicultural products. Weak traceability of honey and honey products and compliance with food safety and health standards.
10. Inadequate regulatory framework	Subsector is currently regulated by The Importation of Bees Act of 1910 and driven by the National Apiculture Strategy (2022-2027); A draft beekeeping policy of 2019 is yet to be adopted.

Source: MoA (2019); MoA / FAO (2022); Mutakela (2024).

Investment Opportunities

The beekeeping industry has potential to diversify agricultural output and contribute significantly to employment creation, reduction in poverty and income inequality, improved household food security and national income. Several key investment opportunities exist in the apiculture value chain as outlined in Table 17 below:

Table 18 Investment Opportunities and Strategies in the Apiculture Value Chains

Investment Opportunity	**Strategy**
Research and Development & Capacity Building	o Promote selective breeding programmes to enhance honey production through the introduction of superior bee colonies and forage species. o Support the establishment of regional apiary Centres of Excellence for training, research and development, and technical support.
Access to Extension and Veterinary Services	Expand/strengthen extension services tailored to beekeepers.
Access to Key Beekeeping Inputs	Provide subsidized beekeeping tools and equipment to lower input costs.
Development of / Capacity Building for Beekeeper Cooperatives and Associations	-Support the formation of beekeeper cooperatives for shared input purchasing and marketing. -Strengthen Beekeeping Associations
Infrastructure Development	- Construct and upgrade honey/further processing facilities to meet sanitary and capacity standards -Support investment in value-addition / further processing facilities for honey and bee products -Provide proper access roads, adequate supply of electricity and water, and avail information and communication technologies (ICT) to promote increased honey and bee products production and facilitate marketing and trade.
Capacity Building for Beekeepers	-Introduce training programmes on biosecurity, bee forage species and management, and financial management. -Offer training programmes on best practices in beekeeping in agricultural colleges and vocational schools.
Market Access and Value Chain Development	o Develop and strengthen market linkages for honey and bee products, both domestically and internationally. -Develop organized marketing systems, including cooperatives and market information platforms. o Support the development of honey processing infrastructure, such as honey-packing and further processing facilities to improve product quality and reduce post-harvest losses. -Promote organic certification and quality assurance systems for honey and bee products. o Facilitate access to export markets by ensuring compliance with international standards for honey and bee products' exports.
Access to Finance and Investment	o Facilitate access to credit and insurance products designed for beekeeping enterprises. -Develop financing mechanisms, including grants and affordable loans, specifically tailored to beekeepers, especially smallholders, youth, and women farmers. -Provide subsidies or financial incentives for basic honey production and processing tools and equipment. o Promote public-private partnerships to invest in the apiculture value chain and provide support for beekeepers' cooperatives / associations
Apiculture Sector Development Policy	Develop specific policy to direct, regulate and guide development of the apiculture subsector

Source: Adapted from MoLA (2025).

MARKET POTENTIAL AND ACCESS FOR HONEY PRODUCTS

Local Market

Existing markets for honey in Botswana can be categorized into three types:
Retail Sector (Supermarkets), Tourism Sector and Informal Market.

a) Retail Sector Market: Supermarkets and other Formal Retailers

The country has and continues to experience rapid growth of the supermarket sector, with Choppies recording the largest number of stores countrywide (about 50 stores). Among other other major supermarkets are Spar, Pick-n-Pay, Shoprite, Sefalana, and Woolworths, including Dis-Chem Pharmacy and most pharmacies that stock honey products. All honey sold in these stores is imported (MoA, 2022).

b) Tourism Sector Market

The honey market in the tourism sector in the Northern part of Botswana, including tourism areas such as Kasane, Maun, and Okavango is significant and potentially very important. The demand for honey is high in these areas. The price of honey in this tourism market is usually higher than in the supermarkets. Most of the honey is sold through Botswana Craft and other tourism outlets.

c) Informal market

Most of the honey produced locally is consumed in the informal market. Supermarkets do not buy this honey largely due to perceived poor quality. However, the local honey is in high demand and sells quickly in these informal arrangements. Most beekeepers sell home-packaged honey in plastic jars in their local neighbourhoods to relatives, friends, and passersby. Others sell by weight in combs. Tables 18 and 19 present regional and international market potential and market access agreements for bee products.

Table 19 Regional Market Potential and Market Access Agreements for Bee Products

Country	Market Potential	Market Access Agreement
Republic of South Africa	South Africa imports of natural honey were $6,004.63K and 4,815,120Kg in 2023; imported from China ($4,512.00K, 4,217,690 Kg), Spain ($554.45K , 159,600 Kg), Zambia ($540.52K , 274,410 Kg), and India ($164.04K , 81,012 Kg). Botswana exported natural honey to RSA valued at $17.6K. There exists untapped export potential for the RSA market.	SACU (Botswana, Lesotho, Namibia, South Africa, and Eswatini) attract customs duties at rates outlined in the Customs Tariff Book. Customs duties are paid against a prescribed ―form SAD 500, which is a declaration form, formally known as a bill of entry. The Southern African Development Community (SADC) is an inter-governmental organization that promotes socio-economic cooperation and integration and political and security cooperation among the fifteen member states. The SADC
Lesotho	The honey market in Lesotho is projected to grow at a high growth rate of 13.35% by 2027 within the Africa region, largely due to honey's medicinal and nutritional benefits; But honey production in the country is far from meeting the local demand. Main Import Partner: South Africa. Import Value (2023): $193.12K. Import Quantity (2023): 89,605 kg.	

	Lesotho also imports artificial honey from countries like China and Hong Kong. Botswana exported natural honey to Lesotho valued at $2.12K. There exists a total of US$296K of untapped export potential for the Lesotho market.	Free Trade Area (FTA) was launched in August 2008. The FTA is not yet in force and SADC members are reducing their tariffs at different rates. SADC intends to complete the tariff phase-down by 2012. This will allow for free movement of goods and services produced within the region, but each member state will still have its own external tariff to non-member states of SADC. The African Continental Free Trade Area (AfCFTA) agreement of 2018 aims to create a single market for goods and services across Africa, boosting intra-African trade and economic integration.
Eswatini	Main Import Partner: South Africa. Import Value (2023): $146.78K. Import Quantity (2023): 28,041 kg. Botswana has exported natural honey to Eswatini *(*US$298). There exists an untapped export potential for the Eswatini market.	
Namibia	Namibia imports natural honey, with Zambia ($665.23K and 178,952 kg), South Africa ($330.89K and 84,909 kg), and Uruguay ($233.30K worth of honey, amounting to 48,589 kg) being the top import sources in 2023. In 2023, Namibia's natural honey imports were valued at $1,233.62K, with a total quantity of 313,262 kg). Botswana has exported 5,150 Kg of honey to Namibia. There exists untapped export potential for the Namibian market.	
Zimbabwe	Zimbabwe imports about 90% of its honey from Zambia, South Africa, and China, as the current local supply cannot meet the demand. Zimbabwe imported $47.5K worth of honey in 2023 from Zambia ($43.7K), South Africa ($2.95K), Tanzania ($648), and the United Arab Emirates ($202). Botswana has exported natural honey to Zimbabwe (US$146). There exists untapped export potential for the Zimbabwean market.	

Source: Adapted from MoA (2018); WITS/World Bank (2023).

Table 20 International Market Potential and Market Access Agreements Bee Products

Country / Region	Market Potential	Market Access Agreement
Ethiopia	Ethiopia is the top honey producer in Africa, with an output of 326,000 tonnes in the 2024/25. But imported honey in 2023 from: India ($6.87K), Italy ($3.14K), United Arab Emirates ($2.15K), Angola ($1.17K), and Belgium ($31). The fastest growing origins for honey imports in Ethiopia between 2022 and 2023 were: India ($5K), Italy ($2.24K), and South Africa ($9). There exists untapped export potential for the Ethiopian market.	**The European Free Trade Association (EFTA) with SACU states** The EFTA states Iceland, Liechtenstein, Norway, and Switzerland signed free trade agreement with the Southern African Customs Union (SACU) in June 2006. Trade in agricultural products form part of the agreement for concessions on processed agricultural products. This agreement which form part of the instrument establishing the free trade area are also asymmetrical giving SACU improved preferential treatment into the EFTA markets. Botswana is therefore bound to benefit from the said bilateral agreement.
Algeria	Algeria imported honey valued at $366K in 2023; Sourced from the United Arab Emirates ($165K), Germany($69.5K), India($61.2K), Egypt ($46.2K), and France ($23.5K). There exists untapped export potential for the Algerian market.	
Nigeria	Nigeria is a large producer of honey and a significant honey importer. Nigeria imports of natural honey were worth $8,467.20K and quantity 5,033,200Kg; Imported from the UK ($3,639.70K, 2,053,010 Kg), China ($3,535.60K, 1,982,640 Kg), France ($935.22K, 741,756 Kg), UAE ($236.65K, 136,395 Kg), India ($50.13K, 56,497 Kg). There exists untapped export potential for the Nigerian market.	
United States of America	USA imported natural honey worth $584,680.34K (199,297,000Kg). Sourced from India ($161,077.79K , 77,146,300 Kg), Argentina ($133,822.42K, 45,315,000 Kg), Brazil ($70,988.99K , 22,541,600 Kg), New Zealand ($51,889.71K , 2,154,090 Kg), Mexico ($25,130.35K , 6,946,980 Kg). Kalahari Honey has already exported honey to the USA. There exists untapped export potential for the USA market.	USA imposes a tariff of 38% on its imports from Botswana.

Source: Adapted from MoA (2018; 2022); WITS/World Bank (2023).

CHAPTER 6

PROFITABILITY AND INVESTMENT ANALYSIS OF THE VALUE CHAINS

The Private Sector Development Programme (PSDP), a Government of Botswana initiative demonstrated profitability and investment feasibility of piggery, goats, and poultry sectors through its "*Value chain analysis in emerging sectors (meat (piggery, goats and poultry), dairy and leather)*" studies.

Table 20 presents estimated percentage gross margins and marketing margins in the value chains for the five sectors (Sheep, Goat, Piggery, Poultry and Apiculture). The percentage gross margin for primary production (or farm gross margin) was highest for the poultry sector, followed by smallstock (sheep and goat) sector. Farm gross margin in the apiculture sector ranked fourth but was not much different from that of sheep and goat farms. The piggery sector recorded the lowest farm gross margin. The percentage gross margin for processing facilities was highest for the sheep and goat sectors, followed by gross margin of the piggery sector. Processor gross margin in the apiculture sector ranked fourth and the poultry sector recorded the lowest of the gross margins in this segment of the value chains.

Percentage marketing margin between primary producer and processor was highest for the sheep and goat sectors, followed by the apiculture sector. Piggery sector ranked fourth while the poultry sector recorded the lowest marketing margin between primary producer and processor. For marketing margins between processor and retailer, the apiculture sector recorded the highest margin, followed by the poultry sector. Piggery sector ranked fourth, while the sheep and goat sectors recorded the lowest marketing margin between processor and retailer segments of the value chains.

Table 21 Gross Margins and Marketing Margins in the Value Chains

Sector	Gross Margins (GM, %)		Marketing Margins (%)	
	Primary Production (farm)	Processing (Processor)	Between Primary Producer and Processor	Between Processor and Retailer
Sheep	19	36	47	7.5
Goat	19	36	47	7.5
Piggery	4	32	14.5	13
Poultry	30	11	8	33
Apiculture	18.3	20.4	35.8	41.6

Source: Adapted from MoA (undated; 2015)

Value Chain Prioritization

Based on the estimated farm gross margins and marketing margins for the sheep, goat, piggery, poultry and apiculture sectors, the value chains are prioritized for selection and development in the following order:

Sector (Value Chain)	Rank
Goat	1
Sheep	1
Apiculture	3
Poultry	4
Piggery	5

Geographic Targeting

Geographically, the Botswana Livestock Commercialization Project (BoLCoP) proposes to first operate in the Central and Southern parts of the country. The review of literature and facts confirm that the proposed geographic targeting is appropriate as demonstrated in the following pillars of the targeting approach.

Largest concentration of small livestock

Approximately half (50%) of the smallstock (sheep and goats) are bred in the Gaborone and Central regions while 60% of pigs are bred in the Gaborone and surrounding regions. Poultry producers are distributed throughout the country but mostly found near urban and peri-urban centres of Gaborone, Central and the Francistown region. The major production areas of honey are South-East, Kweneng, and Central districts which account for 25%, 16% and 15% of the total honey produced in the whole country, respectively (MoA, 2015; MoA, 2021; Mutakela, 2024).

Most suitable for small livestock rearing

The large concentration of small livestock in the Southern and Central district shows that the two areas are most suitable for small livestock rearing. They have adequate and proper forage resources, favourable soil and climatic conditions with less pests and disease infestation compared to other areas. The support system for the small livestock sector is well-developed.

High Poverty Levels

Livestock and livestock products, especially small stock (sheep and goats) have a reputation in Botswana and most other countries as ideal food security and poverty reduction assets. The top four districts with the highest level of monetary poverty (Kweneng West 50.60%, Ngwaketse West 40.30%, Kgalagadi South 39.50%, Ghanzi 36.30%) are found in the Southern parts of Botswana. Women, the unemployed, youth, and people with disabilities are particularly vulnerable to poverty within these districts. It is essential that poverty incidence becomes one of the factors to consider in geographic targeting.

Developed support systems for the small livestock sector

Rural and remote areas generally lack or have limited necessary support system for agricultural activities including small livestock. There is lack of input and product markets; poor roads and

transport network; inadequate supply of water, electricity, and ICT technology; limited access to extension support and financial institutions. If an enabling environment to achieve desired outcomes such as a well-developed support system, it is unlikely that the interventions or investment will yield intended benefits for the target beneficiaries. The Southern and Central districts have adequate technical, administrative, production and marketing, and communication infrastructure to support the BoLCoP initiative.

CHAPTER 7

AGRICULTURE SECTOR ORGANIZATION AND KEY STAKEHOLDERS

AGRICULTURE SECTOR ORGANIZATION AND KEY STAKEHOLDERS

Ministry/Dept/Division	Affiliated Parastatals	Farmer-Based Stakeholders	Private Sector and Agribusinesses	Financial Institutions	Education and Research (Non-Parastatal)	Development Partners & NGOs	Professional and Regulatory Bodies
Ministry of Lands and Agriculture (MoA) The mandate of the ministry responsible for agriculture is to promote sustainable agricultural development, enhance food security, and contribute to economic diversification.	**Botswana University of Agriculture and Natural Resources (BUAN):** Provides education and training in agriculture and conducts research to support the sector. Now moved to Ministry Education but none the less vital in the Agriculture sector	**Botswana National Farmers Union (BNFU):** Umbrella body representing the interests of smallholder and commercial farmers	**Agro-Input Suppliers:** o Seed producers and distributors (e.g., Agriseeds Botswana). o Agrochemicals and fertilizer suppliers (e.g., Gaborone Plant, Agritech). o Veterinary drug stockists.	**National Development Bank (NDB):** Major provider of agricultural loans.	**Secondary Schools** and **Brigades** with Agriculture Curricula	Food and Agriculture Organization (**FAO**)	Botswana Veterinary Association
Department of Crop Production: Focuses on improving crop yields and promoting sustainable farming practices.	**Botswana Meat Commission (BMC)**: Engages in the processing and marketing of meat products.	**Regional Farmers Associations** (e.g., Kweneng Farmers Association, Ghanzi Farmers Association).	**Agricultural Machinery and Equipment Suppliers**: o Tractors, irrigation systems, ploughing	**Commercial Banks**: Offer agricultural finance products (e.g., Stanbic, FNB, Absa)	**International Research Collaborators:** o International Livestock Research Institute (ILRI) o **Centre for Coordination of**	**USAID** Southern Africa Feed the Future	Botswana Society for Range Management

			equipment vendors		**Agricultural Research and Development for Southern Africa** (CCARDESA)		
Department of Animal Production: Aims to enhance livestock productivity and health.	**Botswana Agricultural Marketing Board (BAMB)**: Manages the marketing and distribution of agricultural produce	**Commercial Farmers (Individual Enterprises):** Operate on leased or freehold land, engage in intensive farming (e.g., horticulture, feedlots, dairy).	**Grain Millers and Processors**: o Maize and sorghum milling companies (e.g., Bokomo Botswana, Sebego Milling).	**Botswana Savings Bank (BSB)**: Serves rural and emerging farmers.		**GIZ** (German Cooperation) **World Bank** & **IFAD**-funded agricultural projects	Botswana Horticulture Council (under development)
Department of Veterinary Services: Provides animal health services and disease control	**Botswana Vaccine Institute (BVI)**: Produces vaccines to support animal health	**Smallholder / Subsistence Farmers:** Majority of traditional arable and pastoral farmers	**Horticultural Producers and Packhouses**: Focused on exports and supermarket supply chains.	**Microfinance Institutions**: Support small-scale agribusiness ventures		**NGOs** supporting food security and rural livelihoods (e.g., Sentebale, Humana People to People, Botswana Red Cross)	Botswana Bureau of Standards **(BOBS)**: Sets standards for agro-products.
Department of Agribusiness Promotion: Supports the development of agribusiness enterprises and market access.	**National Agricultural Research and Development Institute (NARDI):** Established to	**Horticultural Producers and Packhouses:** Focused on exports and supermarket supply chains.	**Retail Chains and Buyers**: Sefalana, Choppies, Spar, and others sourcing local produce.				

	consolidate agricultural research efforts, focusing on innovation and development in agriculture						
Department of Corporate Services: Offers administrative and support services to the ministry		Retail Chains and Buyers: Sefalana, Choppies, Spar, and others sourcing local produce.					
Division of Agricultural Information and Public Relations: Manages communication and dissemination of agricultural information							

Source: Adapted from MoA (2025) Draft Agriculture Sector Policy, May 2025.

CHAPTER 8

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1 The main activities in the goat, sheep, piggery, poultry, and apiculture chains are input supply, primary production, primary processing, retailing and final consumption.

2. The goat, sheep, piggery, poultry, and apiculture value chains face similar challenges that negatively affect productivity and competitiveness of the value chains:
   a) Informal, undeveloped and dominated by subsistence smallholder producers operating in communal areas. There is general lack of commercialization of operations.
   b) Majority of smallholder producers use low-yielding traditional methods of farming.
   c) Shortage of / low quality of breeding stock.
   d) Lack of husbandry/technical/entrepreneurial skills.
   e) Low adoption of improved technologies in the segments of the value chains.
   f) Limited value-addition (further processing) activities in the value chain.
   g) Low performance of producer and other value chain actor associations.
   h) Lack of resources (land, human, capital) and implementation capacity.
   i) Limited access to credit and finance.
   j) Limited access to organized/formal markets and market information;
   k) Lack of grading and certification systems for products.
   l) Inadequate production and marketing infrastructure.
   m) Weak agricultural extension support system.
   n) Inadequate legislative framework or lack of specific policy for the subsector.

3. The findings of the study confirm that the proposed geographic targeting of the Southern and Central districts for initial piloting of the Botswana Livestock Commercialization Project (BoLCoP) is appropriate. The targeting approach is based on relevant indicators (*largest concentration of small livestock; Most suitable for small livestock rearing; high poverty levels and developed support systems for the small livestock sector)* supported by facts pertaining to the selected project areas.

4 Farm gross margins and marketing margins for the sheep, goat, poultry, piggery and apiculture sector are different between the value chains and vary along the value chain from primary production to processing and retail segments. All the farm gross margins and marketing margins are positive and significantly high. The value chains are implementable and have potential to generate acceptable returns on investment for the producers, processors, and retailers.

5 Botswana has several opportunities in local, regional, and international markets for increased production, export trade, and foreign exchange earnings. Domestic production from the goat, sheep, piggery, and apiculture value chains satisfies less than 20 % of national demand of the sector products. There is lack of commercialization and value-addition or further processing of primary goods in all the value chains. The country has potential to increase local production to meet local demand, support value-addition or further processing of primary products in these value chains to unlock potential export trade in the region (South Africa, Namibia, Zambia, and Lesotho) and international markets (United Arab Emirates, India, Saudi Arabia and United States of America). satisfy traceability, health, and safety requirements of foreign markets.

Recommendations

1. The proposed investment or interventions to improve production, productivity, and competitiveness of the goat, sheep, piggery, poultry, and apiculture value chains are:

a) Improvement of breeding stock and genetic diversity in the value chains
b) Capacity building and knowledge transfer (farmers, associations, extension personnel)
c) Veterinary services and health management
c) Access to formal markets and market information (local and foreign markets)
d) Access to credit, financial and insurance services
e) Value-addition / further processing in the value chains
f) Grading and certification systems for products
g) Production and marketing infrastructure development
h) Agricultural extension support systems
i) Climate-resilient practices
j) Sector-specific development policy reforms

2 Botswana Livestock Commercialization Project (BoLCoP) should first be piloted in the Central and Southern parts of the country.

3. Botswana Livestock Commercialization Project (BoLCoP) should consider selection and prioritize development of the sheep, goat, piggery, poultry, and apiculture sectors in the following order:

Sector (Value Chain)	Rank
Goat	1
Sheep	1
Apiculture	3
Poultry	4
Piggery	5

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Botswana Livestock Commercialization Project

Project Design Report

Annex: Literature Review

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Programme Management Department

DRAFT REPORT

For:

THE SOCIOECONOMIC ASSESSMENT, FARMER PROFILING AND POLICY GAP ANALYSIS IN BOTSWANA

Submitted to:

International Fund for Agricultural Development (IFAD)

Department for Country Operations (DCO)

Botswana Country Programme

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II. ACRONYMS AND ABBRAEVIATIONS

1. BAMB: Botswana Agriculture Marketing Board
2. BCA: Botswana Cooperatives Association
3. BIDPA: Botswana Institute for Development Policy Analysis
4. BITC: Botswana investment And Trade Centre
5. BITRI: Botswana Institute for Technology Research and Innovation
6. BMC: Botswana Meat Commission
7. BNFU: Botswana National Farmers Union
8. BOBS: Botswana Bureau of Standards
9. BSB: Botswana Savings Bank
10. BUAN: Botswana University of Agriculture and National Resources
11. BVI: Botswana Vaccine Institute
12. CCA: Competition And Meat Authority
13. CEDA: Citizen Entrepreneurship Development Agency
14. DAPH: Department of Animal Production and Health
15. DAP: Development of Animal Production
16. EU: European Union
17. FAO: Food and Agriculture Organization
18. FAP: Financial assistance Fund
19. GIS: Geographic Information System
20. GOB: Government of Botswana
21. IFAD: International Fund for Agricultural Development
22. IFPRI: International Food Policy Research Institute
23. ISPAAD: Integrated Support Programme for Arable Agriculture Development
24. LEA: Local Enterprise Authority
25. LIMID: Livestock Management and Infrastructure Development
26. MFDP: Ministry Of Finance and Development Planning
27. RADP: Remote Area Development Programme
28. MTI: Ministry Of Trade and Industry
29. NARDI: National Agricultural Research and Development Institute
30. NDP: National Development Plan
31. YDF: Youth Development Fund
32. WEEP: Women's Economic Empowerment Programme
33. NDB: National Development Bank
34. MOA: Ministry of Agriculture
35. PEP: Poverty Eradication Programme
36. RETP: Rural Education and Training Programme
37. MYSC: Ministry Of Youth, Sport and Culture
38. UB: University Of Botswana
39. NSSC: National Small- Stock Coordination Platform
40. USAID: United States Agency for International Development
41. UNDP: United Nations Development Programme

III. EXECUTIVE SUMMARY

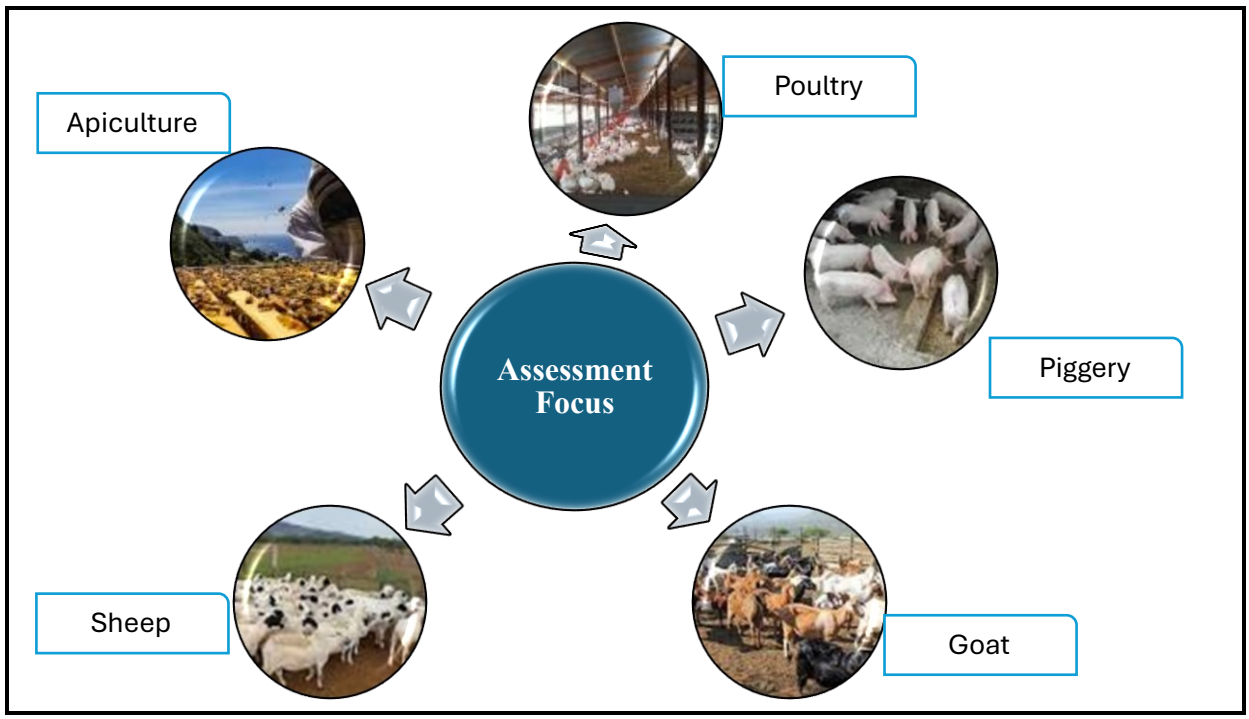
This report provides a socioeconomic analysis of Botswana's livestock sector, focusing on five value chains: cattle, goats, pigs, poultry, and apiculture. It underscores the pressing need to transition from generic livestock interventions to more targeted, inclusive, and commercially viable systems. Central to this analysis is a multidimensional profiling of small stock farmers, revealing disparities in production scale, market engagement, gender roles, youth participation, and institutional access. Subsistence and semi-commercial farmers dominate the small-stock sector especially goats and poultry with women and elderly individuals playing a key role in goat production across Central, Kweneng, and Southern districts, while youth are increasingly drawn to pigs and poultry in peri-urban zones such as South East, Francistown, and Gaborone. Apiculture is emerging in Chobe, Ngamiland, and Ghanzi, primarily driven by youth and women cooperatives.

Goat farming is the most widespread small-stock activity, found across all typologies and regions, particularly in Central, Kweneng, Ngamiland, and Southern districts. It is dominated by low-income women and elderly farmers managing small herds under low-input systems. Poultry both indigenous and broiler stands out as the most inclusive and commercially dynamic, with strong uptake among women and youth in peri-urban and rural districts such as Kweneng, South East, and Central. Pig production is growing steadily among youth, mostly in peri-urban clusters like Ramotswa and Tlokweng (South East) and Tswapong (Central), but faces major constraints in feed costs, slaughter facilities, and hygiene standards. Apiculture remains underdeveloped but has high potential in ecological zones like Chobe, Ngamiland, and Ghanzi, where natural flora supports beekeeping and green livelihood strategies. Sheep farming is more geographically concentrated in the Southern district, where traditional Tswana breeds are raised mainly by older male farmers for meat and ceremonial use, with limited commercialisation.

District-level assessment highlights Central and Kweneng as key hubs for goats and poultry, featuring strong participation of women and emerging commercial clusters. South East supports youth-driven broiler and piggery enterprises due to its peri-urban positioning. Southern has the highest concentration of Tswana sheep and opportunities for wool and meat value chain development. Ngamiland and Chobe, while remote, are vital for climate-resilient interventions, particularly in goat rearing and apiculture, owing to their ecological diversity and vulnerability to shocks. Tswapong/Bobirwa and Ghanzi represent underserved areas with potential for piggery and beekeeping development among unemployed youth, but they require targeted investment and cooperative models to address structural deficits.

Despite the presence of supportive policies and institutions, the assessment reveals persistent misalignments and capacity gaps. Policies such as the Revised Agricultural Policy (1991-under review), Rural Development Policy (2002-under review), and the draft Livestock and Meat Industries Act (2007) are a bit outdated and inadequately responsive to the evolving dynamics of smallholder livestock systems. While newer instruments like the Climate Change Policy (2021) and Economic Inclusion Act (2021) offer entry points for reform, they are limited in small stock-specific implementation frameworks. Institutions across government, NGOs, academia, and finance remain important but fragmented, with overlapping mandates, poor district coordination, and limited reach in remote zones. Extension services are weak, youth and women schemes suffer from limited mentorship, and finance remains largely inaccessible due to collateral requirements, slow disbursement, and product mismatches.

To address these constraints, six strategic recommendations are proposed. First, a National Small-Stock Coordination Platform should be considered to harmonise interventions, align mandates, and drive integrated value chain development. Second, policy instruments under review should be capture small stock production-specifics, particularly to support small-stock systems and under-represented producers. Third, a graduation-based farmer support framework maybe adopted to tailor assistance by farmer category—subsistence, semi-commercial, and emerging commercial. Fourth, investment in critical infrastructure such as abattoirs, cold chains, vet services, and water systems should be considered and or prioritised in high potential but underserved zones. Fifth, livestock-friendly finance models should be enhanced, combining capital with extension, training, and group-based delivery for youth and women. Finally, human capital and knowledge systems should be strengthened through curriculum reform, targeted research on small-stock systems, and expansion of digital extension services. BoLCoP offers an opportunity to shift Botswana's livestock sector from exclusion to inclusion, and from fragmentation to integration. By aligning programme delivery with farmer realities, institutional strengths, and spatial opportunities, it can serve as a transformative platform for rural development, food security, and inclusive economic growth.



1.0: INTRODUCTION

1.1: Background

The Botswana Livestock Commercialisation Project (BoLCoP) is designed to address the persistent constraints impeding the growth and transformation of the livestock sector in Botswana. The sector, particularly dominated by smallholder farmers, continues to face several structural and policy-related challenges such as limited access to land, markets, finance, veterinary services, and weak institutional support systems. As such, BoLCoP aligns with Botswana's broader objectives under National Development Plan 12 and the Vision 2036 agenda, particularly under Pillar 1 on sustainable economic development (IFAD, 2025). The International Fund for Agricultural Development (IFAD), through its strategic investments, seeks to support BoLCoP in unlocking inclusive, resilient and market-driven livestock value chains. This initiative is expected to uplift the productivity and incomes of vulnerable producers, while simultaneously strengthening the institutional ecosystem to deliver long-term sectoral benefits.

1.2: Rationale for the Socioeconomic Assessment of Small Stock Farmers

Despite Botswana's status as an upper-middle income country, rural areas continue to face persistent challenges of poverty, food insecurity, gender inequality, and vulnerability to climate change. Small livestock farming, identified as a strategic diversification priority, offers a pathway to improve livelihoods, especially for poor rural women and youth. However, effective targeting and policy support are needed to fully harness this potential (IFAD, 2025). This assessment seeks to generate a comprehensive understanding of the socioeconomic conditions and profiles of rural farmers, identify policy and institutional gaps in small livestock value chains, and validate geographic and stakeholder priorities. The findings will inform inclusive and evidence-based programming that enhances resilience, commercialisation, and equitable access to opportunities for Botswana's rural communities.

Based on the overall assessment, small-stock farmers in Botswana are predominantly low-income rural households operating in traditional, low-input systems. Farmer profiles vary significantly by species, geography, gender, and market orientation. For example, women and elderly individuals dominate goat and indigenous poultry farming in arid zones; piggery and broiler production are gaining traction among youth in peri-urban areas; and apiculture offers emerging green livelihoods for youth and women in floral-rich regions like Chobe and Ngamiland. These patterns are influenced by biogeographical conditions, infrastructure access, and socio-cultural norms. The diversity among small-stock farmers underscores the importance of differentiated support strategies. This profiling helps clarify where and how IFAD and BoLCoP interventions can be most impactful by targeting disadvantaged groups such as women, youth, and subsistence farmers, while also nurturing the transition of emerging producers into commercially viable enterprises.

1.2: Purpose and Scope of the Consultancy

The purpose of this consultancy is to provide an in-depth socioeconomic analysis of Botswana's livestock sector from a development economist's perspective. It focuses on five key livestock value chains: cattle, goats, pigs, poultry, and apiculture. The assessment provides farmer profiling based on demographic, economic, and land-related characteristics, identifies viable beneficiary groups, analyses regulatory and institutional gaps, and recommends capacity

strengthening mechanisms. The assessment also contributes to the geographic and stakeholder targeting strategy. By applying a socioeconomic lens, this report identifies constraints that exacerbate inequality and impede inclusive growth and rural transformation, with a specific focus on women, youth, and low-income farmers.

2.0: OVERVIEW OF SMALL-STOCK FARMING IN BOTSWANA

Small-stock farming, comprising but not limited to goats, sheep, pigs, poultry, and apiculture (beekeeping), plays a critical role in Botswana's agricultural sector, particularly within the traditional and smallholder systems. These subsectors contribute significantly to rural livelihoods, food security, women's economic participation, and resilience to climate variability (Binge, et al., 2019). Given Botswana's predominantly semi-arid climate and the vulnerability of rural populations to poverty and food insecurity, small-stock farming offers viable and adaptable livelihood strategies. This section presents an overview of each of the five small-stock subsectors, highlighting their current state, production patterns, market potential, government support, and development challenges, before concluding on their strategic importance for BoLCoP and IFAD interventions.

2.1 Goat Farming

Goats represent the most populous and widely distributed species within Botswana's small-stock farming subsector. The national herd is estimated at approximately 1.8 million, with over 95% managed under traditional, communal systems. These herds are typically small, averaging 20–25 goats per household, and are found across all districts, although densities are higher in central and southern Botswana (Statistics Botswana, 2020).

Goats are predominantly reared for multiple purposes: income generation, meat, milk, and socio-cultural value. A study by Cooke et al. (2024) reveals that about 84% of goat farmers view their livestock as a form of cash reserve, with 58% using goats primarily for meat and 42% for milk. Further, small-stock production, particularly Tswana breeds, plays a critical role in rural livelihoods in Botswana, supporting food security, income, and cultural obligations. However, productivity remains low due to limited farmer investment in feed, health care, and infrastructure (Baleseng et al., 2016). However, production remains constrained by high mortality rates (up to 23%) and low offtake rates (as low as 7–10%) due to limited commercialization. The feeding regime is primarily extensive, relying on communal grazing, with supplementary feeding during droughts being uncommon due to affordability issues.

Government programmes such as the Livestock Management and Infrastructure Development (LIMID) scheme and the Remote Area Development Programme (RADP) have been instrumental in supporting smallholder goat farmers. These schemes provide start-up small stock packages, funding for kraal construction, and training, with a deliberate focus on empowering women (GoB, 2013). In addition, broader national efforts to promote entrepreneurship and private sector growth have included the Private Sector Development Programme, an initiative by the Government of Botswana, represented by the Ministry of Trade and Industry (MTI) and the Ministry of Finance and Development Planning (MFDP), in partnership with the European Union (EU). This programme is further supported by the Centre for the Development of Enterprise and Business Botswana, reinforcing institutional support for enterprise development, including in livestock sectors such as goat farming.

Despite these efforts, challenges such as feed shortages, disease prevalence, and climate shocks persist. Moreover, goats remain largely absent from formal markets, with most transactions

occurring at household or village level. Consequently, enhancing the health and productivity of individual goats and herds has the potential to boost household income, strengthen food and nutrition security, and increase the overall resilience of families and communities through improved economic returns or better nourishment.

2.2 Sheep Farming

Sheep farming, as a component of small-stock rearing, plays an important role in supporting the livelihoods of smallholder farmers in rural areas of Botswana. While not as widespread as goat farming, recent statistics show that sheep farming has grown since the 1990s, with the national flock now estimated at around 300,000 animals primarily made up of the indigenous Tswana breed (Statistics Botswana, 2016).

Sheep are particularly common in southern regions, such as Southern District and Kgatleng, where cultural and ecological conditions favour their rearing. Household flock sizes typically range between 20 and 35 animals. Nsoso and Madimabe (1999) suggest that the Tswana sheep breed is widespread and traditionally managed under communal grazing systems, limiting the potential for genetic improvement. In contrast, the Karakul breed, concentrated in the Kalahari, offers a more diverse production portfolio including high-value pelts, wool, and milk. However, Karakul remains underutilized despite its potential economic benefits. Like goats, sheep are reared for multiple purposes primarily meat production, income, and for use in cultural ceremonies. However, offtake rates remain low, and mortality, especially among lambs, is a major production constraint. In terms of production systems, sheep are kept under extensive management, with reliance on natural grazing and minimal veterinary care. Breeding is often unplanned, and there is limited access to improved genetics (Nsoso, 2004). However, government interventions such as LIMID have also supported sheep farmers, providing starter flocks, veterinary services, and training. Nonetheless, the sector faces persistent challenges, including inadequate feed, diseases such as internal parasites and foot rot, and weak access to formal markets.

2.3 Piggery

Pig production in Botswana remains one of the least developed subsectors within the broader small-stock farming landscape. Despite its introduction as a commercial venture in the early 1970s, the sector has recorded minimal growth over the decades. As Lekule and Kyvsgard (2003) observed in their study of African pig systems, intensive pig farming across the continent has generally stagnated, with traditional and semi-intensive models proving more sustainable in the long term. This observation rings true in Botswana, where semi-intensive production remains the dominant system, with pig enterprises varying in scale from small backyard units to larger commercial farms (Galeboe et al., 2009; Montsho & Moreki, 2012).

Botswana's contribution to regional and global pork production is negligible, accounting for just 0.06% of Africa's pork output and a mere 0.0005% of global output (Galeboe et al., 2009). The sector is largely concentrated around urban and peri-urban centres where there is adequate infrastructure and a modest consumer base. Further, Galeboe et al. (2009) highlight, pork consumption in Botswana is largely confined to higher-income households in urban areas, resulting in limited but focused market opportunities.

The government has made several attempts to stimulate the pig industry. Initiatives such as the establishment of the Sebele pig breeder facility in 1975 were intended to enhance access to quality breeding stock, while fully subsidized training through the Ministry of Agriculture has aimed to equip farmers with basic husbandry skills. Furthermore, institutions like the Local

Enterprise Authority (LEA), Citizen Entrepreneurship Development Agency (CEDA), and the Department of Culture and Youth have provided financing, training, and mentoring support to aspiring pig producers, especially youth and women (Moreki & Mphinyane, 2011; LEA, 2009).

However, piggery continues to face persistent structural challenges, including high feed costs, inadequate slaughtering facilities, weak market structures, and limited access to extension and veterinary services (Montsho & Moreki, 2012). Backyard pig farming usually involving small herds of 1 to 5 animals and is common among peri-urban and rural households, typically for subsistence or occasional sales. Despite these limitations, pigs present a high-potential livestock option, offering fast growth rates, efficient feed conversion, and year-round marketability. Recognising this potential, the government, through institutions such as the Department of Animal Production and Health (DAPH) and the National Agricultural Research and Development Institute (NARDI), has piloted training and support projects to improve management and genetic quality. However, these efforts remain fragmented and limited in scale.

In this context, piggery holds considerable promise for poverty reduction, especially for women and youth in peri-urban areas. There is a strong case for development partners such as IFAD to support scalable piggery models that enhance feed self-sufficiency (e.g., via locally available feed sources or food waste recycling), introduce affordable biosecurity measures, and strengthen cooperative-based marketing initiatives. These targeted interventions could help unlock the sector's latent potential and make piggery a more inclusive and economically viable option within Botswana's agricultural landscape.

2.4 Poultry

The poultry industry in Botswana is relatively advanced and serves as a critical source of both protein and income. The country has achieved near self-sufficiency in broiler and egg production, producing approximately 24,750 tonnes of broiler meat and more than 6 million dozen eggs annually (Botswana Agricultural Marketing Board, 2021). Poultry farming includes large commercial operations as well as smallholder systems, particularly involving indigenous chickens (commonly referred to as Tswana chickens).

Smallholder poultry is common across the country, especially in rural areas where it serves as a source of emergency cash, nutrition, and social capital. Indigenous chickens are hardy and adapted to local conditions but have low productivity compared to commercial breeds. Production constraints include high chick mortality, poor housing and feeding, and limited veterinary care.

Government support for poultry includes access to credit through CEDA, LIMID grants for infrastructure and inputs, and research from NARDI on improved feeding and housing. The private sector has also played a key role in commercial poultry development, particularly in supplying feed, day-old chicks, and processing services.

Poultry farming remains a strategic subsector for inclusive growth and women's empowerment, with many LIMID beneficiaries being female-headed households. Given its low land requirement, rapid turnover, and high demand, poultry offers an ideal entry point for IFAD's BoLCoP programme.

2.5 Apiculture

Beekeeping has been practiced in Botswana for over forty years. However, it has largely remained a subsistence activity, with honey primarily produced for household consumption (GoB, 2022). Apiculture remains a relatively underdeveloped subsector in Botswana, with production primarily taking place at a smallholder level. Beekeeping is practiced in areas with suitable vegetation, such as Chobe, Ngamiland, and parts of Kweneng and Southern Districts. Most beekeepers maintain only a few hives and produce honey for local sale or personal consumption. Despite its small scale, apiculture holds significant potential for rural livelihoods due to its low input requirements, environmental sustainability, and high-value output. Honey production is complemented by the potential for beeswax and other bee-related products, which are currently underutilized in Botswana.

The Ministry of Agriculture, through DAPH and NARDI, has initiated pilot programmes to promote beekeeping, especially among youth and women's groups. These include training on modern hive construction, swarm management, and honey processing. Further, the Ministry of Agriculture, in collaboration with development partners such as the Food and Agriculture Organization (FAO) and the European Union, has developed the National Apiculture Strategy of Botswana (2022–2027). This strategy seeks to address the key challenges facing beekeeping in the country and aims to create a conducive environment for transforming it into a sustainable and profitable sector. It focuses on improving rural livelihoods by promoting the adoption of appropriate technologies that enhance honey production, while also contributing to national efforts toward food security. Regardless, widespread adoption is hampered by lack of awareness, poor access to equipment, and underdeveloped market. A targeted IFAD interventions could facilitate the expansion of apiculture by linking beekeepers to high-value domestic and export markets, supporting cooperative models, and integrating apiculture into broader natural resource management programmes.

2.6 Distribution of Small-Stock by District

Table 1 presents indicative estimates of the distribution of small stock species, goats, sheep, pigs, poultry, and beehives across districts in Botswana.

Table 1: Distribution of Small Stock in Botswana by District (Indicative Estimates)

DISTRICT	GOATS	SHEEP	PIGS	POULTRY	BEEHIVES
Central	360,000	60,000	1,800	1,200,000	800
Kweneng	240,000	30,000	2,000	900,000	1,200
Southern	210,000	50,000	1,500	750,000	1,000
Ngamiland	180,000	20,000	900	600,000	1,500
Kgalagadi	150,000	25,000	700	350,000	600
South East	90,000	15,000	4,500	450,000	400
Ghanzi	70,000	8,000	600	150,000	200
Francistown	55,000	5,000	2,200	300,000	350
Kgatleng	60,000	12,000	1,000	280,000	500
Bobirwa	85,000	10,000	700	250,000	450
Chobe	30,000	4,000	400	120,000	1,700
North East	25,000	3,000	1,100	140,000	300

Sources: Statistics Botswana (2016, 2020); Galeboe et al. (2009); GoB (2016); Nsoso & Madimabe (1999); FAO (2023); Moreki & Mphinyane (2011); LEA (2009); Nsoso (2004); and Apiculture Strategy (2022–2027).

As highlighted in the section above, Table 1 reveals significant regional variation in small-stock populations, with the Central and Kweneng districts leading in goat and poultry numbers, while South East shows a relatively high concentration of pigs. Beekeeping appears more prominent in Ngamiland and Chobe. These patterns reflect differing ecological, market, and cultural conditions, highlighting the importance of tailored regional strategies in small-stock development.

2.7 Sector-Wide Challenges and Interventions

This section synthesises the common obstacles faced across all five small-stock subsectors and reviews interventions implemented by various stakeholders (government, Development institutions, NGOs, and others). It draws on empirical studies, national statistics, and official programme evaluations within Botswana.

2.7.1 Production Constraints

Across the board, productivity in the small stock farming is hampered by insufficient nutrition and disease control. For goats and sheep, Nsoso & Madimabe (2004) found high mortality rates, especially among young stock, due largely to parasitic infestation and poor feed during dry seasons. Notably, goat mortality reached as high as 23%, while offtake rates remained below 10%. Additionally, Seleka (1999) points out that goats and sheep production remains constrained by low input use, uncontrolled communal grazing, minimal supplementary feeding, and limited disease management. These factors contribute to lower productivity, especially when compared to more capital-intensive commercial systems. Moreover, variation in vegetation cover across districts introduces additional ecological constraints. For example, in Kweneng, goats thrive due to their ability to browse shrubs vertically, an advantage not shared by sheep, which are predominantly grazers (Le Houerou, 1980; Baleseng et al., 2016). Further, environmental conditions such as drought and poor pasture quality further limit growth rates. Regardless, these previous studies indicate that goats, particularly Tswana breeds, exhibit better performance in arid zones due to their dietary adaptability and resilience to dry seasons (Seleka, 1999; Devendra, 1980; Dambe et al., 2015).

Poultry face similar issues. Moreki (2010) reported outbreaks of Newcastle disease, avian influenza, and high chick mortality owing to insufficient biosecurity and veterinary services. The egg industry suffered pullet shortages in 2007–2008, with per-capita consumption falling from 66 to 62 eggs annually. Contributing factors include climate stress, pullet supply disruptions, and disease prevalence. Further, in poultry farming, particularly among small-scale producers, feed remains the largest operational cost, and often, poor-quality inputs and adulterated raw materials undermine bird health and productivity (Moreki, 2010). Piggery, though under-researched, is known to face feed scarcity, high input costs, poor vet service access, and fast profit erosion due to disease outbreaks especially among smallholders in peri-urban settings.

The beekeeping industry in Botswana faces a range of challenges that hinder its growth and competitiveness. These include limited production capacity due to small-scale operations, lack of skills and technical knowledge among producers, and inadequate financial resources. Quality issues such as adulteration and impurities in honey, along with poor harvesting practices, restrict access to export markets. Weak farmer associations, poor infrastructure, and limited access to inputs and packaging materials further constrain the sector. Additionally, low consumer awareness and demand, especially beyond household use, coupled with high input

costs and unreliable production records, continue to limit the industry's potential as a viable and profitable enterprise (GoB, 2022).

2.7.2 Market and Infrastructure Gaps

Small-stock farming in Botswana holds notable economic potential, yet market access remains a significant constraint for producers. Farmers predominantly sell through informal channels such as roadside sales, individual buyers, and village markets limiting their negotiation power, price discovery, and income potential. A survey in Molepolole underscores that small-stock farming in Botswana has considerable economic potential but remains hampered by market access. Farmers mostly sell via informal routes like individual buyers and local markets, which limits their pricing power and income—that matches your description. Notably, the study reports that 96% of farmers relied on subjective visual assessments (not weighing) for pricing, and 76% had limited awareness of market forces (Nsoso, Monkhei, & Tlhwaafalo, 2004). This lack of market information and structured sales mechanisms leads to inefficient pricing and income instability.

Infrastructure deficits further compound market challenges. Critical facilities such as abattoirs, weighing scales, and market sheds are either underdeveloped or inaccessible, especially in rural and remote districts (Seleka, 1999). Where weighing facilities are absent, smallholders are unable to determine live weight accurately an essential element in valuing livestock. However, proxies such as heart girth and shoulder height have been shown to be statistically reliable estimators of liveweight for goats and sheep, offering cost-effective alternatives in resource-constrained settings (Baleseng et al., 2016; ESGPIP, 2009).

The poultry sub-sector mirrors many of these challenges. Small-scale poultry producers often lack access to formal abattoirs and processing infrastructure. Aganga et al. (2003) reported that only 28 licensed poultry slaughter facilities exist in the country, leaving the majority of smallholders dependent on informal village-level sales. According to the Competition and Consumer Authority (CCA), the poultry industry is highly oligopolistic, with vertically integrated firms dominating key segments such as feed production, hatcheries, and processing. These market dynamics marginalize smallholders, who are often unable to influence pricing, breeding standards, or policy decisions. The sector's restrictive import regulations further entrench the dominance of large-scale players while failing to safeguard the interests of emerging producers.

Additionally, high feed costs and input prices remain persistent constraints across all small-stock subsectors. The volatility of feed prices, coupled with limited access to affordable, quality feed, weakens productivity and scalability. While financial support schemes such as CEDA, YDF, and LIMID are available, access is uneven. Many farmers particularly youth and women, struggle to qualify due to rigid collateral requirements, weak outreach, and insufficient post-loan support. As a result, participation in these schemes remains low, and enterprise sustainability is often compromised.

Infrastructure challenges extend beyond markets to include poor transport networks, unreliable electricity, and limited water supply especially in outlying areas. These deficits restrict the flow of goods and services along the value chain and discourage private sector investment. Extension services, vital for linking producers to innovation, markets, and inputs, remain weakly resourced and inconsistently delivered, further isolating rural smallholders from formal systems of support.

In traditional pastoral settings, uncontrolled breeding on communal lands further weakens herd productivity. The inability to isolate genetically superior rams and bucks' compromises breed improvement efforts and reduces productivity, especially in sheep farming. This challenge is compounded by cultural norms and limited access to extension support. In poultry farming, Moreki (2010) also highlighted the constraints faced by producers in meeting halal slaughter requirements, which further restricts access to formal retail markets and institutional buyers.

In sum, small-stock farmers operate in an ecosystem where informal marketing, infrastructure deficits, and inequitable value chain dynamics severely limit their growth. Addressing these challenges requires a coordinated strategy encompassing infrastructure investment, inclusive market development, targeted input subsidies, and more equitable policy frameworks.

2.7.3 Policy and Institutional Support

Over the years, the Government of Botswana and its partners have implemented various initiatives aimed at supporting small-stock production and market access. These have included targeted input subsidies, infrastructure support, and selective capacity building. However, despite notable efforts, most policy and institutional support frameworks have historically concentrated on the cattle and arable sectors, leaving small-stock subsectors relatively underserved.

One of the earliest programmes targeting small stock was the Small Stock Development Project (1978–1991), which introduced breeding trials and farmer training, but its long-term sustainability was limited by weak follow-up mechanisms. Similarly, the Financial Assistance Policy (FAP) and later the Livestock Management and Infrastructure Development (LIMID) programmes provided in-kind support for goats, poultry, pigs, and beekeeping, including breeding stock and water infrastructure. These interventions reached thousands of households and offered early-stage support for women and youth. However, they often lacked post-support monitoring, and coverage of technical training was uneven.

More recently, institutions such as the National Agricultural Research and Development Institute (NARDI) and the Local Enterprise Authority (LEA) have conducted applied research and provided training to enhance breed improvement, feed management, and farmer entrepreneurship. Yet, coordination gaps remain across sectors, with minimal integration of research outputs into extension systems.

Despite these efforts, systemic issues persist, including limited veterinary extension services, weak access to certified breeding stock, and poor connectivity to structured markets and slaughter facilities. Interventions to date have laid a foundation, but the sector remains fragmented and requires deeper policy coherence, stronger institutional alignment, and inclusive targeting to achieve commercialisation and resilience goals. A detailed review of policy frameworks, institutional mandates, and stakeholder initiatives is provided in Section 5.0, including analysis of key gaps, duplications, and misalignments relevant to BoLCoP.

2.7.4 Structural Gaps

Despite a history of donor and government support, Botswana's small stock sector continues to face several persistent structural and institutional challenges that constrain its full potential. These gaps rooted in production systems, market access, service delivery, and regulatory

frameworks require coordinated, long-term strategies to unlock inclusive growth and resilience across small stock value chains.

a. Feed and Animal Health Constraints

One of the most pressing structural bottlenecks lies in feed and animal nutrition. High input costs, unreliable supply chains, and the underdevelopment of local feed production systems continue to undermine productivity. Previous studies, highlight the significant role that indigenous browse species can play in improving feed security, especially during dry seasons a strategy yet to be fully exploited in Botswana. Animal health systems are also overstretched, especially in remote areas, where veterinary services and extension support are limited. Common diseases, such as Newcastle disease in poultry and endoparasites in goats and sheep, continue to reduce survival and productivity. A relevant example is the East Africa Productivity and Livestock Project (World Bank, 2017), which strengthened community-based animal health services and successfully reduced disease burden in smallholder systems. Similar scalable models could be piloted in Botswana to reach underserved producers.

b. Market Structure and Access

Market access remains uneven, with weak aggregation mechanisms, poor infrastructure, and the dominance of large-scale buyers who often exclude smallholders from formal and export markets. Certification requirements (e.g., halal processing) and quality standards are difficult to meet for many small producers. Lessons can be drawn from the Namibia Livestock Marketing Programme, which empowered communal farmers through aggregation centres and mobile auction pens, facilitating formal market participation (MCC, 2014; 2017). Botswana's market development efforts should integrate such models to improve local aggregation and certification systems, while also creating incentives for private sector engagement.

c. Knowledge Gaps and Extension Coverage

Extension services remain insufficient in both coverage and technical content. Many smallholders continue to rely on outdated or informal knowledge systems, with limited access to training in animal husbandry, business management, or modern technologies. A key challenge is the variability in input quality, including day-old chicks, pullets, and feed, due to weak regulatory oversight. As demonstrated in the IFAD-supported Small Ruminant Investment and Graduating Households in Ethiopia (2018–2022), investments in targeted capacity-building, coupled with improved input certification, significantly boosted productivity and income. Botswana's extension system can benefit from embedding private and digital extension platforms, and training a new cadre of youth and women as livestock advisors.

d. Sustainability and Project Continuity Risks

Several past initiatives lost momentum once donor support ended, highlighting weaknesses in sustainability planning. Sustainability must be embedded through long-term market linkages, local service provider development, and cost-sharing models. For example, the Zimbabwe Livestock Growth Programme (EU-funded, 2020-2023) (FAO, 2023) created community-level animal health networks and feed co-operatives that continued functioning beyond the project cycle.

e. Cross-Cutting Issues

Structural gaps intersect with broader systemic issues such as insecure land tenure, limited climate resilience, and gender inequality. Insecure access to land for grazing limits expansion and investment in sustainable rangeland management. Gender gaps in ownership, decision-making, and training access disproportionately affect women, despite their high participation in small stock farming. Climate change also heightens vulnerability by exacerbating drought and resource scarcity. Integrating these cross-cutting priorities into programme design is essential. For instance, the Climate Resilient Agriculture for Southern Africa Programme (CRASP) demonstrated how integrating land use planning, women's cooperatives, and climate-adaptive livestock systems improved resilience and equity.

f. Sectoral Recommendations

Building on existing platforms, the Botswana Livestock and Crop Project (BoLCoP) offers an opportunity to catalyse inclusive, climate-smart, and commercially viable transformation in the small stock sector. The following targeted actions are recommended:

i. ***Strengthen Local Feed Systems:*** Support local feed production, promote drought-tolerant browse species, and incentivise community feed banks.
ii. ***Scale Community Animal Health Workers***: Train and deploy paraprofessionals to expand reach in underserved areas.
iii. ***Support Aggregation and Certification***: Facilitate the establishment of local market hubs and support certification for niche markets (e.g., halal, organic).
iv. ***Enhance Input Regulation and Quality Control***: Enforce quality standards across the value chain, particularly for feed, breeding stock, and veterinary inputs.
v. ***Invest in Inclusive Extension Models***: Scale digital advisory tools, train youth and women as extension agents, and promote peer-learning platforms.
vi. ***Mainstream Sustainability***: Embed cost-sharing, capacity development, and exit strategies in all interventions to ensure continuity.
vii. ***Address Cross-Cutting Constraints***: Integrate gender, land tenure security, and climate resilience into programme planning and implementation.

By aligning with successful regional models and tailoring them to the local context, BoLCoP can serve as a flagship for IFAD's engagement in inclusive and resilient livestock development in Southern Africa.

3.0: METHODOLOGY

3.1 Desk-Based Approach

A desk-based approach was employed, drawing on a broad range of secondary data sources, both quantitative and qualitative. These included national datasets such as Statistics Botswana's Agricultural Census and Annual Agricultural Survey reports; sector-specific strategy and policy documents from the Ministry of Agriculture; research papers and evaluations by local institutions such as BIDPA; NARDI, BITRI; and international reports from organisations including EU, FAO, IFPRI, and the World Bank. In addition, various value chain assessments and thematic studies on livestock in Botswana were used. This diverse body of literature was triangulated to inform the development of farmer typologies, identify

institutional and policy gaps, and support recommendations for geographic and stakeholder targeting.

For *farmer profiling*, this assessment employs a multidimensional approach to profiling small stock farmers, drawing on methodologies and criteria established in prior livestock sector studies in Botswana and other countries. Specifically, the analysis considers the type of livestock system in use, the scale and ownership patterns of operations, and the purpose and market orientation guiding production activities. It further explores the production and management practices employed by farmers, as well as the geographic characteristics influencing production environments, institutional linkages and access to support services, and identify the key constraints and vulnerabilities affecting the sector. The study will also assess the socioeconomic profiles of farmers engaged in small stock farming through key factors such as gender, and age. Finally, the assessment highlights the opportunities and development potential within each livestock type to inform policy and strategic interventions. These criteria enable a comprehensive understanding of farmer diversity and development potential.

For the *identification of policy gaps* affecting the small stock value chains, the assessment analyses relevant national policies and regulatory frameworks, including the agricultural and climate policies, land tenure legislation, cooperative laws, and veterinary regulations. Insights are drawn from programme evaluations and institutional reports to diagnose regulatory, institutional, and operational barriers that limit value chain development.

In assessing *institutional and capacity needs***,** the review synthesises information from Line Ministries reports, NGO and donor publications, and training programme documentations. This highlights service delivery bottlenecks, capacity constraints, and gaps in farmer support systems, such as extension service coverage and skills deficits. The findings are then consolidated into an institutional capacity matrix, value chain-specific training needs assessments, and identification of capacity-building entry points.

To validate *geographic targeting*, the assessment utilises existing statistical data and thematic maps available from sources such as the Ministry of Agriculture, FAO, BIDPA, and Statistics Botswana. Although no primary GIS mapping conducted, these existing datasets assist in identifying priority districts and zones with high potential for intervention, based on small stock distribution, market accessibility, and vulnerability indicators.

Finally, the *stakeholder mapping and engagement* is developed by reviewing official stakeholder line Ministries' registries, EU, UNDP, IFAD and NGO partner directories, and published sector analyses. Stakeholders are categorised by sector, function, and where possible level of engagement to identify coordination opportunities and partnership gaps.

This desk review approach enables a robust, assessment leveraging a wide range of documented sources to inform programme design and implementation effectively, while acknowledging the limitations of excluding primary field data collection.

4.0: SOCIOECONOMIC ASSESSMENT AND BENEFICIARY TARGETING

4.1 Small Stock Farmer Socioeconomic Profiling

Understanding the diversity of small stock farmers is critical to designing effective and equitable livestock development interventions in Botswana. This report adopts a

multidimensional farmer profiling framework that has been widely used in agricultural development studies across Southern Africa (e.g., FAO, 2023; IFPRI, 2020). The framework recognises that farmers differ not only by the scale of their operations but also by their production focus, market orientation, geographic location, and institutional integration. These distinctions are crucial for tailoring support mechanisms that align with farmer capabilities, constraints, and aspirations. Previous research in Botswana (e.g., Nsoso et al., 2004) has underscored the importance of differentiating between subsistence and semi-commercial producers, particularly in communal land settings where small ruminant farming is prevalent. This assessment extends that typology by incorporating demographic characteristics (age, gender), and institutional participation (e.g., cooperatives, extension services). The categorisation further aligns with IFAD's targeting principles by identifying viable entry points for inclusive rural transformation, particularly for youth, women, and under-resourced producers.

Table *2* presents a general classification of farmers in Botswana, based on their production scale, market orientation, and resource endowment.

Table 2: General Farmer Classification in Botswana

TYPOLOGY CATEGORY	DESCRIPTION	KEY CHARACTERISTICS
Subsistence Farmers	Farmers primarily producing for household consumption	Small herd size, mixed crops and livestock, limited market engagement
Small-Scale Commercial Farmers	Farmers with some market orientation	Moderate herd size, some mechanisation, part-time off-farm income
Emerging Commercial Farmers	Transitioning from smallholder to full-time commercial	Use of improved breeds, access to input markets, participate in cooperatives
Large-Scale Commercial Farmers	Fully market-oriented, high investment	Large herds, access to finance, fenced ranches, export compliant

While Table 2above provides a broad categorisation of Botswana's farming population, it is essential to delve deeper into the specific characteristics of small-stock farmers to tailor effective BoLCoP interventions. Small-stock production is practiced across all typologies from subsistence households in Ngamiland to emerging commercial pig and poultry producers in peri-urban zones. However, each livestock subsector presents unique socio-economic profiles, constraints, and opportunities. Table 3 expands on these classifications by offering a structured profile of small-stock farmers, disaggregated by livestock type. It highlights critical dimensions such as scale of operation, market orientation, gender dynamics, and institutional linkages, providing a nuanced understanding of the diversity within this group and the strategic entry points for IFAD support.

4.1.1 Socio-Economic Characteristics of Small-Stock Farmers in Botswana

Understanding the socio-economic characteristics of small-stock farmers is fundamental to the design of inclusive, context-responsive, and high-impact interventions under the BoLCoP programme. In Botswana, small-stock farming including goats, sheep, pigs, poultry, and apiculture supports the livelihoods of thousands of rural households, particularly in arid and semi-arid areas where crop production is limited. However, small-stock producers are not a homogenous group. Their farming practices, resource endowments, market engagement, institutional linkages, and socio-demographic profiles vary widely across species and regions. Capturing this diversity through a structured structure allows for a more precise understanding

of how farmers operate, where constraints are concentrated, and which groups stand to benefit most from targeted support. Table 3presents a typology of small-stock farmers in Botswana, drawing on key dimensions such as livestock type, scale of operation, management behaviour, market orientation, and institutional connectivity.

Table 3: Socio-Economic Profile of Small-Stock Farmers in Botswana by Livestock Type

DIMENSION	GOATS	SHEEP	PIGGERY	POULTRY	APICULTURE
Socioeconomic Profile	Predominantly women and elderly farmers; low to no formal education among many; goats serve as assets and managed within poor-knit, traditional households	Often older male farmers; often single or married; primary/secondary education; traditional breed focus, limited formal training	Mostly male farmers 45 and older, with low education levels, but women and youth becoming actively involved;	Strong female participation (esp. indigenous poultry); youth enter especially via broiler farming	Gender-balanced; youth-led cooperatives rising; strong fit for women-led green livelihoods
Livestock System Type	Goat-only or mixed goat-sheep systems; common in arid/semi-arid zones; resilient to drought and disease	Predominantly sheep-only in southern regions; also part of mixed systems	Pig-only producers in urban and peri-urban areas; semi-commercial scale	Mix of indigenous (rural) and commercial broiler/layer production (peri-urban)	Small-scale honey producers; often household-level or youth/women cooperatives
Scale & Ownership Pattern	Smallholders: 1–40 goats; Emerging semi-commercial: 41–80; mostly household or family-owned	Flocks of 20–35; traditional systems; minimal commercialisation	Backyard farmers (1–10 pigs); larger units up to 100+ in peri-urban areas	Small-scale: 5–50 birds; commercial: 500–1,000+ broilers or layers	3–20 hives typical; some emerging commercial beekeepers
Purpose & Market Orientation	Multipurpose: meat, milk, income, cultural uses; primarily subsistence and opportunistic selling	Meat and ceremonial use; low offtake; sales often seasonal or event-driven	Pork for urban niche markets; semi-commercial sales to butcheries and hotels	Household nutrition, emergency cash; broiler/egg sales to local markets	Honey for home use or informal sale; limited but growing market orientation
Production & Management Practices	Extensive grazing, little input; low supplementary feeding; Tswana breed dominant; mortality ~23%	Communal grazing; low vet care; unplanned breeding; limited genetic improvement	Semi-intensive housing; reliant on commercial feed; hygiene & slaughter facilities often poor	Free-range indigenous birds; broilers use improved housing/feed; mortality a challenge	Traditional hives; minimal protective gear; limited use of modern processing or hive management
Geographic Characteristics	Nationally widespread; high in Central, Southern, Kweneng; resilient in drought-prone areas	Southern District, Kgatleng, and parts of Kgalagadi; suited to arid regions	Clustered in Gaborone, Francistown, Selebi-Phikwe; rare in remote villages	Common countrywide; stronger in peri-urban zones with market access	Chobe, Ngamiland, Kweneng, Southern; based on floral availability and rainfall

Institutional Linkages'& Access	Some access through LIMID, RADP; low cooperative membership; limited extension services	Limited group organisation; informal knowledge sharing; weak formal support	Supported by LEA, CEDA, MoA; some mentoring available; coordination remains limited	Access to feed and chick suppliers; infrastructure via LIMID; few cooperatives	Some pilot support via FAO, EU, MoA; national apiculture strategy (2022–2027) provides a foundation
Key Constraints & Vulnerabilities	High mortality, poor feeding, climate stress, weak market links, and diseases	Feed shortages, lamb mortality, weak genetics, poor marketing	Expensive feed, disease, lack of slaughter facilities, poor vet coverage, women face financing/housing barriers	Input costs, chick mortality, vet access, housing quality	Lack of modern equipment, weak markets, low awareness, climate variability
Opportunities & Development Potential	High potential for productivity gains via feed and health improvements; good entry point for women	Value chains for meat and wool could be strengthened	Fast-growing livestock option; opportunity for youth/women enterprises; waste-to-feed innovations	Strong entry point for women and youth as well; quick turnover; high demand in local markets	Low-cost, sustainable livelihood; good fit for youth/women cooperatives; potential for export branding

Sources: Nsoso & Madimabe (1999); Nsoso et al., (2004); Nsoso, Monkhei & Tlhwaafalo (2004); CAR (2005); LEA (2009); Moreki & Mphinyane (2011); GoB (2013, 2016); GoB and EU (2015).

a. Goats

Goat farming is widespread and largely managed by women and elderly farmers with limited education. Herds are small (1–40) and used for multiple purposes including income, meat, and cultural functions. Systems are low input, with high mortality and minimal market engagement. Despite challenges, goats offer high resilience and strong potential for women's empowerment, especially in drought-prone regions like Central and Southern Botswana.

b. *Sheep*

Sheep are mostly reared by older male farmers in southern areas under traditional systems. Flock sizes are moderate (20–35), and breeds like Tswana sheep are common. Limited commercialization, poor genetics, and inadequate veterinary care persist, but there is niche potential for meat and wool value chains if productivity improves.

c. Piggery

Pig farming is gaining traction, especially among youth in peri-urban areas, though most producers are older males. Units range from 1–10 pigs (backyard) to 100+ (semi-commercial). Constraints include high feed costs, poor hygiene, and limited slaughter facilities. Still, pigs present a scalable option for youth and women with appropriate support in feed innovation and cooperative processing.

d. *Poultry*

Poultry, particularly indigenous and broiler production, is the most dynamic and inclusive subsector. It is widely practiced by women and youth across rural and peri-urban zones. Systems range from small flocks to large-scale commercial units. High input costs and chick mortality are challenges, but fast turnover and strong market demand make it an ideal entry point for inclusive growth.

e. ***Apiculture***

Beekeeping is still at household level, but youth and women-led cooperatives are emerging, especially in Ngamiland and Chobe. The subsector requires minimal inputs but suffers from low productivity and weak market linkages. Nonetheless, it is climate-smart and aligns well with green livelihoods, offering opportunities for value addition and export growth with targeted investment.

4.2 Beneficiary Targeting Strategy

4.2.1 Targeting Rationale

BoLCoP aims to drive inclusive rural transformation by supporting viable, climate-resilient, and market-oriented small-stock systems in Botswana. Given the heterogeneity of farmers, livestock species, and production zones, the targeting strategy must align with IFAD's core principles: poverty reduction, youth and women inclusion, geographic equity, and sustainability. This strategy identifies priority beneficiary groups, species, and districts, using a multidimensional approach that accounts for gender, age, production scale, and institutional connectivity. Thus, Table 4 identifies priority beneficiary groups, providing justification and examples for targeted interventions.

a. Priority Beneficiary Groups

Table 4: Priority Beneficiary Groups

GROUP	JUSTIFICATION	EXAMPLES
Subsistence and semi-commercial women farmers	Predominantly engaged in goats and poultry; often excluded from formal markets but manage herds critical for household income and nutrition.	LIMID-supported female goat keepers in Central and Kweneng
Youth (18–35) entering piggery, poultry, and apiculture	Youth show growing interest in pigs, broilers, and beekeeping, especially near urban centres. However, lack of capital, training, and markets limits entry.	CEDA/LEA-supported piggery projects near Gaborone; Francistown and Ngamiland
Vulnerable groups in remote or climate-prone areas	E.g., subsistence goat/sheep farmers in Ngamiland and Kgalagadi rely heavily on livestock for resilience. Need low-cost, adaptable systems.	Goat farmers in Ngamiland; Tswana sheep herders in Kgalagadi
Emerging commercial producers (women and men)	Represent scalable models—already use improved inputs, have market exposure, but need business development support to reach full commercial potential.	Peri-urban poultry producers in South East, Gaborone, and Southern

The beneficiary targeting strategy under BoLCoP is designed to ensure inclusive and equitable support to small-stock farmers across Botswana by identifying groups that are both vulnerable and viable for sustainable transformation. Drawing on IFAD's principles of poverty alleviation, gender equity, youth empowerment, and climate resilience, this beneficiary strategy highlights four core beneficiary groups. First are subsistence and semi-commercial women farmers, especially those involved in goat and poultry production, who are often excluded from formal markets despite their critical role in household food security such as LIMID-supported female

goat keepers in Central and Kweneng. Second, the strategy focuses on youth aged 18–35 entering sectors like piggery, broiler farming, and apiculture. These young producers, particularly near urban centres like Gaborone and Francistown, show strong entrepreneurial interest but face barriers such as lack of capital, training, and market access. Third, the strategy targets vulnerable groups in remote or climate-stressed areas such as subsistence goat and sheep farmers in Ngamiland and Kgalagadi who rely on livestock for livelihood resilience and require low-cost, adaptable support systems. Finally, the strategy prioritises emerging commercial farmers, both women and men, who are already market-oriented and applying improved practices but require business development support to scale. These include peri-urban poultry producers in South East and Southern districts. Overall, this targeted approach ensures that interventions address both social equity and economic potential within Botswana's small-stock sector.

b. Priority Value Chains for Intervention

The prioritisation of value chains for BoLCoP intervention reflects a strategic focus on livestock systems that offer the greatest potential for inclusive rural transformation, particularly in terms of resilience, equity, and market integration. Goat farming emerges as a top priority due to its widespread presence over 1.8 million nationally and its dominance among women in communal systems. Table 5 outlines the priority value chains for intervention, categorized by type, rationale, and targeting focus.

Table 5: Priority Value Chains for Intervention

TYPE	RATIONALE	TARGETING FOCUS
Goats	Widespread (1.8 million nationally); mostly managed by women in communal systems; strong resilience potential.	Nutrition, resilience, women's empowerment
Poultry	High turnover; strong entry point for youth and women; already near national self-sufficiency—ideal for inclusive growth.	Urban–rural market linkage, youth incubation
Piggery	Underserved but growing; strong potential in peri-urban zones with youth entry; value chain support needed.	Feed innovation, biosecurity, cooperative processing
Apiculture	Low input requirements; emerging youth/women-led cooperatives; aligns with climate-smart goals and green livelihoods.	Value addition (wax, cosmetics), cooperative development
Sheep	Less dynamic than goats; niche opportunity for wool and ceremonial meat in Southern regions.	Genetic improvement, fodder support

Beyond its economic value, goat rearing contributes significantly to nutrition, household resilience, and women's empowerment, especially in drought-prone areas. Poultry is another high-impact value chain, offering quick returns, low land requirements, and strong appeal among youth and women. Its proximity to national self-sufficiency and well-developed input-output structure makes it an ideal vehicle for urban–rural market linkages and youth enterprise incubation. Piggery, though less developed, is growing in peri-urban zones and presents strong potential for youth entry. Strategic support for feed innovation, improved biosecurity, and

cooperative-based processing will be critical to unlock its viability. Apiculture, while still a nascent sector, is low-cost, environmentally sustainable, and aligns well with green livelihoods. It is particularly suited for youth and women cooperatives, with potential for value addition through products like beeswax and cosmetics. Sheep farming, though less dynamic than goats, offers niche opportunities in wool production and ceremonial meat, especially in Southern districts. Support for genetic improvement and fodder systems could enhance its productivity. Collectively, these value chains represent diverse pathways for inclusive economic growth under BoLCoP, tailored to Botswana's varying agroecological zones and demographic needs.

c. Priority Districts for Geographic Targeting

Table 6 identifies eight priority districts in Botswana where small-stock development interventions under BoLCoP would be most impactful, based on livestock concentration, socio-economic vulnerability, and existing community initiatives. Central and Kweneng emerge as strategic hubs due to their large goat and poultry populations, strong participation of women farmers, and presence of youth cooperatives, particularly in apiculture.

Table 6: Priority District for Geographic Targeting

DISTRICT	LIVESTOCK FOCUS	TARGETING RATIONALE	CASE STUDIES / PRACTICAL EXAMPLES
Central	Goats, poultry	Highest small-stock numbers; broad mix of subsistence and emerging farmers; strong women's engagement.	LIMID-supported women goat groups in Serowe and Mahalapye (GoB, 2013/2016)
Kweneng	Goats, poultry, apiculture	High goat and poultry populations; presence of youth-led cooperatives in beekeeping; solid base for women-led projects.	Youth honey cooperative in Molepolole; women poultry farmers in Letlhakeng lacking cold chain (GoB, 2022)
Southern	Goats, sheep	High densities of Tswana sheep; suitable for wool/meat value chain development; moderate female participation.	Sheep marketing pilot in Kanye supported by LIMID; wool processing potential (Nsoso & Madimabe, 1999)
South East	Poultry, pigs	Peri-urban location; fast-growing broiler and piggery operations; youth and commercial linkages viable.	LEA-supported piggery incubator outside Ramotswa; youth-led broiler cluster in Tlokweng (LEA, 2009)
Ngamiland	Goats, apiculture	Resilience zone; vulnerable farmers; beekeeping potential linked to natural flora and climate mitigation strategies.	Beekeeping projects in Ngamiland, e.g. Maun; community goat schemes near Gumare (GoB/FAO, 2022)
Chobe	Apiculture	High beehive count (1,700); natural habitat conducive to honey production and biodiversity-linked green livelihoods.	Pilot training in modern hives under Apiculture Strategy 2022–2027 (GoB/FAO, 2022)
Tswapong /Bobirwa Sub-District	Pigs, goats	High youth unemployment: subsistence pig and goat keepers face market, hygiene, and veterinary challenges.	Local piggery projects struggling with slaughter access and biosecurity; viable entry points for cooperative model (IFPRI, 2020)
Ghanzi	Apiculture, goats	Low-density population; youth-led beekeeping groups showing cohesion; potential for green livelihoods in dryland context.	Youth honey initiatives tested through RADP; FAO support on modern hive introduction (GoB & FAO, 2022)

Southern and South East offer significant potential for value chain development in sheep, pigs, and poultry, supported by proximity to urban markets and existing infrastructure. Ngamiland and Chobe, while more remote, are vital for climate-resilient interventions, especially in beekeeping, given their rich natural flora and vulnerability to shocks. Tswapong /Bobirwa Sub-District and Ghanzi present opportunities to support underserved youth and subsistence farmers through entry-level investments in piggery and apiculture, respectively, with a focus on cooperative models, infrastructure, and training. These district-level insights strengthen the targeting strategy by ensuring geographic equity and alignment with both vulnerability and viability criteria.

Building on the above farmer profiles and district-level analysis, the targeting approach applies a combined lens of vulnerability and viability to sharpen beneficiary selection. Vulnerability indicators such as poverty levels, youth unemployment, climate exposure, and limited access to services help identify communities most in need. Viability, on the other hand, considers the potential for commercialisation, presence of group structures, and alignment with BoLCoP's priority value chains. This dual approach ensures the strategy remains both inclusive and catalytic, focusing on underserved farmers who are capable of transformation with the right support.

For instance, in Letlhakeng (Kweneng District), women-led poultry farming groups face persistent challenges with refrigeration and market access, making them strong candidates for investment in cold chain infrastructure and hygiene training. In Tswapong (Bobirwa Sub-District), young pig farmers struggle with poor sanitary conditions and limited value chain integration, yet their engagement and numbers present an opportunity for rapid impact through cooperative development and targeted support. Similarly, in Maun (Ngamiland District), youth-run apiculture initiatives though currently low-yielding—are promising due to strong group cohesion and favourable climatic conditions, offering a resilient entry point for green livelihoods (IFPRI, 2020).

These case examples complement the geographic profiling in Table 6, which outlines eight high-potential districts based on livestock concentration, socio-economic indicators, and practical examples of existing or potential initiatives. Moreover, linkages to national programmes such as LIMID, ISPAAD, and YDF will be critical for leveraging co-funding, institutional support, and long-term sustainability. To ensure resource optimisation, an inclusion–exclusion matrix will help prioritise underserved producers while avoiding overlap with already-commercialised actors. This strategy reinforces BoLCoP's commitment to inclusive rural transformation and maximises IFAD's development impact at scale.

c. Recommended Targeting Mechanisms

The recommended targeting mechanisms outlined in Table 7 provide a structured and inclusive approach to reaching diverse small-stock farmer groups while addressing systemic barriers to growth and participation. The use of graduation pathways ensures that support packages are matched to the specific needs and capacities of farmers at different stages from subsistence to commercial facilitating progressive inclusion.

