

Sri Lanka

Smallholder Agribusiness and Resilience Project

Project Design Report

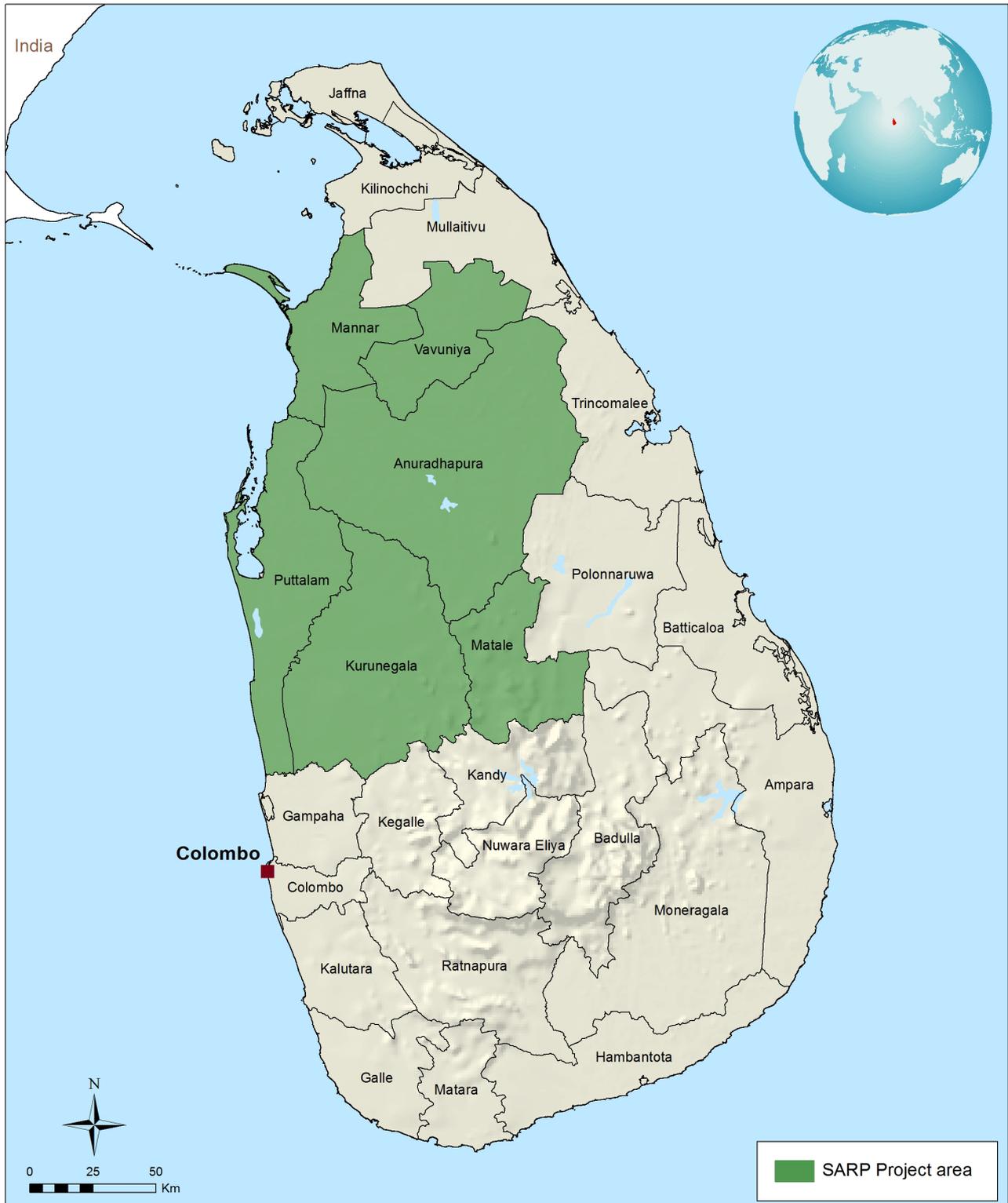
Main report and annexes

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Map of the Project Area



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 | 01-07-2019

Abbreviations and Acronyms

4P	Public-Private-Producer Partnership
ABS	Agri-Business Mentorship
ACAD	Assistant Commissioner Agrarian Development
ADB	Asian Development Bank
AF	Adaptation Fund
AG	Auditor General
ARPAs	Agrarian Research and Productivity Assistants
ASC	Agrarian Service Centers
AWPB	Annual Work Plan and Budget
BCC	Behaviour Change Communication
BMI	Body Mass Index
CBSL	Central Bank of Sri Lanka
CC	Climate Change
CGD	Chronic Granulomatous Disease
CKDu	Chronic Kidney Disease of Unknown Aetiology
COSOP	Country Strategic Opportunity Programme
CPI	Corruption Perception Index
CRIP	Climate Resilience and Improvement Project
CSA	Climate Smart Agriculture
DAD	Department of Agrarian Development
DEWN	Disaster and Emergency Warning Network
DHS	Demographic and Health Survey
DoA	Department of Agriculture
DRM	Design Review Meeting
EB	Executive Board
EMA	Environmental Management Act
ESIA	Environmental and Social Impact Assessments
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FA	Financing Agreement
FAO	Food and Agriculture Organization of the United Nations
FBO	Farmer Based Organization
FBS	Farm Business School
FFS	Farmer Field School
FIPS	Faster Implementation of Project Start-up
FMAQ	Financial Management Questionnaire
FO	Farmers' Organizations
GAP	Good Agricultural Practices
GCF	Global Climate Fund
GDP	Gross Domestic Product

GIS	Geographical Information System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GoSL	Government of Sri Lanka
HDI	Human Development Index
ICP	IFAD Client Portal
IFAD	International Fund for Agricultural Development
IOE	Independent Office of Evaluation
IUCN	International Union for Conservation of Nature and Natural Resources
IWMI	International Water Management Institute
JICA	Japan International Cooperation Agency
KC	Knowledge Centres
LPA	Lead Project Agency
MIS	Management Information System
MoF	Ministry of Finance
MoUs	Memoranda of Understanding
MPAT	Multidimensional Poverty Assessment Tool
MsAPN	Multi sector Action Plan for Nutrition
MTR	Mid-Term Review
NADeP	National Agribusiness Development Programme
NAP	National Adaptation Plan
NCCP	National Climate Change Policy
NPsC	National Project Steering Committee
NSC	National Steering Committee
PARM	Platform for Agricultural Risk Management
PEFA	Public Expenditure and Financial Accountability Assessment
PFI	Participating Financial Institution
PHM	Post Harvest Management
PID	Provincial Irrigation Department
PIM	Project Implementation Manual
PMU	Programme Management Unit
RBA	Rome Based Agency
RSP	Rural Sector Performance
SAP	Smallholder Agribusiness Partnerships Programme
SAPP	Sustainable Agricultural Productivity Programme
SARP	Smallholder Agribusiness and Resilience Project
SDGs	Sustainable Development Goals
SECAP	Social Environment and Climate Assessment
SLM	Sustainable Land Management
SMS	Short message service
SOEs	Statements of Expenditures
SUN	Scale-up Nutrition

TIU	Technical Implementation Unit
UNDP	United Nation Development Programme
UNFPA	United Nations Population Fund
UNOPS	United Nations Office for Project Services
VAM	Vulnerability Analysis and Mapping
VC	Value Chain
VTCs	Village Tank Cascades
WFP	World Food Programme
WHHs	Women Headed Households
WHO	World Health Organisation

Executive Summary

Climate Change (CC) represents a major challenge in Sri Lanka with an increasing trend towards heavier and less predictable rains, hot spells and extended dry periods. This is acutely affecting rural households in the Dry Zone region. CC is also exacerbating the effects of environmental degradation, population pressures and unsustainable land use practices with depleted land being further degraded by heavy rains and floods. The World Bank-CIAT Climate Smart Agriculture (CSA) country profile for Sri Lanka (2015) points to critical vulnerabilities related to the overreliance on rain-fed systems, limited access to irrigation systems, and limited diversification with paddy rice comprising about 46 percent of the total harvested area. Local communities have in the past managed this water stress by constructing many small cascade systems of reservoirs, transfer canals and irrigation schemes. Currently, the livelihood of a large population in the dry zone depends on small tank-based irrigated farming. A number of studies confirm that smallholder farmers cultivating under these village irrigation systems are poorer^{7 8} and more vulnerable to the impacts of climate change than dry zone farmers who have access to major irrigation. As productivity and crop yields decline with low water availability and unseasonal rains resulting from climate variability and extreme events, these farmers are dragged deeper into poverty and face food deficits, which have to be met by buying food for consumption, increasing the level of indebtedness and further eroding their capacity to cope with climate risks. In order to address the CC challenges facing the regions a request was made by Government to IFAD to address the challenges of CC on smallholder farmers whilst promoting farm commercialization.

The problem tree and theory of change has identified five factors that contribute to the persistently high levels rural poverty: (i) lack of knowledge and technical capacity of service providers and farmers; (ii) lack of access to quality inputs and effective advisory and support services; (iii) limited access to rural infrastructure (water, land, storage, feeder roads); (iv) variable rainfall distributions, intensity and rising temperature (CC); (v) poor quality of diet, and insufficient of dietary and nutritional knowledge; and (vi) a negative perception of youth in agriculture. In the Dry Zone, these factors lead to droughts and intermittent flooding, limited access to water resources, land degradation, limited access to improved technologies, weak local level capacity, limited levels of farm commercialization and a lack of interest by youth in agriculture related employment. The development hypothesis, as premised by SARP is that smallholder farmers need to address the challenges posed by the Dry Zone environment through an integrated, area based approach focusing on 'pockets of poverty' combined with a differential strategy aimed at the various categories of vulnerable households.

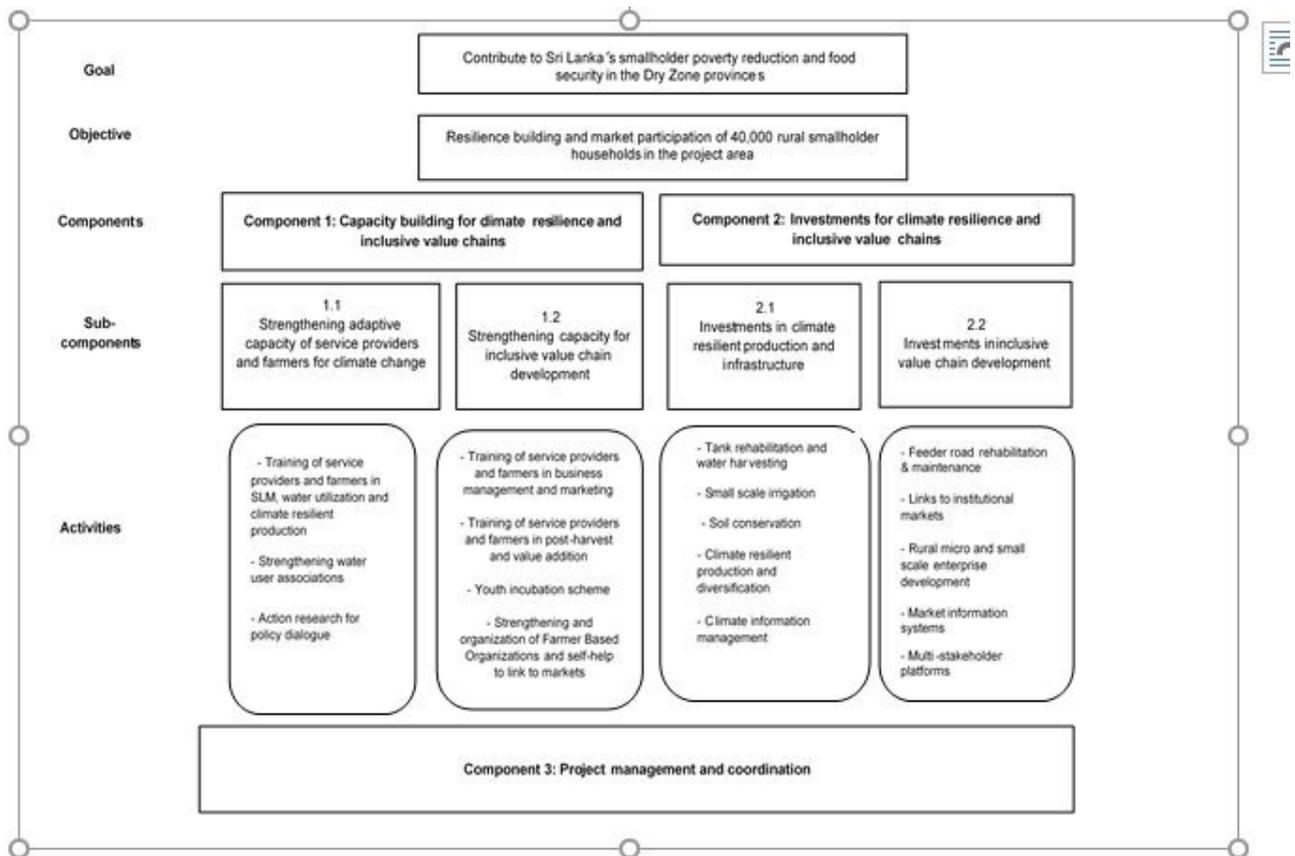
Development Objective: The goal of SARP will be to contribute to Sri Lanka's smallholder poverty reduction and food security in the Dry Zone region. The development objective is to build resilience and market participation of 40,000 rural smallholder households in the project area (180,000 persons).

Project Area: SARP will focus on priority districts in the North, North Central, Central, and North West provinces of the dry zone. The project will focus on selected 260 tanks forming water management cascades in three river basins – the Malwathu Oya, Mi Oya and Deduru Oya - identified jointly with the Department of Agrarian Development (DAD) as most vulnerable, ecologically and socially. The selected cascades are located in the so called 'hot spot' geographical areas where farmers and farming livelihoods are highly exposed and vulnerable to increasing climatic variability.

Target Group: SARP will target three categories of households – the extreme rural poor, poor with potential to sell in local markets and more commercially oriented smallholder farmers. The extreme poor include non-labour constrained households that are rain fed producers, with small fragmented holdings, and the landless. Both categories are food insecure. The main category of farmers will be moderately poor households that are economically active in agriculture and are located in cascades with minor irrigation systems. These farmers have holdings of less than 1 hectare that produce surpluses of rice, depending on the water availability and during the yala season some cash crops, albeit the level of marketed sales is usually low. The households are at risk of slipping into the lower ranks of poverty and food insecurity due to climate and economic shocks. The better-off farmers (with holdings of between 1-2 ha.) and other value chain actors are more commercially oriented and play an important role in value chain development. Other vulnerable groups include households suffering severe malnutrition, disabled persons and ex-combatants. The targeting mechanisms include: (i) geographic targeting, (ii) self-targeting; and (iii) direct targeting.

Project Components: The development objective of the project will be achieved through implementing two technical components focusing on capacity building for climate resilience and inclusive value chains (Component 1) and climate sensitive investments for climate resilience and inclusive value chains including last mile infrastructure (Component 2). Each of these components comprise two technical sub-components supported by a cross-cutting component that will service the project through effective coordination and management.

Figure 1 SARP Design Framework



Component 1 will be implemented through two sub-components: 1.1: Strengthening adaptive capacity of service providers and farmers to climate change and 1.2: Strengthening capacity for inclusive value chain development. The objective of sub-component 1.1 is to strengthen the capacity and skills of local service providers, water user associations, watershed management organizations and farmers to adapt to climate resilience. The objective of sub-component 1.2 is to strengthen capacity for inclusive value chain development through trainings in nutrition, business management, finance and marketing for Producer Organizations, Self Help Groups and individuals to improve nutrition, access markets and enhance their income.

Component 2 will be implemented through two sub-components: 2.1: Investments for climate resilient production and infrastructure and 2.2: Investment for inclusive value chain development. The objective of sub-component 2.1 is to enhance climate resilience and promote better production conditions through investments in the construction of water and land development and adaptive farm technologies. The objective of sub-component 2.2 is to increase profitability and income through investments in markets, feeder roads and service support centres for smallholder farmers, women and youth.

Component 3: Project Management and Coordination Unit (PMU) at national level will be led by a National Project Director. The PMU will coordinate SARP together with the sister project SAPP for synergy effects. Placed in the Presidential Secretariat, it will be supported by technical lead agencies under the Ministry of Agriculture that include the Department of Agrarian Development, the Department of Agriculture and the Department of Irrigation. A National Steering Committee (NSC) will provide strategic oversight. At District level, SARP will set up two hub offices in selected districts led by Area Coordinators responsible for day to day implementation.

Project Benefits: SARP will increase household family income by at least 50 percent. The overall investment would yield an ERR of 18.6 percent assuming a 70 percent adoption of new climate smart agricultural and climate resilient practices. Financial benefits will be in the form of increased cash incomes of beneficiary households. Social benefits will include a reduction in poverty rates, with special measures taken to ensure inclusion of disadvantaged groups, and increased food and nutrition security. Environmental benefits will consist of reduced land degradation through better land and water management and community forestry.

Project Costs: Total Project costs are USD 82 million (LKR 14,757 million) which include 5 percent physical contingencies and 7 percent price contingencies. The component structure of the project including contingencies is: Component 1: Capacity building for climate resilience and inclusive value chains - USD 11.6 million; Component 2: Investments for climate resilience and inclusive value chains - USD 65.4 million; Component 3: Project Management and Coordination Unit - USD 4.9 million.

Implementation Structure: The project will be executed by the Presidential Secretariat and various departments of the Ministry of Agriculture. The Secretary of the Presidential Secretariat will establish a Programme Management Unit (PMU) to manage and supervise the project. The Project Management Unit (PMU) will be led by a National Project Director, who will have overall responsibility for project implementation. The PMU will be supported by a team of technical specialists and administrative and financial support staff. Two area based hubs will be set up to provide overall coordination and oversight of all project activities within the 6 districts and ensure an adequate presence and implementation support at district level.

A Technical Implementation Unit (TIU) will be established in the District Hubs. The TIUs will have executive and technical

responsibilities and will consist of technical staff from implementing agencies at district level and contracted project staff. The Secretary to the Presidential Secretariat will oversee the SARP National Steering Committee (NSC) which will provide strategic oversight to the project. At district level coordination will be conducted through the District Multi-Stakeholder Committees. At local level, Coordination Committees will be set up at the level of the Agrarian Service Centre. Communities, individuals and women who believe that they are adversely affected by project decisions will be able to submit complaints to Divisional Grievance Committees to be set up at Divisional Level.

Exit Strategy and Sustainability: SARP has been designed in consultation with and involvement of relevant government agencies, technical line departments of the Ministry of Agriculture and development partners. These consultations and discussions have resulted in a sound approach and a suite of interventions which will be implemented with strong community participation and engagement of local officials. Building on this foundation, it is expected that the investments as well as the results of the interventions will be sustained beyond the project period and over the long term.

1. Context

A. National context and rationale for IFAD involvement

a. National Context

1. **Economic and social context:** Since the end of the civil war in May 2009, the Sri Lankan economy has grown at a steady rate, averaging 6-7 percent up to the present day resulting in significant poverty reduction.[\[1\]\[2\]](#) Real GDP growth was recorded at 3.2 percent in 2018, compared to 3.4 per cent in the previous year.[\[3\]](#) This rapid economic growth rate has led to Sri Lanka being classified as a lower middle-income country with a per capita GDP of USD 4,104.[\[4\]](#) Sri Lanka is undergoing a structural transformation away from agriculture, with agriculture accounting for 10 percent of GDP, industry for 30.5 percent and services for 60.0 percent. The shift is a result of productivity growth and accelerating urbanization. Agricultural exports as a share of GDP have also declined from 39 percent in 2000 to 21 percent in 2016. Remittances from Sri Lankan migrants abroad and tourism play an important role in offsetting any trade deficit[\[5\]](#). GDP growth, however, dropped slightly to a rate of 3.8 percent in the first half of 2017 as a result of drought affecting the agricultural and industrial sectors. However, this transformation is progressing relatively slowly and 30 percent of the labor force remain in agriculture. The population of Sri Lanka in 2018 was reported at 21.6 million, with a rural population accounting for over 81 percent of the total, the largest share in South Asia.[\[6\]\[7\]\[8\]](#) The fertility rate is relatively low compared to other countries in the region[\[9\]](#) with annual population growth in 2016 reported as 1.1 percent, below the average for South Asia.[\[10\]](#)
2. **Poverty and food security:** Extreme poverty is rarely found and is concentrated in geographical pockets. Whilst growth has contributed to poverty reduction, some 32 percent of the population remain 'nearly' poor or 'poor' with the majority living in the rural areas and estates and subsisting slightly above the extreme poverty line of USD1.5 per day. The population groups most affected by poverty are agricultural smallholders, plantation workers, underemployed and landless labourers, particularly youth and women. Youth represent approximately 24 percent of the total population, and are the group with the highest unemployment rate.
3. Sri Lanka, however, can be considered a development success story having surpassed many of the Millennium Development Goals[\[11\]](#). Absolute poverty declined from 22.7 to 4.1 percent from 2002 to 2016 while per capita consumption of the bottom 40 percent of the population grew at 3.3 percent a year, compared with 2.8 percent for the total population.[\[12\]](#) The decline in poverty was mostly due to increased earnings linked to a shift to the industry and service sectors. Sri Lanka was ranked 73 out of 188 countries, decisively higher than other lower middle-income countries.[\[13\]](#) Primary school enrolment is near universal. Secondary and tertiary enrolment has substantially increased. Maternal and infant mortality rates are at very low levels.
4. These achievements at the national level, however, hide important differences by gender, age, ethnic group and geographic location.[\[14\]](#) The 2012/13 poverty headcount index by district shows a wide disparity from 1.4 percent in Colombo to 28.8 percent in the Northern Province. Pockets of poverty can be found mainly in the North and East. The income gap, according to the Gini coefficient, is high (39.8 in 2017) in comparison to other Asian countries.[\[15\]](#)
5. Over the last three decades, the food security situation in Sri Lanka has improved significantly but in 2017 it was estimated that 900,000 people live with borderline food consumption levels.[\[16\]](#) Whilst availability of food at the national level is secure, this does not necessarily translate to food and nutrition security at household level for all segments of the population, especially the socially and nutritionally vulnerable groups.
6. **Agricultural development:** Sri Lanka's agricultural sector is characterised by plantation crops (mainly tea, rubber and coconut) and a smallholder cropping sub-sector (mainly rice, maize, fruits, vegetables and other crops). Of the country's approximately 2.3 million hectares of agricultural land, 80 percent are used for non-plantation food crops. About 1.65 million smallholder farmers operate on average less than 2.0 hectares of land and contribute 80 percent of total annual food production. The smallholder contribution, despite a declining share in GDP, remains the backbone of the agricultural sector and an important source of employment. Sectoral challenges include low and declining productivity, land fragmentation, misuse of agrochemicals (including fertilizer), which affects the water supply and food quality, inappropriate agricultural technologies, poor water management and lack of market competitiveness due to poor quality products and inadequate food safety measures.
7. There are two distinct monsoon periods associated with distinct cultivation seasons *Maha* (September to March) and *Yala* (May to August) with the latter largely dependent on irrigation. The Maha season accounts for 65 percent of the annual paddy production. Headway has been made in rice production, which has increased steadily from 2.9 million tons (2002) to 4.8 million

tons (2015). This has been in part due to previously inaccessible land being reopened for cultivation after the end of the conflict as well as the introduction of high-yielding varieties, the expansion of irrigation capacity, and policies such as fertilizer subsidies for paddy, restrictions on crop choices, and import substitution. Maize is also grown during these two seasons but on a much smaller scale.