Table 7: Targeting Mechanisms

MECHANISM	HOW IT SUPPORTS TARGETING
Graduation Pathways	Design support packages tailored to farmer categories (subsistence → emerging → commercial).
Gender-Responsive Programming	Prioritise women in goats and poultry through access to LIMID, extension, and markets.
Youth Innovation Incubators	Link youth to piggery, poultry, and beekeeping through institutions such as LEA, CEDA, and agricultural colleges.
District-Level Farmer Clusters/Cooperatives	Support input/output linkages, collective processing, and marketing in high-potential zones.
Climate-Resilient Infrastructure Support	Introduce low-cost shelters, water systems, and forage banks in arid regions (e.g., Kgalagadi, Ngamiland).

Gender-responsive programming helps close the participation gap for women, especially in goat and poultry farming, by improving access to resources like LIMID, extension services, and markets. To harness the potential of youth, innovation incubators linked to institutions such as LEA, CEDA, and agricultural colleges can catalyse their involvement in dynamic value chains such as piggery, poultry, and apiculture. Furthermore, the formation of district-level farmer clusters or cooperatives enhances input–output efficiency and market access through collective action, particularly in high-potential production zones. Lastly, in arid and climate-vulnerable regions like Ngamiland and Kgalagadi, investments in climate-resilient infrastructure including shelters, water systems, and forage banks are essential to mitigate risks and strengthen productivity. Altogether, these mechanisms ensure that BoLCoP's targeting strategy is not only equitable but also scalable and transformative, aligned with IFAD's broader goal of inclusive rural development.

5.0: POLICY AND INSTITUTIONAL CAPACITY GAPS

The development of Botswana's small-stock sector is shaped by a complex policy and institutional landscape. While multiple frameworks touch on livestock, many lack targeted focus on small-stock systems, particularly in relation to production, marketing, youth/women inclusion, climate adaptation, and cooperative development. This section maps key gaps in the policy environment, institutional arrangements, and programme implementation, and reflects on their implications for BoLCoP.

5.1 Policy and Regulatory Gaps

5.1.1 Limited Policy Attention to Small-Stock

Small-stock farming remains under-represented or only indirectly addressed in national policy frameworks. Core policies such as the *Revised National Agricultural Policy* (1991, under review) and the *National Rural Development Policy* (2002) are outdated and not sufficiently responsive to the changing dynamics of livestock production systems. Newer instruments such as the *Climate Change Policy* (2021) and *Economic Inclusion Act* (2021) are more progressive but lack the agriculture-specific operational frameworks required to support small-stock transformation.

A detailed overview of relevant policies, strategies, acts, and programmes is provided in Table 10 (Annex 1). The matrix identifies cross-cutting gaps in areas such as climate-smart livestock, land access, gender/youth inclusion, and programme implementation.

5.1.2 Specific Policy Constraints

Despite the existence of enabling frameworks, practical barriers persist:

i. Land governance frameworks (e.g., Tribal Land Act, Land Policy) fail to effectively align with livestock needs, especially for communal grazing.
ii. Gender and youth empowerment policies provide theoretical space for participation but lack targeted tools for livestock-based entrepreneurship.
iii. Economic empowerment policies, including the Economic Inclusion Act, still await agriculture-specific regulations that can unlock financing and infrastructure support for small-stock producers.
iv. Climate-smart agriculture goals, while embedded in policy, have not translated into field-level adoption due to weak extension systems and awareness.

5.1.3 Summary of Policy Misalignments

Key Policy Conflicts and Misalignments

i. Agriculture vs. Land Use: Policies do not coordinate well on grazing rights, boreholes, and livestock planning, weakening communal system viability.
ii. Empowerment vs. Implementation: Youth and women's empowerment frameworks lack livestock-specific financing and mentorship.
iii. Poverty Alleviation vs. Scale Caps: Programmes like PEP and RADP target ultra-poor but may exclude semi-commercial farmers with scaling potential.

iv. Climate Goals vs. Field Capacity: Climate policies lack dedicated extension systems, hindering adoption of resilient small-stock practices.

5.2 Institutional and Stakeholder Synergies

Botswana's small-stock ecosystem involves a broad network of actors from government ministries to NGOs, private sector, academia, and development partners. While roles and mandates are generally clear, coordination among actors remains fragmented.

5.2.1 Key Institutional Roles

i. Ministry of Agriculture leads on policy, extension, and programmes like LIMID but struggles with coordination across divisions.
ii. Department of Animal Production and Veterinary Services play essential roles in animal husbandry and health but face limited outreach, staffing, and logistical constraints.
iii. Ministry of Youth, Sports and Culture, and the Ministry of Trade and Industry provide youth funding and trade policy support, but linkages with livestock remain weak.
iv. Financial institutions like NDB, CEDA, and BSB offer credit to emerging farmers, though uptake is hampered by collateral requirements, limited product tailoring, and high default rates.

A detailed Stakeholder Matrix is presented in Table 11 (Annex 2), mapping the engagement levels, roles, and gaps across institutions involved in small-stock development.

5.2.2 Coordination and Duplication Challenges

i. Overlaps between ministries (e.g., agriculture, trade, youth) dilute effectiveness of funding and extension schemes.
ii. Siloed delivery models result in missed opportunities for integrated programming (e.g., youth-focused piggery/poultry support lacking veterinary input).
iii. Parastatal agencies like BMC and BAMB offer market potential but lack integration into small-stock planning.
iv. NGOs and CSOs, while impactful at grassroots level, face challenges in scaling up due to governance weaknesses, underfunding, and low reach into rural and remote districts.

5.2.3 Institutional Performance Insights

i. Academic institutions such as BUAN offer agricultural training but need an enhanced curriculum reform to better represent small-stock.
ii. Private sector actors, including feed suppliers and veterinary drug companies, are critical to input supply but often fail to reach smallholders due to pricing and distribution challenges.
iii. Development partners (e.g., FAO, IFAD, USAID) support livestock capacity building, but project-specific focus and limited coordination with national strategies reduce long-term impact.
iv. Financial institutions provide youth and smallholder financing, yet high interest rates, slow disbursement, and limited loan sizes restrict growth in the small-stock value chain.

5.3 Existing Initiatives and Opportunities

Several programmes offer a foundation for scaling small-stock development if adapted to address current gaps. Table 8 presents key existing initiatives and opportunities across livestock subsectors, detailing the actors involved, their focus areas, and notable achievements or limitations.

Table 8: Existing Initiatives and Opportunities

ACTOR	INITIATIVE	SUBSECTOR / FOCUS	KEY ACHIEVEMENTS OR LIMITS
Government (MoLA)	**LIMID I & II**	Directly supported Goats, sheep, pigs, poultry, beekeeping; infrastructure	• Distributed ~108k stocks and reached 6,500+ households, mainly women (73%) • Limited follow-up and youth inclusion.
Government (MoLA/NARDI)	Research & Trials	Context-specific tools for smallholders (Feeding, disease management, breed trials)	• Developed heart-girth weight proxies, browse-based feeds. •Weak adoption and integration.
FAO + MoLA	Apiculture Value Chain	Beekeepers' training & quality improvement	•Demonstrated boost in honey exports (129 t in 2022); •Trained farmers
NGOs/Entrepreneurs	Kalahari Honey (Chabana Farms)	Apiculture & environmental mitigation	•Combines honey production with elephant deterrence; youth-led and women-inclusive.
YDF, CEDA, LEA, NDB	Finance & Mentoring	Loans and training for livestock SMEs	•Supports entrants but suffers from high loan default and lack of mentorship. •Low uptake, generic packages.
Extension officers, LIMID	Training & inputs	Across all subsectors	Delivery uneven, particularly in remote areas—participation influenced by distance and income.

These efforts show promise, but require stronger alignment with national strategies, more inclusive targeting, and sustainability planning. Several programmes have faded after donor exit, underlining the importance of local ownership, institutional embedding, and effective M&E.

5.4 Implications for BoLCoP

To drive inclusive and commercially viable rural transformation through small-stock development, BoLCoP must navigate and reform a complex policy and institutional environment. Priorities include:

- Policy Review and Harmonisation: Update outdated policies and ensure alignment across land, livestock, climate, and inclusion frameworks.
- Institutional Coordination: Strengthen inter-ministerial collaboration and decentralised delivery systems, particularly between MoA, MYSC, MTI, and financial service providers.
- Capacity Building: Scale up extension services, youth and women mentorship, and cooperative development targeting small stock.
- Programme Alignment: Leverage existing initiatives (e.g., LIMID, Apiculture Strategy, YDF) and integrate them under a coordinated small-stock support model.
- Research and Innovation: Invest in small-stock-focused research, breeding systems, and market innovation, particularly in under-served districts.

With these institutional and policy reforms, Botswana's small-stock sector can become a key driver of rural development, household resilience, and national food security.

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Key Findings

The socio-economic assessment of Botswana's small-stock subsector under BoLCoP reveals a landscape of untapped potential constrained by fragmentation, outdated policies, and uneven institutional capacity. Small-stock farming comprising goats, sheep, poultry, pigs, and apiculture plays a pivotal role in rural livelihoods, especially among women, youth, and communities in arid regions. However, this segment remains underdeveloped due to systemic challenges across the policy, institutional, and value chain spectrum.

a. General Key Insights

i. *Farmer heterogeneity is significant:* Small-stock producers vary widely in scale, market engagement, gender dynamics, and institutional access. Generic interventions risk marginalising groups like women goat keepers or youth apiculture start-ups who require tailored support.

ii. *Value chains are under-leveraged:* Goats and poultry dominate in numbers and participation but face structural bottlenecks such as poor infrastructure, limited genetics, and weak aggregation. Piggery and apiculture offer youth entry points but require investment in innovation, hygiene, and marketing systems.

iii. *Geographic disparities persist:* High-potential districts (e.g., Central, Kweneng, South East) show strong producer engagement but lack the cold chains, training hubs, and cooperative networks needed for scale. Remote areas (Ngamiland, Kgalagadi) face acute infrastructure and extension deficits.

iv. *Policies exist but mainly misaligned:* While Botswana has strong high-level commitments to inclusivity, empowerment, and climate resilience, sector-specific implementation for small-stock is limited, fragmented, or obsolete (e.g., 1991 Agricultural Policy, 2002 Rural Development Policy). Progressive instruments such as the Economic Inclusion Act and Climate Change Policy lack livestock-operational clarity.

v. *Institutional engagement is active but siloed*: Ministries, parastatals, NGOs, financial institutions, and academic actors contribute to small-stock development but often duplicate roles or lack coordination. Extension systems remain overstretched, and financial instruments inadequately serve semi-commercial or youth farmers.

6.2 Socioeconomic and Geographic Profiling: Small-Stock Farmers

A key takeaway from this assessment is the high degree of diversity among small-stock farmers in Botswana, which has critical implications for IFAD's targeting under BoLCoP. These farmers differ across multiple dimensions such as livestock type, production scale, gender, income level, market participation, and bio-geographic location. Summarised below are the main patterns emerging from the profiling:

6.2.1 Demographic Profile

Women and elderly individuals dominate goat, poultry, and apiculture farming, particularly in semi-arid and remote districts while men are more active in sheep and piggery. Youth engagement is rising, especially in peri-urban poultry and piggery ventures. Most producers have low levels of formal education, which constrains adoption of improved practices and limits formal market access.

6.2.2 Income and Employment

The majority are low-income households using livestock for food security, cash buffering, and supplementary income. Peri-urban piggery and broiler producers generate more consistent income and are generally more commercially oriented.

6.2.3 Geographic Variation

Livestock production is shaped by climate and market access. Specifically, Goats and Sheep dominate in arid/semi-arid zones (Kgalagadi, Kweneng, Central). Piggery and broiler poultry are concentrated in urban/peri-urban areas (Gaborone, Francistown). Apiculture and poultry are more viable in sub-humid areas (Ngamiland, Chobe) due to forest cover and rainfall.

6.2.4 Targeting Recommendations by Subsector

Table 9 outlines targeting recommendations for each livestock subsector, specifying the primary focus groups and the rationale for prioritising them.

Table 9: Targeting Recommendations by Subsector

FOCUS	TARGET	REASON
GOATS	Elderly women in semi-arid areas with <30 goats	High vulnerability, resilience potential, culturally appropriate
SHEEP	Older men in southern districts	Climate-suited, untapped wool/meat value chains
PIGGERY	Youth and women in peri-urban zones	High ROI, market-ready, innovation needed in feeding and hygiene
POULTRY	Women and youth nationwide	Quick turnover, strong demand, inclusive entry point
APICULTURE	Youth/women in Ngamiland, Chobe, Kweneng	Climate-smart, low-input, potential for green enterprise and exports

ROI- Return on investment

6.3 Strategic Recommendations

To move from diagnostics to action, BoLCoP must adopt a transformative, systems-based approach that is spatially targeted, institutionally integrated, and socially inclusive.

1. Establishment/enhancement of a National Small-Stock Coordination Platform (NSSCP)
   i. Bring together key ministries (MoA, MYSC, MTI), parastatals (BMC, BVI), NGOs, academia, and development partners under a shared results framework.
   ii. Define joint annual action plans, knowledge-sharing protocols, and performance tracking mechanisms.
   iii. Embed coordination at district level through farmer clusters and livestock councils.

2. Modernise and Align the Policy Landscape
   i. Fast-tracking of the revision of the National Agricultural Policy to reflect modern small-stock systems, market integration, climate resilience, and inclusive value chains.
   ii. Operationalise the Economic Inclusion Act for agriculture by introducing livestock-specific financing schemes, youth quotas, and cooperative models.
   iii. Create a Small-Stock Policy Addendum or sub-strategy under the Livestock Industry Policy focused on goats, pigs, poultry, and bees.

3. Building of a Graduated Farmer Support Framework
   i. Implement graduation pathways linked to farmer typologies (subsistence → semi-commercial → commercial), combining technical, financial, and market support.
   ii. Deploy extension packages tailored by livestock species and farmer profile, e.g., goat production for women in drylands, piggery biosecurity for peri-urban youth.

4. Investment in Climate-Resilient and Inclusive Infrastructure
   i. Prioritise district-level infrastructure in high-potential zones (e.g., cold chains in Letlhakeng, slaughter and hygiene facilities in Tswapong).
   ii. Introduce green technologies (solar-powered incubators, water harvesting, mobile clinics) in resilience zones like Ngamiland and Ghanzi.

iii. Leverage existing LIMID and RADP funding but expand scope to cover cooperative infrastructure and innovation hubs.

5. Unlock Value Chain Financing for Underserved Groups
   i. Partner with NDB, CEDA, and commercial banks to co-create tailored financial products (e.g., micro-leases, insurance, output-linked loans) for small-stock.
   ii. Link credit to training and mentorship, reducing default risk, especially in youth-run piggery and poultry ventures.
   iii. Support cooperative-led aggregation and marketing to improve viability for lenders.

6. Strengthen Human Capital and Knowledge Systems
   i. Collaboration with Institutions such as BUAN to enhance uptake of small-stock modules, entrepreneurship, and climate-smart husbandry.
   ii. Support the rollout of the Apiculture Strategy through localised training, demonstration plots, and cooperative incubation.
   iii. Digitise extension and market information services to bridge urban–rural information gaps.

6.4 Policy and Programme Implications for BoLCoP

The design of BoLCoP must be strategically layered, recognising both immediate delivery needs and long-term structural reform. Key implications include:

i. Programmatic Integration: BoLCoP should not operate in isolation. It must harmonise with LIMID, RADP, ISPAAD's successor schemes, and the Economic Inclusion Fund, avoiding duplication while leveraging institutional legacy.

ii. Flexible Targeting Mechanisms: Use the vulnerability–viability matrix to continuously refine who BoLCoP serves prioritising underserved but scalable groups and phasing out support for already-commercial actors.

iii. Policy Feedback Loops: Use BoLCoP pilot districts as learning laboratories to generate evidence that informs ongoing policy reforms—especially in land access, extension, and climate adaptation.

iv. Sustainability and Exit Planning: Design every support component (infrastructure, finance, training) with a clear sustainability model, including cost recovery, cooperative ownership, and public–private partnerships.

In conclusion, Botswana's small-stock sector offers real and inclusive growth potential—but only if approached with precision, coordination, and courage to reform. BoLCoP represents a catalytic opportunity to align institutional strengths with community needs, and policy ambition with practical delivery. Through strategic targeting, value chain modernisation, and stakeholder alignment, BoLCoP can serve as a blueprint for rural transformation in Botswana and beyond.

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8.0: ANNEXES

8.1: Annex 1- Policy, Strategy, Act & Programme Matrix

Table 10: policies, Programmes, Acts and Frameworks Relevant to Small-Stock

POLICIES			
Policy	**Objective**	**Relevance to Small-Stock**	**Identified Gaps**
Revised National Agricultural Policy (1991, under review)	To increase agricultural productivity and food security via inclusive farmer support	Recognises livestock including small stock; addresses genetics, health, and market access	Outdated; lacks modern small-stock systems, inclusive value chains, and climate adaptation
Botswana Land Policy (2015; revised 2019)	To protect equitable land rights and promote sustainable land use	Strengthens tenure security for communal goat/sheep farmers; supports land-use planning	Weak enforcement: grazing rights unclear; livestock integration in planning limited
Botswana Climate Change Policy (2021)	To mainstream climate resilience and low-carbon economy in national planning	Promotes climate-smart livestock practices, renewable energy in farming	Low awareness and adoption among small-stock farmers; lacking extension support
Botswana National Policy on Gender & Development (2015)	To increase participation of women and vulnerable groups in national development	Enables women's inclusion in goat and poultry farming; aligns with empowerment goals	Insufficient gender-responsive financing and technical support in livestock
National Youth Policy (2010)	To ensure youth participation in economic development	Supports youth entering piggery, poultry, apiculture	Youth agricultural programs poorly marketed; weak mentorship and post-support follow-up
Economic Inclusion Act (2021)	To operationalise economic empowerment for targeted citizens	Empowers youth/women in small stock through access to land, finance, markets	Implementation pending; lacks agriculture-specific regulations and financing modalities

Livestock Industry Policy (2007, draft)	To support sustainable growth and commercialization of livestock	Addresses small-stock value chains, genetics, and market regulations	Limited implementation; outdated; minimal focus on youth/women small-stock farmers
Revised National Policy for Rural Development (2002, under review)	To promote equitable rural development across sectors	Provides an enabling framework for supporting smallholders and institutional structures	Outdated; weak implementation and monitoring; not aligned with livestock-sector needs
National Poverty Eradication Policy (2019)	To eradicate extreme poverty by 2036 through inclusive programmes	Aligns with targeting vulnerable small-stock farmers; encourages inclusive programming	Still in early implementation; linkages to small-stock not explicit
Tribal Land Act (2008; amended 2018)	To regulate tribal land allocation, grazing, and water rights	Governs communal land access critical for pastoral small-stock systems	Bureaucratic processes; poor coordination with livestock planning; enforcement issues
STRATEGIES			
Strategy / Framework	**Focus**	**Relevance**	**Gaps**
Apiculture Strategy (2022–27)	To promote sustainable beekeeping for income and biodiversity	Supports youth/women cooperatives, craft development, exports	Early-stage rollout; weak district-level coordination and awareness
Botswana National Poverty Eradication Policy	To eliminate multidimensional poverty and inequality by 2036	Targeting rural small-stock producers for graduation and support	Limited operational guidance for agriculture/livestock components
Botswana Excellence Strategy (BEDF, 2008)	To diversify and strengthen economic growth	Supports diversification into value-added livestock products	Obsolete; lacks specific references to small-stock sectors
ACTS / REGULATIONS			
Act / Regulation	**Intent**	**Relevance**	**Gaps**
Livestock & Meat Industries Act (1962; amended 2007)	To regulate standards for livestock slaughter and meat	Sets quality measures for small-stock meat value chains	Weak enforcement; inadequate abattoir infrastructure for goats, pigs, sheep
Agricultural Resources Conservation Act (1972)	To regulate protection of grazing and agricultural land	Supports sustainable grazing systems fundamental to small-stock	Poor enforcement; inadequate integration into communal land policy
Tribal Land Act (2008; amended 2018)	To govern allocation and use of tribal land	Protects grazing land access for small-stock farmers	Inflexible allocations; weak livestock-sector coordination

Economic Inclusion Act (2021)	To enable economic empowerment through legal frameworks	Opens access to finance and markets for underserved farmers	Regulations still draft; livestock-specific guidelines not yet clear
PROGRAMMES / INITIATIVES			
Programme / Initiative	**Objective**	**Relevance**	**Gaps**
LIMID (Livestock Mgmt & Infrastructure Development)	To support infrastructure and productivity of smallholders	Directly benefits goat, poultry, pig, sheep producers	Limited youth outreach; lacks post-support monitoring
ISPAAD (2008–22)	To promote food security and increase arable production through input support, land access, and mechanisation.	While ISPAAD focused on crop production, it indirectly supported small-stock through fodder production and land use, which are critical for goat, sheep, and pig systems. Its extensive farmer targeting structure and institutional legacy offer important lessons for future livestock-inclusive programmes.	Ended in 2022; limited integration of livestock into programme design; weak cross-sector coordination; exposed the need for a livestock-focused equivalent. Still relevant for informing the design and delivery of future support schemes under BoLCoP.
YDF (Youth Development Fund)	To finance youth-driven enterprises	Funds youth entries into piggery, poultry, apiculture	Weak business mentoring; high default rates
RADP (Remote Area Development Programme)	To spur development in marginalised rural areas	Aids goat/sheep farmers in arid zones; potential for apiculture	Weak livestock coordination; low extension support
PEP (Poverty Eradication Programme)	To help ultra-poor graduate via small enterprise	Can support small-stock entrepreneurship for marginalized groups	Livestock component diluted; eligibility caps may exclude small-stock scale
RETP (Rural Education & Training Programme)	To build capacity of rural farmers in modern practices	Offers training in agricultural science beneficial for small stock	Limited coverage; focused on environment; livestock-specific modules needed

8.2: Annex 2- Institutional and Stakeholder Mapping

Table 11: Stakeholder Directory and Engagement Records

INSTITUTION/STAKEHOLDER	MANDATE/ ROLE	LEVEL OF ENGAGEMENT	CONTRIBUTION TO SMALL-STOCK DEVELOPMENT	GAPS/NEEDS

Government Ministries				
Ministry of Agriculture (MoA)	Policy formulation, agricultural promotion, extension services	High	Leads policy, LIMID, livestock permits, vet services	Overlaps in programming; coordination gaps
Ministry of Youth, Sports and Culture (MYSC)	Youth development and funding	Medium	Supports youth-led projects via Youth Fund	Limited agri-focus; coordination with MoA needed
Ministry of Trade and Industry (MTI)	Trade policy, business development	Medium	Trade facilitation, value addition, SMME development	Weak link to small-stock producers
Ministry of Education and Skills Development (MoESD)	Education policy and human capital development	Medium	Agricultural curriculum, linkage with tertiary institutions	Low livestock integration in school curricula
Department of Animal Production	Enhance livestock productivity	High	Animal husbandry, breeding support, extension	Limited staff and outreach in remote areas
Department of Veterinary Services	Disease surveillance and control	High	Health certification, vaccination campaigns	Infrastructure and transport gaps
Department of Crop Production	Support crop production and fodder systems	Medium	Indirectly supports fodder for small-stock	Low collaboration with livestock divisions
Department of Agribusiness Promotion	Promotes agri-enterprise development	Medium	Market linkages and agribusiness support	Inadequate visibility and impact tracking
Department of Agricultural Information	Public awareness and communicatio n	Low-Medium	Disseminates agricultural information	Weak feedback mechanisms from farmers
Parastatals & Government Agencies				
Botswana Meat Commission (BMC)	Regulates meat marketing and exports	Medium	Market access, quality assurance	Infrastructure weak for small-stock slaughter
Botswana Agricultural Marketing Board (BAMB)	Marketing and distribution of agri-products	Medium	Can absorb small-stock fodder produce	Weak linkage with livestock producers
Botswana Vaccine Institute (BVI)	Animal vaccine production and sales	High	Ensures livestock health via vaccine supply	Affordability and distribution issues
Botswana Bureau of Standards (BOBS)	Standard setting for agricultural goods	Medium	Ensures quality assurance for livestock products	Enforcement and awareness gaps

Artificial Insemination (AI) Centre (MoA)	Improve livestock genetics	Low	Provides improved breeds	Low outreach to smallholder goat/sheep keepers
National Agricultural Research & Development Institute (NARDI)	Consolidates agri-research efforts	Medium	R&D support to small-stock value chains	Still evolving; limited research on small-stock
BITC (Botswana Investment and Trade Centre)	Investment promotion and export readiness	Medium	Facilitation of livestock product exports	Not fully aligned with small-stock sectors
Local Enterprise Authority (LEA)	Technical and business development	High	Offers training, value chain support	Low uptake in remote areas
NGOs & Civil Society				
Botswana National Farmers Union (BNFU)	Farmer representation and advocacy	High	Policy engagement, capacity building	Limited coordination with district associations
Heifer International	Sustainable livestock livelihoods	Medium	Implements goat/poultry-based models	Scaling challenges
Botswana Cooperatives Association (BCA)	Strengthens cooperative structures; offers training and advocacy for member co-ops	Medium	Can support formation of small-stock cooperatives, improve access to collective marketing, inputs, and finance	- Limited reach in rural livestock areas - Weak governance in some member coops - Inadequate funding - Lack of livestock-specific cooperative models - Low youth involvement in cooperatives
Academic & Research Institutions				
Botswana University of Agriculture and Natural Resources (BUAN)	Tertiary training and R&D; Agricultural training and capacity building	High	Curriculum and research in animal production	Needs curriculum revamp on small-stock
University of Botswana (UB – Agri Dept.)	Tertiary education and research	Medium	Studies on food security, animal systems	Coordination with MoA needed
Private Sector				

Agrifeeds Botswana	Supply animal feeds and nutritional products	High	Provides a range of quality livestock feed and supplements for small-stock farmers	Affordability of feed; limited rural distribution points
Gaborone Plant/Agritech	Agrochemical supply	Low	Fertiliser and supplements for pasture	Weak smallholder focus
Feed and Vet Drug Suppliers	Livestock input supply	Medium	Support animal health and nutrition	Pricing and quality regulation gaps
Horticultural Packhouses and Processors	Value chain participants	Low-Medium	Potential linkage with feed systems	Not directly engaged with small-stock
Retail Chains, e.g, Sefalana, Spar and Choppies	Retail and procurement	Low-Medium	Potential markets for meat/eggs	Quality and supply consistency issues
Meat Inspection Training Centre	Technical training for slaughter operations	Low	Training in meat processing, hygiene	Needs scaling to rural districts
Development Partners				
FAO	Technical assistance and policy development	High	Supports apiculture, extension, climate smart agriculture	Coordination with MoA critical
IFAD	Programme financing and rural poverty alleviation	High	BoLCoP support, small-stock value chain entry	Needs stronger local coordination structures
USAID Feed the Future	Agricultural transformation	Medium	Value chain analysis and training	Coordination with Botswana strategy needed
GIZ (German Cooperation)	Technical capacity support	Medium	Training and piloting resilience approaches	Limited small-stock-specific projects
World Bank	Development financing	Medium	Funded infrastructure and policy support	Sector-specific targeting required
EU Delegation Botswana	Development funding	Medium	Support for rural resilience and policy	Implementation delays, coordination gaps
Financial Institutions				
National Development Bank (NDB)	Agricultural loans and financing	Medium	Provides loans for livestock start-ups and expansion	Bureaucratic loan processes; slow disbursement
Botswana Savings Bank (BSB)	Rural financial services	Medium	Offers accessible loans for emerging farmers	Collateral requirements limit accessibility
Commercial Banks (Absa, FNB, Stanbic)	Agricultural finance products	Medium	Financial products for small-stock enterprises	Limited tailored products for

				small-scale farmers
Letshego	Credit for micro-agribusiness	Medium	Entry-level capital, especially for youth and women	High interest rates; limited loan sizes
Citizen Entrepreneurial Development Agency (CEDA)	Financial support for entrepreneurs	High	Loans for piggery, poultry, apiculture	High default rates; limited technical support

Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Annex: Thuo Letlotlo Guidelines 2024

Mission Dates:	07-19 July 2025
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East and Southern Africa Division
Programme Management Department

REPUBLIC OF BOTSWANA

Ministry of Agriculture

THUO LETLOTLO PROGRAMME GUIDELINES

Version 1, 2024

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1. INTRODUCTION

The livestock sector is a major contributor to agricultural output, contributing 42% of agricultural value added in 2022. The sector is also a major contributor to agricultural exports, especially the beef sector. The livestock sector provides both backward and forward linkages to the rest of the economy. Despite numerous programmes and initiatives to support the development of the livestock industry, its performance has been unsatisfactory. It is against this background that a new livestock support programme namely **THUO LETLOTLO** has been developed. The programme is transformational and was developed through a wide range of stakeholders' consultation as well as using lessons learnt from previous programmes.

Thuo Letlotlo Programme is an inclusive livestock support programme as it covers all livestock subsectors unlike previous programmes. The programme covers: beef cattle and stud breeding; dairy (cattle and goats), small stock and stud breeding, poultry, piggery, ostrich, rabbits, apiculture, aquaculture, equine, hides and skins (leather collection and tanning), game farming, irrigated fodder and livestock feed processing, Assisted Reproductive Technologies (ARTs), rangeland management, water development, dog breeding, multiplication of Tswana and Mosi cattle breeds and provision of extension services, livestock digitisation, agribusiness planning and training, Sanitary and Phytosanitary (SPS) management system and farm waste

management (collection and disposal). Thuo Letlotlo also differs from the previous programmes in that it is output based rather than input based, and hence offers rewards for those who reach the set productivity targets.

The main objective of Thuo Letlotlo programme is to develop sustainable, inclusive, and diversified livestock sector. One of the key principles of the programme is sustainable use and conservation of natural resources, which is critical in the face of changing climate.

The programme has two components:

Component 1 is for Household Food and Nutrition Security. This covers micro scale farmers and new entrants whose monthly earnings are below **P4,000.00** or owning livestock as prescribed under each package. The household food and nutrition security component provides 100% grant to micro scale farmers.

Component 2 of the programme is for National Food and Nutrition Security. These covers small, medium and large-scale famers whose monthly income is above P4,000.00 or owning livestock as prescribed in each package. This component supports farmers with partial grants (with farmer's contribution) and large-scale farmers with subsidised loans.

The programme has a total of 29 packages covering all livestock subsectors, with the

amount of grant and subsidised loans varying with farm categories and subsectors. In addition, the programme includes enhancers to support packages under each subsector.

A key feature of the programme is the Botswana Animal Information Traceability System (BAITS) which will provide registry of livestock keepers as well as enhance data collection and dissemination to assist in programme monitoring and evaluation during implementation. Another key feature of the programme is privatisation of the extension services for effective and efficient delivery as these are critical for the success of the programme.

2. GUIDING PRINCIPLES

The programme is guided by the following principles

Competitiveness - improved husbandry practices and adoption of appropriate technologies to improve both technical and economic efficiency, leading to improved input use and increased profitability. Thus, improvement in productivity is key to competitiveness in the livestock sector.

Commercialisation – increased market participation of livestock keepers, hence increased income and wealth as well as job creation.

Sustainable use and conservation of natural resources – managing livestock enterprises in a way that they conserve the rangelands while at the same time promoting economic viability enterprise. The programme will ensure production processes do not degrade the rangelands and promote conservation of biodiversity as well as minimising the greenhouse gas emission.

Economic Diversification – production of a variety of livestock products for both the local and export markets. Promotion of value addition to the raw livestock products

Inclusivity – promote equal access to opportunities and resources by special populations which include destitute persons, people with disabilities, youth, women and remote area communities.

3. OBJECTIVES OF THUO LETLOTLO PROGRAMME

The objectives of Thuo Letlotlo programme are;

i) Commercialisation of the livestock sector

ii) Grow the sector in numbers and quality

iii) Promote food security through improved livestock productivity

iv) Improve livestock management practices

v) Improve range resource utilisation and conservation

vi) Provide infrastructure for safe and hygienic processing of livestock products

vii) Unlock opportunities for private sector participation and value chains development

viii) Restructure the governance and operations of the livestock sector

4. PROGRAMME OUTCOMES

When fully implemented the programme should lead to the following outcomes:

- Uplifting the livelihoods of the rural populace
- Increased competitiveness of livestock products
- Job creation
- Commercialisation
- Sustainable use of and conservation of natural resources
- Economic diversification

5. CATEGORIES AND CHARACTERISTICS OF FARMERS

Thuo Letlotlo programme has the following farmer categories;

i) **Micro Scale Farmer**

Under this category there are 2 farmer levels

Level 1 (Registered Destitute Persons)

Level 2 (individuals with monthly income up to P4,000.00)

- Subsistence farmers
- Keep up to a prescribed number per livestock subsector

ii) **Small Scale Farmer**

This category has entities/individuals with monthly income of more than P4,000.00.

- Member of Commodity Cooperative
- Productivity level is prescribed per subsector
- Produce for the market
- Work full time on the farm

- Livestock must be registered with BAITS
- Promote good livestock management practices

iii) **Medium Scale Farmer**

These are entities/individuals involved in agribusiness

- Productivity level is as prescribed per subsector
- Member of Commodity Cooperatives
- Produce for the market
- Work full time on the farm and have employees
- Promote good livestock management practices

iv) **Large Scale Farmer**

- Practice contract based production
- Productivity level is as prescribed per subsector
- Member of Commodity Cooperatives
- Produce for the different markets
- Employ skilled workers and work full time
- Adhere to good livestock management practices

v) **Agricultural Management Association (AMA)/Cooperatives / Companies**

These are various commodity service providers or outgrower scheme located at strategic locations

- Registered entities under Companies and Intellectual Property Authority (CIPA), AMA and Cooperative Act
- Offer livestock support services to members
- Facilitate farmers access markets and production inputs
- Provide extension services to their members
- Support farmers with livestock value addition services

vi) **Feedlotters**

Entities or individuals involved in finishing beef cattle for the market/abattoirs

- Work full time and employ full time employees
- Practice contract based production
- Keep a minimum of 400 cattle per production cycle
- Finish beef cattle for the various markets
- Keep livestock in fully fenced farms
- Adhere to good livestock management practices

vii) **Community farms**

These are community farms located in various districts

- Registered as business/ AMA/ cooperatives
- Adhere to good livestock management practices
- Keep different types of livestock in fully fenced farms
- Work full time and employ other members
- Members of Commodity Cooperatives
- Own land and have boreholes
- Produce for the market

viii) **Unemployed Youth, Women, PWD, RADS**

These are special groups that support unemployed women, youth, people with disabilities and remote area dwellers.

- Have access to water and land
- Meets requirements small scale as prescribed per subsector
- Work full time on the farm
- Adhere to good livestock management practices

6. OPERATIONAL GUIDELINES

- Thuo Letlotlo programme provides a once off package for the beneficiaries.
- An applicant who has benefitted as a member of a group, Director of a Company, Cluster, Cooperatives or AMA will not be considered for any other package within the programme except for rangeland management package.
- Applicants shall not source stock (i.e. animals, equipment etc.) from their parents and siblings and cannot buy from their own companies or companies to which they are shareholders or Directors.
- Training of beneficiaries on livestock production and management per sub sector prior to implementation is a requirement.

7. APPLICATION REQUIREMENTS

a. Applicants shall be a Motswana of 18 years and above.

b. Applicants should have a valid Omang card.

c. Businesses, Companies and Agricultural Management Association (AMA) shall be citizen owned only, and duly registered with relevant bodies.

d. People with disability should provide disability card.

e. For Special groups (Remote Area Dwellers-RADS/Trusts), the Ministry of Local Government and Rural Development (MLGRD) and or Bogosi will confirm their origins.

f. Applicants should be registered in Botswana Animal Identification and Traceability System (BAITS).

g. Livestock holding must be registered.

h. Suppliers of livestock and inputs should be registered in BAITS.

i. All applicants should have prescribed toilets in their farms/projects is a mandatory requirement including at micro level.

j. Records keeping is compulsory for all packages.

k. Applicants should buy locally produced goods and services: "Buy Botswana, Built in Botswana"

l. Leased livestock land period should be at least 10 years for the purpose of the programme.

m. Where applicable Strategic Environmental Assessment (SEA), Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) must be done.

n. No subsidy will be provided for working capital, personal vehicle, purchase of farm land, leasing or rental.

o. Where applicable insurance will be a requirement.

8. THUO LETLOTLO PACKAGE FUNDING MODELS

i) Provision of 100% Subsidy - Micro Scale Farmers

Thuo Letlotlo programme will enable Micro Scale farmers to purchase stock, inputs, equipment and other structures as prescribed per subsector. The funds for 100% subsidy will be approved through Thuo Letlotlo Livestock Management System.

The funds will be disbursed through an electronic voucher that will be managed by MoA, Botswana Savings Bank (BSB) and Botswana Building Society Bank (BBS). This facility will enable farmers under this category to transact with BAMB to package inputs. MoA will play a major role in the assessment and approval of livestock procured in terms of quality before suppliers are paid.

Requirements:

- All micro scale farmers will be required to register on the Thuo Letlotlo programme system.
- **Level 1** Beneficiaries will be assessed and identified through the Ministry of Local Government and Rural Development (MLGRD).
- **Level 2** Beneficiaries will be required to apply on the system and assessed by MoA extension officers.
- Farmers under this category will be allowed to use traditional water sources as certified by Village Leadership or Dikgosi.
- All micro scale farmers will be required to participate in the **Mafisa initiative** as prescribed per subsector.

ii) PROVISION OF GRANTS FOR SMALL SCALE, SPECIAL GROUPS AND MEDIUM SCALE FARMERS

Thuo Letlotlo programme will provide grants for small scale, medium scale farmers and special groups with varying grants as dictated by the livestock subsector categories. This facility will be managed by MoA, BSB and BBS to ensure that farmers access

stock, livestock inputs, equipment, and other structures in the system.

After assessment and approval on the system, the applicant will be required to avail the contribution to BSB and or BBS within 30 days. After approval, the funds will be disbursed through an electronic voucher that will be managed by MoA, BSB and or BBS.This facility will enable farmers under this category to transact with various suppliers. MoA will play a major role in the assessment and approval of livestock procured in terms of quality before suppliers are paid.

Small scale, Special Groups and Medium scale Requirements:

- Citizen and citizens owned companies
- Registration on Thuo Letlotlo system
- Proof of land availability
- Borehole and water rights certificates
- Proof of availability of contribution
- Subsector specific requirements

iii) SUBSIDIZED LOAN FACILITY- LARGE SCALE FARMERS/COMMUNITY FARMS/AGRICULTURAL MANAGEMENT ASSOCIATIONS (AMAs)

The subsidized loan facility will support a range of large scale farmers and other categories as stated above that will benefit from the programme. This facility is for citizens and citizen owned companies only involved in commercial livestock farming. The facility will be managed by National Development Bank (NDB) after assessment and recommendation by MoA.

Loan facility tenure

The subsidized loan under this facility shall be granted for a period to be determined by NDB as per type of subsector.

Eligibility

- Only citizens and citizen owned companies
- Entity/individual must be a registered in Thuo Letlotlo Management System
- Normal NDB Credit Requirements Apply
- Submit business proposal

9.0 PACKAGE REQUIREMENTS

Package 1 - Beef Cattle

a. Access to adequate water and land.

b. Animal handling facilities must be available prior to project implementation.

c. Breeding stock to be purchased for the programme should be aged 18-24 months.

d. Price of a cow/heifer should not exceed P5,000.00

e. Assisted Reproductive Technologies (ART) support will be provided for micro scale farmers once off.

f. **Mafisa:** A once off of 2 offsprings (female or male) after weaning will be donated towards the programme as mandatory for micro scale farmers.

Table 1: Beef Cattle (Micro, Small, Medium, Large Scales, Unemloyed youth/ Women/PWD, RADS/ Trusts, AMA, Community farms and Feedlotter)

Category	Herd size (cattle)	Farmer contribution	Grant Level	Maximum Grant (BWP)	Maximum loan (BWP)
Micro scale Level 1	0 – 4	0%	100%	60,000.00	N/A
Micro scale Level 2	5 – 20	0%	100%	60,000.00	N/A
Small scale	21 – 100	50%	50%	200,000.00	N/A
Unemployed youth/ Women, PWD, RADS/ Trusts	21 – 100	0%	100%	100,000.00	N/A
Medium scale	101 – 300	70%	30%	300,000.00	N/A
Large scale	>300	0%	0%	N/A	2.5 million
Service provider/ Out-grower scheme	N/A	N/A	N/A	N/A	100 million
Community farms	N/A	N/A	N/A	N/A	2.5 million
Feedlotters	≥400	N/A	N/A	N/A	8 million

Package 2- Beef Cattle Stud Breeding

a. Beef cattle stud breeders should be registered with Livestock Breeders Society and must maintain performance records as per Livestock Improvement Act of 2009.

b. Applicant should have access to adequate water and land.

c. Animal handling facilities must be available prior to project implementation.

Table 2: Beef Cattle Stud Breeding (Small, Medium and Large Scale)

Category	Herd size (stud cattle)	Farmer Contribution	Grant Level	Maximum Grant (BWP)	Maximum loan (BWP)
Small scale	1 – 10	50%	50%	500,000.00	N/A
Medium scale	11 – 25	70%	30%	1.5 million	N/A
Large scale	>25	N/A	N/A	N/A	5.5 million

Package 3 - Multiplication of Mosi and Tswana Breeds

a. Applicant should have access to adequate water and land.

b. Animal handling facilities is required.

c. Mosi breeders must be registered with Mosi Cattle Breed Society.

d. Infrastructure for controlled breeding (Fenced or enclosed farms) is a requirement.

e. **Loan (3 years)**

- Only farmers in cattle farming who meet selection criteria will qualify for the loan scheme
- Loan scheme will offer 20 breeding cows and 1 bull per selected farmer.
- During the loan period farmer will keep 60% of offspring and 40% returned to government in every breeding cycle.
- After loan period of 3 years, the farmer will return 50% of the initial stock to government and the farmer keeps 50%.

Package 4 - Small Stock (Sheep and Goats)

a) Applicant should have access to adequate water and land.

b) Water source (borehole, well, dam, river) should not be more than three (3) kilometres away from the project where applicable.

c) Animal handling facilities must be available prior to project implementation.

d) Breeding stock purchased for the programme should be aged 1-2 years.

e) Prices of ewe/doe should not exceed P1,000.00 and P2,500.00 for buck/ram.

f) **Mafisa**: A once off 50% of the first female offspring after weaning towards the programme is mandatory. If the first batch of offspring are males, subsequent breeding cycles will be considered.

Table 3: Small stock (Micro, Small, Medium, Large Scale, Unemployed youth/Women/PWD, RADS/ Trusts, AMA and Community farms)

Category	Flock size (goats/sheep)	Farmer Contribution	Grant Level	Maximum Grant (BWP)	Maximum loan (BWP)
Micro scale Level 1	0 – 24	0%	100%	60,000.00	N/A
Micro scale Level 2	25 – 100	0%	100%	60,000.00	N/A
Small scale	101– 600	50%	50%	100,000.00	N/A
Unemployed youth/ Women, PWD, RADS/ Trusts	101 – 600	0%	100%	100,000.00	N/A
Medium scale	601 – 1800	70%	30%	250,000.00	N/A
Large scale	>1800	N/A	N/A	N/A	200,000.00
Community farms	N/A	N/A	N/A	N/A	200,000.00
Service provider/ Out-grower scheme	N/A	N/A	N/A	N/A	20 million

Package 5 –Smallstock Stud Breeding

a. Smallstock stud breeders should be registered with Livestock Breeders Society and must maintain performance records as per Livestock Improvement Act of 2009.

b. Applicant should have access to adequate water and land.

c. Animal handling facilities must be available prior to project implementation.

Table 4: Stud Breeding Small Stock (Small, Medium and Large Scale)

Category	Flock size (stud goat/ sheep)	Farmer Contribution	Grant Level	Maximum Grant (BWP)	Maximum loan (BWP)
Small scale	1 – 50	50%	50%	500,000.00	N/A
Medium scale	51 – 75	70%	30%	2 million	N/A
Large scale	>75	N/A	N/A	N/A	3.5 million

Package 6 - Dairy cattle

a. Access to adequate water and land.

b. Animal handling facilities and necessary equipment must be available prior to project implementation.

c. Waste management plan must be provided.

d. Breeding stock purchased for the programme should be aged 18-24 months.

e. Dairy cow breeders must be registered with Breeders Society

f. Assisted Reproductive Technologies (ART) support will be provided for micro scale farmers.

g. The funds will be used for various farm activities such as expansion of the enterprises, purchase of farm machinery and equipment and adoption of improved technologies.

h. Micro scale farmers are required to affiliate as AMA.

i. **Mafisa:** A once off 2 of the first female offspring after weaning towards the programme is mandatory for micro scale farmers.

Table 5: Dairy Cattle (Micro, Small, Medium, Large Scale and AMA)

Category	Herd size (cows)	Farmer contribution	Grant level	Maximum Grant (BWP)	Maximum loan (BWP)
Micro scale: (AMA)	0 – 5	0%	100%	100,000.00 (per member	N/A
Small scale	6 – 50	80 %	20%	7 million	N/A
Medium scale	51-250	N/A	N/A	N/A	28 million
Large scale	>250	N/A	N/A	N/A	60 million
Service provider/ Out-grower scheme	N/A	N/A	N/A	N/A	10 million

Package 7 - Dairy Goats

a. Animal handling facilities and necessary equipment must be available prior to project implementation.

b. Waste management plan must be provided.

c. Breeding stock purchased for the programme should be aged 12-18 months.

d. Assisted Reproductive Technologies (ART) support will be provided for micro scale farmers.

e. Price for doe should not exceed P5,000 and for buck should not exceed P6,000.

f. For Micro scale Level 1(individual), applicants will be funded with 5 does and 1 buck.

g. For Micro scale Level 2 (cluster model), applicants will be funded with 10 does and 1 buck.

h. 12 ha of land with adequate water is mandatory.

Table 6: Dairy Goats (Micro, Small, Medium, Large Scale and AMA)

Category	Herd size (goats)	Farmer contribution	Grant level	Maximum Grant (BWP)	Maximum loan (BWP)
Micro scale (Individual)	0-20	0%	100%	70,000.00	N/A
Micro scale (AMA)	0-20	0 %	100%	95,000.00 (per member)	N/A
Small scale	21 - 100	80%	20%	1 million	N/A
Medium scale	101 – 300	N/A	N/A	N/A	2 million
Large scale	>300	N/A	N/A	N/A	3 million
Service provider/ Out-grower scheme		N/A	N/A	N/A	5 million

Package 8: Poultry- Broilers

a. Projects should be located outside urban areas.

b. Waste management plan must be provided.

c. Access to clean and reliable water.

d. Adhere to biosecurity measures.

e. **Mafisa:** A once off 5% contribution in kind (dressed) to government institutions for Micro scale farmers.

Table 7: Poultry Broilers (Micro, Small, Medium, Large Scale and AMA)

Category	Flock size (birds)	Farmer Contribution	Grant level	Maximum Grant (BWP)	Maximum loan (BWP)
Micro scale	0 – 100	0%	100%	30,000.00	N/A
Small scale	101 – 10 000	50%	50%	100,000.00	N/A
Unemployed youth/Women, PWD, RADS/ Trusts	101 – 10 000	0%	100%	100,000.00	N/A
Medium scale	10 001 – 50 000	70%	30%	200,000.00	N/A
Large scale	>50 000	0%	0%	N/A	500,000.00
Service provider/ Out-grower scheme	N/A	N/A	N/A	N/A	10 million

Agricultural Management Associations (AMA)/ Cooperatives/Individual/ Companies

a. Strategically located service centres (processing plants, abattoirs, extension service) for clusters.

b. The Cooperative/ AMA/Individuals/company shall slaughter a minimum of 100,000 birds per month.

c. Waste management plan must be provided.

d. Waste water treatment is mandatory.

e. Breeding rights must be obtained for breeder farms and hatchery.

f. Adhere to biosecurity measures.

g. Proof of forward and backward linkages.

h. AMA should have a minimum of 15 members.

Package 9: Poultry - Layers

a. Projects should be located outside urban areas.

b. Waste management plan must be provided.

c. Breeding rights must be obtained from registered breeder farms and hatchery

d. Access to clean and reliable water.

e. Adhere to biosecurity measures.

f. Funds will be used for purchase of pullet stock, poultry house, veterinary requisites, and cages.

g. **Mafisa:** A once off 5% contribution in kind (spent hens) to government institutions.

Table 8: Poultry Layers (Micro, Small, Medium, Large Scale and AMA)

Category	Flock size (layers)	Farmer contribution	Grant level	Maximum Grant (BWP)	Maximum loan (BWP)
Micro scale	0-100	0%	100%	60,000.00	N/A
Small scale Unemployed youth/Women, PWD, RADS/ Trusts	101-10 000 101-10 000	50% 0%	50% 100%	100,000.00 100,000.00	N/A N/A
Medium scale	10 001 – 50 000	70%	30%	150,000.00	N/A
Large scale	>50 000	N/A	N/A	N/A	3 million
Service provider/ Out-grower scheme	N/A	N/A	N/A	N/A	10 million

Package 10: Poultry – Indigenous Chickens/Tswana Chickens, Ducks, Quail, Guinea Fowls, Pet Birds/Ornamental Birds, Turkey, Geese and Exotic Breeds

a. Projects should be located outside urban areas.

b. Waste management plan must be provided.

c. Access to clean and reliable water.

d. Adhere to biosecurity measures.

e. Funds will be used for construction of poultry house, purchase of parent stock, feeds, veterinary requisites, brooder house, incubator and solar equipment, etc.

f. Priority will be given to those who can provide forward and backward linkages.

g. **Mafisa:** A once off 50% contribution of the original stock offspring towards the programme after 4 months of age.

Table 9: Indigenous Chickens/Tswana Chickens, Ducks, Quail, Guinea Fowls, Pet Birds/Ornamental Birds, Turkey, Geese, Exotic Breeds (Micro, Small, Medium, Large Scale, Unemployed Youth/Women/PWD, RADS/ Trusts and AMA)

Category	Flock size (birds)	Farmer contribution	Grant Level	Maximum Grant (BWP)	Maximum loan (BWP)
Micro scale	0 – 50	0%	100%	35,000.00	N/A
Small scale Unemployed youth/Women, PWD, RADS/ Trusts	51 –100 51–100	50% 0%	50% 100%	50,000.00 100,000.00	N/A N/A
Medium scale	101 – 150	70%	30%	100,000.00	N/A
Large scale	>150	N/A	N/A	N/A	300,000.00
Service provider/ Out-grower scheme	N/A	N/A	N/A	N/A	10 million

Package 11 - Ostrich Breeding and Feedlotting

a. Applicant should have access to adequate water and land.
b. Waste management plan must be provided.
c. The funds will be used for various farm activities such as expansion of the enterprises, purchase of breeding stock, feeds, veterinary requisites and handling facilities
d. Adhere to biosecurity measures.

Table 10: Ostrich (Small, Medium, Large Scale and AMA)

Category	Flock size (Ostriches)	Farmer contribution	Grant level	Maximum Grant (BWP)	Maximum loan (BWP)
Small scale	0 – 50	25%	75%	250,000.00	N/A
Medium scale	51 – 100	60 %	40%	750,000.00	N/A
Large scale	Above 100	80%	20%	1 million	N/A
Service provider/ Out-grower scheme	N/A	N/A	N/A	N/A	10 million

Package 12 - Piggery

a. Applicant should have access to adequate water and land.

b. Waste management plan must be provided.

c. Animal handling facilities must be available prior to project implementation.

d. The funds will be used for various farm activities such as expansion of the enterprises, purchase of breeding stock and handling facilities.

e. Pig stud breeders to meet international standards (International Pork Company (IPC)).

f. Breeding stock purchased for the programme should be 6 to 12 months.

g. Prices of sows should not exceed P3,500.00 and P4,000.00 for boar.

h. **Mafisa:** A once off 50% contribution of the original stock offspring towards the programme at weaning age.

Table 11: Piggery (Micro, Small, Medium, Large Scale and AMA)

Category	Flock size (sows)	Farmer contribution	Grant level	Maximum Grant (BWP)	Maximum loan (BWP)
Micro scale	0 – 10	0%	100%	35,000.00	N/A
Small scale Unemployed youth/ Women, PWD, RADS/ Trusts	11- 29 11- 29	50% 0%	50% 100%	50,000.00 100,000.00	N/A N/A
Medium scale	30 – 99	70%	30%	100,000.00	N/A
Large scale	>99	N/A	N/A	N/A	3.5 million
Service provider/ Out-grower scheme	N/A	N/A	N/A	N/A	10 million

Package 13 - Rabbit Production

a. Applicant should have access to adequate water and land.

b. Waste management plan must be provided.

c. Adhere to biosecurity measures.

d. The funds will be used for various farm activities such as expansion of the enterprises, purchase of breeding stock, handling facilities and necessary equipment.

e. **Mafisa:** A once off 50% rabbit offspring contribution towards the programme at 4 months.

Table 12: Rabbit Production (Micro, Small, Medium, Large Scales, Unemployed Youth/Women/PWDs, Special Groups (RADS/Trust) and AMA)

Category	Herd size (breeding does)	Farmer contribution	Grant level	Maximum Grant (BWP)	Maximum loan (BWP)
Micro scale	0 – 50	0%	100%	30,000.00	N/A
Small scale Unemployed Youth ,Women, PWDs/ Special Groups (RADS/Trust)	51 – 300 51 – 300	50% 0%	50% 100%	100,000.00 100,000.00	N/A N/A
Medium scale	301- 1000	70%	30%	150,000.00	N/A
Large scale	>1000	N/A	N/A	N/A	400,000.00
Service provider/ Out-grower scheme	N/A	N/A	N/A	N/A	5 million

Package 14 - Aquaculture

a. Access to adequate water and land.

b. Waste management plan must be provided.

c. Adhere to biosecurity measures.

d. The funds will be used for various farm activities such as expansion of the enterprises, purchase of breeding stock and handling facilities

e. **Mafisa:** A once off 5% first fish harvest contribution in kind towards the government institutions.

Table 13: Aquaculture (Micro, Small, Medium, Large Scale, Unemployed Youth/Women/PWD, RADS/ Trusts, Community farms and AMA)

Category	Tons	Farmer contribution	Grant level	Maximum Grant (BWP)	Maximum loan (BWP)
Micro scale	0 – 1	0%	100%	60,000.00	N/A
Small scale Unemployed youth, Women, PWD, RADS and Trusts	1.1 – 10 1.1 – 10	50% 0%	50% 100%	100,000.00 100,000.00	N/A N/A
Medium scale	10.1 – 99	70%	30%	500,000.00	N/A
Large scale	>99	N/A	N/A	N/A	2 million
Community farms	N/A	N/A	N/A	N/A	500,000.00
Service provider/ Out-grower scheme	N/A	N/A	N/A	N/A	10 million

Package 15 - Apiculture

a. Access to adequate water and land
b. Assistance will be for expansion of existing enterprises as well as start-ups.
c. Adhere to biosecurity measures.
d. **Mafisa:** Micro farmers will be required to contribute three (3) nuclei colonies.

Table 14: Apiculture (Micro, Small, Medium, Large Scale, Unemployed Youth/Women/PWD, RADS/Trusts and AMAs)

Category	Bee colonies	Farmer contribution	Grant level	Maximum Grant (BWP)	Maximum loan (BWP)
Micro scale	1 - 3	0%	100%	25,000.00	N/A
Small scale	4 - 30	50%	50%	80,000.00	N/A
Unemployed youth/Women, PWD, RADS/Trusts	4 - 30	0%	100%	100,000.00	N/A
Medium scale	31 - 99	30%	70%	200,000.00	N/A
Large scale	>99	N/A	N/A	N/A	400,000.00
Service provider/ Out-grower scheme	N/A	N/A	N/A	N/A	5 million

Package 16 - Equine Production

a. Applicant should have access to adequate water and land.

b. Adhere to biosecurity measures.

c. The funds will be used for various farm activities such as expansion of the enterprises, purchase of breeding stock, handling facilities and necessary equipment.

d. Assistance will be for expansion of existing enterprises as well as start-ups.

e. **Mafisa:** A once off 50% of equine female offspring contribution towards the programme at weaning stage.

Table 15: Equine Production (Micro, Small, Medium, Large Scale, Special Groups (RADS/Trusts) and AMA)

Category	Herd size (Equine)	Farmer contribution	Grant level	Maximum Grant (BWP)	Maximum loan (BWP)
Micro scale	0 – 10	0%	100%	30,000.00	N/A
Small scale	11 – 20	50 %	50%	100,000.00	N/A
Special Groups (RADS/Trusts)	11 – 20	0%	100%	200,000.00	N/A
Medium scale	21 - 50	70%	30%	150,000.00	N/A
Large scale	>50	N/A	N/A	N/A	400,000.00
Service provider/ Out-grower scheme	N/A	N/A	N/A	N/A	10 million

Package 17 - Dog Breeding and Training

a. Applicant should have access to adequate water and secure land.

b. Relevant dog facilities should be available.

c. Dog licence is required.

d. Aptitude test is required for dog trainers.

e. Where applicable relevant training is required.

f. Breeding stock purchased for the programme should be 9-12 months.

g. Certified dog vaccination certificate by Veterinarian is required.

h. Stud breeders must be registered with Breeders Society.

i. Assistance will be for expansion of existing enterprises as well as start-ups (procurement of breeding stock, feeds, veterinary requisites, dog kennels).

Table 16: Dog Breeding (Micro, Small, Medium and Large Scale)

Category	Herd size (dogs)	Farmer contribution	Grant	Maximum Grant (BWP)	Maximum loan
Micro scale	0-5	0%	100%	60,000.00	N/A
Small Scale	6-15	50 %	50%	100,000.00	N/A
Medium scale	16-25	70%	30%	150,000.00	N/A
Large scale	>25	N/A	N/A	N/A	250,000.00

Package 18 - Game Farming and Ranching

a. Relevant facilities should be available.

b. Applicant should have access to adequate water and land.

c. Game farming and ranching licence is a requirement.

d. Where applicable, the applicants shall undergo training in game farming and management by recognised training institution before implementation.

e. The funds will be used for various farm activities such as expansion of the enterprises, purchase of farm machinery and equipment, adoption of improved technologies and purchase of breeding stock.

f. For keeping game in Masimo the Ministry of Environment and Tourism (MET) provides a start-up package as per Masimo initiative package.

Table 17: Game Farming and Ranching (Micro, Small, Medium, Large Scale and AMA/Trusts)

Category	Farm size	Farmer contribution	Grant	Maximum Grant (BWP)	Maximum loan
Micro scale	game farming (1 ha)	0%	100%	60,000.00	N/A
Small Scale	game farming (2-100 ha)	50 %	50%	250,000.00	N/A
Medium scale	game farming (101-1000 ha)	30%	70%	500,000.00	N/A
Large scale	game ranching (>1000 ha)	N/A	N/A	N/A	10 million
Service provider/ Out-grower scheme	N/A	N/A	N/A	N/A	10 million

Package 19 - Leather Collection and Tanning

a. Applicant should have access to adequate water and land.

b. Relevant and approved facilities should be available.

c. Under this package, applicant can only benefit as a collector or a processor.

d. Waste management plan is a requirement.

e. Product compliance with BOBS standards.

f. Hides and skins buyers and exporters licences are mandatory.

g. Relevant training in leather processing is a requirement.

h. Funds will be used for hides and skins collectors, tanners, equipment and infrastructure.

Table 18: Leather Collection and Tanning (Micro, Small, Medium, Large Scale Unemployed Youth/Women/PWD, RADS/Trusts, and AMA)

Level	Category	Quantity	Farmer contribution	Grant	Maximum Grant (BWP)	Maximum loan
Micro scale	Collectors processors	0-5000 hides/ skins/year 0-120 hides/ skins per year	0%	100%	70,000.00	N/A
Small Scale	Collectors Processors	5001-10,000 hides/skins/year 121-240 hides/ skins per year	30 %	70%	100,000.00	N/A
Unemployed youth, women, PWD (RADS/ Trusts)	Collectors Processers	5001-10,000 hides/skins/year 121-240 hides/ skins per year	0%	100%	100,000.00	N/A

Medium scale	Collectors processers	10 001-20 000 hides/skins/year 241-600 hides/ skins per year	50%	50%	500,000.00	N/A
Large	Collectors processors	Above 20 000 hides/skins/year 600-20 000 hides/skins per year	N/A	N/A	N/A	5 million
Service provider/ Out-grower scheme	processors	> 20 000 hides/ skins per year	N/A	N/A	N/A	5 million

Package 20 - Assisted Reproductive Technologies (ART)

a. Applicant should have access to ART facility and land.

b. Infrastructure assessment report must be provided.

c. Assistance will be for ART services and other equipment.

d. Relevant facilities should be available for semen/embryo collection, insemination and embryo transplant.

e. Applicants should have relevant qualification from a recognised training institution.

f. All practitioners must be registered with the office of the Registrar.

Table 19: ARTs (Small, Medium Scale and Large Scale)

Category	Service provider contribution	Grant	Maximum Grant (BWP)	Maximum loan
Micro Scale	0%	100%	30,000.00	N/A
Micro Scale (Clusters)	0%	100%	100,000.00	N/A
Small Scale	40%	60%	150,000.00	N/A
Medium scale	40%	60%	250,000.00	N/A
Large scale	N/A	100%	N/A	5 million

Package 21 - Livestock Feed Processing

a. Access to adequate water and land.

b. Approved facilities should be available.

c. Processed products should comply with BOBS standards.

d. Applicants should have relevant qualification from a recognised training institution.

e. Funds will be used for the purchase of feed processing equipment and infrastructure.

Table 20: Livestock Feed Processing (Micro, Small, Medium, Large Scale, Unemployed Youth/Women/PWD, RADS/Trusts and AMA/Cooperatives)

Category	Open to all subsectors	Farmer contribution	Grant	Maximum Grant (BWP)	Maximum loan
Micro scale (AMA)	All as outlined in the subsector.	0%	100%	60,000.00	N/A
Small Scale	All as outlined in the subsector.	50 %	50%	500,000.00	N/A
Medium scale	All as outlined in the subsector.	70%	30%	1 million	N/A
Unemployed youth, women, PWD (RADS/ Trusts)	All as outlined in the subsector.	0%	100%	200,000.00	N/A
Large scale	N/A	N/A	N/A	N/A	10 million
Service provider/ Out-grower scheme	N/A	N/A	N/A	N/A	10 million

Package 22 - Irrigated Fodder Production

a. Access to adequate water, fully fenced and debushed land.

b. Relevant facilities should be available.

c. Waste management plan will be required.

d. The applicants shall undergo training in fodder production.

e. Funds will be used for irrigation equipment, machinery and inputs.

f. Assistance will be for expansion of existing enterprises as well as start-ups.

Table 21: Irrigated Fodder Production (Small, Medium and Large Scale)

Category	Size	Farmer contribution	Grant	Maximum Grant (BWP)	Maximum loan
Small Scale	0 - 500	50%	50%	1 million	N/A
Medium scale	501 - 1000	70 %	30%	1.5 million	N/A
Large scale	>1000	N/A	N/A	N/A	10 million

Package 23 - Water Development

a. Assists farmers to drill or purchase, equip existing boreholes, reticulate water, borehole or well cleaning, purchase of water treatment plants, water harvesting equipment and dam rehabilitation.

b. Applicants/syndicates should have an approved constitution.

c. Land and water rights (where applicable) should be provided.

d. For water reticulation there should be permission of servitude.

e. Groups (AMA/Cooperatives/Syndicates) minimum number of members should be 15.

f. The eligible entities are individuals, cooperatives, community farms, companies, AMA and syndicates.

Table 22: Water Development (Micro, Small, Medium, Large Scale, Unemployed Youth/Women/PWD, Special Groups (RADS/Trust) and AMA)

Category		Farmer Contribution	Grant Level	Maximum Grant (BWP)	Maximum loan (BWP)
Micro scale					
Equip, reticulate and rehabilitation of dams ,boreholes or wells	As prescribed per the subsector	0%	100%	500,000.00	N/A

Small scale					
Drilling or purchase, equipping or reticulation	As prescribed per the subsector	40%	60%	500,000.00	N/A
Borehole or well equipping, cleaning and or water reticulation	As prescribed per the subsector	40%	60%	100,000.00	N/A
Water treatment plant or equipment, water harvesting plant or equipment, water cleaning equipment or plant, dams rehabilitation	As prescribed per the subsector	40%	60%	1.5 million	N/A

Medium scale					
Drilling or purchase, equipping or reticulation	As prescribed per the subsector	50%	50%	500,000.00	N/A
Borehole or well equipping, cleaning and or water reticulation	As prescribed per the subsector	50%	50%	100,000.00	N/A
Water treatment plant or equipment, water harvesting plant or equipment, water cleaning equipment or plant, dams rehabilitation	As prescribed per the subsector	50%	50%	1.5 million	N/A

Large scale					
Borehole drilling or purchase, equipping or reticulation	As prescribed per the subsector	N/A		N/A	1.5 million
Water treatment plant	As prescribed per the subsector	N/A		N/A	1.5 million
Unemployed Youth ,Women, PWDs/ Special Groups (RADS/Trust)					
Borehole drilling or purchase, Equipping or reticulation					
Small scale	As prescribed per the subsector	15%	85%	500,000.00	N/A
Medium scale	As prescribed per the subsector	20%	80%	500,000.00	N/A
Large	As prescribed per the subsector	30%	70%	500,000.00	N/A

Borehole or well equipping, cleaning or water reticulation					
Small scale	As prescribed per the subsector	15%	85%	100,000.00	N/A
Medium scale	As prescribed per the subsector	20%	80%	100,000.00	N/A
Large	As prescribed per the subsector	30%	70%	100,000.00	N/A
Water treatment plant or equipment, water harvesting plant or equipment, water cleaning equipment or plant, dams rehabilitation					
Small scale	As prescribed per the subsector	15%	85%	1.5 million	N/A
Medium scale	As prescribed per the subsector	20%	80%	1.5 million	N/A
Large	As prescribed per the subsector	30%	70%	1.5 million	N/A

Service provider/Out-grower scheme					
Water treatment plant or equipment, water harvesting plant or equipment, water cleaning equipment or plant, dams rehabilitation	N/A	N/A	N/A	N/A	1.5 million

Package 24 - Rangeland Management

a. Eligible to ranchers, syndicates, clusters, AMAs, individuals, companies, RADS.
b. Proof of land rights is a requirement.
c. Applicants should engage qualified rangeland management experts.
d. Communal grazing control committees must be established.
e. Aircraft facilities should be licensed by Civil Aviation Authority of Botswana (CAAB).
f. Control packages should be approved by Ministry of Environment and Tourism (MET).

g. Permission for control measures should be sanctioned by Ministry of Agriculture (MoA) & MET

h. Service providers should be citizen and citizen owned companies.

Table 23: Rangeland Management (Communal, Ranches and Bush Encroachment Control Service Providers)

Category	Size	Farmer contribution	Grant	Maximum Grant (BWP)	Maximum loan
Communal/ Special groups (RADS)	As outlined in the subsector.	0%	100%	5 million	N/A
Ranches	As outlined in the subsector.	50 %	50%	5 million	N/A
Bush encroachment control Service providers	As outlined in the subsector.	N/A	N/A	N/A	10 million

Package 25 - Extension Services

a. Extension services package will be managed by BUAN.
b. Applicants for extension service provision will apply through BUAN.
c. Experts in livestock and livestock management, business management and other expertise will be required.
d. Applicants will be placed at various districts.
e. Applicants must possess relevant qualification from recognised institutions
f. Applicants must provide proof of experience in related subsector.
g. Applicants registered with professional bodies should provide proof of affiliation.
h. Applicants must have capacity to deliver on set livestock productivity targets.
i. Applicants will be required to provide training, coaching, mentoring and field support services to beneficiaries.
j. Applicants with experience will be required to undergo aptitude test as directed by BUAN.
k. BUAN will make transport logistics arrangements for service providers recruited under extension service package.

Package 26 – Livestock Digitisation

a. This package will be for development of system applications in livestock management and business management

b. Applicants will be required to service various districts.

c. Applicants must possess relevant qualification from recognised institutions.

d. Applicants must provide proof of expertise and experience in software development.

e. System application should provide solution to livestock industry.

f. Applicants registered with professional bodies should provide proof of affiliation.

g. Applicants will be required to provide training, coaching, mentoring and field support services to beneficiaries.

h. Funding will be used to acquire ICT related gadgets and software's.

Table 24: Livestock Digitisation (Small, Medium, Large Scale and Unemployed Youth/Women/PWDs)

Category	Developed application	Service provider	Grant	Maximum Grant (BWP)	Maximum loan
Small Scale	0-2	50%	50%	1.5 million	N/A
Unemployed youth,women, PWDs	0-2	0%	100%	1.5 million	N/A
Medium scale	3-5	70 %	30%	5 million	N/A
Large scale	Above 5	N/A	N/A	N/A	10 million

Package 27 – Agribusiness Planning and Training

a. Agribusiness planning and training package will be managed by Ministry of Entrepreneurship (MOE).

b. Applicants for agribusiness planning and training provision will apply through MOE

c. Applicants in agribusiness management, marketing and other expertise will be required.

d. Applicants will be allocated in various districts.

e. Applicants must possess relevant qualification from recognised institutions

f. Applicants must provide proof of experience in the agribusiness field.

g. Applicants registered with professional bodies should provide proof of affiliation.

h. Applicants will be required to provide training, coaching, mentoring and field support services to beneficiaries.

Table 25: Agribusiness Planning and Training (Small, Medium and Large Scale)

Level	Extension Services	Grant %	Contribution %	Maximum grant	Maximum Loan
Small scale	Agribusiness planning and Training	50	50	500,000.00	N/A
medium scale	Agribusiness planning and Training	40	60	750,000.00	N/A
Large scale	Agribusiness planning and Training	N/A	N/A	N/A	2.5 million

Package 28 – Sanitary and Phytosanitary (SPS) Management System

a. Infrastructure assessment report must be provided.

b. Access to land

c. Availability of necessary equipment

d. Licensing from Ministry of Lands and Water Sanitation (MLWS) and MLGRD

e. All applicants are required to provide proof of vehicles road worthiness and suitability from authorized Ministry of Transport and Public works.

f. The funds will be used for procurement of mobile facilities, expansion of the enterprises, purchase of equipment and construction of sanitary and phytosanitary facilities.

Table 26: Sanitary and Phytosanitary (SPS) Management System (Small, Medium and Large Scale)

Category	Size of project	Service provider	Grant	Maximum Grant (BWP)	Maximum loan
Small Scale	mobile sanitary and phytosanitary services	50%	50%	300,000.00	N/A
Medium scale	mobile sanitary and phytosanitary services and or mini laboratory	70 %	30%	1 million	N/A
Large scale	provide static sanitary and phytosanitary services and laboratory	N/A	N/A	N/A	50 million

Package 29 – Farm Waste Management (Collection and Disposal)

a. Infrastructure assessment report must be provided.

b. Access to land

c. Availability of necessary equipment

d. Licensing from Ministry of Environment and Tourism (MET), Ministry of Lands and Water Affairs (MLWS) and MLGRD

e. All applicants are required to provide proof of vehicles road worthiness and suitability from authorized Ministry of Transport and Public works and MLGRD

f. The funds will be used for procurement of mobile farm waste collection vehicles, expansion of the enterprises, purchasing of waste equipment and construction of farm waste management facilities.

Table 27: Farm Waste Management Collection and Disposal (Small, Medium and Large Scale)

Category	Size of project	Service provider	Grant	Maximum Grant (BWP)	Maximum loan
Small Scale	mobile farm waste collectors 10,000l tank and 1 tonne vehicles	50%	50%	500,000.00	N/A
Medium scale	mobile farm waste collectors, 20,000l tanks, hazardous chemicals,specialised equipment and vehicles.	70 %	30%	1 million	N/A
Large scale	Mobile farm waste collectors, above 20,000l tanks, hazardous chemicals, specialised equipment and vehicles.	N/A	N/A	N/A	2.5 million

10 PROGRAMME ENHANCERS

Enhancers under this package are meant to assist beneficiaries to increase production efficiency. The beneficiary will be required to avail production records indicating satisfactory performance to qualify for the enhancers. After application by the beneficiary MoA will assess the projects and make a decision. If approved, the beneficiary will avail 50% contribution to NDB to allow for procurement of enhancer.

Requirements

- Beneficiary must be registered in Thuo Letlotlo Management System.
- Beneficiaries under the programme will qualify for enhancer.
- Project records are a requirement.
- Citizens and citizen owned companies can benefit.

Conditions

- Micro and large scale are excluded from enhancers.
- Equipment purchased through the programme cannot be sold within the first five years.
- Beneficiary can only qualify for an enhancer related to the package approved for.
- Beneficiaries can only benefit once for enhancers classified as others.

Table 28: Thuo Letlotlo Programme Enhancers

Item	Estimated Cost	Farmers' Contribution
a) **Livestock Feed manufacturing**		
Tractor and implements	P500,000.00	50%
Machine for bush clearing and feed processing	P250,000.00	50%
b) **Aquaculture**		
Fish Feed Manufacturing Machine	P120,000.00	50%
Fish transportation tank	P150,000.00	50%
Smoking kiln	P15,000.00	50%
c) **Dairy (goats and cattle)**		
Portable milking machine	P100,000.00	50%
Dairy cattle cooling system	P150,000.00	50%

d) **Apiculture**		
Mobile apiary (minimum capacity of 20 hives) for migratory beekeeping	P50,000.00	50%
Bee house (minimum capacity 20 hives)	P50,000.00	50%
Bee multiplication/ queen rearing equipment	P40,000.00	50%
e) **Assisted Reproductive Technologies (ART)**		
AI Equipment		
Liquid Nitrogen Flask		
• GP 3 - (3.5 litres capacity) plus accessories package	P10,250.00	50%
• GP 10 - (10 litres capacity) plus accessories package	P13,250.00	50%

• GP 20 - (20 litres capacity) plus accessories package	P18,250.00	50%
• GP 35 - (35.5 litres capacity) plus accessories package	P23 -250.00	50%
Structures for Artificial Insemination	P50,000.00	50%
Embryo transfer kit	P 100,000.00	50%
Semen analyser	P200,000.00	50%
Electro ejaculator	P150,000.00	50%
f) **Piggery**		
Farrowing crate	P7,500.00	50%
Digital Walk-in Weight scale	P20,000.00	50%

g) **Poultry (layers)**		
Scale	P100,000.00	50%
h) **Tswana chicken**		
Incubator	P10,000.00	50%
Deep freezer	P15,000.00	50%
i) **Hides and skins**		
Digital Weight scale	P20,000.00	50%
j) **Small stock**		
Digital Walk-in Weight scale plus working crate	P75,000.00	50%
Small stock spray race	P75,000.00	50%
Karakul pelt house	P50,000.00	50%

k) **Beef**		
Cattle working crate with scale (inclusive of the whole unit)	P120,000.00	50%
Spray race	P150,000.00	50%
Dip tanks for individuals	P 80,000.00	50%
Dip tank for cluster	P 200,000.00	50%
l) **Ostrich**		
Candling machine	P120,000.00	50%
Digital Walk-in Weight scale	P100,000.00	50%
m) **Rangeland management**		
Perimeter fence	P 1 million	50%

n) **Health**		
Ultra sound machine	P200,000.00	50%
x-ray machine	P200,000.00	50%
Dosing gun and other accessories	P 10,000.00	50%
o) **Dogs**		
Grooming equipment	P10,000.00	50%
Dog trailers	P50,000.00	50%
p) **Equine**		
Trailer	P50,000.00	50%
Grooming kit	P30,000.00	50%
Saddles	P20,000.00	50%

q) **Game farming and ranching**		
Capturing equipment	P200,000.00	50%
r) **Livestock digitisation**		
Software	P100,000.00	50%
ICT Gadgets	P200,000.00	50%
s) **Others**		
Slurry/dung spreader	P 300,000.00	50%
Pregnancy diagnosis kit	P 100,000.00	50%
Solar electricity	P 200,000.00	50%
Biogas digester	P150,000.00	50%
Fork lift	P150,000.00	50%

9. REWARD SYSTEM

Productivity based Reward Package

This package that is pinned on the productivity indicators on yearly basis, will be given to farmers for attaining the productivity targets and quality standards. For sectors with short production cycle, they should provide records that prove they have maintained the set standards and targets for the whole year. The assessment of these productivity standards will be done in conjunction with extension staff who will be monitoring the beneficiary's projects. The farmers who meet the set standards and targets as prescribed, will be rewarded with a set percentage of their annual cost of production. The rewards will increase gradually on annual basis for the next five years as prescribed in all livestock subsectors.

It is important to note that the rewards will be awarded to small scale farmer up to the large scale only and they will be in the form of electronic voucher to enable the beneficiaries to procure their production inputs.

Requirements

- Registration in Thuo Letlotlo management system.
- Citizen and citizen owned companies.
- Beneficiaries will be required to upload livestock production parameters into the programme system.
- Beneficiaries will be required to practice good livestock management practices.

Conditions

- Micro scale beneficiaries are excluded from rewards package.
- Performance targets will be monitored by Extension Officer on quarterly basis.
- Regular audits of the projects will be conducted.