8. **National strategies, policies and programmes:** Since the early 2000s Sri Lanka has had a series of development policy frameworks which reflect the vision of the changing governments that swing the emphasis between private sector-driven growth and continued state intervention in the economy. [17][18] These evolving visions include: 'Regaining Sri Lanka' (2002) [19], Mahinda Chintana or 'Mahinda's Vision' (2006-2016) [20] and the Vision 2025. These visions lay out pathways for creating pro-poor growth with a focus on agriculture, land and water resource management, as well as off-farm rural employment through small and medium enterprise development. Emphasis is also given to participation and empowerment of poor communities.
9. The current government economic development vision is illustrated by the Vision 2025 (2017-2025), which aims at transforming Sri Lanka into a private sector-led and export-oriented hub. It focuses on inclusive and equitable growth with targets to make the country more competitive and become an upper middle-income country raising per capita income to USD 5,000 per year. The vision for the rural sector is to increase competitiveness through improved technologies and a shift to commercial agriculture, along with food security and income increases for small farmers. It recognizes the need to address growing income disparities among income earners and geographical regions. [21]
10. In recent years the Government of Sri Lanka (GoSL) has developed a series of sectoral policies and action plans relevant for agriculture. [22] While the National Agriculture Policy launched in 2007 is in the process of being updated, the current government has developed a Food Production National Programme (2016-2018) with the primary objective of enhancing domestic production and minimizing food imports. The national programme includes: (i) enhancement of food crop production and productivity; (ii) livestock development; (iii) increased production of fisheries and aquaculture products; and (iv) promotion of plantation crop production. It also suggests attention by the Government to nutrition [23].
11. Sri Lanka has introduced broad macro policies such as the Public Investment Programme (PIP) of 2017-2020 and 'Vision 2025' National Development Framework. Apart from these broad macro policies set by the State, there are also sectoral policies such as the National Employment Policy, Child Labour Policy, Small and Medium Enterprise Policy, Skills Development Policy, Education Policy and existing labour laws that deal with the working conditions of labour [24]. The country has also ratified 40 ILO Conventions against forced labour, discrimination and minimum age [25]. Notwithstanding these measures considerable work is still needed to enforce policies and strategies that refer to rural development at decentralised level.
12. The GoSL has set key targets related to poverty reduction, including the creation of 1 million job opportunities combined with raising per capita income. For the agricultural sector in particular, the strategic orientation is to achieve sustainable improvements in production through increased productivity, sustained incomes for producers and enhanced market competitiveness. As part of these efforts, the Government has indicated a keen interest to build capacity of existing producer institutions (i.e. producer groups or farmers' organizations) to serve as a key entry point and catalyst for agricultural modernization and transformation.
13. To demonstrate the commitment towards nutrition, in 2012, the GoSL joined the Scale-up Nutrition (SUN) Movement. Subsequently, the first Multisector Action Plan for Nutrition (MsAPN) 2012-2017 was developed, emphasizing the importance of a more comprehensive, sustainable and holistic response that calls for a multi-sector approach using nutrition-sensitive and nutrition-specific programming. This strategy re-affirms that malnutrition cannot be addressed effectively by the health sector alone. The MSAPN calls for action from other sectors including Agriculture, Social protection to contribute to the national nutrition agenda. The Presidential Secretariat is currently in the process of finalizing MSAPN 2018 – 2025 – which reaffirms the position and commitment of Sri Lanka to nutrition.
14. **Key actors and institutional arrangements:** The Government's institutional framework is complex and multi-layered. The current Government is composed of over 50 ministries; there are at least six ministries that cover various aspects of agriculture with duplication of functions. [26] Agriculture extension services are weak and delivered without proper co-ordination. There are also frequent movements of departments from one ministry to another. [27] Moreover, functions and service deliveries in some areas have been devolved to provincial councils (e.g. to the Ministry of Mahaweli Development and Environment Agriculture and Irrigation) but others have not (e.g. Plantation Industries, Export Agriculture, Agrarian Development). The Ministry of Agriculture in 1972 introduced the concept of the Agrarian Service Centres in order to establish a 'one stop shop' service support. Currently, there are around 559 service centres throughout the country populated with a cadre of 10,400 animators given the title Agrarian Research and Productivity Assistants (ARPAs).

b. Special aspects relating to IFAD's corporate mainstreaming priorities

15. **Gender and social inclusion:** Sri Lanka is ranked 75 out of 149 countries according to the Gender Inequality Index. Over the last decade, the country has made significant improvements with respect to women's right. Despite the notably high achievement in terms of education a relatively small percentage of women (30.2 percent) participate in the labour market. [28]
16. Women play an important role in agriculture (in addition to their domestic and reproductive role) comprising 53 percent of the agricultural labour force (often as unpaid family labour) [29]. The traditional norms, however, are biased in favour of men, resulting in obstacles to women's equitable access to resources (land, capital— including credit) and markets, and the control of assets. Only 16 percent of all privately owned land belongs to women. Men laborers are employed to do more menial works such as land preparation and women are employed for less harder works such as planting, weeding. Among the paid agriculture labourers, women get lower wages than their male counterparts. The lack of substantial source of income and absence of assets such as land for collateral has made it difficult for women to avail high value loans that could enable them to move up the agricultural value chain.
17. There has also been a marked increase in Women Headed Households (WHHs) in post-war Sri Lanka. The 2012-2013

Household and Income Expenditure Survey showed that in Sri Lanka, 1.2 million households or 23 percent of the households are WHHs[30]. Taking cognizance of the economic and social vulnerabilities of WHHs, the Ministry of Women and Child Affairs, with technical support from UNFPA, is implementing a national action plan on WHHs. Within the SARP project, the targeting of WHHs will be aligned with IFAD's approach of supporting government programmes and policies[31]. The gender strategy in Appendix 8 details the project activities and approaches towards gender equality and women's empowerment. Some key elements of it include building programme staff capacity to deliver on gender responsive and socially inclusive programme implementation, selection of gender responsive agribusiness and climate resilient agribusiness value chains, Farm Business Schools (FBS), gender responsive M&E and gender sensitive selection of interventions. Capacity of women, youth and marginalized groups could be built through direct targeting of homestead gardening activities and farm production to local markets, as well as support to collectivised women's groups in improving marketing, participating in advanced value chains and growing rural enterprises. Women could also be empowered as change agents and gatekeepers of Natural Resource Management and rehabilitated water systems. Such interventions will maximize women's labour returns, reduce drudgery and unpaid work and support their social and economic empowerment.

18. Sri Lanka had segregated male and female farmers' organizations since the early 2000s which has resulted in limiting the scope for women to share a common platform with men and participate in equal decision-making and dialogue[32]. The general lack of social capital in the agriculture sector, commercial spaces and markets, has created barriers for women's involvement in trade and commerce. They are less involved in commercial agriculture and small and medium-scale enterprises that could raise their incomes and profits[33].
19. SARP will pay due attention to women's empowerment and voice including skills and capacities (at producer organizational level, and within communities as farmer leaders) and the promotion of economic activities best-suited to them. Particular consideration will also be given to nutrition determinants for the potential to engage with women and adolescent girls in project activities.
20. **People with disabilities:** The social inclusion strategy of SARP recognizes the vulnerabilities faced by people with disabilities. The exclusion and vulnerabilities are more pronounced for elderly, single women, widows, ex-combatants and youth with disabilities. SARP will pay specific emphasis to these groups during the community mobilization process for their inclusion in project activities. The project implementation team will be trained to ensure access and benefits of the project to people with disabilities.
21. **Indigenous People:** Sri Lanka has a small number of indigenous communities. The forest-dwelling Wanniyala-Aetto (also referred to as Vedda) comprise a very small community. Their deep-rooted connections to their ancestral lands enabled them to maintain their cultural and spiritual traditions. Currently, the entire community is in danger of extinction and has been facing the brunt of marginalisation, land grabbing, relocation and exclusion. Sinhala-speaking Veddas are found in Anuradhapura District in North Central Province, one of the project districts[34]. The project through its social inclusion strategy outlined in Appendix 8 will include them as beneficiaries if they are present in the areas of intervention. The principles of IFAD's policy on "Engagement with Indigenous people" will be fully adhered to by SARP.
22. **Youth:** Youth between the ages of 15-29, represent approximately 24 percent of the population of the country with over 75 percent of them living in rural areas. Youth continue to face challenges related to education, civic engagement, political participation and employment in particular. Unemployment for people aged between 20-24 and 25-29 is around 44 percent and 34 percent, respectively (2014).[35]
23. Sri Lanka's vulnerability to climate change has a strong impact on youth population, limiting their job opportunities and income-generating ability in agriculture. Other factors for youth unemployment include mismatched skills, limited employment creation in the formal private sector and lack of entrepreneurship. Self-employment is also constrained by a lack of business skills and financial literacy and the inability of youth to access finance. In rural areas youth who are self-employed often have little to show in terms of income and market access. The challenges of young women's participation in the labour force is even more pronounced. Whilst young male participation is around 74.8 percent, only 35.8 percent of young females participate in the labour force. The trend of departure of youth from agriculture and rural outmigration is seen across Sri Lanka. The social inclusion strategy in Appendix 8 elaborates on measures for youth's engagements in SARP.
24. **Climate and environment:** Climate Change (CC) represents a major challenge in the country with an increasing trend towards heavier and less predictable rains, hot spells and extended dry periods. This is acutely felt amongst rural households in the dry zone. CC is also exacerbating the effects of environmental degradation, population pressures and unsustainable land use practices with depleted land being further degraded by heavy rains and floods. There has been observed an increase in the frequency and intensity of climatic events over the last decades with the Dry Zone particularly affected by these natural disasters. The high incidence of land degradation as a result of the increasing intensity of rainfall, severely threatens the biodiversity of the country and has resulted in a loss of diverse species. Deforestation, pollution, indiscriminate use of agrochemicals, soil erosion, frequent floods and droughts have been identified as the main causes of land degradation. According to a report by the World Bank approximately 19 million people in Sri Lanka today live in locations that could become moderate or severe 'hotspots' by 2050 under a carbon-intensive scenario [36] Evidence of the impact of climate change is already being felt and in 2016, the country was hit by the worst drought in four decades that continued up to 2017. In the same year it experienced one of the worst floods in 14 years followed by another spell of drought in 2018.
25. CC has adverse effects on the health of the Sri Lankan population. The dry zone is characterised by a high incidence of Chronic Kidney Disease of Unknown Aetiology (CKDu). Although the exact cause of the disease has not been identified, poor water quality, the overexploitation of agrochemicals and heat stress (partly a result of rising temperatures and reduced availability of potable water) are likely major factors[37][38]. The disease has affected 11 dry zone districts with the morbidity and mortality rates highest among male farmers between the ages of 35-50, which has left women widowed and children orphaned in many areas of the dry zone[39].
26. As a response to the environmental and health challenges, the GoSL has put in place a National Climate Change Policy (2011),

as a guide for integrating CC into development planning and implementation by all stakeholders. Its main objectives are to take adaptive measures to avoid/minimize the adverse impacts of climate change on the people, their livelihoods and ecosystems, and to mitigate greenhouse gas emissions in the path of sustainable development. The National Climate Change Adaptation Strategy for Sri Lanka 2011-2016 prepared in 2010 and the National Climate Change Policy (NCCP) adopted in 2012 are the two major achievements. The National Adaptation Plan for Climate Change Impacts in Sri Lanka (NAP) 2016-2025 is the present framework for meeting the adverse effects of climate change adaptation.

27. **Nutrition:** Under-nutrition remains a concern in Sri Lanka, with around 17 percent of children under five years of age regarded as stunted[40]. Additionally 15 percent suffer from wasting, indicating a critical public health situation according to the WHO benchmark. The rate of 15 percent also positions Sri Lanka as having one of the highest prevalence of wasting in the world. More than 50 percent of children and women suffer from anaemia, with more than 9 percent of the female population affected by severe chronic energy deficiency. One in six (15 percent of children aged 6-59 months in Sri Lanka) were found to be anaemic (Hb < 11 g/dL), indicating a mild public health situation according to the World Health Organization (WHO) benchmark. Of these, over one in three (33.6 percent) were iron deficient and 7.4 percent had Iron Deficiency Anaemia[41]. This has long term implications for the country as these deficiencies can lead to significant and irreversible cognitive damage.[42] Further, among pregnant women, it was found that one in three (31.8 percent) were Anaemic (Hb < 11g/dL), indicating a moderate public health situation; one in five (19 percent) had iron-deficiency, and 9 percent had Iron Deficiency Anaemia[43]. The high rate of low birth weight (16 percent) is also a major predictor of under nutrition in children as well as poor maternal nutrition. The DHS survey found that while 9.1 percent of women of reproductive age (15-49 years) have a low Body Mass Index (BMI <18.5 kg/m²), 45.3 percent are overweight or obese. Although the level of stunting is lower than other countries in the region there are significant inter-provincial differences and variations according to income levels.[44][45] According to the RSPA, Sri Lanka's nutrition policies are prioritizing nutrition as a key national development strategy with a rank of 4.8, achieving satisfactory outcomes. The infant mortality rate has decreased from 10 to 7.5 deaths per 1,000 live births over the period 2010-2017, and life expectancy increased to 75 years. The social inclusion strategy in Appendix 8 outlines the nutrition-sensitive approach with a situational nutrition analysis of the targeted beneficiaries and activities to address it.

c. Rationale for IFAD involvement

28. IFAD has been an important partner for Sri Lanka's rural development agenda since 1977 supporting 18 investment projects, at an overall cost of USD347 million. The initial focus of IFAD investments was on increasing production, productivity and incomes of the smallholder farmers but in recent years there has been a strategic shift by the GoSL to respond to CC whilst commercializing smallholder agriculture as a sustainable driver for poverty reduction. These objectives are closely aligned with IFAD's core competencies. IFAD also has a comparative advantage given the successful experience with the previous Dry Zone Livelihood Support and Partnership Programme as well as the recently constituted Smallholder Agribusiness Partnerships Programme (SAPP) with its focus on private sector partnerships for agribusiness development, which is already showing signs of success.
29. In order to address the CC challenges facing the country, a request was made by Government to target the Dry Zone region to address the challenges of CC on smallholder farmers whilst promoting farm commercialization. This request is in line with the IOE impact evaluation findings of the Dry Zone Livelihood Support and Partnership Programme which emphasized the need for a follow-up phase from IFAD, noting that a focus on the dry zone is consistent with the current priority accorded by the Government for the modernization of agriculture.[46]
30. This is the context in which the Government recognizes IFAD as a main partner in supporting its development efforts to reduce poverty. IFAD's particular comparative advantage in support of these priorities are also reflected in the current 2015-2020 COSOP by its two strategic objectives, namely: (i) smallholders benefit from sustainable productivity enhancement in a more resilient livelihood system; and (ii) poor rural women and men are effectively connected to markets.

B. Lessons learned

31. Based on IFAD's operational experience in Sri Lanka and those of other projects in the dry zone, a number of lessons can be drawn.[47] These include:
32. **Greater coherence and strategic focus:** Strategic guidance is needed in the choice of technical and thematic areas for focus of concentration as well as the targeting of geographical areas and groups whilst addressing priority issues such as climate resilience, nutrition and youth. [48]
33. **Poverty targeting.** The agribusiness partnership focus of the IFAD project portfolio over the last decade has signified a reduced poverty focus in spatial terms with few of the public-private-producer partnerships (4Ps) covering the poorest districts. Targeting the poor in commercial-oriented initiatives has been challenging since the private partners have tended to favour areas, communities and individuals with the best productive capacity. More attention needs to be given towards making the interventions more inclusive and avoid elite capture. Elite capture will be guarded against in the project by using a variety of approaches, including: (i) close targeting (ii) working with small self-help groups; (iii) putting a ceiling, expressed as a percentage of the total amount of capital of the PO that can be lent to any individual or group; (iv) specifying that office holders of the POs cannot borrow; and (v) monitoring of elite capture by field agents during field visits.
34. **Financial services:** Formal rural and microfinance institutions were seen to be effective in providing financial services to the poor. However, IFAD and the GoSL need to be cognizant of the negative impact of subsidized interest rates credit schemes which are inefficient (credit rationing) and inconsistent with IFAD's Rural Finance Policy. Smarter approaches need to be considered which include the signing of memoranda of understanding with financial institutions and providing subsidies in the form of lump-sum matching grants as equity contributions to the borrower[49] while applying commercial interest rates for loans.

Furthermore, the design of the financial components in these schemes have tended in the past to focus more on the supply of financial services rather than the demand. A broad perspective is also needed to sharpen the focus and explore opportunities to innovate. While this lesson is important the design of SARP also calls for matching grant funding for public and collective investments, social inclusion and the testing and demonstration of new technologies and enterprises. The grants will be used as an interim instrument to co-finance productive investments and will complement and support the expansion of sustainable financial services whilst minimizing possible distortions and negative interferences.

35. **Private sector participation:** The private sector's involvement in IFAD projects has been strong and sustainable when regular supplies and volume of raw material are assured and strong strategic alliances can be made. Notwithstanding this, there has been a concern with the issue of 'additionality' [50] More efforts are needed to strengthen the strategy and operational framework to enhance and ensure that private sector partnerships impact positively the poorer rural communities and households. This calls for opportunities for public/project support to share risks and costs whilst providing incentives to leverage private-sector investment and innovation, which are less likely to occur without public investment.
36. **Linking smallholder farmers with markets:** Past projects have included measures to enhance productivity and improve market access with varied emphasis between them. Support for marketing activities needs to be comprehensive, and not ad-hoc. Interventions should be designed at several levels, including assistance to farmer organizations (FOs) and entrepreneurs in bulking of agricultural produce and the purchase of inputs, post-harvest [51] management, the provision of market information and support to micro-, small- and medium-scale processing enterprises by providing better feeder road connectivity to markets.
37. **Improved targeting mechanisms:** As noted before, poverty targeting has generally been weak due to an unclear definition of the target group and weak targeting measures beyond geographical targeting. Economic growth and reduction in poverty on the one hand, and the nature of projects that shift more to commercialization have also played a role in making poverty targeting more challenging, with problems including mis-targeting and elite capture. Sounder targeting strategies are needed.
38. **Partnership building:** Partnership building has generally been limited, in particular, with development partners for co-financing as well as strategic and technical level collaboration. It has also been challenging to develop partnerships with government line agencies beyond project boundaries, also due to the diverse portfolio and numerous lead agencies involved. Partnerships with NGOs and civil society organizations have similarly been limited, partly reflecting the historical uneasy relations between them and the Government. More effort will be needed to develop synergies, avoid duplications and ensure closer integration of donor support.
39. **Advocacy on policy issues needs to continue:** To date, country-level policy engagement has also been limited especially with regards to macro policy issues which are politically entrenched, such as land tenure and the creation of a conducive enabling environment for value chain development to promote agribusiness for youth, including access to finance. Additionally, there are meso-level issues such as the formal registration of village level societies and the fragmentation of advisory services within the public sector that have a national impact. More related to the issue of climate change is the need for a new policy that recognizes the importance of integrated ecosystem development. Addressing these issues deserves consideration not only at an individual project level but also across the entire country programme. Policy dialogue will be encouraged on targeted topics through studies and collaborative partnerships with other development agencies and national stakeholders.
40. **Local level coordination:** While the support of government staff from the different line ministries is needed, their capacity is stretched, particularly as demands for their time come from various institutional bodies and donor funded projects. A concerted and coordinated strategy is needed to avoid duplication of project activities in the same districts and divisions of the project area. Efforts to better strategizing donor support for the country are expanding.
41. **Farm Business Schools (FBS).** In previous IFAD and FAO projects FBS programmes have been rolled out in parts of the country. An evaluation of FBS activities has been conducted nationally and the concept is recognized as having been effective. FBS has proved to be a useful tool for changing participants' mind sets towards farm commercialization and agribusiness, including business oriented decision making, improved price negotiation skills and higher incomes. This is particularly relevant for women and youth as long-term and sustainable empowerment of women and youth will benefit tremendously from the educational/capacity enhancement activities. The Government is keen on extending the FBS programme to other areas.
42. **Scaling up 'good practices'.** Good practices drawn from the implementation of development projects in the dry zone should be adapted and replicated within SARP. The interventions build on the traditional Village Irrigation Systems that include village reservoirs/tanks that provide a strong, cost-effective and tested basis for interventions that build resilience in the dry zone districts. The cascade-wide/sub-basin approach to village irrigation rehabilitation has produced positive results.
43. These lessons have been fully taken into consideration in the design of SARP to improve project performance. Strategically, SARP will pursue a programmatic approach with clear interfaces and complementary activities that will lead to synergies between the three ongoing IFAD supported projects in Sri Lanka. The implementation arrangements reflect a stronger decentralized structure of 2 sub-PMU hubs each of which will cover 3 districts. This structure will ensure more effective response to local demands. The decentralised design and the partnership arrangements with UNDP and WFP, set up prior to implementation, will ensure better coordination of programme activities. Coordination mechanisms have also been set up in the institutional arrangements. SARP will, consequently, strengthen the decentralisation process of government regarded in the CSPE as one of the most positive aspects of the performance of GoSL.
44. SARP has been designed to follow a community-driven approach where different assets and complementary activities can be integrated and implemented at a meaningful scale that responds to the problems that communities identify. The project will not be implemented in isolation and mechanisms have been incorporated to both learn from the experience of relevant projects and actively seek coordination with other initiatives in the region [52] The approach places the rural communities and people at the centre of planning, ensuring a better understanding of the local context, the landscape and their livelihoods. The participatory planning process should empower the community and provide a voice to the most vulnerable people and in particular to women and marginalized groups in decision-making, implementation and management of assets created. The local level development

effort will also ensure that quality standards for assets created will be met, a critical factor to ensure their sustainability.

45. By collaborating with its implementing partners, a more strategic approach to targeting will be pursued, differentiating beneficiaries, addressing gender issues more effectively and ensuring a more systematic approach to addressing malnutrition. These have been limitations pointed out by the CSPE that have impacted on the performance of past IFAD projects. Provisions have also been made to ensure inclusiveness of beneficiaries by detailing the targeting process, providing adequate resources to ensure that individual and household mentoring support is available and capacitated. In contrast to past projects greater emphasis will be placed at household and small group level to avoid the risk of elite capture. By partnering with WFP/UNDP greater opportunities exist for “scaling up results”, which will focus on leveraging policy changes, mobilizing additional resources and learning to bring the results to scale. Deliberations are currently on-going between IFAD, WFP, and FAO to utilize SSCT funding for a follow-up RBA programme in the Dry Zone of Sri Lanka.
46. SARP will also build on the existing capacity of the SAPP in fiduciary issues and M&E and will ensure efficiencies by preparing joint auditing report. SARP will ensure that delays will be minimised at start-up by recruiting a consultant to facilitate selection and mobilisation of project staff and the preparation of background documentation and Terms of Reference for undertaking start-up studies.

2. Project Description

C. Project objectives, geographic area of intervention and target groups

47. The goal of the SARP will be to contribute to Sri Lanka’s smallholder poverty reduction and food security in the Dry Zone region. The development objective is to build resilience and market participation of 40,000 rural smallholder households in the project area (180,000 persons). Women will constitute 50 percent (90,000) and youth 20 percent (36,000) of the total beneficiaries. The duration of the project will be six years. [\[53\]](#)
48. **Geographic area:** SARP will focus priority districts in the North, North Central, Central, and North West provinces of the dry zone. The project will focus on selected cascades in three river basins – the Malwathu Oya, Mi Oya and Deduru Oya - that were identified by the Department of Agrarian Development (DAD) as most vulnerable, ecologically and socially. DAD classifies sub-watersheds and Village Tank Cascades (VTCs) according to their resilience to climate change. The selected cascades are located in so called ‘hot spot’ geographical areas covering an average of 25,000 ha., where farmers and farming livelihoods are highly exposed and vulnerable to increasing climatic variability. The criteria used for the selection of hot spots are: (a) the impact of drought and floods on crop losses and expenditures on drinking water and relief supplies; (b) the current climate vulnerability as reflected by income poverty, source of drinking water, and participation in safety net programs; and (c) future climate vulnerability based on an index of 42 indicators measuring exposure, sensitivity, and adaptive capacity [\[54\]](#). Cascades and VTCs have been tentatively selected during the design to avoid duplication of locations where the on-going World Bank projects are operating. [\[55\]](#) Additionally, decisions have been taken to include cascades and micro-catchments where synergies can be developed with on-going UNDP and WFP projects to ensure integrated watershed development [\[56\]](#).

		Cluster locations					
		District	DAD- CASCADE 1/	WFP 2/	UNDP	World Bank	River basin
Cluster 1	Anuradhapura	+	+	+	+	Malwathu oia	
	Vavuniya,	+		+		Malwathu oia	
	Mannar		+	+		Yan	
Cluster 2	Puttalam	+		+	+	Mi oia	
	Metale			+			
	Kurenagala	+		+	+	Mi oia	

Footnote: 1/ Districts where cascades selected by the Department of Agrarian Development where river basin analyses have been carried out and priority is given to development 2/ WFP is implementing its resilience project in two districts. In Anuradhapura work is being conducted on rice fortification

49. The selection of the project sites has taken into account a number of factors, but the process will be refined in the early stages of implementation. The factors include:
 - household data on poverty;
 - vulnerability and sensitivity to shocks and stresses (drought and flood);
 - food insecurity and malnutrition;
 - land degradation, agro-ecological zone (dry zone), seasonality and livelihood, prepared through the World Food Programme, Vulnerability Analysis and Mapping (VAM) system;
 - geographical advantage of working on the cascade systems and rejuvenating the water tanks with the potential to provide perennial water sources for the rural communities;
 - concentration of farmers engaged in the production of selected value chains;
 - potential for agricultural diversification, agribusiness and market access;
 - selections aimed at avoiding duplication of activities with World Bank projects and to build synergies with UNDP (5 common

target districts) and WFP (3 common target districts).

- existence of Protected Areas: the project sites must not be in close proximity/adjacent to the Protected Areas

50. These elements were overlaid in order to select tentatively target divisions within districts where WFP is operating. The hot spots and selected cascades traverse six districts in two clusters: Anuradhapura, Vavuniya, Matale, Mannar, Puttalam, Kurenagala some of which have been targeted by UNDP and WFP and others suggested by DAD. Additional work will be needed to extend to the remaining districts.

Cluster locations							
	District	DAD- CASCADE 1/	WFP 2/	UNDP	World Bank	River basin	
Cluster 1	Anuradhapura	+	+	+	+	Malwathu oia	
	Vavuniya,	+		+		Malwathu oia	
	Mannar		+	+		Yan	
Cluster 2	Puttalam	+		+	+	Mii oia	
	Matale		+				
	Kurenagala	+		+	+	Mii oia	

Footnote: 1/ Districts where cascades selected by the Department of Agrarian Development where river basin analyses have been carried out and priority is given to development 2/ WFP is implementing its resilience project in two districts. In Anuradhapura work is being conducted on rice fortification

51. Farmers located in the vicinity of the cascades are supported by extension staff located in the Agrarian Service Centres. In the selected districts there is a total of 111 ASCs that serve a farming population of more than 231,000 farm households and 11,000 producer groups. The total number of village tanks in these districts are in excess of 8,400 with a command area of 98,000 hectares. For the design purposes and in order to estimate the target number of beneficiaries around 260 tanks were selected in cascade systems that lie within and adjacent to the target areas of the partner projects (WFP/ UNDP) [57].

52. Target groups:

53. SARP will target three categories of households – the extreme rural poor, poor with potential to sell in local markets and more commercially oriented smallholder farmers. The extreme poor are non-labour constrained households that are rain fed producers, with small fragmented holdings, as well as the landless, who are food insecure. The main category of farmers will be moderately poor households that are economically active in agriculture and are located in cascades with minor irrigation systems. These farmers have holdings of less than 1 ha. and produce surpluses of rice, depending on the water availability and during the yala season some cash crops, albeit the level of marketed sales is usually low. The households are at risk of slipping into the lower ranks of poverty and food insecurity due to climate and economic shocks. The better-off farmers (with holdings of between 1-2 ha.) and other value chain actors are more commercially oriented and play an important role in value chain development. SARP will bring the better off farmers together with the moderately poor households, youth and other value chain actors into selected value chains linking them with processors and other private sector buyers. Some of the beneficiaries will be organised into watershed associations to manage on-farm water use and others into producer organizations with the potential to graduate into social and business enterprises. Other vulnerable groups including households suffering severe malnutrition, disabled persons and ex-combatants who will receive specific attention to facilitate their social integration in agricultural production and economic activities.

54. Through the cascade/ tank targeting process around 16,000 farm households have been identified as located in the command area of the tanks and a further 18,300 in upstream locations and adjacent areas. An attempt was also made to estimate the number of farm households in each category through an expert consultative process. Some 10 percent of the households were regarded as better-off and more commercially oriented, 70 percent regarded as poor with potential and 20 percent as the most vulnerable and food insecure. Using an average of 4.5 people per household, this translates into a total of around 154,000 persons. A further 5,700 beneficiary households will lie outside the catchment areas. SARP will reach at least 50 percent women and 20 percent youth as beneficiaries. The project will introduce approaches that promote gender equality, women empowerment and social inclusion. [58]

55. Targeting strategy

56. SARP will ensure the participation of the more marginal rural households, whilst being inclusive of so-called 'better-off' smallholder farmers and specific vulnerable groups. The mechanisms include: (i) geographic targeting, (ii) self-targeting; and (iii) direct targeting. SARP design includes empowering, enabling and procedural measures to promote sustainable socio-economic development with particular focus on the youth, women, indigenous people, women headed households, single women, widows and other vulnerable groups (ex-combatants and the disabled).

57. The World Food Programme's Vulnerability Analysis and Mapping (VAM) system [59] will be used to target specific numbers of sub-categories of households that could include: a) women headed households; b) young unemployed women; c) households with disability or kidney diseases as a result of CGD; d) conflict displaced/resettled persons; e) households affected by floods over the last five years; and f) families with children/women at risk of malnutrition.

58. Direct targeting will be used to choose activities, taking into consideration where the most vulnerable farmers can be found. A differential approach will be used to ensure accessibility, relevance and impacts of different technological packages for women,

men, youth, and the most vulnerable. Quotas will ensure the effective participation of the different vulnerable groups in project activities. Self-targeting will occur through participation in the Farmer Field School (FFS) and Farm Business School (FBS) and direct targeting will be used for specific activities directed to women, youth, ex combatants, the disabled and other vulnerable groups in the communities. Mentoring will be done to ensure proper participation, achievement and sustainability of interventions, especially for the extreme poor, and specific disadvantaged groups – women headed households and the disabled.

59. The combined approach has three important aspects: (a) ensure the availability of water, increasing the cropping intensity and diversifying the farming system to introduce high value priority commodities. (b) focusing on value adding activities for women and youth including post production, the provision of support, advisory and information services; and (c) reaching the extreme poor through cash for assets and other cash transfers, graduating the beneficiaries into small income generating activities and building capacities.
60. An effective and well-defined community mobilization process will facilitate the inclusive and effective delivery of SARP activities. It will ensure that the project is able to effectively target and fully engage its intended beneficiaries. It will also enable project activities to be fine-tuned to respond to the local context, opportunities and the priorities of the households. The project's social mobilization and inclusion approach will involve selecting community mobilisers for each target community (50 percent women and 20 percent youth) from within the local communities. These mobilisers will be supported by Social Inclusion and Gender Facilitators trained and tasked with using PRA techniques to undertake social and economic mapping of the communities to identify project beneficiaries for different activities and ensure their inclusion in project activities. The community mobilization team will be key to mobilizing and incentivizing the community to participate in project activities, build the capacity of women and men farmer groups to function more effectively and delivering empowerment and nutrition training as well as establishing an effective communication channel between the project beneficiaries and project implementers. The community facilitators will be supported by community development service providers and project staff working at the Agrarian Service Centres.
61. Gender and Targeting checklists used for the SARP design will be adapted and used in implementation. (see Appendix 1).
62. **Value chain development**
63. A part of the project targeting and inclusion strategy is the sound selection of the suitable commodities to be supported. Potential commodities include goat, dairy, chili and fruit and vegetables and more specialized crops such as aloe vera and morenga. The range of commodities are broad reflecting the diverse and risky environment where a wide range of commodities are needed to mitigate the risks of climate change. The more specialised crops have currently limited coverage but a high potential. Flexibility will also be needed to allow additional VCs to be added during project implementation, as new opportunities can arise and market dynamics can change quite rapidly.

D. Components/outcomes and activities

64. **Project components:** The development objective of the project is expected to be achieved through implementing two technical components focusing on capacity building for climate resilience and inclusive value chains (Component 1) and climate sensitive investments for climate resilience and inclusive value chains (Component 2). Each of these components comprises two technical sub-components, respectively, supported by a cross-cutting component that will service the project through effective coordination and management. The project design is illustrated in Figure 1 in Appendix 8.
65. The project will pursue its objective through four major outcomes:
 - Outcome 1: Strengthened capacity of producer organizations and watershed associations supported to manage climate risks - 182 associations.
 - Outcome 2: Strengthened capacity of women, youth, group organizations and social enterprises to manage enterprises in a financially profitable and sustainable way - 400 groups/organizations
 - Outcome 3: Smallholder households reporting improved access to water and land– disaggregated by gender and age – 10,450 households
 - Outcome 4: Smallholder farmers, women and youth managing profitable farm and non-farm enterprises – 6,400 persons
66. See the Logframe in Annex 1 for a more complete overview of the design.
67. The components are summarized below, with further details presented in the Project Implementation Manual.
68. **Component 1: Capacity Building for Climate Resilience and Inclusive Value Chains (USD10.5 million)**
69. Component 1 will be implemented through two sub-components, each with specific activities which are outlined below.
70. **Sub-Component 1.1: Strengthening adaptive capacity of service providers and farmers to climate change**
71. The objective of sub-component 1.1 is to strengthen the capacity and skills of local service providers, water user associations, watershed management organizations and farmers to adapt to climate change/build climate resilience. This capacity building component will ensure effective implementation of sub-component 2.1 whilst contributing to policy dialogue. It will include a number of interrelated activities intended to improve service delivery by strengthening the human resource capacity of service providers and farmers to mobilise the community to prepare natural resource management plans, adapt to climate change through the use of climate smart technologies and have the skills and know-how to diversify livelihoods.
72. Activities include:
73. **Community Organization, Planning and Mentoring:** This activity is designed to improve the capacities of local level actors - field officers, farmer organizations and women's groups - to develop integrated climate-risk informed water management plans for 260

tanks. The plans and guidelines will be implemented through mobilization of cascade level water committees that will include men, women and youth from communities and the local field officers. The activity invests in training of trainers (for provincial and district officials and ASCs) and farmer training programmes to ensure design, implementation, and O&M of climate-resilient village irrigation schemes. The planning process will be complemented by seasonal livelihood analyses and community participatory planning to support the development of a climate resilient community plan. A social mobilization process will be followed that develops self-reliance among community members. A cadre of Agro-enterprise Promoters will be responsible for enterprise development supported by Social Inclusion and Gender Facilitators to reinforce the work of local service providers that would be responsible for community organization and the establishment of farmer organizations, self-help groups and other organizational forms. The support staff will be selected from Dry Zone districts and will support contracted service providers responsible for social mobilization, group formation/strengthening and household mentoring.

74. **Climate Smart Technologies:** Climate smart agricultural technologies will be promoted through the Farmer Field School (FFS) methodology[61]. The FFS approach will be facilitated by government and project technicians, service providers and lead farmers. The DoA Agricultural Instructors (AIs) and DAD Agrarian Research and Productivity Assistants (ARPA) will be trained to deliver FFS services. Backstopping mentoring and coaching support will be available from a Core Team of Trainers and experienced staff of national service providers (NGOs). The project will also provide technical assistance support through the recruitment of national agricultural officers supported by a national expert with experience in the FFS approach. The training programme will also invest in awareness raising, knowledge generation, and learning for climate-risk management including understanding and analysis of impacts and options for adaptation in the context of water management and agriculture planning. Approximately 300 schools will be established for 6,000 Dry Zone farmers.
75. **Livelihoods Resilience Building:** The skills and capacities required amongst women in particular will be strengthened to ensure that communities become more resilient to climate-related shocks and that the necessary support services to communities and households will be readily available. The capacity building programme will support the diversification of livelihoods amongst the more vulnerable households by building their capacity for resilience. It will involve a three step process of (i) awareness raising of the potential benefits livelihood activities, (ii) experiential training workshops and (iii) exposure visits to successful enterprises for knowledge sharing and learning from practitioners. A possible menu of interventions that includes aquaculture, livestock development and other diversified activities has been defined. A total of 550 short training programmes have been planned.
76. **Nutrition Education and Training:** Nutrition has been mainstreamed in SARP through a multi-pronged and nutrition-sensitive approach that includes selection of nutrition sensitive value chains for dietary diversity, inducing behavioural change and more general capacity building[62]. Poor dietary diversity will be addressed by increasing the availability and consumption of nutritious and diverse foods and enhancing income to ensure healthy eating and improved family diets. Outcome The focus will be on training extension workers and service providers to understand the relevance of better nutrition to climate resilient productivity and livelihoods diversification. Evidence informed Behaviour Change Communication (BCC) activities, adapted from WFP's on-going work, will be implemented in all 6 districts to complement and promote positive behaviour changes related to improved nutrition and diet quality.
77. **Action Research for Policy Dialogue** SARP will take the integrated ecosystem development approach as an example of what can be accomplished if quality implementation is achieved. This approach, if effectively conducted, should be viewed as a paradigm shift for the project in that it promotes an integrated, holistic approach to enhancing water and land management through the interconnected elements of irrigation systems, soil conservation, agroforestry combined with improved farming practices. It will be the first time that an integrated approach to catchment management is being advanced incorporating climate change concerns, understanding linkages across river basins/sub-river basins, and including multiple uses of water. Policy dialogue will be conducted on the approach followed by SARP and other projects relating to integrated watershed development.
78. **Preliminary Studies:** A process for the selection of sub-basins and tanks will be followed to ensure the maximization of the returns on water infrastructure investments. The approach to be followed involves a combination of socio-economic and biophysical data. The methodology will follow three steps: i) an assessment of the water availability in the sub-catchments/ tanks; ii) an analysis to see if the available water quantity is sufficient to meet the existing demands for water from different sectors (irrigation, drinking water, environment, etc.); and (iii) detailed hydrological and water allocation modelling of the sub-basins selected. The last step in the process involves a checklist to verify the sociological, economic, technical, institutional and environmental suitability of the sub-basins/tanks as a guide for The programme of work is expected to be spread over two years.
79. Other preliminary studies expected to be undertaken for start-up include a) a Climate Risk Analysis consultancy; b) preparation of the Environmental and Social Mapping Framework; c) VAM targeting and planning to be conducted by WFP.
80. **Micro and Weather Insurance:** Currently, in Sri Lanka only 2 percent of all farms are covered by weather index insurance policies. To fill this gap, SARP will build on work undertaken by the GIZ funded, Small and Medium Enterprise project in collaboration with Sri Lanka's Agricultural & Agrarian Insurance Board (AAIB) and the Global Index Insurance Facility (GIIF) in the field of commercial agricultural insurance. The project has introduced innovative technologies utilising drones and satellite imagery for claims assessments. This is combined with the digitization of insurance policies and claim processes through the development of a mobile app which has already shown first results in the Dry Zone. There are considerable opportunities for SARP to extend the innovations to other parts of the Dry Zone under a public-private-producer partnership (4P) arrangement that aims to introduce weather index based insurance combined with a price-index model for farmers to be assured of minimum prices for crops produce sold.
81. The IFAD hosted Platform for Agricultural Risk Management (PARM), which embeds the Weather Risk Management Facility will provide the insurance sector with capacity development and TA together with other development organizations in Sri Lanka (GIZ, Desjardins and FAO) to bring tested innovative crop insurance schemes to scale. IWMI will also be viewed as a potential partner building micro insurance systems from its existing flood and drought monitoring systems to manage water risks at farm, tank and project-wide levels. Building on the flood and drought monitoring systems developed and supported by IWMI, the organization could support implementation of index-based agricultural insurance for water-related risks, as well as associated innovations in

bundling of insurance products with climate information services for farmers and seed technologies. At the initial inception phase of implementation these potential services will need to be aligned with the needs and priorities of SARP.

82. **Sub-Component 1.2: Strengthening capacity for inclusive value chain development**

83. The objective of this sub-component is to strengthen capacity for inclusive value chain development and value chain participation through trainings in business management, finance and marketing for producer organizations, Self Help Groups and individuals. This aims at improving their access to markets and enhancing their profitability and income. The Farm Business School methodology will be used as a main instrument for reaching target households within the community.[63] The skills and capacities of ARPAs, service providers and the agro-enterprise promoters will be developed to ensure that the necessary support to communities and households will be available to help them become more market oriented. Inclusive business models will be designed and developed linking farmer based organizations to agribusinesses through contractual processes (4Ps).[64] This sub-component will provide the essential capacity building to ensure effective implementation of subcomponent 2.2.