THUO LETLOTLO PROGRAMME MAJOR PARTNERS

Ministry of Finance

- Administration of subsidized loans
- Management of livestock insurance

Ministry of Entrepreneurship

- Capacitation on agribusiness and access to markets
- Establishment of Agricultural Cooperatives

-**Ministry of Transport & Public Works**

- Construction of access roads to livestock production areas

Ministry of Lands & Water Affairs

- Validation of land and boreholes ownership
- Facilitation with access to government boreholes
- Water reticulation and waste management

Ministry of Environment & Tourism

- Facilitation with game/ranch farming
- Construction of electric fence in elephant prone areas

Ministry of Local Government & Rural Development

- Support with provision of database for destitute persons eligible for benefiting under the micro scale

Ministry of Labour & Home Affairs

- Facilitation with foreign farm workers permits
- Assistance with clearance of renewals/backlogs

Ministry of Trade & Industry

- Livestock Standards Development for all products along the value chain
- Establishment of livestock feed manufacturing companies

Ministry of Agriculture

- Provision of livestock extension support services
- Management of BAITS and livestock Management System
- Administration of Micro Scale grants

National Development Bank (NDB)

- Facilitation with Reward Vouchers to small scale to large scale beneficiaries
- Facilitation with enhancers for small scale to medium scale farmers
- Administration of subsidized loans for AMA, large scale farmers and community farms

Botswana Savings Bank (BSB)

- Disbursement of grants to Micro scale
- Disbursement of grants to Small, Medium and Special groups

Botswana Building Society Bank (BBS)

- Disbursement of grants to Micro scale
- Disbursement of grants to Small, Medium and Special groups

MODISA Livestock Management System Developers

- Development of Thuo Letlotlo Livestock Management System
- Management of BAITS

Botswana Agricultural Marketing Board (BAMB)

- Packaging veterinary inputs, equipment's and structures to microscale farmers
- Anchor market for fodders and livestock feed manufacturers

Botswana Meat Commission (BMC)

- Anchor market for feedlotters, Community farms, small scale to large scale farmers
- Facilitate market for smallstock

Botswana University of Agricultural & Natural Resources (BUAN)

- Technical support in programme development

National Agricultural Research and Development institute (NARDI)

- Research and Development for the livestock subsector

Botswana International University of Science and Technology (BIUST)

- Technology Research and Development

Ministry of Agriculture
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Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Annex: Code Of Conduct Project Parties E

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
Report No.	7326-BW

East and Southern Africa Division
Programme Management Department

Code of Conduct for Project Parties

Published by the IFAD Ethics Office

Preamble

IFAD and the Government of [insert country] signed a Financing Agreement ("the Agreement") for the [insert name of the Project] ("the Project).

As per the Agreement each Project Party[1] shall carry out the implementation of the Project with due diligence and efficiency, in accordance with IFAD's policies and regulations applicable to IFAD financed projects and in compliance with all applicable laws.

Project Parties shall therefore ensure that the Project is carried out in accordance with the provisions of the Revised IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations[2], as well as IFAD Policy on Preventing and Responding to Sexual Harassment and Sexual Exploitation and Abuse[3] (together the "Policies"). Failure to comply with these Policies may result in an investigation by IFAD and imposition of measures as referred thereto.

The objective of this Code of Conduct is to set out the standards of conduct expected from each Project Party in charge of the implementation of the Project. The conduct of Project Parties shall always be motivated by the highest ethical standards and the Code of Conduct shall serve as a source of guiding principles.

The Code of Conduct complements any other Code of Conduct that may be applicable to Project Parties. Any discrepancy or contradiction between the provisions of this Code of Conduct and any similar Codes of conduct shall be resolved in the best interest of the Project and in consultation with IFAD, as appropriate.

---

[1] Project Parties means each entity responsible for the implementation of the Project or any part thereof including Project staff such as the Project Coordinator and key Project Personnel as defined in the Financing Agreement and Project Implementation Manual. It may include also any third party financed against IFAD funds. See the General Conditions for Agricultural Development Financing.

[2] Revised IFAD Policy on Preventing Fraud and Corruption in its Activities and Operations.

[3] IFAD policy to preventing and responding to sexual harassment, sexual exploitation and abuse. See also the Guide for Borrowers/Recipients of IFAD funding.

Scope

The Code of Conduct shall apply to all Project parties involved in the implementation of the Project.

Guiding principles

All Project Parties shall adhere to the following principles:

i. Project Parties shall adhere to the highest ethical standards and as a result shall not engage in any form of unsatisfactory conduct or misconduct such as any forms of harassment, sexual harassment, sexual exploitation and abuse, and any forms of fraud and corruption in relation to IFAD funds when carrying out the implementation of the Project.

ii. Project Parties shall take all appropriate measures to communicate the Policies to any third parties and Project beneficiaries.

iii. Project Parties shall report immediately to IFAD any allegation of unsatisfactory conduct and misconduct related to the Policies they become aware within the context of the Project implementation.

iv. Project Parties shall not accept any gifts, money, decoration, honours, favours, entertainment, hospitality or any other benefits from any entity or individual in relation to the proper discharge of their duties as Project Parties.

v. Project Parties shall disclose to their supervisor any actual, potential or perceived conflict of interest. Conflicts of interest arise where the private or personal interests of the Project Parties may influence or appear to influence the impartial and objective performance of their duties. Private or personal interests include situations where Project Parties appears to benefit improperly, directly or indirectly, or allows a third party to benefit improperly, from their association with the Project.

vi. Project Parties are expected to exercise discretion in all matters related to the implementation of the Project. They shall not disclose without appropriate authorization, confidential information related to IFAD or the Project they become aware by virtue of their official position within the Project.

vii. Project Parties involved in procurement activities shall comply with applicable rules and procedures.

viii. Project Parties shall use and maintain assets such as cash, facilities, equipment, vehicles, software, hardware and supplies with the utmost care and respect, guarding these against waste and abuse, and shall be liable for their negligent loss or destruction. Project assets shall be used solely for purposes directly related to Project implementation or other authorized purposes.

ix. Project Parties are expected to refrain from any action, in the context of the Project, that may unfavourably or adversely reflect on IFAD or the Project.

I declare that I will abide by the Code of Conduct.

Signed on [insert date] in [insert location]

_____

Signature

[Title]

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2023

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Botswana

Botswana Livestock Commercialization Project

Project Design Report

Annex: Awpb Progress Report Preparation Guidelines

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
Report No.	7326-BW

East and Southern Africa Division
Programme Management Department

GUIDELINES

FOR PREPARATION OF ANNUAL WORK PLANS & BUDGETS AND PROGRESS REPORTS

Eastern and Southern Africa Division
International Fund for Agricultural Development

April 2005

GUIDELINES
FOR PREPARATION OF ANNUAL WORK PLANS & BUDGETS AND PROGRESS REPORTS

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ABBREVIATIONS & ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AIE	Authority to Incur Expenditure
AWPB	Annual Work Plan and Budget
BEF	Belgian Franc
BSF	Belgian Survival Fund
CI	Cooperating Institution
CKDAP	Central Kenya Dry Area Smallholder and Community Services Project
GOK	Government of the Republic of Kenya
HIV	Human Immune-deficiency Virus
ICB	International Competitive Bidding
IFAD	International Fund for Agricultural Development
KSH	Kenya Shilling
LS	Local Shopping
M&E	Monitoring and Evaluation
MOV	Means of Verification
NGO	Non Governmental Organization
OVI	Objectively Verifiable Indicator
PMU	Project Management Unit
PRA	Participatory Rural Appraisal
PY	Project Year
RIMS	Results and Impact Monitoring System
SDR	Special Drawing Rights
UNOPS	United Nations Office for Project Services
USD	United States Dollars

PREFACE

Projects and programmes assisted by IFAD are the main vehicle for working with member countries towards enabling rural communities and poor people to overcome their poverty. Activity planning, progress monitoring and evaluation of impact are important elements of effective and responsive project/programme management.

The Guidelines for Preparation of Annual Work Plans & Budgets and Progress Reports has been prepared with the aim to enhance programme planning and preparation, as well as progress reporting. The document is meant to provide an initial framework (adjusted according to specific country or programme contexts) for the preparation of Annual Work Plans & Budgets, as well as Progress Reports by programme implementers. It is also intended to serve as a standard guide for IFAD and its Cooperating Institutions, especially the United Nations Office for Project Services, in the exercise of their implementation oversight responsibilities. In effect, the expectation is that the *Guidelines* would save programme implementers and supervisors alike from having to "re-invent" the wheel in search of formats for work planning and progress reporting, while also improving the quality of tangible outputs. It is my hope that you will find the document useful and practical.

Joseph Yayock
Acting Director
Eastern and Southern Africa Division, IFAD

GUIDELINES FOR PREPARATION OF ANNUAL WORK PLANS & BUDGETS AND PROGRESS REPORTS

I. INTRODUCTION

1. This document has been prepared primarily for managers of IFAD-supported projects[1]. Managers is used in a broad sense, including Project Coordinators, Monitoring and Evaluation Officers, Financial Controllers, other members of a Project Management Unit[2] (PMU), and Heads of Departments or Institutions responsible for implementing parts of a project. What people in these positions have in common is managerial responsibility, which includes planning of project activities, control over project resources, monitoring of progress and results, and reporting on all these aspects.

2. The main objective of this document is to assist project managers to carry out two of their most critical duties, which require much attention each year: (a) annual planning and the preparation of an Annual Work Plan and Budget (AWPB); and (b) assessment of implementation performance and the preparation of progress reports.

3. The planning function is critical. During day-to-day implementation, an approved AWPB is the most important document in a project, and the principal guide on what to do and how to use resources. The quality of the annual planning process that leads to an AWPB can greatly influence the quality of implementation and project results. This process should not be a mechanical one that leads to simply doing more of the same activities that were done last year. The appraisal report should not be used as a blueprint, which could lead to simply doing what that document states should be done in a particular year. Instead, what is needed is a creative planning process, which identifies the best way to achieve project objectives and the most efficient way to use project resources from year to year.

4. Performance assessment is equally critical. Project management needs to continuously compare actual implementation progress with what was planned, and actual expenditure with what was budgeted. Progress reports play a central role in this. Implementation in a large project area and by many implementers, means that an elaborate system to collect data is required, which is then compiled in progress reports. These reports should be used by management to identify and solve problems, as well as identify and replicate successes. In addition, progress reports have a strategic management function: they should contain analysis of project performance and changes in the project environment that can then be used during planning for the following year and to modify project approaches and strategies.

5. This document has been prepared to address a felt need among IFAD-supported projects: the need for better and consistent guidance on how to prepare the AWPB and progress reports. The purpose of this document is to provide a common starting point for this, but not to establish a rigid standard, because the different characteristics of different projects and countries, as well as government requirements, call for certain flexibility. The aim is to provide generally acceptable basic standards, that can be expanded on and modified (for example, in accordance with government system) as needed, but that would nevertheless ensure that certain essential information is always included. Two fundamental questions regarding the AWPB and progress reports are addressed: (a) what should be included: the type of information; and (b) how should it be presented: suggestions on the report structure and format.

6. These questions will be addressed in two ways: by providing guidelines and by presenting samples. In Chapter II, the process of preparing an AWPB is discussed. Chapter III deals with AWPB content: what should be included as a minimum. Suggestions on how to present the information are also included. In Chapter IV, the different types of progress reports and their preparation are covered. Chapter V deals with the content and structure of the Annual Report.

[1] "Project" is used to refer to both projects and programmes.

[2] Almost all projects have some sort of Project Management, Coordination or Facilitation Unit, although their size, composition, and level of autonomy may vary. In this document, they are all referred to as PMU.

7. Guidelines, such as those presented in Chapter III and V, tend to be rather abstract when they suggest what should be done but don't show how it can be done. Therefore, a sample AWPB and a sample Annual Report are presented in Appendix A and Appendix B, using data from the Central Kenya Dry Area Smallholder and Community Services Project (CKDAP). These samples are considered to be in line with basic standards, and can be used as an initial framework for the layout of the AWPB and Annual Report, to be modified and improved to meet the specific characteristics and requirements of a particular project and country. It should be noted that the contents of this document and the samples are not some new invention, but represent current "good practice" based on analysis and discussion of AWPBs and progress reports produced by some 25 projects in the region in recent years.

II. PLANNING

A. Planning Principles

8. Many IFAD-supported projects have several major components and a range of implementing agencies. Activities under each component and by the various implementing agencies should reinforce each other and jointly lead to achieving the objectives of the project. Successful implementation, therefore, will require appropriate strategies and clear annual work plans, which will help to integrate the different activities, and to coordinate the efforts of different implementing agencies. To achieve this, a number of principles should be kept in mind:

- planning is a continuous process that takes place at different levels;
- planning should include a consultative, participatory process involving stakeholders; and
- planning should be objective-oriented, using a Logical Framework Approach.

B. Three Levels of Planning

9. Planning entails more than just preparing an AWPB. Throughout the life of a project, planning should take place at three levels: (a) strategic planning; (b) annual work planning; and (c) short-term activity planning.

10. **Strategic Planning.** An implementation strategy describes the approach that will be followed under the project, including basic principles, typical activities that will be implemented, and milestones that will generally be achieved along the way. For community infrastructure development, for example, basic principles could include: *participatory planning*; *affordable technologies and low maintenance requirements*; *community contribution*; and *community responsibility for operation and maintenance*. Typical activities would include: *regular progress meetings with local project committees* and *training them*. Milestones would include: *signing an implementation agreement*, and *formal handing over of completed structures*. A good strategy or logical model is one critical element for a project to succeed (Figure 1).

Figure 1. The need for a good project strategy or logical model (IFAD M&E Guide)

A Successful Project	Good theoretical [logical] model + Good implementation = Leads to project success
Theoretical Failure of a Project	Incorrect theoretical [logical] model + Good implementation = Leads to project failure
Failure in implementation	Good theoretical [logical] model + Failure in implementation = Leads to project failure
Absolute failure	Incorrect/illogical theoretical model + Failure in implementation = Leads to project failure

11. An initial project strategy for each component is normally outlined in the appraisal report. Ideally, project management will increasingly use analysis of the external environment, needs assessment, participatory planning and actual implementation experience to complement the project design. To facilitate this process, a strategic review should take place at least once a year, before planning and budgeting for next year starts. During such a review, actual implementation experience and performance evaluation would be used to decide what works and what does not work, to determine

if the project indeed appears to be heading towards achieving its objectives and whether new directions are needed.

12. Review of the project logic is an important aspect of strategic planning. Do the outputs that the project is producing lead to project outcomes as expected, or is something missing? If necessary, modifications could be made to the project strategy and approaches, which may result in deviation from the appraisal report and modifications to the logical framework.

13. **Annual Planning.** The project design and strategies only provide general guidance. IFAD-supported projects are implemented based on an approved AWPB, and annual planning therefore is the most important planning activity. Annual planning is expected to do four things:

- take local needs and priorities on board;
- review and where needed adjust the project strategy;
- set realistic targets for the year in line with implementation capacity; and
- produce a practical, user-friendly tool, the AWPB, that can direct implementation by multiple implementers and facilitate progress monitoring.

14. The AWPB is more than a guideline. It represents:

- a commitment of project management and implementing agencies to carry out a set of activities, produce specific outputs and achieve certain targets; and
- agreement by government and donors that the planned activities are appropriate in light of the project objectives, and approval to spend the necessary money as specified in the annual budget.

15. Modification of the activities that are described in the original project design can be done if needed, as long as such modifications are in accordance with the project objectives and the loan agreement. Any proposed changes to the original project activities, and amendment of the project strategy and implementation approaches, should be clearly described and justified in the AWPB.

16. **Short-term Activity Planning.** The AWPB will only define project activities that are to be carried out in general terms. It may indicate, for example, that *the primary school in Machele Village will be rehabilitated between March and November 2003*, or that *conservation training for five resource management committees in Sanga District will be carried out during July*. For each of these activities, an overall cost indication will be included. However, the AWPB will not provide details about the number of bags of cement to be bought for school rehabilitation, or how exactly the community will contribute, or who will be contracted as supervisor. Nor will the AWPB indicate which committee members are to be trained, what the venue of the training will be, and what training materials are required. In general, the AWPB does not contain operational details of planned activities.

17. Therefore, work planning does not stop with an annual plan: more is needed to achieve effective project implementation. Each implementing agency should use the approved AWPB as a starting point for detailed activity planning; close supervision and coordination of field activities; and progress review. This would be done during regular planning meetings, typically weekly or monthly, where it is decided exactly what activities need to take place during the coming month, when, where and by whom. Individual work planning should be considered as part of this process, because it allows for realistic planning based on the time a person actually has available for the project.

C. Participatory Planning Process

18. Although it is not strictly part of the annual planning process, needs assessment often takes place during the initial stages of project implementation and will be directly linked to planning. Needs assessment provides information about local social and economic conditions, problems, priorities and possible interventions. These exercises will inform implementing agencies about what is important

under each component for specific geographical areas, and as such will contribute to strategic planning. The findings will also be an important source of information for annual planning.

19. Most projects use some sort of decentralized or bottom-up planning process, starting from the community or beneficiary level, which contributes to the AWPB in varying degrees. This is important, but not easy to do well. The people involved are normally project staff who have had some training in how to facilitate the planning process. Annual planning workshops are commonly used to discuss and harmonize work plans among different implementing agencies.

20. There is scope for improving the quality of these processes. Needs assessment using Participatory Rural Appraisal (PRA), as a way to identify what communities want, should be properly balanced with technical and financial evaluation of proposed problems and solutions. *Dam construction* is a typical first demand by a community in response to *water shortages at the end of a dry season*; but when these shortages are caused by environmental degradation, *micro-catchment rehabilitation* may be more appropriate. There may also be alternative technical solutions that are more cost effective than constructing a dam.

21. PRAs can be time-consuming and costly, also for communities. Care should be taken to avoid excessive repetition of such exercises from year to year. An aspect that requires particular attention is training of facilitators who have the capacity to use participatory methods effectively and make the participatory process a meaningful one.

D. Logical Framework Approach

22. The use of objective-oriented planning or a Logical Framework Approach is not always well integrated in projects. It is common that at the start of annual planning, a project is explained in terms of, for example, having *a certain amount of money to spend in order to distribute a certain number of cattle to farmers* - because that is what the appraisal report says. The discussion then focuses on *who should be given animals and how to select and train the beneficiaries*. In fact, the project is aiming for a certain output, for example: *capacity for land preparation restored to pre-drought levels*. Restocking cattle for animal traction was identified as the means to achieve this output during project design. However, there may be a better solution than distributing cattle to individual farmers, and the discussion during annual planning should focus on how best to achieve that output: *capacity for land preparation restored to pre-drought levels*.

23. Use of a Logical Framework Approach in annual planning can be a good way to avoid a blueprint approach based on an appraisal report. However, in many projects, there is a weak understanding of the project objectives and design among staff and implementing agencies, which leads to mechanical planning, late submission of work plans, and activities that are not clearly linked to objectives. Using the logical framework could improve annual planning, but it is not a very easy tool. Its effective use would require that:

- a limited number of clear, general outputs have been defined under each component or specific objective, and a good output-to-outcome logic has been defined;
- the project logic has been reviewed, understood, revised as needed and accepted by key implementing partners as a good summary of the project design;
- the logical framework is presented in a user-friendly manner, a planning tool that is more easy to use during annual planning than the 4x4 matrix (as shown in Figure 2); and
- project staff have been trained in using a Logical Framework Approach.

24. The most striking feature of a Logical Framework Matrix is its hierarchy of objectives (the first column). Various documents and development agencies use different terminologies, but most commonly used may be the following: an objective is a general term for anything a project tries to achieve, a result is a general term for what is actually achieved. More specific terms for objectives and results at different levels of the Logical Framework are shown in Figure 2.

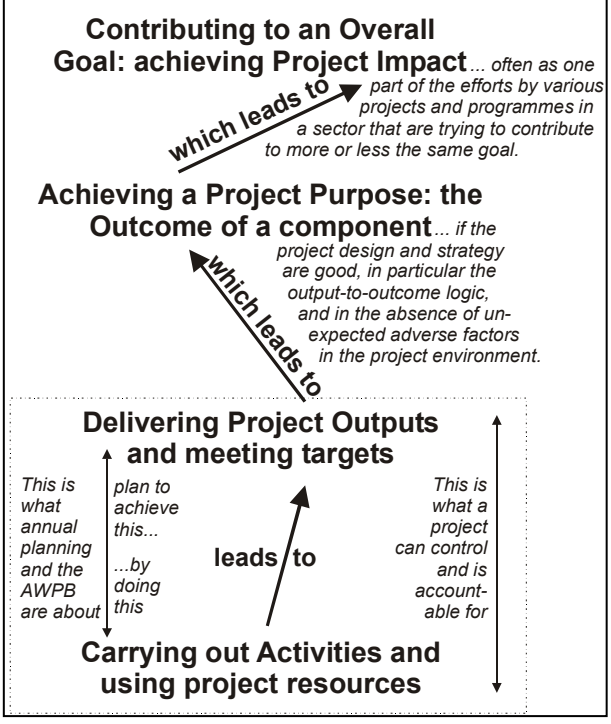
Figure 2. Logical Framework Matrix and hierarchy of objectives and results

Narrative Summary (hierarchy of objectives)	Objectively Verifiable Indicators	Means of Verification	Assumptions
Trying to contribute to a **Goal** (overall objective) leads to **Impact** - a little, or a lot.			
Trying to achieve a **Purpose** (project development objective) leads to an **Outcome**.			
Trying to produce an **Output** leads to **Output Delivery** - or not.			
Implementing an **Activity** leads to successful **Activity Completion** - on time, within budget - or not.			

25. Accountability of a project will be primarily at the bottom two levels of the logical framework (Figure 3): to carry out planned activities; deliver the outputs; and use resources efficiently while doing so. The process of preparing the AWPB therefore also concentrates on these two levels of the logical framework, and involves defining: (a) activities to be carried out in order to produce outputs; and (b) resources required to implement activities, including people, facilities, equipment, funds.

26. The hierarchy of objectives provides the link between day-to-day project implementation, for example *conducting a farmer training in fertilizer/manure application under dryland conditions*, and the overall goal of a project, for example *improved food security and nutrition for smallholders in semi-arid areas*.

Figure 3. The focus of annual planning



27. How this works is illustrated below.

- Under an agricultural development component, a project uses funds, equipment and staff (inputs) to *train farmers in fertilizer/manure application under dryland conditions* (activity). This leads to a specific result:
  - *30 farmers in Maji Moto village trained in appropriate fertilizer/manure application under dryland conditions* (after one such training); and
  - *3,560 farmers in the project area trained in appropriate fertilizer/manure application under dryland conditions* (after four years of implementation).
- This particular result at the activity level leads to the project delivering an output: *technical capacity of smallholders to successfully produce dryland crops has increased*. This output may not be due only to the training in appropriate fertilizer/manure application but may also be due to other activities, for example: *introduction of improved varieties of drought tolerant crops*; and *training in soil & water conservation techniques*.
- This particular output, maybe together with another output at the same level (for example: *improved access to farm inputs*), may result in achieving the purpose (objective) of this component and producing an anticipated outcome: *increased crop yields and reduced incidence of crop failure*.

- This Outcome may in turn contribute to achieving an overall goal and achieving impact: *improved food security and nutrition for smallholders in semi-arid areas*.

28. One of the biggest challenges is for projects to plan for delivering outputs: instead of planning for *10 farmer training courses on fertilizer/manure application under dryland conditions in project year 3*, because that is what is stated in an appraisal report, the question is: what is the best way to achieve *increased technical capacity of smallholders to successfully produce dryland crops*? By concentrating on another output, namely *improved access to safe water sources managed by the community*, a certain project changed from *boreholes with handpumps* in the project design to *protected wells with bucket and winch*, because it was concluded during discussions with the community that this was a cheaper yet feasible alternative that allowed more water points to be established, while easier maintenance and fewer problems with availability of spare parts made it a better alternative for community management.

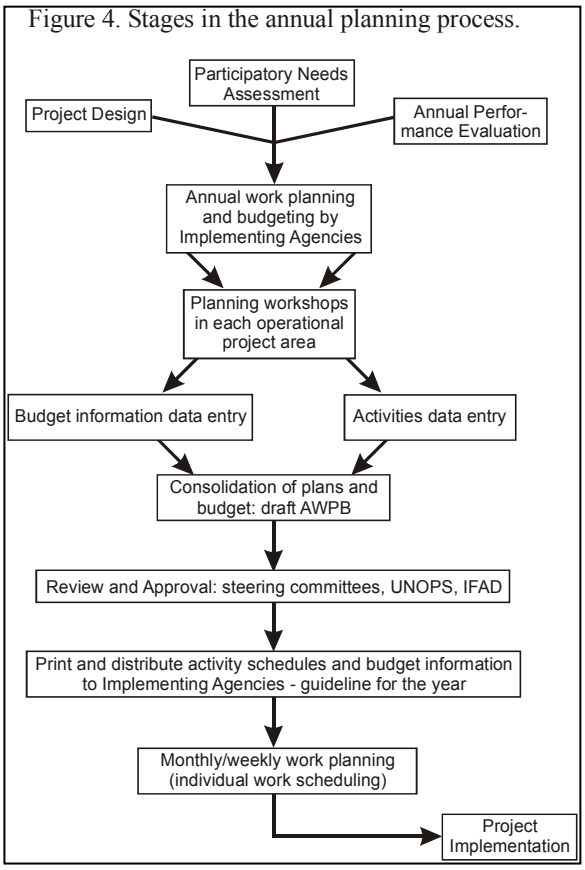
E. Stages in AWPB Preparation

29. The AWPB for the first year of the project will usually be based on the project design and will be prepared by a small team of experienced staff. From project year 2 onwards, the decentralized and participatory planning process should take over (Figure 4). Three important sources of information should be used when implementing agencies prepare their part of an AWPB:

- the project design, which provides the overall framework for project implementation[3];
- the findings of needs assessment and participatory planning exercises in the project area; and
- the findings of annual strategic review and performance evaluation[4].

30. The project design as provided in the appraisal report should not be regarded as a "bible" which could be adjusted/changed only at the time of mid-term review. While the appraisal report is to provide a basis, it is important for project implementers to continue reflecting upon the project environment, as well as implementation experiences, possibly to make adjustments required to operationalise the basic project design and project strategy.

Figure 4. Stages in the annual planning process.



31. **First Stage.** Implementing agencies may first carry out their own planning exercise, define the activities required to produce outputs, and resources required. It is useful to provide implementing agencies with a standard form or forms to assist in activity planning and budgeting at this level.

32. The various implementing agencies should then come together in a local planning workshop to discuss their proposals. This would be the first level where plans are checked in relation to each other, to the project objectives, the design, and the available resources. Synchronization of the activities of different institutions is very important at this stage.

[3] The project design and its subsequent adjustments would be referred to in various documents such as: the appraisal report; the logical framework; the Project Implementation Manual; loan and grant agreements, which contain specific conditions that should be met; letter to the borrower; and a mid-term review report.

[4] Annual performance evaluation can include: review workshops; assessment of changes in the project environment; use of performance questions to evaluate implementation experience and results under each component; analysis of past reports, prepared by implementing agencies, consultants; etc.

33. **Second Stage.** Implementing agencies would then submit their planned activities, together with a summary that explains and justifies the focus for the year, to a central level such as a district or regional office or the PMU. Project management should review the plans and budgets, contact the implementing agencies if there are questions and provide feedback as needed. Usually the data from activity and budget forms that have been submitted would be entered in a computer:

- planned activities are typically entered in tables or in a spreadsheet; and
- budget information is entered in tables, a spreadsheet or separately in an accounting package.

34. During data entry, it is possible to add codes to each activity, which identify the different areas where activities will take place and the institutions that will implement them. Using such codes, activities can then be sorted in different ways, and budget information can be aggregated more easily.

35. **Third Stage.** There is need to consolidate work plans and budget information at a central point – a head office of central ministry or the PMU. While it is possible to do this by sending computer files with planning and budget information for consolidation, it may be useful to use a participatory approach to this process, e.g. organize a stakeholder workshop.

- budget information will be consolidated in the AWPB and will result in budget summary tables; and
- activity schedules will be consolidated in the AWPB and will result in tables with planning information on outputs/activities, including a budget per activity, together with text that summarizes the focus for the year and justifies any proposed deviations from the project design.

36. **Fourth Stage.** The consolidated AWPB is presented to management, one or more steering committees and often the Ministry of Finance for approval. After this, the AWPB will be submitted to the CI (Cooperating Institution) and IFAD for comments and approval. After necessary amendments have been made and approval has been granted at all levels, the AWPB should be printed and distributed. During the year that follows, it becomes the main document that is used constantly by the implementing agencies, as well as by the CI as a basis for supervision.

37. There is often a deadline for submission of budget estimates to government, so that they can be included in the national budget and secure the government contribution to the project. The loan agreement will spell out when a draft consolidated AWPB must be submitted to IFAD and the CI for review and comments. Because annual planning can be an elaborate exercise, it is useful to summarize the different steps and their timing on a planning calendar that is made available to all implementing agencies, to ensure that:

- project requirements will be submitted on time to be included in the national budget;
- the draft AWPB will be submitted to IFAD and the CI on time; and
- all key implementing partners are involved in the planning process.

Figure 5. Example of an annual planning calendar

The project year in this case is from January to December.

Monthly	Work planning for next month - PMU and Implementing Agencies.
May	Strategic review by project management, modification of project strategy as needed.
	Prepare indicative budget for next year.
June	**15th** Project management reviews/approves budget estimates for next year.
	30th National Steering Committee reviews/approves budget estimates for next year.
July	Implementing Agencies complete detailed activity plans and budgets for next year.
	15th Local planning workshops to share and synchronize work plans.
	31st Implementing Agencies submit drafts work plans and budgets to PMU.
	31st Submit budget estimates for next year to MOF for inclusion in national budget.

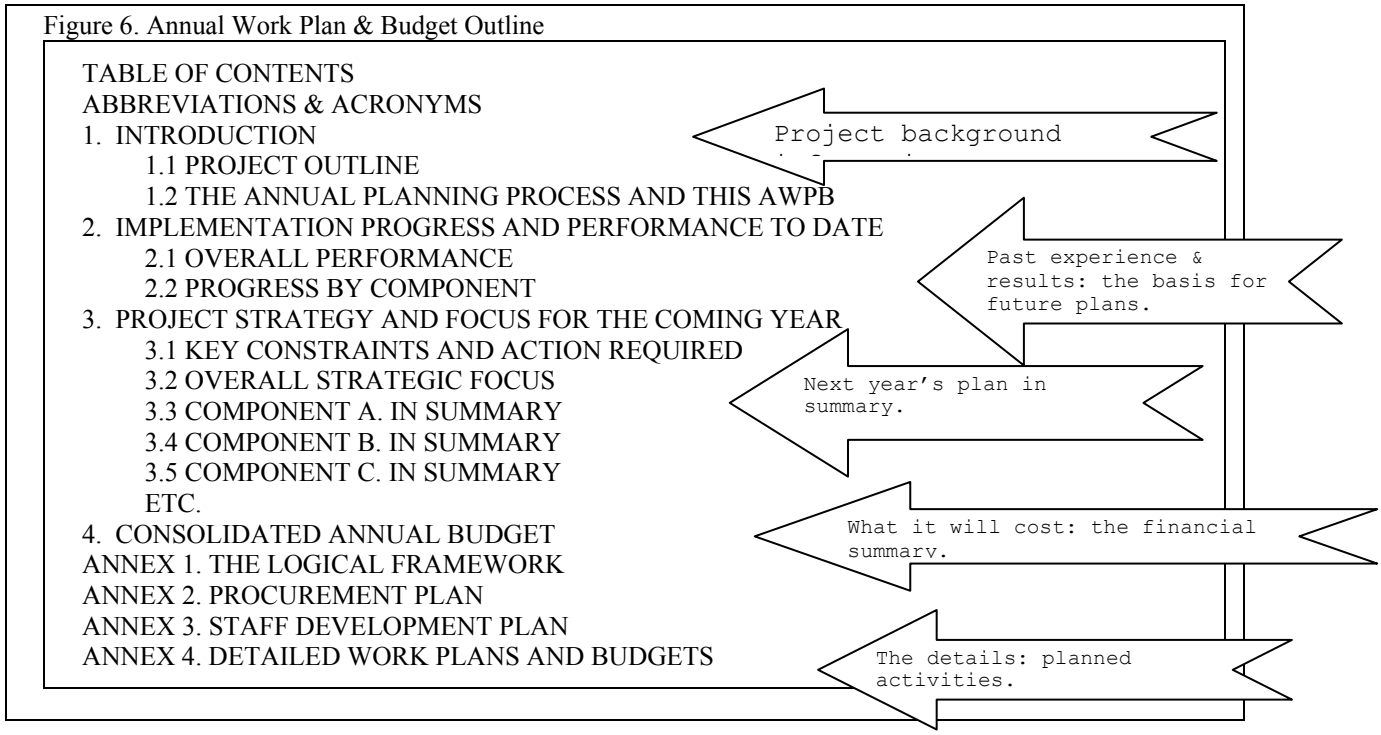
August	Local consolidation of plans; data entry of detailed plan and budget information.
	15th Review/approval by any local management units or steering committees of detailed plans and budgets for next year; submit to PMU.
	30th Consolidation of plan and budget information into draft AWPB at national level, including separate disbursement plans for donors and Government.
September	**15th** Central management and National Steering Committee review/approve draft consolidated AWPB for next year.
October	**1st** Submit draft AWPB to IFAD and the CI for comments and no objection.
November	**1st** The CI and IFAD provide comments; automatic approval if none is provided.
December	**15th** PMU distributes copies of approved AWPB to Government Ministries, IFAD, co-financiers, the CI, and all Implementing Agencies.

III. THE ANNUAL WORK PLAN AND BUDGET

A. AWPB Outline

38. Following a planning process similar to what was discussed in the previous chapter, bits and pieces of planning information will eventually reach the PMU, where they are combined in one overall AWPB for the project. What should be included in such an AWPB, as a minimum? This question is now addressed using the Table of Contents shown in Figure 6: each of the headings will be briefly discussed.

Figure 6. Annual Work Plan & Budget Outline



39. This Table of Contents is derived from the sample AWPB in Appendix A, and this chapter functions as a commentary on that sample AWPB. It is recommended to look at Appendix A while reading the description for the various elements below, to see what the different sections look like in practice.

THE COVER

40. The cover of an AWPB can function as a basic fact sheet, mentioning among other things:

- the country;
- the official name and acronym of the project;

- the financiers and cooperating institution;
- the version or status of the AWPB (draft, revised draft, approved);
- the year for which the plan is made; and
- the date the document was produced.

41. Once a good cover has been designed, it can be used both for the AWPB and the Annual Report, and the information can simply be updated. Because AWPBs may be used in future for reference and comparison, it is important to clearly mention for what year (e.g. calendar year 2003 or financial year 2003/04) and what project year (e.g. Project Year 3) the AWPB is.

42. Should an Executive Summary be included in the AWPB? This is certainly an option, but it is not a requirement for two reasons: an AWPB is usually not so lengthy and complicated that it needs an Executive Summary; and it is actually quite difficult to write a good Executive Summary, while a poor one does not serve much purpose.

TABLE OF CONTENTS

43. A table of contents should be created: one or two levels of headings are recommended. Most projects provide a table of contents, but some clearly struggle to do so manually, with the obvious danger of getting page numbers and headings wrong. Try to ensure that computer training includes how to automatically create a table of contents using headings. Once that has been set up properly, it can be used every year.

ABBREVIATIONS & ACRONYMS

44. It is annoying for a reader to encounter unknown abbreviations in a text that are not explained. Include a list of acronyms and abbreviations at the beginning of the document to avoid this problem. Keep the use of abbreviations and acronyms to a minimum; they are a type of jargon that can keep the reader from fully understanding a document. As a general indicator, if a name is short or appears in the text three times or less, write it in full. A way to find the abbreviations that are used in the text is to do a spell check: the spell checker will stop at most abbreviations because they are unknown words. Once a list of abbreviations and acronyms has been prepared, it can be used every year in both the AWPB and the Annual Report, and there is only need to ensure that any new abbreviations are included.

1. INTRODUCTION

45. The introduction should be a section that gives essential background information about the project and about the AWPB itself. The purpose is to provide a quick reference for people in government and other stakeholders who do not deal with the project on a daily basis - but it should be brief (1-2 pages). The section could include two sub-sections: (i) Project Outline; and (ii) the AWPB.

1.1 PROJECT OUTLINE

46. This sub-section should give a quick overview of the project, summarizing the main features. For the CKDAP, the project used in the sample AWPB, this section includes (see Appendix A):

- the financiers (government, loan and grant details);
- key project dates (signing of agreements, effectiveness, project completion and closing dates);
- the project area and target group;
- the goal and purposes of the project;
- the titles of the project components and by whom they are implemented;
- the main coordination and management bodies; and
- a short description of each project component (1-2 paragraphs), stating the purpose of the component, the types of interventions, and who is responsible for implementation.

47. The information in this sub-section would be static (unchanging), which means it only needs to be written once, afterwards it can be used in every AWPB maybe with small modifications. It is therefore not advisable to mix the information in this sub-section with other more dynamic (changing) information, such as a summary of implementation progress to date, or budget summaries for the coming year. It is also not useful to make this a long sub-section that describes details of component strategies and implementation methods, that is the function of an appraisal report and a Project Implementation Manual.

1.2 ANNUAL PLANNING AND THIS AWPB

48. This sub-section should briefly describe the process that has led to this AWPB, such as community-based planning that has taken place, consultations with other stakeholders, planning workshops held to discuss and synchronize the plans of various implementing agencies, etc. Avoid describing this process as it is supposed to happen or as it happens on paper. It is much more useful to describe what really happened, and if there are weaknesses in the process, mention them and what should be done to improve the situation next year. This sub-section could also be used to highlight some key considerations that influenced the AWPB, for example: *plans and budgets were reduced because they were considered too ambitious compared to implementation capacity and the performance of previous years*. Finally, something could be said about the structure of the AWPB itself, especially if it has changed since last time: in the sample in Appendix A, it is mentioned that *the CKDAP changed from having separate planning documents for each district to having one consolidated document*.

2. IMPLEMENTATION PROGRESS AND PERFORMANCE TO DATE

49. This section of about 2-4 pages should present information on the project's current status, progress with implementation to date, problems experienced, lessons learned and changes in the external environment. This information helps to set the stage for next year's plan. Since this section looks at the past, the information can to a large extent be copied from last year's Annual Report, and then updated based on experience of the current year. Make sure to summarize, otherwise the AWPB becomes a repeat of the latest Annual Report with endless pages of progress review. This section would summarize at least the overall performance of the project and progress by component.

2.1 OVERALL PERFORMANCE

50. In most projects, there are typical stages in implementation. First, it is common to find that at least during the first year, most effort goes into procurement, setting up offices, recruiting staff, signing cooperation agreements, etc. Second, during the first few years project activities may take place on a pilot basis, to be increased over time based on experience and performance. Third, the project area may grow over time, starting with a few sites or districts and expanding as capacity is put in place and experience is gained. It is also common that certain components take off well while others struggle; that progress in parts of the project area is slow but much better in others; and that the implementation capacity of implementing institution varies.

51. General trends as described above would be mentioned in this sub-section, and the stage that the project has reached in general terms. The overall performance from a financial point of view could be illustrated with expenditure to date: this information can be based on last year's Annual Report and updated with data for the current year. Variations in performance between components, parts of the project area and implementing institutions, and the reasons why these variations exist, is important because it helps planning to become more realistic and in line with existing capacities.

2.2 PROGRESS BY COMPONENT

52. This sub-section would describe what types of activities have been implemented over the past years, what specific outputs have been produced, what interventions have been successful and why, where implementation progress has been good and where it has been problematic. Presenting this

information by component would provide a basis for setting priorities for the next year - which after all is a key function of annual planning. Where does his information come from? The facts and figures should be available from a functional M&E system, and analysis of implementation performance should be available in implementing agency reports and from (annual) review workshops.

3. PROJECT STRATEGY AND FOCUS FOR THE COMING YEAR

53. An AWPB needs to explain in text what is expected to happen during the next year. This section should describe the annual planning process that took place, summarize critical constraints that have been identified and that need to be addressed, and describe the main focus for the year, new strategic directions, and the scope of activities for each project component. It would typically be 4-8 pages in size. This key narrative section should find a balance between simply listing proposed activities without sufficient explanation and justification, and too complicated presentation with excessive detail, in which case the AWPB would almost become another appraisal report.

3.1 KEY CONSTRAINTS AND ACTION REQUIRED

54. Planning and project implementation are expected to get better over the years. This can be achieved because experience is gained and staff capacity is developed. It can also be achieved by clearly identifying bottlenecks and constraints, and making a focused effort to resolve these. The purpose of this sub-section in the AWPB is to list the constraints that will need particular attention during the coming year; to identify what should be done to resolve these constraints; and to indicate who should be involved in problem solving. A simple table as shown below may be a good way to present this in the AWPB. Of course, the "actions required" in this table should be translated into project activities in the detailed activity and budget tables of various implementers.

Figure 7. Constraints that will require attention in the coming year

Constraint	Solution / action required	Responsible person/institution
. . . . .	. . . . .	. . . . .
. . . . .	. . . . .	. . . . .
. . . . .	. . . . .	. . . . .

3.2 STRATEGIC FOCUS

55. Any changes in the logical framework, and the general focus and direction of project implementation, would be described and justified in this sub-section. This could include aspects such as proposed expansion of the project area; changes in the management structure or implementation responsibilities; launching a general capacity building campaign; and an indication whether the focus is on consolidation and replication of interventions of previous years or the opposite, on venturing into new research and pilot activities.

3.3 COMPONENT A

56. This sub-section would describe, in text, the essence of component A for the coming year: the general focus; types of activities to be implemented and specific outputs to be produced; whether there is any particular geographical focus; and whether new implementing institutions or a different division of responsibilities among implementing institutions will be put in place. Where necessary, reference would be made to the planning and budget tables in Annex 4 (see the sample AWPB), where details can be found for each specific activity.

3.4 COMPONENT B

3.5 COMPONENT C

ETC.

4. CONSOLIDATED ANNUAL BUDGET

57. This section with budget summary tables should present a clear overview of the financial picture for the coming year: where and on what will money be spent? As a minimum, budget summary tables should present three budget summaries:

- consolidated budget by component (Figure 8);
- consolidated budget by category (Figure 9); and
- consolidated budget by financier (Figure 10).

Figure 8. The annual budget broken down by component and cost centre

Cost Center / Component		1.	2.	3.	4.	5.	6.	**Total**	**Proportion**
A.	. . . . .	USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	...%
B.	. . . . .	USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	...%
C.	. . . . .	USD					USD ...	USD ...	...%
D.	. . . . .							USD ...	...%
E.	. . . . .	USD ...					USD ...	USD ...	...%
F.	. . . . .	USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	...%
Total		USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	100%
Proportion (%)		...%	...%	...%	...%	...%	...%	100%	

See Appendix A for a complete table with data.

Figure 9. The annual budget broken down by category and cost centre

Cost Center / Category		1.	2.	3.	4.	5.	6.	**Total**	**Proportion**
I	. . . . .	USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	...%
II	. . . . .	USD ...					USD ...	USD ...	...%
III	. . . . .							USD ...	...%
IV	. . . . .	USD ...					USD ...	USD ...	...%
V	. . . . .	USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	...%
VI	. . . . .	USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	...%
Total		USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	USD ...	100%
Proportion		...%	...%	...%	...%	...%	...%	100%	

See Appendix A for a complete table with data.

Figure 10. The annual budget broken down by category source of funds

Financier / Category		IFAD	BSF	GOK	**Total**
I	. . . . .	USD ...	USD ...	USD ...	USD ...
II	. . . . .				USD ...
III	. . . . .				SD ...
IV	. . . . .			USD ...	USD ...
V	. . . . .	USD ...	USD ...	USD ...	USD ...
VI	. . . . .	USD ...	USD ...	USD ...	USD ...
	Total	USD ...	USD ...	USD ...	USD ...
	Proportion	...%	...%	...%	100%

See Appendix A for a complete table with data.

58. Cost centres can be geographical areas where the project is implemented (e.g. districts), or institutions, or both. Notice that for each component, category and cost centre, the budget amount as the proportion of the total annual budget is included. This makes it easy to compare how money will be divided between different areas, institutions, components and categories. The tables should be accompanied by brief comments, to explain anything that might raise questions in the tables, for example why a certain district will receive much less money or why a certain component takes such a high proportion of the overall budget.

59. Other budget summaries that address local requirements, for example using government budget codes, can be added. Make sure to present the budget summary information clearly and in tables, instead of in the text or scattered across different sections of the document. Consistency is essential, both within a summary table (do the numbers add up?) and between tables (are the totals the same in different tables?). Try to limit the number of budget breakdowns: once your project has a spreadsheet or accounting software up and running, it can be easy and tempting to produce a large number of budget summary tables, but this does not necessarily add value or clarity and should be done with caution.

ANNEX 1. THE LOGICAL FRAMEWORK

60. When the Logical Framework Approach is used during annual planning, it can be useful to include the logical framework matrix in the AWPB. This matrix may be a different version from the one in the project design or from last year, in which case the changes that have been made should be pointed out. In the case of CKDAP in the sample AWPB, a new tool has been introduced based on the logical framework to facilitate annual planning, and this planning tool is therefore included in the sample AWPB in Appendix A. Alternatively, the traditional 4x4 matrix can be included here.

ANNEX 2. PROCUREMENT PLAN

61. Procurement of goods and services is a critical management area that needs special attention, in order to ensure that project funds are spent wisely, and that the goods and services obtained under the project are in line with needs and of good quality. For these reasons, proposed procurement should be summarized in a table that lists all the facilities, equipment, technical assistance and other services that are to be contracted. Minimum information on each item should include a description with quantities, the procurement method, when the goods or services are expected to be delivered, and the estimated cost. Contract management is an important task throughout the year that follows from the procurement plan. A possible format to present the items to be procured is shown in Figure 11.

Figure 11. Sample procurement plan

No	Description of items/services	Quantity	Procurement method	Expected delivery / completion date	Budget estimate
1	Item A. of ... specifications	950	ICB	15/09/2003	KES ...
2	Service B. of ... specifications	5	LS	01/04/2004	USD ...
	Etc.				

ANNEX 3. STAFF DEVELOPMENT PLAN

62. Another area that requires special attention is staff capacity development. The success or failure of a project greatly depends on the knowledge, skills and commitment of staff involved in implementation. Staff capacity development involves defining the staff who should be involved in project implementation in the first place (numbers, qualifications and experience); and in addition, defining who should be trained, in what they should be trained, and how training should be carried out - which can range from on-the-job coaching at a construction site to Master's studies overseas. This Annex should show the key areas where staff development will be focused, by listing the proposed capacity building activities for the year.

Figure 12. Sample staff development plan

Comp	Name of person or description of persons	Description of training/activity	Proposed institution/trainer	Budget estimate
A	Individual A.	To be trained in X & Y	At ... institute	KSH ...
B	Group B. consisting of ...	To be trained in Z.	On the job training by ... trainer	KSH ...
	Etc.			

ANNEX 4. DETAILED OUTPUT/ACTIVITY PLANS AND BUDGETS

63. In addition to the main text, which summarizes what is expected to happen during the next year, the AWPB should contain tables with detailed activity schedules (timing and responsibilities) and budget information (resource requirements). Most projects prepare such tables, although the format can vary considerably. As a minimum, the data in these tables should include (Figure 13):

- a description of the activity;
- an indication where exactly it will take place;
- an indication when it will take place;
- quantitative information: a unit (e.g. training course) and how many (5); and
- budget information for the activity, including unit cost, total cost and cost classification (e.g. category).

Figure 13. Sample output/activity planning and budgeting table

Component: Primary Health Care
Output: improved access to good quality preventive and curative health services.

Dis-trict	Planned activity & location	When				Unit	Quantity	Unit Cost	Total Budget	Cat	Item	Who is Responsible / Comments
		Q1	Q2	Q3	Q4							
Nya	Construct a 100m^3 masonry water tank at Kiriogo Dispensary.		x	x		tank	1	466,030	466,030	1	400	DMOH. To start after rainy season
Nya	Purchase and distribute growth monitoring kits to CHWs in Kiriita Location			x		kit	30	5,600	168,000	2	220	DMOH. Weighing scale, tape measure, records
Nya	Non-residential training for CHWs of Leshau location on management of health issues		x			course	1	175,000	175,000	3	068	PHC Officer. 5 day training for 50 CHWs

Note: budget information includes Category (Cat), applicable to any project, and Cost Item (Item), budget codes specific for Kenya.

Alternative: separate activity and location

Planned activity	Where
Construct a 100m^3 masonry water tank.	Kiriogo Dispensary
Purchase and distribute growth monitoring kits to CHWs.	Shauri Sub-Location, Kiriita Location
Non-residential training for CHWs on management of health issues.	Leshau Location

Alternative: timing by month instead of quarter

When											
j	a	s	o	n	d	j	f	m	a	m	j
				x	x	x	x				
						x		x			
				x	x						

Alternative: two separate columns

Who Responsible	Comments
DMOH	to start after rainy season
DMOH	weighing scale, tape measure, records
PHC Implementing Officer	5 day training for 50 CHWs

64. Some choices to consider regarding the format of these tables:

- activity and location can be combined in one column; however, it is worth considering having separate columns to put more emphasis on where exactly activities take place, which can help with monitoring and physical auditing if that is necessary;
- timing can be indicated by quarter, which is recommended because attempts to do more precise planning have not added much value in most cases; but it is also be possible to plan by month; and
- budget information should include the Expenditure Category, which is relevant for any IFAD project; but other codes can be added, for example Item, which are Kenyan Government budget codes specific for the CKDAP.

65. The way that planning data is structured in the tables can vary, activities are often presented by area (e.g. districts) and by component within each area. In the CKDAP, planning data is structured by

component, and by cost centre (district or institution) within each component. This is a choice each project has to make. In either case, it is important that objective-oriented planning using the logical framework is used, which means that activities are planned in order to achieve a certain output; regardless of whether that output is presented under a component or under a cost centre.

66. Some projects integrate planning and budget information in one table, while others use separate tables: both have certain advantages. When using separate tables, activity tables (Figure 14) would focus on what activities takes place where, when, and by whom; and budget tables (Figure 15) would focus on quantities and costs. The advantage of having separate tables is that they make it easy to include more detailed budget information. However, this can become complicated, because it requires a fairly rigorous numbering or coding system that clearly links budget items in budget tables to activities in activity tables, while the information also quickly becomes too detailed for an AWPB.

Figure 14. AWPB with separate activity and budget tables: activities

Dis-trict	Planned activity	Location	When				Who Responsible	Comments
			Q1	Q2	Q3	Q4		
Nya	Purchase and distribute growth monitoring kits to CHWs	Shauri Sub-Location, Kiriita Location			x		DMOH	weighing scale, tape measure, records

Figure 15. AWPB with separate activity and budget tables: budget

Dis-trict	Planned activity budget items	Unit	Quantity	Unit Cost	Total Budget	Cat	Item	Comments
Nya	Growth monitoring kits for Kiriita Location: weighing scales	each	30					
Nya	Growth monitoring kits for Kiriita Location: tape measure	each	30	350	10,500	2	220	
Nya	Growth monitoring kits for Kiriita Location: record sets	set	30	750	22,500	2	220	a set is one box file, three record books, one pen and pencil

This is too much detail for an AWPB – but the data must be available for reference purposes.

67. The level of detail that is contained in the AWPB deserves special attention. Finding the correct level of detail in describing activities is a difficult balancing act. Too much detail can be unrealistic, removes flexibility and makes work plans unwieldy. On the other hand, too much aggregation results in an AWPB that does not present planned activities, but only shows summarized budget lines. What is the best way to go about this? The AWPB should contain enough detail so that it can be used by implementing agencies for short-term work scheduling. In principle, one row in planning and budgeting tables should represent a single activity, with information on what, when, where, and a total budget for the activity. Excessive budget detail should be avoided. Several similar small activities can be grouped together in one item. Major activities and large investment should be split in components or stages.

68. Some examples of activities that would be listed as single items are: construction of infrastructure (e.g. *a borehole, a school block*); a study or survey (e.g. *a mini survey on the impact of community-based health services*); a training course, workshop, study tour (e.g. *annual review workshop in district X*); environmental rehabilitation (e.g. *reclaiming a gully; terracing an area*); etc. Budgeting would be in the form of one amount for such an activity, e.g. *a three-day annual review workshop for 35 people at a cost of KSH 217,500*, without going into details such as how much of that amount is for travel, accommodation, materials, meeting room, and a facilitator. Of course, these details are worked out when the actual budgeting is done, and the information should be kept by the responsible institution for reference, but for an AWPB it would be too detailed.

69. Some examples of several smaller activities that would be grouped together as single items are: small infrastructure works (e.g. *ten demonstration VIP latrines in Thirigutu Sub-Location*); small training activities (e.g. *five Sub-location training courses in Tebere Location for community councillors on HIV/AIDS & VCT*); trials and demonstrations (e.g. *20 maize and small grain variety trials in Nyeri District*); distribution of inputs or demonstration materials (e.g. *distribution of 50 rabbits in Kiora Sub-location for stock improvement*); or loan disbursement under a credit line (e.g. *15 loans for small traders in Ndivai Sub-location*).

70. Large activities or investments would be split into several items in the AWPB. One example is investment in large infrastructure, such as irrigation schemes, which could be split into elements: *survey and design*; *headworks*; *pipeline*; *major canal*; *in-field system*; *supervision* could each be a separate line item. Another example is large procurement, for example medical equipment for a district hospital, which could be split into single items or sub-sets: *laboratory equipment; maternity wing equipment; recovery room equipment; offices equipment*. A third example could be a large and costly training programme, for 40 senior medical officers in the project area, for which the *classroom stage*, the *subsequent field work*, and the *international workshop* could be listed as separate items.

71. In addition to specific activities carried out to produce a project output, there are always more general budget items that are not directly linked to a project output. Typical items are utilities such as telephone and electricity bills, general office stationary expenses, procurement of a vehicle for an institution at national level, training for an M&E Officer, or meetings of a national steering committee. These could be presented in separate tables, again by component and cost centre.

72. Many projects face problems with implementing agencies that do not adhere to formats when they submit their work plans, which results in either a major editing task at central level, or an AWPB with different sections that are not consistent in their presentation and therefore more difficult to consolidate and monitor. Mandatory use of standard paper forms and simple templates that cannot be changed, for example in Excel, are a relatively easy way to address this issue.

B. AWPB Basic Standards

73. In this chapter and in the sample AWPB in Appendix A, many details have been discussed regarding the content and structure of an AWPB, which are intended as suggestions to be considered. Each project should decide how to present the information in the AWPB, and whether to add additional information. A key choice is how to structure the AWPB: information is often presented by component, and this is what has been done in the sample AWPB in Appendix A, where activities are organized by component, and by district under each component. Alternatively, information could be presented by geographical area, or by institution, and broken down by component under each of those. Whatever the choice, it should be used consistently from year to year to facilitate comparison.

74. While there is considerable flexibility, each project should seek to produce an AWPB that includes the following basic points:

- a comprehensive cover page, table of contents and list of abbreviations and acronyms;
- a project outline section that presents essential background information on the project;
- a section that summarizes implementation progress and performance to date;
- a core section that describes the project strategy and focus for the coming year, and that says something about:
  - the process that has led to the AWPB;
  - key constraints to be addressed and proposed actions;
  - overall strategic focus for the whole project during the coming year;
  - more specific description of the project focus, by component, or by geographical area, or by institution;
- a section with consolidated annual budget tables, which present financial data at least by:
  - component and cost centre;
  - category and cost centre;

- category and source of funds;
- a procurement plan, listing all proposed procurement for the year in table format;
- a staff development plan, listing proposed staff capacity building activities in table format; and
- detailed output/activity tables, with planned activities and their costs listed as line items, organized by component, geographical area, or institution.

IV. REPORTING

A. Reporting Principles

75. Progress reports are a formal requirement: the Loan and Financing Agreements dictate these requirements, and half-yearly and annual reports are usually to be submitted to IFAD and the CI. Sufficient information must be made available about what money is spent on, how much is spent on what, and what the results are.

76. The main functions of progress reports include:

- review current progress compared to planned activities, and expenditure compared to budget;
- provide overall status information on the project since it started, in terms of physical progress and total expenditure;
- identify problems during the reporting period and steps to solve these problems;
- analyse strengths and weaknesses, opportunities and threats;
- discuss quantitative and qualitative progress made in achieving overall objectives; and
- provide strategic direction for the next planning cycle.

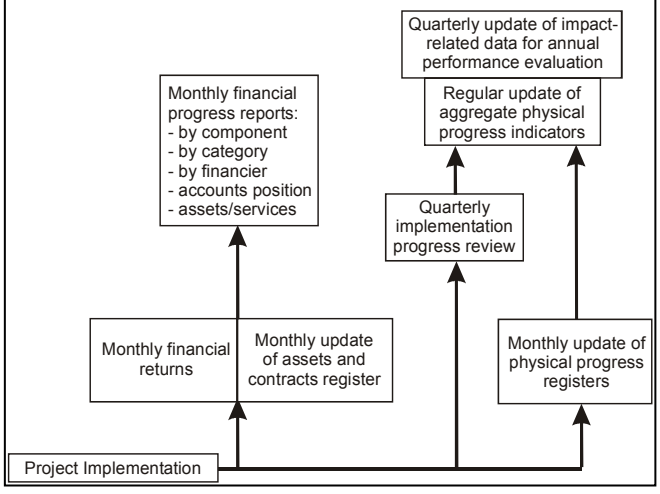
77. The primary importance of preparing progress reports is that it forces implementing agencies and project management to record data, review progress, reflect on outputs, evaluate performance, discover weaknesses that can be improved and successes that can be expanded on. It is this process of reflection and analysis that matters, hopefully leading to better plans and implementation in the future. The actual progress reports are simply the end product.

78. The AWPB is the basis for implementation during the year. Logically, one of the pillars for reporting is progress monitoring based on the AWPB: actual activities compared to planned activities, actual expenditure compared to budget. This needs to be done in a structured manner, and there are several challenges related to this activity:

- ensuring that it is actually done regularly by different implementing agencies at different levels;
- ensuring that formats used are consistent, so that comparison and consolidation of data is easier; and
- convincing implementers that the activity is an important management tool and part of the learning system of the project, instead of an obligation to satisfy the demands of superiors.

79. The function of project management is to give direction (consistent formats), create capacity (training in report writing), follow up on late submission of reports (create demand), use reports to identify areas where intervention is needed and provide feedback (justify the effort). Solutions and feedback as a result of reports is the best way to convince people that monitoring and reporting is worth the effort.

Figure 16. Elements of a monitoring system



80. A functional monitoring system will have to provide the data that is needed to prepare progress reports. The details of a monitoring

system are beyond the scope of this document, but any such system would have to include:

- standard formats for submission of financial returns on at least a monthly basis;
- a spreadsheet, database or accounting software to enter data and produce financial summary information (tables, graphs);
- standard forms, based on the AWPB, to record implementation progress and expenditure for each planned activity on a quarterly basis, and standard computer-based formats or templates to enter such data in a consistent manner, to facilitate consolidation;
- standard forms to record project results, in terms of activities completed and specific outputs produced, which will be the basis for physical progress summary information, and standard computer-based formats or templates to enter that data in a consistent manner; and
- standard forms and computer-based formats or templates to enter data on project resources, in particular registers of assets and contracts.

81. The first formal external project evaluation is usually a Mid-Term Review, which may or may not include a quantitative assessment; often, the first quantitative impact assessment is towards the end of the implementation period. It is risky to wait that long to evaluate whether a project is heading in the right direction, and there is need to regularly and systematically collect impact-related information earlier on. Based on the findings, conclusions should be drawn during Annual Performance Evaluation about the extent to which the project is moving in the right direction, and whether there is need to modify any project strategies.

82. First, annual performance evaluation should look at implementation results of the past year: the actual activities that took place compared to what was planned; the actual outputs that were produced compared to targets; and the actual expenditure compared to the budget. Conclusions will be drawn about implementation progress, capacity, and efficiency in terms of the use of project resources. Second, annual performance evaluation should assess the results or outcomes of components. Important aspects to be considered can include:

- the condition and use of resources and facilities established under the project (e.g. water points, markets, irrigation facilities, roads, schools);
- capacity, attitudes and performance of actors (e.g. village health committees, producer associations, local resource management committees, savings groups, traders);
- the adoption of methods (e.g. sustainable resource management, improved sanitation, new fertilizer/manure application methods, savings culture); and
- the opinion of the target group about improvements in the local situation and quality of services they receive (e.g. market access, price information, training and demonstrations, community-based health services).

B. IFAD's Results Management System

83. While the primary users of the information on implementation progress are project management and other local stakeholders, there is also a need for M&E systems and reports to satisfy minimum requirements by IFAD. Following the call by the Governing Council in February 2003 for the Fund to "establish a comprehensive system for measuring and reporting on the results and impact of IFAD-supported country programmes", the Executive Board of IFAD in December 2003 approved the "Framework for Results and Impact Management" now referred to as the Results and Impact Management System (RIMS)[5]. In accordance with this decision, IFAD is required to report to the Executive Board April sessions on the results and impact of the portfolio based on a number of standardized indicators in an aggregated manner.

84. This does not mean that all projects will be required to report on all RIMS indicators. However, each project will be expected to report on RIMS indicators of direct relevance to the project, and on a

[5] The document is available at IFAD's website: http://www.ifad.org/gbdocs/eb/80/e/EB-2003-80-R-6-REV-1.pdf

number of mandatory indicators: two 'anchor' impact indicators[6] (number of households with improvement in a household assets ownership index, and reduction in the prevalence of child malnutrition); the number of households that have improved food security; and the number of persons receiving project services.

85. What are the main practical implications of this new system for projects? The relevant RIMS indicators to be included in a project's M&E system need to be identified and agreed upon with IFAD. Again, this does not mean that monitoring and reporting systems will only focus on RIMS indicators, these would be additional to what already exists. Data and information on the agreed RIMS indicators that are relevant to the project will be reported preferably within the context of regular progress reports. For ease of reference and aggregation at IFAD, the data on RIMS indicators should be clearly distinguishable from other indicators used by the project, and should be presented in a standard tabulated format in progress reports. The table that summarizes physical progress in the annual report in this guideline follows the format that is proposed at this stage. The data reported under RIMS will then be consolidated at IFAD level. Since the system is still under development, more details will be forthcoming separately.

C. Types of Progress Reports

86. Progress reports are the most tangible result of monitoring. Usually, a distinction is made between quarterly, half-yearly and annual reports. Monthly reports are not strongly recommended, although specific implementing agencies may use monthly reports as part of their internal management systems. For an IFAD project, however, a month is generally too short to record significant change and prepare a consolidated report.

87. The function of quarterly and half-yearly reports is similar. It is recommended to see quarterly progress reports as internal reports of the project. These reports should concentrate on detailed review of actual achievements compared to planned activities and actual expenditure compared to budgets, and they would primarily consist of a collection of progress review forms that have been submitted by various implementing agencies (Figure 17). The PMU would add a brief analysis of implementation progress (1-2 pages), to highlight main achievements, to identify problems such as delays or over-expenditure, and the factors that cause such deviation. The result should be immediate intervention and problem-solving by management.

Figure 17. Outline for quarterly and half-yearly reports

1. MAIN ACHIEVEMENTS AND IMPLEMENTATION PROBLEMS (1-2 pages)
2. MANAGEMENT RESPONSE AND PROPOSED ACTIONS (½-1 page)
3. DETAILED AWPB-BASED PROGRESS REVIEW

Component: ...
Output: ...

Planned activity & location	Unit	Quan-tity	Budget	Cat	Item	Achievements & comments	Project expenditure	Beneficiary contribution
. . . . .	. . .	. . .	KSH . . .	. . .	. . .	. . . . .	KSH . . .	KSH . . .
. . . . .	. . .	. . .	KSH . . .	. . .	. . .	. . . . .	KSH . . .	KSH . . .
. . . . .	. . .	. . .	KSH . . .	. . .	. . .	. . . . .	KSH . . .	KSH . . .
. . . . .	. . .	. . .	KSH . . .	. . .	. . .	. . . . .	KSH . . .	KSH . . .
etc.								

This is from the AWPB.

This is progress information.

This format is discussed in more detail under the Annual Report

[6] For ongoing projects that carried out baseline surveys prior to approval of RIMS framework, Mid-Term Review will identify the RIMS impact indicators for which baseline data already exists. A suggested standard methodology for benchmark and impact surveys is being developed and is expected to be available by September 2005.

88. Half-yearly reports would normally be submitted to the CI and IFAD, but they would still have a similar function. Because of their short-term nature and internal management function, presentation and eloquent writing are not first priorities for these reports: a comprehensive, tabulated review of planned activities and their cost is sufficient. Again, a few pages with analytical observations should be added, listing key achievements, major deviations, implementation issues, resource constraints, and solutions.

89. The nature of annual reports is different. At least once per year stocktaking is necessary, in terms of where the project comes from and where it is going. In addition to a simple review of implementation progress, this requires analysis by project management. A full picture of project resources, achievements of the past year and since the beginning of the project, as well as annual and cumulative expenditure needs to be presented. Analysis is required of successful approaches and outputs, failures and constraints, performance of implementing partners, and whether progress is being made towards achieving objectives. Such analysis should lead to conclusions about the effectiveness of project strategies, the need for modification of the logical framework, and planning for the following year. Because of the importance of annual reports, their content and structure is discussed in detail in the next chapter, and a sample Annual Report is presented in Appendix B.

90. There are various specific financial reporting requirements, which can vary by project. These are described in the loan or financing agreement, and it is important to check those requirements and plan for them, so that the necessary data is available when needed. To illustrate, the following are requirements taken from the loan agreement of a certain project:

- financial statements of the operations, resources and expenditures related to the project, should be delivered to IFAD and the CI within three months of the end of each fiscal year;
- a certified copy of a long form audit report in accordance with international accounting standards will be delivered to IFAD and the CI within six months after the end of any fiscal year;
- statements of expenditure, based on which withdrawals from the loan account may be made, will be retained by the project and kept for inspection by representatives of IFAD and the CI; and
- activities *financed by the donor who is co-financing the project will be separately covered in financial reports*.

91. In addition to the above, a variety of special reports may be prepared under the project:

- reports on the findings of needs assessment, diagnostic studies, other studies and surveys;
- analytical reports by implementing agencies;
- completion reports for construction of infrastructure, including certification of completion;
- Environmental Impact Assessment reports;
- reports by contracted service providers (consultants, NGOs, etc.);
- evaluation reports (baseline survey report, case studies, impact assessment reports); and
- staff appraisal reports, related to the performance of project staff and implementing agencies.

92. All reports must be properly stored for future reference: there is as much scope for improving filing systems in most projects as there is scope for improving reporting. This is another important M&E responsibility. It is advisable to include the various dates by which reports are to be submitted in a monitoring & reporting calendar, similar to the planning calendar presented in chapter 2.

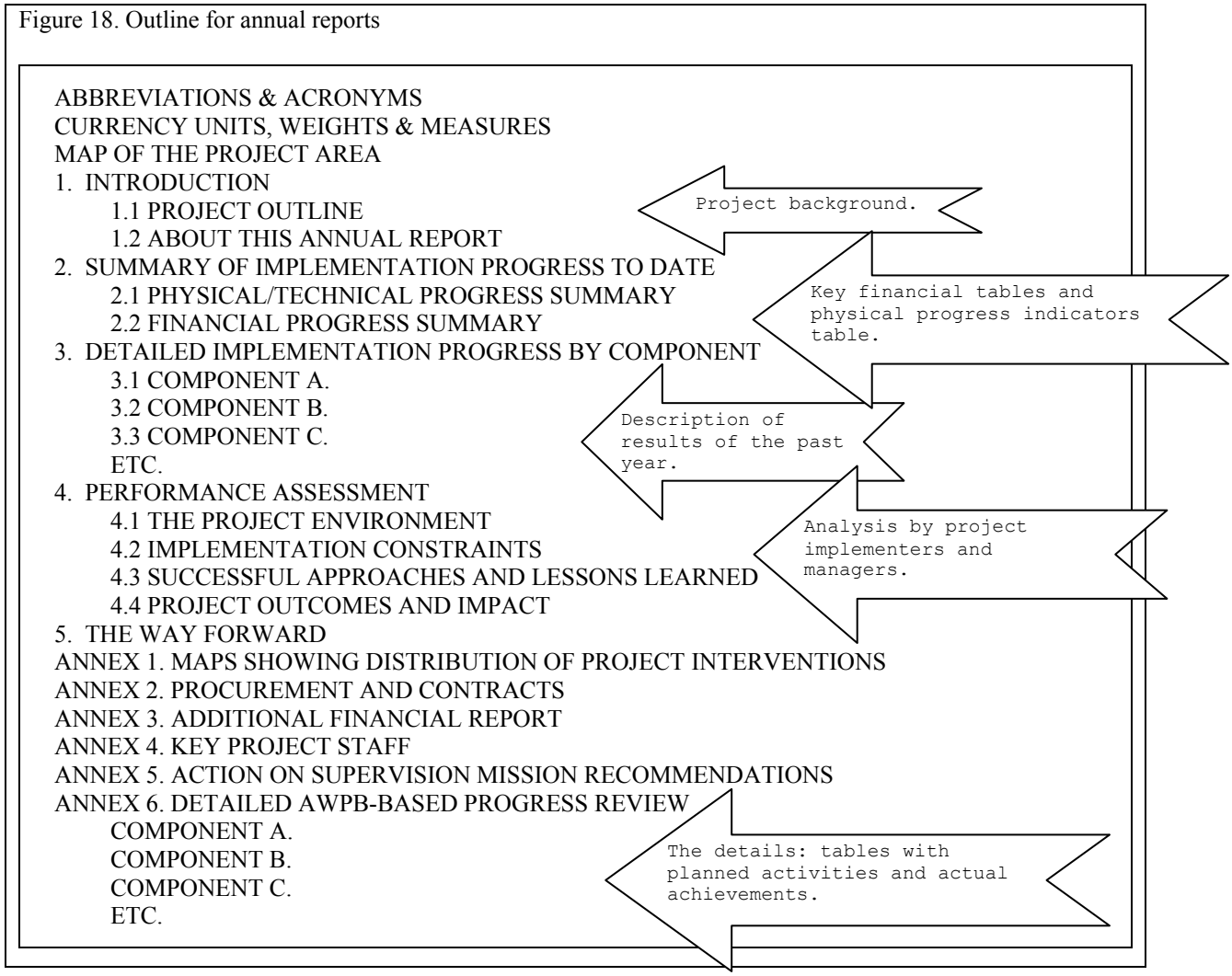
V. THE ANNUAL REPORT

A. Annual Report Outline

93. Hopefully based on a functional M&E system, different types of data will be collected throughout the year and will be combined, together with progress reports that are submitted by various implementing agencies, into the Annual Report. What should be included in such an Annual Report, as

a minimum, and how can the information be structured? This question is now addressed using the Table of Contents shown in Figure 18. This Table of Contents has been derived from the sample Annual Report presented in Appendix B, and each of the headings will be briefly discussed. Please refer to the sample Annual Report to see what the different sections look like in practice, while reading the description for the various elements below.

Figure 18. Outline for annual reports



ABBREVIATIONS & ACRONYMS

94. The same comments as those made under the AWPB apply here. A good list of abbreviations and acronyms only needs to be prepared once, and can then be used in all the AWPBs and Annual Reports. There will only be need for annual updates, if any new abbreviations are included. It is good practice to also list the currency units (KSH, SDR, USD), weights (pound, ton, bag... of how many kg?) and other measures (acre, hectare), and in particular any measures that would not be widely known (*ndebe*, bale... of how many kg?). Exchange rates are especially important because they fluctuate over time, and affect variables such as budget-expenditure comparisons and balances of project funds. For example, at year-end rates, a modest devaluation of 7% will mean that a 70% expenditure-to-budget ratio in Kenya Shilling terms is equal to a 65% expenditure-to-budget ratio in USD terms.

MAP OF THE PROJECT AREA

95. A general map of the project area is useful as a reminder for those who are not involved in the project on a daily basis. There are ways to make the map extra useful though. In particular, indicating how the project area has expanded over time would be valuable. This can be done by using different colours or shading for those parts of the project where activities have been going on since the

beginning; where activities started in PY2; where activities started in PY3; etc. The CKDAP has done this on its map in Appendix B.

1. INTRODUCTION

96. An Executive Summary may be included but is not a requirement, because an Annual Report should not be so lengthy and complicated that it needs an Executive Summary. Moreover, section 2 largely functions as an Executive Summary. The introduction should include some background information about the project and about the Annual Report, mainly as a reminder for people in government or outsiders who do not deal with the project on a daily basis. The section would include at least two sub-sections: Project Outline; and About this Annual Report.

1.1 PROJECT OUTLINE

97. This sub-section would be the same as the one in the AWPB, except maybe for minor changes that are necessitated by what has happened during the past year - but those would be minimal, and the information in this section will not change much from year to year.

1.2 ABOUT THIS ANNUAL REPORT

98. This sub-section could describe on what information this Annual Report is based, which could include mentioning specific progress reports that have been received from implementing agencies, consultants' reports, studies, important elements of the M&E system such as registers of assets and contracts, etc. It could also be useful to indicate how the report has been prepared. The basic facts and figures are often verified and consolidated by an M&E Officer, who may write much of the Annual Report. However, other people may be involved especially in writing analytical sections, and the findings may have been arrived at during one or more review workshops, or through specific impact studies. Similar to the AWPB, this sub-section could also be used to say something about the structure of the Annual Report itself, especially if it has changed since last time.

2. SUMMARY OF IMPLEMENTATION PROGRESS TO DATE

99. To some extent, this section functions as an Executive Summary, because it presents the financial and physical progress of the project on a few pages, mostly in tabulated form. The section should capture implementation progress not only for the particular year covered by the report but cumulative progress. It would also be important and useful to include combined/integrated analysis of financial and physical aspects: i.e. the budget and expenditure against physical targets and achievements (e.g. 80% of the budget has been spent on achieving 20% of physical progress targets).

2.1 PHYSICAL/TECHNICAL PROGRESS SUMMARY

100. The information in this sub-section will be based on detailed monitoring data that is collected from the field and which may be submitted by various implementing agencies. This data will have to be interpreted and summarized by an M&E Officer or PMU in order to produce a physical progress summary.

101. The aim of this section is to provide a quick insight into project results, principally at the level of key activities completed and specific outputs produced. Normally, only activities and outputs that have been completed would be listed, not those that are ongoing but incomplete. The table may initially be set up using results that are defined in the project design (appraisal report). For some of these results total project targets will be included, while for others quantities are omitted. Other activities and outputs can be added over time as they become relevant. Ideally, targets for activities and specific outputs will be clearly defined in an AWPB, but in practice even there quantities are sometimes missing.

102. Figure 19 shows a simple format to present physical progress summary information: items are listed, actual results for the year are compared to the AWPB, cumulative total results to date are

compared with the total project target in the project design, and there is a column for comments. This format is in line with the new RIMS of IFAD. Other columns could of course be added, but it has been found that more detailed information is either hard to find in practice or doesn't add much value, and the simple format is considered quite sufficient.

Figure 19. Summary of physical progress

Specific for IFAD's new RIMS.

Project results	Unit	RIMS level	AWPB target	Achieved this year	%	*Total project target*	*Cumulative Achieve-ments*	%	Comments
key activity / specific result 1	men	1	5	7	140	*na*	*19*	*na*	
key activity / specific result 2	women	1	15	5	33	*125*	*19*	*15*	Low effectiveness; no longer a priority
key activity / specific result 3	group		na	14	na	*62*	*59*	*95*	High adoption rate, will be given more emphasis in future
key activity / specific result 4	unit	2	na	2	na	*na*	*6*	*na*	
key activity / specific result 5	group		2	2	100	*12*	*6*	*50*	average 15 participants
Etc.									

Total Project: planned & achieved

103. A word of caution is necessary. The format of this table may reinforce the idea that all the quantitative targets for the various key activities and specific outputs (in the appraisal report) must be achieved. This is not the case, and this is where the "comments" column is important. The purpose of this table is on the one hand to show physical progress for the project as a whole towards delivering a total set of anticipated activities/outputs, but on the other hand to show where the project has decided to deviate from original targets, as indicated by comments such as "*Low effectiveness; no longer a priority*" or "*High adoption rate, will be given more emphasis in future*". It is, for example, quite normal that during the later years of a project, activities/outputs that were never included in the project design show up in this table, because they were found necessary or effective, with the comment: "*New activity not in the project design*". This also indicates the importance of periodic strategic reviews and learning for planning.

2.1 FINANCIAL PROGRESS SUMMARY

104. The data for this sub-section will most likely come from a Project Accountant or Financial Controller, who uses an accounting system to enter, analyze and report on all financial transactions. This system can range from a simple spreadsheet or database to advanced accounting software. Based on the detailed information in the accounting system, summary tables should be prepared for project management, implementing agencies, government and donors, on the overall financial performance and status of the project. This would include, as a minimum:

- expenditure by cost center and component;
- expenditure by cost center and category;
- disbursement by financier (external sources of funds);
- government and beneficiary contributions (local contributions); and
- the status of project accounts.

105. Each of the main project components has an approximate budget in the project design. Each component pursues its objective, and jointly the components will contribute to achieving the overall project goal. In this regard, the balance between the components, in terms of implementing activities, achieving outputs and using up the associated budget, is important. When expenditure under a certain component falls far behind the planned expenditure, this should be cause for concern, the reasons should be investigated and action taken. Financial progress by component (Figure 20) will provide the

information that is necessary to detect such an imbalance in expenditure. The information will also be useful to assess whether budgeting is realistic and to track expenditure over time. As an option, expenditure by component compared to the project budget can also be presented using graphs.

Figure 20. Financial progress by component

Component	2003/04 AWPB	2003/04 Actual Expenditure	2003/04 Actual Expenditure (USD)	2003/04 Exp/Bud (%)	*Total Project Budget*	*Total Cumulative Expenditure*	*Cumu-lative Exp/Bud (%)*
A.	USD ...	USD ...	USD ...	...%	USD ...	USD ...	...%
B.	USD ...	USD ...	USD ...	...%	USD ...	USD ...	...%
C.	USD ...	USD ...	USD ...	...%	USD ...	USD ...	...%
D.	USD ...	USD ...	USD ...	...%	USD ...	USD ...	...%
E.	USD ...	USD ...	USD ...	...%	USD ...	USD ...	...%
F.	USD ...	USD ...	USD ...	...%	USD ...	USD ...	...%
Total	USD ...	USD ...	USD ...	...%	USD ...	USD ...	...%

These tables could be prepared in USD or local currency.

See Annex 2 for a complete table with data.

106. Similar to components, the total budget of the project can be broken down according to types or categories of expenditure (Figure 21). These categories are not supposed to be overspent. The reason is the same as described under components: there is a certain balance in the project design, between different items and activities on which money will be spent. If this balance is lost, for example because far more money than expected is spent on vehicles and allowances and very little is spent on studies and training, certain aspects of the project will fail to work as expected. When expenditure under a certain category approaches the limit while other categories have a much lower level of expenditure, the reasons should be investigated. Financial progress by category will provide the information that is necessary to detect such situations, which may lead to reallocation. The allocation of the project budget by component and category is usually amended during a Mid-Term Review.

Figure 21. Financial progress by category

Category	2003/04 AWPB	2003/04 Actual Expenditure	2003/04 Actual Expenditure (USD)	2003/04 Exp/Bud (%)	*Total Project Budget*	*Total Cumulative Expenditure*	*Cumu-lative Exp/Bud (%)*
I	USD ...	USD ...	USD ...	...%	USD ...	USD ...	...%
II	USD ...	USD ...	USD ...	...%	USD ...	USD ...	...%
III	USD ...	USD ...	USD ...	...%	USD ...	USD ...	...%
IV	USD ...	USD ...	USD ...	...%	USD ...	USD ...	...%
V	USD ...	USD ...	USD ...	...%	USD ...	USD ...	...%
Total	USD ...	USD ...	USD ...	...%	USD ...	USD ...	...%

See Annex 2 for a complete table with data.

107. Financial progress by component and by category can be presented in more detail than shown in the above tables, for example by breaking down the expenditure data by cost centre, or by presenting budget and expenditure data for all the previous years. This is optional; but data for the past year and cumulative since the beginning of project implementation is a minimum requirement.

108. Most projects have several sources of funds: an IFAD loan, co-financing by other donors usually in the form of grants, the government contribution, and beneficiary contribution. Assumptions are made in the appraisal report about the contributions of different financiers, and these assumptions are formalized in loan and grant agreements.

109. It is important to track the cumulative disbursement for each financier, in relation to the total amount committed, in order to know how much money the project has left. One complication is that the commitments of the different financiers may be defined using different currencies: the IFAD commitment is usually in Special Drawing Rights (SDR), while other commitments may be in Belgian Francs (BEF), U.S. Dollars (USD), etc. It will be important to record exchange rates on the date of any disbursement, direct payment, or government contribution. If this is not done properly, a project may

assume that it still has substantial funds remaining, while in fact most of these remaining funds have been lost due to exchange rate fluctuations.

Figure 22. Disbursement and balance by source of funds (external financiers)

Category	IFAD (SDR)	Disbursed		Balance (USD)	BSF (BEF)	Disbursed			Total External Resources	
		SDR	%			(BEF)	%	Balance (USD)	Disbursed %	Balance (USD)
I.	SDR						%	USD ...	...%	USD ...
II.								USD ...	...%	USD ...
III.							...%	USD ...	...%	USD ...
IV.	SDR ...	SDR ...	...	...	...	BEF ...	...%	USD ...	...%	USD ...
V.	SDR ...	SDR ...	...%	USD ...	BEF ...					
VI.	SDR ...	SDR ...	...%	USD ...	BE					
Initial Deposit	0	SDR ...	100%	USD -...	0	BEF ...	100%	USD ...	100%	USD -...
Total	SDR ...	SDR ...	...%	USD ...	BEF ...	BEF ...	...%	USD ...	...%	USD ...

Disbursement data can be obtained from IFAD's "Status of Funds by Category" sheets.

See Annex 2 for a complete table with data.

110. The information on cumulative disbursement should be recorded by financier and by category. For each financier, this should be done in the currency used in the Loan or Financing Agreement, using appropriate exchange rates. This will ensure that the information available to the project is as accurate as possible, in terms of the total disbursements made and the remaining budget. Please look at the figures and explanation for the CKDAP in the Sample Annual Report for further clarification.

111. Government and beneficiary contributions (Figure 23) can be reported in local currency or in USD. In the latter case it should again be kept in mind that the exchange rates used for conversion will vary from year to year. Community contribution, mostly in the form of labour and material contributions, will have to be captured at field level and converted into monetary value, using a system of standard record forms and rates.

Figure 23. Government and beneficiary contribution (local sources of funds)

Expected Total Government Contribution			Actual government contribution this year	Actual government contribution to date		Expected total beneficiary contribution	Actual beneficiary contribution this year	Actual beneficiary contribution to date
Taxes	Budget	Total						
USD ...	USD ...	USD ...	USD ...	USD ...	...%	USD ...		

More detail could be added.

112. The project will receive its disbursement in one or more Special Accounts. Funds will usually be transferred from the Special Accounts to a central project account as needed, where the government contribution will also be received. From the central project account, expenditure may be incurred and disbursements will be made to operational accounts of implementing agencies. Money will be released from these operational accounts to buy assets, pay bills and carry out project activities. Accountability, including original receipts, will have to be submitted afterwards.

113. Project management should be fully aware of the status and performance of all project-related bank accounts, and relevant information should be included in the annual reports. The minimum required information would be the total amount of funds held in project operational accounts, this is funds disbursed and not accounted for[7], but preferably this information would be included separately for each implementing agency (Figure 24).

[7] Funds disbursed and not accounted for include the balance in the bank account of an implementing agency, imprests / advances held by implementers, and accountability received but held in the implementing agency and not yet submitted to the project accountants or PMU where it is recorded as expenditure incurred.

Figure 24. Status of project accounts

		KSH	USD	USD
Balance in IFAD Loan Special Account		x	USD ...	x
Balance in BSF Grant Special Account		x	USD ...	x
Balance in IFAD Loan Project Account		KSH ...	USD ...	x
Balance in BSF Grant Project Account		KSH ...	USD ...	x
Total		x	----------	USD ...
Balance at national level: implementing agency accounts and outstanding imprests	Institution A.	KSH ...	USD ...	x
	Institution B.	KSH ...	USD ...	x
	Institution C.	KSH ...	USD ...	x
	Institution D.			x
	Institution E.			
	Institution F.			x
District account balances and outstanding imprests	District A.	KSH ...	USD ...	x
	District B.	KSH ...	USD ...	x
	District C.	KSH ...	USD ...	x
	District D.	KSH ...	USD ...	x
	District E.	KSH ...	USD ...	x
Expenditure accounted for but not replenished (Statements of Expenditure & Withdrawal Applications in process)		KSH ...	USD ...	x
Total		----------	----------	USD ...
Grand total (equal to initial deposit in Special Accounts) =				USD ...

See Annex 2 for a complete table with data.

3. DETAILED IMPLEMENTATION PROGRESS BY COMPONENT

114. The physical progress summary would leave out much detail, such as activities and outputs that are ongoing but not complete. The summary table may indicate that rehabilitation of three schools has been completed last year, and seven since the start of the project; and that 17 maize and small grain variety trials have been completed during the past year, and 29 since the start of the project. But what did the rehabilitation of these schools entail (these may be significant investments!), and are there other schools where work has started but has not been completed? In which districts did the variety trials take place, and what are the findings? These details would be elaborated on in this section, in principle under the project outputs for each component.

3.1 COMPONENT A

115. Information would be presented under one or more project outputs that are defined in the logical framework matrix. In the sample Annual Report for the CKDAP in Appendix B, Component A has two such outputs for two different sub-components:

- Output: improved access to good quality preventive and curative health services (Primary Health Care); and
- Output: more safe water sources and community capacity to manage these (Domestic Water Supply).

116. Under these outputs, there should be a narrative description of implementation progress in some detail, and also using tables to provide more specific facts and figures, for example on infrastructure works on health facilities, and training of health caretakers. Such tables are unique for each project and would probably be designed by the person responsible for M&E.

117. It is recommended to structure the information under each project output as follows:

- first recap briefly what was planned for the year (this can largely be copied from the AWPB) and then mention what was actually done during the past year, explain what remains to be done, give specific reasons for any delay, postponement, cancellation, etc.; and
- secondly, present cumulative results since the beginning of the project.

118. The first point is included in Annual Reports of most projects in one way or another. The second point, cumulative progress, has been left out in many Annual Reports, but needs to be included. The Annual Report is the main analytical and strategic document that is produced by any project, and it must deal with total progress and results of the project in addition to describing what happened during the past year. If this is done consistently, the document will be able to better fulfil two of its core functions: to assist in management decision making; and to provide information for other key events during the life of the project, such as the Mid-Term Review and the Project Completion Report.

3.2 COMPONENT B

119. **Output: . . .**

- plan for the year: . . ., and what was actually done during the past year: . . .
- cumulative results since the beginning of the project: . . .

3.3 COMPONENT C

120. **Output: . . .**

- plan for the year: . . ., and what was actually done during the past year: . . .
- cumulative results since the beginning of the project: . . .

ETC.

4. PERFORMANCE ASSESSMENT

121. This section has been absent in most Annual Reports. It is an analytical section, where external factors that influence the project, positive and negative experiences and performance under the project, and the progress towards achieving project objectives are discussed. The findings in this section will form the basis for considering strategic changes that may be required to improve performance, and will provide an input for the next AWPB, in terms of constraints to be resolved and successful interventions that should be given more prominence.

4.1 THE PROJECT ENVIRONMENT

122. Various external factors, some of which may have been covered in the assumptions column of the logical framework matrix, can influence project implementation and results, and these factors may change over time. The environment in which the project has operated during the past year, in particular changes that have occurred and how these have affected implementation, should be described here.

123. What types of external factors are we talking about?

- One common example is unexpected or erratic weather patterns, which have influenced the outcome of research trials, or have delayed infrastructure works.
- Another common example is unexpected financial and economic developments, such as high inflation or unrealistic official exchange rates that have an effect on the available project resources, but also new market opportunities that can be taken advantage of.
- There may be political factors, for example a national election, due to which project vehicles have been unavailable and project activities have been paralysed during part of the year.

- Another example is technological change, that has made certain interventions in the project design irrelevant: mobile phone network coverage, for example, that has done away with the need for expensive radio equipment.
- Other projects and institutions in the project area can be an external factor, positively or negatively, for example, conflicting messages may reach a target group regarding community contribution, due to lack of coordination or different views.
- There can be changes in government at the policy and institutional level, in the form of new policies and laws that affect the project, and in the form of a changing institutional set-up that may have an effect on the project.
- Finally, the implementation may have been affected by unsupportive action or "unnecessary" interference by CI or IFAD.

4.2 IMPLEMENTATION CONSTRAINTS

124. Implementation constraints that are within the area of influence of the project and that could be resolved under the direction of project management, would be presented here. There is no limit to the types of issues and constraints that can be listed, just to give some examples:

- poor quality of infrastructure works (by project staff, contractors or the community);
- poor quality of services (by project staff, community-based service providers, NGOs, technical assistance);
- financial issues, such as late disbursement of funds, cash flow problems, delayed accountability, over-expenditure, outdated allowance regulations;
- problems related to other project resources, including lack of facilities or equipment, breakdown of vehicles, malfunctioning accounting software;
- inefficient or inappropriate use of project resources, such as excessive telephone usage, inappropriate use of vehicles, inflated cost of works or services;
- insufficient staff capacity, in terms of an inadequate number of people for certain tasks, or key positions that have not been filled, or lack of knowledge and skills; and
- other factors that hold back implementation of a project activity or sub-component.

125. Two suggestions should be considered for the presentation of implementation constraints. The first is: be specific. There is little point in mentioning that *allowances are too low*, they always are. It makes more sense to indicate that *government mileage rates for use of private transport are below actual fuel cost and only 35% of the nationally accepted rates used by the Automobile Association*. The second is: include a solution. When districts are without project funds for seven out of twelve months because of bureaucratic delays at national level, where exactly do these delays occur and how can they be addressed? When a certain project activity cannot be implemented, what is the best alternative use of the funds or what can be done to unblock the activity? A simple table as shown in Figure 25 can be used to present implementation constraints.

Figure 25. Implementation constraints

Implementation Constraint	Proposed Solution
. . . . .	. . . . .
. . . . .	. . . . .
. . . . .	. . . . .

4.3 SUCCESSFUL APPROACHES AND LESSONS LEARNED

126. This is where the positive results of the project are highlighted, which are often overlooked because the constraints require so much attention. However, a shift from activities and approaches that do not work to those that do work is actually a way to resolve certain types of constraints. Some examples of items that could feature here:

- successful innovations under the project: technologies (e.g. highly energy-efficient stoves, water harvesting techniques, silage making) or methods (e.g. to record community contribution, or better involve women in management committees) that show promising results and should be replicated;
- project interventions (new crop variety, pest control measure, fishing technique, lending product) that are "taking off", in the sense that people show interest or even better, that it is rapidly adopted and spreading among the target group; and
- more efficient ways of doing things and using project resources (e.g. reducing participants in meetings to essential members, transferring monitoring tasks to local committees, small performance allowances that increase productivity).

4.4 PROJECT OUTCOMES AND IMPACT

127. Useful information related to project purposes and the overall goal cannot be expected until a reasonable period after project interventions and delivery of outputs has passed. While there may not be anything to report in the first year and not much in the second, there is need to systematically collect data related to the project purposes and overall goal almost from the beginning of the project. In the first Annual Report, this may take the form of mentioning some of the key findings of baseline survey work that has been carried out. Standardized impact indicators under IFAD's new RIMS would have to be included and reported on in this sub-section.

128. From the second year onwards, the project needs to start analysing whether outputs that are being produced are actually leading to changes and benefits among the target group. As a minimum, examples should be presented of outcomes based on project outputs. At the early stages any major conclusions would be unwarranted, but this type of information does provide "pointers" for effects that project interventions appear to have, and this in turn can inform project strategy during annual planning. New technologies have been introduced, but are they being adopted and are they resulting in the increased yields, better quality or time savings that were expected? Access to rural credit and capacity to utilize loans properly has been improved, but is this leading to business growth and improved profit margins? Access to clean water sources and knowledge on sanitation and personal hygiene have increased, but has this reduced the incidence of water-related diseases and improved productivity? Have income levels and well-being improved among the target group?

129. The use of case studies, focus group discussions and mini-surveys would yield the type of information that is needed here. Case studies can be a good tool for qualitative analysis, and the possibility of systematically using case studies to collect impact-related data should be considered. Providing such case studies in boxes in annual reports, possibly accompanied by "before" and "after" photographs, may be an effective way of conveying messages. By the fourth year at the latest, a more formal quantitative impact assessment using baseline study results should be conducted, ideally in preparation for a Mid-Term Review so that the findings can be used in refocusing the project. While the results of such a wider study would be contained in a separate report, the findings could be summarized in this section of the Annual Report.

5. THE WAY FORWARD

130. This is the conclusion of the Annual Report. Based on the financial and physical progress, the analysis of project performance, and progress towards achieving project outcomes and impact that has been discussed in previous sections, where is the project heading to? What new directions, changes in the project strategy (methodology of components, community participation approaches, gender and poverty targeting) and logical framework (ineffective activities or outputs) need to be considered?

131. Should certain activities that have proven to be ineffective be abolished or scaled down? How should certain approaches that have not worked as expected be modified? How will inefficient use of project resources or construction of unnecessarily expensive structures be stopped? Should certain pilot initiatives, that were not foreseen in the project design but have had a significant impact, be

incorporated and expanded? How should capacity constraints that have been identified be addressed? The conclusions in this section will form the basis for a key section in the next AWPB: project strategy and focus for the coming year.

ANNEX 1. MAPS SHOWING DISTRIBUTION OF PROJECT INTERVENTIONS

132. Including detailed maps is optional, but they can certainly enhance a report. Maps can be used to show at least three fundamental characteristics of a project:

- coverage and outreach: what areas, districts, catchments are covered;
- interventions: for example, where have water points been constructed, roads rehabilitated, groups established, trials conducted, loans disbursed, surveys carried out; and
- impact (socio-economic indicators): for example what was the number of households per water point, the knowledge about HIV/AIDS and prevention measures, or the average level of savings in each district at the beginning of the project and at present?

133. The most common and useful maps in Annual Reports are those that show the spatial distribution of project interventions and specific outputs in parts of the project area. Using one map for the entire project area would normally make it difficult to show enough detail, so several maps may be needed. For the CKDAP, Annex 1 of Appendix B shows the map for one of the five districts of the CKDAP, Kirinyaga. It is not a very good map: the base map is hand drawn and doesn't include features such as roads or towns; the administrative boundaries are not very clear; the symbols could be improved; but at least it is a start.

134. Maps can be drawn by hand; photocopied with added hand-written information; scanned and edited with graphics software; produced by simple mapping software; or produced using sophisticated Geographic Information Systems (GIS). Using colours on maps can improve the clarity a lot, but remember that these documents are often photocopied, in which case that clarity may be lost. The challenge is to keep maps as simple as possible while producing mapped information that adds value to the Annual Report.

ANNEX 2 PROCUREMENT AND CONTRACTS

135. Projects make substantial investments in assets and contracted services. Project assets, such as vehicles, motorcycles, computers, or laboratory equipment are needed for implementation of the various components and must be used effectively. Contracted services will be used when the available staff capacity does not meet the project requirements, when specialized skills are needed or when the use of external services is more cost effective. Good management of contracts and external service providers is required to ensure that they produce the expected outputs.

136. Effective management of project assets requires a clear overview of the assets and their status. Essential information should be recorded for all assets in a register of assets, including depreciation and net book value (NBV). Also, the performance of service providers and technical assistance is an important concern of project management. Actual performance and output should be monitored and compared to the expectations as per contracts and terms of reference. To facilitate this process, the details of any contracted position or service contract should be recorded. For this purpose, a register of contracts should be kept similar to the register of assets. It is recommended that an extract of the register of assets and register of contracts is included in annual progress reports, showing all goods and services that have been procured during the past year (Figures 26 and 27).

Figure 26. Procurement of the past year

No	Description of the contract	Name of service provider (supplier, contractor, etc.)	Procu-rement method	Total contract sum	Contract date	Expected comple-tion date	Status of delivery/works	Total payment made
1	. . . . .	. . . . .	. . .	KSH . . .	. . .	. . .	. . . . .	KSH . . .
2	. . . . .	. . . . .	. . .	KSH . . .	. . .	. . .	. . . . .	KSH . . .
3	. . . . .	. . . . .	. . .	KSH . . .	. . .	. . .	. . . . .	KSH . . .

Figure 27: Fixed Asset Register – Format Example

No.	Date of Purchase	Particulars/ Description	Supplier	Amount (KSH)	Tax (KSH)	Total Cost (KSH)	Acc Dep (KSH)	NBV (KSH)	Location	Comment

[The columns for data entry may vary depending on types of assets (e.g. equipment or vehicles).]

ANNEX 3. ADDITIONAL FINANCIAL REPORTS

137. The financial summary tables that have been presented in the main text of the Annual Report are standard and applicable to any project. They represent a minimum requirement regarding financial information. In addition, there may be other more specific records that the project uses for its financial management and wishes to present in the Annual Report. It is recommended to dedicate one Annex to the presentation of such additional and more specific financial information.

138. In the case of the CKDAP, four types of tables are included in Annex 3 of the sample Annual Report. First, the project found that a major bottleneck is slow disbursement of project funds through the government system at national level down to implementing agencies at district level. It was therefore decided to record the different stages involved and track the time required for each step. The results are presented in two tables.

139. Secondly, it was found that the funds disbursed do not normally match the budget amounts, and another table was therefore prepared to compare the budget amounts in the AWPB, the amounts disbursed through the government system, and actual expenditure levels. Both these types of tables are quite revealing regarding the financial bottlenecks in the government system, that greatly affect the implementation of this project.

140. Thirdly, the table that is used in the main text to show the accounts position of the project is repeated in this Annex, only with more detail for implementing institutions at national and district level. Finally, Withdrawal Applications of the past year are listed in a table, in order to analyze the time it takes for Withdrawal Applications to be processed and replenished. Other types of tables could be added, based on specific needs and in response to specific financial issues in a project.

ANNEX 4. KEY PROJECT STAFF

141. It is not always clear who exactly is involved in project implementation, because staff turn-over can be high and the project organization as well as structure of government institutions may change. It is not possible or necessary to list all the people involved in a project, which can be hundreds. However, key staff, especially those with management responsibility, should be listed in an Annex. It would also be useful to indicate which positions are contracted or seconded. This list could include:

- members of a Project Coordinating Committee or Steering Committee;
- members of the PMU;

- overall managers or coordinators in parts of the project area, for example at regional, provincial or district level;
- who is responsible for M&E and for financial administration in parts of the project area; and
- senior staff of technical implementing agencies at field level who have management responsibility for implementation of parts of the project.

142. Instead of a listing as is done for the CKDAP in Appendix B, it is possible to present the same information in an organogram for the project. This may present an even clearer picture of the staffing structure, but only if it is done well, while it can be quite a bit of extra work and less easy to update if there are changes.

ANNEX 5. ACTION ON SUPERVISION MISSION RECOMMENDATIONS

143. Supervision missions can make an important contribution to improved project performance, through recommendations regarding financial and general management systems, comments regarding compliance with formal requirements such as audits, and also by reviewing the progress and results of technical components. Recommendations are not always perfect nor necessarily consistent from year to year, but on the whole these missions and their recommendations represent an important moment of quality control and dialogue on project results. It is therefore unfortunate that, afterwards, supervision reports are not always distributed to and read by implementing agencies, and are sometimes not used at all to follow up on the recommendations.

144. In order to stimulate a more active use of the supervision reports, the recommendations table of supervision reports should be included in the Annual Report (Figure 28) with a response by project management to the recommendations, mainly in terms of a description of action taken, although in some instances probably expressing disagreement with a recommendation. Which supervision report to use depends on the timing of supervision missions: if the latest mission came just a few months before the time of writing the Annual Report, little action would have been taken on the recommendations and it would make sense to use the previous supervision report.

Figure 28. Feedback on supervision mission recommendations

Recommendation	Action By	Comments / Action Taken
. . . . .	. . . . .	. . . . .
. . . . .	. . . . .	. . . . .

ANNEX 6. DETAILED AWPB-BASED PROGRESS REVIEW

145. Finally, it must be possible to verify implementation progress over the past year at the detailed level of individual planned activities (Figure 29). This Annex would therefore present the findings of the most fundamental monitoring activity:

- what is actual implementation progress of planned activities?
- what is the actual cost compared to what was budgeted?

146. Two important aspects of detailed progress review need to be pointed out. Throughout the year, this work would normally be done by different implementing agencies, just as initial annual planning may be carried out by different implementing agencies, and data would reach the PMU on a quarterly basis. Because the data then has to be consolidated, it is important that implementing agencies follow a standard format when they submit their progress review information, to avoid a major editing task at central level. This can be facilitated by distributing tables with planning information already filled in, which can be copied and pasted from the AWPB, and with empty columns where progress information can be added. If this is done using simple templates that cannot be changed, for example in Excel, both data entry and consolidation of the data from different institutions will be much easier.

Figure 29. Detailed review of implementation progress by activity

This can be quite complicated from an administrative point of view and is optional.

Primary Health Care

Nyandarua District - Output: improved access to good quality preventive and curative health services.

Planned activity & location	Unit	Quan-tity	Budget	Cat	Item	Achievements & comments	Project expenditure	Beneficiary contribution
Construction of maternity block at Ndaragwa Dispensary.	block	1	3,060,000	1	400	Materials procured & on site. 30% complete. To be completed during 2004/05.	1,007,520	264,500
This has been copied from the AWPB						*This is progress information*		
Purchase bicycles for CHWs and health staff in Kahutha Location.	bike	30	150,000	2	220	Not done, no funding in AIEs and Exchequers.	0	0
.....	...	...	...	...	...	...	...	...
Training of PHC implementing officer on Tools for Health Managers	per son	1	356,000	3	068	Done, Mr. Nderitu has been trained.	356,000	0
.....	...	...	...	...	...	...	...	...

147. Secondly, progress information in Figure 28 includes actual cost (project expenditure) and beneficiary contribution for each activity. In practice, both of these can be quite difficult to obtain. When expenditure has been incurred by the project, the related documents such as receipts are normally not linked to an activity in the AWPB, but are submitted to accountants as expenditure incurred under a certain component. Most projects are weak in systematically recording beneficiary contributions and standard rates to convert in-kind contributions to monetary value are often lacking. An attempt will have to made to capture community contribution, which is often mainly related to selected activities such as infrastructure development. Projects that feel it is necessary to capture expenditure data activity by activity may of course do so, but from the point of view of an Annual Report this is not a requirement.

B. Annual Report Basic Standards

148. In this chapter and in the sample Annual Report in Appendix B, many details have been discussed regarding the content and structure of progress reports, especially the Annual Report. As mentioned already for the AWPB, these details are suggestions to be considered as a starting point. Each project should decide how to present the information in the Annual Report; should to some extent design its own tables especially when reporting on the details of implementation progress and when presenting project-specific financial data; and whether to add additional information and what. Again, a key choice is how to structure the Annual Report: information can be organized by component, as is the case in the sample Annual Report in Appendix B, but could also be organized by geographical area or by institution.

149. While there is considerable flexibility, each project should seek to produce an Annual Report that includes the following basic points:

- a comprehensive cover page, table of contents and list of abbreviations and acronyms;
- a general map of the project area, preferably showing how the project expanded over time;
- a project outline section that presents essential background information on the project;
- a section that summarizes implementation progress for the past year and since the start of the project, including:
  - at least five key tables with financial summary data: expenditure by cost centre and component; expenditure by cost centre and category; disbursement by financier (external sources of funds); government and beneficiary contributions (local contributions); and the status of project accounts;

    - a table that is compliant with the new RIMS of IFAD and that summarizes physical progress, using both project-specific indicators and RIMS indicators;
- a section that describes implementation progress for the past year and cumulatively in some more detail, by component, by geographical area or by institution;
- an analytical section, where implementers and project management analyse project performance and factors that influence project performance, including information on project outcomes and impact;
- a section that draws conclusions and charts the way forward for the project, based on performance and experience gained;
- a tabulated overview of procurement and contracts of the past year and asset register;
- additional financial tables to meet project-, government- and country-specific requirements;
- a listing of key staff involved in the project, especially contracted positions and those with management responsibility;
- a tabulated overview of supervision mission recommendations and action taken; and
- detailed output/activity tables, where the progress made with implementing planned activities is reviewed activity by activity.

IFAD
Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Annex: Finance Management Manual For Bo L Co P Pim

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
Report No.	7326-BW

East and Southern Africa Division
Programme Management Department

Financial Management

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LEAD IMPLEMENTING AGENCY AND WITH FIDUCIARY RESPONSIBILITIES

1. The Lead Implementing Agency of the BOLCOP programme will be the Ministry of Land and Agriculture (MoLA) of Republic of Botswana. The PMCU will be responsible for overall fiduciary management of the Programme under MoLA will be the overall accounting hub for the Programme. The PMCU will be responsible for ensuring the implementation of Programme activities and will have the following fiduciary responsibilities:
   a) the preparation of Annual Work plans and Budgets ensuring a bottom-up approach and timely submissions for inclusions in Government overall approved budget estimates;
   b) Procurement planning, execution and support service;
   c) Disbursement of funds to other implementing agencies as per funds flow structure,
   d) Management of withdrawal applications from IFAD;
   e) Financial management of the Programme, including supervising and ensuring compliance with government regulations.
   f) Financial reporting and preparation of annual of financial statements for audits.
   g) Any requests for No Objection to IFAD will emanate from the PMCU.

PLANNING & BUDGETING

2. The Programme is funded by various sources of funds namely IFAD, GEF, Beneficiaries contributions and Government of Botswana and shall therefore be subject to specific procedures. Budgeting of expenses and planning of operations in implementation areas shall be strictly related. The programme design report, Financing Agreements and any amendments thereof shall constitute the general framework of any annual or activity budgeting process within the course of the Programme.

3. Annual budgeting is a contractual obligation of the Financing Agreement. The Programme budgeting will be done in accordance with existing Government of Botswana procedures. The Annual Work Plan and Budget (AWPB) shall be approved by Programme Steering Committee and receive a no-objection from IFAD. The AWPB will be prepared and submitted early on time to IFAD, at least two months before the start of financial year in accordance with IFAD requirements. The AWPB will form the basis for defining the Programme activities and ensuring that sufficient funds are allocated to achieve the agreed results.

4. The purpose of the AWPB is to provide the Programme's management team with specific time and activity schedules, as well as detailed budgets for the impending year, thus facilitating the mobilisation of staff and resources when they are needed. The Annual Work Plan of activities serves as the instrument for emphasising and integrating management priorities for implementation, forecasting main procurement requirements and assigning detailed work responsibilities between implementing agencies/ditricts and staff.

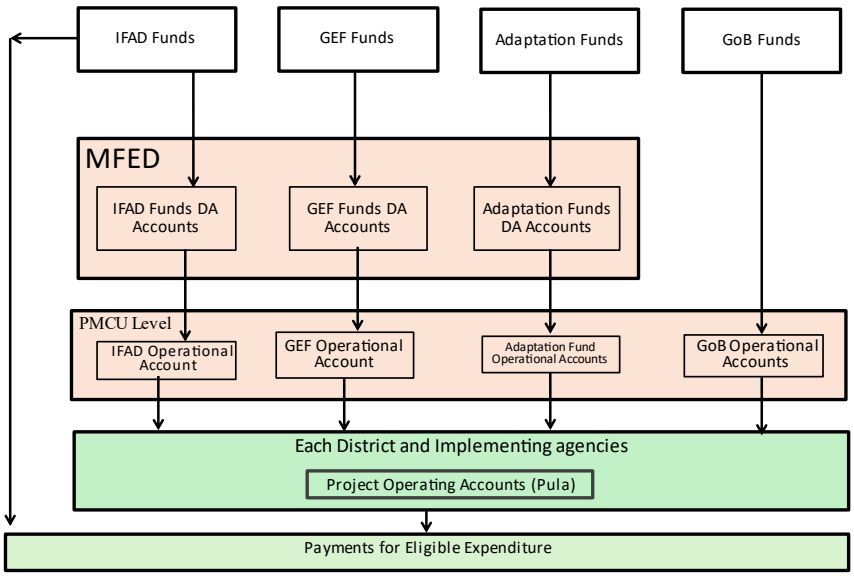
5. Cost estimates and budget allocations established during the development of the AWPB provide the basis for cost control and facilitate the release of funds by IFAD. The AWPB is the final document against which Programme performance shall be measured each year and the benchmark for monitoring physical and financial progress made by the Programme. The AWPB may be revised after half a year if significant changes occurred. It shall be the basis for reporting the Programme financial performance as per the required frequency (3 months). Non-compliance with budget / Cost Category may lead to cost ineligibility and a request for refund of already expensed cost to IFAD.

FLOWS OF FUNDS, BANK & CASH MANAGEMENT

6. IFAD disbursement procedures are outlined in detail in the Financial Management and Financial Control Letter (FMFCL). This part summarises the flows of funds and guides on cash and bank management.

7. There would be designated accounts for various sources of financing as per the funds flow diagram below to avoid commingling of funds. Each designated account will have a corresponding operational bank account in local currency. The project implementation is in-line with Government of Botswana administrative system; hence, funds are disbursed to activities to done in the districts. The PMCU would pay for most project activities directly. However, it is envisaged for funds to disburse further to implementing districts for the payment of activities. The PMCU will also maintain a separate bank account in local currency for receiving funds from Government and processing counterpart costs. Below is a diagram summarising the flow of funds:

Appendix 1: Flow of Funds Chart



Annex 7B: Comments on Flow of Funds Chart – BoLCoP

(a) The flow of funds structure for the Botswana Livestock Commercialisation Project (BoLCoP) ensures transparency, efficiency, and fiduciary accountability across multiple funding sources and implementation levels.

(b) **Designated Accounts (DAs) and Currency Structure**

- Separate USD Designated Accounts will be opened for each co-financier (IFAD, GEF, Adaptation Fund, etc.).
- Local currency (BWP) accounts will correspond to each DA to facilitate payments.
- Government counterpart funding will be managed via the Treasury Single Account (TSA).

(c) **Fund Flow to Implementation Units**

- The National PMCU (under MoLA) will manage all DAs and coordinate disbursements.
- Funds will flow to District PMCU units based on approved AWPBs.
- Procurement is decentralized for low-value items and centralized for high-value or complex contracts.

(d) **Disbursement Mechanism**

- IFAD disbursements will use the IFR-based method via the IFAD Client Portal.
- Quarterly withdrawal applications supported by forecasts and expenditure justifications.
- Direct payments to suppliers may be used for large contracts in foreign currency.

A Financial Management Manual (part of the PIM) will define fund flow protocols, reporting standards, and compliance requirements.

8. Direct payments would only be applicable under exceptional circumstances as will be described in the disbursements and Financial Management and Financial Control Letter (FMFCL).
   All procurements and key activities and will be processed and paid from the PMCU that will be anchored within the MoLA. However, for efficiency and convenience in processing some operational expenditures, the implementing agencies (districts and the semi-autonomous institutions) will receive budget allocations based on quarterly planned activities and be providing monthly financial and technical returns to PMCU. The reporting template will be tailored to be able to report clearly on each activity and easy to identity balances for each financier.

9. The PMCU would use the Government GABS/GABS/IFMIS system for recoding financial transactions and reporting to both IFAD. IFAD requires a financial system capable of (i) reporting expenditure per category and comparing budget vs actual for the current year and cumulatively since the start of project, (ii) reporting expenditure per component and comparing budget vs actual for the current year and cumulatively, (iii) reporting of expenditure per financier and (iv) extracting detailed listing of expenditure in required format. The GABS/GABS/IFMIS system is capable of multiple analysis code for reporting on component, categories, and financiers, for reporting quarter, cumulative for the year and cumulative since start including in-kind contribution will be acquired at the start of the project. The selection of project finance staff will also consider the competence of the candidates to use computerised systems.

10. Programme financial statements: and any unspent balance by the end of the reporting period shall be consolidated as part of the overall Programme cash and bank balances. All bank accounts in the Programme shall follow a double signatory arrangement and have at least three authorised signatories, out of whom two signatures shall be required to authorise any payment by bank transfer or check.

11. IFAD requires the borrower's representative, as designated in the Financing Agreement, to provide satisfactory evidence of the authority, as well as authenticated specimen signatures of the individuals assigned to approve a Withdrawal Application (or 'WA') on behalf of the borrower. A sample template of WA Form is provided in the FMFCL. Each WA shall be signed by the authorised individuals and IFAD shall be notified of any change in the list of signatories authorised to withdraw funds from the loan or grant account.

12. IFAD shall also be notified of the designated authorised signatories for operating any Programme-related account, including changes thereto, whether or not these authorised signatories are included in the Financing Agreement. Such changes, as effected during the life of the Programme, shall be communicated promptly to IFAD. The borrower, guided by the sample provided with the FMFCL, shall provide the names and specimen signatures of the newly appointed signatories and include the date when such change is to take effect. The original of such changed documentary evidence is to be provided to IFAD.

13. It is the Programme Financial Management Specialist's responsibility to ensure that all WAs are correctly prepared, that the documentation is complete and submitted to IFAD in a timely manner. The necessary forms and supporting documentation to be attached to each WA are outlined in details for each disbursement method in section 3 of the Disbursement Handbook.

14. The following staff positions have been provided for to ensure adequate coordination of payments for Programme expenditure, making appropriate accounting entries and financial reporting.

Implementation level	Programme Staff position and numbers	Remarks
PMCU	1. Financial Management Specialist. 2. Accounts Assistant	- The staffing is based on a similar IFAD funded Programme which has similar types of activities and implementation arrangement. - These staff will be hired or seconded on two/three years contract, renewable based on performance which is expected to enhance performance. - The staff will be hired as part of start-up activities.
Districts	3. Project Accountants	

15. The Programme Accounting team duties and responsibilities shall include:

- Setting up/Installation of GABS/IFMIS systems to ensure that the PMCU and especially the Project Coordinator are regularly informed of on-going financial status and transactions.
- Ensure timely capture of project in the Government of Botswana budget as required by the GoB budgeting processes and calendars including access to counterpart funding. Evaluate annual work plan and budgeting procedures, and budgetary control systems applied to monitor actual expenditures versus budget including commitment controls to avoid commitments beyond available resources.
- Communicate to all implementing partner institutions/ districts and service providers their financial responsibilities, the funds available and how to access it, and the requirements of reporting and record keeping in accordance with prevailing government practices which are acceptable to IFAD.
- Ensure that all project funds are used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided.
- Assess compliance with Government of Botswana laws and regulations governing public financial management including adherence to international accounting standards, audits and financial reporting.
- Ensure that all necessary supporting documents, records, and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers.
- Ensure that designated account and operational accounts are maintained in accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures.
- Contribute to the preparation of the Project Implementation and Financial Manuals.
- Ensure the Project's Financial Procedures as detailed in the Project Implementation and Financial Manuals are strictly adhered to by all project staff and executing agencies at the national and local levels.
- Ensure that the financial statements are prepared in accordance with the prevailing standards.
- Liaise with external auditors to audit the project accounts to meet the required submission dates by both Government of Botswana and IFAD. Review external auditor's reports (Audit Opinions and management letters), including any qualifications and whether any concerns raised by auditors have been adequately addressed.
- Liaise with the other project implementing agencies/districts to ensure that Interim Financial Reports are prepared in timely manner and forwarded to IFAD.
- Process documentation and follow up on disbursements from the government and IFAD to ensure that releases are not delayed. Ensure that funds for project

implementation are disbursed in a timely manner to enable project interventions to be carried out on time.
- Review eligibility of expenditure in accordance with the financing agreement.
- Report on the operation of internal control including budget controls and report any deviations.
- Assist the Project Coordinator with the resource mobilization of the Project.
- Deputize the Project Coordinator in matters project administration
- Any other duty as may be assigned by the Project Coordinator.

ACCOUNTING & FINANCIAL REPORTING

16. The PMCU under the MoLA will use government GABS/GABS/IFMIS system for financial transactions recording and reporting. IFAD requires a financial system capable of (i) reporting expenditure per category and comparing budget vs actual for the current year and cumulatively since the start of project, (ii) reporting expenditure per component and comparing budget vs actual for the current year and cumulatively, (iii) reporting of expenditure per financier and (iv) extracting detailed listing of expenditure in required format. The GABS/IFMIS system is capable of multiple analysis code for reporting on component, categories, financiers, for reporting quarter, cumulative for the year and cumulative since start including in-kind contribution will be acquired at the start of the project.

17. Programme activities are mainly in the form of receipt (income), legal commitment and expenditure of funds. The accounting system shall record, process, classify and organise essential data in order to produce useful financial information in the form of Withdrawal Applications (WAs), financial reports or budget vs. actual analyses that are needed by the Programme Financiers (i.e. donors and Government) as well as by the Programme management itself. The accounting system shall reflect the Programme's needs and be designed to provide the financial information required by all stakeholders (PMCU, IFAD, SSTC, GoB and other parties). It shall also fulfil all the legal and regulatory requirements of the borrower. The accounting system is a critical part of the Programme's financial management system and design.

18. Recording transactions in the accounting system shall be governed by the privileged codes defining the levels of access for different users, that is: active use for inputting / editing data; read-only access; or no access. This shall allow a separated and controlled access to the accounting module (i.e. journal recording, posting to general ledger). Each accounting transaction shall record the user's ID, thus preventing unauthorised access to the system and an adequate level of protection against the input of false data, or even the destruction of records. At the same time, the data-sharing nature of the system shall involve strict coordination and active data exchange among various users. In this respect the system shall ensure the reliability in information storage and fast data processing.

19. The GABS/IFMIS user's manual shall be an integral part of the financial management systems of the Programme and shall be completed by more detailed guidelines or instructions if necessary.

20. BOLCOP accounting policies shall notably take into consideration the national legislation as well as IFAD minimum reporting requirements. The Programme's main accounting policies shall be as follows:
    - Financial statements shall be drawn in accordance with IPSAS cash basis of accounting as by the recognition of receipt (income) and payment (expenditure) respectively;
    - Financial statements shall be prepared under historical cost convention;
    - Transactions in local currency shall be converted into the currency of the Designated Account using a 'FIFO' (i.e. 'First In, First Out') approach, i.e. the actual

rate arising from the latest transfer from the DA to the Birr denominated Operational Account thus avoiding currency exchange losses or gains.

21. The Programme chart of accounts shall: (i) be based on the Programme budget and Cost Categories; (ii) capture financial data under the appropriate headings / BOLCOP Components and Sub-Components; (iii) classify and group financial data for various financial reports; and (iv) record the sources of funding for each expenditure. The "cost centre" functionality, which is standard for many accounting software, shall be used, so as to draw analytical reports separately. Disbursement to the districts/partners will be made as advances. Recording of expenditure to the Programme accounting system will be done by PMCU based on expenditure reports submitted by the implementing agencies.

22. The Programme expenditure initiation, authorization and payments will be in line with BOLCOP organisational structure. The Programme Coordinator at PMCU or the Principal Secretary at MOLA shall approve all payments requests before they are forwarded for authorisation. The Financial Management Specialist at the PMCU will be responsible for proper recording in the accounting system and all financial reporting for the Programme and will produce a consolidated financial statement for all the components. The Financial Management Specialist will check to ensure there are appropriate expenditure supporting documents as per IFAD requirements. The Programme will not use external funds to pay for taxes within the country and to this effect, The Government will provide counterpart funds for payments of local taxes and levies or provide exemption from taxes.

Recording and processing of transactions

23. Transaction recording under the Programme follows the cash basis of accounting, which requires recognition of cash inflows in the period they are received and reporting of expenses in the period those expenditure is paid. Individual records of transactions are treated as source documents. For the Programme accounting purposes, the following source documents shall be considered: signed purchase orders / contracts, invoices and deliverables / delivery notes / goods received notes / completion certificates.

24. All transactions incurred shall be registered in the accounting software in accordance with the date of payment and under the form of journals. Journal shall contain sufficient and detailed information about the type of transaction, its amount and a reference to the source document. All transactions shall be entered into the accounting software using the principle of double-entry, meaning that each transaction shall be recorded twice: once on the debit side and once on its credit side. The accounting software shall automatically process those transactions and post them to the ledger where all transactions of similar type are recorded. Timely recording shall allow the production of timely reports.

25. The Financial Management Specialist shall verify the Programme accounts on a monthly basis. In case significant adjustment of accounting entries has to be made, the Accountant shall produce an annotation for the file in which the reasons and the way in which the adjustment has been made is explained. This note for the file shall be cleared by the Programme Financial Management Specialist and communicated to the Programme Coordinator.

Financial reporting

26. Financial Management Specialist at PMCU will be responsible for all financial reporting for the Programme and will produce a consolidated financial statement for the

Programme. The financial reporting will comply with International Public-Sector Accounting Standards (IPSAS) -Cash basis.

27. There shall be segregation of duties between staff members in the finance Team. Financial Management Specialist shall not only be in charge of recording financial transactions on a daily basis but also of summing up expenditure made under each Component / Sub-Component / activity and posting these totals on financial reports on a periodic basis during the reporting periods specified in the FMFC and the Grant Agreement. Periodic progress financial reports, shall include the following:

- Statement of cash receipts and payments by Cost Category: this report summarizes all sources of Programme financing as well as the uses of funds in accordance with the disbursement Cost Categories foreseen in the Financing Agreement with IFAD. This report also states the cumulative expenditure from the start of the Programme until the date of the report and the cash flow forecast for the following semi-annual period;
- Uses of funds by Programme category: this report details BOLCOP's expenditure by IFAD cost expenditure category / subcategory and by Financier.
- Uses of funds by Programme activity: this report details the Programme expenditure for each Component / Sub-Component / activity consistent with those foreseen in the EU budget. The total planned, actual and cumulative expenditure in this report shall correspond to those mentioned in the statement of sources and uses of funds, as presented above;
- Cash flow forecast: this report summarizes cash inflows and outflows for the following semi-annual period (see below for more details);
- DA reconciliation statement – please refer to Disbursement Handbook.
- WA statements for the period: this report summarizes the claimed and received WA amounts from IFAD during the reporting period; and
- Contract expenditure: this report details all contracts signed and amounts paid during the quarterly / semi-annual reporting period by Cost Category.

- <u>Interim Financial Reports (IFRs)</u>
  - Interim Financial Report(s) (IFR) are required both for reporting and disbursement purposes.
  - IFRs for reporting purposes must be submitted in accordance with the frequency and submission deadlines detailed in FMFCL. When submitted as a component of Withdrawal Applications, IFRs must be submitted in a form and quality acceptable to IFAD.

<u>Cash flow forecast</u>

28. Preparing periodic cash flow forecasts is essential to ensure the Programme has sufficient funds to meet its legal or contractual commitments, i.e. planned expenditure to beneficiaries, lead implementing agency, contractors, service providers, suppliers of goods, salaries, operating costs of offices as they fall due. It is the Programme Financial Management Specialist's responsibility to prepare periodic cash flow forecasts by undertaking the following steps:

- Report the past reporting period's closing balance as opening balance for the coming period;
- Calculate – as accurately as possible – and report all the cash inflows already secured from different sources for the coming period and break them down on a monthly basis;
- Determine – as accurately as possible – and report all the cash outflows (i.e. payments) due in the coming period and break them down on a monthly basis; and

- Based on the above computations, determine the estimated cash needed for the coming period, in consultation with the Programme Coordinator and the Component Managers.

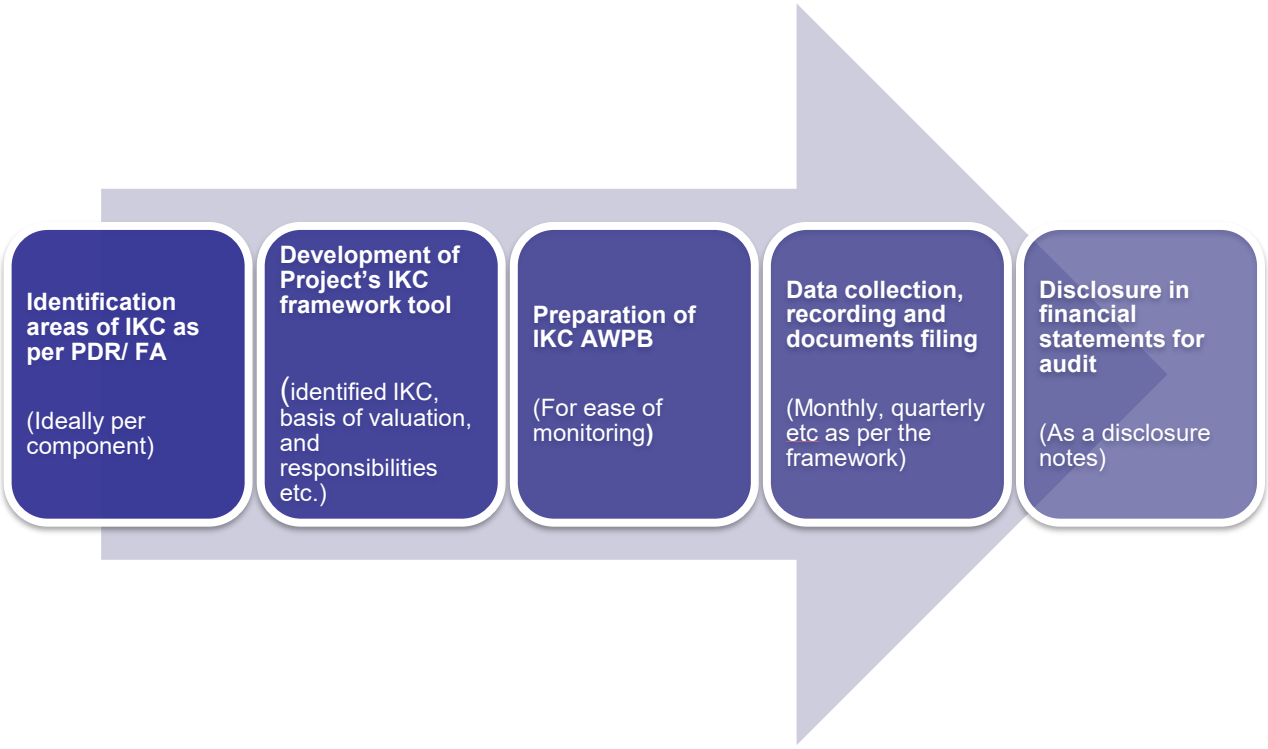
29. When preparing cash flow analyses, key sources of information shall include: the updated AWPB and procurement plan, the disbursement timetable of all signed contracts, and historic expenditure reports of the Programme as these some aspects assumed to stay relatively constant over the BOLCOP implementation period. Based on estimated cash flow needs, the Programme Financial Management Specialist shall submit for approval of the Programme Coordinator the required WAs in a timely manner, to ensure sufficient liquidity and avoid any delay in Programme implementation.

30. In-Kind Contribution

Domestic contribution is the monetary and in-kind contribution (IKC) provided by governments, beneficiaries, implementing partners, other project participants.

It relates to direct provision of asset/services (benefits) to the project or expenditure incurred expenditure by Government, beneficiaries or other implementing partners which otherwise would need to be paid for by the project meet its objectives. In-kind contributions are crucial as they will translate the real contribution of Borrower to the project in addition to the contribution in cash and tax exemptions.

It is critical to capture in-kind contributions from all sources: Government, beneficiaries, and other domestic co-financiers. Process must be regular and systematic. Below is a Simplified process for IKC: -



The IKC should meet the following criteria for recognition: -

1. IKC should directly be related to achievements of PDO
2. IKC framework/tool should highlight IKC activities (per component/Sub-component), definition and measurement, monitoring tools, responsibilities and frequency and minimum supporting documents
3. IKC shall be recognized at the fair market value and must be duly justified by supporting documents
4. IKC recording, documentation and filing should be adequate to enable independent verification/ audit. Recording should be done regularly, at least monthly or as may be applicable
5. IKC should be reflected in the Financial Statement (as a disclosure note) and be audited. It is also an additional schedule/report required for submission to IFAD as part of IFR

Asset management

31. Fixed asset management aims at tracking any equipment / furniture / material (or intangible assets) for safeguarding – e.g. to ensure preventive maintenance and theft deterrence – and financial accounting purposes. Adequate fixed asset maintenance shall also increase the sustainability of the Programme. There are three elements in fixed asset management that require the attention of the Admin. Officer:
    - Purchase of equipment (not detailed here – see the procurement section of the PIM);
    - Recording fixed assets through maintaining labelling system and asset register; and
    - Physical inventory and disposal / handover of assets once the Programme is completed.

Recording fixed assets:

32. The Programme shall assign a unique, sequential asset tag number to all furniture and equipment items purchased for BOLCOP (excluding supplies / inventories such as stationeries); this shall be clearly labelled on each item. And every asset shall be recorded in the asset register (see below).

33. The Admin. Officer shall maintain a register of all (material) equipment of the Programme – this shall also be recorded on the asset management module of the accounting software, when operational. The asset register shall record the following information for each individual piece of asset: 1) description; 2) tag number; 3) serial number; 4) officer responsible (i.e. custodian); 5) source of funding; 6) location; 7) date of purchase; 8) estimated life; 9) purchase value and other additional fields that may be required. The Programme fixed assets shall also be subject to proper visibility of the primary contribution to project funding: this involves putting donor logos / stickers on vehicles, laptops and other assets.

Physical inventory:

34. The Financial Management Specialist shall ensure that an independent verification of all project assets is performed at least once a year. Any discrepancy identified between the physical inventory (verification exercise) and the fixed asset register to be investigated, documented and formally reported to management.

RECORDS KEEPING, FILING & ARCHIVING

35. Financial records shall be created and maintained for every transaction effected under the Programme. They shall be defined as any financial information kept in a writing (hard copy) or electronic way (soft copy); 'external evidences or documentary evidence' such IFAD Financing Agreement, signed purchase orders / contracts, invoices, cash receipts, delivery notes or bank statements, as well as internal forms, journal vouchers, computer data and other form of information storage shall all be included under the 'financial record' terminology for the purpose of this PIM.

36. The objective of this procedure is to preserve the financial records and files for further official use by Programme staff, IFAD reviews during supervision missions, as well as for internal / external audit purposes. The Programme financial records are the property of the BOLCOP and may not be removed or destroyed during Programme implementation and up to 10 years after completion.

37. The Programme staff, in particular the Finance and Admin. team (accounting and administrative staff), shall make sure to keep minimum original supporting documentation for stated key processes, as follows:

38. Procurement costs:

- Purchase request / procurement requisition: approved form or workflow signature in system;
- Tender file or procurement file: bidding documents / technical specifications / bill of quantities / consultants' ToR; published advert of call for tenders / proposals / invitation to bid / request for quotation form; original (technical and financial) bids / offers / quotations; bid register or bid analysis schedule; bid opening and evaluation report / procurement selection memo;
- Contract / purchase order signed with supplier / service provider / consultant / contractor;
- Proof of existence, i.e. performance (consultant report / deliverable), progress (completion certificate), delivery (goods received / delivery note / bill of lading) and beneficiary distribution;
- Invoice(s) and payment evidences (cash receipt, cheque copy or, better, bank statement);
- Evidence of link to AWPB / procurement plan and BOLCOP use (vehicle logbook / mission order);
- For works, contractual bank guarantees for advance payment and performance; and
- Communications from IFAD to evidence no-objection to the contract award (if applicable).

39. Staff remuneration costs:

- Terms of reference / job description with clear link to the Programme;
- Recruitment file: published advert of job vacancy; long-list of all candidates; CVs, written tests and interview forms / scoring sheets of short-listed candidates and final selection report;
- Employment contract and any approved policy mentioning additional benefits;
- Approved salary scale (corresponding to the Grade and Step mentioned in the contract);
- Approved payroll statement (detailing the calculations of total cost, gross and net salaries);
- Payment evidence (of both net salary and social insurance charge / other tax deductions); and
- Cost allocation / timesheet / monthly report / staff appraisal form

40. Transportation costs:

- Formal trip authorisation such as mission order (purpose, duration, destination, etc.);
- Trip commitment (ticket) and travel evidence (boarding pass / stamped passport, etc.); and
- Mission / trip / activity report or any other contractual deliverable.

41. Workshop / training / seminar costs:

- Annual training plan approved by IFAD and procurement file for the selected training centre;
- Formal invitation (letter / email) to all selected staff (duration, destination, costs covered, etc.);
- Agenda, handouts, signed list of participants, certificate, back-to-office report, photo, etc.; and
- Signed receipts of per diem / daily subsistence allowance.

42. Shared or apportioned costs if any:

- Clear evidence of link to the Programme (mission order, ToR, activity report, etc.);
- Cost allocation method (timesheet, logbook, square meter, head count, etc.); and
- Detailed calculations of apportionment / allocation percentages to both Programmes.

43. The Programme shall file original records in a well organised way and maintain them for at least 10 years after Programme completion, in accordance with IFAD general conditions. Filing of financial records shall be chronological, e.g. documentation shall be filed on a daily basis in separate folders clearly mentioning the concerned month and year (with separators). Records shall have a code / reference following a sequential order.

44. Appropriate (lockable) filing cabinets shall be used to keep all folders. Besides and in order to prevent unnecessary pile-up of files in a limited office space, the Programme Financial Management Specialist shall make sure that the financial records are archived on a regularly basis. They shall be kept in appropriate storage areas, safe from water and fire, to which access shall be controlled and limited. The Programme Financial Management Specialist shall also classify certain financial records as "Confidential", while other would be defined as "General". Any important correspondence (e.g. with IFAD, Government or GCF) shall be filed. Once a year, the Programme Financial Management Specialist shall verify that archives allow for easy and prompt retrieval of files if required.

RISKS & INTERNAL CONTROL SYSTEMS

45. Internal control systems are defined as *"processes applicable at all levels of management designed to provide reasonable assurance of achieving the following objectives:*

a) effectiveness, efficiency and economy of operations;
b) reliability of reporting;
c) safeguarding of assets and information;
d) prevention, detection, correction and follow-up of fraud and irregularities;
e) adequate management of the risks relating to the legality and regularity of the financial operations, considering the measures designed to reduce the likelihood and / or potential impact of pre-identified risks."

- This part exclusively focuses on fiduciary-related risks, which may arise at Programme design stage or all along the implementation period. Internal controls is the collective duty and responsibility of the Programme Management Unit (PMCU). There are four layers of control as follows:
- First layer of controls: self-control or "double check" at lower operator level, for instance while preparing a purchase requisition / bank reconciliation or while counting fixed assets / cash;
- Second layer of controls: direct supervision, such as reviews and validation of first layer tasks;
- Third layer of controls: final authorisations / approvals, e.g. of expenditure payment; and
- Fourth layer of controls: independent checks or post-reviews of the above processes – this last layer of controls is described below in part 8 of the present section of the PIM.

Anticorruption policies

46. The management of the Programme funds shall be sufficiently rigorous to safeguard BOLCOP against the risks of fraud and corruption. Fraud and corruption include, but are not limited to:

    - Corrupt practice, which may be defined as offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
    - Fraudulent practice, i.e. any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation – such as submitting fair and true financial statements for an action;
    - Collusive practice, i.e. an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party; and
    - Coercive practice, i.e. impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party.

47. IFAD applies a zero-tolerance policy towards fraudulent, corrupt, collusive or coercive actions in Programmes financed through its grants. 'Zero tolerance' means that IFAD shall pursue all allegations falling under the scope of this policy and that appropriate sanctions shall be applied where the allegations are substantiated. IFAD takes all possible actions to protect individuals who submit allegations of fraudulent or corrupt practices in its activities from reprisal. The IFAD anticorruption policy is available on IFAD website at https://www.ifad.org/en/anti-corruption: it provides instructions on how to report any alleged wrongdoing to the Office of Audit and Oversight.

48. It is the Programme Coordinator and the Programme Financial Management Specialist's responsibilities to make sure that all Programme staff, including the finance and administrative teams, are aware of these anticorruption policy and IFAD whistle blowing procedures (https://www.ifad.org/en/document-detail/asset/39629358).

General internal controls

49. Designing, implementing and maintaining a system of financial internal controls is an integral part of the financial management function, although not exclusive to it. In order to achieve stated objectives (such efficiency and economy of operations, reliability of reporting, safeguarding of assets, prevention and detection of fraud and

irregularities or general risk management and compliance with applicable laws and regulations), key features of an adequate internal control system usually include:

- Segregation of duties;
- Authorisations;
- Reconciliations and checks;
- Restricted access; and
- Monitoring and review.

Segregation of duties:

50. An important element in any internal control system is the separation of those duties which would, if combined, enable one individual to approve and / or process / record / pay a complete transaction. It is the Programme Financial Management Specialist's responsibility to ensure that the following duties are segregated under the Programme: preparation, authorisation, execution, custody, treasury management and bookkeeping.

Authorisations:

51. Approvals / authorisations require the certification that an activity / event or transaction is acceptable for further processing. Several types of authorisations shall be in effect at the Programme, mainly in the procurement, payroll and bank and cash management cycles. The Programme Financial Management Specialist shall verify that authorisations of PMCU staff ensure efficient implementation while keeping major risks as low as possible. Authorisations from Programme staff shall be in line with their respective job descriptions and approval limits.

Reconciliations and checks:

52. Reconciliations between independent, corresponding sources of data are a key control for identifying errors or discrepancies. The Programme Financial Management Specialist shall verify the following reconciliations each month:

    - Bank reconciliations (between accounting ledgers / Programme expenditure listing and bank statements): any reconciling or balancing amount shall be promptly cleared or explained. Unusual / long outstanding reconciling items shall be brought to the attention of the Programme Financial Management Specialist, who shall review and sign all bank reconciliations as evidence of review;
    - Reconciliations between system and special account receipts and payments statement;
    - Physical checks (both schedule and on the spot) of assets and petty cash held.

Restricted access:

53. All data, records and assets shall be kept in a physically secure environment. This shall cover safe keeping of financial records such as personnel files and bank details. In addition, any petty cash shall be kept securely. Financial data and other records shall also be protected in the form of back up procedures. All work shall be regularly saved and copy records stored securely off site.

SUPERVISIONS & AUDITS

54. IFAD supervision missions, BOLCOP internal and external audits constitute the added layers of controls, which shall remain independent from Programme implementation.

IFAD supervision missions

55. BOLCOP shall be subject to extensive supervision from IFAD during the whole implementation period to ensure that the PMCU fiduciary requirements are completed on time and to minimise the Programme's fiduciary risks. If financial arrangements of the PMCU are deemed acceptable, IFAD shall rely on them to provide assurance that the financing proceeds are being used for the intended purposes. In the case that IFAD identifies significant weaknesses in financial arrangements in place, it shall require the PMCU to take appropriate measures to mitigate those risks such as changing the design of internal controls – or making sure their frequency or effectiveness improves – or modifying the disbursement arrangements.

56. IFAD financial management supervision missions shall usually involve the following tasks:

- Monitoring the timely submission of audit reports and reviewing them in details;
- Verifying the implementation of audit recommendations made by past supervision missions;
- Monitoring the submission of timely periodic financial reports and reviewing of these reports; and
- Monitoring disbursement rates and quality of the received Withdrawal Applications.

57. Throughout Programme implementation, IFAD shall conduct annual or semi-annual financial management supervision (and implementation support) missions. Such missions shall determine ratings on compliance with IFAD overall financial management requirements. During supervisory missions, IFAD shall assess and monitor the adequacy of PMCU financial management arrangements for the following processes: accounting, budgeting, internal controls, flows of funds, financial reporting and auditing practices. The key findings and recommendations of the mission shall be captured in an "aide-mémoire" document.

58. When preparing for and during an IFAD financial management supervision mission, necessary supporting actions by the Programme Financial Management Specialist and his / her team shall include the following:

- Update and make available BOLCOP financial information, i.e. AWPB and reports e.g. expenditure incurred by Component / category / Financier as of the last day of the preceding month.
- Update and make available reports on the status of Counterpart funding – has the Recipient / lead Programme implementation agency made available financing proceeds to the Programme as planned?
- Provide a walkthrough of the existing accounting system including its main modules for budgeting, accounting, financial reports, fixed asset register as well as the security settings in use;
- Facilitate checking of internal controls by way of system walkthroughs, in order to ensure that approved procedures are consistently being followed;
- Make available recent Withdrawal Applications, Statements of Expenditure and all supporting documentation regarding expenditure claimed under applicable IFR thresholds to facilitate the verification of the adequacy, completeness and validity of claims;
- Make available evidence of qualifications and educational background of the financial staff including organogram of the PMCU, CVs, ToR of each position and BOLCOP training plan.
- Update and make available the central fixed asset register and facilitate sample test checks of the physical existence and tagging / labelling of assets;

- Make available all written procedures regarding financial and administrative operations such as transaction processing, accounting manual, fixed asset maintenance and records management as well as the lead Programme agency's anticorruption policy and whistle blowing procedures;
- Avail the updated bank reconciliation statements, accompanied by the corresponding accounting ledgers and bank statements for all designated and Programme accounts;
- Arrange meeting with auditors and any other selected party requested by the mission;
- Make available all necessary documentation regarding procurement not subject to prior review;
- Provide an update on the actions taken regarding the past audit recommendations as well as action points outlined in the past aide-mémoire documents;
- Participate in report writing if necessary.

PMCU internal audits

59. Internal audits will be conducted to provide assurance that the Programme is being implemented in accordance with the PIM, complies with Government regulations and is complying with Programme financing covenants. The Programme will utilize the internal audit function at Ministry of Agriculture to carry out internal audit. The internal Auditors will be required to carry out the audit of the Programme at least twice annually.

60. The Internal Auditor shall plan his/her work much in advance and transparently. A risk-based annual audit plan for the following year shall prepared at least one month before the end of the current year – this shall be planned by month / quarter and contain:

    - Routine financial tasks to be completed all year long, such as reviewing vouchers following a "full audit" approach, or on a sample basis if risks have been assessed as low: this may be done in the field or as a "desk review" provided that adequate archiving of electronic documents is in place;
    - Compliance audits to verify the Programme complies with its commitments towards the Financiers: this includes reviewing quarterly financial reports submitted to IFAD and annual reports to GCF and GEF.
    - Geographical audits focused on given Programme areas: this may involve interviewing all staff of the concerned office, starting with the National/District Coordinator – ideally, each district shall be visited at least twice in a year, however priority may be given to high risk areas.
    - Process audits focused on key processes at PMCU: this may include Programme management (i.e. internal controls and tools designed to mitigate various operational risks for each Programme Component), as well as procurement, fixed asset and stock management, etc.

61. The annual audit plan shall be flexible in case new risks would arise during Programme implementation: it may therefore be revised as per the needs, but always formally, for instance 6 months after the year start.

62. Missions of the Internal Auditor, shall usually involve the following tasks:

    - Reviewing vouchers, contracts and procurement files for all or sampled transactions;
    - Verifying that Programme activities were conducted as per the plan and as described in reports;
    - Inspecting the policies and documentation prepared to manage specific Component activities;

- Meeting a sample of beneficiaries in different localities and villages to obtain their feedback;
- Reviewing quarterly financial reports, including Withdrawal Applications per Financier;
- Reviewing monthly trial balances, bank reconciliations, calculations of exchange rate, updated contract register, leave follow-up, fixed asset register, fuel consumption report; and
- Following-up imprest amounts, reviewing monthly cash counts and performing surprise counts.

63. Internal audit reports for each specific mission, as well as annual (and semi-annual) reports summarising all activities conducted against the annual audit plan, shall be made available to the PMCU and the Project Steering Committee. They shall be available for review during supervision missions and external audits. Financial procedures (including procedures required at community level) shall be documented in a Financial Implementation Manual, which shall be a condition for disbursement. Training of all staff on financial management and fiduciary controls shall be provided once before implementation begins; once after implementation has commenced and once two years after implementation.

External audits

64. The project will be audited by the Office of the Auditor General, which is the Supreme Audit Institution of Botswana. The auditor will prepare a work plan to ensure adequate coverage of the various districts/ implementing agencies that receive Programme funds and cover all the major risk areas. The audit terms of reference will be approved by IFAD in advance in line with the guidance provided in the IFAD Handbook on Financial Reporting and Auditing of IFAD-financed projects. The audited financial statements for the project will be submitted to IFAD within six months after the period end in accordance with IFAD guidelines.

65. The Auditor in drawing up his audit Programme incorporates review of the implementation of the previous period's recommendations. If those recommendations have not been followed this will be stated in the current audit report. The audited financial statements will be submitted to IFAD within 6 months after financial end as required by IFAD.

66. Nature of Programme eligible expenditures - Programme expenditure categories have been allocated in accordance with the standard expenditure categories. Detailed cost tables are presented in this document. Transaction-based disbursement procedures will be used. The eligibility of expenditure should require:

a) The expenditure shall meet the reasonable cost of goods, works and services required for the Programme and covered by the relevant AWPB and procured in conformity with the procurement guidelines
b) The expenditure shall be incurred during the Programme implementation period, except that expenditures to meet the costs of winding up the Programme that may be incurred after the Programme completion date and before the closing date
c) The expenditure shall be incurred by a Programme party
d) If the agreement allocates the amount of the financing to categories of eligible expenditures and specifies the percentages of such eligible expenditures to be financed, the expenditure must relate to a category whose allocation has not been depleted, and shall be eligible only up to the percentage applicable to such category.
e) The expenditure shall be otherwise eligible in accordance with the terms of the financing agreement

f) Sub-grantees – advances to sub-grantees will only be recognized as eligible expenditures once justified. The recipient will be accountable for the use of sub-grant funds. Recipient and sub-grantees' expenditure (if applicable) should be consolidated for inclusion in the IFR.
g) Income generated from advance withdrawals (if any) should be disclosed in the IFR
h) Transaction Lists should provide a breakdown of individual transactions by expenditure category and should be easily reconcilable to the IFR.
i) Transaction Lists should include and integrate detail transaction lists from the Sub-Recipients, when applicable.
j) IFRs should be prepared in the same currency as the denomination currency of the FA/GA. If Programmes incur expenditure in currencies other than that of the FA/GA, the exchange rate used for reporting expenditure should be the rate applied when funds were received, on a first in, first out (FIFO) basis.

67. The GEF handbook will be provided which provide guidelines on the utilisation of GEF funds.

68. All payment vouchers will be examined to ascertain the following requirements:

- That the expenditure has been incurred on proper authority and is a charge to properly voted funds.
- That payment vouchers are supported by original documents or certified photocopies of the original documents (such copies must be certified by the appropriate officer that he has taken all possible steps to ensure that no payment has been made on the original document).
- That rates charged are according to regulations/contracts, fair and reasonable.
- That appropriate authority has been obtained and a copy of the minutes attached to the payment vouchers for reference purposes.
- That the allocation of account codes is correct.
- That appropriate certificates have been signed by the officer authorized.
- That the vote book control certificate has been duly signed to confirm availability of funds.
- That the computations and costing have been verified and are arithmetically correct.
- That the persons named in the payment vouchers are those entitled to receive the payment.
- Any alterations of payment voucher should be counter signed by the head in charge of the unit.
- That the signatories to the certificates are as per those indicated in the specimen signature document
- That payments are supported by duly certified invoices, receipted bills (for direct cash payments), LPOs, LSOs, copies of supplier's delivery note, and the certificate at the reverse of the payment voucher signed to confirm stores entry into the relevant inventory ledgers.

69. External audits shall be ex-post reviews of BOLCOP financial statements, also looking at internal controls and compliance with all applicable rules, laws and regulations; they shall examine the adequacy of accounting systems and procedures, the capacity to maintain appropriate accounts and supporting documentation of the Programme expenditure. External audits aim at providing credibility and assurance of accountability to Financiers, Programme staff and other stakeholders such as the Government. Detailed instructions regarding external audits are outlined in IFAD

Handbook for Financial Reporting and Auditing of Programmes available at https://www.ifad.org/en/document-detail/asset/39641638, which is updated from time to time.

PROGRAMME COMPLETION & CLOSING

70. The Programme Closing Date shall be six months after BOLCOP official Completion Date or as would be advised in the grant agreement. Both deadlines have direct financial implications on Programme management such as: development and submission of a recovery plan, ensuring eligibility of expenditure and submission of the necessary documents outlined below. Please also refer to section 1.3 of the Disbursement Handbook.

Recovery plan:

71. To ensure that BOLCOP Designated Account is completely and timely justified, the Programme Financial Management Specialist is to develop a "recovery plan" outlining the percentages per Withdrawal Application that shall be recovered and paid respectively. This shall be submitted to IFAD 6 months before the Completion Date or when the outstanding balance (amount still undisbursed by IFAD) is less than double of the authorised allocation.

Grant completion:

72. As defined in the Financing Agreement, by then all the Programme activities shall have been finalized. Payments may also be done also after the Completion Date provided that commitments / contracts / purchase orders are signed and expenditure incurred (i.e. services rendered or goods delivered) prior to the Completion Date. Activities that have continued after the Completion Date are not considered eligible types of expenditure and may therefore not be financed by IFAD. Exceptions to the rule: after the Completion Date but no later than the Closing Date, the PMCU may still incur expenditure related to the "winding-up" process, e.g. final audit, Programme completion report, salaries of staff involved in winding up activities, PMCU maintenance cost or Programme completion workshop.

Progamme closure:

73. IFAD requires the following to be provided by the PMCU in order to close the Programme:

- Confirmation of last Withdrawal Application;
- Submission of final audit report; and
- Submission of Programme completion report.

74. The final audit report shall cover the final Programme year and winding-up expenditure and may be paid from the funds available balance by using direct payment or reimbursement of pre-financed expenditure.

Terms of reference: Internal Audit Services

Borrower: Government of Botswana

Contract	Internal audit services.
Project	BOLCOP
Location	Republic of Botswana, various locations in the Country
Duration	[insert]
Starting Date	[insert]
Languages required	English

1. Background:

[INSERT]

2. Reporting System:

The objective of the Internal Auditor is to add value and improve the Project's operations and assist Project's steering committee and management by independently reviewing all activities, processes and systems with particular regard to risk and control aspects and bringing a systematic and disciplined approach to the effectiveness of risk management, control, and governance processes.

The internal auditor will possess a thorough knowledge of internal auditing procedures, accounting procedures and have sound judgment on risk identification and management.

The internal auditor will produce a quarterly/semi-annual internal audit report presented to the Project Coordinator.

Internal Auditor shall monitor the appropriate follow-up on audit findings and recommendations. All significant findings will remain in an open issues file until cleared.

3. Independence:

The internal auditor reports to the Project Steering Committee, who appoints and terminates the internal auditor upon recommendation of the IFAD/Government. The internal auditor will work under the overall supervision of the Project's Steering Committee.

All internal audit activities shall remain free of influence by any element in the organisation, including matters of audit selection, scope, procedures, frequency, timing, or report content to permit maintenance of an independent and objective mental attitude necessary in performing the function.

Internal Audit shall have no direct operational responsibility or authority over any of the activities it reviews. Accordingly, it shall not develop nor install systems or procedures, prepare records, or engage in any other activity which would normally be considered management or staff's responsibility.

4. Authority and confidentiality:

Authority is granted for full and unrestricted access to all THE PROJECT records, physical properties, and staff relevant to any area under review. All employees are requested to assist the internal audit in fulfilling its function.

Documents and information obtained by the internal audit firm will be handled in the same prudent and confidential manner as by those employees normally accountable for them.

5. Duties and Responsibilities:

Within the framework, as described above, the internal audit auditor will carry out the following tasks:

- Conduct a post-audit procedure on the BOLCOP PMCU with respect to their functions and activities within the project. Make recommendations on possible improvements of

the procedures to enhance control mechanisms, financial performance and produce quality reports for senior management and Project Steering committee, to enhance decision making, on monthly basis.

- Audit all contracts signed between BOLCOP PMCU and/or implementing agencies/districts with service providers, suppliers, and contractors to verify that (i) compliance with terms and conditions of grant / loan agreements and procurement regulations and donor guidelines; and (ii) the contract is in line with best practice with respect to compliance with terms of reference, request for proposal, tender documents etc.
- Develop professional and constructive working relationships with key managers and be able to challenge when necessary.
- Lead development of specific innovative ways of working and new ideas for reviewing risk and control issues.
- Assess risk and control related policies and procedures, provide input to updates in existing procedural documents with respect to controls as necessary
- Apply internal audit procedures to audit the financial statements, accounting records and other financial and non-financial registries applying accepted internal audit standards.
- Undertake special assignments and investigations and in particular undertake more complex and high-level audit investigations under advisement of the Project Steering Committee.
- Reviewing the means of safeguarding assets and, as appropriate, verifying their existence.
- Reviewing and appraising the economy and efficiency with which resources are employed.
- Reviewing operations or programs to ascertain whether results are consistent with established objectives and goals and whether the operations or programs are being carried out as planned, including verify the adherence of BOLCOP PMCU staff to AWPBs, policies, plans, procedures, laws, and fund regulations that are influential on Fund works as well as donors accounting procedures.
- Asses the efficiency, effectiveness and economy of the usage of resources and reports of any deviations in case they are existed.
- Reviewing the adequacy, implementation and operation of donors' transparency and accountability policies and of other anti-corruption, fraud and related misuse policies and procedures.
- Confirming adherence to the Financial Manual (as approved by IFAD).

6. Audit Planning:

- Internal Audit firm shall regularly submit to the Project Steering Committee an up-to-date summary of the audit work schedule.
- The audit work schedule is developed based on a prioritisation of the audit universe using a risk-based methodology. Any significant deviation from the formally approved work schedule shall be communicated to the Project Steering Committee through periodic activity reports.
- The audit planning shall pay specific attention to the activities of the implementing agencies which report to PMCU.

7. Qualification criteria:

- Internal auditor should be member of recognized professional international Accountancy/ Audit body

- The internal auditor shall adhere to The Institute of Internal Auditors' Code of Ethics and The Institute's International Standards for the Professional Practice of Internal Auditing.
- Assigned employees to have:
    - Proven relevant working experience in Internal Audit.
    - Proven experience of risk management frameworks and approaches.
    - Experience of operational auditing & risk-based approach to review.
    - Excellent negotiating and high-level influencing skills and the ability to challenge at a senior level when necessary.
    - Ability to work in challenging environments.
    - Ability to work and deliver to tight deadlines.
    - Logical and systematic in analytical thinking.
    - Facilitation and presentational skills.
    - Full Working knowledge of English, including excellent drafting and presentation skills.
    - Excellent computer skills, including full working knowledge of standard word processing, spreadsheets and presentation packages.

Terms of reference: External Auditor

Borrower: Government of Botswana

Project: Botswana Livestock Commercialisation Project (BOLCOP)

Financing Agreements:

IFAD: Loan xxx;

GEF: Grant xxx

GoB: Counterpart Funds

Background

- The International Fund for Agricultural Development (IFAD) is aiding the Borrower in the form of a loan and grants.
- IFAD requires the Borrower to appoint an independent auditor to audit the accounts related to the Project, in accordance with the IFAD Handbook on Financial Reporting and Auditing.
- *The Auditor for BOLCOP project shall be the Auditor General of Botswana.*
- The entity prepares its financial statements in accordance with the IPSAS Cash Basis of Financial Reporting.
- (insert other relevant info)

Objective

The objective of this audit is to enable the auditor to express an opinion on whether the financial statements (including additional disclosures as outlined in section 5) present fairly, in all material respects, the financial position of the reporting entity as at [insert year-end date], and/or the results of its operations and its cash flows for the years then ended, in conformity with the [applicable accounting standards].

Responsibilities of the Borrower

General

- Provide financial statements for the activities financed by loans/grants/contributions that are reconcilable to its records and accounts.
- Provide the auditor with access to all legal documents and correspondence with consultants, contractors and other persons or firms engaged by the Project, and any other information associated with the Project and deemed necessary by the auditor.
- Ensure that the accounting policies are consistently applied and disclosed.
- Ensure that appropriate internal controls are implemented to prevent misstatements and susceptibility to fraud.
- Ensure compliance with all relevant laws and regulations that pertain to the entity, as well as with the financing agreements between the Borrower and IFAD/GEF.
- Provide the financial statements to the auditor within a reasonable time and be available for any queries that the auditor may have.