84. Activities include:

85. Farm Business School: The FBS methodology will be used as a main instrument for reaching target individuals – men, women and youth - within the community. The skills and capacities of field level staff, social mobilisers and agribusiness facilitators will be developed to ensure that the necessary support to communities and households will be available to help them become more market oriented. This will be done through a Training of Trainers programme with backup coaching support from a Core Team of Trainers. Some 75 schools are expected to be conducted. Farmers undertaking the Farmer Field Schools (sub-component 1.1) could graduate to the FBS programme. Inclusive business models will be designed and developed linking FOs to agribusinesses through contractual processes[65]. Activities will include the training of agro-enterprise promoters in group organization, business management and marketing.

86. Skills Development Training for Youth: Support will be given to develop a youth incubation system to address the various challenges of youth participation in agriculture/agri-business. SARP will use innovative interventions, such as Advanced Agri-Business mentorship (ABS) through incubators and access to financial services. Youth led groups or SMEs will be linked to the Enterprise Sri Lanka programme which offers loans to finance product upgrades, volume increases and new product development, supported by business service providers/coaches to assist them to develop business plans.[66][67]

87. Market Appraisal, Post-harvest and Value Addition: Activities will include developing the technical skills of women, youth and the most vulnerable households through practical training in post-harvest management and GAP. Training activities will include piloting and demonstrating new post-harvest management and value adding technologies. Training programmes will be designed for District and ASC technical and extension staff who will be expected to organize a cascade training programme for farm households in all 6 districts. Some 20 training programmes at field level will be organized. Entrepreneurs with successful value adding businesses will be invited as resource cum training persons.

88. National Policy Engagement: Policy engagement will also be encouraged on the issues of youth employment in agriculture and micro-insurance ecosystem development. As part of the integrated approach to smallholder agribusiness and resilience development, micro-insurance can build resilience against and transfer risks from the smallholder households. SARP will seek to combine insurance with other financial and non-financial services and to create public-private-producer partnerships (4Ps) between the GoSL and the financial sector, particularly public and private insurers and agribusinesses To support an enabling environment for insurance programme designs and sharing lessons for scaling-up, the project will also promote the inclusion of micro-insurance products (e.g. crop, weather-index or price index insurance), technologies (e.g. satellite image based or mobile app-based) and models (e.g. agent insurance) in national strategies.

89. **Component 2: Investments for Climate Resilience and Inclusive Value Chains (USD 58.2 mill)**

90. Component 2 will be implemented through two sub-components, each with specific activities, which are outlined below.

91. **Sub-Component 2.1: Investments for climate resilient production and infrastructure**

92. The objective of this subcomponent is to enhance climate resilience and promote better production conditions through investments in the construction of water and land development infrastructure and adaptive farm technologies. Different types of investments will be supported including: a) water resources development including small scale irrigation, b) sustainable land management and c) climate resilient farming practices.

93. Activities include:

94. Cascade Water Resource Infrastructure Development: Co-financing will be used to support the design and upgrade of Village Irrigation Systems, incorporating elements to enhance the resilience of these systems to climate change risks and impacts. About 260 village irrigation systems, including the upstream catchments, will be upgraded based on cascade level natural resource development plans. The interventions to upgrade the irrigation systems include: (i) reforesting the watershed (ii) restoring the reservoir bund (dam), spill, sluice and canals supplying the fields, and (iii) de-silting the reservoir bed. These upgrades will incorporate climate risks and combine traditional and new design elements and practices including partial de-silting to deepen reservoirs close to the bund and retain more water during dry seasons, intensified reforesting of the catchment with multi-purpose trees, creating ponds and diversions for run-off capture in the catchment. Interventions to redress land degradation will include undertaking soil conservation measures (bunds and contour drains) and agroforestry measures to prevent erosion. Catchment organizations will be set up and supported to ensure sustainability and to avoid possible conflicts. Cash for Assets will be used to engage the most vulnerable households related to water tank renovation and maintenance drawing on the experience of WFP[68]. Interventions will be identified through the participatory catchment/ natural resource management planning. Grants of up to \$10,000 per cascade would be offered to support soil and water conservation and forestry activities.

95. Household Water Harvesting, Irrigation and Soil Conservation: Household level measures will include creating small ponds or tanks in home gardens to capture intense rainfall, low-cost drip irrigation technologies that will be easy to operate and maintain. These and other small scale water harvesting structures will be developed to increase water quality and availability for multi-purpose usage. Low cost drip irrigation systems and domestic water harvesting measures at household level will be appraised following the preparation of sub-project/ micro project proposals. WUGs will be set up or existing groups strengthened to ensure sustainability in management and to avoid potential conflicts.
96. Household Resilience and Nutrition: Supporting activities at household level will include the development of multi-purpose home gardens, nurseries, aquaculture and small scale livestock development (goats and dairy cows) and other income generating activities as part of a livelihoods diversification strategy. Income generating activities will be adapted to the needs of each of the target beneficiary categories. [69] Matching grants in the form of small livestock will be offered to the more vulnerable households with limited access to land and the means to graduate from the Cash for Assets interventions. The beneficiary contribution will vary between 10 to 30 percent depending on household selection criteria based on level of vulnerability. Consideration will also be given to setting up 120 nutritive rich home gardens in collaboration with WFP. Households that will receive commercial home gardening support will simultaneously receive technical support to produce nutrition dense products for home consumption. This activity will be complemented by the Behaviour Change Communication (BCC) activities referred to under sub-component 1.1
97. Activities relating to household resilience cater for low cost livelihood activities for the most vulnerable households. Contributions from beneficiaries are considered to be low covering labour and some materials. Beneficiaries will be eligible to request grant support either individually, as partnerships or as small groups. A ceiling of \$1,100 per person has been set based on the experience of other livelihood projects with similar activities in the Dry Zone.
98. Climate Resilient Farming Practices: Climate resilient agricultural production will be introduced as part of the cropping system to increase the cropping intensity of the farming system. Since productivity is still low and land degeneration is high, farmers' organisations and producer groups will be strengthened (apart from capacity building on better production methods and pest management) for access to risk mitigation measures and existing subsidy schemes to ensure better adoption of techniques from FFS to actual farms. In-kind grants for seeds and tools will be given to smallholder farmers combined with fertiliser through the government subsidy programme, supplemented by agricultural extension support. The intervention will be accompanied by the capacity building efforts to ensure sustainability of activities (Subcomponent 1.2). Approximately 30,000 farm households will be targeted for this activity.
- 99. Sub-Component 2.2: Investment for inclusive value chain development**
100. The objective of this sub-component is to increase profitability and income through investments in markets, feeder roads and service support centres for smallholder farmers, women and youth. Building capabilities of producers and groups through technical assistance, business skills training, social mentoring and producer group coaching will equip individuals and households to become resilient, reliable and successful actors in selected value chains. As such, participants will be able to make successful investments in their farm or non-farm enterprises informed by market and climate adaptation considerations.
101. Feeder Road Rehabilitation and Maintenance: Connectivity to local markets through feeder road rehabilitation, storage facilities and other market infrastructure is an essential prerequisite for market access. Investments will be made to improve the condition of existing feeder roads in the vicinity of the catchment areas to access off-farm water infrastructure and agricultural markets. Access road rehabilitation will upgrade existing access tracks and pathways in the vicinity of the water tanks and will not exceed 10 km in length for any single track. Road infrastructure investments will not involve farm land expropriation and clearing.
102. Road gangs will be formed for road rehabilitation, and local road maintenance plans will be prepared. Activities will include rehabilitation of drainage, construction of structures and set up of road maintenance mechanisms employing the most vulnerable households in temporary employment. The design will adopt innovative climate smart solutions and also promote good environmental management. The interventions will comply with the Environmental Management Act (EMA), the Guidelines for Environmental Impact Assessment and IFAD's SECAP requirements. SARP will scale-up the on-going sustainable district road maintenance system through road maintenance groups, which are to be set up in collaboration with WFP. For sustainability, the GoSL and IFAD will initially co-finance road maintenance works on a phased-out basis, such that the GoSL will finance the full costs by the third year of the programme.
103. Agrarian Service Centres and Agrarian Banks: 30 Agrarian Service Centres (ASCs), which serve clusters of villages, will be taken transformed into one-stop-shop facilities for advisory and support services (Knowledge and Service Centres). ASC staff in each target area will be trained to deliver integrated planning and implementation services for climate smart water and agricultural management in cascade systems. While the ASCs were designed to provide various services required by the farmers in a coordinated manner, their weaknesses— such as lack of trained advisors, lack of funding, lack of modern equipment like computers and software like GIS - prevent such services from being provided in an efficient manner. In conjunction with government co-financing, this activity will also develop capacities (training and equipment) of ASCs to undertake scientific crop selection with farmers and the Department of Agriculture through soil testing and input management. It will implement improved soil testing facilities to support farmers to rationally select crops, inputs and climate-smart practices according to soil conditions. It will also support the development of a suite of climate resilient agronomic practices in upstream home gardens, upland farm fields and downstream-irrigated fields. In respect of the Knowledge Centre (KC) focus, the ASCs will be equipped with digital connections, facilities to link with markets, weather information sources, etc. They will also act as meeting and learning hubs, host training programmes on various subjects and disseminate climate and weather forecasts, market information, training materials and other capacity building information. The establishment of these ASCs may provide employment opportunities for under-represented individuals/groups of the community (especially youth and women).
104. SARP will work together with 20 selected Agrarian Banks primarily to strengthen their technical and financial capacity at the level of village clusters in the six project districts. It is expected that the Agrarian Banks, which are required to meet minimum performance criteria, will receive additional liquidity by the Agrarian Development Division of the MoA to strengthen their capital

basis and expand their lending portfolio. On the basis of an institutional assessment (technical, operational, financial), SARP will render support to strengthen their delivery capacity. Qualified local partner institutions, such as the Institute of Bankers of Sri Lanka and Centre for Banking Studies of Central Bank of Sri Lanka, will be contracted to provide capacity development services based on a rigorous needs assessment. Staff training and technical assistance may be centred around risk management, loan portfolio management, management information system, etc.

105. Market Infrastructure and Stakeholder Platforms: Market infrastructure will be provided at district and ASC level in the form of construction of local markets, farmer's markets and platforms for value chain stakeholders to convene. Investments will include collection points, storage and package facilities.
106. Youth and Women's Enterprises: Combinations of matching grants and loans will be offered to youth, women, able bodied persons, and entrepreneurial small farmers to provide commercial goods and services (input supplies, mechanization, spraying, transportation etc.) to farm households. Innovative technologies, particularly with respect to resilience by individuals and agri-entrepreneurs will be promoted. Agri-machinery and equipment for hire service providers is seen to be an attractive and feasible source of income for young entrepreneurs and will be supported by youth employed in repair workshops. Other potential businesses for youth and women flourishing in the Dry Zone are protected agriculture, quality seed production, semi commercial dairy and goat production. Small post-harvest management (PHM) investment grants will also be offered to households to fund investments in post-harvest and value adding technologies.
107. A youth incubation scheme in collaboration with the private sector will be pilot-tested. Youth will be eligible to receive the grant/ loan combination up to a limit on graduation from the incubation scheme. Approximately 1,200 businesses will be supported with start-up financing for their business plans, in the form of credit and start-up funds (matching grant). Some of these investments are envisaged as partnerships and/ or for small groups. The grants will be offered by SARP as investment financing with loans potentially available through the Agrarian Banking system and other Participating Financial Institutions (PFIs), including those participating in the Enterprise Sri Lanka Programme by the Department of Development Finance. SARP will work closely with SAPP to develop 4P business models^[70]. SAPP will also render technical support to PFIs under the Consolidated Revolving Fund managed by the Central Bank of Sri Lanka (CBSL) to explore innovative technology applications, such as a new debit card, commonly known as "farmer card", service delivery through agency banking and VC finance solutions specifically for the dry zone beneficiaries.
108. Market, Weather and Climate Information Services: SARP will assess the need to support the generation of market, weather and climate information and its timely dissemination. The aim will be to provide market information which will go beyond commodity pricing but will focus to aid smallholder capacity to plan better and identify available market opportunities. The market information needs will be determined and tailored to specific products in geographical The system will incorporate weather and climate information for better farm planning. This inclusion of climate information will complement the institutional capacity and financial barriers that UNDP has faced undertaken through their GCF funded project. SARP will complement the work being implemented by UNDP by developing a multi-purpose SMS/mobile communication tool that includes market information and weather information and that can be translated into local languages. Attention will be given to the dissemination of advisories through mobile platforms (using the DEWN system operated by Dialog telecom). A lump sum allocation has been set aside to develop the SMS/mobile communication tool through engaging the private sector in a cost sharing partnership.

109. The livelihoods development pathways are summarized in the table 1 below.

110. **Table 1: Beneficiary Targeting and Livelihoods Development Pathways**

Category of beneficiaries	Characterization	Individual/ group organisation	Activities	Livelihoods development pathways
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<p>Most vulnerable 20 percent of potential beneficiaries (focus on women and disadvantaged)</p>	<p>Covers the most vulnerable and food insecure households of which a significant group is disadvantaged due to their economic and social exclusion. This category includes people with physical and mental disabilities as well as the landless and marginal farmers</p>	<p>- Individual households - Informal self-help and other interest groups</p>	<p>Cash for work employment Goat rearing Backyard poultry Trading Casual labour (on-farm and off farm) Income generating activities (e.g. Mushroom cultivation for disabled) Community forestry on communal land (for landless labourers) Fingerling cultivation Functional literacy programmes</p>	<p>Cash for work/ assets are offered to satisfy the short term seasonal cash and food deficits of the most vulnerable households over the Yala season. This intervention will be supplemented by casual employment opportunities in communal activities – fingerling rearing and community forestry. Households will also be eligible for small enterprises as part of a graduation process from the employment options. A prerequisite to the provision of income generating activities will be to participate in functional literacy programmes where needed. Some of the elderly and disabled will be supported by group managed safety nets and intra-household management arrangements.</p>
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<p>Poor with potential for integration into value chains – 70 percent of farm households</p>	<p>This category do not produce enough to cover their food needs at times of climate shocks. The households are essentially characterized by: (i) low production and productivity of the main crops (rice, maize etc.); (ii) vulnerability to climate change; (iii) lack of or low access to production factors (land, improved inputs, water and capital); (iv) limited access to mechanization; (v) weak organizational capacity; and (vi) low income levels.</p>	<ul style="list-style-type: none"> - Incipient producer/ self-help/ interest groups - Mature POs or farmer organizations 	<p>Farming activities - climate smart technology testing</p> <p>FFS programmes – group technology demonstrations</p> <p>Post-harvest management technologies & value adding enterprises</p> <p>Nutritive rich home gardens for household needs and linking to school feeding</p> <p>Mixed commercial/ subsistence home gardens</p> <p>Commercial level backyard poultry & semi-intensive goat and dairy production</p> <p>Aquaculture</p> <p>FBS programmes for market-oriented farmers</p>	<p>The goal for this group is to stabilise production through the more efficient use of water and the introduction of climate-smart technologies. By increasing the regularity of supplies and the quality and volume of agricultural production stronger links will be made to market outlets.</p> <p>Interventions will aim at assisting economically active smallholder farmers (including farmer groups) to accelerate their transition to commercially oriented and market led production and value addition.</p> <p>This broad category suggests two pathways depending on the level of entrepreneurship amongst individual households: a) less market oriented with activities targeted towards food accessibility and utilization (nutrition); and b) more market-oriented with a focus on access to food. The second group of farmers will be eligible to participate in the FBS programme.</p> <p>Initially produce will be marketed locally through informal value chains. Some of the more entrepreneurial farmers will integrate their activities into more formal value chains and will target regional and central markets</p> <p>FBS graduates could be included in a more advanced training programme to develop further their entrepreneurial skills</p>
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<p>Better off households – 10 percent of total beneficiaries, POs/ FOs and other VC actors</p>	<p>Households could have up to 2 ha of farm land and a proven ability to produce for the market. Households are able to access agricultural inputs and mechanical traction and operate irrigated or partially irrigated systems.</p>	<ul style="list-style-type: none"> - Individuals - Partnerships 	<p>Commercial farming activities</p> <p>Value adding activities</p> <p>MSE's</p> <p>FBS to develop entrepreneurial skills</p> <p>Commercial horticulture</p> <p>Commercial dairying and poultry production</p> <p>Specialised crops under protected agriculture</p>	<p>This category includes the water management objective of the poor with potential, to ensure volume and regularity of supplies.</p> <p>The strategy supports inclusive investments in farm and non-farm micro and small enterprise development along selected value chains through supply and demand-side interventions to increase the volume and quality of output. Farm-household members will be eligible to participate in advanced FBS programmes. Business management and marketing training programmes will be offered to the management of cooperatives and producer organisations to strengthen their capacity for sustainability.</p> <p>Commercial partnerships between POs/ FOs through linkages with the private sector will be facilitated by the project with links to SAP.</p>
<p>Youth</p>	<p>Amongst youth interest in agriculture is diminishing as it fails to bring a respectable and secure income. The lack of incentives in the agricultural sector (lack of land and capital to invest) lead to a large number of rural youth migrating to urban areas in search of formal employment.</p>	<ul style="list-style-type: none"> - Individuals - Partnerships - Small groups 	<p>Support service enterprises commercial goods and services (input supplies, mechanization, spraying, transportation etc.)</p> <p>Protected agriculture, quality seed production, semi commercial dairy and goat production.</p>	<p>The strategy is to develop an incubation system to address the paucity of youth skills in farming and related value chain activities. Both technical and entrepreneurial skills of young people will be developed culminating in the preparation of business plans for priority value chains.</p> <p>Agricultural machinery and equipment for hire service providers have been seen to be an attractive and feasible source of income for young entrepreneurs and will be supported by youth employed in repair workshops.</p> <p>Youth who graduate from the incubation scheme could decide on self-employment business ventures or alternatively salaried employment</p> <p>Amongst the more entrepreneurial youth opportunities will arise to engage in higher level entrepreneurial activities as individuals, partnerships and youth groups</p>

Women	This includes women heads of household, widows and young women that are socially, culturally and economically disadvantaged but responsible for ensuring the well-being of their families and agricultural activities. Many women-headed households regard farming as an important option. They, however, face the following challenges: (i) unequal access to resources (land, water, credit); (ii) lack of business development and management skills; and (iii) limited voice, leadership and decision-making capacity in farmer organizations and other groups.	<ul style="list-style-type: none"> - Individuals - Partnerships - Small groups 	<p>Women – post harvest and value adding labour saving activities</p> <p>Small livestock development</p> <p>Nutrition rich home gardens</p> <p>Commercial agroforestry/ home gardens</p>	<p>The project will promote targeted activities for women organized into groups for processing (using labour saving technologies), marketing and service provision. Specific training to enhance women's empowerment and effective participation in activities and household welfare will be included in the FBS curricula. Other activities targeting women concern nutrition, where women are at the centre of food preparation for the family.</p> <p>Women could embark on the different pathways as described in the categories above.</p>
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111. **Implementation arrangements:** Sub-components 2.1 and 2.2 will be implemented through matching grants, loans and combinations of the two. The matching grants will be put in place to address partially the financial constraints of the target groups to enable them to procure the necessary inputs, equipment and infrastructure. The matching grant targeting, eligibility, management, level, type of investment, disbursement and monitoring procedures are detailed in the table below.

112. **Technical Assistance:** Technical and facilitation assistance will be provided for: (i) training of IA, ARPA, NGO service providers community and farm leaders as required; (ii) facilitation of the participatory planning and implementation processes for community-level and group-based micro-projects and verification of eligibility of communities, groups and their proposed investments; (iii) technical assistance for the screening, assessment and design of proposed investments, such as technical, financial, economic, social and environmental feasibility, as well as (iv) preparation of business, operation and maintenance plans.

113. SARP's policy on grants and loans is given in Table 2 below. Find details of the implementation arrangements for grants and loans including ceilings community and individual grant ceilings in the Project Implementation Manual in Annex 8.