Financial statements

The Borrower shall:

- Prepare financial statements covering the reporting period [date] to [date], in accordance with IPSAS Financial Reporting under the Cash Basis of Accounting. In addition, the following IFAD specific disclosures will be included in the financial statements:
  - Budget to actual comparison
  - Withdrawal application summary
  - Sources and uses of funds statement
  - Designated Account statement and reconciliation
  - Fixed asset schedule

Responsibilities of the auditor

Auditing standards

The audit shall be conducted in accordance with the International Standards of Supreme Audit Institutions (ISSAI) published by the International Organization of Supreme Audit Institutions (INTOSAI). These standards require that the auditor plans and performs the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. The audit includes examining, on a test basis, evidence, supporting the amounts and disclosures in the financial statements. The audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In complying with ISSAI, the auditor is expected to pay particular attention to the following matters, including special considerations for public sector entities:

- In planning and performing the audit to reduce audit risk to an acceptably low level, the auditor should consider the risks of material misstatements in the financial statements due to fraud as required by the International Standard of Audit 240: The Auditor's Responsibilities Relating to Fraud in an Audit of Financial Statements.
- When designing and performing audit procedures and in evaluating and reporting the results thereof, the auditor should recognize that noncompliance by the entity with laws and regulations may materially affect the financial statements as required by the International Standard of Audit 250: Consideration of Laws and Regulations in an Audit of Financial Statements.
- The auditor should communicate audit matters of governance interest arising from the audit of financial statements to thos e charged with governance of an entity as required by the International Standard of Audit 260: Communication with those Charged with Governance.
- The auditor should communicate appropriately to those charged with governance and management deficiencies in internal control that the auditor has identified in an audit of financial statements as required by the International Standard of Audit 265: Communicating Deficiencies in Internal Control to Those Charged with Governance and Management
- In order to reduce audit risk to an acceptably low level, the auditor should determine overall responses to assessed risks at the financial statement level, and should design and perform further audit procedures to respond to assessed risks at the assertion level as required by the International Standard of Audit 330: The Auditor's Responses to Assessed Risks.
- In instances where certain aspects of an entity's operations are performed by a third party service provider, the auditor is expected to include an understanding and assessment of the internal control environment of the service provider during the audit process as required by the International Standard of Audit 402: Audit Considerations Relating to an Entity Using a Service Organization.
- As part of the audit process, the auditor is expected to obtain written representations from management and, where appropriate, those charged with governance as required by the International Standard of Audit 580: Written Representations.

General principles

By agreeing to these terms, the auditor confirms that:

- The audit service provider is independent from the Project, its staff and activities, in accordance with international best practices.
- The audit service provider is not providing consultancy services to the Project or preparing its Project financial statements (nor has it done so in the previous two years).
- The auditor is suitably qualified and a member of a professional body affiliated with the International Federation of Accountants.
- The auditor is able to conduct the audit in line with international auditing standards.
- The audit service provider can assign an audit team to the audit that has the necessary competence and skills.
- The audit service provider has a proven track record in conducting audits of a similar nature and complexity.

Management letter

The management letter is an integral part of the audit package that documents accounting and internal control issues identified by the auditors. The management letter should:

- Outline the auditor's recommendations to improve identified accounting and internal control issues;

- Include the responses of Project management to the identified control issues, and its proposal to address the issues identified within a specific time period.
- Where applicable, follow up on the issues identified in the previous year's management letter.
- report on instances of non-compliance with the terms of the financing agreement;
- quantify and report expenditures that are considered to be ineligible and either paid out of the designated (special) accounts or which have been claimed from the IFAD;
- communicate matters that have come to their attention during the audit which might have a significant impact on the implementation of the project;

Reporting

The Auditor is required to deliver an audit package that includes:

- The audited financial statements, including additional specific disclosures as specified.
- An audit opinion on the financial statements and interim financial reports during the year
- A management letters
- A report on factual findings, within the scope of agreed-upon procedures as outlined. Any ineligible expenditure identified should be clearly mentioned.

The audit report should provide sufficient detail as to the nature and extent of the procedures performed by the auditor. The auditor is required to provide the audit package by no later than [insert date]. Reports are to be delivered in English.

Scope of the financial audit

In performing the audit, at a minimum the auditor shall:

- Obtain an understanding of the internal controls related to the financial reporting process, to identify and assess any weakness in internal control that might result in misstatements, whether due to fraud or to error;
- Design and conduct audit procedures in response to any weaknesses identified in the internal controls relating to the financial reporting process, to obtain audit evidence that the financial statements are fairly presented and free from material misstatements, in accordance with the applicable accounting framework;
- Verify whether expenditure that was incurred in the name of the Project is in line with the terms of the financing agreement(s) and incurred for the purposes intended in this agreement. Both IFAD and third-party funding should be taken into consideration;
- Verify that the fixed assets held by the entity exist, are complete, are properly accounted and are used for the Project purposes;
- Note any weaknesses in the internal control environment and in the financial reporting process, and communicate those in the management letter.
- [List others].

Scope of the agreed-upon procedures

The auditor is required to perform the following specific procedures and report on factual findings as outlined:

Designated account statement(s) (page xxx)

- Confirm/agree that opening and closing bank balances (in USD and local currency) disclosed on the designated account statement(s) agree to the bank account statement and that such balances reconcile with disclosures in the notes the financial statements.

- Recalculate the closing balance of the designated account statement (in USD and local currency).
- Confirm/agree that the USD denominated amounts disclosed have been accounted for in local currency at the historical exchange rate, in line with the procedure as outlined in the IFAD Financial Management and Financial Control Letter (available on IFAD website).
- Recalculate the foreign exchange gain / loss as included in the designated account statement and agree to the amount disclosed in the Statement of Cash Receipts and Payments.
- Agree replenishments / transfers and direct payments to the bank account statement and IFAD historical transaction information.
- Confirm amounts disclosed for withdrawal applications agree to the information disclosed on the withdrawal application summary.

Designated account reconciliation(s) (page xxx)

- Confirm the accuracy of the reconciliation.
- Confirm that the designated account has been managed in line with the provisions of the financing agreement / Financial Management and Financial Control Letter.
- If applicable, review and determine the reasonability of the explanation for variance as disclosed on the designated account reconciliation.
- Agree disclosed amounts to supporting documentation (bank statements / IFAD historical financial information).

Withdrawal application summary

- Determine whether goods and services have been purchased through the approved procurement procedures.
- Determine whether the expenditures claimed were properly and appropriately authorized, classified and supported by audit documentation.
- Select a sample of withdrawal applications and confirm the accuracy of the disclosures to the underlying documentation submitted to IFAD.
- Test a sample of project expenditure transactions from the withdrawal applications and confirming eligibility of expenditure / adequacy of supporting documentation. Summarise all ineligible expenditures identified in the conclusions section.

Fixed asset register (page xxx)

- Select a sample of fixed assets from the fixed asset register and confirm the accuracy and completeness of the information included in the fixed asset register.
- Select a sample of project assets from the floor and confirm that the asset is accurately recorded in the fixed asset register.

Other

- Confirm the degree of compliance with the Borrower's procurement policy and identify non-compliance.

Public disclosure

IFAD promotes public disclosure of Project financial information to enhance the level of transparency and accountability. IFAD will disclose Project audit reports, as appropriate, in line with the Fund's disclosure policy. Management Letters issued by auditors are not subject to public disclosure by IFAD. In agreeing to the terms of reference, the auditor explicitly acknowledges IFAD's right to publicly disclose audit reports (audited financial statements and audit opinion) and will issue reports without a limitation of use clause.

To facilitate the public disclosure process, the auditor is requested to submit two separate files as follows:

- Audited financial statements and audit opinion; and

- Management Letter.

Appendices [list as applicable]

Appendix: Financing/grant agreement(s)
Appendix: Financial Management and Financial Control Letter
Appendix: IFAD Handbook on Financial Reporting and Auditing of IFAD-financed Projects
Appendix: IFAD General Conditions for Agricultural Develop Financing

List of key expert positions whose CV and experience would be evaluated.

Key Expert Position	**Area of Specific Expertise required**	**Minimum Qualification and Professional Experience Required**	**Likely Staff inputs required in person Days for Audit**
Audit Director	ISSAI, ISA, IFRS/IPSAS, International Auditing Standards and tax regulations; general coordination and management of the project, preparation and signing of audit report	Minimum 7 years of relevant project experience	10
Audit Manager	ISSAI, ISA, IFRS/IPSAS, International Auditing Standards and tax regulations; Primary management, client communication and review.	Minimum 7 years of relevant project experience	15
Audit Senior	ISSAI, ISA, IFRS/IPSAS, International National Auditing Standards and tax regulations. Performance of detailed audit procedures.	Minimum 5 years of relevant project experience	20
Audit Assistants (2)	ISSAI, ISA, IFRS/IPSAS, International Auditing Standards	Minimum 3 years of relevant project experience	20 day each

	and tax regulations. Primary review of working papers, financial statements and performance of detailed audit procedures.		

. Useful links

Document	Link
IFAD financial management e-learning	https://www.ifad.org/elearning_cfs_a/index.html
Revised IFAD policy on preventing fraud and corruption in its activities and operations (December 2018)	https://www.ifad.org/en/document-detail/asset/40189695
Guidelines for internal controls for Public Sector Entities (INTOSAI GOV 9100)	http://www.intosai.org/issai-executive-summaries/detail/intosai-gov-9100-guidelines-for-internal-control-standards-for-the-public-sector.html
IFAD General Conditions for Agricultural Development Financing	https://www.ifad.org/documents/38711624/39421024/general_e.pdf/47c5f14b-2903-4285-b0b0-62c67cd650b8
IFAD Handbook for Financial Reporting and Auditing of IFAD -financed projects (English)	https://www.ifad.org/documents/38711624/39421009/IFAD+Handbook+for+Financial+Reporting+and+Auditing+of+IFAD-Financed+Projects/133b165d-15c7-4f79-8217-aef95b79dd67
IFAD Loan Disbursement Handbook	https://www.ifad.org/web/guest/document-detail/asset/39635782
IFAD Financial Management and Financial Control (FMFCL)	https://www.ifad.org/web/guest/document-detail/asset/39637251
IPSAS Cash Standard	https://www.ifac.org/publications-resources/revised-cash-basis-ipsas
ICP page	https://icp.ifad.org/
ICP support email	icpsupport@ifad.org

TOR of BOLCOP Finance Staff

TOR of BOLCOP Finance Staff

Terms of reference: Financial Management Specialist

Post title: ***Financial Management Specialist***
Organisation: BOLCOP PMCU Under MoLA
Location: Gaborone, Botswana
Name of Project: BOLCOP
Duration: Two-year renewable
Type of contract: short term
Closing date: insert

1. Background

The Ministry of Lands and Agriculture (MoLA) is responsible for the implementation and administration of agricultural projects financed by the Government of Botswana and other international donors.

MoLA has established Programme Management Coordination Unit (PMCU) to implement Botswana Livestock Commercialization Project (BoLCoP) in the country.

The Overall Scope of Work for BOLCOP Financial Management Unit

The Financial Management Specialist reports directly to the Project Coordinator and is responsible for the financial management of the project. As Head of Finance and Administration, the Financial Manager will deputize the Project Coordinator and take charge of all matters in the project financing cycle. The project financing cycle to be overseen by the financial controller starts from financial-related inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management aspects. The Financial Management Specialist also supports the Project Coordinator in the resource mobilization of the Project. The Financial Management Specialist will be responsible for expediting all loan management and disbursement activities through the Ministry of Finance.

Main tasks and Responsibilities

Specific responsibilities of the Financial Management Specialist include but are not limited to the following:

- Update the financial information in the in the GABS/IFMIS systems to ensure that the PMU and especially the Project Coordinator are regularly informed of on-going financial status and transactions.
- Ensure timely capture of project in the Government of Botswana budget as required by the GoB budgeting processes and calendars including access to counterpart funding. Evaluate annual work plan and budgeting procedures, and budgetary control systems applied to monitor actual expenditures versus budget including commitment controls to avoid commitments beyond available resources.
- Communicate to all districts and implementing partner institutions and service providers their financial responsibilities, the funds available and how to access it, and the requirements of reporting and record keeping in accordance with prevailing government practices which are acceptable to IFAD.
- Ensure that all project funds are used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided.
- Assess compliance with Government of Botswana laws and regulations governing public financial management including adherence to international accounting standards, audits and financial reporting.
- Ensure that all necessary supporting documents, records, and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers.

- Ensure that designated account and operational accounts are maintained in accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures.
- Contribute to the preparation of the Project Implementation and Financial Manuals.
- Ensure the Project's Financial Procedures as detailed in the Project Implementation and Financial Manuals are strictly adhered to by all Project staff and executing agencies at the national and local levels.
- Ensure that the financial statements are prepared in accordance with the prevailing standards.
- Liaise with external auditors to audit the project accounts to meet the required submission dates by both Government of Botswana and IFAD. Review external auditor's reports (Audit Opinions and management letters), including any qualifications and whether any concerns raised by auditors have been adequately addressed.
- Liaise with the other project districts and implementing agencies to ensure that Interim Financial Reports are prepared in timely manner and forwarded to IFAD.
- Process documentation and follow up on disbursements from the government and IFAD to ensure that releases are not delayed. Ensure that funds for project implementation are disbursed in a timely manner to enable project interventions to be carried out on time.
- Review eligibility of expenditure in accordance with the financing agreement.
- Report on the operation of internal control including budget controls and report any deviations.
- Assist the Project Coordinator with the Resource Mobilization of the Project.
- Deputize the Project Coordinator in matters project administration
- Any other duty as may be assigned by the Project Coordinator.

2. Institutional Organization

The Financial Management Specialist will work closely with BOLCOP staff, all partners, implementing agencies of the project and its components, government agencies and other organizations that have a direct link to the project implementation.

3. Reporting and Aapproval

The Financial Management Specialist will report to PMCU Coordinator who will evaluate performance of his/her responsibilities every year.

4. Qualifications and Experience

The Financial Management Specialist should satisfy the following qualifications and criteria:

- An Advance Degree in Business Administration, Finance, Accounting, or Economics from a recognized University.
- Professional Qualification in ACCA or CPA qualification would an added advantage.
- At least a minimum of 7 years' experience working in a similar field and level, 5 of which in Development Partner funded project.
- Demonstrated experience with financial management/accounting in a government ministry/department and donor-funded project.
- Strong computer skills; electronic spreadsheets and other accounting packages.
- Working knowledge of government financial control procedures.
- Fluent in English (written and spoken).

5. Duration of Appointment

The period of assignment in the position will be initially two years and may be extended by mutual agreement, with probation period of three months.

Terms of reference: Project Assistant Accountant

Post title: ***Project Assistant Accountant***

Organisation: ***BOLCOP PMCU Under MoLA***
Location: Gaborone, Botswana
Name of Project: BOLCOP
Duration: Two-year renewable
Type of contract: short term
Closing date: insert

1. Background

The Ministry of Lands and Agriculture (MoLA) is responsible for the implementation and administration of agricultural projects financed by the Government of Botswana and other international donors.

MoLA has established Programme Management Coordination Unit (PMCU) to implement Botswana Livestock Commercialization Project (BoLCoP) in the country.

The Overall Scope of Work for BOLCOP Financial Management Unit

The Financial Management Specialist reports directly to the Project Coordinator and is responsible for the financial management of the project. As Head of Finance and Administration, the Financial Manager will deputize the Project Coordinator and take charge of all matters in the project financing cycle. The project financing cycle to be overseen by the Financial Management Specialist starts from financial-related inputs in AWPB preparation and budget control, committing funds, disbursements and cash flow management in an effective and efficient manner, financial reporting to ensuring smooth audits and facilitation for supervision missions on all financial management aspects. The Financial Management Specialist also supports the Project Coordinator in the resource mobilization of the Project. The Financial Management Specialist will be responsible for expediting all loan management and disbursement activities through the Ministry of Finance. The Financial Management Specialist is assisted by Assistant Accountant.

Main tasks and Responsibilities of Accountant

Specific responsibilities of the Assistant Accountant include but are not limited to the following:

- Manage the financial reporting systems to ensure that the accounting records and information is updated to date at any given time.
- Support the Financial Management Specialist and component heads to prepare the annual work plan and budgets for approval by GoB and IFAD.
- Assist to manage approved budget to ensure AWPB procedures and controls are applied to monitor expenditures to avoid commitments beyond available resources.
- Ensure that all project funds are used in accordance with the conditions of the financing agreements, with due attention to economy and efficiency, and only for the purposes for which the funds were provided.
- Ensure compliance with Government of Botswana laws and regulations governing public financial management including adherence to international accounting standards, audits and financial reporting.
- Ensure that all necessary supporting documents, records, and accounts are kept in respect of all project activities, with clear linkages between the books of account and the financial statements presented to the financiers.
- Ensure that designated account and operational accounts are maintained in accordance with the provisions of the financing agreement and in accordance with the financier's rules and procedures.

- Assist the Financial Management Specialist to prepare interim financial reports and financial statements in accordance with the prevailing standards.
- Assist the Financial Management Specialist in the prepare and make the books of the project available for both internal and external audits to meet the dates set by both Government of Botswana and IFAD.
- Assist the Financial Management Specialist to implement audit recommendations in a timely manner.
- Review eligibility of expenditure in accordance with the financing agreement.
- Any other duty as may be assigned by the Project Financial Management Specialist.

6. Institutional Organization

The project Assistant Accountant will work closely with BOLCOP staff, all partners, implementing districts and agencies of the project and its components, government agencies and other organizations that have a direct link to the project implementation.

7. Reporting and Aapproval

The Project Assistant Accountant will report to Financial Management Specialist who will evaluate performance of his/her responsibilities every year.

8. Qualifications and Experience

The Project Assistant Accountant should satisfy the following qualifications and criteria:

- A bachelor's degree in business administration, Finance, Accounting from a recognized University.
- Professional Qualification in ACCA or CPA qualification is an advantage.
- At least a minimum of 5 years' experience working in a similar field and level, 3 of which in Development Partner funded project.
- Demonstrated experience with financial management/accounting in a government ministry/department and donor-funded project.
- Strong computer skills; electronic spreadsheets and other accounting packages.
- Working knowledge of government financial control procedures.
- Fluent in English (written and spoken).

9. Duration of Appointment

The period of assignment in the position will be initially two years and may be extended by mutual agreement, with probation period of three months.

Illustrative financial statements

Interim Financial Report (IFRs) Templates:

Interim Financial Report User Guide:

INTERIM FINANCIAL REPORT
USER GUIDE

Protection Password: *1234*

Tips:

Provide information in cells highlighted with this color

Text in blue: Provide period for the reporting statement

The cells containing sums and analysis shall be updated automatically.

Cash Forecast:

Provide project information in the highlighted Cells of the Sheet. The "Descriptions" of Categories and Components in this sheet are linked with other sheets. Once provided in this statement will automatically update the "Descriptions in all other statements.

Provide funds forecast for the subsequent two quarters along with anticipated direct payments, in line with approved AWPB for current year. In case the Cash Forecast for subsequent two quarters include fourth quarter of the approved AWPB and the first quarter of the subsequent year (for which the approval of AWPB is awaited), provide forecast of the fourth quarter of approved AWPB in **"Next Reporting Quarter"** column and forecast of the first quarter as per the draft AWPB of subsequent financial year in **"Following Reporting Quarter"**. Once the AWPB of the subsequent year is approved, the information is to be aligned as per the approved AWPB in subsequent WA.

Summary of Sources and Uses of Funds-DA Account:

Provide actual data in cells highlighted with this color.

It should only include the information related to the receipts and payments from DA only.

Designated Account Activity:

Provide required information in the cells highlighted with this color. Information in the other cells is linked with relevant statements/formulas and it shall be updated automatically.

Relevant necessary instruction are provided in the last column for compliance.

"WA Submitted but not yet credited"; to include any pending WA that was submitted in ICP but was not credited to DA as of the relevant application date

"WA received after the end of the quarter (for emergency advances only)"; this line to be filled when project is submitting an emergency advance. It must include any WA received after the end of the directly preceding quarter.

Variance Analysis - Reporting Quarter:

Provide information in cells highlighted with this color.

Provide forecasted figures in the **"Planned"** column for the reporting quarter. The Planned figures for the Quarter are to be aligned with "Cash Forecast" of the reseptive quarter submitted in last WA.

Provide figures for any Direct Payments or Reimbursements in **"Direct Payments/ Reimbursements"** column that were made directly by IFAD to any other account during the reporting quarter.

The Columns for actual data are linked with relevant columns for actual figures in "Summary of Sources and Uses of Funds" statement and shall be updated automatically.

The formulas for variances are incorporated in **"Variance"** columns and the information shall be updated automatically.

Variance Analysis - Financial Year:

Provide information in cells highlighted with this color.

Provide approved AWPB figures in the **"Planned"** column for the respective year.

Provide year to-date figures for any Direct Payments or Reimbursements in **"Direct Payments/ Reimbursements"** column which were made directly by IFAD to any other account during the year.

The Columns for actual data are linked with relevant columns for actual figures in "Summary of Sources and Uses of Funds" statement.

The Columns for Cash Forecast are linked with relevant columns of "Cash Forecast" statement.

The formulas for calculating **"Balance"**, **"Variance"** and **"Performance"** are incorporated in relevant columns and the information shall be updated automatically.

Variance Analysis - Cumulative:

Provide information in cells highlighted with this color.

Provide overall project allocations as per Project Design/Revisions (if any) in the **"Planned"** column.

Provide cumulative since inception to-date figures for any Direct Payments or Reimbursements in "Direct Payments/ Reimbursements" column which were made directly by IFAD to any other account since the inception of the Project.

The Columns for actual data are linked with relevant columns for actual figures in "Summary of Sources and Uses of Funds" statement.

The formulas for calculating **"Balance"** and **"Performance"** are incorporated in relevant columns and the information shall be updated automatically.

Report I: Cash Forecast for Next 2 Quarters

Project Name: SAPEMP
Finance Instruments Numbers
For the Period: Starting Date To End Date

Disbursement Category	Ref	IFAD Loan		
		Next Reporting Quarter	Following Reporting Quarter	Total for 2 Subsequent Quarters
		A	B	C
		DA Denominated Currency		
Forecast by Category:				
1 Category 1 (As per the FA)		-	-	-
2 Category 2 (As per the FA)		-	-	-
3 Category 3 (As per the FA)		-	-	-
4 Category 4 (As per the FA)		-	-	-
5 Category 5 (As per the FA)		-	-	-
Total	I	-	-	-
Forecast by Component:				
1 Component 1 (As per the FA)		-	-	-
2 Component 2 (As per the FA)		-	-	-
3 Component 3 (As per the FA)		-	-	-
Total (must be equal to I)	II	-	-	-
Total Cash Forecast Expenditure	III	-	-	-
Less: Planned Direct Payments/Reimburse	IV	-	-	-
Net projected expenditure from DA	V=III-IV			-

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Report II: Summary of Sources and Uses of Funds - DA Account

Project Name: SAPEMP
Finance Instruments Numbers
For the Period: Starting Date **TO** End Date

Description	REF	IFAD Loan		
		Quarter	Year To-Date	Inception To-Date
		A	B	C
		DA Denominated Currency		
Sources of Funds:				
DA Opening Balances		-	-	-
Operating account opening balance		-	-	-
Petty cash opening balance		-	-	-
Funds received		-	-	-
Total Cash Available	**I**	-	-	-
Uses of Funds by Category:		*Actual for Qtr*	*Actual for FY*	*Actual since inception*
1 Category 1 (As per the FA)		-	-	-
2 Category 2 (As per the FA)		-	-	-
3 Category 3 (As per the FA)		-	-	-
4 Category 4 (As per the FA)				
5 Category 5 (As per the FA)				
Total Funds Used by Categories	**II**	-	-	-
Uses of Funds by Component:				
1 Component 1 (As per the FA)		-	-	-
2 Component 2 (As per the FA)		-	-	-
3 Component 3 (As per the FA)		-	-	-
Total Funds Used by Component (must be equal to II)	**III**	-	-	-
Category not yet identified/adjustments/advance, if any	**IV**	-	-	-
Closing Cash Balances:	**V=I-II-IV**	-	-	-
Represented by:				
DA Closing Balance		-		
Operating account Closing Balance		-		
Petty cash Closing Balance		-		
Total Closing Balance (must equal V):	**VI**	-		

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Report III: Designated Account Activity Statement

Project Name: SAPEMP
Finance Instruments Numbers
For the Period: Starting Date End Date

PART I

	IFAD Loan	Remarks
	DA Denominated Currency	
PART I (Advances and Expenditure)		
1. Cumulative Advances into the DA by IFAD to the end of Reporting Quarter	-	
2. Cumulative Expenditure justified by IFAD until the end of previous reporting Quarter	-	This should match with IFAD records. In case of any differences between project figures and justified figures as per IFAD records, it has to be explained in Line 11 below.
3. Outstanding Advances to be accounted for (Line 1 minus Line 2)	-	This should match with IFAD records.
PART II (DA Activity)		
4. DA balance at beginning of Reporing Quarter	-	
5. Advances by IFAD during the Quarter	-	
6. Add/Substract - Cumulative Adjustments (if any)	-	If not zero, please provide explanation
7. Sub total of Advances and Adjustments (Line 5 plus Line 6)	-	
8. Outstanding Advances to be accounted for (Line 4 plus Line 7)	-	
9. DA balance at end of Quarter	-	
10. Expenditure incurred during the Reporting Quarter	-	
11. Add/Less - Adjustments (if any)	-	If not zero, please provide explanation
12. Total expenditure reported (net of adjustments) (Line 10 plus Line 11)	-	
13. Total Advance accounted for: Add Line 9 and Line 12	-	
14. Difference if any (Line 8 minus Line 13)	-	If not zero, please provide explanation
PART III (CASH FORECASTS)		
15. Total Forecasted amount for subsequent 2 Quarters	-	
16. Planned Direct Payments, Reimbursements, if any	-	
17. Net Forecasted Expenditures from Designated Account (Line 15 less Line 16)	-	
18. Closing DA balance at the end of reporting Quarter after adjustments	-	
19. WA Submitted but not yet credited	-	
20. WA received after the end of the quarter *(for emergency advances only)*	-	Only to be filled in case of emergency advance
21. Replenishment Requirement for Subsequent 2 Reporting Quarters (Line 17 minus Line 18 to 20)	-	
PART IV (SUMMARY OF WITHDRAWAL APPLICATION)		
22. Amounts to be justified against the expenditure incurred during current quarter	-	This amount is to be submitted as justification through the "WA for justification" **this line could be not considered for emergency advances applications*
23. DA Additional Advance - Cash requirement for Subsequent 2 Reporting Quarters, if required.*	-	This amount is to be submitted through a separate "WA for advance" to request this additional advance

Explanation for Line 6 (if not zero):	***FMR & AW Ref.***	

Explanation for Line 11 (if not zero):	***FMR & AW Ref.***	

Explanation for item 14 (if not zero):	***FMR & AW Ref.***	

Explanation for item 19 (if not zero):	***FMR & AW Ref.***	

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Report IV: Variance Analysis of Use of Funds by Quarter

Project Name: SAPEMP
Finance Instruments Numbers
For the Period: **Starting Date** **TO** **End Date**

	IFAD Loan				
	Planned	**Actual Expenditure from DA**	**Direct Payment/ Reimbursements**	**Variance***	
	A	**B**	**C**	**D**	**E**
	Ref: AWP/ Forecast	***Actual for the Quarter***	***Actual for the Quarter***	***A-B-C***	***D/A***
	DA Denominated Currency				**%age**
Expenditure by Categories:					
1 Category 1 (As per the FA)	-	-	-		
2 Category 2 (As per the FA)	-	-	-		
3 Category 3 (As per the FA)	-	-	-		
4 Category 4 (As per the FA)	-	-	-		
5 Category 5 (As per the FA)	-	-	-		
TOTAL I	**-**	**-**	**-**		
Expenditure by Components:					
1 Component 1 (As per the FA)	-	-	-		
2 Component 2 (As per the FA)	-	-	-		
3 Component 3 (As per the FA)	-	-	-		
TOTAL II (must be equal to I)	**-**	**-**	**-**		

**** Note: Provide reasons if the quarterly variances are equal to or more than 10%***

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Report V: Variance Analysis of Use of Funds - FY

Project Name: SAPEMP
Finance Instruments Numbers
For the Period: FY Start Date To End Date

	IFAD Loan						
	Planned	Actual Expenditure from DA	Direct Payment/ Reimbursements	Balance	Forecast	Variance*	
	A	B	C	D=A-B-C	E	F=D-E	G=(B+C)/A
	Ref: AWP/ Forecast	*Actual Cumulative year todate*	*Actual Cumulative year todate*	*AWPB Available Balance*	*Cash Forecast for next 2 quarters*	*Variance b/w AWPB Balance and Cash Forecast*	*Actual Progress against AWPB*
	DA Denominated Currency						%age
Expenditure by Categories:							
1 Category 1 (As per the FA)	-	-	-	-	-	-	
2 Category 2 (As per the FA)	-	-	-	-	-	-	
3 Category 3 (As per the FA)	-	-	-	-	-	-	
4 Category 4 (As per the FA)	-	-	-	-	-	-	
5 Category 5 (As per the FA)	-	-	-	-	-	-	
TOTAL I	-	-	-	-	-	-	
Expenditure by Components:							
1 Component 1 (As per the FA)	-	-	-	-	-	-	
2 Component 2 (As per the FA)	-	-	-	-	-	-	
3 Component 3 (As per the FA)	-	-	-	-	-	-	
TOTAL II (must be equal to I)	-	-	-	-	-	-	

**** Note: Provide reasons if the Cash Forecast is over and above AWPB Balance*** *(i.e. the Forecast includes the Quarter 1 of the Subsequent AWPB)*

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Report VI: Variance Analysis of Use of Funds - Cumulative

Project Name: SAPEMP
Finance Instruments Numbers
For the Period: **Since Inception** **TO** **End Date**

	IFAD Loan				
	Planned	**Actual Expenditure from DA**	**Direct Payment/ Reimbursements**	**Progress**	
	A	**B**	**C**	**D**	**E**
	As per Project Design	***Actual Cumulative todate***	***Actual Cumulative todate***	***A-B-C***	***D/A***
	DA Denominated Currency				**%age**
Expenditure by Categories:					
1 Category 1 (As per the FA)	-	-	-		
2 Category 2 (As per the FA)	-	-	-		
3 Category 3 (As per the FA)	-	-	-		
4 Category 4 (As per the FA)	-	-	-		
5 Category 5 (As per the FA)	-	-	-		
TOTAL I	**-**	**-**	**-**		
Expenditure by Components:					
1 Component 1 (As per the FA)	-	-	-		
2 Component 2 (As per the FA)	-	-	-		
3 Component 3 (As per the FA)	-	-	-		
TOTAL II (must be equal to I)	**-**	**-**	**-**		

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Botswana Livestock Commercialization Project

Project Design Report

Annex: Bo L Co P Design Cost Tables 0310 Oct Digitalisation

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
Report No.	7326-BW

East and Southern Africa Division
Programme Management Department

Botswana

Botswana Livestock Commercialisation Project (BoLCoP)

Components by Financiers

(US$ '000)

	IFAD 13 BRAM	
	Amount	**%**
A. Increased Climate-Resilient Small Livestock Production and Productivity		
Enhanced Access to Quality Feed, Fodder and Animal Health Services	6 283	60
Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practices	4 136	40
Subtotal	10 419	33
B. Strengthened Small Livestock Value Chains		
Strengthened Clustering and Capacity Building of Value Chain Actors	2 421	22
Improved Access to Input and Output Markets	5 870	52
Improved Access to Inclusive and Green Financial Services For Value Chain Actors	2 967	26
Subtotal	11 258	36
C. Enhanced Enabling Environment for Improved Small Livestock Development		
Institutional Strengthening and Policy Support	2 682	28
Project Management and Implementation Support Services	6 761	72
Subtotal	9 443	30
D. RED (Lumpsum to be allocated incase of emergency)	400	1
Total PROJECT COSTS	31 520	100

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Botswana Livestock Commercialisation Project (BoLCoP)

Components by Financiers

(US$ '000)

	IFAD 13 BRAM		Financing Gap		GEF		Adaptation Fund		SSTC Grant		Beneficiaries Government		Beneficiaries (In-Kind)		Total		For.	Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
A. Increased Climate-Resilient Small Livestock Production and Productivity																			
Enhanced Access to Quality Feed, Fodder and Animal Health Services	6 283	28	8 341	38	-	-	4 989	23	-	-	1 961	9	643	3	22 216	26	2 026	18 230	1 961
Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practices	4 136	20	1 911	9	4 750	23	6 913	34	-	-	1 692	8	857	4	20 258	23	1 857	16 710	1 692
Subtotal	10 419	25	10 252	24	4 750	11	11 902	28	-	-	3 653	9	1 500	4	42 475	49	3 882	34 940	3 653
B. Strengthened Small Livestock Value Chains																			
Strengthened Clustering and Capacity Building of Value Chain Actors	2 421	62	1 246	32	-	-	-	-	-	-	229	6	-	-	3 896	5	186	3 481	229
Improved Access to Input and Output Markets	5 870	48	4 543	37	-	-	810	7	-	-	940	8	-	-	12 163	14	1 122	10 101	940
Improved Access to Inclusive and Green Financial Services For Value Chain Actors	2 967	44	2 762	41	-	-	1 000	15	-	-	-	-	-	-	6 729	8	-	6 729	-
Subtotal	11 258	49	8 551	38	-	-	1 810	8	-	-	1 170	5	-	-	22 789	26	1 308	20 311	1 170
C. Enhanced Enabling Environment for Improved Small Livestock Development																			
Institutional Strengthening and Policy Support	2 682	32	636	8	-	-	4 721	56	250	3	95	1	-	-	8 384	10	762	7 527	95
Project Management and Implementation Support Services	6 761	56	3 441	28	250	2	1 567	13	-	-	171	1	-	-	12 190	14	439	11 581	171
Subtotal	9 443	46	4 077	20	250	1	6 288	31	250	1	266	1	-	-	20 575	24	1 200	19 109	266
D. RED (Lumpsum to be allocated incase of emergency)	400	40	600	60	-	-	-	-	-	-	-	-	-	-	1 000	1	-	1 000	-
Total PROJECT COSTS	31 520	36	23 480	27	5 000	6	20 000	23	250	0.3	5 088	6	1 500	2	86 838	100	6 391	75 360	5 088

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Botswana Livestock Commercialisation Project (BoLCoP)

Expenditure Accounts by Financiers

(US$ '000)

	IFAD 13 BRAM		Financing Gap		GEF		Adaptation Fund		SSTC Grant		Government		Beneficiaries (In-Kind)		Total		For.	Local (Excl.	Duties &
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
I. Investment Costs																			
A. Civil Works	5 480	22	7 502	30	-	-	8 915	35	-	-	2 734	11	721	3	25 352	29	2 262	20 356	2 734
B. Equipment and Materials	4 654	50	2 112	23	-	-	1 607	17	17	0.2	1 015	11	-	-	9 405	11	839	7 551	1 015
C. Goods, Services and Inputs	4 684	25	3 334	18	4 750	25	4 151	22	-	-	1 098	6	779	4	18 796	22	1 465	16 233	1 098
D. Technical Assistance	5 776	50	2 513	22	-	-	3 030	26	112	1	241	2	-	-	11 671	13	1 049	10 381	241
E. Training	4 961	60	2 496	30	-	-	730	9	121	2	1	-	-	-	8 309	10	776	7 533	1
F. Line of Credit	2 250	45	2 750	55	-	-	-	-	-	-	-	-	-	-	5 000	6	-	5 000	-
Total Investment Costs	27 806	35	20 706	26	4 750	6	18 433	24	250	0.3	5 088	7	1 500	2	78 532	90	6 391	67 054	5 088
II. Recurrent Costs																			
A. Salaries and Allowances	2 508	47	2 148	40	250	5	407	8	-	-	-	-	-	-	5 314	6	-	5 314	-
B. Operations and Maintenance	1 206	40	626	21	-	-	1 160	39	-	-	-	-	-	-	2 992	3	-	2 992	-
Total Recurrent Costs	3 714	45	2 774	33	250	3	1 567	19	-	-	-	-	-	-	8 306	10	-	8 306	-
Total PROJECT COSTS	31 520	36	23 480	27	5 000	6	20 000	23	250	0.3	5 088	6	1 500	2	86 838	100	6 391	75 360	5 088

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Botswana Livestock Commercialisation Project (BoLCoP)

Disbursements by Semesters and Government Cash Flow

(US$ '000)

	Financing Available							Costs to be Financed Government		
	IFAD 13 BRAM	Financing Gap	GEF	Adaptation Fund	SSTC Grant	Beneficiaries (In-Kind)		Project		Cumulative
	Amount	Amount	Amount	Amount	Amount	Amount	Total	Costs	Cash Flow	Cash Flow
1	2 989	-	-	-	-	4	2 993	3 165	-173	-173
2	2 989	-	-	-	-	4	2 993	3 165	-173	-346
3	3 696	-	-	-	2	21	3 720	3 936	-216	-562
4	3 696	-	-	-	2	21	3 720	3 936	-216	-778
5	4 814	-	113	5 131	14	116	10 188	10 701	-513	-1 291
6	4 814	-	113	5 131	14	116	10 188	10 701	-513	-1 804
7	2 497	2 120	485	2 398	40	204	7 744	8 342	-598	-2 402
8	2 497	2 120	485	2 398	40	204	7 744	8 342	-598	-3 000
9	1 546	2 767	733	1 390	26	198	6 660	7 199	-539	-3 539
10	1 546	2 767	733	1 390	26	198	6 660	7 199	-539	-4 079
11	145	2 845	747	425	30	138	4 330	4 625	-296	-4 374
12	145	2 845	747	425	30	138	4 330	4 625	-296	-4 670
13	53	2 435	271	340	14	49	3 161	3 311	-150	-4 820
14	53	2 435	271	340	14	49	3 161	3 311	-150	-4 971
15	20	1 574	151	315	-	20	2 080	2 139	-59	-5 029
16	20	1 574	151	315	-	20	2 080	2 139	-59	-5 088
Total	31 520	23 480	5 000	20 000	250	1 500	81 750	86 838	-5 088	-5 088

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Botswana Livestock Commercialisation Project (BoLCoP)
Financing Plan
(US$ '000)

	Foreign	Local	Total	Percent
IFAD 13 BRAM	2 319	29 201	31 520	36
Financing Gap	1 678	21 802	23 480	27
GEF	475	4 525	5 000	6
Adaptation Fund	1 743	18 257	20 000	23
SSTC Grant	25	225	250	0.3
Government	-	5 088	5 088	6
Beneficiaries (In-Kind)	150	1 350	1 500	2
Total	6 391	80 448	86 838	100

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Botswana Livestock Commercialisation Project (BoLCoP)

Components Project Cost Summary

	(BWP '000)			(US$ '000)			% Foreign	% Total Base
	Local	**Foreign**	**Total**	**Local**	**Foreign**	**Total**	**Exchange**	**Costs**
A. Increased Climate-Resilient Small Livestock Production and Productivity								
Enhanced Access to Quality Feed, Fodder and Animal Health Services	282 612	28 352	310 964	20 187	2 025	22 212	9	26
Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practices	245 878	24 838	270 716	17 563	1 774	19 337	9	23
Subtotal	528 490	53 190	581 680	37 749	3 799	41 549	9	48
B. Strengthened Small Livestock Value Chains								
Strengthened Clustering and Capacity Building of Value Chain Actors	51 632	2 570	54 202	3 688	184	3 872	5	5
Improved Access to Input and Output Markets	152 697	15 531	168 229	10 907	1 109	12 016	9	14
Improved Access to Inclusive and Green Financial Services For Value Chain Actors	94 207	-	94 207	6 729	-	6 729	-	8
Subtotal	298 536	18 101	316 637	21 324	1 293	22 617	6	26
C. Enhanced Enabling Environment for Improved Small Livestock Development								
Institutional Strengthening and Policy Support	106 087	10 594	116 682	7 578	757	8 334	9	10
Project Management and Implementation Support Services	164 525	6 140	170 665	11 752	439	12 190	4	14
Subtotal	270 612	16 734	287 347	19 329	1 195	20 525	6	24
D. RED (Lumpsum to be allocated incase of emergency)	14 000	-	14 000	1 000	-	1 000	-	1
Total BASELINE COSTS	1 111 638	88 026	1 199 664	79 403	6 288	85 690	7	100
Physical Contingencies	3 863	375	4 238	276	27	303	9	-
Price Contingencies	10 766	1 067	11 833	769	76	845	9	1
Total PROJECT COSTS	1 126 268	89 467	1 215 735	80 448	6 391	86 838	7	101

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Botswana Livestock Commercialisation Project (BoLCoP)

Expenditure Accounts Project Cost Summary

	(BWP '000)			(US$ '000)			% Foreign
	Local	**Foreign**	**Total**	**Local**	**Foreign**	**Total**	**Exchange**
I. Investment Costs							
A. Civil Works	318 555	31 213	349 768	22 754	2 229	24 983	9
B. Equipment and Materials	119 751	11 729	131 480	8 554	838	9 391	9
C. Goods, Services and Inputs	233 841	19 640	253 482	16 703	1 403	18 106	8
D. Technical Assistance	148 017	14 618	162 635	10 573	1 044	11 617	9
E. Training	105 191	10 826	116 017	7 514	773	8 287	9
F. Line of Credit	70 000	-	70 000	5 000	-	5 000	-
Total Investment Costs	995 356	88 026	1 083 382	71 097	6 288	77 384	8
II. Recurrent Costs							
A. Salaries and Allowances	74 394	-	74 394	5 314	-	5 314	-
B. Operations and Maintenance	41 888	-	41 888	2 992	-	2 992	-
Total Recurrent Costs	116 282	-	116 282	8 306	-	8 306	-
Total BASELINE COSTS	1 111 638	88 026	1 199 664	79 403	6 288	85 690	7
Physical Contingencies	3 863	375	4 238	276	27	303	9
Price Contingencies	10 766	1 067	11 833	769	76	845	9
Total PROJECT COSTS	1 126 268	89 467	1 215 735	80 448	6 391	86 838	7

% Total Base Costs
29
11
21
14
10
6
90
6
3
10
100
-
1
101

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Botswana Livestock Commercialisation Project (BoLCoP)
Expenditure Accounts by Components - Totals Including Contingencies
(US$ '000)

	Increased Climate-Resilient Small Livestock Production and Productivity	Strengthened Small Livestock Value Chains			Improved Enabling Environment Small Livestock Development				
	Enhanced Access to Quality Feed, Fodder and Animal Health Services	Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practices	Strengthened Clustering and Capacity Building of Value Chain Actors	Improved Access to Input and Output Markets	Improved Access to Inclusive and Green Financial Services For Value Chain Actors	Institutional Strengthening and Policy Support	Project Management and Implementation Support Services	RED (Lumpsum to be allocated incase of emergency)	Total
I. Investment Costs									
A. Civil Works	11 461	4 606	947	8 338	-	-	-	-	25 352
B. Equipment and Materials	5 450	643	-	414	-	1 429	1 469	-	9 405
C. Goods, Services and Inputs	1 882	11 393	1 030	687	1 020	1 751	32	1 000	18 796
D. Technical Assistance	1 048	2 466	1 044	1 324	696	3 544	1 549	-	11 671
E. Training	2 375	1 150	876	1 400	13	988	1 507	-	8 309
F. Line of Credit	-	-	-	-	5 000	-	-	-	5 000
Total Investment Costs	22 216	20 258	3 896	12 163	6 729	7 712	4 557	1 000	78 532
II. Recurrent Costs									
A. Salaries and Allowances	-	-	-	-	-	-	5 314	-	5 314
B. Operations and Maintenance	-	-	-	-	-	672	2 320	-	2 992
Total Recurrent Costs	-	-	-	-	-	672	7 634	-	8 306
Total PROJECT COSTS	22 216	20 258	3 896	12 163	6 729	8 384	12 190	1 000	86 838
Taxes	1 961	1 692	229	940	-	95	171	-	5 088
Foreign Exchange	2 026	1 857	186	1 122	-	762	439	-	6 391

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Botswana Livestock Commercialisation Project (BoLCoP)

Project Components by Year -- Totals Including Contingencies

(US$ '000)

	Totals Including Contingencies								
	2026	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
A. Increased Climate-Resilient Small Livestock Production and Productivity									
Enhanced Access to Quality Feed, Fodder and Animal Health Services	621	2 183	7 023	6 061	3 949	1 321	985	76	22 216
Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practices	300	759	4 903	4 856	4 833	3 173	914	520	20 258
Subtotal	920	2 942	11 926	10 916	8 781	4 494	1 899	596	42 475
B. Strengthened Small Livestock Value Chains									
Strengthened Clustering and Capacity Building of Value Chain Actors	397	627	457	477	607	477	457	397	3 896
Improved Access to Input and Output Markets	770	2 025	2 160	2 104	1 653	1 543	1 299	610	12 163
Improved Access to Inclusive and Green Financial Services For Value Chain Actors	565	419	1 583	578	822	754	1 004	1 004	6 729
Subtotal	1 731	3 071	4 200	3 160	3 083	2 774	2 760	2 010	22 789
C. Enhanced Enabling Environment for Improved Small Livestock Development									
Institutional Strengthening and Policy Support	921	472	3 846	1 037	757	545	430	376	8 384
Project Management and Implementation Support Services	2 758	1 386	1 231	1 371	1 577	1 238	1 334	1 296	12 190
Subtotal	3 679	1 858	5 077	2 408	2 334	1 783	1 764	1 671	20 575
D. RED (Lumpsum to be allocated incase of emergency)	-	-	200	200	200	200	200	-	1 000
Total PROJECT COSTS	6 331	7 871	21 403	16 684	14 398	9 251	6 623	4 277	86 838

Botswana

Botswana Livestock Commercialisation Project (BoLCoP)

Expenditure Accounts by Years -- Totals Including Contingencies

(US$ '000)

	Totals Including Contingencies								
	2026	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
I. Investment Costs									
A. Civil Works	639	2 094	7 313	6 740	5 121	1 716	1 278	451	25 352
B. Equipment and Materials	2 211	984	2 263	1 788	1 267	549	342	-	9 405
C. Goods, Services and Inputs	339	981	4 290	3 176	3 839	3 569	1 728	874	18 796
D. Technical Assistance	982	1 386	4 037	1 823	1 173	953	764	554	11 671
E. Training	872	1 138	1 961	1 619	1 211	676	472	360	8 309
F. Line of Credit	250	250	500	500	750	750	1 000	1 000	5 000
Total Investment Costs	5 293	6 833	20 364	15 646	13 360	8 213	5 584	3 239	78 532
II. Recurrent Costs									
A. Salaries and Allowances	664	664	664	664	664	664	664	664	5 314
B. Operations and Maintenance	374	374	374	374	374	374	374	374	2 992
Total Recurrent Costs	1 038	1 038	1 038	1 038	1 038	1 038	1 038	1 038	8 306
Total PROJECT COSTS	6 331	7 871	21 403	16 684	14 398	9 251	6 623	4 277	86 838

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 1.1. Policy and Institutional Strengthening
Detailed Costs

	Unit	Quantities								Unit Cost	Totals Including Contingencies (US$ '000)								Summary Divisions	
		2026	2027	2028	2029	2030	2031	2032	2033	Total	(US$)	2026	2027	2028	2029	2030	2031	2032	2033	Total	Component	Expenditure Account
I. Investment Costs																						
A. Enhance availability of small livestock breeds																						
Improvement of small livestock genetic resources /a	Lumpsum	0.1	0.2	0.2	0.15	0.15	0.1	0.1	-	1	300.000	30	60	60	45	45	30	30	-	300	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	GOODS SERVICES AND INPUTS
Judicious use of pure breeds	Animals	100	250	250	200	200	-	-	-	1 000	500	50	125	125	100	100	-	-	-	500	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	GOODS SERVICES AND INPUTS
Set up AI programme	Lumpsum	-	0.2	0.4	0.4	-	-	-	-	1	300.000	-	60	120	120	-	-	-	-	300	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Multiplication of climate-adapted breeds	Animals	-	200	300	400	500	500	500	-	2 400	250	-	50	75	100	125	125	125	-	600	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	GOODS SERVICES AND INPUTS
Sire exchange programme	Animals	-	-	100	200	400	500	500	-	1 700	250	-	-	25	50	100	125	125	-	425	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	GOODS SERVICES AND INPUTS
Set up community-based climate resilient breeding program	Farmer groups	-	0.1	0.2	0.2	0.15	0.15	0.1	0.1	1	300.000	-	30	60	60	45	45	30	30	300	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Subtotal												80	325	465	475	415	325	310	30	2 425		
B. Comprehensive capacity-building package to small li																						
Training of trainers (ToT)	Session	4	5	2	1	-	-	-	-	12	12.000	48	60	24	12	-	-	-	-	144	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TRAINING 1
Small livestock management - sheep, goats, and poultry	Session	15	20	40	30	15	-	-	-	120	2.000	30	40	80	60	30	-	-	-	240	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TRAINING 1
Husbandry and record keeping	Session	15	20	40	30	15	-	-	-	120	2.000	30	40	80	60	30	-	-	-	240	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TRAINING 1
Breedino and reproduction	Session	15	20	40	30	15	-	-	-	120	2.000	30	40	80	60	30	-	-	-	240	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TRAINING 1
Livestock handling	Session	15	20	40	30	15	-	-	-	120	2.000	30	40	80	60	30	-	-	-	240	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TRAINING 1
Animal health management, incl. flock health calendar	Session	15	20	40	30	15	-	-	-	120	2.000	30	40	80	60	30	-	-	-	240	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TRAINING 1
Feeds + feeding management, incl. feedlotting	Session	15	20	40	30	15	-	-	-	120	3.000	45	60	120	90	45	-	-	-	360	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TRAINING 1
Equiping training centres /c	Lumpsum	1	2	2	1	-	-	-	-	6	220.000	251	502	502	251	-	-	-	-	1 505	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	EQUIPMENT AND MATERIALS
Subtotal												494	822	1 046	653	195	-	-	-	3 209		
C. Support for improved livestock healthcare																						
Capacitate district veterinarians	Lumpsum	-	2	4	4	2	-	-	-	12	15.000	-	30	60	60	30	-	-	-	180	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TRAINING 1
Equipping animal production + health extension staff	Staff	-	10	30	20	-	-	-	-	60	5.000	-	57	171	114	-	-	-	-	342	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	EQUIPMENT AND MATERIALS
Equipping community animal health workers (CAHWs)	Staff	-	30	60	60	30	-	-	-	180	2.000	-	68	137	137	68	-	-	-	410	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	EQUIPMENT AND MATERIALS
Training of extension staff (district and village level) /d	Session	-	2	6	4	-	-	-	-	12	3.000	-	6	18	12	-	-	-	-	36	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TRAINING 1
Training of CAHWs /e	Session	-	30	60	60	30	-	-	-	180	2.500	-	75	150	150	75	-	-	-	450	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TRAINING 1
Disease monitoring, surveillance and diagnostics	Lumpsum	-	0.2	0.3	0.1	0.1	0.1	0.1	0.1	1	250.000	-	50	75	25	25	25	25	25	250	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Subtotal												-	286	611	498	198	25	25	25	1 668		
D. Small livestock infrastructure investments																						
Solar powered water pumps and related infrastructure /f	Number	-	-	8	7	5	-	-	-	20	80.000	-	-	730	638	456	-	-	-	1 824	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	CIVIL WORKS
Drip irrigation kits for forage /g	Hectare	-	-	80	80	50	-	-	-	210	3.000	-	-	274	274	171	-	-	-	718	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	EQUIPMENT AND MATERIALS
Irrigation infrastructure for forage/feeds production /h	Hectare	-	-	50	50	25	-	-	-	125	4.400	-	-	251	251	125	-	-	-	627	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	CIVIL WORKS
Solar-powered processing machines	Number	-	-	15	15	-	-	-	-	30	2.000	-	-	34	34	-	-	-	-	68	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	EQUIPMENT AND MATERIALS
Rainwater harvesting systems	Number	-	-	20	20	-	-	-	-	40	5.275	-	-	120	120	-	-	-	-	241	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	CIVIL WORKS
Small-scale water storage & wastewater reuse systems	Number	-	-	30	31	-	-	-	-	61	11.000	-	-	376	389	-	-	-	-	765	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	CIVIL WORKS
Climate-resilient innovations pilots /i	Number	-	-	2	2	-	-	-	-	4	50.000	-	-	116	116	-	-	-	-	233	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	CIVIL WORKS
Forage harvesting equipment /j	Number	-	50	100	100	100	150	100	-	600	3.000	-	171	342	342	342	513	342	-	2 052	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	EQUIPMENT AND MATERIALS
Silage making consumables - drums	Number	500	1 500	2 000	2 000	1 000	1 500	1 000	500	10 000	5	3	9	11	11	6	9	6	3	57	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	GOODS SERVICES AND INPUTS
Farm level animal handlig infrastructure, - pens, sheds, fowl	Number	20	50	100	300	200	200	130	-	1 000	1.925	44	110	219	658	439	439	285	-	2 195	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	CIVIL WORKS
Crush pens/dip tanks - community/cluster level /k	Number	-	5	15	20	20	-	-	-	60	44.000	-	251	752	1 003	1 003	-	-	-	3 010	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	CIVIL WORKS
Feedlots/fowl runs - cluster level /l	Number	-	5	15	20	20	-	-	-	60	20.000	-	114	342	456	456	-	-	-	1 368	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	CIVIL WORKS
Feed processing equipment /m	Number	-	-	1	1	1	-	-	-	3	100.000	-	-	114	114	114	-	-	-	342	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	EQUIPMENT AND MATERIALS
Additional AF Financing for Green Livestock Infrastructure	Lumpsum	-	-	1	-	-	-	-	-	1	200.000	-	-	1 200	-	-	-	-	-	1 200	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	CIVIL WORKS
Subtotal												47	654	4 882	4 407	3 112	960	633	3	14 699		
E. USSD and IVR e-extension services																						
Content design and platform development,anguage prep	Package	-	1	-	-	-	-	-	-	1	25.000	-	29	-	-	-	-	-	-	29	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Content refresh & usability improvements	Lumpsum	-	-	1	-	-	-	-	-	1	5.000	-	-	6	-	-	-	-	-	6	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Language expansion and and voice script update	Lumpsum	-	-	-	1	-	-	-	-	1	6.000	-	-	-	7	-	-	-	-	7	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Content update	Lumpsum	-	-	-	-	1	-	-	-	1	7.000	-	-	-	-	8	-	-	-	8	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Voice/audio recording refresh	Lumpsum	-	-	-	-	1	-	-	-	1	8.000	-	-	-	9	-	-	-	-	9	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Final overhaul and sustainability transition	Lumpsum	-	-	-	-	-	-	1	1	2	5.000	-	-	-	-	-	-	6	6	11	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Annual updates, system improvements	Per Year	-	-	-	1	1	1	1	1	5	2.500	-	-	-	3	3	3	3	3	14	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Subtotal												-	29	6	10	20	3	9	9	84		
F. CAHWs mobile registry app																						
Mobile App design & development	Package	-	1	-	-	-	-	-	-	1	18.000	-	21	-	-	-	-	-	-	21	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Hardware for CAHWs	Number	-	22	-	-	-	-	-	-	22	500	-	13	-	-	-	-	-	-	13	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	EQUIPMENT AND MATERIALS
Initial rollout & CAHW onboarding	Session	-	2	3	-	-	-	-	-	5	1.000	-	2	3	-	-	-	-	-	5	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TRAINING 1
App updates & feedback integration	Update	-	-	-	1	1	1	1	1	5	2.000	-	-	-	2	2	2	2	2	11	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Integration with MoA health data systems	API and linkages	-	-	-	-	-	-	-	1	1	6.000	-	-	-	-	-	-	-	7	7	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Subtotal												-	35	3	2	2	2	2	9	56		
G. BAITS Small Livestock Enhancement																						
Current Software Audit and early Development feasible core	Package	-	1	-	-	-	-	-	-	1	28.000	-	32	-	-	-	-	-	-	32	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Pilotino and trainino /initial rollout	pilots package in 3 districts	-	-	3	-	-	-	-	-	3	3.000	-	-	10	-	-	-	-	-	10	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Market integration and dashboards to enable buyer/seller fi	Cycle	-	-	-	2	-	-	-	-	2	7.000	-	-	-	16	-	-	-	-	16	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Interoperability, updates, and usability fixes	Annual update cycle	-	-	-	-	1	1	1	-	3	5.000	-	-	-	-	6	6	6	-	17	ENHANCED ACCESS TO QUALITY FEED FODDER AND ANIMAL HEALTH SERVICES	TECHNICAL ASSISTANCE 1
Subtotal												-	32	10	16	6	6	6	-	75		
Total												621	2 183	7 023	6 061	3 949	1 321	985	76	22 218		

\a genetic improvement programme for indigenous smallstock -NARDI/BUAN
\b organizing communities to select small livestock with desirable genetic traits - NARDI
\c renovations at training centres -Impala, Lobu and 4xNARDI
\d training of veterinary assistants/crop ext. in small livestock production
\e a total of 180 CAHWs to be trained (15 per each district)
\f community/cluster level boreholes incl. storage tanks + water troughs
\g small farm level drip kits for fodder (loan scheme or matching grants)
\h support for commercial forage for sale by youths/women (loans)
\i Includes underground dams, sand dams, ultra-efficient irrigation systems
\j This may include tractor-mounted mowers, forage choppers, and balers for producing hay or silage from cultivated and rangeland forages
\k community infr. under local authorities
\l community infr. under local authorities
\m district level equipment (loan to entrepreneurs)

Expenditures by Financiers (US$ '000)

Other Accounts		IFAD 13 BRAM									Financing Gap								Adaptation Fund								Government								Beneficiaries (In-Kind)							
Disb. Acct.	Fin. Rule	2026	2027	2028	2029	2030	2031	2032	2033	Total	2026	2027	2028	2029	2030	2031	2032	2033	Total	2026	2027	2028	2029	2030	2031	2032	2033	Total	2026	2027	2028	2029	2030	2031	2032	2033	Total	2026	2027	2028	2029	2030	2031	2032	2033	Total
GOODS_SVCES_INPUTS	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	30	60	60	-	-	-	-	-	150	-	-	-	45	45	30	30	-	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GOODS_SVCES_INPUTS	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	50	125	125	-	-	-	-	-	300	-	-	-	100	100	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	60	120	-	-	-	-	-	180	-	-	-	120	-	-	-	-	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GOODS_SVCES_INPUTS	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	50	75	-	-	-	-	-	125	-	-	-	100	125	125	125	-	475	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GOODS_SVCES_INPUTS	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	-	25	-	-	-	-	-	25	-	-	-	50	100	125	125	-	400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	30	60	-	-	-	-	-	90	-	-	-	60	45	45	30	30	210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		80	325	465	-	-	-	-	-	870	-	-	-	475	415	325	310	30	1 555	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	48	60	24	-	-	-	-	-	132	-	-	-	12	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	30	40	80	-	-	-	-	-	150	-	-	-	60	30	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	30	40	80	-	-	-	-	-	150	-	-	-	60	30	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	30	40	80	-	-	-	-	-	150	-	-	-	60	30	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	30	40	80	-	-	-	-	-	150	-	-	-	60	30	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	45	60	120	-	-	-	-	-	225	-	-	-	90	45	-	-	-	135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 4. 0% FOR 4), IFAD (0% FOR 4. 100% FOR 4)	220	440	440	220	-	-	-	-	1 320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	62	62	31	-	-	-	-	185	-	-	-	-	-	-	-	-	-
		463	760	984	220	-	-	-	-	2 427	-	-	-	402	195	-	-	-	597	-	-	-	-	-	-	-	-	-	-	31	62	62	31	-	-	-	-	185	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	30	60	-	-	-	-	-	90	-	-	-	60	30	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	50	150	-	-	-	-	-	200	-	-	-	100	-	-	-	-	100	-	-	-	-	-	-	-	-	-	-	-	7	21	14	-	-	-	-	42	-	-	-	-	-	-	-	-	-
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	60	120	-	-	-	-	-	180	-	-	-	120	60	-	-	-	180	-	-	-	-	-	-	-	-	-	-	-	8	17	17	8	-	-	-	50	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	6	18	-	-	-	-	-	24	-	-	-	12	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	75	150	-	-	-	-	-	225	-	-	-	150	75	-	-	-	225	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	50	75	-	-	-	-	-	125	-	-	-	25	25	25	25	25	125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		-	271	573	-	-	-	-	-	844	-	-	-	467	190	25	25	25	732	-	-	-	-	-	-	-	-	-	-	15	38	31	8	-	-	-	-	92	-	-	-	-	-	-	-	-	-
CW_DA	ADAPTATION_FUND (100%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	640	560	400	-	-	1 600	-	-	90	78	56	-	-	-	224	-	-	-	-	-	-	-	-	-
EQUIPMENT_AND_MATERIALS_1	ADAPTATION_FUND (100%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240	240	150	-	-	630	-	-	34	34	21	-	-	-	88	-	-	-	-	-	-	-	-	-
CW_DA	ADAPTATION_FUND (90%), BENEFICIARIES (10%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	197	197	99	-	-	494	-	-	31	31	15	-	-	-	77	-	-	23	23	11	-	-	-	56
EQUIPMENT_AND_MATERIALS_1	ADAPTATION_FUND (100%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	30	-	-	-	60	-	-	4	4	-	-	-	-	8	-	-	-	-	-	-	-	-	-
CW_DA	ADAPTATION_FUND (94.5%), BENEFICIARIES (5.5%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	99	99	-	-	-	199	-	-	15	15	-	-	-	-	30	-	-	6	6	-	-	-	-	12
CW_DA	ADAPTATION_FUND (90%), BENEFICIARIES (10%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	296	306	-	-	-	602	-	-	46	48	-	-	-	-	94	-	-	34	35	-	-	-	-	69
CW_DA	ADAPTATION_FUND (100%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	102	102	-	-	-	204	-	-	14	14	-	-	-	-	29	-	-	-	-	-	-	-	-	-
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	150	300	-	-	-	-	-	450	-	-	-	300	300	450	300	-	1 350	-	-	-	-	-	-	-	-	-	-	-	21	42	42	42	63	42	-	252	-	-	-	-	-	-	-	-	-
GOODS_SVCES_INPUTS	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	3	8	10	-	-	-	-	-	20	-	-	-	10	5	8	5	3	30	-	-	-	-	-	-	-	-	-	0	1	1	1	1	1	1	0	7	-	-	-	-	-	-	-	-	-
CW_DA	IFAD_LOAN (90% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 90% FOR 5), BENEFICIARIES (10%)	35	86	173	-	-	-	-	-	294	-	-	-	518	346	346	225	-	1 434	-	-	-	-	-	-	-	-	-	5	13	27	81	54	54	35	-	270	4	10	20	59	39	39	26	-	197
CW_DA	IFAD_LOAN (90% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 90% FOR 5), BENEFICIARIES (10%)	-	194	583	-	-	-	-	-	777	-	-	-	777	777	-	-	-	1 554	-	-	-	-	-	-	-	-	-	-	-	31	92	123	123	-	-	-	370	-	26	77	103	103	-	-	-	309
CW_DA	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	100	300	-	-	-	-	-	400	-	-	-	400	400	-	-	-	800	-	-	-	-	-	-	-	-	-	-	-	14	42	56	56	-	-	-	168	-	-	-	-	-	-	-	-	-
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	-	100	-	-	-	-	-	100	-	-	-	100	100	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	14	14	14	-	-	-	42	-	-	-	-	-	-	-	-	-
CW_DA	ADAPTATION_FUND (100%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1 200	-	-	-	-	1 200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		37	538	1 466	-	-	-	-	-	2 041	-	-	-	2 105	1 928	803	530	3	5 368	-	-	2 805	1 535	649	-	-	-	4 989	6	80	452	541	382	118	78	0	1 658	4	36	159	226	154	39	26	-	643
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	25	-	-	-	-	-	-	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	-	5	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	5	-	-	-	-	1	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	3	3	13	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	2	-	-	-	-	-	-	-	-	-
		-	25	5	-	-	-	-	-	30	-	-	-	9	18	3	8	8	44	-	-	-	-	-	-	-	-	-	-	-	4	1	1	2	0	1	1	10	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	18	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	11	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	2	3	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	10	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	1	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-
		-	31	3	-	-	-	-	-	34	-	-	-	2	2	2	2	8	16	-	-	-	-	-	-	-	-	-	-	-	4	-	0	0	0	0	1	6	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	28	-	-	-	-	-	-	28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	-	9	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	2	-	-	-	-	-	-	-	-	-
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3. 0% FOR 5), IFAD (0% FOR 3. 100% FOR 5)	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	5	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	2	-	-	-	-	-	-	-	-	-
		-	28	9	-	-	-	-	-	37	-	-	-	14	5	5	5	-	29	-	-	-	-	-	-	-	-	-	-	4	1	2	1	1	1	-	9	-	-	-	-	-	-	-	-	-
		580	1 978	3 505	220	-	-	-	-	6 283	-	-	-	3 474	2 752	1 163	879	73	8 341	-	-	2 805	1 535	649	-	-	-	4 989	37	169	554	606	394	119	80	3	1 961	4	36	159	226	154	39	26	-	643

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 1.2. Improved Capacity of Farmers To Adopt Climate Resilient Pro
Detailed Costs

		Quantities									Unit Cost	Totals Including Contingencies (US$ '000)								
	Unit	2026	2027	2028	2029	2030	2031	2032	2033	Total	(US$)	2026	2027	2028	2029	2030	2031	2032	2033	Total
I. Investment Costs																				
A. Enhanced access to feed and fodder																				
Acquisition of forage seeds and germplasm suited to dry environs.	Tonnes	5	5	20	30	-	-	-	-	60	6,600	38	38	150	226	-	-	-	-	451
Multiplication of adapted forage seed and germplasm	Hectare	20	50	100	300	130	-	-	-	600	1,000	23	57	114	342	148	-	-	-	684
Seed distribution	Tonnes	-	20	30	100	200	300	50	50	750	1,650	-	38	56	188	376	564	94	94	1 411
Forage agronomy demonstrations	Session	-	15	20	40	30	15	-	-	120	3,000	-	51	68	137	103	51	-	-	410
Forage harvesting, storage and utilization demonstrations	Session	-	15	20	40	30	15	-	-	120	4,000	-	68	91	182	137	68	-	-	547
Development of diets/rations from indigenous/rangeland plants	Lumpsum	0.2	0.25	0.25	0.15	0.15	-	-	-	1	200,000	46	57	57	34	34	-	-	-	228
Small livestock feeding demos	Session	-	15	20	40	30	15	-	-	120	2,500	-	38	50	100	75	38	-	-	300
Farmer training/capacity building	Session	-	15	20	40	30	15	-	-	120	2,500	-	38	50	100	75	38	-	-	300
Cultivation pilots for perennial grains /a	Lumpsum	-	-	2	2	2	-	-	-	6	40,000	-	-	80	80	80	-	-	-	240
Prosopsis control and reseeding /b	Hectare	-	-	100	200	50	50	-	-	400	1,000	-	-	100	200	50	50	-	-	400
Subtotal												106	384	818	1 589	1 078	809	94	94	4 972
B. Community Fodder Banks & Feed Storage Facilities (Construction of	Number	-	-	20	20	10	-	-	-	50	25,000	-	-	500	500	250	-	-	-	1 250
C. Training on fodder management & conservation	Package	-	-	10	10	5	-	-	-	25	10,000	-	-	100	100	50	-	-	-	250
D. Dedicated community-based rangelands management																				
Community mobilization/sensitization	Meeting	-	-	15	15	10	10	5	5	60	5,000	-	-	75	75	50	50	25	25	300
Mapping of rangelands + landuse planning	Lumpsum	-	-	0.2	0.2	0.2	0.3	0.1	-	1	200,000	-	-	40	40	40	60	20	-	200
Implementation/monitoring grazing management	Lumpsum	-	-	0.2	0.2	0.2	0.3	0.1	-	1	300,000	-	-	60	60	60	90	30	-	300
Soil + water conservation measures	Hectare	-	-	500	2 000	3 000	3 000	1 000	500	10 000	550	-	-	325	1 328	2 031	2 072	704	359	6 820
Livestock watering infrastructure	Number	-	-	20	20	20	-	-	-	60	22,000	-	-	538	548	559	-	-	-	1 645
Electric fencing units	Units	-	-	60	40	80	20	-	-	200	2,000	-	-	147	100	203	52	-	-	502
Satelite-based rangelands monitoring tools & geotagging	Lumpsum	-	-	1	-	-	-	-	-	1	100,000	-	-	122	-	-	-	-	-	122
Conflict mitigation measures (early warning, predator-proof kraals)	Number	-	-	5	5	5	-	-	-	15	70,000	-	-	403	403	403	-	-	-	1 209
Subtotal												-	-	1 710	2 554	3 347	2 324	779	384	11 098
E. Digital Rangeland and Advisory Tools																				
Automated Weather stations	Units	5	5	5	5	-	-	-	-	20	5,000	29	29	29	29	-	-	-	-	114
Establishment of digital communication platforms	Lumpsum	-	0.5	0.5	-	-	-	-	-	1	250,000	-	143	143	-	-	-	-	-	285
Subtotal												29	171	171	29	-	-	-	-	399
F. Drones for vaccine delivery, rapid damage, disease-risk scans, a																				
Drones (hardware)	Number	9	-	-	-	-	-	-	-	9	7,000	64	-	-	-	-	-	-	-	64
Maintenance and Upgrades	Per Year	-	1	1	1	1	1	1	1	7	18,000	-	19	19	19	20	20	20	21	138
Insurance, licensing, processing etc	Per Year	1	1	1	1	1	1	1	1	8	18,000	18	19	19	19	20	20	20	21	156
Subtotal												82	37	38	39	39	40	41	42	358
G. Digital Extension and Animal Health Services																				
Digital BAITS system	Unit	1	2	2	-	-	-	-	-	5	15,000	15	30	30	-	-	-	-	-	75
BAITS tags	Units	10 000	20 000	20 000	20 000	30 000	-	-	-	100 000	2	23	46	46	46	68	-	-	-	228
Mobile kraals/crush pens/scale/automated reader	Units	1	2	2	-	-	-	-	-	5	40,000	46	92	92	-	-	-	-	-	229
Subtotal												84	167	167	46	68	-	-	-	532
H. Additional AF budget for climate risk insurance pilots (partnership agr	Lumpsum	-	-	1	-	-	-	-	-	1	1,400,000	-	-	1 400	-	-	-	-	-	1 400
Total												300	759	4 903	4 856	4 833	3 173	914	520	20 258

\a For perennial varieties of crops that are normally annual (e.g. sainfoin and sorghum), in collaboration with experienced partner institutions. Amounts include the preparation and publication of reports on the results.
\b Including equipment and safeguards

Summary Divisions		Other Accounts	
Component	Expenditure Account	Disb. Acct.	Fin. Rule
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	GOODS SERVICES AND INPUTS	GOODS SVCES INPUTS	IFAD LOAN (90% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 90% FOR 4), BENEFICIARIES (10%)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	GOODS SERVICES AND INPUTS	GOODS SVCES INPUTS	IFAD LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
IMPROVED_CAPACITY_OF_FARMERS_TO_ADOPT_CLIMATE_RESILIENT_PRODUCTION_AND_MANAGEMENT_PRACTICES	GOODS_SERVICES_AND_INPUTS	GOODS_SVCES_INPUTS	IFAD_LOAN (90% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 90% FOR 4), BENEFICIARIES (10%)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	TECHNICAL ASSISTANCE 1	TECHNICAL ASSISTANCE & TRAINING	IFAD LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	TECHNICAL ASSISTANCE 1	TECHNICAL ASSISTANCE & TRAINING	IFAD LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	GOODS SERVICES AND INPUTS	GOODS SVCES INPUTS	IFAD LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	TRAINING 1	TECHNICAL ASSISTANCE & TRAINING	IFAD LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
IMPROVED_CAPACITY_OF_FARMERS_TO_ADOPT_CLIMATE_RESILIENT_PRODUCTION_AND_MANAGEMENT_PRACTICES	TRAINING_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	TECHNICAL ASSISTANCE 1	TECHNICAL ASSISTANCE & TRAINING	ADAPTATION FUND (100%)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	TECHNICAL ASSISTANCE 1	TECHNICAL ASSISTANCE & TRAINING	IFAD LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	CIVIL WORKS	CW DA	ADAPTATION FUND (100%)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	TRAINING 1	TECHNICAL ASSISTANCE & TRAINING	ADAPTATION FUND (100%)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	TRAINING 1	TECHNICAL ASSISTANCE & TRAINING	ADAPTATION FUND (100%)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	TECHNICAL ASSISTANCE 1	TECHNICAL ASSISTANCE & TRAINING	ADAPTATION FUND (100%)
IMPROVED_CAPACITY_OF_FARMERS_TO_ADOPT_CLIMATE_RESILIENT_PRODUCTION_AND_MANAGEMENT_PRACTICES	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING	ADAPTATION_FUND (100%)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	GOODS SERVICES AND INPUTS	GOODS SVCES INPUTS	GEF (77.6294874744751%), IFAD LOAN (12.3705125255249%), BENEFICIARIES (10%)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	CIVIL WORKS	CW DA	ADAPTATION FUND (95%), BENEFICIARIES (5%)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	CIVIL WORKS	CW DA	ADAPTATION FUND (100%)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	EQUIPMENT AND MATERIALS	EQUIPMENT AND MATERIALS 1	ADAPTATION FUND (100%)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	CIVIL WORKS	CW DA	ADAPTATION FUND (100%)
IMPROVED_CAPACITY_OF_FARMERS_TO_ADOPT_CLIMATE_RESILIENT_PRODUCTION_AND_MANAGEMENT_PRACTICES	GOODS_SERVICES_AND_INPUTS	GOODS_SVCES_INPUTS	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	GOODS SERVICES AND INPUTS	GOODS SVCES INPUTS	IFAD LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
IMPROVED_CAPACITY_OF_FARMERS_TO_ADOPT_CLIMATE_RESILIENT_PRODUCTION_AND_MANAGEMENT_PRACTICES	EQUIPMENT_AND_MATERIALS	EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	TECHNICAL ASSISTANCE 1	TECHNICAL ASSISTANCE & TRAINING	IFAD LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	TECHNICAL ASSISTANCE 1	TECHNICAL ASSISTANCE & TRAINING	IFAD LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	TECHNICAL ASSISTANCE 1	TECHNICAL ASSISTANCE & TRAINING	IFAD LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	EQUIPMENT AND MATERIALS	EQUIPMENT AND MATERIALS 1	IFAD LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	EQUIPMENT AND MATERIALS	EQUIPMENT AND MATERIALS 1	IFAD LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
IMPROVED CAPACITY OF FARMERS TO ADOPT CLIMATE RESILIENT PRODUCTION AND MANAGEMENT PRACTICES	GOODS SERVICES AND INPUTS	GOODS SVCES INPUTS	ADAPTATION FUND (100%)

IFAD 13 BRAM									Financing Gap								
2026	2027	2028	2029	2030	2031	2032	2033	Total	2026	2027	2028	2029	2030	2031	2032	2033	Total
30	30	118	178	-	-	-	-	355	-	-	-	-	-	-	-	-	-
20	50	100	300	-	-	-	-	470	-	-	-	-	130	-	-	-	130
-	30	44	148	-	-	-	-	222	-	-	-	-	296	444	74	74	889
-	45	60	120	-	-	-	-	225	-	-	-	-	90	45	-	-	135
-	60	80	160	-	-	-	-	300	-	-	-	-	120	60	-	-	180
40	50	50	30	-	-	-	-	170	-	-	-	-	30	-	-	-	30
-	38	50	100	-	-	-	-	188	-	-	-	-	75	38	-	-	113
-	38	50	100	-	-	-	-	188	-	-	-	-	75	38	-	-	113
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	100	200	-	-	-	-	300	-	-	-	-	50	50	-	-	100
90	339	653	1 336	-	-	-	-	2 418	-	-	-	-	866	674	74	74	1 689
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	36	147	225	230	78	40	757	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	36	147	225	230	78	40	757	-	-	-	-	-	-	-	-	-
25	25	25	25	-	-	-	-	100	-	-	-	-	-	-	-	-	-
-	125	125	-	-	-	-	-	250	-	-	-	-	-	-	-	-	-
25	150	150	25	-	-	-	-	350	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	64	-	-	-	-	-	-	-	-	-
-	19	19	19	-	-	-	-	57	-	-	-	-	20	20	20	21	81
18	19	19	19	-	-	-	-	75	-	-	-	-	20	20	20	21	81
82	37	38	39	-	-	-	-	195	-	-	-	-	39	40	41	42	162
15	30	30	-	-	-	-	-	75	-	-	-	-	-	-	-	-	-
20	40	40	40	-	-	-	-	140	-	-	-	-	60	-	-	-	60
40	80	80	-	-	-	-	-	201	-	-	-	-	-	-	-	-	-
75	150	150	40	-	-	-	-	416	-	-	-	-	60	-	-	-	60
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
272	677	1 027	1 587	225	230	78	40	4 136	-	-	-	-	966	714	115	116	1 911

Expenditures by Financiers (US$ '000)

GEF									Adaptation Fund								
2026	2027	2028	2029	2030	2031	2032	2033	Total	2026	2027	2028	2029	2030	2031	2032	2033	Total
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	80	80	80	-	-	-	240
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	80	80	80	-	-	-	240
-	-	-	-	-	-	-	-	-	-	-	500	500	250	-	-	-	1 250
-	-	-	-	-	-	-	-	-	-	-	100	100	50	-	-	-	250
-	-	-	-	-	-	-	-	-	-	-	75	75	50	50	25	25	300
-	-	-	-	-	-	-	-	-	-	-	40	40	40	60	20	-	200
-	-	-	-	-	-	-	-	-	-	-	60	60	60	90	30	-	300
-	-	227	925	1 415	1 443	491	250	4 750	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	446	455	464	-	-	-	1 365
-	-	-	-	-	-	-	-	-	-	-	129	87	178	45	-	-	440
-	-	-	-	-	-	-	-	-	-	-	107	-	-	-	-	-	107
-	-	-	-	-	-	-	-	-	-	-	354	354	354	-	-	-	1 061
-	-	227	925	1 415	1 443	491	250	4 750	-	-	1 210	1 071	1 146	245	75	25	3 773
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	1 400	-	-	-	-	-	1 400
-	-	227	925	1 415	1 443	491	250	4 750	-	-	3 290	1 751	1 526	245	75	25	6 913

Government									Beneficiaries (In-Kind)								
2026	2027	2028	2029	2030	2031	2032	2033	Total	2026	2027	2028	2029	2030	2031	2032	2033	Total
5	5	18	28	-	-	-	-	55	3	3	14	20	-	-	-	-	41
3	7	14	42	18	-	-	-	84	-	-	-	-	-	-	-	-	-
-	5	7	23	46	69	12	12	173	-	3	5	17	34	51	8	8	127
-	6	8	17	13	6	-	-	50	-	-	-	-	-	-	-	-	-
-	8	11	22	17	8	-	-	67	-	-	-	-	-	-	-	-	-
6	7	7	4	4	-	-	-	28	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13	38	66	136	98	84	12	12	458	3	7	19	37	34	51	8	8	167
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	33	137	209	213	72	37	701	-	-	29	119	182	186	63	32	612
-	-	66	67	69	-	-	-	202	-	-	25	26	26	-	-	-	78
-	-	18	12	25	6	-	-	62	-	-	-	-	-	-	-	-	-
-	-	15	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-
-	-	49	49	49	-	-	-	148	-	-	-	-	-	-	-	-	-
-	-	182	266	352	219	72	37	1 128	-	-	55	145	209	186	63	32	690
4	4	4	4	-	-	-	-	14	-	-	-	-	-	-	-	-	-
-	18	18	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-
4	21	21	4	-	-	-	-	49	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	6	6	6	8	-	-	-	28	-	-	-	-	-	-	-	-	-
6	11	11	-	-	-	-	-	28	-	-	-	-	-	-	-	-	-
8	17	17	6	8	-	-	-	56	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	76	286	411	458	303	84	48	1 692	3	7	73	182	242	237	72	41	857

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 2.1. Strengthened Clustering and Capacity Building of Value Chain Actors

Detailed Costs		**Quantities**								
	Unit	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
I. Investment Costs										
A. Support to National Prducer Organisations										
Training in leadership, advocacy, professional services (drought contigency,climate smart animal health	Session	12	12	12	12	12	12	12	12	96
Support for member mobilisation	Lumpsum	1	1	1	1	1	1	1	1	8
Support to operations of National Farmers Organisations	Lumpsum	1	1	1	1	1	1	1	1	8
Support to Service Delivery Investments	Lumpsum	-	3	-	-	3	-	-	-	6
International Exchange Visits	Visits	-	1	-	1	-	1	-	-	3
Subtotal										
B. Cluster Development										
BDS Support for cluster Development	Person Month	24	36	36	36	36	36	36	24	264
Cluster training Events	Session	6	12	12	12	12	12	12	6	84
Cluster climate proofed infrstructural investments	Lumpsum	1	1	1	1	1	1	1	1	8
Subtotal										
Total										

Unit Cost	Totals Including Contingencies (US$ '000)								Sumn
(US$)	2026	2027	2028	2029	2030	2031	2032	2033	Total
5,000	60	60	60	60	60	60	60	60	480
30,000	30	30	30	30	30	30	30	30	240
91,250	91	91	91	91	91	91	91	91	730
50,000	-	150	-	-	150	-	-	-	300
20,000	-	20	-	20	-	20	-	-	60
	181	351	181	201	331	201	181	181	1 810
2,650	73	110	110	110	110	110	110	73	804
4,000	24	48	48	48	48	48	48	24	336
100,000	118	118	118	118	118	118	118	118	947
	215	276	276	276	276	276	276	215	2 086
	397	627	457	477	607	477	457	397	3 896

nary Divisions	Other Accounts				IFAD 13 BRAM				
ompone	diture A	isb. Acc	Fin. Rule	2026	2027	2028	2029	2030	2031	2032	2033	Total
APACITY	RAINING	SISTAN	(FOR 3),	60	60	60	60	60	-	-	-	300
APACITY	L_ASSI	SISTAN	(FOR 3),	30	30	30	30	30	-	-	-	150
APACITY	VICES_	SVCES	(FOR 3),	91	91	91	91	91	-	-	-	456
APACITY	VICES_	SVCES	(FOR 3),	-	150	-	-	150	-	-	-	300
APACITY	RAINING	SISTAN	(FOR 3),	-	20	-	20	-	-	-	-	40
				181	351	181	201	331	-	-	-	1 246
APACITY	L_ASSI	SISTAN	(FOR 3),	64	96	96	96	96	-	-	-	449
APACITY	RAINING	SISTAN	(FOR 3),	24	48	48	48	48	-	-	-	216
APACITY	IL_WOR	CW_DA	(FOR 3),	102	102	102	102	102	-	-	-	510
				190	246	246	246	246	-	-	-	1 175
				371	597	427	447	577	-	-	-	2 421

Expenditures by Financiers (US$ '000)									
					Financing Gap				
2026	2027	2028	2029	2030	2031	2032	2033	Total
-	-	-	-	-	60	60	60	180
-	-	-	-	-	30	30	30	90
-	-	-	-	-	91	91	91	274
-	-	-	-	-	-	-	-	-
-	-	-	-	-	20	-	-	20
-	-	-	-	-	201	181	181	564
-	-	-	-	-	96	96	64	256
-	-	-	-	-	48	48	24	120
-	-	-	-	-	102	102	102	306
-	-	-	-	-	246	246	190	682
-	-	-	-	-	447	427	371	1 246

Government								
2026	2027	2028	2029	2030	2031	2032	2033	Total
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
9	13	13	13	13	13	13	9	99
-	-	-	-	-	-	-	-	-
16	16	16	16	16	16	16	16	131
25	30	30	30	30	30	30	25	229
25	30	30	30	30	30	30	25	229

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 2.2. Improved Access to Input and Output Markets

Detailed Costs		**Quantities**								
	Unit	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
I. Investment Costs										
A. Improved Access to Input Markets										
1. Collective Access to inputs by farmers										
BDS support tofacilitate access to inputs	erson Mon	24	36	36	36	36	36	36	24	264
Conduct farmer Training on Input Technical Knowledge, Safe Use and Handling Skills	Session	30	30	30	30	30	30	30	10	220
Subtotal										
2. Building a commercial cluster-focused agro-dealer network										
Identify, select, profile and conduct needs assessment of new agro dealers	Agrodealer	5	10	10	10	10	10	10	5	70
Conduct Enterprise Management training for Agrodealers for Agrodealers/employees	Session	4	6	6	6	6	6	6	2	42
Conduct Training on Input Technical Knowledge, Safe Use and Handling Skills for new and	Session	6	12	12	12	12	12	12	6	84
Subtotal										
Subtotal										
B. Improved Access to Output Markets										
1. Support for aggregation and Collective Marketing										
Market opportunity assessments	Study	1	1	1	1	1	1	1	1	8
BDS support market linkage facilitation	erson Mon	24	36	36	36	36	36	36	24	264
Marketing training for farmer and farmer clusters	Session	6	12	12	12	12	12	12	6	84
Subtotal										
2. Support for Market Transparency										
Market information suppport	Lumpsum	1	1	1	1	1	1	1	1	8
Multi Stakeholder value Chain Platforms	Lumpsum	1	1	1	1	1	1	1	1	8
Subtotal										
3. Market Infrastructures										
Climate proofed Market infrastructure suppport for clusters	Units	5	24	24	24	24	24	24	2	151
Rehabilitate/build animal markets	Number	6	8	8	8	8	8	6	6	58
Support to public slaughter facilities	Facilities	2	4	4	4	4	4	2	-	24
Processing facility management risk management training	Session	1	-	1	-	-	-	-	-	2
Bio-gas digesters /a	Number	-	5	5	-	-	-	-	-	10
Oxidation pond system /b	Number	-	1	-	-	-	-	-	-	1
Septic tank systems /c	Number	-	5	5	-	-	-	-	-	10
PPE Equipment for workers	Package	-	2	1	1	1	1	-	-	6
Subtotal										
4. Suppport to Value Chain Actors										
Assist in Business Plan Development for SMEs	usiness Pla	5	10	10	10	10	10	10	5	70
Support to modernise/build processing facilities	Facilities	1	3	3	3	2	2	1	1	16
Training and Incubation of youths	Session	12	12	12	12	20	20	20	10	118
Support to Youth and women enterpises	Number	10	50	50	50	50	20	20	10	260
Subtotal										
Subtotal										
C. Developmemnt of Digital Market Information System										
Market Information System platform development & mobile version	Package	-	1	-	-	-	-	-	-	1
Build connections to national and commercial platforms through API S	Set	-	-	3	-	-	-	-	-	3
RFID readers, tablets for abattoirs/markets	Package	-	-	-	20	-	-	-	-	20
Digital grading & verification module development	ading mod	-	-	-	-	1	-	-	-	1
Local hosting, sustainability, and capacity transfer	Package	-	-	-	-	-	-	-	1	1
System updates & bug fixes	Update	-	-	1	1	1	1	1	1	6
Platform hosting & cloud services	Per Year	-	1	1	1	1	1	1	1	7
Data verification & dashboard QA	Per Year	-	-	-	1	1	1	1	1	5
MIS audit & sustainability planning	Audit	-	-	-	-	1	-	-	1	2
Subtotal										
D. Green Livestock Processing and Cold Chain Infrastructure										
Solar-powered processing machines	Number	-	-	6	6	-	-	-	-	12
Solar-powered cold storage rooms	Number	-	-	10	10	-	-	-	-	20
Solar dryers and ovens for processing	Number	-	-	50	50	-	-	-	-	100
Subtotal										
Total										

\a Integrated within infrastructure costs is intensive capacity building provided by supplier
\b Integrated within infrastructure costs is intensive capacity building provided by supplier
\c Integrated within infrastructure costs is intensive capacity building provided by supplier

Unit Cost	Totals Including Contingencies (US$ '000)								
(US$)	2026	2027	2028	2029	2030	2031	2032	2033	Total
1,000	24	36	36	36	36	36	36	24	264
1,500	45	45	45	45	45	45	45	15	330
	69	81	81	81	81	81	81	39	594
1,000	5	10	10	10	10	10	10	5	70
1,000	4	6	6	6	6	6	6	2	42
1,000	6	12	12	12	12	12	12	6	84
	15	28	28	28	28	28	28	13	196
	84	109	109	109	109	109	109	52	790
500	1	1	1	1	1	1	1	1	4
2,000	48	72	72	72	72	72	72	48	528
1,000	6	12	12	12	12	12	12	6	84
	55	85	85	85	85	85	85	55	616
40,000	40	40	40	40	40	40	40	40	320
15,000	15	15	15	15	15	15	15	15	120
	55	55	55	55	55	55	55	55	440
18,000	105	502	502	502	502	502	502	42	3 161
30,000	209	279	279	279	279	279	209	209	2 023
35,000	81	163	163	163	163	163	81	-	977
2,500	3	-	3	-	-	-	-	-	6
4,472	-	25	25	-	-	-	-	-	51
250,000	-	250	-	-	-	-	-	-	250
6,500	-	37	37	-	-	-	-	-	74
10,000	-	23	11	11	11	11	-	-	68
	398	1 280	1 021	956	956	956	793	251	6 610
2,000	10	20	20	20	20	20	20	10	140
70,000	81	244	244	244	163	163	81	81	1 302
5,000	60	60	60	60	100	100	100	50	590
2,643	26	132	132	132	132	53	53	26	687
	178	456	456	456	415	336	254	168	2 720
	686	1 875	1 617	1 551	1 510	1 431	1 187	528	10 385
40,000	-	40	-	-	-	-	-	-	40
9,000	-	-	27	-	-	-	-	-	27
1,800	-	-	-	36	-	-	-	-	36
30,000	-	-	-	-	30	-	-	-	30
25,000	-	-	-	-	-	-	-	25	25
1,000	-	-	1	1	1	1	1	1	6
1,000	-	1	1	1	1	1	1	1	7
800	-	-	-	1	1	1	1	1	4
1,500	-	-	-	-	2	-	-	2	3
	-	41	29	39	34	3	3	29	178
5,000	-	-	30	30	-	-	-	-	60
25,000	-	-	250	250	-	-	-	-	500
2,500	-	-	125	125	-	-	-	-	250
	-	-	405	405	-	-	-	-	810
	770	2 025	2 160	2 104	1 653	1 543	1 299	610	12 163

Summary Divisions		Other Accounts	
Component	Expenditure Account	Disb. Acct.	Fin. Rule
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TRAINING_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TRAINING_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TRAINING_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TRAINING_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TRAINING_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	CIVIL_WORKS	CW_DA	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100%, 100% FOR 4)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	CIVIL_WORKS	CW_DA	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	CIVIL_WORKS	CW_DA	IFAD_LOAN (100% FOR 4, 96%, 0% FOR 3), IFAD (0% FOR 4, 4%, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TRAINING_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	CIVIL_WORKS	CW_DA	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	CIVIL_WORKS	CW_DA	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	CIVIL_WORKS	CW_DA	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	EQUIPMENT_AND_MATERIALS	EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	CIVIL_WORKS	CW_DA	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TRAINING_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	GOODS_SERVICES_AND_INPUTS	GOODS_SVCES_INPUTS	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	EQUIPMENT_AND_MATERIALS	EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	EQUIPMENT_AND_MATERIALS	EQUIPMENT_AND_MATERIALS_1	ADAPTATION_FUND (100%)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	CIVIL_WORKS	CW_DA	ADAPTATION_FUND (100%)
IMPROVED_ACCESS_TO_INPUT_AND_OUTPUT_MARKETS	EQUIPMENT_AND_MATERIALS	EQUIPMENT_AND_MATERIALS_1	ADAPTATION_FUND (100%)

Expenditures by Financ

IFAD 13 BRAM									Financing Gap								
2026	2027	2028	2029	2030	2031	2032	2033	Total	2026	2027	2028	2029	2030	2031	2032	2033	Total
24	36	36	36	36	-	-	-	168	-	-	-	-	-	36	36	24	96
45	45	45	45	45	-	-	-	225	-	-	-	-	-	45	45	15	105
69	81	81	81	81	-	-	-	393	-	-	-	-	-	81	81	39	201
5	10	10	10	10	-	-	-	45	-	-	-	-	-	10	10	5	25
4	6	6	6	6	-	-	-	28	-	-	-	-	-	6	6	2	14
6	12	12	12	12	-	-	-	54	-	-	-	-	-	12	12	6	30
15	28	28	28	28	-	-	-	127	-	-	-	-	-	28	28	13	69
84	109	109	109	109	-	-	-	520	-	-	-	-	-	109	109	52	270
1	1	1	1	1	-	-	-	3	-	-	-	-	-	1	1	1	2
48	72	72	72	72	-	-	-	336	-	-	-	-	-	72	72	48	192
6	12	12	12	12	-	-	-	54	-	-	-	-	-	12	12	6	30
55	85	85	85	85	-	-	-	393	-	-	-	-	-	85	85	55	224
40	40	40	40	40	-	-	-	200	-	-	-	-	-	40	40	40	120
15	15	15	15	15	-	-	-	75	-	-	-	-	-	15	15	15	45
55	55	55	55	55	-	-	-	275	-	-	-	-	-	55	55	55	165
92	441	441	-	-	-	-	-	973	-	-	-	441	441	441	441	37	1 800
184	245	245	-	-	-	-	-	673	-	-	-	245	245	245	184	184	1 102
71	143	143	143	137	-	-	-	636	-	-	-	-	6	143	71	-	220
3	-	3	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-
-	22	22	-	-	-	-	-	45	-	-	-	-	-	-	-	-	-
-	250	-	-	-	-	-	-	250	-	-	-	-	-	-	-	-	-
-	33	33	-	-	-	-	-	65	-	-	-	-	-	-	-	-	-
-	20	10	10	10	-	-	-	50	-	-	-	-	-	10	-	-	10
349	1 153	896	153	147	-	-	-	2 698	-	-	-	686	692	838	696	220	3 132
10	20	20	20	20	-	-	-	90	-	-	-	-	-	20	20	10	50
71	214	214	214	143	-	-	-	857	-	-	-	-	-	143	71	71	286
60	60	60	60	100	-	-	-	340	-	-	-	-	-	100	100	50	250
26	132	132	132	132	-	-	-	555	-	-	-	-	-	53	53	26	132
168	426	426	426	395	-	-	-	1 842	-	-	-	-	-	316	244	158	718
627	1 719	1 462	719	681	-	-	-	5 207	-	-	-	686	692	1 293	1 079	488	4 238
-	40	-	-	-	-	-	-	40	-	-	-	-	-	-	-	-	-
-	-	27	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-
-	-	-	36	-	-	-	-	36	-	-	-	-	-	-	-	-	-
-	-	-	-	30	-	-	-	30	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25	25
-	-	1	1	1	-	-	-	3	-	-	-	-	-	1	1	1	3
-	1	1	1	1	-	-	-	4	-	-	-	-	-	1	1	1	3
-	-	-	1	1	-	-	-	2	-	-	-	-	-	1	1	1	2
-	-	-	-	2	-	-	-	2	-	-	-	-	-	-	-	2	2
-	41	29	39	34	-	-	-	143	-	-	-	-	-	3	3	29	35
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
711	1 869	1 600	866	824	-	-	-	5 870	-	-	-	686	692	1 405	1 191	569	4 543

iers (US$ '000)

Adaptation Fund									Government								
2026	2027	2028	2029	2030	2031	2032	2033	Total	2026	2027	2028	2029	2030	2031	2032	2033	Total
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	13	62	62	62	62	62	62	5	388
-	-	-	-	-	-	-	-	-	26	34	34	34	34	34	26	26	248
-	-	-	-	-	-	-	-	-	10	20	20	20	20	20	10	-	120
-	-	-	-	-	-	-	-	-	0	-	0	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	-	3	3	-	-	-	-	-	6
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	5	5	-	-	-	-	-	9
-	-	-	-	-	-	-	-	-	-	3	1	1	1	1	-	-	8
-	-	-	-	-	-	-	-	-	49	126	125	117	117	117	97	31	781
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	10	30	30	30	20	20	10	10	160
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	10	30	30	30	20	20	10	10	160
-	-	-	-	-	-	-	-	-	59	156	155	147	137	137	107	41	940
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	30	30	-	-	-	-	60	-	-	-	-	-	-	-	-	-
-	-	250	250	-	-	-	-	500	-	-	-	-	-	-	-	-	-
-	-	125	125	-	-	-	-	250	-	-	-	-	-	-	-	-	-
-	-	405	405	-	-	-	-	810	-	-	-	-	-	-	-	-	-
-	-	405	405	-	-	-	-	810	59	156	155	147	137	137	107	41	940

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 2.3. Improved Access to Inclusive and Green Financial Services For Value Chain Actors

Detailed Costs		**Quantities**								
	Unit	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
I. Investment Costs										
A. Credit/Loan Demand and Supply Analysis/Study for Small Livestock	per 6 months	1	-	-	-	-	-	-	-	1
B. Technical Assistance to NDB	TA	1	1	-	-	-	-	-	-	2
C. Sovereign Line of Credit for Small Livestock /a	Lumpsum	0.05	0.05	0.1	0.1	0.15	0.15	0.2	0.2	1
D. Enhancement of the MoLA TLMS										
System scoping, architecture upgrade planning	Session	1	1	-	-	-	-	-	-	2
Core e-voucher upgrade: USSD/WhatsApp interfaces, BAITS linkage	Sofware module	-	-	1	-	-	-	-	-	1
e-wallet integration	Software module	-	-	-	1	-	-	-	-	1
Hardware for Digital Champions	Devices	-	33	-	-	-	-	-	-	33
Train 33 Champions, provide materials and incentive tools	Number	-	22	-	11	-	-	-	-	33
Platform enhancement & usability updates	Update cycle	-	-	1	-	1	-	-	-	2
Monitoring & usability enhancement based on field use - Simplify UI, adjust for user literacy, improve system flow	Lumpsum	-	-	-	-	1	-	-	-	1
Maintenance Costs - hosting, service level agreements with tech providers, API maintenance	Per Year	-	-	-	1	1	1	1	1	5
Subtotal										
E. ExtoPay Onboarding										
Piloting of ExtoPay	Lumpsum	1	-	-	-	-	-	-	-	1
Roll out	Lumpsum	-	1	1	1	1	-	-	-	4
Subtotal										
F. Gender-Transformative Climate Innovation Hubs (equipment grants, mentorship and training programmes)	Lumpsum	-	-	1	-	-	-	-	-	1
Total										

\a The BoLCoP sovereign line of credit (LoC) for small stock will be concessional, blending BRAM resources (estimated at $5m) and GoB/NDB/TLMS resources. The GoB/NDB/TLMS contribution is yet to be determined once negotiations between GoB and NDB have been concluded but GoB has already committed to direct NDB to allocate some of TLMS resources allocated to them (100m pula) to blend the LoC. The blended sovereign LoC will be domiciliated at NDB.

Unit Cost	Totals Including Contingencies (US$ '000)								
(US$)	2026	2027	2028	2029	2030	2031	2032	2033	Total
10,000	10	-	-	-	-	-	-	-	10
100,000	100	100	-	-	-	-	-	-	200
,000,000	250	250	500	500	750	750	1 000	1 000	5 000
5,000	5	5	-	-	-	-	-	-	10
35,000	-	-	35	-	-	-	-	-	35
30,000	-	-	-	30	-	-	-	-	30
450	-	15	-	-	-	-	-	-	15
400	-	9	-	4	-	-	-	-	13
8,000	-	-	8	-	8	-	-	-	16
20,000	-	-	-	-	20	-	-	-	20
4,000	-	-	-	4	4	4	4	4	20
	5	29	43	38	32	4	4	4	159
200,000	200	-	-	-	-	-	-	-	200
40,000	-	40	40	40	40	-	-	-	160
	200	40	40	40	40	-	-	-	360
,000,000	-	-	1 000	-	-	-	-	-	1 000
	565	419	1 583	578	822	754	1 004	1 004	6 729

Summary Divisions		Other Accounts
Component	Expenditure Account	Disb. Acct.
IMPROVED_ACCESS_TO_INCLUSIVE_AND_GREEN_FINANCIAL_SERVICES_FOR_VALUE_CHAIN_ACTORS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING
IMPROVED_ACCESS_TO_INCLUSIVE_AND_GREEN_FINANCIAL_SERVICES_FOR_VALUE_CHAIN_ACTORS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING
IMPROVED_ACCESS_TO_INCLUSIVE_AND_GREEN_FINANCIAL_SERVICES_FOR_VALUE_CHAIN_ACTORS	LINE_OF_CREDIT_1	LINE_OF_CREDIT
IMPROVED_ACCESS_TO_INCLUSIVE_AND_GREEN_FINANCIAL_SERVICES_FOR_VALUE_CHAIN_ACTORS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING
IMPROVED_ACCESS_TO_INCLUSIVE_AND_GREEN_FINANCIAL_SERVICES_FOR_VALUE_CHAIN_ACTORS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING
IMPROVED_ACCESS_TO_INCLUSIVE_AND_GREEN_FINANCIAL_SERVICES_FOR_VALUE_CHAIN_ACTORS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING
IMPROVED_ACCESS_TO_INCLUSIVE_AND_GREEN_FINANCIAL_SERVICES_FOR_VALUE_CHAIN_ACTORS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING
IMPROVED_ACCESS_TO_INCLUSIVE_AND_GREEN_FINANCIAL_SERVICES_FOR_VALUE_CHAIN_ACTORS	TRAINING_1	TECHNICAL_ASSISTANCE_&_TRAINING
IMPROVED_ACCESS_TO_INCLUSIVE_AND_GREEN_FINANCIAL_SERVICES_FOR_VALUE_CHAIN_ACTORS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING
IMPROVED_ACCESS_TO_INCLUSIVE_AND_GREEN_FINANCIAL_SERVICES_FOR_VALUE_CHAIN_ACTORS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING
IMPROVED_ACCESS_TO_INCLUSIVE_AND_GREEN_FINANCIAL_SERVICES_FOR_VALUE_CHAIN_ACTORS	GOODS_SERVICES_AND_INPUTS	GOODS_SVCES_INPUTS
IMPROVED_ACCESS_TO_INCLUSIVE_AND_GREEN_FINANCIAL_SERVICES_FOR_VALUE_CHAIN_ACTORS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING
IMPROVED_ACCESS_TO_INCLUSIVE_AND_GREEN_FINANCIAL_SERVICES_FOR_VALUE_CHAIN_ACTORS	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING
IMPROVED_ACCESS_TO_INCLUSIVE_AND_GREEN_FINANCIAL_SERVICES_FOR_VALUE_CHAIN_ACTORS	GOODS_SERVICES_AND_INPUTS	GOODS_SVCES_INPUTS

	IFAD 13 BRAM								
Fin. Rule	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)	10	-	-	-	-	-	-	-	10
IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)	100	100	-	-	-	-	-	-	200
IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)	250	250	500	500	750	-	-	-	2 250
IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)	5	5	-	-	-	-	-	-	10
IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)	-	-	35	-	-	-	-	-	35
IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)	-	-	-	30	-	-	-	-	30
IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)	-	15	-	-	-	-	-	-	15
IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)	-	9	-	4	-	-	-	-	13
IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)	-	-	8	-	8	-	-	-	16
IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)	-	-	-	-	20	-	-	-	20
IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)	-	-	-	4	4	-	-	-	8
	5	29	43	38	32	-	-	-	147
IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)	200	-	-	-	-	-	-	-	200
IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)	-	40	40	40	40	-	-	-	160
	200	40	40	40	40	-	-	-	360
ADAPTATION_FUND (100%)	-	-	-	-	-	-	-	-	-
	565	419	583	578	822	-	-	-	2 967

Expenditures by Financiers (US$ '000)									
Financing Gap									
2026	2027	2028	2029	2030	2031	2032	2033	Total
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	750	1 000	1 000	2 750
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	4	4	4	12
-	-	-	-	-	4	4	4	12
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	754	1 004	1 004	2 762

Adaptation Fund								
2026	2027	2028	2029	2030	2031	2032	2033	Total
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	1 000	-	-	-	-	-	1 000
-	-	1 000	-	-	-	-	-	1 000

Botswana \
Botswana Livestock Commercialisation Project (BoLCoP)
Table 3.1. Institutional Strengthening and Policy Support

Detailed Costs	Unit	Quantities								
		2026	2027	2028	2029	2030	2031	2032	2033	Total
I. Investment Costs										
A. Institutional Strenghtening										
Institutional capacity gap assessment and production of a capacity development plan	Study	1	-	-	-	-	-	-	-	1
Capacity Strengthening of District extension staff for effective BoLCoP implementation /a	Session	1	1	-	-	1	1	-	-	4
Logistical Support to the participating districts for coordinating BoLCoP activities; 1 each per district (Double	Vehicle	12	-	-	-	5	-	-	-	17
Implementation of other aspcts of the capacity development plan	Session	1	1	1	-	-	-	-	-	3
Subtotal										
B. Integrated Ministry MIS and GIS for Smallstock Indicators										
Management Information System(MIS)	Lumpsum	1	-	-	-	-	-	-	-	1
Geographic Information System (GIS)	Lumpsum	1	-	-	-	-	-	-	-	1
Subtotal										
C. Policy Support										
Formulation of the sheep value chain development strategy /b	Lumpsum	-	1	1	-	-	-	-	-	2
Review of the existing legislative framework to introduce an enforceable system of grades and grading in dc	Lumpsum	-	1	1	-	-	-	-	-	2
Introducing a requirement for minimum local content /d	Lumpsum	-	1	1	-	-	-	-	-	2
Subtotal										
D. Strengthening the Enabling Environment										
Establish & operationalize Multi-Stakeholder Structure (national platform)	Lumpsum	-	-	1	-	-	-	-	-	1
Gender-responsive policy & legislation review (incl. consultations, expert team)	Package	-	-	1	-	-	-	-	-	1
Training & equipment for national & sub-national centres/networks	Set	-	-	5	5	-	-	-	-	10
Develop gender-sensitive M&E strategy and monitoring plan	Package	-	-	1	-	-	-	-	-	1
Develop Knowledge Management & Applied Research System (KMAS)	Package	-	-	1	-	-	-	-	-	1
Establish online Knowledge Platform & dissemination tools	Package	-	-	1	-	-	-	-	-	1
Subtotal										
E. Climate Information, Knowledge & Risk Management										
Sub-national climate impact analyses (surface/groundwater, crop yields)	Study	-	-	4	2	-	-	-	-	6
Develop 3 climate-resilient WEFE scenarios	Package	-	-	1	-	-	-	-	-	1
Three vulnerability & resilience reports (value chain)	Reports	-	-	3	-	-	-	-	-	3
Develop & disseminate awareness materials (radio, school programs, theatre)	Package	-	-	1	-	-	-	-	-	1
Conduct 12 stakeholder workshops & develop trade-off monitoring tool	Workshop	-	-	6	6	-	-	-	-	12
Design weather-index insurance products (data analysis, scenario modeling)	Package	-	-	1	-	-	-	-	-	1
Community education & training for insurance schemes (including digital tools, extension officer training)	Package	-	-	1	-	-	-	-	-	1
Subtotal										
F. Planned South-South and Triangular Cooperation Activities										
1. Cross-country Learning Exchanges (Zambia, Lesotho, Brazil, Bolivia)										
Organize 3 study exchanges focused on animal health, meat grading systems, and traceability for small rum	Event	-	-	1	1	1	-	-	-	3
2. SADC Regional Policy Roundtable on Animal Health & Traceability										
Host a roundtable in Botswana with SADC countries /f	Workshop	-	-	-	1	-	-	-	-	1
3. One Health Pilot in Botswana and Zambia Border Region										
Conduct joint outreach campaigns with Zambia at the border region /g	Pilot Intervention	-	-	-	1	-	1	-	-	2
4. Triangular Partnership with Brazil to Strengthen BAITS Traceability										
Exchange with Brazil's SISBOV to enhance BAITS /h	Exchange Partnership	-	-	-	0.2	0.44	0.28	0.08	-	1
5. South–South Adaptation of Climate-Smart Grazing Models for Community Rangelands										
Localize Bolivia/Zambia grazing models; produce training materials; train reps; pilot 2 community rangeland	Adapted model package	-	-	-	0.16	0.2	0.44	0.2	-	1
6. Documentation and Global Dissemination of BoLCoP Livestock Innovations										
Produce 1 short film, 3 policy briefs, and 2 case studies (translated); share BoLCoP's successes with SSTC	Multimedia KM package	-	-	-	-	-	1	1	-	2
7. Coordination, Translation and Learning Support for SSTC Implementation										
Appoint SSTC focal point or TA; support translation, reporting, and internal learning events /i	Package	-	0.2	0.18	0.15	0.18	0.1	0.19	-	1
8. Youth in Livestock Innovation Challenge (SSTC Prize)										
Launch an annual innovation challenge for youth in Botswana to submit livestock solutions inspired by SST	Per Year	-	-	1	1	1	-	-	-	3
9. Community-to-Community Knowledge Exchange Hubs /k	Hub	-	-	-	1	1	1	-	-	3
Subtotal										
G. Adaptation Fund Management Costs (Inc. Salaries and Allowancies)	Lumpsum	-	-	1	1	1	1	1	1	6
Total Investment Costs										
II. Recurrent Costs										
A. Vehicle O&M	Vehicle	12	12	12	12	12	12	12	12	96
B. Vehicle Insurance	Vehicle	12	12	12	12	12	12	12	12	96
Total Recurrent Costs										
Total										

\a Includes IFAD climate advisory, Automatic weather, SECAP.EWS
\b The process is expected to take about 2 years and is allocated a total of USD 200,000
\c The process is expected to take about 2 years and is allocated a total of USD 200,000
\d The process is expected to take about 2 years and is allocated a total of USD 200,000
\e 45 participants; 3 reports produced.
\f (e.g., Zambia, Namibia, Zimbabwe) to harmonize veterinary protocols and traceability systems. Output: 1 policy brief and roadmap.
\g vaccinate 5,000 animals; Conduct 2 campaigns; assess pre- and post-intervention herd health impact.
\h ; includes 1 visit, 2 guidance notes, and planning TA support. (Duration from PY 2 to PY 5)
\i deliver 2 progress reports and 1 final synthesis report.
\j (e.g., pasture apps, animal health tools). Winners get seed funding and mentorship.
\k (videos, manuals, apps) and host regular peer-to-peer learning days.

Unit Cost	Totals Including Contingencies (US$ '000)								
(US$)	2026	2027	2028	2029	2030	2031	2032	2033	Total
50,000	50	-	-	-	-	-	-	-	50
50,000	50	50	-	-	50	50	-	-	200
40,000	547	-	-	-	228	-	-	-	775
70,000	70	70	70	-	-	-	-	-	210
	717	120	70	-	278	50	-	-	1 235
70,000	70	-	-	-	-	-	-	-	70
50,000	50	-	-	-	-	-	-	-	50
	120	-	-	-	-	-	-	-	120
100,000	-	100	100	-	-	-	-	-	200
80,000	-	80	80	-	-	-	-	-	160
80,000	-	80	80	-	-	-	-	-	160
	-	260	260	-	-	-	-	-	520
300,000	-	-	300	-	-	-	-	-	300
250,000	-	-	250	-	-	-	-	-	250
50,000	-	-	250	250	-	-	-	-	500
150,000	-	-	150	-	-	-	-	-	150
400,000	-	-	400	-	-	-	-	-	400
200,000	-	-	200	-	-	-	-	-	200
	-	-	1 550	250	-	-	-	-	1 800
80,000	-	-	320	160	-	-	-	-	480
150,000	-	-	150	-	-	-	-	-	150
70,000	-	-	210	-	-	-	-	-	210
150,000	-	-	150	-	-	-	-	-	150
15,000	-	-	90	90	-	-	-	-	180
250,000	-	-	250	-	-	-	-	-	250
366,043	-	-	366	-	-	-	-	-	366
	-	-	1 536	250	-	-	-	-	1 786
33,333	-	-	36	36	37	-	-	-	109
40,000	-	-	-	44	-	-	-	-	44
30,000	-	-	-	33	-	34	-	-	67
50,000	-	-	-	11	25	16	5	-	56
50,000	-	-	-	9	11	25	12	-	56
25,000	-	-	-	-	-	28	29	-	57
40,000	-	8	8	7	8	5	9	-	44
10,000	-	-	11	11	11	-	-	-	33
10,000	-	-	-	11	11	11	-	-	33
	-	8	54	161	103	119	54	-	500
291,859	-	-	292	292	292	292	292	292	1 751
	837	388	3 762	953	673	461	346	292	7 712
5,000	60	60	60	60	60	60	60	60	480
2,000	24	24	24	24	24	24	24	24	192
	84	84	84	84	84	84	84	84	672
	921	472	3 846	1 037	757	545	430	376	8 384

Summary Divisions		Other Accounts	
Component	Expenditure Account	Disb. Acct.	Fin. Rule
INSTITUTIONAL_STRENGTHENING_AND_POLICY_SUPPORT	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
INSTITUTIONAL_STRENGTHENING_AND_POLICY_SUPPORT	TRAINING_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
INSTITUTIONAL_STRENGTHENING_AND_POLICY_SUPPORT	EQUIPMENT_AND_MATERIALS	EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
INSTITUTIONAL_STRENGTHENING_AND_POLICY_SUPPORT	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
INSTITUTIONAL_STRENGTHENING_AND_POLICY_SUPPORT	EQUIPMENT_AND_MATERIALS	EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
INSTITUTIONAL_STRENGTHENING_AND_POLICY_SUPPORT	EQUIPMENT_AND_MATERIALS	EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
INSTITUTIONAL_STRENGTHENING_AND_POLICY_SUPPORT	TECHNICAL_ASSISTANCE_1	TECHNICAL_ASSISTANCE_&_TRAINING

IFAD 13 BRAM									Financing Gap								
2026	2027	2028	2029	2030	2031	2032	2033	Total	2026	2027	2028	2029	2030	2031	2032	2033	Total
50	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-
50	50	-	-	-	-	-	-	100	-	-	-	-	50	50	-	-	100
480	-	-	-	-	-	-	-	480	-	-	-	-	200	-	-	-	200
70	70	70	-	-	-	-	-	210	-	-	-	-	-	-	-	-	-
650	120	70	-	-	-	-	-	840	-	-	-	-	250	50	-	-	300
70	-	-	-	-	-	-	-	70	-	-	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	120	-	-	-	-	-	-	-	-	-
-	100	100	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-
-	80	80	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-
-	80	80	-	-	-	-	-	160	-	-	-	-	-	-	-	-	-
-	260	260	-	-	-	-	-	520	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	250	-	-	-	-	-	250	-	-	-	-	-	-	-	-	-
-	-	366	-	-	-	-	-	366	-	-	-	-	-	-	-	-	-
-	-	616	-	-	-	-	-	616	-	-	-	-	-	-	-	-	-
-	-	18	18	19	-	-	-	55	-	-	-	-	-	-	-	-	-
-	-	-	22	-	-	-	-	22	-	-	-	-	-	-	-	-	-
-	-	-	16	-	17	-	-	33	-	-	-	-	-	-	-	-	-
-	-	-	5	12	8	2	-	28	-	-	-	-	-	-	-	-	-
-	-	-	4	6	13	6	-	28	-	-	-	-	-	-	-	-	-
-	-	-	-	-	14	14	-	29	-	-	-	-	-	-	-	-	-
-	4	4	3	4	2	4	-	22	-	-	-	-	-	-	-	-	-
-	-	5	5	6	-	-	-	16	-	-	-	-	-	-	-	-	-
-	-	-	5	6	6	-	-	17	-	-	-	-	-	-	-	-	-
-	4	27	80	52	60	27	-	250	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
770	384	973	80	52	60	27	-	2 346	-	-	-	-	250	50	-	-	300
60	60	60	60	-	-	-	-	240	-	-	-	-	60	60	60	60	240
24	24	24	24	-	-	-	-	96	-	-	-	-	24	24	24	24	96
84	84	84	84	-	-	-	-	336	-	-	-	-	84	84	84	84	336
854	468	1 057	164	52	60	27	-	2 682	-	-	-	-	334	134	84	84	636

Expenditures by Financiers (US$ '000)

Adaptation Fund									SSTC Grant								
2026	2027	2028	2029	2030	2031	2032	2033	Total	2026	2027	2028	2029	2030	2031	2032	2033	Total
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	300	-	-	-	-	-	300	-	-	-	-	-	-	-	-	-
-	-	250	-	-	-	-	-	250	-	-	-	-	-	-	-	-	-
-	-	250	250	-	-	-	-	500	-	-	-	-	-	-	-	-	-
-	-	150	-	-	-	-	-	150	-	-	-	-	-	-	-	-	-
-	-	400	-	-	-	-	-	400	-	-	-	-	-	-	-	-	-
-	-	200	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-
-	-	1 550	250	-	-	-	-	1 800	-	-	-	-	-	-	-	-	-
-	-	320	160	-	-	-	-	480	-	-	-	-	-	-	-	-	-
-	-	150	-	-	-	-	-	150	-	-	-	-	-	-	-	-	-
-	-	210	-	-	-	-	-	210	-	-	-	-	-	-	-	-	-
-	-	150	-	-	-	-	-	150	-	-	-	-	-	-	-	-	-
-	-	90	90	-	-	-	-	180	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	920	250	-	-	-	-	1 170	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	18	18	19	-	-	-	55
-	-	-	-	-	-	-	-	-	-	-	-	22	-	-	-	-	22
-	-	-	-	-	-	-	-	-	-	-	-	16	-	17	-	-	33
-	-	-	-	-	-	-	-	-	-	-	-	5	12	8	2	-	28
-	-	-	-	-	-	-	-	-	-	-	-	4	6	13	6	-	28
-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	14	-	29
-	-	-	-	-	-	-	-	-	-	4	4	3	4	2	4	-	22
-	-	-	-	-	-	-	-	-	-	-	5	5	6	-	-	-	16
-	-	-	-	-	-	-	-	-	-	-	-	5	6	6	-	-	17
-	-	-	-	-	-	-	-	-	-	4	27	80	52	60	27	-	250
-	-	292	292	292	292	292	292	1 751	-	-	-	-	-	-	-	-	-
-	-	2 762	792	292	292	292	292	4 721	-	4	27	80	52	60	27	-	250
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	2 762	792	292	292	292	292	4 721	-	4	27	80	52	60	27	-	250

0

Government								
2026	2027	2028	2029	2030	2031	2032	2033	Total
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
67	-	-	-	28	-	-	-	95
-	-	-	-	-	-	-	-	-
67	-	-	-	28	-	-	-	95
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	0	-	-	0
-	-	-	0	-	-	-	-	0
-	-	-	-	-	-	-	-	-
-	0	-	-	0	0	0	-	0
-	-	-	-	-	-	-	-	-
-	-	-	-	-	0	-	-	0
-	0	-	0	0	0	0	-	0
-	-	-	-	-	-	-	-	-
67	0	-	0	28	0	0	-	95
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
67	0	-	0	28	0	0	-	95

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 3.2. Project Management and Implementation Support Service
Detailed Costs

		Quantities								
	Unit	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
I. Investment Costs										
A. Project Management Unit										
Double-cabin Vehicles /a	Vehicle	7	-	-	-	3	-	-	-	10
Station Wagon /b	Vehicle	1	-	-	-	1	-	-	-	2
Subtotal										
B. Office Eqipment for PMU										
Laptop /c	Number	24	-	-	-	-	-	-	-	24
Desktop /d	Number	61	-	-	-	-	-	-	-	61
Printer/Photocopier /e	Number	13	-	-	-	-	-	-	-	13
Safe box /f	Number	13	-	-	-	-	-	-	-	13
Projector /g	Number	13	-	-	-	-	-	-	-	13
Video Conference Equipments	Set	13	-	-	-	-	-	-	-	13
TV 85 in	Number	13	-	-	-	-	-	-	-	13
Server /h	Number	14	-	-	-	-	-	-	-	14
Internet Network Equipment /i	Package	13	-	-	-	-	-	-	-	13
Office furniture /j	Set	12	-	-	-	-	-	-	-	12
Furniture for the Conference Room /k	Set	1	-	-	-	-	-	-	-	1
Subtotal										
C. Audit										
External audit	Number	1	1	1	1	1	1	1	1	8
Internal audit	Number	1	1	1	1	1	1	1	1	8
Subtotal										
D. Monitoring and Evaluation										
Development of M&E Manual and Plan, including SECAP	Manual	1	-	-	-	-	-	-	-	1
Establishment of MIS and tools	System	1	-	-	-	-	-	-	-	1
MIS Licenses for MIS	License	1	1	1	1	1	1	1	1	8
Tablets for data collection	Tablets	240	-	-	-	-	-	-	-	240
Training of staff in M&E, inclusive of SECAP	Session	1	1	-	-	1	-	-	-	3
Baseline Survey	Survey	1	-	-	-	-	-	-	-	1
Midline Survey	Survey	-	-	-	1	-	-	-	-	1
Routine Monitoring, including SECAP monitoring sessions	Session	2	2	2	2	2	2	1	1	14
Annual review meetings	Per Year	1	1	1	1	1	1	1	1	8
Learning workshops	Workshop	1	1	1	1	1	1	1	1	8
Annual Outcome Survey for COI	Survey	-	-	-	-	1	1	1	1	4
Supervision Missions	Per Year	1	1	1	1	1	1	1	1	8
Mid term Review	Review	-	-	-	1	-	-	-	-	1
Project Completion Review	Review	-	-	-	-	-	-	1	1	2
End-line Survey	Survey	-	-	-	-	-	-	1	-	1
Subtotal										
E. Knowledge Management and Communication										
Development of KM Strategy and Tools	Study	1	-	-	-	-	-	-	-	1
Knowledge Product Development	Session	1	1	1	1	1	1	1	1	8
Learning Events & Workshops (local & national)	Session	-	1	1	1	1	1	1	-	6
KM Capacity Building	Session	1	1	1	-	-	1	-	-	4
Peer Learning & Exchange Visits (national & SSTC)	Session	-	1	1	-	1	-	1	-	4
Communication & Outreach	Session	1	1	1	1	1	1	1	1	8
Partnerships with Research & Academic Institutions	Session	-	1	1	1	1	1	1	-	6
KM Monitoring, Reporting, and Synthesis	Report	1	1	1	1	1	1	1	1	8
Website development	Lumpsum	1	-	-	-	-	-	-	-	1
Subtotal										
F. GALS training /l	Lumpsum	1	1	1	1	1	1	1	-	7
G. SECAP										

Environmental and Social Training (inc SECAP policies and proces	Session	-	15	-	-	15	-	-	15	45
GBV-SEA Activities	Package	-	1	1	1	1	1	1	-	6
PPE Equipment for workers	Package	-	1	1	1	1	1	-	-	5
Site-specific ESIAs, ESMPs and Environmental License fees	Number	-	3	3	2	2	1	1	-	12
Cultural Heritage Studies	Study	-	-	1	-	-	-	-	-	1
Installation of e-waste handling systems	Package	-	1	-	-	-	-	-	-	1
Bi-Annual Audits	Package	-	-	1	-	1	-	1	-	3
Annual Reviews	Package	-	1	-	1	-	1	-	-	3
End of Project Audit	Package	-	-	-	-	-	-	-	1	1
Subtotal										
H. Workshops										
Startup workshop	Workshop	13	-	-	-	-	-	-	-	13
Annual planning & review workshop	Workshop	1	1	1	1	1	1	1	1	8
PMCU & Gov participation in selected international workshops	Workshop	-	1	-	1	-	1	-	-	3
PCR Stakeholders' Workshop	Workshop	-	-	-	-	-	-	-	1	1
Subtotal										
Total Investment Costs										
II. Recurrent Costs										
A. PMCU Staff										
Project Director	Per Month	12	12	12	12	12	12	12	12	96
Monitoring and Evaluation and Knowledge Management Specialist	Per Month	12	12	12	12	12	12	12	12	96
Financial Management Specialist	Per Month	12	12	12	12	12	12	12	12	96
Procurement Specialist	Per Month	12	12	12	12	12	12	12	12	96
Livestock Specialist	Per Month	12	12	12	12	12	12	12	12	96
Agribusiness and Marketing Specialist	Per Month	12	12	12	12	12	12	12	12	96
Gender, Youth and Social Inclusion Specialist	Per Month	12	12	12	12	12	12	12	12	96
Environmental Management, Climate Change and Social Safeguar	Per Month	12	12	12	12	12	12	12	12	96
M&E/KM Assistant	Per Month	12	12	12	12	12	12	12	12	96
Accountant	Per Month	12	12	12	12	12	12	12	12	96
Procurement Assistant	Per Month	12	12	12	12	12	12	12	12	96
Project Assistant	Per Month	12	12	12	12	12	12	12	12	96
Driver	Per Month	84	84	84	84	84	84	84	84	672
Subtotal										
B. Adaptation Fund Management Costs (Inc. Salaries and Allowanc	Lumpsum	-	-	1	1	1	1	1	1	6
C. Operations and Maintenance										
Office rent (NPMCU)	Per Month	12	12	12	12	12	12	12	12	96
General operating expenses for PMCU	Per Month	12	12	12	12	12	12	12	12	96
General operating expenses for the participating districts	Per Month	144	144	144	144	144	144	144	144	1 152
Subtotal										
D. Vehicle O & M										
Vehicle O & M	Vehicle	8	8	8	8	8	8	8	8	64
Vehicle insurance	Vehicle	8	8	8	8	8	8	8	8	64
Subtotal										
E. DSA/Field Per Diem										
Field per diem /m	'erson/Yea	12	12	12	12	12	12	12	12	96
Allowances for frontline extension for data collection /n	DSA	144	144	144	144	144	144	144	144	1 152
Subtotal										
Total Recurrent Costs										
Total										

\a Double Cabin trucks for the PMCU
\b Station Wagon for the Project Director
\c 1 Laptop for each of the PMCU officer and 1 for each of the District Coordinators. Laptop with software and antivirus.
\d Desktop with softwares and antivirus. I Desktop is for the PMCU and the other 60 are for the 12 participating district; 5 desktops per district
\e 12 of the printers are for the 12 districts (1 for each district) and the other one if the NPMCU
\f 12 of the safe boxes are for the 12 districts (1 for each district) and the other one if the NPMCU
\g 5 of the Projectors are for the five provinces (1 for each province)
\h It includes: Server, softwares, uninterruptible power supply unit. 1 server for the NPMCU, 1 server for MoLA and the rest are for the participating districts (1 each per distr
\i 5 of the packages are for the five provinces (1 for each province)
\j 1 set for each Officer of the NPMCU. Set consists of a desk, chair, lamp and a file cabinet. Assumes that the district Management and Coordination Units would be provide
\k Set consists of a big table (sitting 12 people) and 20 chairs
\l Assumes an average of USD 5,000 per staff (technical staff and drivers) per year
\m Assumes an average of USD 5,000 per staff (technical staff and drivers) per year
\n 12 months *12 districts *$1152/month/district

Unit Cost	Totals Including Contingencies (US$ '000)									Summary Divisions	
(US$)	2026	2027	2028	2029	2030	2031	2032	2033	Total	Component	Expenditure Account
50,000	399	-	-	-	171	-	-	-	570	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
60,000	68	-	-	-	68	-	-	-	137	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
	467	-	-	-	239	-	-	-	707		
2,000	55	-	-	-	-	-	-	-	55	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
1,500	104	-	-	-	-	-	-	-	104	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
2,500	37	-	-	-	-	-	-	-	37	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
2,000	30	-	-	-	-	-	-	-	30	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
2,000	30	-	-	-	-	-	-	-	30	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
2,000	30	-	-	-	-	-	-	-	30	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
3,000	44	-	-	-	-	-	-	-	44	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
3,000	48	-	-	-	-	-	-	-	48	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
5,000	74	-	-	-	-	-	-	-	74	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
1,000	14	-	-	-	-	-	-	-	14	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
10,000	11	-	-	-	-	-	-	-	11	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
	477	-	-	-	-	-	-	-	477		
30,000	30	30	30	30	30	30	30	30	240	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
5,000	5	5	5	5	5	5	5	5	40	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
	35	35	35	35	35	35	35	35	280		
20,000	20	-	-	-	-	-	-	-	20	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
80,000	80	-	-	-	-	-	-	-	80	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
4,000	4	4	4	4	4	4	4	4	32	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	GOODS_SERVICES_AND_INPUTS
500	137	-	-	-	-	-	-	-	137	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
7,000	7	7	-	-	7	-	-	-	21	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TRAINING_1
90,000	90	-	-	-	-	-	-	-	90	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
90,000	-	-	-	90	-	-	-	-	90	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
10,000	20	20	20	20	20	20	10	10	140	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
20,000	20	20	20	20	20	20	20	20	160	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
10,000	10	10	10	10	10	10	10	10	80	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TRAINING_1
12,000	-	-	-	-	12	12	12	12	48	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
20,000	20	20	20	20	20	20	20	20	160	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
60,000	-	-	-	60	-	-	-	-	60	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
50,000	-	-	-	-	-	-	50	50	100	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
90,000	-	-	-	-	-	-	90	-	90	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
	408	81	74	224	93	86	216	126	1 308		
70,000	70	-	-	-	-	-	-	-	70	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
8,000	8	8	8	8	8	8	8	8	64	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
4,000	-	4	4	4	4	4	4	-	24	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TRAINING_1
10,000	10	10	10	-	-	10	-	-	40	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TRAINING_1
20,000	-	20	20	-	20	-	20	-	80	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TRAINING_1
5,000	5	5	5	5	5	5	5	5	40	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TRAINING_1
5,000	-	5	5	5	5	5	5	-	30	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TRAINING_1
4,000	4	4	4	4	4	4	4	4	32	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
5,000	5	-	-	-	-	-	-	-	5	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
	102	56	56	26	46	36	46	17	385		
50,000	50	50	50	50	50	50	50	-	350	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TRAINING_1

7,222	-	108	-	-	108	-	-	108	325	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TRAINING_1
17,833	-	18	18	18	18	18	18	-	107	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TRAINING_1
12,000	-	14	14	14	14	14	-	-	68	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	EQUIPMENT_AND_MATERIALS
5,000	-	15	15	10	10	5	5	-	60	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
5,000	-	-	5	-	-	-	-	-	5	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
15,000	-	15	-	-	-	-	-	-	15	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
5,000	-	-	5	-	5	-	5	-	15	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
5,000	-	5	-	5	-	5	-	-	15	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
30,000	-	-	-	-	-	-	-	30	30	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TECHNICAL_ASSISTANCE_1
	-	175	57	47	155	42	28	138	640		
20,000	260	-	-	-	-	-	-	-	260	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TRAINING_1
5,000	5	5	5	5	5	5	5	5	40	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TRAINING_1
30,000	-	30	-	30	-	30	-	-	90	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TRAINING_1
20,000	-	-	-	-	-	-	-	20	20	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	TRAINING_1
	265	35	5	35	5	35	5	25	410		
	1 804	432	277	417	623	284	380	341	4 557		
4,625	55	55	55	55	55	55	55	55	444	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
4,263	51	51	51	51	51	51	51	51	409	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
4,263	51	51	51	51	51	51	51	51	409	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
4,263	51	51	51	51	51	51	51	51	409	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
4,263	51	51	51	51	51	51	51	51	409	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
4,263	51	51	51	51	51	51	51	51	409	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
4,263	51	51	51	51	51	51	51	51	409	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
4,263	51	51	51	51	51	51	51	51	409	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
1,714	21	21	21	21	21	21	21	21	165	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
3,918	47	47	47	47	47	47	47	47	376	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
1,714	21	21	21	21	21	21	21	21	165	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
1,714	21	21	21	21	21	21	21	21	165	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
461	39	39	39	39	39	39	39	39	310	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
	561	561	561	561	561	561	561	561	4 488		
291,859	-	-	292	292	292	292	292	292	1 751	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
5,000	60	60	60	60	60	60	60	60	480	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	O_M
2,500	30	30	30	30	30	30	30	30	240	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	O_M
1,000	144	144	144	144	144	144	144	144	1 152	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	O_M
	234	234	234	234	234	234	234	234	1 872		
5,000	40	40	40	40	40	40	40	40	320	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	O_M
2,000	16	16	16	16	16	16	16	16	128	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	O_M
	56	56	56	56	56	56	56	56	448		
5,000	60	60	60	60	60	60	60	60	480	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
300	43	43	43	43	43	43	43	43	346	PROJECT_MANAGEMENT_AND_IMPLEMENTATION_SUPPORT_SERVICES	SAL_ALOW
	103	103	103	103	103	103	103	103	826		
	954	954	1 246	1 246	1 246	1 246	1 246	1 246	9 385		
	2 758	1 386	1 523	1 663	1 869	1 530	1 626	1 587	13 942		

rict).

ed with furniture by the respective districts.

Other Accounts	
Disb. Acct.	Fin. Rule
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
GOODS_SVCES_INPUTS	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)

TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)

TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 5, 0% FOR 3), IFAD (0% FOR 5, 100% FOR 3)

SAL_ALLOW	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
SAL_ALLOW	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
SAL_ALLOW	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
SAL_ALLOW	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
SAL_ALLOW	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
SAL_ALLOW	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
SAL_ALLOW	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
SAL_ALLOW	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
SAL_ALLOW	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
SAL_ALLOW	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
SAL_ALLOW	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
SAL_ALLOW	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
SAL_ALLOW	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
SAL_ALLOW	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)

SAL_ALLOW	ADAPTATION_FUND (100%)

OPER_COSTS	IFAD_LOAN (100% FOR 3, 0% FOR 5), ADAPTATION_FUND (0% FOR 3, 80% FOR 5), IFAD (0% FOR 3, 20% FOR 5)
OPER_COSTS	IFAD_LOAN (100% FOR 3, 0% FOR 5), ADAPTATION_FUND (0% FOR 3, 80% FOR 5), IFAD (0% FOR 3, 20% FOR 5)
OPER_COSTS	IFAD_LOAN (100% FOR 3, 0% FOR 5), ADAPTATION_FUND (0% FOR 3, 80% FOR 5), IFAD (0% FOR 3, 20% FOR 5)

OPER_COSTS	IFAD_LOAN (100% FOR 3, 0% FOR 5), ADAPTATION_FUND (0% FOR 3, 80% FOR 5), IFAD (0% FOR 3, 20% FOR 5)
OPER_COSTS	IFAD_LOAN (100% FOR 3, 0% FOR 5), ADAPTATION_FUND (0% FOR 3, 80% FOR 5), IFAD (0% FOR 3, 20% FOR 5)

SAL_ALLOW	IFAD_LOAN (100% FOR 3, 0% FOR 5), ADAPTATION_FUND (0% FOR 3, 80% FOR 5), IFAD (0% FOR 3, 20% FOR 5)
SAL_ALLOW	IFAD_LOAN (100% FOR 3, 0% FOR 5), ADAPTATION_FUND (0% FOR 3, 80% FOR 5), IFAD (0% FOR 3, 20% FOR 5)

Expenditures by Financiers (US$ '000)

IFAD 13 BRAM									Financing Gap									GEF								
2026	2027	2028	2029	2030	2031	2032	2033	Total	2026	2027	2028	2029	2030	2031	2032	2033	Total	2026	2027	2028	2029	2030	2031	2032	2033	Total
350	-	-	-	150	-	-	-	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	60	-	-	-	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
410	-	-	-	210	-	-	-	620	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-	48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
92	-	-	-	-	-	-	-	92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
418	-	-	-	-	-	-	-	418	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	30	30	30	30	-	-	-	150	-	-	-	-	-	30	30	30	90	-	-	-	-	-	-	-	-	-
5	5	5	5	5	-	-	-	25	-	-	-	-	-	5	5	5	15	-	-	-	-	-	-	-	-	-
35	35	35	35	35	-	-	-	175	-	-	-	-	-	35	35	35	105	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	-	-	-	-	-	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	4	4	4	4	-	-	-	20	-	-	-	-	-	4	4	4	12	-	-	-	-	-	-	-	-	-
120	-	-	-	-	-	-	-	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7	7	-	-	7	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	90	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	20	20	20	20	-	-	-	100	-	-	-	-	-	20	10	10	40	-	-	-	-	-	-	-	-	-
20	20	20	20	20	-	-	-	100	-	-	-	-	-	20	20	20	60	-	-	-	-	-	-	-	-	-
10	10	10	10	10	-	-	-	50	-	-	-	-	-	10	10	10	30	-	-	-	-	-	-	-	-	-
-	-	-	-	12	-	-	-	12	-	-	-	-	-	12	12	12	36	-	-	-	-	-	-	-	-	-
20	20	20	20	20	-	-	-	100	-	-	-	-	-	20	20	20	60	-	-	-	-	-	-	-	-	-
-	-	-	60	-	-	-	-	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	50	100	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	-	90	-	-	-	-	-	-	-	-	-
391	81	74	224	93	-	-	-	863	-	-	-	-	-	86	216	126	428	-	-	-	-	-	-	-	-	-
70	-	-	-	-	-	-	-	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8	8	8	8	8	-	-	-	40	-	-	-	-	-	8	8	8	24	-	-	-	-	-	-	-	-	-
-	4	4	4	4	-	-	-	16	-	-	-	-	-	4	4	-	8	-	-	-	-	-	-	-	-	-
10	10	10	-	-	-	-	-	30	-	-	-	-	-	10	-	-	10	-	-	-	-	-	-	-	-	-
-	20	20	-	20	-	-	-	60	-	-	-	-	-	-	20	-	20	-	-	-	-	-	-	-	-	-
5	5	5	5	5	-	-	-	25	-	-	-	-	-	5	5	5	15	-	-	-	-	-	-	-	-	-
-	5	5	5	5	-	-	-	20	-	-	-	-	-	5	5	-	10	-	-	-	-	-	-	-	-	-
4	4	4	4	4	-	-	-	20	-	-	-	-	-	4	4	4	12	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
102	56	56	26	46	-	-	-	286	-	-	-	-	-	36	46	17	99	-	-	-	-	-	-	-	-	-
50	50	50	50	50	-	-	-	250	-	-	-	-	-	50	50	-	100	-	-	-	-	-	-	-	-	-

-	108	-	-	108	-	-	-	217	-	-	-	-	-	-	-	108	108	-	-	-	-	-	-	-	-
-	18	18	18	18	-	-	-	71	-	-	-	-	-	18	18	-	36	-	-	-	-	-	-	-	-
-	12	12	12	12	-	-	-	48	-	-	-	-	-	12	-	-	12	-	-	-	-	-	-	-	-
-	15	15	10	10	-	-	-	50	-	-	-	-	-	5	5	-	10	-	-	-	-	-	-	-	-
-	-	5	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	15	-	-	-	-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	5	-	5	-	-	-	10	-	-	-	-	-	-	5	-	5	-	-	-	-	-	-	-	-
-	5	-	5	-	-	-	-	10	-	-	-	-	-	5	-	-	5	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	30	-	-	-	-	-	-	-	-
-	173	55	45	153	-	-	-	426	-	-	-	-	-	40	28	138	206	-	-	-	-	-	-	-	-
260	-	-	-	-	-	-	-	260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	5	5	5	5	-	-	-	25	-	-	-	-	-	5	5	5	15	-	-	-	-	-	-	-	-
-	30	-	30	-	-	-	-	60	-	-	-	-	-	30	-	-	30	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	20	-	-	-	-	-	-	-	-
265	35	5	35	5	-	-	-	345	-	-	-	-	-	35	5	25	65	-	-	-	-	-	-	-	-
1 671	430	275	415	592	-	-	-	3 383	-	-	-	-	-	282	380	341	1 003	-	-	-	-	-	-	-	-
55	55	55	55	-	-	-	-	222	-	-	-	-	55	55	55	55	222	-	-	-	-	-	-	-	-
51	51	51	51	-	-	-	-	205	-	-	-	-	51	51	51	51	205	-	-	-	-	-	-	-	-
51	51	51	51	-	-	-	-	205	-	-	-	-	51	51	51	51	205	-	-	-	-	-	-	-	-
51	51	51	51	-	-	-	-	205	-	-	-	-	51	51	51	51	205	-	-	-	-	-	-	-	-
51	51	51	51	-	-	-	-	205	-	-	-	-	51	51	51	51	205	-	-	-	-	-	-	-	-
51	51	51	51	-	-	-	-	205	-	-	-	-	51	51	51	51	205	-	-	-	-	-	-	-	-
51	51	51	51	-	-	-	-	205	-	-	-	-	51	51	51	51	205	-	-	-	-	-	-	-	-
51	51	51	6	-	-	-	-	159	-	-	-	-	-	-	-	-	-	-	-	-	46	51	51	51	51	250
21	21	21	21	-	-	-	-	82	-	-	-	-	21	21	21	21	82	-	-	-	-	-	-	-	-
47	47	47	47	-	-	-	-	188	-	-	-	-	47	47	47	47	188	-	-	-	-	-	-	-	-
21	21	21	21	-	-	-	-	82	-	-	-	-	21	21	21	21	82	-	-	-	-	-	-	-	-
21	21	21	21	-	-	-	-	82	-	-	-	-	21	21	21	21	82	-	-	-	-	-	-	-	-
39	39	39	39	-	-	-	-	155	-	-	-	-	39	39	39	39	155	-	-	-	-	-	-	-	-
561	561	561	516	-	-	-	-	2 199	-	-	-	-	510	510	510	510	2 039	-	-	-	46	51	51	51	51	250
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	60	60	-	-	-	-	-	180	-	-	-	12	12	12	12	12	60	-	-	-	-	-	-	-	-
30	30	30	-	-	-	-	-	90	-	-	-	6	6	6	6	6	30	-	-	-	-	-	-	-	-
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60	60	60	-	-	-	-	-	180	-	-	-	13	13	13	13	13	63	-	-	-	-	-	-	-	-
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103	103	103	-	-	-	-	-	310	-	-	-	22	22	22	22	22	109	-	-	-	-	-	-	-	-
954	954	954	516	-	-	-	-	3 378	-	-	-	80	590	590	590	590	2 438	-	-	-	46	51	51	51	51	250
2 625	1 384	1 229	930	592	-	-	-	6 761	-	-	-	80	590	871	969	931	3 441	-	-	-	46	51	51	51	51	250

Adaptation Fund										Government								
2026	2027	2028	2029	2030	2031	2032	2033	Total	2026	2027	2028	2029	2030	2031	2032	2033	Total
-	-	-	-	-	-	-	-	-	49	-	-	-	21	-	-	-	70
-	-	-	-	-	-	-	-	-	8	-	-	-	8	-	-	-	17
-	-	-	-	-	-	-	-	-	57	-	-	-	29	-	-	-	87
-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	7
-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	13
-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5
-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4
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-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	5
-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	6
-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	9
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-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	59	-	-	-	-	-	-	-	59
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-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	-	-	8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	133	2	2	2	31	2	-	-	171
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

IFAD
Investing in rural people

Botswana

Botswana Livestock Commercialization Project

Project Design Report

Annex: Bo L Co P Design Efa

Mission Dates:	07-19 July 2025
Document Date:	22/10/2025
Project No.	2000005356
Report No.	7326-BW

East and Southern Africa Division
Programme Management Department

Botswana - BoL-CoP Design Economic and Financial Analysis

Table xx: Overall Economic and Financial Analysis (EFA) Summary

A) Financial analysis

Project Year	Farm models' net incremental benefits (in BWP)								
	Category 1: Subsistence Farmers		Category 2: Small-Scale Commercial Farmers			Category 3: Emerging Commercial Farmers			Category 4: Small and Medium
	Poultry - Layers (50 birds)	Livestock - Goat (6 heads unit)	Livestock - Goat and Sheep (14 heads unit)	Poultry - Layers (150 birds unit)	Poultry - Broilers (200 birds unit)	Livestock - Goat and Sheep (22 heads unit)	Poultry - Layers (300 birds unit)	Poultry - Broilers (400 birds unit)	Livestock - Goat and Sheep (125 heads unit)
PY1	(8 781)	(14 340)	(53 877)	(22 737)	(23 114)	(164 458)	(96 652)	(80 930)	(450 704)
PY2	1 584	4 733	15 732	4 570	5 530	10 383	4 796	25 051	116 238
PY3	1 778	4 786	19 737	11 330	7 362	18 584	11 822	30 546	206 103
PY4	1 804	4 047	20 800	12 733	7 396	45 554	35 878	30 649	281 993
PY5	3 140	5 212	23 383	16 458	6 213	58 536	54 340	29 500	336 756
PY6	3 311	5 430	22 676	17 098	7 430	63 680	46 885	30 751	401 567
PY7	3 263	4 628	18 924	14 888	7 430	58 883	38 613	30 751	503 040
PY8	3 311	5 881	21 420	16 903	7 430	76 215	61 636	30 751	499 355
PY9	3 456	6 116	20 864	16 843	6 230	83 792	46 885	29 551	495 670
PY10	3 422	5 251	17 449	14 698	7 430	78 515	38 613	30 751	495 670
PY11	3 470	6 615	19 800	16 824	7 430	105 524	61 636	30 751	495 670
PY12	3 470	6 882	19 292	16 827	7 430	120 388	46 885	30 751	495 670
PY13	3 439	5 966	16 599	14 704	6 230	118 667	38 613	29 551	495 670
PY14	3 488	7 434	19 530	16 831	7 430	156 153	61 636	30 751	495 670
PY15	3 488	7 721	19 650	16 831	7 430	177 556	46 885	30 751	495 670
PY16	3 440	13 706	24 117	14 705	7 430	206 396	38 613	30 751	495 670
PY17	3 490	15 760	27 765	16 831	6 230	243 978	61 636	29 551	495 670
PY18	3 490	15 760	27 765	16 831	7 430	253 395	46 885	30 751	495 670
PY19	3 442	13 706	24 117	14 705	7 430	231 740	38 613	30 751	495 670
PY20	3 490	15 760	27 765	16 831	7 430	273 399	61 636	30 751	495 670
IRR	28%	35%	36%	48%	29%	30%	31%	36%	54%
NPV (BWP) @9%	23 166	61 295	168 399	131 739	51 943	910 202	345 522	239 101	3 860 298
B/C Ratio	2.09	2.75	2.31	1.73	1.34	2.63	2.34	1.43	2.78
Return to Family Labour	111	100	274	214	216	548	457	11 450	3 329

6%

B)

PROGRAMME COSTS AND INDICATORS FOR LOGFRAME		
TOTAL PROGRAMME COSTS (in million USD)		
Number of household members	200 000	People
Cost per individual	435	US$/Person
Number of household	50 000	HHs
Cost per household	1 742	US$/HHs
Components and Cost (USD million)	Amount	
A. Increased Climate-Resilient Small Livestock Production and Productivity	38.7	US$ million
B. Strengthened Small Livestock Value Chains	27.7	US$ million
C. Enhanced Enabling Environment for Improved Small Livestock Development	19.8	
D. RED (Lumpsum to be allocated incase of emergency)	1.0	US$ million
Total	87.1	US$ million

110 791 058 615

MAIN ASSUMPTIONS & SHADOW PRICES					
		Yields (Annually) Kg			
	Model	Unit of measure	WOP	WP	Price (BWP)
FINANCIAL	Poultry - Layers (50 birds)	Birds	20	50	85
	Livestock - Goat (6 heads unit)	Heads	2	4	1 000
	Livestock - Goat and Sheep (14 heads unit)	Heads	6	14	1 000
	Poultry - Layers (150 birds unit)	Birds	25	150	85
	Poultry - Broilers (200 birds unit)	Birds	-	200	85
	Livestock - Goat and Sheep (22 heads unit)	Heads	6	20	1 000
	Poultry - Layers (300 birds unit)	Birds	70	250	85
	Poultry - Broilers (400 birds unit)	Birds	-	400	85
	Livestock - Goat and Sheep (125 heads unit)	Heads	14	125	1 000

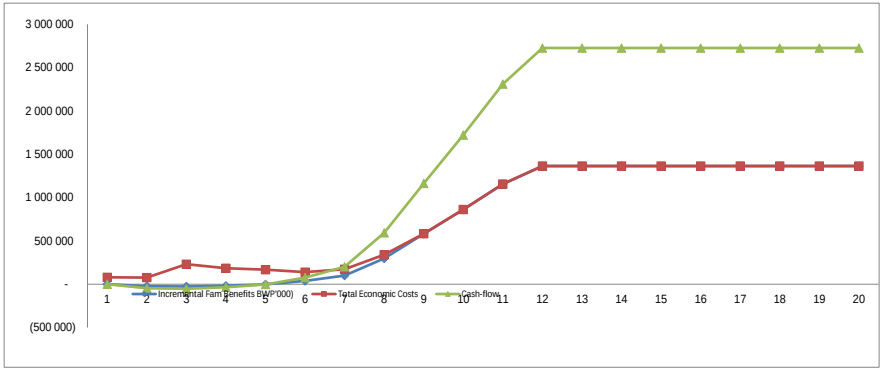
Economic	Conversion Factor - Goods	0.93	Discount rate for FA	6.0%
	Labour Conversion Factor	0.77	Discount rate for EA	8.6%
	Unemployment Rate	23.10%	VAT rate on imports	14%

D. OVERALL ECONOMIC ANALYSIS (BWP'000)

Project year	Incr. Economic Benefits				Incremental Fam Benefits BWP'000)	Economic Project Costs (BWP'000)				Cash-flow
	Category 1: Subsistence Farmers	Category 2: Small-Scale Commercial Farmers	Category 3: Emerging Commercial Farmers	Category 4: Small and Medium Enterprises (SMEs)		Investment Costs	Recurrent Costs	Add-back - Costs Inlcuded in Models	Total Economic Costs	
PY1					-	69 818	14 535	5 050	*79 303*	**(79 303)**
PY2	(832)	(7 352)	(6 300)	(8 396)	(22 879)	90 633	14 535	5 800	*99 369*	**(122 248)**
PY3	(853)	(8 037)	(8 229)	(9 363)	(26 483)	250 809	18 621	11 599	*257 832*	**(284 315)**
PY4	(527)	(4 355)	(8 371)	(4 294)	(17 547)	199 612	18 621	16 597	*201 636*	**(219 183)**
PY5	(274)	513	(7 486)	5 847	(1 401)	169 126	18 621	18 648	*169 099*	**(170 500)**
PY6	678	11 638	(2 112)	27 727	37 932	102 330	18 621	18 648	*102 304*	**(64 372)**
PY7	2 106	28 225	5 401	64 680	100 412	74 881	18 621	21 449	*72 054*	**28 358**
PY8	7 647	82 601	42 681	164 146	297 075	43 237	18 621	18 200	*43 659*	**253 416**
PY9	15 270	159 341	102 139	304 631	581 381		1 862		*1 862*	**579 519**
PY10	21 729	225 596	161 932	452 064	861 322		1 862		*1 862*	**859 460**
PY11	27 932	280 625	222 208	624 582	1 155 347		1 862		*1 862*	**1 153 485**
PY12	32 659	318 240	259 048	753 245	1 363 191		1 862		*1 862*	**1 361 329**
PY13	32 659	318 240	259 048	753 245	1 363 191		1 862		*1 862*	**1 361 329**
PY14	32 659	318 240	259 048	753 245	1 363 191		1 862		*1 862*	**1 361 329**
PY15	32 659	318 240	259 048	753 245	1 363 191		1 862		*1 862*	**1 361 329**
PY16	32 659	318 240	259 048	753 245	1 363 191		1 862		*1 862*	**1 361 329**
PY17	32 659	318 240	259 048	753 245	1 363 191		1 862		*1 862*	**1 361 329**
PY18	32 659	318 240	259 048	753 245	1 363 191		1 862		*1 862*	**1 361 329**
PY19	32 659	318 240	259 048	753 245	1 363 191		1 862		*1 862*	**1 361 329**
PY20	32 659	318 240	259 048	753 245	1 363 191		1 862		*1 862*	**1 361 329**
NPV@ 6% (BWP'000)										**3 920 645**
NPV@ 6% (US$ '000)										**280 046**
EIRR										**32%**
BCR				**NPV/b**	**4 669 308**	**NPV/c**			**748 663**	**6.2**

Discount Rate 9%

E). Cash flow



Botswana - BoL-CoP Design Economic and Financial Analysis

Table 1: Economic Benefits Aggregation

Adoption Rates		20%	30%	40%	50%	60%	70%	80%
Category 1: Subsistence Farmers		Y1	Y2	Y3	Y4	Y5	Y6	Y7
Incremental benefits	No. of HHs/Year	400	600	800	1 200	1 700	2 500	2 000
Adoption Rate	80%							
Incremental benefits/Y1	(10 402)	(832)	(1 248)	(1 664)	(2 497)	(3 537)	(5 201)	(4 161)
Incremental benefits/Y2	3 292		395	593	790	1 185	1 679	2 469
Incremental benefits/Y3	3 406			545	818	1 090	1 635	2 316
Incremental benefits/Y4	3 075				615	923	1 230	1 845
Incremental benefits/Y5	4 238					1 017	1 526	2 034
Incremental benefits/Y6	4 419						1 237	1 856
Incremental benefits/Y7	4 024							1 288
Incremental benefits/Y8	4 629							
Incremental benefits/Y9	4 806							
Incremental benefits/Y10	4 388							
Incremental benefits/Y11	5 045							
Total Incremental benefits (BWP'000)		(832)	(853)	(527)	(274)	678	2 106	7 647

Category 2: Small-Scale Commercial Farmers		Y1	Y2	Y3	Y4	Y5	Y6	Y7
Incremental benefits	No. of HHs/Year	1 200	1 800	2 400	3 600	5 100	7 500	6 000
Adoption Rate	80%							
Incremental benefits/Y1	(30 633)	(7 352)	(11 028)	(14 704)	(22 056)	(31 245)	(45 949)	(36 759)
Incremental benefits/Y2	8 307		2 991	4 486	5 981	8 972	12 710	18 691
Incremental benefits/Y3	12 214			5 863	8 794	11 725	17 588	24 916
Incremental benefits/Y4	12 989				7 793	11 690	15 587	23 380
Incremental benefits/Y5	14 578					10 496	15 745	20 993
Incremental benefits/Y6	14 935						12 545	18 818
Incremental benefits/Y7	13 086							12 563
Incremental benefits/Y8	14 485							
Incremental benefits/Y9	13 922							
Incremental benefits/Y10	12 570							
Incremental benefits/Y11	13 958							
Total Incremental benefits (BWP'000)		(7 352)	(8 037)	(4 355)	513	11 638	28 225	82 601

Category 3: Emerging Commercial Farmers		Y1	Y2	Y3	Y4	Y5	Y6	Y7
Incremental benefits	No. of HHs/Year	300	450	600	900	1 275	1 875	1 500
Adoption Rate	80%							
Incremental benefits/Y1	(104 995)	(6 300)	(9 450)	(12 599)	(18 899)	(26 774)	(39 373)	(31 499)
Incremental benefits/Y2	13 557		1 220	1 830	2 440	3 660	5 185	7 626
Incremental benefits/Y3	19 983			2 398	3 597	4 796	7 194	10 191
Incremental benefits/Y4	35 839				5 376	8 064	10 752	16 128
Incremental benefits/Y5	45 235					8 142	12 213	16 284
Incremental benefits/Y6	44 906						9 430	14 145
Incremental benefits/Y7	40 853							9 805
Incremental benefits/Y8	53 368							
Incremental benefits/Y9	50 771							
Incremental benefits/Y10	46 942							
Incremental benefits/Y11	62 458							
Total Incremental benefits (BWP'000)		(6 300)	(8 229)	(8 371)	(7 486)	(2 112)	5 401	42 681

Category 4: Small and Medium Enterprises ((SMEs),		Y1	Y2	Y3	Y4	Y5	Y6	Y7
Incremental benefits	No. of HHs/Year	100	150	200	300	425	625	500
Adoption Rate	80%							
Incremental benefits/Y1	(419 785)	(8 396)	(12 594)	(16 791)	(25 187)	(35 682)	(52 473)	(41 978)
Incremental benefits/Y2	107 686		3 231	4 846	6 461	9 692	13 730	20 191
Incremental benefits/Y3	191 295			7 652	11 478	15 304	22 955	32 520
Incremental benefits/Y4	261 902				13 095	19 643	26 190	39 285
Incremental benefits/Y5	312 852					18 771	28 157	37 542
Incremental benefits/Y6	373 151						26 121	39 181
Incremental benefits/Y7	467 559							37 405
Incremental benefits/Y8	464 130							
Incremental benefits/Y9	460 702							
Incremental benefits/Y10	460 702							
Incremental benefits/Y11	460 702							
Total Incremental benefits (BWP'000)		(8 396)	(9 363)	(4 294)	5 847	27 727	64 680	164 146
Total Incremental Benefits (BWP'000)		(22 879)	(26 483)	(17 547)	(1 401)	37 932	100 412	297 075