114. **Table 2. Policy on grants and loans**

Category of beneficiaries	Indicative maturity of group organisation	Grant/ loan policy	Rationale	Objective
<p>Most vulnerable 20 percent of potential beneficiaries</p> <p>(focus on women and disadvantaged)</p>	<ul style="list-style-type: none"> - Individual households - Informal self-help and other interest groups 	<p>Cash for assets schemes</p> <p>Grants with 10 percent beneficiary contribution</p>	<p>Social protection</p> <p>Social inclusion</p> <p>Households do not have access to loan financing</p>	<p>Safety net to satisfy short term seasonal cash and food deficits over the Yala season. Households will be eligible for small enterprises as part of a graduation process</p> <p>Activities relating to household resilience cater for low cost livelihood activities for the most vulnerable households. Contributions from beneficiaries are considered to be low covering labour and some materials.</p> <p>Beneficiaries will be eligible to request support either individually, as partnerships or as small groups. A ceiling of \$1,100 per person has been set based on the experience of other livelihood projects with similar activities in the Dry Zone.</p>

<p>Poor with potential for integration into value chains – 70 percent of farm households</p>	<ul style="list-style-type: none"> - Incipient producer/ self-help/ interest groups - Mature POs or farmer organizations 	<p>Combinations of matching grants for investments and loans for working capital</p>	<p>The majority of these farm households do not have access to loan financing and/ or the level of financing will only contribute to working capital requirements</p> <p>For the farming activities grants are offered for demonstrating climate smart technologies.</p>	<p>Assist economically active smallholder farmers (including farmer groups) to accelerate their transition to commercially oriented and market led production, and value addition; and provide resources (up to 70% with the recipient contributing 30% in cash or in-kind) to purchase productive assets.</p> <p>Additional loan financing may in some instances be available through the Agrarian Banks (and other PFIs) albeit at a limited ceiling for working capital</p> <p>For well organised POs/ FOs support partnerships with the private sector through linkages to SAPP.</p> <p>A ceiling of \$5600 per household has been set for some activities although the average micro-project cost is around \$3000.</p>
<p>Better off households – 10 percent of total beneficiaries, POs/ FOs and other VC actors</p>	<ul style="list-style-type: none"> - Individuals/ partnerships/ - Value chain actors 	<p>Loans</p>	<p>Equity capital availability and access to loans</p>	<p>To support inclusive investments in farm and non-farm micro and small enterprise development; support supply and demand-side interventions to increase output levels, productivity, quality, and resiliency of production of small scale famers</p> <p>Support commercial partnerships between POs/ FOs through linkages with the private sector facilitated by SAPP with linkages to SAPP.</p>
<p>Youth / women's entrepreneurship schemes</p>	<ul style="list-style-type: none"> - Individuals - Partnerships - Small groups 	<p>Grants and loans (grant for investment financing/ loans for working capital)</p>	<p>New enterprise/ risky/ limit on loan ceiling</p>	<p>Combinations of matching grants and loans will be offered to youth to provide commercial goods and services (input supplies, mechanization, spraying, transportation etc.) to farm households. Agricultural machinery and equipment for hire service providers is seen to be an attractive and feasible source of income for young entrepreneurs and will be supported by youth employed in repair workshops. Other potential businesses for youth and women flourishing in the Dry Zone are protected agriculture, quality seed production, semi commercial dairy and goat production.</p>

Roads and market infrastructure	<ul style="list-style-type: none"> - Producer groups/ organizations - Other value chain actors 	Matching grants	Public goods/ some private good nature	<p>An upper limit for these activities has been set at \$100,000 to include some of the market infrastructure and value adding investments</p> <p>Proposals for infrastructure sub-projects of a pure public good nature, will be 90 percent funded by grants.</p> <p>For assets like storage facilities which are jointly owned and operated by farmers and other value chain partners, and where a proper arrangement is in place for joint management a 20% beneficiary contribution will be required.</p>
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115. Component 3: Project Management and Coordination Unit (PMU) (USD 4.4 mill)

116. Component 3 is a cross cutting component to the technical components described above. The principal coordination body will be the Presidential Secretariat supported by technical lead agencies under the Ministry of Agriculture that include the Department of Agrarian Development, the Department of Agriculture and the Department of Irrigation. By being placed in the President's Secretariat, synergies with the sister project – SAPP – will be ensured. The Presidential Secretariat will establish a Project Management Unit (PMU) for SARP at national level, led by a National Project Director. The Presidential Secretariat will work very closely with the PMU to oversee implementation. A National Project Steering Committee (NPsC) will provide strategic oversight. At District level, SARP will set up two hub offices in selected districts led by Area Coordinators responsible for day to day implementation. Given the nature of the SARP and in order to capitalize on the experience and competences of the SAPP to address the commercialization of smallholder farmers, it is considered convenient to ensure that the two projects are coordinated by an experienced Programme Coordinator as a first step towards developing an IFAD programme.

E. Theory of Change

117. The problem tree and theory of change have identified seven factors that contribute to the persistently high levels rural poverty: (i) weaknesses in policies and knowledge sharing (ii) lack of knowledge and technical capacity of service providers and farmers; (iii) lack of access to quality inputs and effective advisory and support services; (iv) limited access to rural infrastructure (water, land, storage, feeder roads); (v) variable rainfall distributions, intensity and rising temperatures (CC); (vi) poor quality of diet, and insufficient dietary and nutritional knowledge; and (vii) a negative perception by youth of agriculture. In the Dry Zone area of Sri Lanka, these factors lead to droughts and intermittent flooding, limited access to water resources, land degradation, limited access to improved technologies, weak local level capacity, limited levels of farm commercialization, and lack of interest by youth in agriculture related employment. A cross cutting implication is an absence of policies and innovative strategies among government at central and decentralized levels to address the key dry zone issues. These causal factors have a number of contributory elements some of which will be tackled by the project.

118. The development hypothesis, as premised by SARP, is that smallholder farmers need to address the challenges posed by the Dry Zone environment through an integrated, area based approach focusing on 'pockets of poverty' combined with a differential strategy aimed at the various categories of vulnerable households. In Sub-components 1.1 and 2.1 the focus will be placed on resilience to climate change and targeting a range of poor households with different tailor made strategies and interventions. The components will be area based ensuring an integrated approach to address climate change in poverty pockets – 'hot spots' – through the sustainable management of water and land resources. A watershed and sub-watershed focus will be used in targeting priority areas. Under Sub-components 1.2 and 2.2 farm commercialization and enterprise development will be inclusive addressing the needs of the different target households. In some cases the most vulnerable may engage in livelihood activities or will seek employment as part of an income diversification strategy.

119. Other more market-oriented households will sell produce locally in spot markets or alternatively link to private sector buyer with the support of the sister project – SAPP. The project will pilot a number of cross-cutting innovations particularly with respect to finance – insurance – and business skills development – FBS and financial literacy programmes. Pilot-testing of IT-based information system – for climate and market information – will be introduced. Nutrition sensitivity is a further cross cutting intervention that will be highlighted through selecting nutrition sensitive value chains and Social Behaviour Changes among the target community.

120. Support for farm commercialisation will complement the resilience efforts by strengthening and orientating farmer organizations into business concerns and linking them to markets and private sector companies, finance and business services. A crucial dimension for a sustainable solution is to formalize and strengthen these organizations by improving their outreach, managerial capabilities, services and enhancing their market power.

121. The direct result of these interventions will be:

- 182 producer organizations and watershed associations with strengthened capacity to manage climate risks.

- 400 groups/ organizations with strengthened capacity to manage enterprises in a financially profitable and sustainable way
- 10,450 smallholder households reporting improved access to water and land
- 6,400 persons smallholder farmers, women and youth managing profitable farm and non-farm enterprises.

122. Studies and investigations on prioritized topics will contribute to policy dialogue at national level. The evidence-based lessons from project implementation will be disseminated via documents and events and then discussed and mainstreamed in a drought resilience strategy for dry zone which would lead to improvement in the adaptive capacity and the resilience of households to drought. Combined together the achieved results will considerably accelerate commercialization of smallholder agriculture and improved CC resilience for ultimate achievement of sustainable livelihoods of rural people in the long-term. For a schematic illustration with more details on the programme theory of change, see Annex 2.

F. Alignment, ownership and partnerships

123. SARP is closely aligned with Sri Lanka's evolving visions and national priorities and strategic direction^[71] From these sources, the main priorities of the GoSL of relevance to SARP can be considered to be: a) eradicating poverty by enhancing income levels; b) developing the rural economy, including agro-based industries; c) diversifying, modernizing and commercializing agriculture, including value addition and e-agriculture; d) adapting to climate change impacts; and e) improving the sustainable management of natural resources.

124. SARP is also closely aligned to the SDGs contributing to five of them in particular: ending poverty (Goal 1), zero hunger (Goal 2), gender equality (Goal 5), climate action (Goal 13), and life on land (Goal 15), as well as IFAD's Strategic Framework 2016-2025 contributing directly to: SO1 - Increase poor rural people's productive capacities; SO2 - Increase poor rural people's benefits from market participation and SO3 - Strengthen environmental sustainability and climate resilience of poor rural people's economic activities.

125. SARP will also harmonize its design with the activities of WFP, UNDP, and the World Bank working on resilience issues in the Dry Zone^[72]. SARP will work closely with SAP (2017-2023) to build synergies and partnership with the private sector^[73] As there are other development partners working in the Dry Zone region, including World Bank, ADB, UNDP, WFP and UNOPS, SARP will closely coordinate with them to ensure that economies are made to reduce the cost of investments and avoid duplication of interventions. It will build on 'good practices' to scale up improved technologies tried and tested by partner projects and south-south collaboration in the region.

126. An integral partner is UNDP through its GCF funded project, "Strengthening the Resilience of Smallholder Farmers in the Dry Zone" (2018-2025). The project includes three components a) upgrading village irrigation systems and promoting climate resilient farming practices; b) enhancing decentralized water supply and management solutions to provide access to safe drinking water; and c) strengthening climate and hydrological observing and forecasting systems to enhance water management and adaptive capacity of smallholder farmers to droughts and floods. SARP will work in the same cascades as UNDP and will complement their activities in specified ways; a) include some 100 tanks that UNDP will not be in the position to complete because of budgetary and time limitations; b) provide support to upland areas of the catchment through soil conservation and community forestry activities; c) support the target UNDP beneficiaries in the convergent districts (14,100 hh) by introducing value adding enterprises, linking farmers to markets and developing the entrepreneurial capacity of producer groups to connect with private sector buyers. UNDP and SARP will co-invest in strengthening the climate and hydrological observing and forecasting systems. SARP will also extend its activities to adjacent cascades in collaboration with UNDP to scale up the integrated catchment process.

127. SARP will similarly partner with the WFP, "Building Resilience Against Recurrent Natural Shocks through Diversification of Livelihoods for Vulnerable Communities in Sri Lanka" project (2019-20122) developing the commercialisation aspects through entrepreneurship capacity building, strengthening the services offered through the Agrarian Service Centres and Agrarian Banks and linking more entrepreneurial farmer groups to private sector buyers. The WFP project has targeted around 2,100 households in the two convergent districts where there will be scope to upgrade the same households in production, post-harvest management, value addition and linking groups to markets. There will also be opportunities to scale up and out within the same localities to expand the number of targeted beneficiaries. WFP will support SARP through its Cash for Assets programme, providing temporary employment for the most vulnerable. The experience gained will be replicated in non-WFP areas. Additionally WFP is committed to provide technical assistance support to roll out their household nutrition programme through training, behavioural change, nutrition rich home gardens and linking women's groups to institutional markets such as school feeding. Finally, SARP will make use of WFP's VAM targeting tools - climate vulnerability, poverty mapping and Seasonal Livelihood Programming.

128. SARP will also cooperate closely with UNOPS, which has already committed contribution to support the construction of production and marketing infrastructure to compensate for the lack of technical capacity for the construction of last-mile infrastructure. SARP will also work closely with SAPP to build synergies and partnership with the private sector but will develop a fine tuned approach suitable for the dry zone beneficiaries to promote partnerships between beneficiaries and buyers of agricultural produce.

129. A potential partnership with IWMI and IRRI will be further developed at the initial stages of implementation. It is also intended that SARP will cooperate with UNDP, WFP, UNOPS and the World Bank in the area of policy engagement and dialogue. The Institute of Policy Studies, IWMI and FAO are well placed to support an evidence-based policy engagement and the design of evaluation studies.

G. Costs, benefits and financing

a. Project costs

130. A six-year project implementation period is anticipated, starting from 2020. Total project costs are USD 82 million (LKR 14,756 million) including 5 percent physical contingencies and 7 percent price contingencies. An exchange rate of LKR 180 per US dollar, and local and foreign inflation rates of 2 percent per annum were assumed. The total climate finance amount is USD 36 723 902 (86% of the total IFAD project amount).

131. Project financing by components are tentatively: USD10.5 million for Component 1 – Capacity building for climate resilience and inclusive value chains (24.0 percent of project costs) and USD58.3 million for Component 2 – Investments for climate resilience and inclusive value chains (70 percent of project costs). For Component 3 – Programme management and coordination, project costs came to USD4.4 million (6.0 percent of project costs). Physical and price contingencies were estimated at 3.6 and 5.1 million respectively.

132. Table 3 SARP estimated costs by Component

Components	(LKR Million) (US\$ '000)		% Foreign Exchange	% Total Base Costs
	Total	Total		
A. Capacity Building for Climate Resilience and Inclusive Value Chains				
1. Strengthening Adaptive Capacity of Service Providers & Farmers to Climate Change	1,703.1	9,462	20	23
2. Strengthening Capacity for Inclusive Value Chain Development	193.9	1,077	20	2
Subtotal	1,897.0	10,539	20	24
B. Investments for Climate Resilience and Inclusive Value Chains				
1. Investments for climate resilient production and infrastructure	7,286.0	40,478	20	57
2. Investment for inclusive value chain development	3,205.4	17,808	20	12
Subtotal	10,491.4	58,285	20	70
C. Project management and coordination	795.0	4,417	13	6
Total BASELINE COSTS	13,183.3	73,241	20	100
Physical Contingencies	659.2	3,662	20	5
Price Contingencies	914.1	5,078	20	7
Total PROJECT COSTS	14,756.6	81,981	20	112

133. Table 4 Expenditure Accounts Project Cost Summary

	(LKR Million)			(US\$ '000)			% Foreign Exchange	% Total Base Costs
	Local	Foreign	Total	Local	Foreign	Total		
I. Investment Costs								
A. Civil Works	4,388.5	1,097.1	5,485.6	24,381	6,095	30,476	20	42
B. Goods								
Vehicles	60.9	15.2	76.1	338	85	423	20	1
Equipment	617.0	154.2	771.2	3,428	857	4,285	20	6
Subtotal	677.9	169.5	847.4	3,766	942	4,708	20	6
C. Technical Assistance and Studies	1,734.3	433.6	2,167.9	9,635	2,409	12,044	20	16
D. Training and Workshops	835.7	208.9	1,044.6	4,843	1,161	5,804	20	8
E. Contracts with Service Providers	441.6	110.4	552.1	2,454	613	3,067	20	4
F. Grants	2,090.0	522.5	2,612.5	11,611	2,903	14,514	20	20
Total Investment Costs	10,168.1	2,542.0	12,710.1	56,489	14,122	70,612	20	96
II. Recurrent Costs								
A. Salaries and Allowances	292.5	-	292.5	1,625	-	1,625	-	2
B. Operation and Maintenance	144.6	36.1	180.7	803	201	1,004	20	1
Total Recurrent Costs	437.1	36.1	473.2	2,428	201	2,629	8	4
Total BASELINE COSTS	10,605.1	2,578.2	13,183.3	58,917	14,323	73,241	20	100
Physical Contingencies	530.3	128.9	659.2	2,946	716	3,662	20	5
Price Contingencies	735.1	179.0	914.1	4,084	995	5,078	20	7
Total PROJECT COSTS	11,870.5	2,886.1	14,756.6	65,947	16,034	81,981	20	112

Table 5 Project Components by Year -- Totals Including Contingencies (in USD '000)

	Totals Including Contingencies						
	2020	2021	2022	2023	2024	2025	Total
A. Capacity Building for Climate Resilience and Inclusive Value Chains							
1. Strengthening Adaptive Capacity of Service Providers and Farmers to Climate Change	2,166	2,157	2,022	1,567	1,407	1,141	10,460
2. Strengthening Capacity for Inclusive Value Chain Development	114	285	406	255	80	49	1,189
Subtotal	2,280	2,442	2,428	1,822	1,486	1,190	11,649
B. Investments for Climate Resilience and Inclusive Value Chains							
1. Investments for climate resilient production and infrastructure	164	8,535	9,106	9,467	9,683	8,586	45,540
2. Investment for inclusive value chain development	1,596	3,956	3,986	3,742	3,649	2,961	19,890
Subtotal	1,759	12,492	13,092	13,209	13,332	11,546	65,431
C. Project management and coordination	1,241	666	768	637	650	940	4,901
Total PROJECT COSTS	5,281	15,600	16,288	15,669	15,468	13,676	81,981

b. Project financing/co-financing strategy and plan

134. The proposed IFAD financing for the project is USD42.7 million from the IFAD11 PBAS allocation for Sri Lanka. This funding also includes a USD1 million grant for background studies that will contribute to project start-up, policy dialogue [74], and TA for strengthening the ASCs and knowledge hubs. These are elaborated on in the PIM. The GoSL is expected to contribute about USD12.6 million (mainly taxes and duties), the private sector USD1.7 million (mainly through capital investments and loans), and beneficiaries USD13.2 million (mainly in-kind and through loans from the Agrarian Bank). The beneficiaries and private sector will contribute through a combination of loans and matching grants under sub-component 2.2. Additional resources to the amount USD13.8 million have been earmarked by UNDP and WFP as parallel funding. UNOPS has also committed USD300,000 towards SARP.

135. Table 6 SARP financing plan by Component (USD Million)

	FAD Loan		FAD Grant		UNDP		WFP		UNOPS		Private Sector		Beneficiaries		The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
A. Capacity Building/Climate Resilience																		
1. Capacity Building for Climate Resili	8.9	88.2	0.3	3.2	-	-	0.5	5.1	-	-	-	-	-	-	2.7	25.6	10.5	12.8
2. Capacity building for commercializ	0.9	77.0	-	-	-	-	-	-	-	-	0.0	2.4	0.1	5.5	0.2	15.0	1.2	1.5
Subtotal	7.8	67.3	0.3	2.9	-	-	0.5	4.6	-	-	0.0	0.2	0.1	0.8	2.9	24.5	11.6	14.2
B. Investments for Climate Resilience an																		
1. Investing in climate resilience	18.6	40.7	-	-	8.8	19.4	2.1	4.5	0.3	0.8	0.7	1.6	9.9	21.7	5.1	11.3	45.5	55.5
2. Investment in farm commercializati	11.2	58.4	0.7	3.4	-	-	-	-	-	-	0.9	4.7	3.2	16.1	3.9	19.4	19.9	24.3
Subtotal	29.8	45.5	0.7	1.0	8.8	13.5	2.1	3.2	0.3	0.5	1.7	2.5	13.1	20.0	9.0	13.8	65.4	79.8
C. Project management and coordinati	4.1	84.4	-	-	-	-	-	-	-	-	-	-	-	-	0.8	15.6	4.9	6.0
Total PROJECT COST \$	41.7	50.9	1.0	1.2	8.8	10.8	2.6	3.2	0.3	0.4	1.7	2.1	13.2	16.1	12.6	15.4	82.0	100.0

136. Table 7 SARP financing plan by Expenditure Account (USD Million)

	IFAD Loan		IFAD Grant		UNDP Parallel Funding		WFP Parallel Funding		UNOPS		Private Sector		Beneficiaries		The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
I. Investment Costs																		
A. Civil Works	14.1	41.1	-	-	6.7	19.6	-	-	0.3	1.0	0.1	0.4	6.3	18.3	6.7	19.5	34.3	41.9
B. Goods																		
Vehicles	0.2	50.0	-	-	-	-	-	-	-	-	-	-	-	-	0.2	50.0	0.4	0.5
Equipment	2.6	53.4	-	-	0.1	1.4	-	-	-	-	0.2	3.3	1.3	26.9	0.7	15.0	4.8	5.8
Subtotal	2.8	53.1	-	-	0.1	1.3	-	-	-	-	0.2	3.0	1.3	24.6	0.9	18.0	5.2	6.4
C. Technical Assistance and Studies																		
D. Training and Workshops	4.7	74.4	-	-	-	0.5	8.3	-	-	-	0.0	0.5	0.1	1.0	1.0	15.7	6.4	7.8
E. Contracts with Service Providers	2.6	75.2	0.3	9.8	-	-	-	-	-	-	-	-	-	-	0.5	15.0	3.4	4.1
F. Grants	7.9	48.4	-	-	-	-	2.1	12.6	-	-	1.0	6.4	5.3	32.5	0.0	0.1	16.3	19.9
Total Investment Costs	39.1	49.5	1.0	1.2	8.8	11.2	2.6	3.3	0.3	0.4	1.7	2.2	13.2	16.7	12.3	15.5	79.0	96.4
II. Recurrent Costs																		
A. Salaries and Allowances	1.7	92.0	-	-	-	-	-	-	-	-	-	-	-	-	0.1	8.0	1.8	2.2
B. Operation and Maintenance	1.0	85.0	-	-	-	-	-	-	-	-	-	-	-	-	0.2	15.0	1.1	1.4
Total Recurrent Costs	2.6	89.3	-	-	-	-	-	-	-	-	-	-	-	-	0.3	10.7	2.9	3.6
Total PROJECT COST \$	41.7	50.9	1.0	1.2	8.8	10.8	2.6	3.2	0.3	0.4	1.7	2.1	13.2	16.1	12.6	15.4	82.0	100.0