80%	80%	80%										
Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
800												
(1 664)												
1 975	790											
3 406	2 725	1 090	1 090									
2 614	3 844	3 075	1 230									
3 052	4 323	6 358	5 086									
2 475	3 712	5 259	7 734									
1 931	2 575	3 863	5 472									
1 481	2 222	2 963	4 444									
	1 538	2 307	3 076									
		1 404	2 106									
		1 614	2 421									
15 270	21 729	27 932	32 659	32 659	32 659	32 659	32 659	32 659	32 659	32 659	32 659	32 659

Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
2 400												
(14 704)												
14 953	5 981											
36 641	29 313	11 725	11 725									
33 122	48 708	38 967	15 587									
31 489	44 610	65 603	52 482									
25 091	37 636	53 318	78 409									
18 844	25 125	37 688	53 391									
13 906	20 858	27 811	41 717									
	13 365	20 047	26 730									
		12 067	18 100									
		13 400	20 099									
159 341	225 596	280 625	318 240	318 240	318 240	318 240	318 240	318 240	318 240	318 240	318 240	318 240

Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
600												
(12 599)												
6 101	2 440											
14 987	11 990	4 796	4 796									
22 848	33 599	26 879	10 752									
24 427	34 605	50 889	40 711									
18 861	28 291	40 079	58 939									
14 707	19 609	29 414	41 670									
12 808	19 213	25 617	38 425									
	12 185	18 278	24 370									
		11 266	16 899									
		14 990	22 485									
102 139	161 932	222 208	259 048	259 048	259 048	259 048	259 048	259 048	259 048	259 048	259 048	259 048

Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
200												
(16 791)												
16 153	6 461											
47 824	38 259	15 304	15 304									
55 654	81 844	65 475	26 190									
56 313	79 777	117 319	93 855									
52 241	78 362	111 012	163 253									
56 107	74 809	112 214	158 970									
37 130	55 696	74 261	111 391									
	36 856	55 284	73 712									
		36 856	55 284									
		36 856	55 284									
304 631	452 064	624 582	753 245	753 245	753 245	753 245	753 245	753 245	753 245	753 245	753 245	753 245
581 381	861 322	1 155 347	1 363 191	1 363 191	1 363 191	1 363 191	1 363 191	1 363 191	1 363 191	1 363 191	1 363 191	1 363 191

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Table 2: Financial Benefits Aggregation - BWP'000

Adoption Rates		20%	30%	40%	50%	60%	70%	80%	80%	80%	80%									
Category 1: Subsistence Farmers		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Incremental benefits	No. of HHs/Year	400	600	800	1 200	1 700	2 500	2 000	800												
Adoption Rate	70%																				
Incremental benefits/Y1	(11 560)	(925)	(1 387)	(1 850)	(2 774)	(3 931)	(5 780)	(4 624)	(1 850)												
Incremental benefits/Y2	3 159		379	569	758	1 137	1 611	2 369	1 895	758											
Incremental benefits/Y3	3 282			525	788	1 050	1 575	2 232	3 282	2 625	1 050	1 050									
Incremental benefits/Y4	2 926				585	878	1 170	1 755	2 487	3 657	2 926	1 170									
Incremental benefits/Y5	4 176					1 002	1 503	2 005	3 007	4 260	6 264	5 011									
Incremental benefits/Y6	4 370						1 224	1 836	2 447	3 671	5 201	7 648									
Incremental benefits/Y7	3 945							1 263	1 894	2 525	3 788	5 366									
Incremental benefits/Y8	4 596								1 471	2 206	2 942	4 412									
Incremental benefits/Y9	4 786									1 531	2 297	3 063									
Incremental benefits/Y10	4 337										1 388	2 082									
Incremental benefits/Y11	5 043										1 614	2 420									
Total Incremental benefits (BWP'000)		(925)	(1 008)	(756)	(644)	137	1 304	6 835	14 633	21 234	27 469	32 223	32 223	32 223	32 223	32 223	32 223	32 223	32 223	32 223	32 223

Category 2: Small-Scale Commercial Farmers		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Incremental benefits	No. of HHs/Year	1 200	1 800	2 400	3 600	5 100	7 500	6 000	2 400												
Adoption Rate	70%																				
Incremental benefits/Y1	(33 243)	(7 978)	(11 967)	(15 956)	(23 935)	(33 908)	(49 864)	(39 891)	(15 956)												
Incremental benefits/Y2	8 611		3 100	4 650	6 200	9 300	13 175	19 375	15 500	6 200											
Incremental benefits/Y3	12 810			6 149	9 223	12 297	18 446	26 132	38 430	30 744	12 297	12 297									
Incremental benefits/Y4	13 643				8 186	12 279	16 372	24 557	34 790	51 161	40 929	16 372									
Incremental benefits/Y5	15 351					11 053	16 580	22 106	33 159	46 976	69 082	55 265									
Incremental benefits/Y6	15 735						13 217	19 826	26 435	39 652	56 174	82 608									
Incremental benefits/Y7	13 747							13 198	19 796	26 395	39 593	56 089									
Incremental benefits/Y8	15 251								14 641	21 962	29 282	43 923									
Incremental benefits/Y9	14 646									14 060	21 090	28 120									
Incremental benefits/Y10	13 192										12 665	18 997									
Incremental benefits/Y11	14 685										14 097	21 146									
Total Incremental benefits (BWP'000)		(7 978)	(8 867)	(5 158)	(326)	11 022	27 926	85 303	166 794	237 149	295 209	334 819	334 819	334 819	334 819	334 819	334 819	334 819	334 819	334 819	334 819

Category 3: Emerging Commercial Farmers		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Incremental benefits	No. of HHs/Year	300	450	600	900	1 275	1 875	1 500	600												
Adoption Rate	70%																				
Incremental benefits/Y1	(114 013)	(6 841)	(10 261)	(13 682)	(20 522)	(29 073)	(42 755)	(34 204)	(13 682)												
Incremental benefits/Y2	13 410		1 207	1 810	2 414	3 621	5 129	7 543	6 035	2 414											
Incremental benefits/Y3	20 317			2 438	3 657	4 876	7 314	10 362	15 238	12 190	4 876	4 876									
Incremental benefits/Y4	37 360				5 604	8 406	11 208	16 812	23 817	35 025	28 020	11 208									
Incremental benefits/Y5	47 459					8 543	12 814	17 085	25 628	36 306	53 391	42 713									
Incremental benefits/Y6	47 105						9 892	14 838	19 784	29 676	42 042	61 826									
Incremental benefits/Y7	42 749							10 260	15 390	20 520	30 779	43 604									
Incremental benefits/Y8	56 201								13 488	20 232	26 976	40 465									
Incremental benefits/Y9	53 409									12 818	19 227	25 636									
Incremental benefits/Y10	49 293										11 830	17 746									
Incremental benefits/Y11	65 970										15 833	23 749									
Total Incremental benefits (BWP'000)		(6 841)	(9 054)	(9 433)	(8 847)	(3 628)	3 603	42 696	105 698	169 182	232 975	271 823	271 823	271 823	271 823	271 823	271 823	271 823	271 823	271 823	271 823

Category 4: Small and Medium Enterprises ((SMEs),		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Incremental benefits	No. of HHs/Year	100	150	200	300	425	625	500	200												
Adoption Rate	70%																				
Incremental benefits/Y1	(450 704)	(9 014)	(13 521)	(18 028)	(27 042)	(38 310)	(56 338)	(45 070)	(18 028)												
Incremental benefits/Y2	116 238		3 487	5 231	6 974	10 461	14 820	21 795	17 436	6 974											
Incremental benefits/Y3	206 103			8 244	12 366	16 488	24 732	35 037	51 526	41 221	16 488	16 488									
Incremental benefits/Y4	281 993				14 100	21 149	28 199	42 299	59 924	88 123	70 498	28 199									
Incremental benefits/Y5	336 756					20 205	30 308	40 411	60 616	85 873	126 283	101 027									
Incremental benefits/Y6	401 567						28 110	42 165	56 219	84 329	119 466	175 685									
Incremental benefits/Y7	503 040							40 243	60 365	80 486	120 730	171 034									
Incremental benefits/Y8	499 355								39 948	59 923	79 897	119 845									
Incremental benefits/Y9	495 670									39 654	59 480	79 307									
Incremental benefits/Y10	495 670										39 654	59 480									
Incremental benefits/Y11	495 670										39 654	59 480									
Total Incremental benefits (BWP'000)		(9 014)	(10 034)	(4 553)	6 398	29 995	69 832	176 879	328 005	486 582	672 150	810 546	810 546	810 546	810 546	810 546	810 546	810 546	810 546	810 546	810 546

Summary of Financial Benefits (BWP'000)	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10-Y20	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Category 1: Subsistence Farmers	(925)	(1 008)	(756)	(644)	137	1 304	6 835	14 633	21 234	27 469	32 223	32 223	32 223	32 223	32 223	32 223	32 223	32 223	32 223	32 223
Category 2: Small-Scale Commercial Farmers	(7 978)	(8 867)	(5 158)	(326)	11 022	27 926	85 303	166 794	237 149	295 209	334 819	334 819	334 819	334 819	334 819	334 819	334 819	334 819	334 819	334 819
Category 3: Emerging Commercial Farmers	(6 841)	(9 054)	(9 433)	(8 847)	(3 628)	3 603	42 696	105 698	169 182	232 975	271 823	271 823	271 823	271 823	271 823	271 823	271 823	271 823	271 823	271 823
Category 4: Small and Medium Enterprises	(9 014)	(10 034)	(4 553)	6 398	29 995	69 832	176 879	328 005	486 582	672 150	810 546	810 546	810 546	810 546	810 546	810 546	810 546	810 546	810 546	810 546
Total Benefits	(24 758)	(28 964)	(19 900)	(3 419)	37 525	102 663	311 712	615 130	914 147	1 227 802	1 449 411	1 449 411	1 449 411	1 449 411	1 449 411	1 449 411	1 449 411	1 449 411	1 449 411	1 449 411
Financial Costs (BWP'000)																				
Investment Costs	74 780	97 304	268 668	217 156	184 487	110 772	79 834	45 437												
Recurrent Costs	14 535	14 535	18 621	18 621	18 621	18 621	18 621	18 621	1 862	1 862	1 862	1 862	1 862	1 862	1 862	1 862	1 862	1 862	1 862	1 862
Total Costs	89 315	111 840	287 289	235 778	203 108	129 393	98 455	64 058	1 862	1 862	1 862	1 862	1 862	1 862	1 862	1 862	1 862	1 862	1 862	1 862
Costs Included in models (costs for improved breeds and other direct inputs)	4 550	4 550	9 100	9 100	13 650	13 650	18 200	18 200												
Total Incremental Benefits (BWP'000)	(109 523)	(136 254)	(298 089)	(230 097)	(151 933)	(13 080)	231 457	569 272	912 285	1 225 940	1 447 549	1 447 549	1 447 549	1 447 549	1 447 549	1 447 549	1 447 549	1 447 549	1 447 549	1 447 549

Profitability Indicators	
Discount Rate	6.0%
NPV @8.6% (BWP'000)	6 895 274
NPV @8.6% (USD'000)	492 520
F-IRR	36%
NPV/b @8.6% (BWP'000)	7 798 619
NPV/c @8.6% (BWP'000)	969 848
BCR	8.04

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Table 3: Summary of Economic Benefits

Category 1: Subsistence Farmers (Micro-scale)	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Poultry - Layers	(8 028)	1 615	1 795	1 820	3 063	3 222	3 177	3 222	3 357	3 325
Livestock - Goats	(12 777)	4 968	5 018	4 330	5 414	5 617	4 870	6 037	6 255	5 451
Sub-total	(10 402)	3 292	3 406	3 075	4 238	4 419	4 024	4 629	4 806	4 388
Category 2: Small-Scale Commercial Farmers (Small-scale)										
Livestock - Goats and Sheep	(50 296)	14 467	18 193	19 181	21 585	20 928	17 436	19 759	19 242	16 064
Poultry - Layers	(20 871)	4 535	10 824	12 129	15 595	16 190	14 134	16 008	15 953	13 957
Poultry - Broilers	(20 730)	5 920	7 624	7 656	6 555	7 688	7 688	7 688	6 571	7 688
Sub-total	(30 633)	8 307	12 214	12 989	14 578	14 935	13 086	14 485	13 922	12 570
Category 3: Emerging commercial farmers (medium scale)										
Livestock - Goats and Sheep	(151 460)	11 209	18 839	43 932	56 010	60 796	56 332	72 458	79 507	74 598
Poultry - Layers	(89 393)	4 992	11 528	33 909	51 087	44 150	36 455	57 874	44 150	36 455
Poultry - Broilers	(74 134)	24 468	29 581	29 677	28 608	29 772	29 772	29 772	28 656	29 772
Sub-total	(104 995)	13 557	19 983	35 839	45 235	44 906	40 853	53 368	50 771	46 942
Category 4: Small and Medium Enterprises ((SMEs), on-farm and off-farm SMEs))										
Livestock - Goats and Sheep	(419 785)	107 686	191 295	261 902	312 852	373 151	467 559	464 130	460 702	460 702

Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
3 370	3 370	3 341	3 387	3 387	3 342	3 388	3 389	3 344	3 389
6 720	6 967	6 115	7 481	7 748	13 316	15 228	15 228	13 316	15 228
5 045	5 168	4 728	5 434	5 567	8 329	9 308	9 308	8 330	9 308
18 251	17 779	15 274	18 000	18 111	22 268	25 662	25 662	22 268	25 662
15 935	15 938	13 963	15 942	15 942	13 964	15 942	15 941	13 964	15 941
7 688	7 688	6 571	7 688	7 688	7 688	6 571	7 688	7 688	7 688
13 958	13 802	11 936	13 876	13 914	14 640	16 058	16 430	14 640	16 430
99 726	113 556	111 954	146 831	166 744	193 576	228 541	237 303	217 155	255 914
57 874	44 150	36 455	57 874	44 150	36 455	57 874	44 150	36 455	57 874
29 772	29 772	28 656	29 772	29 772	29 772	28 656	29 772	29 772	29 772
62 458	62 493	59 022	78 159	80 222	86 601	105 024	103 742	94 461	114 520
460 702	460 702	460 702	460 702	460 702	460 702	460 702	460 702	460 702	460 702

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Table 4: Summary of Financial Benefits

Category 1: Subsistence Farmers (Micro-scale)	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Poultry - Layers	(8 781)	1 584	1 778	1 804	3 140	3 311	3 263	3 311	3 456	3 422
Livestock - Goats	(14 340)	4 733	4 786	4 047	5 212	5 430	4 628	5 881	6 116	5 251
Sub-total	(11 560)	3 159	3 282	2 926	4 176	4 370	3 945	4 596	4 786	4 337
Category 2: Small-Scale Commercial Farmers (Small-scale)										
Livestock - Goats and Sheep	(53 877)	15 732	19 737	20 800	23 383	22 676	18 924	21 420	20 864	17 449
Poultry - Layers	(22 737)	4 570	11 330	12 733	16 458	17 098	14 888	16 903	16 843	14 698
Poultry - Broilers	(23 114)	5 530	7 362	7 396	6 213	7 430	7 430	7 430	6 230	7 430
Sub-total	(33 243)	8 611	12 810	13 643	15 351	15 735	13 747	15 251	14 646	13 192
Category 3: Emerging commercial farmers (medium scale)										
Livestock - Goats and Sheep	(164 458)	10 383	18 584	45 554	58 536	63 680	58 883	76 215	83 792	78 515
Poultry - Layers	(96 652)	4 796	11 822	35 878	54 340	46 885	38 613	61 636	46 885	38 613
Poultry - Broilers	(80 930)	25 051	30 546	30 649	29 500	30 751	30 751	30 751	29 551	30 751
Sub-total	(114 013)	13 410	20 317	37 360	47 459	47 105	42 749	56 201	53 409	49 293
Category 4: Small and Medium Enterprises ((SMEs), on-farm and off-farm SMEs))										
Livestock - Goats and Sheep	(450 704)	116 238	206 103	281 993	336 756	401 567	503 040	499 355	495 670	495 670

Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
3 470	3 470	3 439	3 488	3 488	3 440	3 490	3 490	3 442	3 490
6 615	6 882	5 966	7 434	7 721	13 706	15 760	15 760	13 706	15 760
5 043	5 176	4 702	5 461	5 605	8 573	9 625	9 625	8 574	9 625
19 800	19 292	16 599	19 530	19 650	24 117	27 765	27 765	24 117	27 765
16 824	16 827	14 704	16 831	16 831	14 705	16 831	16 831	14 705	16 831
7 430	7 430	6 230	7 430	7 430	7 430	6 230	7 430	7 430	7 430
14 685	14 517	12 511	14 597	14 637	15 417	16 942	17 342	15 417	17 342
105 524	120 388	118 667	156 153	177 556	206 396	243 978	253 395	231 740	273 399
61 636	46 885	38 613	61 636	46 885	38 613	61 636	46 885	38 613	61 636
30 751	30 751	29 551	30 751	30 751	30 751	29 551	30 751	30 751	30 751
65 970	66 008	62 277	82 847	85 064	91 920	111 722	110 344	100 368	121 929
495 670	495 670	495 670	495 670	495 670	495 670	495 670	495 670	495 670	495 670

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Table 5: Incorporation Matrix

	Project Years		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Total
#		Distribution	*Phasing of enterprises*								
	Outreach (Lf)	50 000	2 000	3 000	4 000	6 000	8 500	12 500	10 000	4 000	50 000
	Cummulative No. of HHs		2 000	5 000	9 000	15 000	23 500	36 000	46 000	50 000	50 000
	Categories of BoL-CoP beneficiaries										
1	Subsistence Farmers (Micro-scale) *Layers and Goats*	20%	400	600	800	1 200	1 700	2 500	2 000	800	10 000
2	Small-Scale Commercial Farmers (Small-scale) *Goat & Shee, Layers & Broilers*	60%	1 200	1 800	2 400	3 600	5 100	7 500	6 000	2 400	30 000
3	Emerging Commercial Farmers (Medium scale) *Goat & Shee, Layers & Broilers*	15%	300	450	600	900	1 275	1 875	1 500	600	7 500
4	Small and Medium Enterprises ((SMEs) *Goat and Sheep*	5%	100	150	200	300	425	625	500	200	2 500
	Total	100%	2 000	3 000	4 000	6 000	8 500	12 500	10 000	4 000	50 000
	Adoption Rate	*80%*									*40 000*

Total

- Subsistence farmers (micro-scale)	10 000	20%
- Semi-commercial farmers (small-scale)	30 000	60%
- Emerging commercial farmers (medium scale)	7 500	15%
- Small and Medium Enterprises ((SMEs), on-farm and off-farm S	2 500	5%
Total	50 000	100%

***Source: PDR*

CATEGORY	DESCRIPTION	KEY CHARACTERISTICS
Subsistence Farmers (Micro-scale)	Farmers primarily producing for household consumption	Small herd size, mixed crops and livestock, limited market engagement
Small-Scale Commercial Farmers (Small-scale)	Farmers with some market orientation	Moderate herd size, some mechanization, part-time off-farm income
Emerging Commercial Farmers (Medium scale)	Transitioning from smallholder to full-time commercial	Medium herd size (Use of improved breeds, access to input markets, participate in cooperatives
Small and Medium Enterprises ((SMEs), on-farm and off-farm SMEs))	Fully market-oriented, high investment withbackward linkages with the farmers (producers) in categories 1, 2,	Large herd size , access to finance, fenced ranches, export compliant

Loise has to look again at the definition of "enterprise".

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Table XX: Incorporation Matrix - Financing Gap

Total Number of HHs	50 000
Percentage of Financing Gap costs over total costs	27%
Outreach if financing gap is not covered	36 500

Project Years		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Total
#	Distribution	*Phasing of enterprises*								
	of HHs (%)	4%	6%	8%	12%	17%	25%	20%	8%	100%
Outreach (Lf)	36 500	1 460	2 190	2 920	4 380	6 205	9 125	7 300	2 920	36 500
Cummulative No. of HHs		1 460	3 650	6 570	10 950	17 155	26 280	33 580	36 500	36 500
Categories of BoL-CoP beneficiaries										
1 Subsistence Farmers (Micro-scale) *Layers and Goats*	20%	292	438	584	876	1 241	1 825	1 460	584	7 300
2 Small-Scale Commercial Farmers (Small-scale) *Goat & Shee, Layers & Broilers*	60%	876	1 314	1 752	2 628	3 723	5 475	4 380	1 752	21 900
3 Emerging Commercial Farmers (Medium scale) *Goat & Shee, Layers & Broilers*	15%	219	329	438	657	931	1 369	1 095	438	5 475
4 Small and Medium Enterprises ((SMEs) *Goat and Sheep*	5%	73	110	146	219	310	456	365	146	1 825
Total	100%	1 460	2 190	2 920	4 380	6 205	9 125	7 300	2 920	36 500

Total

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Table xx: Economic Benefits Aggregation - BWP'000

Adoption Rates		20%	30%	40%	50%	60%	70%	80%	80%	80%	80%	
Category 1: Subsistence Farmers		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11
Incremental benefits	No. of HHs/Year	292	438	584	876	1 241	1 825	1 460	584			
Adoption Rate	70%											
Incremental benefits/Y1	(10 402)	(608)	(911)	(1 215)	(1 823)	(2 582)	(3 797)	(3 038)	(1 215)			
Incremental benefits/Y2	3 292		288	433	577	865	1 226	1 802	1 442	577		
Incremental benefits/Y3	3 406			398	597	796	1 194	1 691	2 487	1 989	796	796
Incremental benefits/Y4	3 075				449	673	898	1 347	1 908	2 806	2 245	898
Incremental benefits/Y5	4 238					743	1 114	1 485	2 228	3 156	4 641	3 713
Incremental benefits/Y6	4 419						903	1 355	1 807	2 710	3 839	5 645
Incremental benefits/Y7	4 024							940	1 410	1 880	2 820	3 995
Incremental benefits/Y8	4 629								1 081	1 622	2 163	3 244
Incremental benefits/Y9	4 806									1 123	1 684	2 245
Incremental benefits/Y10	4 388										1 025	1 538
Incremental benefits/Y11	5 045										1 178	1 768
Total Incremental benefits (BWP'000)		(608)	(623)	(385)	(200)	495	1 537	5 583	11 147	15 862	20 390	23 841
Category 2: Small-Scale Commercial Farmers		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11
Incremental benefits	No. of HHs/Year	876	1 314	1 752	2 628	3 723	5 475	4 380	1 752			
Adoption Rate	70%											
Incremental benefits/Y1	(30 633)	(5 367)	(8 050)	(10 734)	(16 101)	(22 809)	(33 543)	(26 834)	(10 734)			
Incremental benefits/Y2	8 307		2 183	3 275	4 366	6 549	9 278	13 644	10 915	4 366		
Incremental benefits/Y3	12 214			4 280	6 420	8 559	12 839	18 189	26 748	21 398	8 559	8 559
Incremental benefits/Y4	12 989				5 689	8 534	11 378	17 067	24 179	35 557	28 446	11 378
Incremental benefits/Y5	14 578					7 662	11 494	15 325	22 987	32 565	47 890	38 312
Incremental benefits/Y6	14 935						9 158	13 737	18 316	27 475	38 922	57 239
Incremental benefits/Y7	13 086							9 171	13 756	18 341	27 512	38 975
Incremental benefits/Y8	14 485								10 151	15 227	20 302	30 453
Incremental benefits/Y9	13 922									9 756	14 635	19 513
Incremental benefits/Y10	12 570										8 809	13 213
Incremental benefits/Y11	13 958										9 782	14 673
Total Incremental benefits (BWP'000)		(5 367)	(5 867)	(3 179)	374	8 496	20 604	60 299	116 319	164 685	164 685	164 685
Category 3: Emerging Commercial Farmers		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11
Incremental benefits	No. of HHs/Year	219	329	438	657	931	1 369	1 095	438			
Adoption Rate	70%											
Incremental benefits/Y1	(104 995)	(4 599)	(6 898)	(9 198)	(13 796)	(19 545)	(28 742)	(22 994)	(9 198)			
Incremental benefits/Y2	13 557		891	1 336	1 781	2 672	3 785	5 567	4 453	1 781		
Incremental benefits/Y3	19 983			1 750	2 626	3 501	5 251	7 440	10 941	8 752	3 501	3 501
Incremental benefits/Y4	35 839				3 924	5 887	7 849	11 773	16 679	24 528	19 622	7 849
Incremental benefits/Y5	45 235					5 944	8 916	11 888	17 832	25 261	37 149	29 719
Incremental benefits/Y6	44 906						6 884	10 326	13 768	20 652	29 257	43 026
Incremental benefits/Y7	40 853							7 157	10 736	14 315	21 472	30 419
Incremental benefits/Y8	53 368								9 350	14 025	18 700	28 050
Incremental benefits/Y9	50 771									8 895	13 343	17 790
Incremental benefits/Y10	46 942										8 224	12 336
Incremental benefits/Y11	62 458										10 943	16 414
Total Incremental benefits (BWP'000)		(4 599)	(6 008)	(6 111)	(5 465)	(1 541)	3 943	31 157	74 561	118 210	162 212	162 212
Category 4: Small and Medium Enterprises ((SMEs),		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11
Incremental benefits	No. of HHs/Year	73	110	146	219	310	456	365	146			
Adoption Rate	70%											
Incremental benefits/Y1	(419 785)	(6 129)	(9 193)	(12 258)	(18 387)	(26 048)	(38 305)	(30 644)	(12 258)			
Incremental benefits/Y2	107 686		2 358	3 537	4 717	7 075	10 023	14 740	11 792	4 717		
Incremental benefits/Y3	191 295			5 586	8 379	11 172	16 757	23 740	34 911	27 929	11 172	11 172
Incremental benefits/Y4	261 902				9 559	14 339	19 119	28 678	40 628	59 746	47 797	19 119
Incremental benefits/Y5	312 852					13 703	20 554	27 406	41 109	58 237	85 643	68 514
Incremental benefits/Y6	373 151						19 068	28 602	38 136	57 204	81 039	119 175
Incremental benefits/Y7	467 559							27 305	40 958	54 611	81 916	116 048
Incremental benefits/Y8	464 130								27 105	40 658	54 210	81 316
Incremental benefits/Y9	460 702									26 905	40 357	53 810
Incremental benefits/Y10	460 702										26 905	40 357
Incremental benefits/Y11	460 702										26 905	40 357
Total Incremental benefits (BWP'000)		(6 129)	(6 835)	(3 134)	4 268	20 241	47 216	119 826	222 381	330 007	455 945	455 945
Total Incremental Benefits (BWP'000)		(16 702)	(19 333)	(12 809)	(1 022)	27 690	73 301	216 865	424 408	628 765	803 232	806 683

Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
23 841	23 841	23 841	23 841	23 841	23 841	23 841	23 841	23 841

Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
164 685	164 685	164 685	164 685	164 685	164 685	164 685	164 685	164 685

Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
162 212	162 212	162 212	162 212	162 212	162 212	162 212	162 212	162 212

Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
455 945	455 945	455 945	455 945	455 945	455 945	455 945	455 945	455 945
806 683	806 683	806 683	806 683	806 683	806 683	806 683	806 683	806 683

Botswana - BoL-CoP Design Economic and Financial Analysis

Table 6: Sensitivity Analysis Matrix

Sensitivity analysis matrix				
	%	IRR	NPV (US$'000)	Link between EFA and IPRM
Base Scenario		32%	280 046	
Decrease of Project benefits	-10%	30.1%	246 694	Climate, social, and economic challenges that are likely to reduce the benefits communities gain from the project by disrupting farming activities, limiting access to markets, and making rural livelihoods more vulnerable
	-20%	28.5%	213 342	
	-30%	26.6%	179 989	
Cost Increase	10%	30.3%	274 698	Rising input costs from macroeconomic shocks and inflation (e.g. fuel, feed, veterinary supplies) increase project expenses and reduce financial returns.
	20%	29.0%	269 351	
	50%	26.2%	255 203	
Delay of benefits	1 Year	27.9%	196 201	Staffing gaps, high turnover, and short-term contracts can slow project implementation and delay delivery of benefits. Delays in planning and misaligned budgeting can slow down project activities and delay the delivery of benefits
	2 Years	24.8%	196 201	
	3 Years	22.0%	159 175	
	4 Years	19.6%	125 072	
Increase of benefits	10%	33.0%	313 398	Investments in climate-smart technologies, improved market access, inclusive value chains, and targeted support for women and youth that are expected to enhance productivity, increase incomes, and amplify project benefits across rural communities.
	20%	34.3%	346 750	
Financing Gap		31.1%	194 087	If the financing gap is not covered

Botswana - BoL-CoP Design Economic and Financial Analysis

Table 7: Detailed Sensitivity Analysis - BWP'000

Year	1	2	3	4	5	6	7	8	9	10
Incremental Benefits	-	(22 879)	(26 483)	(17 547)	(1 401)	37 932	100 412	297 075	581 381	861 322
benefits +10%	-	(25 167)	(29 131)	(19 302)	(1 541)	41 725	110 453	326 782	639 519	947 454
benefits +20%	-	(27 455)	(31 780)	(21 057)	(1 681)	45 518	120 495	356 490	697 657	1 033 586
Mild scenario	-	(20 592)	(23 835)	(15 792)	(1 261)	34 138	90 371	267 367	523 243	775 190
Medium scenario	-	(18 304)	(21 186)	(14 038)	(1 120)	30 345	80 330	237 660	465 105	689 058
High scenario	-	(16 016)	(18 538)	(12 283)	(980)	26 552	70 289	207 952	406 967	602 925
Without financing gap	(16 702)	(19 333)	(12 809)	(1 022)	27 690	73 301	216 865	424 408	628 765	803 232
Project Costs	79 303	99 369	257 832	201 636	169 099	102 304	72 054	43 659	1 862	1 862
costs +10%	87 234	109 306	283 615	221 800	186 009	112 534	79 259	48 025	2 048	2 048
costs +20%	95 164	119 243	309 398	241 964	202 919	122 764	86 465	52 390	2 235	2 235
costs +30%	118 955	149 053	386 748	302 454	253 649	132 995	93 670	56 756	2 421	2 421
costs without financing gap	84 353	105 168	269 431	165 043	113 348	38 630	22 245	17 310		
Net cash flow										
base scenario	(79 303)	(122 248)	(284 315)	(219 183)	(170 500)	(64 372)	28 358	253 416	579 519	859 460
costs +10%	(87 234)	(132 185)	(310 098)	(239 347)	(187 410)	(74 602)	21 153	249 050	579 333	859 274
costs +20%	(95 164)	(142 122)	(335 881)	(259 511)	(204 319)	(84 833)	13 947	244 684	579 146	859 087
costs +30%	(118 955)	(171 933)	(413 231)	(320 002)	(255 049)	(95 063)	6 742	240 318	578 960	858 901
benefits +10%	(79 303)	(124 536)	(286 963)	(220 938)	(170 640)	(60 579)	38 399	283 124	637 657	945 592
benefits +20%	(79 303)	(126 824)	(289 611)	(222 693)	(170 780)	(56 786)	48 441	312 831	695 795	1 031 724
benefits -10%	(79 303)	(119 960)	(281 666)	(217 429)	(170 360)	(68 165)	18 317	223 709	521 381	773 328
benefits -20%	(79 303)	(117 672)	(279 018)	(215 674)	(170 220)	(71 958)	8 276	194 001	463 243	687 195
benefits -30%	(79 303)	(115 385)	(276 370)	(213 919)	(170 080)	(75 751)	(1 766)	164 294	405 104	601 063
benefits delayed 1 year	(79 303)	(99 369)	(280 711)	(228 119)	(186 646)	(103 704)	(34 122)	56 753	295 213	579 519
benefits delayed 2 years	(79 303)	(99 369)	(257 832)	(224 516)	(195 582)	(119 851)	(73 455)	(5 727)	98 550	295 213
benefits delayed 3 years	(79 303)	(99 369)	(257 832)	(201 636)	(191 979)	(128 787)	(89 601)	(45 059)	36 070	98 550
benefits delayed 4 years	(79 303)	(99 369)	(257 832)	(201 636)	(169 099)	(125 183)	(98 537)	(61 206)	(3 263)	36 070
Without Financing Gap	(101 055)	(124 501)	(282 240)	(166 066)	(85 657)	34 671	194 619	407 098	628 765	803 232

Discount rate	9%

Sensitivity Analysis	Base case	Costs Increase			Benefits Increase		Decrease of Benefits			
		+10%	+20%	+50%	+10%	+20%	-10%	-20%	- 30%	1 year
IRR (%)	32%	30%	29%	26%	33%	34%	30%	28%	27%	28%
NPV (BWP '000)	3 920 645	3 845 779	3 770 913	3 572 844	4 387 576	4 854 507	3 453 714	2 986 784	2 519 853	3 309 614
NPV (USD '000)	280 046	274 698	269 351	255 203	313 398	346 750	246 694	213 342	179 989	236 401
Benefit Cost Ratio	6.24	5.7	5.2	4.3	6.9	7.5	5.6	5.0	4.4	5.9

14.00

11	12	13-20	14	15	16	17	18	19	20
1 155 347	1 363 191	1 363 191	1 363 191	1 363 191	1 363 191	1 363 191	1 363 191	1 363 191	1 363 191
1 270 881	1 499 510	1 499 510	1 499 510	1 499 510	1 499 510	1 499 510	1 499 510	1 499 510	1 499 510
1 386 416	1 635 829	1 635 829	1 635 829	1 635 829	1 635 829	1 635 829	1 635 829	1 635 829	1 635 829
1 039 812	1 226 872	1 226 872	1 226 872	1 226 872	1 226 872	1 226 872	1 226 872	1 226 872	1 226 872
924 277	1 090 553	1 090 553	1 090 553	1 090 553	1 090 553	1 090 553	1 090 553	1 090 553	1 090 553
808 743	954 234	954 234	954 234	954 234	954 234	954 234	954 234	954 234	954 234
806 683	806 683	806 683	806 683	806 683	806 683	806 683	806 683	806 683	806 683
1 862	1 862	1 862	1 862	1 862	1 862	1 862	1 862	1 862	1 862
2 048	2 048	2 048	2 048	2 048	2 048	2 048	2 048	2 048	2 048
2 235	2 235	2 235	2 235	2 235	2 235	2 235	2 235	2 235	2 235
2 421	2 421	2 421	2 421	2 421	2 421	2 421	2 421	2 421	2 421
1 153 485	1 361 329	1 361 329	1 361 329	1 361 329	1 361 329	1 361 329	1 361 329	1 361 329	1 361 329
1 153 298	1 361 143	1 361 143	1 361 143	1 361 143	1 361 143	1 361 143	1 361 143	1 361 143	1 361 143
1 153 112	1 360 957	1 360 957	1 360 957	1 360 957	1 360 957	1 360 957	1 360 957	1 360 957	1 360 957
1 152 926	1 360 770	1 360 770	1 360 770	1 360 770	1 360 770	1 360 770	1 360 770	1 360 770	1 360 770
1 269 019	1 497 648	1 497 648	1 497 648	1 497 648	1 497 648	1 497 648	1 497 648	1 497 648	1 497 648
1 384 554	1 633 967	1 633 967	1 633 967	1 633 967	1 633 967	1 633 967	1 633 967	1 633 967	1 633 967
1 037 950	1 225 010	1 225 010	1 225 010	1 225 010	1 225 010	1 225 010	1 225 010	1 225 010	1 225 010
922 415	1 088 691	1 088 691	1 088 691	1 088 691	1 088 691	1 088 691	1 088 691	1 088 691	1 088 691
806 881	952 372	952 372	952 372	952 372	952 372	952 372	952 372	952 372	952 372
859 460	1 153 485	1 361 329	1 361 329	1 361 329	1 361 329	1 361 329	1 361 329	1 361 329	1 361 329
579 519	859 460	1 153 485	1 361 329	1 361 329	1 361 329	1 361 329	1 361 329	1 361 329	1 361 329
295 213	579 519	859 460	1 153 485	1 361 329	1 361 329	1 361 329	1 361 329	1 361 329	1 361 329
98 550	295 213	579 519	859 460	1 153 485	1 361 329	1 361 329	1 361 329	1 361 329	1 361 329
806 683	806 683	806 683	806 683	806 683	806 683	806 683	806 683	806 683	806 683

	Dis. Rate	9%		
	ZMW'000	NPVb	NPVc	BCR
31.6%	3 920 645	4 669 308	748 663	6.2
30.3%	3 845 779	4 669 308	823 529	5.7
29.0%	3 770 913	4 669 308	898 395	5.2
26.2%	3 572 844	4 669 308	1 096 464	4.3
33.0%	4 387 576	5 136 239	748 663	6.9
34.3%	4 854 507	5 603 170	748 663	7.5
30.1%	3 453 714	4 202 377	748 663	5.6
28.5%	2 986 784	3 735 447	748 663	5.0
26.6%	2 519 853	3 268 516	748 663	4.4
27.9%	3 309 614	4 406 112	748 663	5.9
24.8%	2 746 820	4 120 357	748 663	5.5
22.0%	2 228 455	3 810 110	748 663	5.1
19.6%	1 751 011	3 473 271	748 663	4.6
31.1%	2 717 225	3 333 639	616 414	5.4

Delay of Benefits			Without
2 years	3 years	4 years	Financing
25%	22.0%	19.6%	31.1%
2 746 820	2 228 455	1 751 011	2 717 225
196 201	159 175	125 072	194 087
5.5	5.1	4.6	5.4

Botswana - BoL-CoP Design Economic and Financial Analysis

Table 8: Conversion Factor Computation

	SCF	0.93						
	Derivation of SCF							
	SER = OER x (M + X) / [(M + Tm) + (X - Tx)] = OER x SCF							
	SCF = SER/OER							
	1) total imports (M) M =							
	2) total exports (X) X =							
	3) import taxes (Tm) Tm =							
	4) export taxes (Tx) Tx =							
	Zambia	2015	2016	2017	2018	2019	2020	
		US$	US$	US$	US$	US$	US$	
Total exports	X	6 717 737 225	5 312 907 011	4 376 456 238	7 474 891 658	8 414 813 596	5 502 716 524	
Total imports	M	6 460 540 582	6 657 430 605	6 605 141 603	8 462 769 426	8 114 914 546	6 417 467 725	
Import taxes	Tm	904 475 681	932 040 285	924 719 824	1 184 787 720	1 136 088 036	898 445 482	
Export taxes	Tx	-	-	-	-	-	-	
		0.94	0.93	0.92	0.93	0.94	0.93	0.93 /Average
		0.93						
Official Exchange Rate (OER)	OER	14						
Shadow Exchange Rate (SER)	SER	13.03						
Standard Conversion Factor (SCF)	SCF (SER/OER)	0.93	To be applied to all tradable goods					
	Labour CF	0.77						

	2018	2019	2020	2021	2022	2023
Exports of goods fob (US$ billion)/*	6.717737225	5.312907011	4.376456238	7.474891658	8.414813596	5.502716524
Imports of goods fob (US$ billion)/*	6.460540582	6.657430605	6.605141603	8.462769426	8.114914546	6.417467725

*/ Data on impots and exports from World Trade Yearbook (https://comtrade.un.org/pb/first.aspx)

Unemployment rate in Zambia (%)/**	23.10%
CF for labour	0.769
Import tax rate/***	14%
Export tax rate	0%
Discount rate for Economic analysis (lending rate)/****	8.6%
Discount rate for Financial analysis/*****	6.0%

**/ Botswana Unemployment Rate

***/ https://tradingeconomics.com/botswana/sales-tax-rate

****/ https://www.worldgovernmentbonds.com/country/botswana/#google_vignette

*****/ https://tradingeconomics.com/botswana/bank-lending-rate

Botswana

BoL-CoP Design EFA Models - Prices in BWP

Livestock

Beneficiary Categories	WoP Herd Size (Heads)	WP Herd Size (Heads)	WoP Income (BWP)	WP Income (BWP)	Incremental Income (BWP)	IRR (%)	NPV (BWP)	BCR
Category 1: Subsistence	2	6	1 750	10 004	8 254	35%	61 295	2.8
Category 2: Semi-Subsistence	6	14	3 142	33 475	30 333	36%	77 734	2.3
Category 3: Emerging Commercial	6	20	3 419	152 321	148 902	30%	910 202	2.6
Category 2: SME	14	125	5 757	405 610	399 852	54%	3 860 298	2.8

Poultry - Layers

Beneficiary Categories	WoP Herd Size (Heads)	WP Herd Size (Heads)	WoP Income (BWP)	WP Income (BWP)	Incremental Income (BWP)	IRR (%)	NPV (BWP)	BCR
Category 1: Subsistence	20	50	1 360	6 220	4 860	28%	23 166	2.1
Category 2: Semi-Subsistence	25	150	1 339	31 796	30 457	48%	131 739	1.7
Category 3: Emerging Commercial	70	250	9 840	70 281	60 441	31%	345 522	2.3

Poultry - Layers

Beneficiary Categories	WoP Herd Size (Heads)	WP Herd Size (Heads)	WoP Income (BWP)	WP Income (BWP)	Incremental Income (BWP)	IRR (%)	NPV (BWP)	BCR
Category 1: Semi-Subsistence	-	400	2 400	29 070	26 670	29%	51 943	1.3
Category 2: Emerging Commercial	-	1 200	3 600	87 364	83 764	36%	239 101	1.4

Botswana

BoL-CoP Design EFA Models - Prices in BWP

Polutry Chicken Model - Subsistence Farmers (Micro-scale - primarily producing for household consumption) - Prices in BWP

Small herd size

Mixed crops and livestock

Limited market engagement

Selling Price	Unt	Unit Cost	Qty	Assumption Dynamics		WOP	WP
Chicken	BWP/Head	85.0		Total	No. of birds	20	50
Eggs	BWP/egg	3.0					
Containers for collecting eggs	BWP/egg	30.0		Chicks mortality rate		30%	15%
Feed Costs	BWP/Bird/ bat	10.0		Adult chicken mortality rate		15%	10%
Family Labour	BWP/Day	25.0	40	Eggs/chicken			25
Housing	BWP	10 000.0	1	Self consumption - Eggs		70%	80%
Purchase of day old chicks	BWP	10.0		Self consumption - Chicken		70%	70%
				Off-take Chicken			100%
Vaccines	5% of revenue	0.05		Production loses		30%	5%
No. of batches in One Year	No.	1.0					

Improved Indigenous Chicken Model - Financial Analysis		Quantity WoP	With-Project										With-Project									
Assumptions and Parameters	Unit	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Number of birds in a Unit	No. of birds	20	54	58	55	55	55	58	56	56	56	57	56	56	56	56	56	56	56	56	56	56
Total Stock after mortality rate	No. of birds	12	32	32	32	32	42	42	42	42	43	43	43	43	43	43	43	43	43	43	43	43
Total New Stock (Less of Self Consumption)	No. of birds	4	10	10	10	10	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
No. of eggs hatched per year	No. of eggs	298	797	797	797	797	1 048	1 048	1 048	1 048	1 076	1 076	1 076	1 076	1 080	1 080	1 080	1 080	1 080	1 080	1 080	1 080
Technical Parameters																						
Chicks mortality rate	%	30%	30%	30%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Adult Chicken mortality rate	%	15%	15%	15%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Production losses	%	27%	18%	14%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Own-consumption - Chicken	%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%
Self-consumption - Eggs	No of Eggs	208	637	637	637	637	838	838	838	838	861	861	861	861	864	864	864	864	864	864	864	864
Off-take (Chicken)	%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Main Production/Offtake																						
Chicken	%	-	2	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Eggs	No. of eggs	9	16	52	120	120	157	157	157	157	161	161	161	161	162	162	162	162	162	162	162	162

Financial Budget		WOP Y0	With Pproject Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue																						
Eggs	BWP	27	48	155	359	371	495	503	503	503	517	517	517	517	518	518	518	518	518	518	518	518
Eggs - Own Consumption	BWP	625	1 912	1 912	1 912	1 976	2 640	2 682	2 682	2 682	2 756	2 756	2 756	2 756	2 764	2 764	2 764	2 764	2 765	2 765	2 765	2 765
Chicken	BWP	-	152	406	406	407	407	536	536	536	536	550	550	550	550	552	552	552	552	552	552	552
Chicken - Own Consumption	BWP	708	1 897	1 897	1 897	1 899	2 498	2 499	2 499	2 499	2 568	2 568	2 568	2 568	2 576	2 576	2 576	2 576	2 577	2 577	2 577	2 577
Total Revenue	BWP	1 360	4 008	4 371	4 574	4 652	6 040	6 220	6 220	6 220	6 376	6 391	6 391	6 391	6 409	6 410	6 410	6 410	6 412	6 413	6 413	6 413
Production Costs																						
Investment Costs																						
Housing	BWP		10 000																			
Empty trays (each tray = 30 eggs)	BWP	27	21			48			48			48			48			48			48	
Total Investment Costs	BWP	27	10 021	-	-	48	-	-	48	-	-	48	-	-	48	-	-	48	-	-	48	-
Operating Costs																						
Chicken feeds	BWP	36	96	96	96	96	126	126	126	126	129	129	129	129	130	130	130	130	130	130	130	130
Purchase of day old chicks	BWP	200	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Vaccines	BWP	-	200	219	229	233	302	311	311	311	319	320	320	320	320	321	321	321	321	321	321	321
Total Operating Costs		236	796	814	824	828	928	937	937	937	948	949	949	949	950	950	950	950	950	950	950	950
Labour Budget																						
Family Labour	BWP	125	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000	1 000
Total Production Costs	BWP	387	11 817	1 814	1 824	1 876	1 928	1 937	1 985	1 937	1 948	1 997	1 949	1 949	1 998	1 950	1 950	1 998	1 950	1 950	1 998	1 950
Net Income Before Labour Costs	BWP	1 097	(6 809)	3 557	3 750	3 776	5 112	5 283	5 235	5 283	5 428	5 394	5 442	5 442	5 411	5 460	5 460	5 413	5 462	5 462	5 415	5 462
Net Income After Labour Costs	BWP	972	(7 809)	2 557	2 750	2 776	4 112	4 283	4 235	4 283	4 428	4 394	4 442	4 442	4 411	4 460	4 460	4 413	4 462	4 462	4 415	4 462
Net Incremental Benefits	BWP		(8 781)	1 584	1 778	1 804	3 140	3 311	3 263	3 311	3 456	3 422	3 470	3 470	3 439	3 488	3 488	3 440	3 490	3 490	3 442	3 490

Profitability Indicators - Before Financing

Return to family labour (BWP)	111
Discount rate	6%
NPV (BWP)	23 166
IRR	28%
NPV/b - BWP	65 747
NPV/c - BWP	31 440
B/C ratio	2.09

Economic Analysis

CF for Goods (Investment costs, revenue)	0.93
CF for Labour	0.77

Financial Budget		WOP Y0	With Pproject Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue																						
Total Revenue	BWP	1 265	3 729	4 066	4 255	4 328	5 620	5 787	5 787	5 787	5 932	5 946	5 946	5 946	5 963	5 964	5 964	5 964	5 966	5 966	5 966	5 966
Total Investment Costs	BWP	25	9 323	-	-	44	-	-	44	-	-	44	-	-	44	-	-	44	-	-	44	-
Total Operating Costs	BWP	219	741	757	767	771	863	872	872	872	882	883	883	883	884	884	884	884	884	884	884	884
Labour Budget	BWP	96	769	769	769	769	769	769	769	769	769	769	769	769	769	769	769	769	769	769	769	769
Total Production Costs	BWP	340	10 833	1 526	1 536	1 584	1 632	1 641	1 685	1 641	1 651	1 696	1 652	1 652	1 697	1 653	1 653	1 697	1 653	1 653	1 698	1 653
Net Income	BWP	925	(7 104)	2 540	2 720	2 744	3 988	4 146	4 102	4 146	4 281	4 250	4 294	4 294	4 265	4 311	4 311	4 267	4 313	4 313	4 269	4 313
Net Incremental Benefits	BWP		(8 028)	1 615	1 795	1 820	3 063	3 222	3 177	3 222	3 357	3 325	3 370	3 370	3 341	3 387	3 387	3 342	3 388	3 389	3 344	3 389

Profitability Indicators - Before Financing

Discount rate	9%
NPV (BWP)	16 888
IRR	30%
NPV/b - BWP	49 405
NPV/c - BWP	23 813
B/C ratio	2.07

Botswana

BoL-CoP Design EFA Models - Prices in BWP

Livestock Goat Model - Subsistence Farmers (Micro-scale - primarily producing for household consumption) - Prices in BWP - Financial Analysis

Small herd size

Mixed crops and livestock

Limited market engagement

Selling Price	Unt	Unit Cost	Qty
Doe	BWP/Head	1 000	
Buck	BWP/Head	2 500	
Juvenile - Castrate	BWP/Head	700	
Veterinary Costs	BWP/Head	50	
Family Labour	Days/Yr	25	70.00

Dynamics	Doe	*Goats* Buck	Total
Without Project Stock	1	1	2
With Project	3	1	4

Feed Costs 5%

			WoP	With-Project																		
Assumptions and Parameters		Unit	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Goats																							
Doe		Head	1	4	5	5	5	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7
Buck		Head	1	2	5	5	5	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7
Total Stock Head			2	7	11	11	11	11	11	12	12	12	13	13	13	14	14	14	15	15	15	15	15
Technical Parameters - Goats																							
Doe replacement		%			15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	40%	40%	40%	40%	40%
Buck replacement		%					10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Twinning rate	30%	%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Kidding rate		%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Kids mortality rate		%	10%	10%	8%	8%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Juvenile mortality rate		%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
New Kids		Heads	1	5	6	6	7	7	7	7	7	8	8	8	8	8	9	9	9	9	9	9	9
New Juvenile		Heads	1	5	6	6	6	7	7	7	7	7	7	8	8	8	8	8	9	9	9	9	9
50%	Female Juvenile	Heads	1	2	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4
50%	Male Juvenile	Heads	1	2	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4
20%	Self Consumption	Heads			3	3	3	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5
Total New Stock - Goats		Head	3	12	13	14	14	14	15	15	15	16	16	16	17	17	18	18	19	19	19	19	19
Adults mortality rate		%	10%	8%	6%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Off-take																							
Goats	Doe	Head	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	4	4	4	4
	Buck	Head	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	4	4	4	4
Total Offtake		Head	-	-	2	2	2	2	2	2	2	2	2	2	2	2	3	3	7	7	7	7	7

			WoP	With-Project										With-Project									
Financial Budget			Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue																							
Goats	Doe	BWP	-	-	951	964	988	1 012	1 038	1 064	1 090	1 117	1 145	1 174	1 203	1 233	1 264	1 296	3 541	3 541	3 541	3 541	3 541
	Buck	BWP	-	-	2 378	2 409	2 469	2 531	2 594	2 659	2 725	2 793	2 863	2 934	3 008	3 083	3 160	3 239	8 852	8 852	8 852	8 852	8 852
	Self-consumption	BWP	-	-	5 903	5 917	6 065	6 216	6 372	6 531	6 694	6 861	7 032	7 208	7 388	7 572	7 761	7 955	8 153	8 153	8 153	8 153	8 153
Total Revenue		BWP	-	-	9 233	9 290	9 521	9 760	10 004	10 254	10 509	10 772	11 041	11 316	11 599	11 888	12 185	12 489	20 546	20 546	20 546	20 546	20 546
Production Costs																							
Investment Costs																							
	Housing	BWP		5 000																			
Herd	Goats	BWP		5 500																			
	One time veterinary contribution (10% of gross revenue)	10%		-			952			1 025			1 104	-	-	1 189	-	-	2 055	-	-	2 055	-
Total Investment Costs				10 500	-	-	952	-	-	1 025	-	-	1 104	-	-	1 189	-	-	2 055	-	-	2 055	-
Operating Costs																							
Feed costs *(20% of Revenue)*		BWP	-	-	462	464	476	488	500	513	525	539	552	552	552	552	552	552	552	552	552	552	552
Veterinary Costs (Including Vaccination and AI)		BWP	-	340	538	539	546	560	574	588	603	618	633	649	665	682	699	716	734	734	734	734	734
Total Operating Costs		BWP	-	340	999	1 004	1 022	1 048	1 074	1 101	1 128	1 156	1 185	1 201	1 217	1 234	1 251	1 268	1 286	1 286	1 286	1 286	1 286
Labour Budget																							
Family Labour		BWP		1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750
Total Production Costs		BWP	-	12 590	2 749	2 754	3 724	2 798	2 824	3 876	2 878	2 906	4 039	2 951	2 967	4 173	3 001	3 018	5 091	3 036	3 036	5 091	3 036
Net Income Before Labour Costs		BWP	-	(10 840)	8 233	8 286	7 547	8 712	8 930	8 128	9 381	9 616	8 751	10 115	10 382	9 466	10 934	11 221	17 206	19 260	19 260	17 206	19 260
Net Income After Labour Costs		BWP	1 750	(12 590)	6 483	6 536	5 797	6 962	7 180	6 378	7 631	7 866	7 001	8 365	8 632	7 716	9 184	9 471	15 456	17 510	17 510	15 456	17 510
Net Incremental Benefits		BWP		(14 340)	4 733	4 786	4 047	5 212	5 430	4 628	5 881	6 116	5 251	6 615	6 882	5 966	7 434	7 721	13 706	15 760	15 760	13 706	15 760

Profitability Indicators

Return to family labour	100
Discount rate	6%
NPV (BWP)	61 295
IRR	35%
PVb	127 741
PVc	46 390
B/C ratio	2.75

Economic Analysis

CF for Goods (Investment costs, revenue)	0.93
CF for Labour	0.77

			WOP	With Pproject																			
Financial Budget			Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue																							
Total Revenue		BWP	-	-	8 590	8 643	8 859	9 080	9 307	9 540	9 778	10 022	10 272	10 528	10 791	11 060	11 337	11 620	19 116	19 116	19 116	19 116	19 116
Total Investment Costs		BWP	-	9 769	-	-	886	-	-	954	-	-	1 027	-	-	1 106	-	-	1 912	-	-	1 912	-
Total Operating Costs		BWP	-	316	930	934	951	975	999	1 024	1 050	1 076	1 103	1 117	1 132	1 148	1 164	1 180	1 197	1 197	1 197	1 197	1 197
Labour Budget		BWP	-	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346
Total Production Costs		BWP	-	11 431	2 276	2 279	3 183	2 320	2 345	3 324	2 395	2 422	3 476	2 463	2 478	3 600	2 509	2 526	4 454	2 542	2 542	4 454	2 542
Net Income		BWP	1 346	(11 431)	6 314	6 363	5 676	6 760	6 962	6 216	7 382	7 600	6 796	8 065	8 313	7 461	8 827	9 094	14 662	16 574	16 574	14 662	16 574
Net Incremental Benefits		BWP		(12 777)	4 968	5 018	4 330	5 414	5 617	4 870	6 037	6 255	5 451	6 720	6 967	6 115	7 481	7 748	13 316	15 228	15 228	13 316	15 228

Profitability Indicators - Before Financing

Discount rate	9%
NPV (BWP)	46 317
IRR	41%
NPV/b - BWP	92 791
NPV/c - BWP	33 804
B/C ratio	2.74

Botswana

BoL-CoP Design EFA Models - Prices in BWP

Livestock Goat and Sheep On-Farm Model (Small-Scale Commercial Farmers with some market orientation) Prices in BWP - Financial Analysis

Moderate herd size

Some mechanization

Selling Price	Unt	Unit Cost	Qty
Doe	BWP/Head	1 000	
Buck	BWP/Head	2 500	
Juvenile - Castrate	BWP/Head	700	
Veterinary Costs	BWP/Head	50	
Family Labour	Days/Yr	25	70.00

Dynamics	*Goats*			*Sheep*		
	Doe	Buck	Total	Doe	Buck	Total
Without Project Stock	2	1	3	2	1	3
With Project	6	3	9	4	1	5

Feed Costs 15%

			WoP	With-Project																		
	Assumptions and Parameters	Unit	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
	Goats																						
	Doe	Head	2	8	9	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
	Buck	Head	1	4	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6
	Total Stock Head		3	12	14	15	16	16	16	16	16	16	16	16	17	17	17	17	17	17	17	17	17
	Sheep																						
	Ewe	Head	2	6	7	14	12	12	11	10	9	9	8	8	7	7	7	7	7	7	7	7	7
	Ram	Head	1	2	8	4	6	6	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4
	Total Stock Head		3	8	15	18	19	17	16	15	14	13	12	12	11	11	11	11	11	11	11	11	11
	Technical Parameters - Goats																						
	Doe replacement	%	20%	20%	20%	20%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	40%	40%	40%	40%	40%
	Buck replacement	%					10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
	Twinning rate	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
	Kidding rate	%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%
	Kids mortality rate	%	20%	20%	8%	8%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
	Juvenile mortality rate	%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
	New Kids	Heads	2	7	10	10	11	11	11	11	11	11	11	11	12	12	12	12	12	12	12	12	12
	New Juvenile	Heads	2	7	9	10	10	10	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
67%	Female Juvenile	Heads	1	5	6	6	7	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8
33%	Male Juvenile	Heads	1	2	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
15%	Self Consumption	Heads			3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Total New Stock - Goats	Head	5	19	20	21	22	22	23	23	23	23	23	23	23	24	24	24	24	24	24	24	24
	Technical Parameters - Sheep																						
	Female replacement	%	20%	20%	20%	20%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
	Male replacement	%					10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
	Lambing rate	%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
	Lamb mortality rate	%	20%	20%	8%	8%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
	Juvenile mortality rate	%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
	New Lambs	Heads	1	4	6	11	11	10	9	9	8	8	7	7	6	6	6	6	6	6	6	6	6
	New Juvenile	Heads	1	4	6	11	10	9	9	8	8	7	7	6	6	6	6	6	6	6	6	6	6
67%	Female Juvenile	Heads	1	3	4	7	7	6	6	6	5	5	4	4	4	4	4	4	4	4	4	4	4
33%	Male Juvenile	Heads	0	1	2	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
15%	Self Consumption	Heads			3	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3
	Total New Stock - Sheep	Head	4	12	18	25	25	23	21	20	19	17	16	15	14	14	14	14	14	14	14	14	14
	Adults mortality rate	%	10%	8%	6%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
	Off-take																						
Goats	Doe	Head	0.6	2	2	3	4	4	4	4	4	4	4	4	4	4	4	4	6	6	6	6	6
	Buck	Head	0.6	2	2	3	4	4	4	4	4	4	4	4	4	4	4	4	6	6	6	6	6
Sheep	Ewe	Head	0.5	2	2	3	4	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2
	Ram	Head	0.3	1	1	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
	Total Offtake	Head	1.9	7	8	10	13	13	12	12	12	11	11	11	11	11	11	11	16	16	16	16	16

			WoP	With-Project										With-Project									
	Financial Budget		Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
	Revenue																						
Goats	Doe	BWP	561	2 362	2 477	2 626	3 524	3 547	3 570	3 593	3 617	3 640	3 663	3 687	3 711	3 735	3 759	3 783	6 092	6 092	6 092	6 092	6 092
	Buck	BWP	1 402	5 905	6 193	6 565	8 810	8 867	8 925	8 982	9 040	9 099	9 157	9 216	9 276	9 336	9 396	9 456	15 228	15 228	15 228	15 228	15 228
	Self Consumption *(Add-back)*	BWP	-	-	5 232	5 488	5 892	5 930	5 969	6 007	6 046	6 085	6 124	6 164	6 203	6 243	6 284	6 324	6 365	6 365	6 365	6 365	6 365
Sheep	Ewe	BWP	524	1 511	2 195	3 123	3 888	3 630	3 389	3 164	2 953	2 757	2 574	2 403	2 243	2 243	2 243	2 243	2 243	2 243	2 243	2 243	2 243
	Ram	BWP	655	1 888	2 744	3 904	4 860	4 537	4 236	3 954	3 692	3 447	3 218	3 004	2 804	2 804	2 804	2 804	2 804	2 804	2 804	2 804	2 804
	Self Consumption *(Add-back)*	BWP	-	-	4 636	6 527	6 500	6 069	5 666	5 289	4 938	4 610	4 304	4 018	3 751	3 751	3 751	3 751	3 751	3 751	3 751	3 751	3 751
	Total Revenue	BWP	3 142	11 666	23 477	28 234	33 475	32 580	31 754	30 990	30 286	29 637	29 040	28 491	27 988	28 112	28 237	28 362	36 483	36 483	36 483	36 483	36 483
	Production Costs																						
	Investment Costs																						
	Housing	BWP		40 000																			
Herd	Goats	BWP		13 500																			
	Sheep	BWP		5 000																			
	One time veterinary contribution (10% of gross revenue)	10%		1 167			3 347			3 099			2 904	-	-	2 811	-	-	3 648	-	-	3 648	-
	Total Investment Costs			59 667	-	-	3 347	-	-	3 099	-	-	2 904	-	-	2 811	-	-	3 648	-	-	3 648	-
	Operating Costs																						
	Feed costs *(15% of Revenue)*	BWP	471	1 750	3 522	4 235	5 021	4 887	4 763	4 649	4 543	4 446	4 356	4 356	4 356	4 356	4 356	4 356	4 356	4 356	4 356	4 356	4 356
	Veterinary Costs (Including Vaccination and AI)	BWP	-	626	724	761	807	810	814	818	823	827	831	836	840	846	851	856	862	862	862	862	862
	Total Operating Costs	BWP	471	2 376	4 245	4 996	5 828	5 697	5 577	5 467	5 365	5 272	5 187	5 192	5 196	5 202	5 207	5 212	5 218	5 218	5 218	5 218	5 218
	Labour Budget																						
	Family Labour	BWP	525	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750	1 750
	Total Production Costs	BWP	996	63 793	5 995	6 746	10 925	7 447	7 327	10 316	7 115	7 022	9 841	6 942	6 946	9 763	6 957	6 962	10 616	6 968	6 968	10 616	6 968
	Net Income Before Labour Costs	BWP	2 670	(50 377)	19 232	23 237	24 300	26 883	26 176	22 424	24 920	24 364	20 949	23 300	22 792	20 099	23 030	23 150	27 617	31 265	31 265	27 617	31 265
	Net Income After Labour Costs	BWP	1 750	(52 127)	17 482	21 487	22 550	25 133	24 426	20 674	23 170	22 614	19 199	21 550	21 042	18 349	21 280	21 400	25 867	29 515	29 515	25 867	29 515
	Net Incremental Benefits	BWP		(53 877)	15 732	19 737	20 800	23 383	22 676	18 924	21 420	20 864	17 449	19 800	19 292	16 599	19 530	19 650	24 117	27 765	27 765	24 117	27 765

Profitability Indicators

Return to family labour	274
Discount rate	6%
NPV (BWP)	77 734
IRR	36%

PVb	332 476
PVc	144 020
B/C ratio	2.31

Economic Analysis

CF for Goods (Investment costs, revenue)	0.93
CF for Labour	0.77

		WOP	With Pproject																			
Financial Budget		Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue																						
Total Revenue	BWP	2 923	10 853	21 843	26 268	31 144	30 312	29 543	28 833	28 177	27 574	27 018	26 508	26 040	26 155	26 271	26 387	33 943	33 943	33 943	33 943	33 943
Total Investment Costs	BWP	-	55 513	-	-	3 114	-	-	2 883	-	-	2 702	-	-	2 615	-	-	3 394	-	-	3 394	-
Total Operating Costs	BWP	438	2 211	3 950	4 649	5 422	5 301	5 189	5 086	4 992	4 905	4 826	4 830	4 834	4 839	4 844	4 849	4 855	4 855	4 855	4 855	4 855
Labour Budget	BWP	404	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346	1 346
Total Production Costs	BWP	842	59 069	5 295	5 994	9 882	6 647	6 535	9 315	6 338	6 251	8 874	6 176	6 180	8 801	6 190	6 195	9 595	6 200	6 200	9 595	6 200
Net Income	BWP	2 081	(48 216)	16 548	20 274	21 262	23 666	23 008	19 517	21 840	21 322	18 145	20 332	19 860	17 354	20 081	20 192	24 348	27 743	27 743	24 348	27 743
Net Incremental Benefits	BWP		(50 296)	14 467	18 193	19 181	21 585	20 928	17 436	19 759	19 242	16 064	18 251	17 779	15 274	18 000	18 111	22 268	25 662	25 662	22 268	25 662

Profitability Indicators - Before Financing

Discount rate	9%
NPV (BWP)	115 333
IRR	36%
NPV/b - BWP	249 726
NPV/c - BWP	114 804
B/C ratio	2.18

Botswana

BoL-CoP Design EFA Models - Prices in BWP

Poultry Layers Model - 300 Birds Unit (Small-Scale Commercial Farmers with some market orientation) Prices in BWP - Financial Analysis

Moderate herd size

Some mechanization

Selling Price	Unt	Unit Cost	Qty
Chicken	BWP/Head	85.0	
Eggs	BWP/egg	3.0	
Empty trays	BWP/egg	12.0	
Feed Costs	BWP/Bird/ bat	10.0	
Family Labour	BWP/Day	25.0	80
Housing	BWP	5 000.0	1
Purchase of day old chicks	BWP	10.0	
Litter costs	BWP	10.0	
Vaccines	5% of revenue	0.1	
No. of batches in One Year	No.	1.0	

Assumption Dynamics		WOP	WP
Total	No. of birds	25	150
Chicks mortality rate		30%	15%
Adult chicken mortality rate		15%	10%
Eggs/chicken			40
Self consumption - Eggs		20%	20%
Self consumption - Chicken		20%	30%
Off-take Chicken			30%
Production loses		30%	5%

Improved Indigenous Chicken Model - Financial Analysis		Quantity	With-Project										With-Project									
		WoP																				
Assumptions and Parameters	Unit	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Number of birds in a Unit	No. of birds	25	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
Total Stock after mortality rate	No. of birds	15	101	156	203	224	229	228	226	225	225	225	225	225	225	225	225	225	225	225	225	225
Total New Stock (Less of Self Consumption)	No. of birds	12	71	110	142	157	160	160	158	158	157	157	157	157	157	158	158	158	158	157	157	157
No. of eggs hatched per year	No. of eggs	595	4 046	6 259	8 122	8 961	9 157	9 118	9 050	9 010	8 997	8 995	8 998	8 999	9 000	9 000	9 000	9 000	9 000	9 000	9 000	9 000
Technical Parameters																						
Chicks mortality rate	%	30%	30%	30%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Adult Chicken mortality rate	%	15%	15%	15%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Production losses	%	25%	20%	13%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
Own-consumption - Chicken	No. of birds	20%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Self-consumption - Eggs	No of Eggs	119	809	1 252	1 624	1 792	1 831	1 824	1 810	1 802	1 799	1 799	1 800	1 800	1 800	1 800	1 800	1 800	1 800	1 800	1 800	1 800
Off-take (Chicken)	%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
Main Production/Offtake																						
Chicken	No. of birds	-	4	21	33	43	47	48	48	48	47	47	47	47	47	47	47	47	47	47	47	47
Eggs	No. of eggs	327	2 428	4 225	6 091	6 721	6 868	6 839	6 787	6 757	6 747	6 747	6 748	6 749	6 750	6 750	6 750	6 750	6 750	6 750	6 750	6 750

Financial Budget		WOP	With Pproject																			
		Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue																						
Chicken	BWP	-	-	334	1 852	2 857	3 698	4 077	4 164	4 146	4 116	4 098	4 092	4 091	4 092	4 093	4 093	4 093	4 093	4 093	4 093	4 093
Eggs	BWP	1 339	9 710	16 431	23 147	26 390	27 402	27 719	27 511	27 390	27 350	27 346	27 353	27 358	27 360	27 360	27 360	27 360	27 360	27 360	27 360	27 360
Total Revenue	BWP	1 339	9 710	16 765	25 000	29 247	31 100	31 796	31 675	31 537	31 465	31 444	31 444	31 449	31 452	31 453	31 454	31 453	31 453	31 453	31 453	31 453
Production Costs																						
Investment Costs																						
Housing	BWP		20 000																			
Empty trays (each tray = 30 eggs)	BWP	393	733			1 126			1 126			1 126			1 126			1 126			1 126	
Total Investment Costs	BWP	393	20 733	-	-	1 126	-	-	1 126	-	-	1 126	-	-	1 126	-	-	1 126	-	-	1 126	-
Operating Costs																						
Chicken feeds	BWP	119	708	1 095	1 421	1 568	1 602	1 596	1 584	1 577	1 574	1 574	1 575	1 575	1 575	1 575	1 575	1 575	1 575	1 575	1 575	1 575
Purchase of day old chicks	BWP	250	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500	1 500
Vaccines	BWP	-	971	1 676	2 500	2 925	3 110	3 180	3 168	3 154	3 147	3 144	3 144	3 145	3 145	3 145	3 145	3 145	3 145	3 145	3 145	3 145
Litter costs	BWP		708	1 095	1 421	1 568	1 602	1 596	1 584	1 577	1 574	1 574	1 575	1 575	1 575	1 575	1 575	1 575	1 575	1 575	1 575	1 575
Feeders and drinkers	BWP/Ls	-	1 000			1 000			1 000			1 000			1 000			1 000			1 000	
Veterinary drugs	BWP/Ls	-	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500
Total Operating Costs		369	9 387	9 867	11 343	13 061	12 315	12 371	13 335	12 307	12 295	13 293	12 294	12 295	13 295	12 295	12 295	13 295	12 295	12 295	13 295	12 295
Labour Budget																						
Family Labour	BWP	250	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000	2 000
Total Production Costs	BWP	1 012	32 120	11 867	13 343	16 187	14 315	14 371	16 461	14 307	14 295	16 419	14 294	14 295	16 421	14 295	14 295	16 421	14 295	14 295	16 421	14 295
Net Income Before Labour Costs	BWP	577	(20 410)	6 897	13 657	15 060	18 785	19 425	17 215	19 230	19 170	17 025	19 151	19 154	17 031	19 158	19 158	17 032	19 158	19 158	17 032	19 158
Net Income After Labour Costs	BWP	327	(22 410)	4 897	11 657	13 060	16 785	17 425	15 215	17 230	17 170	15 025	17 151	17 154	15 031	17 158	17 158	15 032	17 158	17 158	15 032	17 158
Net Incremental Benefits	BWP		(22 737)	4 570	11 330	12 733	16 458	17 098	14 888	16 903	16 843	14 698	16 824	16 827	14 704	16 831	16 831	14 705	16 831	16 831	14 705	16 831

Profitability Indicators - Before Financing

Return to family labour (BWP)	214
Discount rate	6%
NPV (BWP)	131 739
IRR	48%
NPV/b - BWP	319 902
NPV/c - BWP	184 415
B/C ratio	1.73

Economic Analysis

CF for Goods (Investment costs, revenue)	0.93
CF for Labour	0.77

Financial Budget		WOP	With Pproject																			
		Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue																						
Total Revenue	BWP	1 246	9 034	15 598	23 259	27 211	28 935	29 582	29 470	29 341	29 274	29 255	29 255	29 259	29 262	29 264	29 264	29 264	29 263	29 263	29 263	29 263
Total Investment Costs	BWP	365	19 290	-	-	1 047	-	-	1 047	-	-	1 047	-	-	1 047	-	-	1 047	-	-	1 047	-
Total Operating Costs	BWP	343	8 734	9 180	10 553	12 152	11 458	11 510	12 407	11 450	11 439	12 367	11 438	11 439	12 370	11 439	11 439	12 370	11 439	11 439	12 370	11 439
Labour Budget	BWP	192	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538
Total Production Costs	BWP	901	29 561	10 718	12 091	14 737	12 996	13 048	14 992	12 988	12 977	14 953	12 976	12 977	14 955	12 977	12 977	14 955	12 977	12 977	14 955	12 977
Net Income	BWP	345	(20 527)	4 879	11 168	12 474	15 940	16 535	14 478	16 353	16 297	14 302	16 279	16 283	14 307	16 286	16 286	14 309	16 286	16 286	14 308	16 286
Net Incremental Benefits	BWP		(20 871)	4 535	10 824	12 129	15 595	16 190	14 134	16 008	15 953	13 957	15 935	15 938	13 963	15 942	15 942	13 964	15 942	15 941	13 964	15 941

Profitability Indicators - Before Financing

Discount rate	9%
NPV (BWP)	96 202
IRR	49%
NPV/b - BWP	239 240
NPV/c - BWP	139 794
B/C ratio	1.71

Botswana

BoL-CoP Design EFA Models - Prices in BWP

Polutry Model - 200 Birds Unit (Small-Scale Commercial Farmers with some market orientation) Prices in BWP - Financial Analysis

Moderate herd size

Some mechanization

Prices	Unit	Unit Cost
Number of Birds in 1 Unit		200
Sell of 4 Month Birds	BWP/Head	85.0
Purchase of day old chicks	BWP/Head	10.0
Number of Batches in a Year	No. of Batches	2.0
Feed starter	BWP/Head/Kg	10.00
Feed grower	BWP/Head/Kg	10.00
Feed finisher	BWP/Head/Kg	10.00
transport feed	BWP/Head/Kg	0.40
Vet costs	BWP/Batch	250.00
Water elec	BWP/Batch	50.00
Charcoal for brooding	BWP/Batch	60.00
Misc costs	BWP/Batch	60.00
Labour Costs (Family Labour)	BWP/Batch	1 200.00
Own consumption	%	30%

		Quantity						With-Project										Y15	Y16	Y17	Y18	Y19	Y20
		WoP																With-Project					
ITEMS	UNIT	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14							
Main Production																							
Day Old Chicks	Number		200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
Number of Batches in a Year	Batches		1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total No. of Birds Per Year (Before Mortality and Self Consumption)	No.		200	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400
Net Production (After Self-consumption & Mortality)	No.		88	221	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239	239
Parameters																							
Own Consumption			38	95	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103
Chicks Mortality Rate			30%	15%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Adult Mortality Rate			10%	7%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

FINANCIAL BUDGET		WoP						With-Project										With-Project					
ITEMS		Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	
Main production revenue																							
Revenue - Sale of Chicken			10 710	26 877	29 070	29 104	29 121	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	
Total revenue			10 710	26 877	29 070	29 104	29 121	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	29 138	
Investment input costs																							
Housing			20 000																				
Equipment (Feeders, Drinkers) - Replace Every 3 Years			1 200				1 200				1 200				1 200				1 200				
Sub-total Investment Costs			21 200	-	-	-	1 200	-	-	-	1 200	-	-	-	1 200	-	-	-	1 200	-	-	-	
Operating input costs																							
Purchase of chicks			2 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	
Feed starter			600	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	
Feed grower			2 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	4 000	
Feed finisher			1 260	3 162	3 420	3 420	3 420	3 420	3 420	3 420	3 420	3 420	3 420	3 420	3 420	3 420	3 420	3 420	3 420	3 420	3 420	3 420	
transport feed			1 544	3 345	3 448	3 448	3 448	3 448	3 448	3 448	3 448	3 448	3 448	3 448	3 448	3 448	3 448	3 448	3 448	3 448	3 448	3 448	
Vet costs (Including Vaccination)			250	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	500	
Water & Electricity			50	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Charcoal for brooding			60	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	
Misc costs			60	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	
Sub-total Operating Costs			7 824	16 547	16 908	16 908	16 908	16 908	16 908	16 908	16 908	16 908	16 908	16 908	16 908	16 908	16 908	16 908	16 908	16 908	16 908	16 908	
Labour costs																							
Skilled Labour			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Family Labour			2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	
Sub-total Labour Costs			2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	2 400	
Total Production Costs			31 424	18 947	19 308	19 308	20 508	19 308	19 308	19 308	20 508	19 308	19 308	19 308	20 508	19 308	19 308	19 308	20 508	19 308	19 308	19 308	
Net Income Before Labour Costs			(18 314)	10 330	12 162	12 196	11 013	12 230	12 230	12 230	11 030	12 230	12 230	12 230	11 030	12 230	12 230	12 230	11 030	12 230	12 230	12 230	
Net Income After Labour Costs		2 400	(20 714)	7 930	9 762	9 796	8 613	9 830	9 830	9 830	8 630	9 830	9 830	9 830	8 630	9 830	9 830	9 830	8 630	9 830	9 830	9 830	
Net Incremental Benefits			(23 114)	5 530	7 362	7 396	6 213	7 430	7 430	7 430	6 230	7 430	7 430	7 430	6 230	7 430	7 430	7 430	6 230	7 430	7 430	7 430	

Profitability Indicators - Before Financing

Return to family labour (BWP)	216
Discount rate	6%
NPV (BWP)	51 943
IRR	29%
NPV/b - BWP	314 451
NPV/c - BWP	235 002
B/C ratio	1.34

Economic Analysis

CF for Goods (Investment costs, revenue)	0.93
CF for Labour	0.77

			WOP						With Pproject										With Pproject				
Financial Budget			Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue																							
Total Revenue	BWP	-	9 964	25 006	27 046	27 078	27 094	27 110	27 110	27 110	27 110	27 110	27 110	27 110	27 110	27 110	27 110	27 110	27 110	27 110	27 110	27 110	
Total Investment Costs	BWP	-	19 724	-	-	-	1 116	-	-	-	1 116	-	-	-	-	1 116	-	-	-	1 116	-	-	-
Total Operating Costs	BWP	-	7 279	15 395	15 731	15 731	15 731	15 731	15 731	15 731	15 731	15 731	15 731	15 731	15 731	15 731	15 731	15 731	15 731	15 731	15 731	15 731	
Labour Budget	BWP	-	1 846	1 846	1 846	1 846	1 846	1 846	1 846	1 846	1 846	1 846	1 846	1 846	1 846	1 846	1 846	1 846	1 846	1 846	1 846	1 846	
Total Production Costs	BWP	-	28 849	17 240	17 576	17 576	18 693	17 576	17 576	17 576	18 693	17 576	17 576	17 576	18 693	17 576	17 576	17 576	18 693	17 576	17 576	17 576	
Net Income	BWP	1 846	(18 885)	7 765	9 470	9 501	8 401	9 533	9 533	9 533	8 417	9 533	9 533	9 533	8 417	9 533	9 533	9 533	8 417	9 533	9 533	9 533	
Net Incremental Benefits	BWP		(20 730)	5 920	7 624	7 656	6 555	7 688	7 688	7 688	6 571	7 688	7 688	7 688	6 571	7 688	7 688	7 688	6 571	7 688	7 688	7 688	