137. Table 8 SARP Disbursement Accounts by Financiers (USD Million)

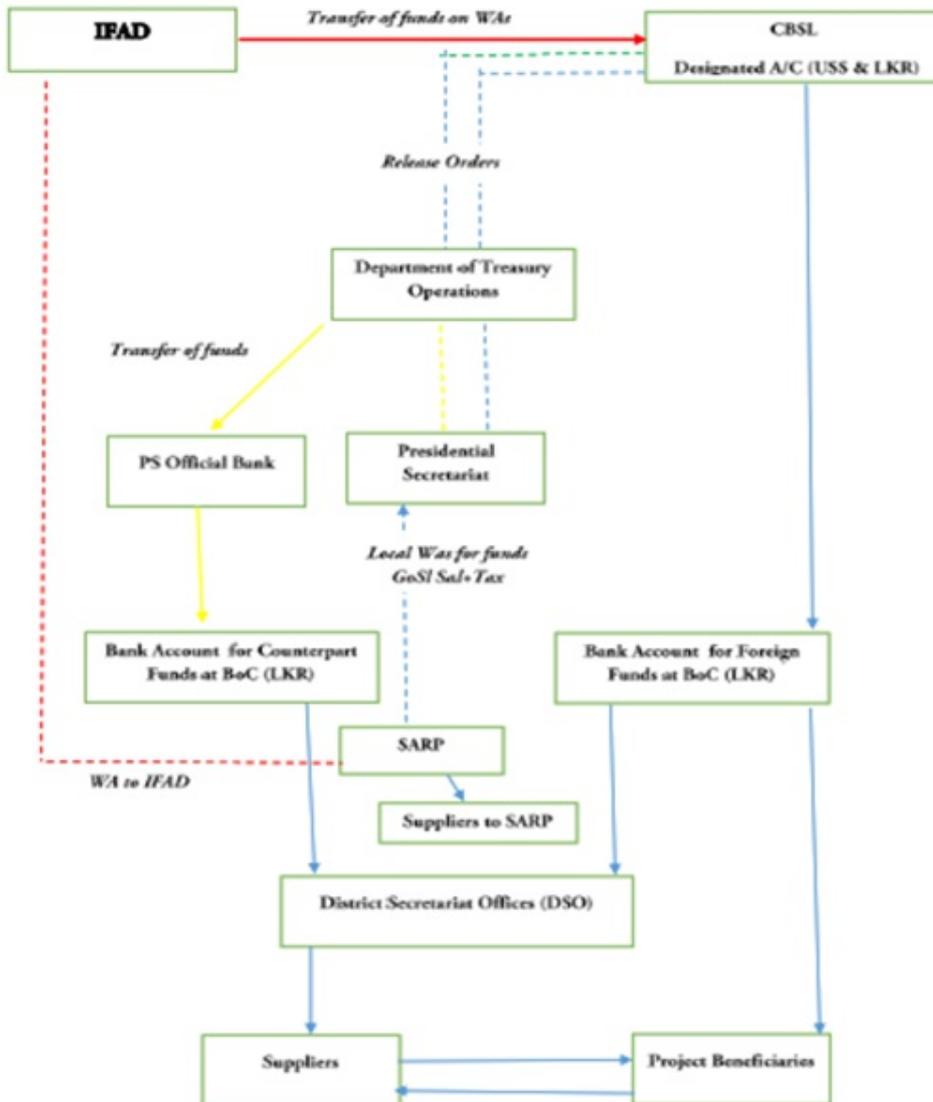
	IFAD Loan		IFAD Grant		UNDP Parallel Funding		WFP Parallel Funding		UNOPS		Private Sector		Beneficiaries		The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Civil Works	14.1	41.1	-	-	6.7	19.6	-	-	0.3	1.0	0.1	0.4	6.3	18.3	6.7	19.5	34.3	41.9
Goods	2.8	53.1	-	-	0.1	1.3	-	-	-	-	0.2	3.0	1.3	24.6	0.9	18.0	5.2	6.4
Consulting Services	9.6	57.1	1.0	5.8	2.0	12.0	-	-	-	-	0.4	2.2	0.2	1.4	3.6	21.6	16.8	20.5
Grants	7.9	48.4	-	-	-	-	2.1	12.6	-	-	1.0	6.4	5.3	32.5	0.0	0.1	16.3	19.9
Training	4.7	74.4	-	-	-	-	0.5	8.3	-	-	0.0	0.5	0.1	1.0	1.0	15.7	6.4	7.8
Salaries & Allowances	1.7	92.0	-	-	-	-	-	-	-	-	-	-	-	-	0.1	8.0	1.8	2.2
Operating Costs	1.0	85.0	-	-	-	-	-	-	-	-	-	-	-	-	0.2	15.0	1.1	1.4
Total PROJECT COST \$	41.7	50.9	1.0	1.2	8.8	10.8	2.6	3.2	0.3	0.4	1.7	2.1	13.2	16.1	12.6	15.4	82.0	100.0

c. Disbursement

138. The Designated Account will be administered following Imprest Account arrangements. Advances from this Financing must be segregated from other funds for the Project.

139. The LPA should make adequate annual budgetary provisions for IFAD funds and Counterpart funds in the National Budget, based on the AWPB of the Project.

140. Before disbursement can begin, IFAD must receive, from the designated representative a letter designating the names of officials authorized to sign withdrawal applications which includes their authenticated specimen signature(s). The project is eligible and authorised to use the IFAD Client Portal (ICP), the applicable form is included in LTB.
141. The Project will maintain Project Accounts in local currency at a state owned commercial bank, to receive funds from the Designated Account for eligible expenditure for the project implementation.
142. The government will maintain the Project Accounts in a state owned local currency at the commercial bank to provide counterpart funds for Project implementation.
143. The following are the SOE thresholds^[1] that apply for withdrawal application under procedure (i) "Advance Withdrawal" and under procedure (iii) "Reimbursement": USD 50,000 for all expenditures categories.



d. Summary of benefits and economic analysis

144. The goal of SARP is to contribute to Sri Lanka's smallholder poverty reduction and food security in the Dry Zone region. The outcome for the smallholder farmers will be: a) 260 water tanks rehabilitated increasing their water holding capacity for water supply and irrigation addressing the challenges posed by the Dry Zone environment through an integrated, area based approach; b) production and productivity increases from their available resources (water, land and labour); c) reduced production losses due to climate-related negative events; d) enhanced engagement and sustainable partnerships with the private sector and access to services (e.g. technical assistance, mechanization services, marketing, etc.); e) added value to agricultural production by processes including produce aggregation, conditioning, grading, drying, cooling, and storage; and f) enhanced farmers'

entrepreneurial and business capacity. As a result of project interventions, and based on the results achieved by other similar projects in the country [75], it is estimated that 80 percent of the beneficiaries will have improved their food security, 72 percent will have increased their resilience, and they will benefit from an average incremental annual income of 108 percent. Additionally, it is expected that beneficiaries will increase their productivity by around 75 percent, due to the adoption of improved farm practices.

145. The primary beneficiaries to be covered by SARP will be approximately 40,000 smallholder households, and other value chain actors (traders, transporters and aggregators) participating in the supported value chains (of which at least 45 percent women and 25 percent youth). Assuming an average household size of 4.5 people, total beneficiaries would be about 180,000 people [76]. The details about the incorporation of beneficiaries assumed for the Economic and Financial Analysis (EFA) are presented in Appendix 4.
146. The SARP financial analysis is based on a set of representative crop, livestock, service provision and post-harvest activity models representing HHs and beneficiaries' joint activities that are expected to develop from the Project. Models include both 'without project' (WoP) and 'with project' (WP) scenarios. They present annual budgets of each activity, including main parameters, annual gross and net revenues, investments and operating costs before and after the Project interventions.
147. Farm models were developed to simulate the traditional farm household production systems showing how they would evolve and benefit from the diverse project interventions. The demand driven project approach will target rice (as user of more than 90 percent of available water) and livestock production as the main livelihood activities in the project areas, leaving to the expected demand the choice of the other crop and/or post-harvest activities to develop. To assess the expected results of representative investments of the many type of interventions, the cases of: (i) enhanced access to water for rice and other crops, together with crop intensification and diversification with the adoption of climate smart technologies, (ii) improved livestock production practices leading to higher productivity; and (iii) services provision (mechanization) for production, and post-harvest interventions for linking farmers with buyers (or private aggregators) for collecting and conditioning rice, milk, fruits, vegetables and other products for quality enhanced produce and higher selling values.
148. For the EFA, 22 crop or activity models (Tables 1 to 22 in Appendix 4) were prepared to represent targeted activities that the HHs would be improving. In addition, 10 HH/farm models (Tables 23 to 32 in Appendix 4) show how the promoted activities within their production systems would improve beneficiaries and HH annual income as a result of the project activities. Models allow the quantification of the expected results from the project overall investments, including the rehabilitation of the water storage tanks and the irrigation network enhancing access to water, other support services, and the post-production investments. Some models include the support for solutions providing HH with small irrigation for 0.20 to 0.25 ha from wells or small structures for enhancing production of home gardens and higher value crops (fruits, vegetables, etc.). The farm models enable estimates to have been made for the following indicators: the expected increase in HH net benefits, the Financial and Economic Internal Rates of Return (FIRR and ERR) and the Net Present Values (NPV) of the incremental cash flows. The following Table summarizes the main indicators for the farm models representing the expected financial impact of SARP on beneficiaries. The FIRR in all cases are in excess of 100 percent, the result of project grants (seed and tools) supporting the farm improvements that vary between the equivalent to USD40 for the commercial oriented beneficiaries (Model 1), and USD80 per farm for the subsistence farmers (Model 3). Models 4 to 6 show higher support targeting women and youth where grants vary from USD560 to USD660.
149. **Table 9 Financial impact of typical HH benefitted by SARP (in LKR)**

Model	Value of production	Costs excl. family labour	HH net benefits	Family labour use (pers./days)	Returns per family labour	Incremental family benefits	FIRR	NPV
1. Commercial Farmer (1.25 ha)								
WoP	335,340	59,551	275,789	104	2,657		> 100%	
WP	528,120	94,892	433,228	135	3,207	157%		957,620
2. Small with market potencial (0.8 ha)								
WoP	158,400	38,519	119,881	40	2,997		> 100%	
WP	277,350	52,859	224,491	58	3,887	187%		708,048
3. Subsistence Farmer (0.5 ha)								
WoP	132,075	30,170	101,905	36	2,854		> 100%	
WP	209,310	39,375	169,935	53	3,218	167%		454,130
4. Livestock Farmer (9 head, 4 milking)								
WoP	392,600	193,715	198,885	91	2,188		> 100%	
WP	1,031,600	388,645	642,955	321	2,005	323%		2,695,170
5. Goat rearing (22 head)								
WoP	6,000	0	6,000	5	1,200		> 100%	
WP	360,800	46,305	314,495	182	1,728	5242%		2,153,707
6. Backyard poultry (landless)								
WoP	25,125	1,500	23,625	15	1,575		> 100%	
WP	151,000	24,700	126,300	91	1,388	535%		685,775
7. Home garden								
WoP	40,698	7,345	33,353	11	2,991		> 100%	
WP	120,003	31,483	88,520	27	3,262	265%		375,041
8. Rice seed production								
WoP	241,865	53,851	188,014	47	4,017		> 100%	
WP	397,290	91,078	306,212	67	4,584	163%		731,791
9. Protected Agriculture								
WoP	5,025	300	4,725	3	1,575		> 100%	
WP	523,190	167,188	356,002	93	3,846	7534%		2,284,378
10. Nursery (mango seedlings)								
WoP	5,025	300	4,725	3	1,575		> 100%	
WP	1,915,690	250,360	1,645,330	514	3,008	32705%		9,488,248

150. The “without project” column in the detailed models presented in Appendix 4 - Tables 1 to 36 represents the traditional practices and results observed from HHs in the SARP production areas. The WoP yields are in line with the area averages, and the returns to the HH families are low. They represent the current situation which is assumed to remain unchanged in the WoP scenario. Beneficiary farmers will be reached through extension workers with the FFS approach to undertake small but necessary investments supported by small grants. Model results (incremental financial benefits) show that HHs’ net income would increase significantly (from 50 to 300 percent) as a result of the different interventions. In the Models 8 to 10 the cases of groups of beneficiaries (mostly youth and women), increments are significantly higher because they represent new activities undertaken by mostly landless members. The models show encouraging results for most of the current crop and livestock activities. Indicators suggest significant potential for creating higher net cash flows for targeted HHs in their productive activities through the SARP interventions, confirming that the proposed interventions and production packages are financially attractive for the participants to be adopted. Cash flows also show that the HHs will have the capacity to cover the necessary operating costs for changing their traditional production practices.
151. Table 33 in Appendix 4 show a case of a group of 3 to 5 youth starting a rice harvesting enterprise with one combine harvester for providing the service to around 300 farmers; and Table 34 present a FO developing a agro-service center. Their main income sources will be a combined harvester, two 4WT, two Rice Trans Planter and an Integrated Rice processing Mill. Both Models show that the investment is financially feasible with FIRR of 96% and more than 100% (after grants and debt service), which in addition will allow around 500 farmers to reduce cost of production and increase yields and their HHs income.
152. A representative milk collection center for groups of 40 – 60 livestock farmers establishing milk societies including cooling facilities for handling 600,000 liters per year is presented in Table 35 in Annex 4. Uplifting of the milk quality by issuing milk analyses to the milk collecting centers as well as veterinary office will allow small dairy farmers to handle and sell their milk to processing plants at higher prices. These are examples of activity models to be supported by SARP both for the development of machinery service providers and for marketing of rice and milk.
153. The estimation of the likely economic impact of the Project interventions was done considering a 20 year period during which SARP will generate benefits, including the 6-year implementation period. Economic benefits at crop/activity and HH levels were built by taking into account the direct economic results per type of intervention or activities, aggregated according to the project targets. Appendix 4 provides detailed budgets and economic indicators for most of the foreseen interventions including both WoP and WP scenarios. For each model the net cash flow and overall net income, the ERR and the NPV using 10 percent as discount rate are presented.
154. The overall Economic Rate of Return (ERR) of the Programme was estimated at 18.6 percent (base case scenario) which is significantly above the opportunity cost of capital in Sri Lanka estimated at 10 percent. It is emphasized that the computed ERR is realistic because it has been conservatively estimated. The analysis only considered the economic benefits at farm-gate and group of beneficiaries (including some post-harvest activities in the value chain). Most of the benefits to upstream and downstream actors in the value chain from increased production, quality of products, trade volumes, and value adding opportunities beyond those few quantified for the analysis, have not been considered due to estimation difficulties. The economic Net Present Value (NPV) was estimated at SLR 6.5 billion (equivalent to USD 36 million) with the benefit stream based only on the quantified benefits.
155. Sensitivity of the expected impact to major risks were tested.
- If the Programme investments would be higher by 20 percent, the ERR would drop to 15 percent;
 - If all agricultural output prices would drop by 20 percent, the ERR would decrease to 12.2 percent; and
 - If both previously named events would occur simultaneously (investment costs up by 20 percent and agricultural output prices down by 20 percent), the ERR would then drop to 9.2 percent.
156. Summarizing, the proposed Project will increase the beneficiaries’ family income by at least 50 percent and up to three fold their current income. The overall investment would yield an ERR of 18.6 percent assuming the targeted beneficiaries would adopt the proposed climate smart agricultural and climate resilient practices assuming an adoption rate of about 70 percent. These positive results are considered strong as shown in the sensitivity analysis against adverse situations as cost over-runs, reduction of prices for the agricultural products, and even reducing in the case of both adverse events occurring simultaneously. The follow-up of these indicators - while monitoring performance during the implementation of the Project - can provide valuable information for adjusting the strategy and interventions to improve the Project impact.

e. Exit Strategy and Sustainability

157. SARP has been designed in consultation with and involvement of relevant government agencies, technical line departments of the Ministry of Agriculture and development partners. These consultations and discussions have resulted in a sound approach and a suite of interventions which will be implemented with strong community participation and engagement of local officials. Building on this foundation, it is expected that the investments as well as the results of the interventions will be sustained beyond the project period and over the long term. Sustainability considerations that have guided project design include:
158. a) *Capacity building for integrated, locally owned solutions:* SARP will invest in building capacities for climate-resilient, integrated solutions for irrigation following the ecosystem/ cascade approach. The project will promote institutional planning and coordination across government officials and communities to overcome the sectoral and piecemeal approach to water management that was adopted in the past. Project outputs will also contribute to enhancing organisational capacity of farmers to plan for and implement climate-risk informed local water management solutions, adopt technologies and systems for climate-smart agricultural production and integrate climate information and advisories for water management ensuring their financial and human resource viability post-project. In designing such solutions, the approach is to strongly engage communities at every level of planning and execution. By doing so, SARP will not only ensure that the investments respond to beneficiary needs but also

ensure that community organisations, including youth and women’s groups, will have sufficient technical and financial capacity to keep improving system design and operations, even as climate variability increases and seasons become more unpredictable.

159. *b) Operations and Maintenance plans:* More specifically, SARP will support watershed groups to prepare O&M plans that include budgeting the human and financial resources required for implementation. The plans will reflect local ownership and commitment to the long-term sustainability of the project activities and outcomes. SARP will finance and leverage financing to support the human and technical resources required for O&M initially, with a decreasing contribution towards the end of the project lifetime, after which domestic financing will be expected to continue to support O&M. This approach will build on farmers’ traditional system of managing by themselves the village irrigation systems. The project will improve the capacity of FOs to function more efficiently. Supported by an increased incomes from agriculture it is expected that the FO contribution would also incre
160. *c) Farmer producer organizations.* Outside the watershed, SARP will also ensure institutional sustainability and effectiveness through dedicated support to farmer producer organizations to establish them as independent economic entities and actors. Farmers/producers will be supported with capacity building and technical assistance, to form more cohesive common interest groups, eventually graduating to a more mature and evolved organization; based on regular maturity assessments, the eventual formation of sustainable producer companies is envisaged. The project will provide extensive capacity building in business management skill development, support to registration, and access to finance through financial institutions with a mandate to support small farmers together with targeted matching grants.
161. *d) Private sector development:* SARP will build the capacity of young men and women to engage in managing economic enterprises at community level. The engagement of women in POs and as interlocutors between private sector markets for climate smart value chain products will increase livelihood options and income sources for women entrepreneurs in villages. SARP will simultaneously seek to leverage commercial private sector investments. The project will build on lessons learned and experience of SAP placing greater emphasis on strengthening producer/ farmer voice and encouraging the preparation of farmer-led business plans. Investment commitments from the private sector, including from farmer producer organizations and agribusinesses, are also expected to provide an important indication for the business rationale and longer-term sustainability of agricultural and commercial activities.
162. *e) Establishment of Agrarian Service Centre Hubs* SARP will also strengthen the ASCs as one-stop-shop service and information platforms. Some of the service offered such as quality seed, mechanization hire services, and market/weather information will be developed and managed by local youth. The strengthened ASCs will serve as a platform for public-private sector collaboration/4Ps and with access to funding through the Agrarian Banks could incentivize private sector investment beyond the project life span.
163. *f) Policy support.* To ensure longer-term sustainability, the project will also provide support for policy dialogue informed by targeted studies to be conducted during implementation. Topics such as integrated watershed development, youth employment in agriculture and micro insurance have been singled out as priorities. Complementary policies or strategies would be expected to help improve the overall enabling environment for development of the Dry Zone and hence contribute to long-term sustainability.
164. SARP’s exit strategy, consequently, relies on building capacity at different levels; at farmer/FO level but also of the public and private advisory services in climate smart technologies as well as farm business management, marketing and commercialisation. Capacity building will be undertaken at the institutional, community and household levels. The skills and capacities required will be strengthened to ensure communities are resilient to climate variability and climate change and that the relevant institutions at all levels are able to provide the necessary support and services.

3. Risks

H. Project risks and mitigation measures

165. **Table 10: Main Risks and Mitigation Measures**

Main risks	Mitigation measures	Rating
<i>Political and governance:</i>	Political changes following the December 2019 election could result in changes of personnel at senior decision making levels with a subsequent risk of delays in approval of the project and the start of implementation. The anticipated changes at government level are not expected to affect the current administration structure at provincial and district levels. There may, however, be some risk that the Presidential Secretariat may be realigned. IFAD should still be able to submit this investment for EB approval in April 2020.	Moderate

<i>Macro-economic:</i>	Level of macro-economic debt SARP will attempt to minimise grant funding and will focus more broadly facilitating links to banking institutions for loan financing	Low
<i>Sector strategies and policies:</i>	Policies relating to land tenure, agricultural extension and an enabling environment for agricultural value chain development have been posed as potentially impacting on the project but the expected impact is deemed low	Low
<i>Technical design of project:</i>	There is a low likelihood that factors related to the technical design of the program or project may adversely impact the achievement of the project objective.	Low
<i>Institutional capacity:</i>	<p>Weak institutional capacity, especially in the areas of support services, social mobilization, building resilience to climate variability and facilitating market linkages amongst support service providers.</p> <p>SARP will:</p> <ul style="list-style-type: none"> ● strengthen capacities through technical assistance, training, management tools; ● diversify and support service delivery, including through the private sector and specialized government entities ● support from NGOs and technical assistance to work with service provider organizations <p>SARP will ensure: (i) Constant dialogue and follow-up with lead project ministries to ensure the appointment of competent project management personnel and to minimize staff turnover; (ii) proactive implementation support from the country office and (iii) integrating project management processes into the SAP management structure and seconding government staff.</p>	Moderate

<p><i>Procurement:</i></p>	<p>Sri Lanka is ranked in medium risk bracket with the score of CPI index of 38 and RSP rating 3.7.</p> <p>In order to mitigate inherent country risks government authorities have taken a series of measures during the recent past. Among them, main reforms are:</p> <ul style="list-style-type: none"> ● establishment of a National Procurement Commission, ● release of a comprehensive set of Public Procurement Guidelines covering all aspects of public procurements, ● widening the scope of the “Commission to Investigate Allegations of Bribery or Corruption” and ● strengthening the Public Audit function by establishment of National Audit Commission to ensure independency of the Auditor General Department responsible for all public audits that include public procurement 	<p>Medium</p>
<p><i>Fiduciary:</i></p>	<p>A number of fiduciary management and process issues have negatively affected the efficiency of past projects.</p> <p>A qualified Finance Manager supported by accountants will be appointed to the PMU for financial management (FM) including the development of a FM and information system according to IFAD rules and regulations, elaboration of project FM procedures to be included in the PIM, training provincial FM staff, and reporting</p> <p>SARP will:</p> <ul style="list-style-type: none"> ● provide adequate and suitably qualified personnel; ● minimize frequent staff transfers. ● build capacity of financial management staff at district level, ensure strict fiduciary control measures. ● provide training and supervision to project-staff. 	<p>Low</p>
<p><i>Stakeholders:</i></p>	<p>Project objectives, approach and activities were discussed during the concept note preparation mission at a stakeholder meeting composed of representatives of the main line ministries, the External Resources Department and the Presidential Secretariat.</p> <p>SARP will further:</p> <ul style="list-style-type: none"> ● ensure transparency in the management of all project activities, especially procurement activities and grants administration; ● follow tender procedures for infrastructure; ● carry out due diligence of grant recipients; ● support signing of agreements and MoUs between stakeholders. 	<p>Moderate</p>

<p><i>Environmental and social:</i></p>	<p>Climate change has the potential for adverse climatic events.</p> <p>SARP will:</p> <ul style="list-style-type: none"> • set up a system for climate smart information collection and dissemination to provide climate change adaptation options that will complement the Environmental and Social Management Plan (ESMP); • invest in climate smart technologies (solar pumps, irrigation, water harvesting); • provide training to increase smallholder and public-/private sector capacities to adapt to the effects of climate change. 	<p>High</p>
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166. The overall inherent risk of the country is deemed MEDIUM. Sri Lanka is ranked 89th out of 180 countries with the score of 38 in the Corruption Perception Index (CPI) in the survey conducted by Transparency International. The 2018 RSP rating is 3.7 – medium risk bracket.