Profitability Indicators - Before Financing

Discount rate	0%
NPV (BWP)	118 991
IRR	34%
NPV/b - BWP	522 835
NPV/c - BWP	366 931
B/C ratio	1.42

Botswana

BoL-CoP Design EFA Models - Prices in BWP

Livestock - Goat and Sheep On-Farm Model - Emerging Commercial Farmers (Medium scale) Transitioning from smallholder to full-time commercial) Prices in (BWP) Financial Analysis

Medium herd size

Use of improved breeds

Access to input markets & participate in cooperatives

Selling Price	Unt	Unit Cost	Qty
Doe	BWP/Head	1 000	
Buck	BWP/Head	2 500	
Juvenile - Castrate	BWP/Head	700	
Veterinary Costs	BWP/Head	50	
Family Labour	Days/Yr	25	150.00

Dynamics	*Goats*		
	Doe	Buck	Total
Without Project Stock	2	1	3
With Project (Improved Breeds)	10	3	13

Feed Costs 20%

			WoP	With-Project							
Assumptions and Parameters	Unit	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8
	Goats										
	Doe	Head	2	13	15	20	27	30	34	38	43
	Buck	Head	1	4	8	10	14	15	17	19	22
	Total Stock Head		3	17	23	30	41	46	51	58	65
				20							
	Sheep										
	Ewe	Head	2	7	10	21	23	23	22	21	21
	Ram	Head	1	3	11	7	12	11	11	11	10
	Total Stock Head		3	10	21	28	35	34	33	32	31
	Technical Parameters - Goats										
	Doe replacement	%	20%	20%	20%	20%	35%	35%	35%	35%	35%
	Buck replacement	%					10%	10%	10%	10%	10%
	Twinning rate	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
	Kidding rate	%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Kids mortality rate	%	10%	10%	8%	8%	5%	5%	5%	5%	5%
	Juvenile mortality rate	%	5%	5%	5%	5%	5%	5%	5%	5%	5%
	New Kids	Heads	2	15	18	24	33	38	42	48	53
	New Juvenile	Heads	2	14	17	23	32	36	40	45	51
67%	Female Juvenile	Heads	1	9	11	15	21	24	27	30	34
33%	Male Juvenile	Heads	1	5	6	8	11	12	13	15	17
	Total New Stock - Goats	Head	5	31	40	52	72	81	92	103	116
	Technical Parameters - Sheep										
	Female replacement	%	20%	20%	20%	20%	35%	35%	35%	35%	35%
	Male replacement	%					10%	10%	10%	10%	10%
	Lambing rate	%	90%	90%	90%	90%	90%	90%	90%	90%	90%
	Lamb mortality rate	%	10%	10%	8%	8%	5%	5%	5%	5%	5%
	Juvenile mortality rate	%	5%	5%	5%	5%	5%	5%	5%	5%	5%
	New Lambs	Heads	2	6	8	18	20	19	19	18	18
	New Juvenile	Heads	2	6	8	17	19	18	18	17	17
67%	Female Juvenile	Heads	1	4	5	11	13	12	12	12	11
33%	Male Juvenile	Heads	1	2	3	6	6	6	6	6	6
	Total New Stock - Sheep	Head	5	16	28	45	54	52	51	49	48
	Adults mortality rate	%	10%	8%	6%	3%	3%	3%	3%	3%	3%
	Off-take										
Goats	Doe	Head	0.6	4	5	7	16	18	21	23	26
	Buck	Head	0.6	4	5	7	16	18	21	23	26
Sheep	Ewe	Head	0.5	2	4	6	12	12	11	11	11
	Ram	Head	0.3	1	2	3	6	6	6	6	5
	Total Offtake	Head	2.1	10	15	22	51	55	59	63	69

			WoP	With-Project							
Financial Budget		Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8
	Revenue										
Goats	Doe	BWP	627	3 761	4 971	6 779	16 409	18 439	20 720	23 282	26 161
	Buck	BWP	1 567	9 403	12 427	16 948	41 019	46 093	51 793	58 198	65 394
Sheep	Ewe	BWP	545	1 937	3 546	5 812	12 168	11 827	11 495	11 172	10 858
	Ram	BWP	681	2 421	4 432	7 265	15 209	14 782	14 367	13 964	13 571
	Total Revenue	BWP	3 419	17 523	25 376	36 804	84 804	91 140	98 375	106 615	115 985
	Production Costs										
	Investment Costs										
	Housing	BWP		143 000							
Herd	Goats	BWP		17 500							
	Sheep	BWP		7 000							
	One time veterinary contribution (10% of gross revenue)	10%		1 752			8 480			10 662	
	Total Investment Costs			169 252	-	-	8 480	-	-	10 662	-
	Operating Costs										
	Feed costs *(20% of Revenue)*	BWP	684	3 505	5 075	7 361	16 961	18 228	19 675	21 323	23 197
	Veterinary Costs (Including Vaccination and AI)	BWP	-	848	1 149	1 520	2 069	2 319	2 601	2 917	3 273
5%	Miscellaneous (5% of gross revenue)	BWP		876	1 269	1 840	4 240	4 557	4 919	5 331	5 799
	Total Operating Costs	BWP	684	5 229	7 493	10 721	23 270	25 104	27 195	29 571	32 270
	Labour Budget										
	Family Labour	BWP		3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750
	Total Production Costs	BWP	684	178 231	11 243	14 471	35 500	28 854	30 945	43 983	36 020
	Net Income Before Labour Costs	BWP	2 735	(156 958)	17 883	26 084	53 054	66 036	71 180	66 383	83 715
	Net Income After Labour Costs	BWP	3 750	(160 708)	14 133	22 334	49 304	62 286	67 430	62 633	79 965
	Net Incremental Benefits	BWP		(164 458)	10 383	18 584	45 554	58 536	63 680	58 883	76 215

Profitability Indicators

Return to family labour	548
Discount rate	6%
NPV (BWP)	910 202
IRR	30%
NPV/b - BWP	1 538 508
NPV/c - BWP	585 329
B/C ratio	2.63

Financing plan/affordability check / household cash flow

Years	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
A: Financing Needs										
I. Capital Investment	169 252	-	-	-	-	-	-	-	-	-
II. Operating Input (Feeds, Vaccines etc)	5 229	7 493	10 721	23 270	25 104	27 195	29 571	32 270	35 328	38 792
III. Labour costs	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750
Sub-total for on farm costs	178 231	11 243	14 471	27 020	28 854	30 945	33 321	36 020	39 078	42 542
Total financing needed	178 231	11 243	14 471	27 020	28 854	30 945	33 321	36 020	39 078	42 542
B: Financing Plan (How to cover the above financing needs)										
Opening Balance	-	3 443	21 327	47 410	108 945	174 981	246 161	323 205	406 921	#####
Grant (Estimated) - Assuming 80% of the Investment	135 402	-	-	-	-	-	-	-	-	-
Drawing from own savings (Estimated)	25 000	-	-	-	-	-	-	-	-	-
Family Labour	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750
Net production revenue	17 523	25 376	36 804	84 804	91 140	98 375	106 615	115 985	126 620	138 675
Total financing available	181 675	32 570	61 881	135 965	203 835	277 106	356 526	442 940	537 291	640 637
Closing Balance / reserves (A-B)	3 443	21 327	47 410	108 945	174 981	246 161	323 205	406 921	498 212	598 095

Economic Analysis

CF for Goods (Investment costs, revenue)	0.93
CF for Labour	0.77

		WOP	With Pproject							
Financial Budget		Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8
Revenue										
Total Revenue	BWP	3 181	16 303	23 610	34 242	78 900	84 794	91 526	99 193	107 910
Total Investment Costs	BWP	-	157 469	-	-	7 890	-	-	9 919	-
Total Operating Costs	BWP	636	4 865	6 971	9 974	21 650	23 356	25 301	27 512	30 023
Labour Budget	BWP	-	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884
Total Production Costs	BWP	636	165 218	9 855	12 858	32 424	26 240	28 185	40 315	32 907
Net Income	BWP	2 545	(148 915)	13 754	21 384	46 477	58 554	63 341	58 877	75 003
Net Incremental Benefits	BWP		(151 460)	11 209	18 839	43 932	56 010	60 796	56 332	72 458

Profitability Indicators - Before Financing

Discount rate	9%
NPV (BWP)	603 976
IRR	31%
NPV/b - BWP	1 074 941
NPV/c - BWP	447 006
B/C ratio	2.40

	Sheep	
Doe	Buck	Total
2	1	3
5	2	7

Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
49	55	61	69	77	87	98	110	114	118	123	127
24	27	31	34	39	44	49	55	57	59	61	64
73	82	92	103	116	131	147	165	171	177	184	191
20	20	19	19	18	17	17	17	16	16	15	15
10	10	10	9	9	9	8	8	8	8	8	7
30	29	29	28	27	26	25	25	24	23	23	22
35%	35%	35%	35%	35%	35%	35%	40%	40%	40%	40%	40%
10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
60	67	76	85	96	107	121	136	141	146	151	157
57	64	72	81	91	102	115	129	134	139	144	149
38	43	48	54	61	68	76	86	89	92	96	99
19	21	24	27	30	34	38	43	45	46	48	50
130	146	164	184	207	233	261	294	305	316	328	340
35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%	35%
10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
17	17	16	16	15	15	15	14	14	13	13	13
16	16	15	15	15	14	14	13	13	13	12	12
11	11	10	10	10	9	9	9	9	8	8	8
5	5	5	5	5	5	5	4	4	4	4	4
47	45	44	43	42	40	39	38	37	36	35	34
3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
29	33	37	42	47	53	59	76	79	82	85	88
29	33	37	42	47	53	59	76	79	82	85	88
11	10	10	10	9	9	9	9	8	8	8	8
5	5	5	5	5	5	4	4	4	4	4	4
75	81	89	98	108	119	132	165	170	176	181	187

		With-Project									
Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
29 396	33 031	37 115	41 705	46 862	52 656	59 168	75 982	78 810	81 743	84 786	87 942
73 481	82 567	92 777	104 249	117 140	131 625	147 902	189 932	197 002	204 334	211 940	219 828
10 553	10 257	9 969	9 689	9 417	9 152	8 895	8 646	8 403	8 167	7 937	7 715
13 190	12 820	12 460	12 110	11 770	11 439	11 118	10 806	10 502	10 207	9 921	9 642
126 620	138 675	152 321	167 753	185 189	204 874	227 083	285 365	294 717	304 452	314 584	325 127
	13 867	-	-	18 519	-	-	28 537	-	-	31 458	-
-	13 867	-	-	18 519	-	-	28 537	-	-	31 458	-
25 324	27 735	27 735	27 735	27 735	27 735	27 735	27 735	27 735	27 735	27 735	27 735
3 673	4 123	4 628	5 196	5 835	6 552	7 358	8 264	8 570	8 888	9 217	9 559
6 331	6 934	6 934	6 934	6 934	6 934	6 934	6 934	6 934	6 934	6 934	6 934
35 328	38 792	39 297	39 865	40 503	41 221	42 027	42 933	43 239	43 556	43 886	44 227
3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750
39 078	56 409	43 047	43 615	62 772	44 971	45 777	75 220	46 989	47 306	79 094	47 977
91 292	86 015	113 024	127 888	126 167	163 653	185 056	213 896	251 478	260 895	239 240	280 899
87 542	82 265	109 274	124 138	122 417	159 903	181 306	210 146	247 728	257 145	235 490	277 149
83 792	78 515	105 524	120 388	118 667	156 153	177 556	206 396	243 978	253 395	231 740	273 399

		With Pproject									
Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
117 805	129 020	141 716	156 074	172 296	190 610	211 273	265 498	274 198	283 256	292 682	302 491
-	12 902	-	-	17 230	-	-	26 550	-	-	29 268	-
32 869	36 091	36 561	37 090	37 683	38 351	39 101	39 944	40 229	40 524	40 830	41 148
2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884
35 753	51 877	39 445	39 973	57 797	41 235	41 985	69 378	43 112	43 408	72 982	44 032
82 052	77 143	102 271	116 100	114 499	149 375	169 288	196 121	231 086	239 848	219 700	258 459
79 507	74 598	99 726	113 556	111 954	146 831	166 744	193 576	228 541	237 303	217 155	255 914

Botswana

BoL-CoP Design EFA Models - Prices in BWP

Poultry Layers Model - 250 Birds Unit (Emerging Commercial Farmers (Medium scale) Transitioning from smallholder to full-time commercial) Prices in (BWP) Financial Analysis

Medium herd size

Use of improved breeds

Access to input markets & participate in cooperatives

Selling Price	Unt	Unit Cost	Qty	Assumption Dynamics		WOP	WP	
Chicken	BWP/Head	85.0		Total	No. of birds	70	250	*Improved breeds*
Eggs	BWP/egg	3						
Empty trays	BWP/egg	12.0		Chicks mortality rate		30%	10%	
Feed Costs	BWP/Bird/ bat	10.0		Adult chicken mortality rate		15%	10%	
Family Labour	BWP/Day	25.0	150	Eggs/chicken (20 eggs/head/month)			150	
Housing	BWP	5 000.0	1	Self consumption - Eggs		10%	5%	
Purchase of day old chicks	BWP	10.0		Self consumption - Chicken		10%	5%	
Litter costs	BWP	10.0		Off-take Chicken			100%	
Vaccines	5% of revenue	0.1		Production loses		30%	7%	
No. of batches in One Year	No.	1.0						

Improved Indigenous Chicken Model - Financial Analysis		Quantity	With-Project										With-Project									
Assumptions and Parameters	Unit	WoP	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Number of birds in a Unit	No. of birds	70	200			250			250			250			250			250			250	
Total Stock after mortality rate	No. of birds	42	119	119	119	203	203	203	203	203	203	203	203	203	203	203	203	203	203	203	203	203
Total New Stock (Less of Self Consumption)	No. of birds	37	107	107	113	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192	192
No. of eggs hatched per year	No. of eggs	5 623	4 016	9 639	13 566	28 856	28 856	28 856	28 856	28 856	28 856	28 856	28 856	28 856	28 856	28 856	28 856	28 856	28 856	28 856	28 856	28 856
Technical Parameters																						
Chicks mortality rate	%	30%	30%	15%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Adult Chicken mortality rate	%	15%	15%	15%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Production losses	%	30%	24%	15%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%	7%
Own-consumption - Chicken	No. of birds	4	12	12	6	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Self-consumption - Eggs	No of Eggs	562	201	482	678	1 443	1 443	1 443	1 443	1 443	1 443	1 443	1 443	1 443	1 443	1 443	1 443	1 443	1 443	1 443	1 443	1 443
Off-take (Chicken)	%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Main Production/Offtake																						
Chicken	No. of birds	-	37	-	-	113	-		192			192			192			192			192	
Eggs	No. of eggs	3 374	2 852	7 711	11 938	25 394	25 394	25 394	25 394	25 394	25 394	25 394	25 394	25 394	25 394	25 394	25 394	25 394	25 394	25 394	25 394	25 394

Financial Budget		WOP	With Pproject																			
		Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue																						
Chicken	BWP	-	354	4 198	1 012	506	10 488	863	863	17 253	863	863	17 253	863	863	17 253	863	863	17 253	863	863	17 253
Eggs	BWP	9 840	7 631	20 483	31 541	69 774	71 116	72 458	72 458	72 458	72 458	72 458	72 458	72 458	72 458	72 458	72 458	72 458	72 458	72 458	72 458	72 458
Total Revenue	BWP	9 840	7 985	24 681	32 552	70 281	81 605	73 321	73 321	89 711	73 321	73 321	89 711	73 321	73 321	89 711	73 321	73 321	89 711	73 321	73 321	89 711
Production Costs																						
Investment Costs																						
Housing	BWP		80 000																			
Empty trays (each tray = 30 eggs)	BWP	1 349	3 422			4 771			4 771			4 771			4 771			4 771			4 771	
Total Investment Costs	BWP	1 349	83 422	-	-	4 771	-	-	4 771	-	-	4 771	-	-	4 771	-	-	4 771	-	-	4 771	-
Operating Costs																						
Chicken feeds	BWP	417	1 190	1 190	1 190	2 025	2 025	2 025	2 025	2 025	2 025	2 025	2 025	2 025	2 025	2 025	2 025	2 025	2 025	2 025	2 025	2 025
Purchase of day old chicks	BWP	700	2 000	-	-	2 500	-	-	2 500	-	-	2 500	-	-	2 500	-	-	2 500	-	-	2 500	-
Vaccines	BWP	-	798	2 468	3 255	7 028	8 160	7 332	7 332	8 971	7 332	7 332	8 971	7 332	7 332	8 971	7 332	7 332	8 971	7 332	7 332	8 971
Litter costs	BWP		1 071	1 071	1 131	1 924	1 924	1 924	1 924	1 924	1 924	1 924	1 924	1 924	1 924	1 924	1 924	1 924	1 924	1 924	1 924	1 924
Feeders and drinkers	BWP/Ls	-	1 000			1 000			1 000			1 000			1 000			1 000			1 000	
Veterinary drugs	BWP/Ls	-	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500	4 500
Total Operating Costs		1 117	10 559	9 229	10 076	18 977	16 609	15 781	19 281	17 420	15 781	19 281	17 420	15 781	19 281	17 420	15 781	19 281	17 420	15 781	19 281	17 420
Labour Budget																						
Family Labour	BWP	469	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750
Total Production Costs	BWP	2 935	97 731	12 979	13 826	27 498	20 359	19 531	27 802	21 170	19 531	27 802	21 170	19 531	27 802	21 170	19 531	27 802	21 170	19 531	27 802	21 170
Net Income Before Labour Costs	BWP	7 374	(85 996)	15 452	22 477	46 533	64 995	57 540	49 269	72 291	57 540	49 269	72 291	57 540	49 269	72 291	57 540	49 269	72 291	57 540	49 269	72 291
Net Income After Labour Costs	BWP	6 905	(89 746)	11 702	18 727	42 783	61 245	53 790	45 519	68 541	53 790	45 519	68 541	53 790	45 519	68 541	53 790	45 519	68 541	53 790	45 519	68 541
Net Incremental Benefits	BWP		(96 652)	4 796	11 822	35 878	54 340	46 885	38 613	61 636	46 885	38 613	61 636	46 885	38 613	61 636	46 885	38 613	61 636	46 885	38 613	61 636

Profitability Indicators

Return to family labour	457
Discount rate	6%
NPV (BWP)	345 522
IRR	31%
NPV/b - BWP	742 266
NPV/c - BWP	317 607
B/C ratio	2.34

Financing plan/affordability check / household cash flow

Years	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
A: Financing Needs										
I. Capital Investment	83 422	-	-	4 771	-	-	4 771	-	-	4 771
II. Operating Input (Feeds, Vaccines etc)	10 559	9 229	10 076	18 977	16 609	15 781	19 281	17 420	15 781	19 281
III. Labour costs	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750
Sub-total for on farm costs	97 731	12 979	13 826	27 498	20 359	19 531	27 802	21 170	19 531	27 802
Total financing needed	97 731	12 979	13 826	27 498	20 359	19 531	27 802	21 170	19 531	27 802
B: Financing Plan (How to cover the above financing needs)										
Opening Balance	-	5 741	21 193	43 669	90 202	155 197	212 737	262 006	334 297	391 837
Grant (Estimated) - Assuming 80% of the Investment	66 737	-	-	-	-	-	-	-	-	-
Drawing from own savings (Estimated)	25 000	-	-	-	-	-	-	-	-	-
Family Labour	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750
Net production revenue	7 985	24 681	32 552	70 281	81 605	73 321	73 321	89 711	73 321	73 321
Total financing available	103 472	34 172	57 495	117 700	175 556	232 268	289 808	355 467	411 368	468 907
Closing Balance / reserves (A-B)	5 741	21 193	43 669	90 202	155 197	212 737	262 006	334 297	391 837	441 105

Economic Analysis

CF for Goods (Investment costs, revenue)	0.93
CF for Labour	0.77

Financial Budget	WOP	With Pproject										With Pproject									
	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
Revenue																					

Total Revenue	BWP	9 155	7 429	22 962	30 286	65 388	75 923	68 216	68 216	83 465	68 216	68 216	83 465	68 216	68 216	83 465	68 216	68 216	83 465	68 216	68 216	83 465
Total Investment Costs	BWP	1 256	77 614	-	-	4 439	-	-	4 439	-	-	4 439	-	-	4 439	-	-	4 439	-	-	4 439	-
Total Operating Costs	BWP	1 039	9 824	8 587	9 374	17 656	15 453	14 682	17 938	16 207	14 682	17 938	16 207	14 682	17 938	16 207	14 682	17 938	16 207	14 682	17 938	16 207
Labour Budget	BWP	360	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884
Total Production Costs	BWP	2 655	90 322	11 470	12 258	24 979	18 337	17 566	25 261	19 091	17 566	25 261	19 091	17 566	25 261	19 091	17 566	25 261	19 091	17 566	25 261	19 091
Net Income	BWP	6 500	(82 893)	11 492	18 028	40 409	57 587	50 650	42 955	64 374	50 650	42 955	64 374	50 650	42 955	64 374	50 650	42 955	64 374	50 650	42 955	64 374
Net Incremental Benefits	BWP		(89 393)	4 992	11 528	33 909	51 087	44 150	36 455	57 874	44 150	36 455	57 874	44 150	36 455	57 874	44 150	36 455	57 874	44 150	36 455	57 874

Profitability Indicators - Before Financing

Discount rate	9%
NPV (BWP)	240 189
IRR	32%
NPV/b - BWP	546 889
NPV/c - BWP	245 505
B/C ratio	2.23

Botswana

BoL-CoP Design EFA Models - Prices in BWP

Poultry Broilers Model - 400 Birds Unit (Emerging Commercial Farmers (Medium scale) Transitioning from smallholder to full-time commercial) Prices in (BWP) Financial Analysis

Medium herd size

Use of improved breeds

Access to input markets & participate in cooperatives

Prices	Unt	Unit Cost		
Number of Birds in 1 Unit		400		
Sell of 4 Month Birds	BWP/Head	85.0		
Purchase of day old chicks	BWP/Head	10.0		
Number of Batches in a Year	No. of Batches		3.0	
Feed starter	BWP/Head/Kg	10.00		
Feed grower	BWP/Head/Kg	10.00		
Feed finisher	BWP/Head/Kg	10.00		
transport feed	BWP/Head/Kg	0.40		
Vet costs	BWP/Batch	250.00		
Water elec	BWP/Batch	50.00		
Charcoal for brooding	BWP/Batch	60.00		
Miscl costs	BWP/Batch	60.00		
Labour Costs (Family Labour)	BWP/Batch	1 200.00		
Own Consumption	%	15%	5%	

		Quantity WoP	With-Project						
ITEMS	UNIT	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Main Production									
Day Old Chicks	Number		400	400	400	400	400	400	400
Number of Batches in a Year	Batches		1	3	3	3	3	3	3
Total No. of Birds Per Year (Before Mortality and Self Consumption)	No.		400	1 200	1 200	1 200	1 200	1 200	1 200
Net Production (After Self-consumption & Mortality)	No.		230	901	975	975	975	975	975
Parameters									
Own Consumption			41	47	51	51	51	51	51
Chicks Mortality Rate			25%	15%	10%	10%	10%	10%	10%
Adult Mortality Rate			10%	7%	5%	5%	5%	5%	5%

FINANCIAL BUDGET		WoP	With-Project						
ITEMS		Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Main production revenue									
Revenue - Sale of Chicken			22 950	80 631	87 210	87 313	87 364	87 415	87 415
Total revenue			22 950	80 631	87 210	87 313	87 364	87 415	87 415
Investment input costs									
Housing			80 000						
Equipment (Feeders, Drinkers) - Replace Every 3 Years			1 200				1 200		
Sub-total Investment Costs			81 200	-	-	-	1 200	-	-
Operating input costs									
Purchase of chicks			4 000	12 000	12 000	12 000	12 000	12 000	12 000
Feed starter			1 200	3 600	3 600	3 600	3 600	3 600	3 600
Feed grower			4 000	12 000	12 000	12 000	12 000	12 000	12 000
Feed finisher			2 700	9 486	10 260	10 260	10 260	10 260	10 260
transport feed			3 160	10 034	10 344	10 344	10 344	10 344	10 344
Vet costs (Including Vaccination)			250	750	750	750	750	750	750
Water & Electricity			50	150	150	150	150	150	150
Charcoal for brooding			60	180	180	180	180	180	180
Miscl costs			60	180	180	180	180	180	180
Sub-total Operating Costs			15 480	48 380	49 464	49 464	49 464	49 464	49 464
Labour costs									
Skilled Labour			-	-	-	-	-	-	-
Family Labour			3 600	3 600	3 600	3 600	3 600	3 600	3 600
Sub-total Labour Costs			3 600	3 600	3 600	3 600	3 600	3 600	3 600
Total Production Costs			100 280	51 980	53 064	53 064	54 264	53 064	53 064
Net Income Before Labour Costs			(73 730)	32 251	37 746	37 849	36 700	37 951	37 951
Net Income After Labour Costs		3 600	(77 330)	28 651	34 146	34 249	33 100	34 351	34 351
Net Incremental Benefits			(80 930)	25 051	30 546	30 649	29 500	30 751	30 751

Profitability Indicators - Before Financing

Return to family labour (BWP)	11 450
Discount rate	6%
NPV (BWP)	239 101
IRR	36%
NPV/b - BWP	934 693
NPV/c - BWP	654 334
B/C ratio	1.43

Financing plan/affordability check / household cash flow

Years	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9
A: Financing Needs									
I. Capital Investment	81 200	-	-	-	1 200	-	-	-	1 200
II. Operating Input (Feeds, Vaccines etc)	15 480	48 380	49 464	49 464	49 464	49 464	49 464	49 464	49 464
III. Labour costs	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600
Sub-total for on farm costs	100 280	51 980	53 064	53 064	54 264	53 064	53 064	53 064	54 264
Total financing needed	100 280	51 980	53 064	53 064	54 264	53 064	53 064	53 064	54 264
B: Financing Plan (How to cover the above financing needs)									
Opening Balance	-	16 230	48 481	86 227	124 075	160 775	198 726	236 678	274 629
Grant (Estimated) - Assuming 80% of the Investment	64 960	-	-	-	-	-	-	-	-
Drawing from own savings (Estimated)	25 000	-	-	-	-	-	-	-	-
Family Labour	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600
Net production revenue	22 950	80 631	87 210	87 313	87 364	87 415	87 415	87 415	87 415
Total financing available	116 510	100 461	139 291	177 139	215 039	251 790	289 742	327 693	365 644
Closing Balance/ reserves (A-B)	16 230	48 481	86 227	124 075	160 775	198 726	236 678	274 629	311 380

Economic Analysis

CF for Goods (Investment costs, revenue)	0.93
CF for Labour	0.77

		WOP	With Pproject					
Financial Budget		Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7
Revenue									
Total Revenue	BWP	-	21 352	75 017	81 138	81 234	81 282	81 329	81 329
Total Investment Costs	BWP	-	75 547	-	-	-	1 116	-	-
Total Operating Costs	BWP	-	14 402	45 012	46 020	46 020	46 020	46 020	46 020
Labour Budget	BWP	-	2 768	2 768	2 768	2 768	2 768	2 768	2 768
Total Production Costs	BWP	-	92 717	47 781	48 789	48 789	49 905	48 789	48 789
Net Income	BWP	2 768	(71 365)	27 237	32 350	32 445	31 376	32 541	32 541
Net Incremental Benefits	BWP		(74 134)	24 468	29 581	29 677	28 608	29 772	29 772

Profitability Indicators - Before Financing

Discount rate	9%
NPV (BWP)	177 910
IRR	38%
NPV/b - BWP	704 837
NPV/c - BWP	500 864
B/C ratio	1.41

			With-Project										
Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
400	400	400	400	400	400	400	400	400	400	400	400	400
3	3	3	3	3	3	3	3	3	3	3	3	3
1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200
975	975	975	975	975	975	975	975	975	975	975	975	975
51	51	51	51	51	51	51	51	51	51	51	51	51
10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

			With-Project										
Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
87 415	87 415	87 415	87 415	87 415	87 415	87 415	87 415	87 415	87 415	87 415	87 415	87 415
87 415	87 415	87 415	87 415	87 415	87 415	87 415	87 415	87 415	87 415	87 415	87 415	87 415
	1 200				1 200				1 200			
-	1 200	-	-	-	1 200	-	-	-	1 200	-	-	-
12 000	12 000	12 000	12 000	12 000	12 000	12 000	12 000	12 000	12 000	12 000	12 000	12 000
3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600
12 000	12 000	12 000	12 000	12 000	12 000	12 000	12 000	12 000	12 000	12 000	12 000	12 000
10 260	10 260	10 260	10 260	10 260	10 260	10 260	10 260	10 260	10 260	10 260	10 260	10 260
10 344	10 344	10 344	10 344	10 344	10 344	10 344	10 344	10 344	10 344	10 344	10 344	10 344
750	750	750	750	750	750	750	750	750	750	750	750	750
150	150	150	150	150	150	150	150	150	150	150	150	150
180	180	180	180	180	180	180	180	180	180	180	180	180
180	180	180	180	180	180	180	180	180	180	180	180	180
49 464	49 464	49 464	49 464	49 464	49 464	49 464	49 464	49 464	49 464	49 464	49 464	49 464
-	-	-	-	-	-	-	-	-	-	-	-	-
3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600
3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600	3 600
53 064	54 264	53 064	53 064	53 064	54 264	53 064	53 064	53 064	54 264	53 064	53 064	53 064
37 951	36 751	37 951	37 951	37 951	36 751	37 951	37 951	37 951	36 751	37 951	37 951	37 951
34 351	33 151	34 351	34 351	34 351	33 151	34 351	34 351	34 351	33 151	34 351	34 351	34 351
30 751	29 551	30 751	30 751	30 751	29 551	30 751	30 751	30 751	29 551	30 751	30 751	30 751

Yr 10
-
49 464
3 600
53 064
53 064
311 380
-
-
3 600
87 415
402 395
349 331

			With Pproject									
Y8	Y9	Y10	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
81 329	81 329	81 329	81 329	81 329	81 329	81 329	81 329	81 329	81 329	81 329	81 329	81 329
-	1 116	-	-	-	1 116	-	-	-	1 116	-	-	-
46 020	46 020	46 020	46 020	46 020	46 020	46 020	46 020	46 020	46 020	46 020	46 020	46 020
2 768	2 768	2 768	2 768	2 768	2 768	2 768	2 768	2 768	2 768	2 768	2 768	2 768
48 789	49 905	48 789	48 789	48 789	49 905	48 789	48 789	48 789	49 905	48 789	48 789	48 789
32 541	31 424	32 541	32 541	32 541	31 424	32 541	32 541	32 541	31 424	32 541	32 541	32 541
29 772	28 656	29 772	29 772	29 772	28 656	29 772	29 772	29 772	28 656	29 772	29 772	29 772

Botswana
BoL-CoP Design EFA Models - Prices in BWP

Livestock - Goat and Sheep On-Farm Model - Small and Medium Enterprises ((SMEs), on-farm and off-farm SMEs)) Fully market-oriented, high investment withbackward linkages with the farmers (producers) in categories 1, 2, & 3 - Pric

Large herd size
Access to finance
Fenced ranches
Export compliant

Selling Price	Unt	Unit Cost	Qty
Doe	BWP/Head	1 000	
Buck	BWP/Head	2 500	
Juvenile - Castrate	BWP/Head	700	
Veterinary Costs	BWP/Head	50	
Family Labour	Days/Yr	25	150.00

Dynamics	*Goats*			*Sheep*		
	Doe	Buck	Total	Ewe	Ram	Total
Without Project Stock	6	3	9	4	1	5
With Project (Improved Breeds)	100	5	105	15	5	20

Feed Costs 15%

			WoP	With-Project									
	Assumptions and Parameters	Unit	Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11
	Goats													
	Doe	Head	6	108	109	133	157	187	220	259	284	314	348	385
	Buck	Head	3	9	51	62	73	80	94	111	131	145	161	178
	Total Stock Head		9	117	159	195	229	267	315	371	415	459	509	563
				158										
	Sheep													
	Ewe	Head	4	20	28	62	66	74	83	93	97	101	105	109
	Ram	Head	1	6	26	11	17	19	21	23	24	25	26	27
	Total Stock Head		5	26	53	73	83	93	104	116	121	126	131	136
	Technical Parameters - Goats													
	Doe replacement	%	20%	25%	25%	30%	30%	30%	30%	35%	35%	35%	35%	35%
	Buck replacement	%	10%	30%	30%	35%	40%	40%	40%	40%	40%	40%	40%	40%
	Twinning rate	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
	Kidding rate	%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	Kids mortality rate	%	10%	10%	8%	8%	5%	5%	5%	5%	5%	5%	5%	5%
	Juvenile mortality rate	%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
	New Kids	Heads	7	126	130	159	193	231	272	320	350	388	430	476
	New Juvenile	Heads	7	120	123	151	184	219	258	304	333	369	408	452
67%	Female Juvenile	Heads	4	80	82	101	123	146	172	203	222	246	272	301
33%	Male Juvenile	Heads	2	40	41	50	61	73	86	101	111	123	136	151
	Total New Stock - Goats	Head	16	236	283	346	413	487	573	675	748	828	917	1 015
	Technical Parameters - Sheep													
	Female replacement	%	20%	25%	25%	30%	30%	30%	30%	35%	35%	35%	35%	35%
	Male replacement	%	10%	30%	30%	35%	40%	40%	40%	40%	40%	40%	40%	40%
	Lambing rate	%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%
	Lamb mortality rate	%	10%	10%	8%	8%	5%	5%	5%	5%	5%	5%	5%	5%
	Juvenile mortality rate	%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
	New Lambs	Heads	3	16	23	52	57	63	71	80	83	86	90	93
	New Juvenile	Heads	3	15	22	49	54	60	67	76	79	82	85	88
80%	Female Juvenile	Heads	2	12	17	39	43	48	54	60	63	65	68	71
20%	Male Juvenile	Heads	1	3	4	10	11	12	13	15	16	16	17	18
	Total New Stock - Sheep	Head	8	41	75	122	136	153	171	192	200	208	216	225
	Adults mortality rate	%	10%	8%	6%	3%	3%	3%	3%	3%	3%	3%	3%	3%
	Off-take													
Goats	Doe	Head	1.9	36	44	67	80	94	111	153	169	187	208	230
	Buck	Head	1	43	53	78	107	126	148	175	193	214	237	263
Sheep	Ewe	Head	1.2	8	14	28	32	36	40	52	54	56	59	61
	Ram	Head	0.1	2	4	8	11	12	13	15	15	16	17	17
	Total Offtake	Head	4.1	89	116	182	229	268	313	394	432	474	520	571

			WoP	With-Project									
	Financial Budget		Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11
	Revenue													
Goats	Doe	BWP	1 880	36 227	44 318	67 136	80 163	94 417	111 206	152 803	169 228	187 418	207 564	229 875
	Buck	BWP	2 350	108 680	132 954	195 813	267 194	314 696	370 644	436 528	483 451	535 416	592 968	656 706
Sheep	Ewe	BWP	1 163	7 533	14 092	28 362	31 775	35 596	39 878	52 117	54 212	56 391	58 658	61 016
	Ram	BWP	364	5 650	10 569	20 681	26 477	29 661	33 227	37 222	38 718	40 274	41 893	43 578
	Total Revenue	BWP	5 757	158 089	201 932	311 991	405 610	474 371	554 955	678 670	678 670	678 670	678 670	678 670
	Production Costs													
	Investment Costs													
	Investment (costs incl. herd stock, shelter, fencing etc)	BWP		533 360										
	Total Investment Costs	BWP		533 360	-	-	-	-	-	-	-	-	-	-
	Operating Costs													
	Feed costs *(20% of Revenue)*	BWP	864	23 713	30 290	46 799	60 841	71 156	83 243	101 801	101 801	101 801	101 801	101 801
	Other operating Costs (Including Vaccination and AI, Vet costs e	BWP		44 220	47 905	51 590	55 275	58 960	62 645	66 330	70 015	73 700	73 700	73 700
	Total Operating Costs	BWP	864	67 933	78 195	98 389	116 116	130 116	145 888	168 131	171 816	175 501	175 501	175 501
	Labour Budget													
	Family Labour	BWP		3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750
	Total Production Costs	BWP	864	605 043	81 945	102 139	119 866	133 866	149 638	171 881	175 566	179 251	179 251	179 251
	Net Income Before Labour Costs	BWP	4 894	(443 204)	123 738	213 603	289 493	344 256	409 067	510 540	506 855	503 170	503 170	503 170
	Net Income After Labour Costs	BWP	3 750	(446 954)	119 988	209 853	285 743	340 506	405 317	506 790	503 105	499 420	499 420	499 420
	Net Incremental Benefits	BWP		(450 704)	116 238	206 103	281 993	336 756	401 567	503 040	499 355	495 670	495 670	495 670

Profitability Indicators

Return to family labour	3 329
Discount rate	6%
NPV (BWP)	3 860 298
IRR	54%
PVb	6 098 948
PVc	2 195 673
B/C ratio	2.78

Financing plan / affordability check / household cash flow

Years	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
A: Financing Needs										
I. Capital Investment	533 360	-	-	-	-	-	-	-	-	-
II. Operating Input (Feeds, Vaccines etc)	67 933	78 195	98 389	116 116	130 116	145 888	168 131	171 816	175 501	175 501
III. Labour costs	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750
Sub-total for on farm costs	605 043	81 945	102 139	119 866	133 866	149 638	171 881	175 566	179 251	179 251
Total financing needed	605 043	81 945	102 139	119 866	133 866	149 638	171 881	175 566	179 251	179 251
B: Financing Plan (How to cover the above financing needs)										
Opening Balance	-	13 484	137 222	350 824	640 318	984 573	1 393 640	1 904 180	2 411 035	2 914 204
Grant (Estimated) - Assuming 60% of the Investment	320 016	-	-	-	-	-	-	-	-	-
Loan (Estimated) - Assuming 10% of the Investment	106 672	-	-	-	-	-	-	-	-	-
Drawing from own savings (Estimated)	30 000	-	-	-	-	-	-	-	-	-
Family Labour	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750
Net production revenue	158 089	201 932	311 991	405 610	474 371	554 955	678 670	678 670	678 670	678 670
Total financing available	618 527	219 166	452 963	760 184	1 118 439	1 543 278	2 076 060	2 586 600	3 093 455	3 596 624
Closing Balance/ reserves (A-B)	13 484	137 222	350 824	640 318	984 573	1 393 640	1 904 180	2 411 035	2 914 204	3 417 374

INPUT AREA

LOAN AMOUNT	106 672

PERIOD (YEARS)	1.00
ANNUAL RATE	40%
PERIOD (MONTHS)	24
MONTHLY RATE	2%
PMT	5 429

Loan duration 24

MODEL AREA

Month	Payment month	Interest per month	Accumulated Interest paid	Principal payment per month	Accumulated Principal paid	BAL
0						106 672
1	5 429	1 778	1 778	3 651	3 651	103 021
2	5 429	1 717	3 495	3 712	7 363	99 309
3	5 429	1 655	5 150	3 774	11 137	95 535
4	5 429	1 592	6 742	3 837	14 974	91 698
5	5 429	1 528	8 271	3 901	18 875	87 797
6	5 429	1 463	9 734	3 966	22 841	83 831
7	5 429	1 397	11 131	4 032	26 873	79 799
8	5 429	1 330	12 461	4 099	30 972	75 700
9	5 429	1 262	13 723	4 167	35 140	71 532
10	5 429	1 192	14 915	4 237	39 377	67 295
11	5 429	1 122	16 036	4 308	43 684	62 988
12	5 429	1 050	17 086	4 379	48 064	58 608
13	5 429	977	18 063	4 452	52 516	54 156
14	5 429	903	18 966	4 527	57 043	49 629
15	5 429	827	19 793	4 602	61 645	45 027
16	5 429	750	20 543	4 679	66 323	40 349
17	5 429	672	21 216	4 757	71 080	35 592
18	5 429	593	21 809	4 836	75 916	30 756
19	5 429	513	22 322	4 917	80 832	25 840
20	5 429	431	22 752	4 998	85 831	20 841
21	5 429	347	23 100	5 082	90 913	15 759
22	5 429	263	23 362	5 167	96 079	10 593
23	5 429	177	23 539	5 253	101 332	5 340
24	5 429	89	23 628	5 340	106 672	0
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END
END	END	END	END	END	END	END

Economic Analysis

CF for Goods (Investment costs, revenue)	0.93
CF for Labour	0.77

		WOP	With Pproject										
Financial Budget		Y0	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11
Revenue													
Total Revenue	BWP	5 357	147 083	187 874	290 270	377 371	441 345	516 319	631 421	631 421	631 421	631 421	631 421
Total Investment Costs	BWP	-	496 227	-	-	-	-	-	-	-	-	-	-
Total Operating Costs	BWP	803	63 204	72 751	91 539	108 032	121 057	135 731	156 425	159 854	163 282	163 282	163 282
Labour Budget	BWP	-	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884
Total Production Costs	BWP	803	562 315	75 635	94 423	110 916	123 941	138 615	159 309	162 737	166 166	166 166	166 166
Net Income	BWP	4 553	(415 232)	112 239	195 848	266 455	317 405	377 704	472 112	468 683	465 255	465 255	465 255
Net Incremental Benefits	BWP		(419 785)	107 686	191 295	261 902	312 852	373 151	467 559	464 130	460 702	460 702	460 702

Profitability Indicators - Before Financing

Discount rate	9%
NPV (BWP)	2 727 462
IRR	54%
NPV/b - BWP	4 476 524
NPV/c - BWP	1 706 197
B/C ratio	2.62

Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
427	473	524	580	642	656	681	706	732
197	218	242	268	296	328	340	353	366
624	691	765	847	938	985	1 021	1 059	1 099
113	118	123	128	133	127	122	117	113
28	29	31	32	33	32	31	29	28
142	147	153	159	166	159	153	147	141
35%	35%	35%	35%	40%	40%	40%	40%	40%
40%	40%	40%	40%	40%	40%	40%	40%	40%
30%	30%	30%	30%	30%	30%	30%	30%	30%
100%	100%	100%	100%	100%	100%	100%	100%	100%
5%	5%	5%	5%	5%	5%	5%	5%	5%
5%	5%	5%	5%	5%	5%	5%	5%	5%
527	584	647	716	793	811	841	872	905
501	555	614	680	753	770	799	829	859
334	370	409	453	502	513	533	552	573
167	185	205	227	251	257	266	276	286
1 125	1 245	1 379	1 528	1 692	1 755	1 820	1 888	1 958
35%	35%	35%	35%	40%	40%	40%	40%	40%
40%	40%	40%	40%	40%	40%	40%	40%	40%
90%	90%	90%	90%	90%	90%	90%	90%	90%
5%	5%	5%	5%	5%	5%	5%	5%	5%
5%	5%	5%	5%	5%	5%	5%	5%	5%
97	101	105	109	113	109	105	100	96
92	96	100	104	108	103	99	95	92
74	77	80	83	86	83	79	76	73
18	19	20	21	22	21	20	19	18
234	243	253	263	274	263	252	242	233
3%	3%	3%	3%	3%	3%	3%	3%	3%
255	282	312	346	438	454	471	488	506
291	322	357	395	438	454	471	488	506
63	66	69	71	85	82	78	75	72
18	19	20	20	21	20	20	19	18
627	689	757	833	981	1 010	1 039	1 071	1 103

With-Project

Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20
254 584	281 949	312 255	345 819	437 704	453 996	470 894	488 422	506 601
727 295	805 471	892 051	987 937	1 094 130	1 134 854	1 177 095	1 220 907	1 266 351
63 469	66 020	68 674	71 435	84 921	81 540	78 293	75 176	72 183
45 329	47 152	49 047	51 019	53 069	50 956	48 928	46 979	45 109
678 670	678 670	678 670	678 670	678 670	678 670	678 670	678 670	678 670
-	-	-	-	-	-	-	-	-
101 801	101 801	101 801	101 801	101 801	101 801	101 801	101 801	101 801
73 700	73 700	73 700	73 700	73 700	73 700	73 700	73 700	73 700
175 501	175 501	175 501	175 501	175 501	175 501	175 501	175 501	175 501
3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750	3 750
179 251	179 251	179 251	179 251	179 251	179 251	179 251	179 251	179 251
503 170	503 170	503 170	503 170	503 170	503 170	503 170	503 170	503 170
499 420	499 420	499 420	499 420	499 420	499 420	499 420	499 420	499 420
495 670	495 670	495 670	495 670	495 670	495 670	495 670	495 670	495 670

With Pproject									
Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19	Y20	
631 421	631 421	631 421	631 421	631 421	631 421	631 421	631 421	631 421	
-	-	-	-	-	-	-	-	-	
163 282	163 282	163 282	163 282	163 282	163 282	163 282	163 282	163 282	
2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	2 884	
166 166	166 166	166 166	166 166	166 166	166 166	166 166	166 166	166 166	
465 255	465 255	465 255	465 255	465 255	465 255	465 255	465 255	465 255	
460 702	460 702	460 702	460 702	460 702	460 702	460 702	460 702	460 702	

Indicative Financing Mix to Cover First-Year Loss

Enterprise / Model	Category 4: Goat & Sheep (SME)	Category 3: Goat & Sheep (Emerging Commercial)	Category 3: Poultry - Layers (Emerging Commercial)	Category 3: Poultry - Broilers (Emerging Commercial)
Projected Initial Year Loss	(450 704)	(164 458)	(96 652)	(80 930)
Financing Plan				
Grants/Subsidies	320 016	135 402	66 737	64 960
Loan	106 672			
Own Savings	30 000	25 000	25 000	25 000
Family Labour	3 750	3 750	3 750	3 600
Production Revenue	158 089	17 523	7 985	22 950
Net Financing Available	618 527	181 675	103 472	116 510
Closing Balance	167 823	17 216	6 821	35 580

BoL-CoP Target Outreach
50,000 Household (200,000 Individuals)

Category	Number	%
Subsistence Farmers (Micro-scale)	10 000	20%
Small-Scale Commercial Farmers (Small-scale)	30 000	60%
Emerging Commercial Farmers (Medium scale)	7 500	15%
Small and Medium Enterprises ((SMEs), on-farm and off-farm SMEs))	2 500	5%
Total	50 000	100%

Description
Farmers primarily producing for household consumption with the following characteristics: . Small herd size . Mixed crops and livestock . Limited market engagement
Farmers with some market orientation with the following characteristics . Moderate herd size . Some mechanization . Part-time off-farm income
Farmers transitioning from smallholder to full-time commercial with the following characteristics: . Medium herd size (Use of improved breeds . Access to input markets . Participate in cooperatives
Fully market-oriented, high investment withbackward linkages with the farmers (producers) in categories 1, 2, & 3 with the following characteristics: . Large herd size . Access to finance . Fenced ranches . Export compliant

Indicators	Livestock - Goat & Sheep (22 heads unit)	Poultry - Layers (150 birds unit)	Poultry - Broilers (200 birds unit)
IRR	30%	71%	50%
NPV @9% (BWP)	444 079	99 976	46 820
BCR	1.92	1.72	1.37

Costs for 100 Goats/Sheep Unit

Category	QTY	Estimated Cost - Investment (BWP)	Operating	100
Infrastructure		143 000		1 430
Main shelter		40 000		400
Sick bay		10 000		
Maternity kraal		18 000		
Buck pen		8 000		
Sorting/holding pen & loading area		12 000		
Crush & race		10 000		
Fencing		28 000		
Water system		12 000		
Lighting		5 000		
Equipment		10 530		
Eartag applicator		450		
Eartags (220)		880		
Syringes		600		
Dosing gun		500		
Hoof trimmers		600		
Thermometers		500		
Castration tool		900		
Platform scale		4 800		
Spray markers		300		
Gloves/masks		500		
Buck harnesses		700		
Feed buckets		800		
Medication			23 000	
Multivax-P Plus			7 500	
Vitamin boosters			3 500	
Dewormers			3 500	
Ectoparasite dip			2 800	
Antibiotics			2 200	
Antiseptics			1 500	
First aid kit			2 000	
Consumables			14 000	
Mineral licks			4 500	
Cleaning supplies			1 500	
Pest control			600	
Markers/paint		300		
Feed additives			6 000	
Misc. tools & ropes			800	
Record keeping materials			300	
Breeding Stock		112 500		
Does (100)	100	100 000		1 000
Bucks (5)	5	12 500		2 500
Total		533 360	73 700	

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Expenditure Accounts by Years -- Totals Including Contingencies
Economic Costs

	Economic Costs (BWP '000)									Economic Costs (US$ '000)								
	2026	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
I. Investment Costs																		
A. Civil Works	8 782	24 098	81 295	90 146	67 621	22 705	16 958	6 426	318 031	627	1 721	5 807	6 439	4 830	1 622	1 211	459	22 716
B. Equipment and Materials	25 110	11 864	28 022	22 243	15 408	6 569	4 284	-	113 501	1 794	847	2 002	1 589	1 101	469	306	-	8 107
C. Goods, Services and Inputs	5 999	15 928	52 561	35 712	44 116	38 199	18 633	7 938	219 085	428	1 138	3 754	2 551	3 151	2 729	1 331	567	15 649
D. Technical Assistance	12 665	19 399	52 066	19 458	12 589	11 401	9 832	6 740	144 150	905	1 386	3 719	1 390	899	814	702	481	10 296
E. Training	12 712	14 795	27 765	22 953	15 741	9 806	6 975	3 934	114 681	908	1 057	1 983	1 640	1 124	700	498	281	8 192
F. Line of Credit	4 550	4 550	9 100	9 100	13 650	13 650	18 200	18 200	91 000	325	325	650	650	975	975	1 300	1 300	6 500
Total Investment Costs	69 818	90 633	250 809	199 612	169 126	102 330	74 881	43 237	1 000 448	4 987	6 474	17 915	14 258	12 080	7 309	5 349	3 088	71 461
II. Recurrent Costs																		
A. Salaries and Allowances	9 299	9 299	13 385	13 385	13 385	13 385	13 385	13 385	98 910	664	664	956	956	956	956	956	956	7 065
B. Operations and Maintenance	5 236	5 236	5 236	5 236	5 236	5 236	5 236	5 236	41 888	374	374	374	374	374	374	374	374	2 992
Total Recurrent Costs	14 535	14 535	18 621	18 621	18 621	18 621	18 621	18 621	140 798	1 038	1 038	1 330	1 330	1 330	1 330	1 330	1 330	10 057
Total PROJECT COSTS	84 353	105 168	269 431	218 233	187 747	120 952	93 503	61 859	1 141 246	6 025	7 512	19 245	15 588	13 411	8 639	6 679	4 418	81 518
Percentage Allocation										0.07	0.09	0.24	0.19	0.16	0.11	0.08	0.05	1.00
Costs Includes in models + Transaction Costs																		
Line of Credit (Transaction Cost)	4 550	4 550	9 100	9 100	13 650	13 650	18 200	18 200	91 000									
Costs Includes in models	500	1 250	2 499	7 497	4 998	4 998	3 249	-	24 990									
Total Costs Included in models	**5 050**	**5 800**	**11 599**	**16 597**	**18 648**	**18 648**	**21 449**	**18 200**	**115 990**									

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)

Expenditure Accounts by Years -- Totals Including Contingencies	**Totals Including Contingencies (BWP '000)**								
	2026	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
I. Investment Costs									
A. Civil Works	10 028	27 520	90 595	100 720	76 056	26 071	19 555	7 586	358 133
B. Equipment and Materials	28 515	13 859	31 897	25 103	17 741	7 485	4 884	-	129 483
C. Goods, Services and Inputs	6 136	16 454	56 129	38 380	47 522	41 602	19 708	8 507	234 438
D. Technical Assistance	12 803	19 922	52 565	20 131	13 251	12 044	10 400	7 155	148 271
E. Training	12 749	14 999	28 382	23 722	16 266	9 919	7 087	3 988	117 113
F. Line of Credit	4 550	4 550	9 100	9 100	13 650	13 650	18 200	18 200	91 000
Total Investment Costs	74 780	97 304	268 668	217 156	184 487	110 772	79 834	45 437	1 078 438
II. Recurrent Costs									
A. Salaries and Allowances	9 299	9 299	13 385	13 385	13 385	13 385	13 385	13 385	98 910
B. Operations and Maintenance	5 236	5 236	5 236	5 236	5 236	5 236	5 236	5 236	41 888
Total Recurrent Costs	14 535	14 535	18 621	18 621	18 621	18 621	18 621	18 621	140 798
Total PROJECT COSTS	89 315	111 840	287 289	235 778	203 108	129 393	98 455	64 058	1 219 236
Costs Included in models + transaction costs									
Line of Credit	4 550	4 550	9 100	9 100	13 650	13 650	18 200	18 200	91 000
Total Costs Included in models + transaction costs	**4 550**	**4 550**	**9 100**	**9 100**	**13 650**	**13 650**	**18 200**	**18 200**	**91 000**

Totals Including Contingencies (US$ '000)								
2026	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**Total**
716	1 966	6 471	7 194	5 433	1 862	1 397	542	25 581
2 037	990	2 278	1 793	1 267	535	349	-	9 249
438	1 175	4 009	2 741	3 394	2 972	1 408	608	16 746
914	1 423	3 755	1 438	946	860	743	511	10 591
911	1 071	2 027	1 694	1 162	709	506	285	8 365
325	325	650	650	975	975	1 300	1 300	6 500
5 341	6 950	19 191	15 511	13 178	7 912	5 702	3 245	77 031
664	664	956	956	956	956	956	956	7 065
374	374	374	374	374	374	374	374	2 992
1 038	1 038	1 330	1 330	1 330	1 330	1 330	1 330	10 057
6 380	7 989	20 521	16 841	14 508	9 242	7 033	4 576	87 088

Botswana

Botswana Livestock Commercialisation Project (BoLCoP)

Components by Financiers

(US$ '000)

	IFAD 13 BRAM		Financing Gap		GEF
	Amount	%	Amount	%	Amount
A. Increased Climate-Resilient Small Livestock Production and Productivity					
Enhanced Access to Quality Feed, Fodder and Animal Health Services	6 519	31	8 635	41	-
Improved Capacity of Farmers To Adopt Climate Resilient Production And Management Practices	3 284	19	1 667	10	4 750
Subtotal	9 803	25	10 302	27	4 750
B. Strengthened Small Livestock Value Chains					
Strengthened Clustering and Capacity Building of Value Chain Actors	3 329	63	1 731	33	-
Improved Access to Input and Output Markets	7 100	50	4 223	30	-
Improved Access to Inclusive and Green Financial Services For Value Chain Actors	2 907	36	2 762	34	-
Subtotal	13 336	48	8 716	32	-
C. Enhanced Enabling Environment for Improved Small Livestock Development					
Institutional Strengthening and Policy Support	1 696	26	636	10	-
Project Management and Implementation Support Services	6 285	48	3 225	24	250
Subtotal	7 981	40	3 861	20	250
D. RED (Lumpsum to be allocated incase of emergency)	400	40	600	60	-
Total PROJECT COSTS	31 520	36	23 480	0.27	5 000

Adaptation Fund		SSTC Grant		Government		Beneficiaries (In-Kind)		Total		For.	Local (Excl.	Duties &
%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Exch.	Taxes)	Taxes
-	4 000	19	-	-	1 954	9	-	-	21 108	24	1 915	17 239	1 954
27	6 284	36	-	-	1 576	9	-	-	17 562	20	1 599	14 387	1 576
12	10 284	27	-	-	3 530	9	-	-	38 670	44	3 514	31 625	3 530
-	-	-	-	-	231	4	-	-	5 291	6	201	4 859	231
-	1 812	13	-	-	1 070	8	-	-	14 204	16	1 313	11 821	1 070
-	1 000	12	-	-	-	-	1 500	18	8 169	9	-	8 169	-
-	2 812	10	-	-	1 300	5	1 500	5	27 664	32	1 515	24 849	1 300
-	3 586	55	500	8	95	2	-	-	6 513	8	575	5 843	95
2	3 318	25	-	-	162	1	-	-	13 241	15	104	12 975	162
1	6 904	35	500	3	257	1	-	-	19 754	23	678	18 819	257
-	-	-	-	-	-	-	-	-	1 000	1	-	1 000	-
6	20 000	23	500	1	5 088	6	1 500	2	87 088	100	5 707	76 293	5 088

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Disbursements by Semesters and Government Cash Flow
Economic Costs (BWP'000)

	Financing Available							Costs to be Financed	Government	
	IFAD 13 BRAM	Financing Gap	GEF	Adaptation Fund	SSTC Grant	Beneficiaries (In-Kind)		Project	Cash	Cumulative
	Amount	Amount	Amount	Amount	Amount	Amount	Total	Costs	Flow	Cash Flow
1	41 652	-	-	-	-	525	42 177	42 177	-	-
2	41 652	-	-	-	-	525	42 177	42 177	-	-
3	52 002	-	-	-	57	525	52 584	52 584	-	-
4	52 002	-	-	-	57	525	52 584	52 584	-	-
5	63 496	-	1 670	68 139	361	1 050	134 715	134 715	0	0
6	63 496	-	1 670	68 139	361	1 050	134 715	134 715	0	0
7	37 521	26 595	6 997	35 901	1 051	1 050	109 117	109 117	0	0
8	37 521	26 595	6 997	35 901	1 051	1 050	109 117	109 117	0	0
9	23 200	37 200	10 376	20 863	660	1 575	93 874	93 874	0	0
10	23 200	37 200	10 376	20 863	660	1 575	93 874	93 874	0	0
11	692	41 161	10 376	5 923	749	1 575	60 476	60 476	-0	0
12	692	41 161	10 376	5 923	749	1 575	60 476	60 476	-0	0
13	231	35 629	3 697	4 762	333	2 100	46 751	46 751	-0	0
14	231	35 629	3 697	4 762	333	2 100	46 751	46 751	-0	0
15	115	22 274	2 028	4 412	-	2 100	30 929	30 929	-	0
16	115	22 274	2 028	4 412	-	2 100	30 929	30 929	-	0
	0	0	0	0	0	0	0	0	0	0
Total	437 817	325 717	70 289	280 000	6 422	21 000	1 141 246	1 141 246	0	0
Total Costs by Year	84 353	105 168	269 431	218 233	187 747	120 952	93 503	61 859	1 141 246	
Financing Gap costs	-	-	-	53 190	74 400	82 322	71 258	44 549	325 717	
Costs Without Financing Gap	**84 353**	**105 168**	**269 431**	**165 043**	**113 348**	**38 630**	**22 245**	**17 310**	**815 528**	

Botswana
Botswana Livestock Commercialisation Project (BoLCoP)
Table 1.1. Policy and Institutional Strengthening
Detailed Costs
Economic Costs

	Unit	Quantities								
		2026	2027	2028	2029	2030	2031	2032	2033	Total
I. Investment Costs										
A. Enhance availability of small livestock breeds										
Improvement of small livestock genetic resources /a	Lumpsum	0.1	0.2	0.2	0.15	0.15	0.1	0.1	-	1
Judicious use of pure breeds	Animals	100	250	250	200	200	-	-	-	1 000
Set up AI programme	Lumpsum	-	0.2	0.4	0.4	-	-	-	-	1
Multiplication of adapted breeds	Animals	-	200	300	400	500	500	500	-	2 400
Sire exchange programme	Animals	-	-	100	200	400	500	500	-	1 700
Set up community-based breeding programmes (CBBP) /b	Farmer groups	-	0.1	0.2	0.2	0.15	0.15	0.1	0.1	1
Subtotal										
B. Comprehensive capacity-building package to small liv										
Training of trainers (ToT)	Session	4	5	2	1	-	-	-	-	12
Small livestock management - sheep, goats, and poultry	Session	15	20	40	30	15	-	-	-	120
Husbandry and record keeping	Session	15	20	40	30	15	-	-	-	120
Breeding and reproduction	Session	15	20	40	30	15	-	-	-	120
Livestock handling	Session	15	20	40	30	15	-	-	-	120
Animal health management, incl. flock health calendar	Session	15	20	40	30	15	-	-	-	120
Feeds + feeding management, incl. feedlotting	Session	15	20	40	30	15	-	-	-	120
Equiping training centres /c	Lumpsum	1	2	2	1	-	-	-	-	6
Subtotal										
C. Support for improved livestock healthcare										
Capacitate district veterinarians	Lumpsum	-	2	4	4	2	-	-	-	12
Equiping animal production + health extension staff	Staff	-	10	30	20	-	-	-	-	60
Equiping community animal health workers (CAHWs)	Staff	-	30	60	60	30	-	-	-	180
Training of extension staff (district and village level) /d	Session	-	2	6	4	-	-	-	-	12
Training of CAHWs /e	Session	-	30	60	60	30	-	-	-	180
Disease monitoring, surveillance and diagnostics	Lumpsum	-	0.2	0.3	0.1	0.1	0.1	0.1	0.1	1
Subtotal										
D. Small livestock Infrastructure investments										
Solar powered water pumps and related infrastructure /f	Number	-	-	10	10	5	-	-	-	25
Drip irrigation kits for forage /g	Hectare	-	-	80	80	50	-	-	-	210
Irrigation infrastructure for forage/feeds production /h	Hectare	-	-	50	50	25	-	-	-	125
Solar-powered processing machines	Number	-	-	15	15	-	-	-	-	30
Rainwater harvesting systems	Number	-	-	20	20	-	-	-	-	40
Small-scale water storage & wastewater reuse systems	Number	-	-	30	31	-	-	-	-	61
Forage harvesting equipment	Number	-	50	100	100	100	150	100	-	600
Silage making consumables - drums	Number	500	1 500	2 000	2 000	1 000	1 500	1 000	500	10 000
Farm level animal handlig infrastructure. - pens, sheds, fowl ru	Number	20	50	100	300	200	200	130	-	1 000
Crush pens/dip tanks - community/cluster level /i	Number	-	5	15	20	20	-	-	-	60
Feedlots/fowl runs - cluster level /j	Number	-	5	15	20	20	-	-	-	60
Feed processing equipment /k	Number	-	-	1	1	1	-	-	-	3
Subtotal										
E. USSD and IVR e-extension services										
Content design and platform development,language prep	Package	-	1	-	-	-	-	-	-	1
Content refresh & usability improvements	Lumpsum	-	-	1	-	-	-	-	-	1
Language expansion and and voice script update	Lumpsum	-	-	-	1	-	-	-	-	1
Content update	Lumpsum	-	-	-	-	1	-	-	-	1
Voice/audio recording refresh	Lumpsum	-	-	-	-	1	-	-	-	1
Final overhaul and sustainability transition	Lumpsum	-	-	-	-	-	-	1	1	2
Annual updates, system improvements	Per Year	-	-	-	1	1	1	1	1	5
Subtotal										
F. CAWHs mobile registry app										
Mobile App design & development	Package	-	1	-	-	-	-	-	-	1
Hardware for CAHWs	Number	-	22	-	-	-	-	-	-	22
Initial rollout & CAHW onboarding	Session	-	2	3	-	-	-	-	-	5
App updates & feedback integration	Update	-	-	-	1	1	1	1	1	5
Integration with MoA health data systems	API and linkages	-	-	-	-	-	-	-	1	1
Subtotal										
G. BAITS Small Livestock Enhancement										
Current Software Audit and early Development feasible core m	Package	-	1	-	-	-	-	-	-	1
Piloting and training (initial rollout)	pilots package in 3 districts	-	-	3	-	-	-	-	-	3
Market integration and dashboards to enable buyer/seller func	Cycle	-	-	-	2	-	-	-	-	2
Interoperability, updates, and usability fixes	Annual update cycle	-	-	-	-	1	1	1	-	3
Subtotal										
Total										

\a genetic improvement programme for indigenous smallstcok -NARDI/BUAN
\b organizing communities to select small livestock with desirable genetic traits - NARDI
\c rennovations at training centres -Impala, Lobu and 4xNARDI
\d training of veterinary assistants/crop ext. in small livestock production
\e a total of 180 CAHWs to be trained (15 per each district)
\f community/cluster level boreholes incl. storage tanks + water troughs
\g small farm level drip kits for fodder (loan scheme or matching grants)
\h support for commercial forage for sale by youths/women (loans)
\i community infr. under local authorities
\j community infr. under local authorities
\k district level equipment (loan to entreprenuers)

Unit Cost	Economic Costs (BWP '000)								
(US$)	2026	2027	2028	2029	2030	2031	2032	2033	Total
300,000	420	840	840	630	630	420	420	-	4 200
500	700	1 750	1 750	1 400	1 400	-	-	-	7 000
300,000	-	840	1 680	1 680	-	-	-	-	4 200
250	-	700	1 050	1 400	1 750	1 750	1 750	-	8 400
250	-	-	350	700	1 400	1 750	1 750	-	5 950
300,000	-	420	840	840	630	630	420	420	4 200
	1 120	4 550	6 510	6 650	5 810	4 550	4 340	420	33 950
12,000	672	840	336	168	-	-	-	-	2 016
2,000	420	560	1 120	840	420	-	-	-	3 360
2,000	420	560	1 120	840	420	-	-	-	3 360
2,000	420	560	1 120	840	420	-	-	-	3 360
2,000	420	560	1 120	840	420	-	-	-	3 360
2,000	420	560	1 120	840	420	-	-	-	3 360
3,000	630	840	1 680	1 260	630	-	-	-	5 040
220,000	3 142	6 283	6 283	3 142	-	-	-	-	18 850
	6 544	10 763	13 899	8 770	2 730	-	-	-	42 706
15,000	-	420	840	840	420	-	-	-	2 520
5,000	-	714	2 142	1 428	-	-	-	-	4 284
2,000	-	857	1 714	1 714	857	-	-	-	5 141
3,000	-	84	252	168	-	-	-	-	504
2,500	-	1 050	2 100	2 100	1 050	-	-	-	6 300
250,000	-	700	1 050	350	350	350	350	350	3 500
	-	3 825	8 098	6 600	2 677	350	350	350	22 249
80,000	-	-	11 200	11 200	5 600	-	-	-	28 000
3,000	-	-	3 360	3 360	2 100	-	-	-	8 820
4,000	-	-	2 800	2 800	1 400	-	-	-	7 000
2,000	-	-	420	420	-	-	-	-	840
5,000	-	-	1 400	1 400	-	-	-	-	2 800
10,000	-	-	4 200	4 340	-	-	-	-	8 540
3,000	-	2 142	4 284	4 284	4 284	6 426	4 284	-	25 704
5	36	107	143	143	71	107	71	36	714
1,750	500	1 250	2 499	7 497	4 998	4 998	3 249	-	24 990
40,000	-	2 856	8 568	11 424	11 424	-	-	-	34 272
20,000	-	1 428	4 284	5 712	5 712	-	-	-	17 136
100,000	-	-	1 428	1 428	1 428	-	-	-	4 284
	536	7 783	44 586	54 008	37 017	11 531	7 604	36	######
25,000	-	350	-	-	-	-	-	-	350
5,000	-	-	70	-	-	-	-	-	70
6,000	-	-	-	84	-	-	-	-	84
7,000	-	-	-	-	98	-	-	-	98
8,000	-	-	-	-	112	-	-	-	112
5,000	-	-	-	-	-	-	70	70	140
2,500	-	-	-	35	35	35	35	35	175
	-	350	70	119	245	35	105	105	1 029
18,000	-	252	-	-	-	-	-	-	252
500	-	154	-	-	-	-	-	-	154
1,000	-	28	42	-	-	-	-	-	70
2,000	-	-	-	28	28	28	28	28	140
6,000	-	-	-	-	-	-	-	84	84
	-	434	42	28	28	28	28	112	700
28,000	-	392	-	-	-	-	-	-	392
3,000	-	-	126	-	-	-	-	-	126
7,000	-	-	-	196	-	-	-	-	196
5,000	-	-	-	-	70	70	70	-	210
	-	392	126	196	70	70	70	-	924
	8 199	28 097	73 331	76 370	48 577	16 564	12 497	1 023	######

Economic Costs (US$ '000)								Summary Divisions	
2026	2027	2028	2029	2030	2031	2032	2033	Total ompone	Expenditure Account
30	60	60	45	45	30	30	-	300 ED_FOD	GOODS_SERVICES_AND_INPUTS
50	125	125	100	100	-	-	-	500 ED_FOD	GOODS_SERVICES_AND_INPUTS
-	60	120	120	-	-	-	-	300 ED_FOD	TECHNICAL_ASSISTANCE_1
-	50	75	100	125	125	125	-	600 ED_FOD	GOODS_SERVICES_AND_INPUTS
-	-	25	50	100	125	125	-	425 ED_FOD	GOODS_SERVICES_AND_INPUTS
-	30	60	60	45	45	30	30	300 ED_FOD	TECHNICAL_ASSISTANCE_1
80	325	465	475	415	325	310	30	2 425	
48	60	24	12	-	-	-	-	144 ED_FOD	TRAINING_1
30	40	80	60	30	-	-	-	240 ED_FOD	TRAINING_1
30	40	80	60	30	-	-	-	240 ED_FOD	TRAINING_1
30	40	80	60	30	-	-	-	240 ED_FOD	TRAINING_1
30	40	80	60	30	-	-	-	240 ED_FOD	TRAINING_1
30	40	80	60	30	-	-	-	240 ED_FOD	TRAINING_1
45	60	120	90	45	-	-	-	360 ED_FOD	TRAINING_1
224	449	449	224	-	-	-	-	1 346 ED_FOD	EQUIPMENT_AND_MATERIALS
467	769	993	626	195	-	-	-	3 050	
-	30	60	60	30	-	-	-	180 ED_FOD	TRAINING_1
-	51	153	102	-	-	-	-	306 ED_FOD	EQUIPMENT_AND_MATERIALS
-	61	122	122	61	-	-	-	367 ED_FOD	EQUIPMENT_AND_MATERIALS
-	6	18	12	-	-	-	-	36 ED_FOD	TRAINING_1
-	75	150	150	75	-	-	-	450 ED_FOD	TRAINING_1
-	50	75	25	25	25	25	25	250 ED_FOD	TECHNICAL_ASSISTANCE_1
-	273	578	471	191	25	25	25	1 589	
-	-	800	800	400	-	-	-	2 000 ED_FOD	CIVIL_WORKS
-	-	240	240	150	-	-	-	630 ED_FOD	EQUIPMENT_AND_MATERIALS
-	-	200	200	100	-	-	-	500 ED_FOD	CIVIL_WORKS
-	-	30	30	-	-	-	-	60 ED_FOD	EQUIPMENT_AND_MATERIALS
-	-	100	100	-	-	-	-	200 ED_FOD	CIVIL_WORKS
-	-	300	310	-	-	-	-	610 ED_FOD	CIVIL_WORKS
-	153	306	306	306	459	306	-	1 836 ED_FOD	EQUIPMENT_AND_MATERIALS
3	8	10	10	5	8	5	3	51 ED_FOD	GOODS_SERVICES_AND_INPUTS
36	89	179	536	357	357	232	-	1 785 ED_FOD	CIVIL_WORKS
-	204	612	816	816	-	-	-	2 448 ED_FOD	CIVIL_WORKS
-	102	306	408	408	-	-	-	1 224 ED_FOD	CIVIL_WORKS
-	-	102	102	102	-	-	-	306 ED_FOD	EQUIPMENT_AND_MATERIALS
38	556	3 185	3 858	2 644	824	543	3	11 650	
-	25	-	-	-	-	-	-	25 ED_FOD	TECHNICAL_ASSISTANCE_1
-	-	5	-	-	-	-	-	5 ED_FOD	TECHNICAL_ASSISTANCE_1
-	-	-	6	-	-	-	-	6 ED_FOD	TECHNICAL_ASSISTANCE_1
-	-	-	-	7	-	-	-	7 ED_FOD	TECHNICAL_ASSISTANCE_1
-	-	-	-	8	-	-	-	8 ED_FOD	TECHNICAL_ASSISTANCE_1
-	-	-	-	-	-	5	5	10 ED_FOD	TECHNICAL_ASSISTANCE_1
-	-	-	3	3	3	3	3	13 ED_FOD	TECHNICAL_ASSISTANCE_1
-	25	5	9	18	3	8	8	74	
-	18	-	-	-	-	-	-	18 ED_FOD	TECHNICAL_ASSISTANCE_1
-	11	-	-	-	-	-	-	11 ED_FOD	EQUIPMENT_AND_MATERIALS
-	2	3	-	-	-	-	-	5 ED_FOD	TRAINING_1
-	-	-	2	2	2	2	2	10 ED_FOD	TECHNICAL_ASSISTANCE_1
-	-	-	-	-	-	-	6	6 ED_FOD	TECHNICAL_ASSISTANCE_1
-	31	3	2	2	2	2	8	50	
-	28	-	-	-	-	-	-	28 ED_FOD	TECHNICAL_ASSISTANCE_1
-	-	9	-	-	-	-	-	9 ED_FOD	TECHNICAL_ASSISTANCE_1
-	-	-	14	-	-	-	-	14 ED_FOD	TECHNICAL_ASSISTANCE_1
-	-	-	-	5	5	5	-	15 ED_FOD	TECHNICAL_ASSISTANCE_1
-	28	9	14	5	5	5	-	66	
586	2 007	5 238	5 455	3 470	1 183	893	73	18 904	

Other Accounts	
Disb. Acct.	**Fin. Rule**
GOODS_SVCES_INPUTS	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
GOODS_SVCES_INPUTS	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
GOODS_SVCES_INPUTS	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
GOODS_SVCES_INPUTS	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 4, 0% FOR 4), IFAD (0% FOR 4, 100% FOR 4)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
CW_DA	ADAPTATION_FUND (100%)
EQUIPMENT_AND_MATERIALS_1	ADAPTATION_FUND (100%)
CW_DA	ADAPTATION_FUND (100%)
EQUIPMENT_AND_MATERIALS_1	ADAPTATION_FUND (100%)
CW_DA	ADAPTATION_FUND (100%)
CW_DA	ADAPTATION_FUND (100%)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
GOODS_SVCES_INPUTS	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
CW_DA	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
CW_DA	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
CW_DA	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
EQUIPMENT_AND_MATERIALS_1	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)
TECHNICAL_ASSISTANCE_&_TRAINING	IFAD_LOAN (100% FOR 3, 0% FOR 5), IFAD (0% FOR 3, 100% FOR 5)

IFAD 13 BRAM								
2026	2027	2028	2029	2030	2031	2032	2033	Total
30	60	60	-	-	-	-	-	150
50	125	125	-	-	-	-	-	300
-	60	120	-	-	-	-	-	180
-	50	75	-	-	-	-	-	125
-	-	25	-	-	-	-	-	25
-	30	60	-	-	-	-	-	90
80	325	465	-	-	-	-	-	870
48	60	24	-	-	-	-	-	132
30	40	80	-	-	-	-	-	150
30	40	80	-	-	-	-	-	150
30	40	80	-	-	-	-	-	150
30	40	80	-	-	-	-	-	150
30	40	80	-	-	-	-	-	150
45	60	120	-	-	-	-	-	225
224	449	449	224	-	-	-	-	1 346
467	769	993	224	-	-	-	-	2 453
-	30	60	-	-	-	-	-	90
-	51	153	-	-	-	-	-	204
-	61	122	-	-	-	-	-	184
-	6	18	-	-	-	-	-	24
-	75	150	-	-	-	-	-	225
-	50	75	-	-	-	-	-	125
-	273	578	-	-	-	-	-	852
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	153	306	-	-	-	-	-	459
3	8	10	-	-	-	-	-	20
36	89	179	-	-	-	-	-	303
-	204	612	-	-	-	-	-	816
-	102	306	-	-	-	-	-	408
-	-	102	-	-	-	-	-	102
38	556	1 515	-	-	-	-	-	2 109
-	25	-	-	-	-	-	-	25
-	-	5	-	-	-	-	-	5
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	25	5	-	-	-	-	-	30
-	18	-	-	-	-	-	-	18
-	11	-	-	-	-	-	-	11
-	2	3	-	-	-	-	-	5
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	31	3	-	-	-	-	-	34
-	28	-	-	-	-	-	-	28
-	-	9	-	-	-	-	-	9
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	28	9	-	-	-	-	-	37
586	2 007	3 568	224	-	-	-	-	6 385

Expenditures by Financiers (US$ '000)

Financing Gap								
2026	2027	2028	2029	2030	2031	2032	2033	Total
-	-	-	45	45	30	30	-	150
-	-	-	100	100	-	-	-	200
-	-	-	120	-	-	-	-	120
-	-	-	100	125	125	125	-	475
-	-	-	50	100	125	125	-	400
-	-	-	60	45	45	30	30	210
-	-	-	475	415	325	310	30	1 555
-	-	-	12	-	-	-	-	12
-	-	-	60	30	-	-	-	90
-	-	-	60	30	-	-	-	90
-	-	-	60	30	-	-	-	90
-	-	-	60	30	-	-	-	90
-	-	-	60	30	-	-	-	90
-	-	-	90	45	-	-	-	135
-	-	-	-	-	-	-	-	-
-	-	-	402	195	-	-	-	597
-	-	-	60	30	-	-	-	90
-	-	-	102	-	-	-	-	102
-	-	-	122	61	-	-	-	184
-	-	-	12	-	-	-	-	12
-	-	-	150	75	-	-	-	225
-	-	-	25	25	25	25	25	125
-	-	-	471	191	25	25	25	738
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-	-	-	306	306	459	306	-	1 377
-	-	-	10	5	8	5	3	31
-	-	-	536	357	357	232	-	1 482
-	-	-	816	816	-	-	-	1 632
-	-	-	408	408	-	-	-	816
-	-	-	102	102	-	-	-	204
-	-	-	2 178	1 994	824	543	3	5 541
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-	-	-	3	3	3	3	3	13
-	-	-	9	18	3	8	8	44
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-	-	-	3 551	2 820	1 183	893	73	8 519

Adaptation Fund								
2026	2027	2028	2029	2030	2031	2032	2033	Total
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-	-	200	200	100	-	-	-	500
-	-	30	30	-	-	-	-	60
-	-	100	100	-	-	-	-	200
-	-	300	310	-	-	-	-	610
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