167. Central Bank of Sri Lanka (CBSL) has one of the four main functions as to manage the country's public debt, on behalf of the government. All advance accounts related to foreign funds are opened and maintained at the CBSL. Government is in the process of implementing a series of focused legislative, administrative, institutional and capacity improvement measures. These initiatives mainly cover reforms in the areas of taxation, expenditure management, public enterprises, procurement and policy improvements.

168. Overall, the financial management risk is rated as Medium. Taking into consideration recent experience of IFAD-financed projects, Financial Management Assessment was undertaken for the NADEP and SAP at this design, guided by the 'financial management questionnaire (FMAQ)'. In view of the mitigation measures and previous experience of the NADEP and SAP, the overall project fiduciary risk is assessed to be Medium at the design stage.

169. The Presidential Secretariat as the Lead Project Agency (LPA), will have the overall accountability for the project, including fiduciary aspects.

170. The project will (i) establish a control framework integrating periodic internal audits, independent external audits, and social safeguards to be adopted based on IFAD policies; (ii) adopt a good governance and *mutual accountability framework* to strengthen accountability and transparency in line with international best practices.(iii) outline the project specific financial management procedures and disbursement requirements in the PIM. (iv) establish a Management Information System (MIS) to support the core project management functions

Summary of Project Fiduciary Risk Assessment at Design			
	Initial Risk Assessment	Proposed Mitigation	Final Risk Assessment
Inherent Risk			
1. TI Index	M Index: 38 in 2018 (ranking 89 out of 180)	The overall inherent risk of the country is deemed MEDIUM. Sri Lanka is ranked 89th out of 180 countries with the score of 38 in the Corruption Perception Index (CPI) in the survey conducted by Transparency International. The 2018 RSP rating is 3.7 – medium risk bracket-	M
Control Risks			
1. Organization and Staffing	H	<ul style="list-style-type: none"> · A dedicated PMU for SARP to be set up · Additional finance and procurement staff to be recruited · Comprehensive, user-friendly PIM to be finalized 	M

Summary of Project Fiduciary Risk Assessment at Design			
	Initial Risk Assessment	Proposed Mitigation	Final Risk Assessment
2. Budgeting	M	<p>All financing contributions should be clearly stated in the budget to be submitted to the NSC and IFAD for its approval.</p> <p>The LPA should make adequate annual budgetary provisions for IFAD funds and Counterpart funds in the National Budget, based on the AWPB of the Project.</p> <p>Early consultative process for preparation of AWPB and PP with timely submission to NSC and IFAD</p>	M
3. Funds flow and Disbursement Arrangements	M	<ul style="list-style-type: none"> · Clear definition of funds flow 	M
4. Internal Controls	M	The PMU would give effect to a formal delegation of authority and clear segregation of duties among the project staff. In addition, the project's financial performance will be periodically reviewed by the National Steering Committee chaired by the Presidential Secretariat. The overall control measures and systems and procedures that are in place (applying Government rules) are relatively adequate to address needs of the proposed project	M
5. Accounting Systems, Policies & Procedures	H	Management Information System (including Accounting software). The Project will establish a Management Information System (MIS) to support the core project management functions at the central and district levels, such as business plan development, financial management and project monitoring and evaluation.	M
6. Reporting and monitoring	M	<ul style="list-style-type: none"> · PIM to detail reporting and monitoring requirements and rules · Financial reporting to be automatically generated through accounting software 	M
7. Internal Audit	M	<p>, following Government circular, all donor-financed projects must employ an internal auditor, which will also be the case for</p> <p>Project management to act on internal audit findings and recommendations</p>	L
8. External Audit	M	<ul style="list-style-type: none"> · Agree on TORs and maintain continuous dialogue with AG of Sri Lanka and IFAD to ensure submission of acceptable reports, timely submission of annual audits and informative management letters 	M
Project Fiduciary Risk @ Design	M		M

I. Environment and Social category

171. The project will have positive impacts on the environment by developing an integrated watershed approach through the rehabilitation of the existing traditional Tank Cascade System in the target areas, conducive to greater water retention in the dry zones and a more climate resilient agriculture. Following the screening exercise (Annex 7, part A) the environmental and social category assigned to SARP is B. The project will be carried out in different Districts that include protected areas (national parks and their buffer zones, wildlife/nature reserves, areas of high cultural/religious significance). The project took this situation into account by integrating the following criterion in the list of criteria for the selection of project sites: "Existence of Protected Areas:

the project sites must not be in close proximity/adjacent to the Protected Areas.” An Environmental and Social Management Framework (ESMF) will be conducted to set out the principles, rules, guidelines and procedures to assess the environmental and social risks and impacts for the project.

172. Approval of all road alignments and design would be subject to an environmental screening process to ensure that the rehabilitation does not have adverse social or environmental impact. The annexed ESMP details the actions needed to implement the measures, in accordance with national and international rules on this matter.

J. Climate Risk classification

173. The climate risk classification for the SARP is defined as High. SARP is located in areas where rural development projects have experienced significant weather-related losses and damages. Flood events have negatively impacted roads, bridges and irrigation schemes and droughts, prolonged dry spells and floods have adversely affected the targeted smallholders. The Dry Zone reflects mainly rain-fed cropping systems which are subject to significant annual variations in rainfall, and therefore productivity fluctuations. The project relies also on water-based (groundwater and/or surface water) development in areas where significant depletion and/or reduced flow has occurred from the effects of climate change and/or from overutilization.

174. An in-depth climate risk analysis climate vulnerability analysis will be conducted during project implementation to further inform the adaptation measures that SARP is expected to bring, including improvements in cropping technology, which will increase farmer’s resilience to climate variability and climate change.

4. Implementation

K. Organizational Framework

a. Project management and coordination

175. Project structure and organization:

176. The SARP implementation structure will have strong management foundations both at National and District levels. The project will be executed by Presidential Secretariat and the various departments of the Ministry of Agriculture^[77]. The Secretary of the Presidential Secretariat will establish a Programme Management Unit (PMU) to manage and supervise the overall project. The Project Management Unit (PMU) will be led by a National Project Director, and will have overall responsibility for project implementation. The PMU will be supported by a team of technical specialists and administrative and financial support staff. Two area based hubs will be set up to provide overall coordination and oversight of all project activities within the 6 districts and ensure adequate presence and support of the project management out in the districts level. The main project implementation activities will be undertaken at district levels. The PMU and district offices will be staffed by dedicated full time staff and supported by technical and administrative staff to ensure timely project delivery.

177. By being placed in the Presidential Secretariat it will work closely with SAPP its sister project^[78]. The Presidential Secretariat will be the principal coordinating body supported by technical lead agencies under the Ministry of Agriculture that include the Department of Agrarian Development, the Department of Agriculture and the Department of Irrigation. The Presidential Secretariat will work very closely with the PMU to oversee implementation. In order to capitalize on the experience and competences of SAPP to address the commercialization challenges of smallholder farmers, it was considered convenient to ensure that the two projects are coordinated by an experienced Programme Coordinator to provide strategic guidance and ensure closer project collaboration. This management structure will be first step towards the establishment of a single management unit for IFAD’s future programme in Sri Lanka.

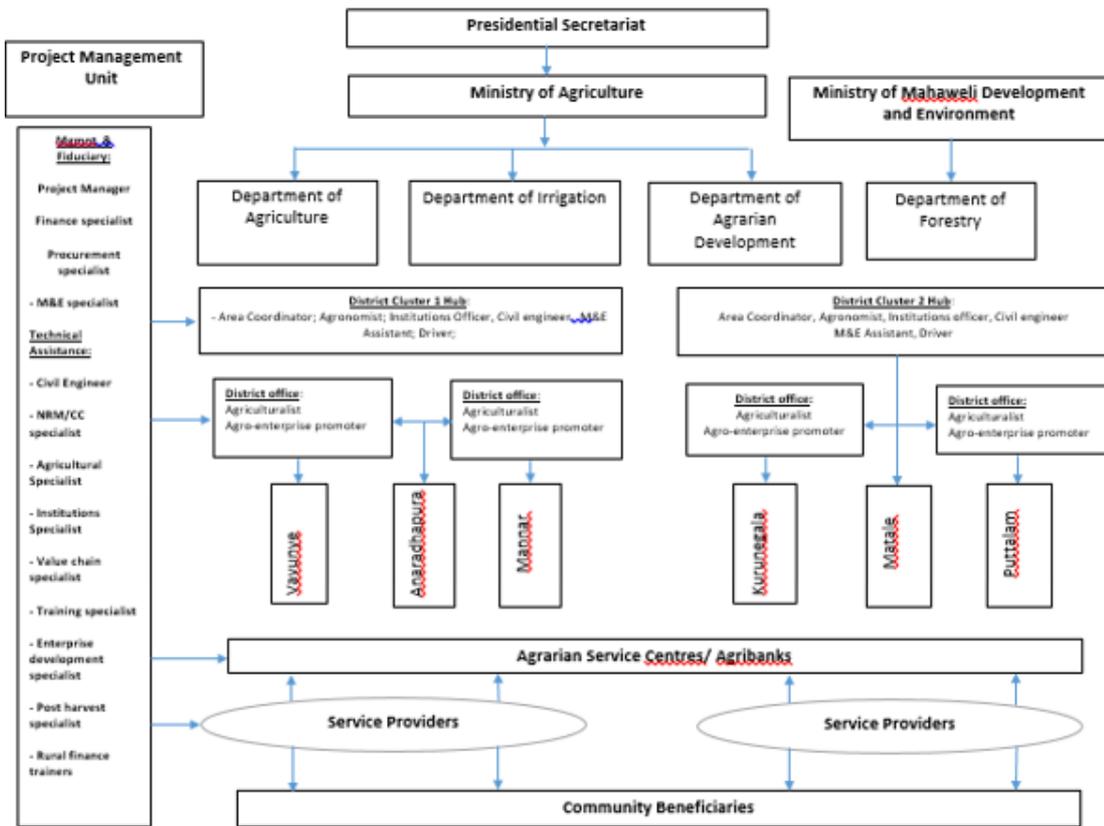
178. At central level the PMU will comprise a Project Director, a Senior Finance Specialist, an Assistant Finance Officer, Finance/ Administrative Officers (3), a Senior Procurement Specialist, an Assistant Procurement Specialist, an M&E Specialist, Drivers, Office Assistants and Secretary. The technical team at central level will include a Civil Engineer (chartered), Natural Resource Management Specialist, an Agricultural Specialist, and Institutions Specialist, a Value Chain and Marketing Specialist, a Rural Finance Trainer, a Training Specialist (focusing on the Farm Business and Farmer Field School), a Post-harvest specialist and an Enterprise Development Specialist (also covering the youth incubation scheme).

179. At District level, SARP will set up two District Hub offices in selected districts led by Area Coordinators – technically trained in natural resource management or watershed development – who will be responsible for day to day implementation whilst doubling up as specialised technical support. Each District Hub will be staffed by an Agriculturalist, Institutions Officer, Water Resource/ Civil Engineer, M&E assistant and Driver. The remaining four Districts will have a contained technical staffing complement of an Agriculturalist (extension worker) and Agro-enterprise Promoter (who will double up as a social mobiliser). Each of the District Offices will have Office Assistants. The District Units will be housed under the District Offices in each district. The District Offices will be led by Area Coordinators and supported by the relevant support staff to provide implementation support and managing all project activities within the selected sub-watersheds and cascades.

180. The PMU will be supported by chartered engineer who will be responsible for managing the district engineering team for day to day management and coordination. The team will be for verifying the engineering design of the water, road and market infrastructure works and will supervise the construction works in the project area.

181. The Organogram for SARP is given below:

182. Figure 2: Implementation Structure Chart



183. SARP will be fully integrated within the GoSL administration, and the project implementation is designed to capitalize on existing government agencies at all levels. The participating departments will carry out the project activities within their mandates, but coordinated by provincial DPD offices, with district units established at the Department of Agriculture (DoA)/Provincial Irrigation Department (PID)/Assistant Commissioner Agrarian Development (ACAD) offices and divisional units established at Agrarian Service Centers (ASCs).

184. While there will be no dedicated structure established at Provincial level, the provinces will focus on coordination and monitoring support and as such will not lead any activities nor manage activities in districts. They are considered necessary to provide closer support and backstopping to the District Offices during implementation.

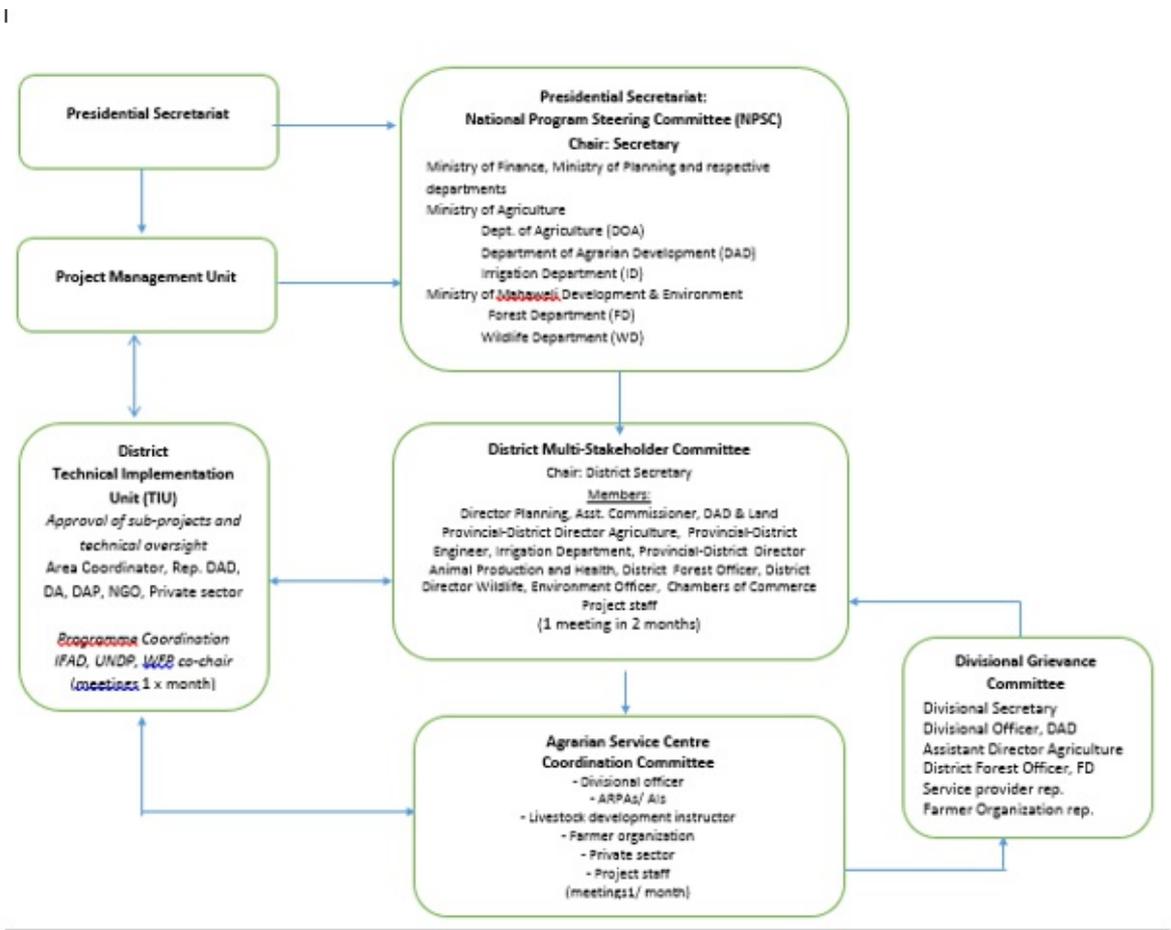
185. Technical Implementation Unit A Technical Implementation Unit (TIU) will be established at District level. The Technical Implementation unit will have executive and technical responsibilities. The TIU will consist of (at least) the Area Coordinator, the District Agrarian Development representative, the District Agriculture representative and the District Planning representative and appropriate project technical officers. The TIU will be responsible for the approval and implementation of micro project proposals relating to small irrigation systems, feeder roads, market infrastructure and small enterprise development. Larger cascade natural resource plans will need to be approved at PMU level where senior engineering and water resources staff are based. The task of the TIU will be to: (i) speed-up decisions and procedures; (ii) approve micro-projects under Sub-components 2.1 and 2.2; (iii) propose the agenda for the District MSC meetings and prepare the support documents; (iv) propose the Annual Work Plan and Budget (AWPB) to the District Cluster Hub and PMU for analysis and decision; (v) submit Annual Reports on sub-projects; and (vi) coordinate the planning, M&E and implementation of activities between SARP, UNDP, WFP. Periodically representatives of the two World Bank projects in the Dry Zone will be invited to participate. The TIU will, in addition, include representatives of NGO or civil society and a representative of the private sector, when deciding on the approval of micro-projects. Meetings will take place monthly. Technical experience between implementing and cooperating partners will be shared through periodic workshops at hub level.

186. Project coordination and grievance: The Secretary to the Presidential Secretariat will oversee the SARP National Steering Committee (NSC) which will provide strategic oversight to the project. The Steering Committee will comprise representatives of the Ministry of Finance, Ministry of Planning and the respective departments of the Ministry of Agriculture as well as the Forest and Wildlife Departments of the Ministry of Mahaweli Development and Environment. Coordination will be made with the Ministry of Mahaweli Development and Environment which has responsibility for forestry and wildlife.

187. At District Level coordination will be conducted through the District Multi-Stakeholder Committees, Chaired by the District Secretary. Members will include the Director Planning, Asst. Commissioner, DAD & Land, the Provincial-District Director Agriculture, Provincial-District Engineer, the Irrigation Department, Provincial-District Director Animal Production and Health, District Forest Officer, District Director Wildlife, Environment Officer, a representative from the Chamber of Commerce and Project staff – of SARP and collaborating projects (UNDP, WFP). Meetings are expected to be conducted once every two months.

188. At local level, Coordination Committees will be set up at the level of the Agrarian Service Centre. The committees will be chaired by the Divisional Officers and members expected to participate will include project staff, counterpart ARPAs/ AIs, the Livestock Development Instructor, representatives of FOs and the private sector. Meetings will similarly be convened once a month.
189. Communities, individuals and women who believe that they are adversely affected by SARP may submit complaints to the Divisional Grievance Committee to be set up at Divisional Level to redress grievances originating from the Agrarian Service Centre Committee. In the event that grievances cannot be addressed locally, they will be channelled to the District Multi-Stakeholder Committee for redress. The Grievance Committees will ensure that complaints received are promptly reviewed to address project-related concerns. Project affected communities and individuals may further submit complaints that are not resolved locally to the PMU where an independent Inspection Panel will be set up to determine whether harm occurred, or could occur, because of IFAD non-compliance with its policies and procedures.
190. IFAD has a Complaints Procedure to receive and facilitate resolution of concerns and complaints with respect to alleged non-compliance of its environmental and social policies and the mandatory aspects of its Social, Environmental and Climate Assessment Procedures. For more information, visit the IFAD webpage: [https://www.ifad.org/web/guest/accountability-and-complaints-procedure.](https://www.ifad.org/web/guest/accountability-and-complaints-procedure)

191. **Figure 3: Coordination and Grievance Mechanisms**



b. Financial Management, Procurement and Governance

192. The dedicated PMU for the SARP will be set up and established under the Presidential Secretariat, though strengthened to include additional positions relevant to achieving the SARP project objectives. This PMU will be responsible for implementing all operational-level fiduciary functions. The Finance department of the PMU will consist of a Finance Manager, released on a full-time basis, to be assisted by an Accountant and two Accounts Assistants. In addition, an Internal Auditor and a Procurement Officer with experience of National Procurement Procedures will be recruited to the PMU (and will also hold responsibility for contract management). Overall, the Finance department, reporting to the Project Coordinator for SAP and SARP, will take on the key functions of project administration.
193. **Budgeting.** Sri Lanka has a three-tier administrative structure: central, provincial, and local government. All activities of the government are predetermined and are set out in plans and programs. The annual estimates of expenditure detail the financial commitment of the government for the next year's program of activities. There are three budget areas—national, provincial, and local—corresponding to the three levels of government. The Constitution requires the central government to allocate adequate funds from the annual budget to the provincial councils to meet their needs. The Finance Commission is the intermediary

between the central government and the provincial councils in finance matters.

194. The PMU, after consultations with project stakeholders, shall prepare its annual budget, linking all the planned activities to the cost categories outlined in Schedule II of the Financing Agreement; this exercise will take place in advance of the preparation of the national budget, to ensure that the required Government funds will be allocated and available on time from the General Treasury. All financing contributions should be clearly stated in the budget to be submitted to the NSC and IFAD for its approval. **Disbursement arrangements and flow of funds.** The Presidential Secretariat, the LPA, would be responsible for managing the funds flow from the loan proceeds and, opening and maintaining the Designated Account in US Dollars at the Central Bank of Sri Lanka (CBSL) to receive loan resources in advance as soon as possible after entry into force of the Agreement. Replenishments of the DA would be effected through submission of Withdrawal Applications (WAs) and accompanying Statements of Expenditures (SOEs) and/or supporting document, in accordance with IFAD procedure as set out in the Letter to the Borrower and Loan Disbursement Handbook, to IFAD. IFAD funds would be channelled through the Designated Account maintained at the CBSL. Under Imprest arrangements, the maximum authorized allocation to the Designated Account will be USD 4 million. One or more advances may be withdrawn within this authorized allocation
195. In accordance with Section 3.1 of the LDH, the Designated Account will be administered following Imprest Account arrangements. Advances from this Financing must be segregated from other funds for the Project .
196. The LPA should make adequate annual budgetary provisions for IFAD funds and Counterpart funds in the National Budget, based on the AWPB of the Project.
197. Before disbursement can begin, IFAD must receive, from the designated representative a letter designating the names of officials authorized to sign withdrawal applications which includes their authenticated specimen signature(s). The project is eligible and authorised to use the IFAD Client Portal (ICP), the applicable form is included in LTB.
198. Documentation evidencing the opening of the Designated Account, with details of the names and titles of the persons authorized to operate this/these account(s), must reach IFAD before withdrawal from the loan account can begin.
199. The Project will maintain Project Accounts in *local currency* at a state owned commercial bank, to receive funds from the *Designated Account* for eligible expenditure for the project implementation.
200. The government will maintain the Project Accounts in a state owned local currency at the commercial bank to provide counterpart funds for Project implementation.
201. The following are the SOE thresholds^[1] that apply for withdrawal application under procedure (i) "Advance Withdrawal" and under procedure (iii) "Reimbursement": USD 50,000 for all expenditures categories.
202. **Internal controls and internal audit** As part of internal control procedures, the PMU would give effect to a formal delegation of authority and clear segregation of duties among the project staff. In addition, the project's financial performance will be periodically reviewed by the National Steering Committee chaired by the Presidential Secretariat. The overall control measures and systems and procedures that are in place (applying Government rules) are relatively adequate to address needs of the proposed project. Furthermore, following Government circular, all donor-financed projects must employ an internal auditor, which will also be the case for SARP.
203. Management Information System (including Accounting software). The Project will establish a Management Information System (MIS) to support the core project management functions at the central and district levels, such as business plan development, financial management and project monitoring and evaluation.
204. The PMU will adopt an accounting software, customised to record and generate financial reports and preserve financial data per the requirements of IFAD. The customisation should comply to the chart of accounts, disbursement rules and share of financiers and should be able to generate Financial Statements and automate the preparation of Was.
205. **External Financial Audit.** The Auditor General (AG) who is constitutionally mandated to audit all government accounts and report to Parliament annually, will perform the external financial audit of the project. A copy of the Financing Agreement (FA) and other relevant information of the Project should be submitted to the AG's office in advance, enabling AG to issue necessary instructions and guidance to staff and ensure timely submission of audit report and management letters. Specific additional auditing requirements of IFAD will be communicated to the AG, and the AG would submit audited financial statement and a detailed audit report along with a Management Letter not later than six months after the end of the financial year.
206. IFAD will publicly disclose project financial statements and audit reports of projects financed by IFAD. In line with the standards of the International Aid Transparency Initiative, the government is encouraged to publish relevant financial information on their own websites, for increased accountability.
207. The audit TORs explicitly mention the right of the borrower/recipient and of IFAD to publish the audit report, with no limitation-of-use clause.
208. **Lending Terms and Financing Conditions**
209. The Loan is granted on ordinary terms and shall be subject to interest on the principal amount outstanding of the Loan rate equal to the IFAD Reference Interest Rate, payable semi-annually in the Loan Service Payment Currency, and have a maturity period with a MAXIMUM 35 YEARS, including a grace period with MAXIMUM 10 YEARS starting from the date as of which the Fund has determined that all general conditions precedent to withdrawal have been fulfilled. The grace period and maturity period shall be confirmed at the financing agreement negotiation.
210. **Risks to public debt sustainability** The gross public debt is projected at 83.7% of GDP in 2018. Going forward, sustained fiscal

efforts to reach an overall deficit of 3.5 percent of GDP by 2020 are expected to lower the debt ratio to 80 percent of GDP by 2020 and, under unchanged policies, to 73 percent by 2023, reducing the risk of debt distress.

211. Sensitivity analyses point that Sri Lanka has high debt sustainability risks, especially with the materialization of the sizable contingent liabilities from SOEs (state owned Enterprises), estimated at about 11 percent of GDP in 2017.
212. Lessons learned and knowledge generated on financial management from current active portfolio:
- IFAD-financed programmes in Sri Lanka suffered from some delays as for NADeP and STaRR, it was over one year from the date of entry into force to the date of first disbursement, resulting in slow start-up. To the extent possible, new financing is planned to build on existing structures and mechanisms, and early and continuous consultation with Government is essential to mitigate delays.
 - Earlier selection of qualified staff is a critical element to ensure timely implementation and performance
 - Ensure the adoption of automated accounting systems at central and district level, together with maintenance and training for proper recording of project's transactions; Accounting software should be identified in the earlier stage during the design mission.
 - Engage with internal auditors in order to have proper internal audit arrangements in place for the project.
 - *Identify further training on Budgeting & Planning and Cash Flow Management. orts are submitted to the line ministries overseeing project implementation.*
213. Sri Lanka is ranked in medium risk bracket with the score of CPI index of 38 and RSP rating 3.7. As the latest PEFA report is not available for public view, the mission was compelled to make the procurement risk assessment based on the lessons learned from IFAD projects and observations made in other donor funded project reports in Sri Lanka. Accordingly, overall procurement risk is rated as Medium. This rating has been validated by the findings of the Procurement Risk assessment matrix prepared by the mission. In order to mitigate inherent country risks the government authorities have taken series of measures in the recent past, such as introduction of 19th amendment to the Constitution establishing National Procurement Commission, National Audit Commission and widening the scope of the Commission to Investigate Allegations of Bribery or Corruption. According to the risk assessment conducted by the mission main risk areas at project level are lack of procurement professionals, poor status of progress monitoring and contract management. In order to mitigate these risks, the SARP would setup dedicated procurement unit consisting of two experienced procurement officers in the PMU. These officers along with other staff who are involved in procurement activities need to be trained in IFAD procurement procedure at the beginning of the project. In addition, action would be taken to strengthen the system of contract management, conduct regular progress review meetings and reporting.
214. There is no Act of Parliament for public procurement but the GoSL does have a functional public procurement system in place.^[79] The National Procurement Guidelines drafted in association with the World Bank, the ADB and the JICA are largely consistent with IFAD guidelines and will be adopted. In case of any inconsistency, IFAD Guidelines would supersede the National Procurement Guidelines. A dedicated Procurement Unit consisting of a Senior Procurement Officer assisted by an Assistant Procurement officer would be setup in the PMU. The senior procurement officer will report directly to the Project Director. The detailed procurement arrangement (roles, responsibilities, methods, prior review thresholds and staffing) is given in Project Implementation Manual (Annex8) and the initial 18-month procurement plan is included in Annex 7.

L. Planning, M&E, Learning, KM and Communication

a. Planning, M&E, Learning, Knowledge Management and Communication

215. **Planning.** The main planning tools for SARP will comprise the Logical Framework / M&E Framework including its indicators and targets, and the Results Based Annual Work Plan and Budget (AWPB). The AWPB preparation will be conducted initially at local level by the Area-Based Coordinators in collaboration with district level line department staff. The local work plans will be discussed and validated in a national stakeholder workshop and compiled into a consolidated AWPB. The consolidated AWPB will be submitted in advance of the GoSL annual budgeting process to ensure that sufficient counterpart funds are made available. Preparation of the AWPB will be grounded on the principles of results-based planning. Indicators for planning and monitoring will be based on those given in this report.
216. **M&E.** SARP will put in place a results-based monitoring and evaluation system. This system will generate comprehensive and reliable information to support planning and decision-making. An annual survey will be conducted from PY3 to report on Core Indicators. The system will be participatory, decentralised, and compliant with IFAD requirements, and relevant data, analysis and reporting will be disaggregated by gender and age. The data will inform the preparation of above mentioned AWPBs and annual progress reports compatible with ORMS.
217. Baseline information will be collected in the first year of implementation. The baseline survey will establish benchmark data for key programme result indicators that will form basis for evaluation at mid-term and end-term evaluation. The baseline study will include a beneficiaries group and a control group, and will incorporate the Multidimensional Poverty Assessment Tool (MPAT). This will be essential to determine attribution of results to programme interventions. The M&E framework in the PIM will outline the developing of an MIS system as well as regular data collection channels from the field, and how the M&E assistants will be linked with field staff. In addition, a geo-referenced ICT-based M&E system will be used. The baseline will be supported by the WFP-VAM system and locally conducted watershed planning and livelihood analyses.
218. **Impact evaluation:** An impact evaluation study will be designed to run concurrently with project implementation to provide evidence for adaptive management during project execution. IWMI is well placed to conduct this study as they are based in Sri Lanka.

219. **Learning and KM.** SARP will prepare a knowledge management plan that is linked to the M&E system. The objective of knowledge management is to ensure the project units are able to generate and document that knowledge that are useful to build practical knowledge and know-how that leads to improve project performance and results. The knowledge generated within the project is systematically identified, analysed, documented and shared, and should be used to: (i) improve project performance and delivery; (ii) allow flexibility to changing circumstances; (iii) document and share innovations, best practices, including project's successes and failures to improve project intervention (iv) support innovations and up-scaling; and (v) support country level policy engagement. Particular attention will be given to documenting innovative models that are being tested through the project.
220. SARP will include some innovative features that include: a) the targeting and community-level planning methodology to be applied; b) new sustainable land management measures; c) linking nutritionally rich food items to institutional markets (e.g. school feeding); d) roll-out of the FBS approach; e) youth incubation pilot testing; f) small-scale mechanization hire services; and g) pilot-testing of climate data information and market information systems. The FBS approach and community planning processes have already been tried and tested in Sri Lanka and are available for scaling-up.
221. Some of the lessons will be captured and documented through on-going data collection, monthly/semi-annual reports, and thematic studies as part of the knowledge management function. The M&E system will document and share knowledge through internal (e.g., learning events, stakeholder workshop meetings, etc.) and external mechanisms (e.g., website, blogs, radio etc.). Knowledge activities will proactively pursue gender and youth issues, and present success stories related to commercialisation of agriculture and increasing resilience. SARP will also have bi-annual and annual review meetings / workshops which will report on programme progress, lessons learned, challenges and solutions to implementation constraints. In complement, an SMS communication system will be developed to reduce the communication gap between field-level farmers and the project.
222. For innovation and learning, coordination amongst donor programmes will be required as well as amongst the various extension services at the different administrative levels. Platforms for improved coordination and the effective dissemination and scaling of technologies will be established at national, district and community level.
223. The information to be generated by the M&E system will enable DoA, DAD, DAP and other related departments, the Divisional Offices and other relevant stakeholders to carefully monitor SARP and provide reliable information on the different interventions and the resultant impacts (or lack thereof). Information sharing with other dry zone projects in Sri Lanka will receive particular attention. Knowledge gained in other countries of the region will be made available to SARP. In turn, the SARP experience will inform regional learning on integrated watershed development interventions.
224. Knowledge and learning generated during project implementation captured through the project M&E system will be used to inform policy and public investment. Key areas of policy interest will include determining how existing policies impact the sustainable use of climate smart technologies, how to attract youth to farming, and how to address issues of access to land for women and youth.

b. Innovation and scaling up

225. SARP has some innovative features such as: a) the integrated sub-basin level ecosystem-based approach; b) climate smart technological practices; c) linking nutritionally rich food items to institutional markets (e.g. school feeding); d) roll-out of the FBS approach; e) youth incubation pilot testing; f) small-scale mechanization hire services; and g) pilot-testing of climate data information and market information systems. The FBS approach and community planning processes have already been tried and tested in Sri Lanka and are available for scaling-up.
226. Adoption of the *integrated sub-basin level ecosystem-based approach* to Dry Zone water management is an innovation that could transform the current sectoral approach to investments in agriculture and irrigation. The project approach is to move away from the conventional, compartmentalized functioning of government agencies towards providing an integrated solution at a sub-basin or cascade level. The approach is innovative in the following ways: a) irrigation water, land management and agriculture are brought together to address resilience of farmers holistically at scale; b) addressing the irrigation needs of smallholders together with improved agronomic practices combined with the cascade rehabilitation will increase water yield and more efficiently manage the demand for water; c) by adopting the cascade-wide approach the climate risks for water management and agriculture can be addressed; d) ensuring scaling by supporting climate-risk informed planning and implementation through cascade level water management committees and district wide knowledge management and service delivery through ASCs.
227. SARP will also promote the development and adoption of *innovative adaptation technologies and practices* to enhance water management and improve the livelihoods of smallholder farmers. The project will upgrade traditional cascades to be climate-resilient through design changes such as strengthened bunds whilst introducing climate-resilient crops and low cost methods of drip irrigation. The technologies will impact at farm level the adoption of climate resilient productivity enhancing technologies, combined with improved availability of inputs and services and strengthened farmer organizations to link their members to markets.
228. The integrated approach to watershed management will be a model for partnership and collaboration between stakeholders and will engage district line ministries and departments through the inter-ministerial and basin-level committees as reflected in the implementing arrangements. The approach can create a framework for government engagement with civil society to deliver essential public services to the rural population of the Dry Zone. The knowledge and technical products such as technical guidelines, water management plans and capacity building activities such as training of technical agencies and local level organizations on climate-resilient technologies and practices will lay the potential for scaling up through government and donor funded programmes. SARP also has the potential to make an important contribution to Sri Lanka's national policies on land management, agriculture, water resources and scale up innovative practices to address climate change through policy and

strategy directives.

M. Implementation plans

a. Implementation readiness and start-up plans.

229. The IFAD Country Director will initiate a number of preparatory actions. This will include the following activities: (i) Initiating a Climate Risk Analysis consultancy and the preparation of the Environmental and Social Management Framework – SECAP prerequisites for approval of the PDR; (ii) Analysis and modelling of cascades; (iii) Conducting a baseline survey of the project area combined with a livelihoods analysis; (iv) Mapping and appraisal of partner implementation organizations at community level; (v) Mobilization and recruitment of national consultants; (vi) Review and evaluation of the performance of ASCs and the Agrarian Banks; (vi) Assessment of an inventory of infrastructure investments for SARP; and (vii) Preparing construction designs and initiating procurement processes (where feasible).
230. To facilitate start up and expedite early implementation, the Presidential Secretariat will recruit a project expeditor – a person who was previously involved in the project design - to support establishing the project management structure and system. The project expeditor will facilitate the Presidential Secretariat to ensure the timely implementation of start-up activities. Immediately after the signing the Financing Agreement on the behest of the Presidential Secretariat the expeditor will facilitate the recruitment of the core PMU staff –the Project Director, technical specialists and Area Based Coordinators to provide critical, and time sensitive start up activities, procurement of essential goods and services required during the first year of implementation and formation of the NPSC. Once the key staff members are hired IFAD will organise a training to orient the staff in the technicalities of the project, to review the project design and the Project Implementation Manual (PIM). The core project team will be expected to refine the PIM with the objective of taking full ownership over its use and implementation.
231. In the first year, a Start-up Workshop will be organized to sensitize all project stakeholders, including NSC, PMU and District Offices about the approach of the project and its key components and implementation arrangements. The Start-up workshop will aim at developing a common understanding of the project's underlying design principles, processes and development objectives. The workshop will also allow partners to understand their role in SARP, reflect on logframe/ ToC, including verification of indicators, baselines and target values. The tools and procedures for financial management, procurement, selection of beneficiaries for different components, strategies for M&E and KM will also be introduced to key staff undertaking these key functions. Inception workshops would subsequently be organized in every participating district to sensitize local partners about the project.
232. The PMU will commission a baseline study to establish the status of outcome indicators for each target beneficiary group located in the selected project districts/ cascades and tanks. Terms of reference would be prepared with the help of IFAD to ensure that all key indicators included in the log-frame are included in the baseline and completion surveys. The baseline survey will provide the foundation for subsequent evaluations.

b. Supervision, Mid-term Review and Completion plans.

233. IFAD will conduct periodic implementation support as needed and at least two supervision missions per year. Supervision would encompass four discrete processes: i) loan and grant administration; ii) procurement review; iii) audit review; and iv) supervision and implementation support, which will be a continuous process of engagement with GoSL and PMU.
234. The first implementation support mission will take place soon after effectiveness and first disbursement. Two annual supervision missions will be undertaken each year with additional implementation support missions mobilized as required. IFAD will provide continuous supervision and implementation support as required. The composition of the supervision missions will be based on the need for technical support of the different project components especially farmer institutional development, productivity enhancement of the selected commodities, infrastructure investments, market development, links with the private sector and participation of women and youth.
235. A mid-term review will be organized by IFAD, GoSL early in year 3 to: (i) assess achievements and interim impact, the efficiency and effectiveness of management arrangements, and the continued validity of project design; (ii) identify key lessons learnt and good practices; and (iii) provide recommendations for improved performance. The mid-term evaluation will review and implementation progress of programme components, document performances on key implementation aspects such as approaches, strategies and processes and make recommendations for adjustments or restructuring as needed. The evaluation shall be conducted by an independent consultant to be approved by IFAD.
236. Thematic studies will be conducted on a needs basis to support programme activities, policy dialogue and scaling up. The project will conduct an annual outcome survey to show progress. Project staff would be briefed on IFAD's results management systems and requirements.
237. At the end of the project, SARP will conduct an end of project evaluation to assess the extent to which the project has had an impact on the targeted beneficiaries as reflected in the logframe. The final evaluation will also provide valuable information in preparing the Project Completion report and lessons for future programming.
238. To finalise the SARP, the following next steps are envisaged:
- Invitation Letter from the GoSL to IFAD for negotiation, November 2019
 - IFAD EB presentation: December 2019
 - Financing Agreement February 2020

Footnotes

- [1] 2015. WB. Systematic Country Diagnostic.
- [2] 2017. ADB. Country Partnership Strategy.
- [3]<https://www.cbsl.gov.lk/en/news/the-annual-report-of-the-central-bank-of-sri-lanka-for-the-year-2018>
- [4]https://www.cbsl.gov.lk/sites/default/files/cbslweb_documents/publications/annual_report/2018/en/3_KEI.pdf
- [5] Remittances from migrant workers totaled around USD7 billion in 2015.
- [6] World Bank Databank
- [7] South Asian countries include: Afghanistan, Bangladesh, Bhutan, India, Maldives, Pakistan, Nepal and Sri Lanka.
- [8]<http://www.statistics.gov.lk/PopHouSat/VitalStatistics/MidYearPopulation/Mid-year%20population%20by%20district.pdf>
- [9] In 1990, the total fertility rate in Sri Lanka was 2.48, whereas that in Bangladesh was 4.49 and 4.04 in India. In 2015 the figures were 2.06 in Sri Lanka, 2.14 in Bangladesh and 2.4 in India.
- [10] 2015. WB. Systematic Country Diagnostic.
- [11] IFPRI 2017. Agricultural Transformation in Sri Lanka.
- [12] Based on the World Bank's international poverty line for lower-middle income countries at USD3.2 per day.
- [13]. Op cit.
- [14] Department of Census and Statistics and Poverty Global Practice, World Bank Group, 2015. The Spatial Distribution of Poverty in Sri Lanka.
- [15] World Bank databank. The Gini coefficient in some other lower middle-income countries in Asia was as follows: 39.5 for Indonesia (2013), 35.3 for Viet Nam (2016) and 35.1 for India (2011).
- [16] Food and Agriculture Organization (FAO) and the World Food Programme (WFP) Food Security study 2017
- [17] It is common practice in Sri Lanka for the newly elected government to announce a policy framework based on its election manifesto (FAO 2011. Articulating and Mainstreaming Agricultural Trade Policy and Support Measures).
- [18] Some tension between these two positions is found also within the same policy framework, e.g. "Regaining Sri Lanka" main text advocates for private sector-led productivity improvements and the action plan appears to advocate for continued state intervention (FAO.2011. Ibid.)
- [19] 2002. GOSL. Regaining Sri Lanka: Vision and Strategy for Accelerated Development, December 2002, Ministry of Finance and Connecting to growth: Sri Lanka, Poverty Reduction Strategy, June 2002. The PRSP was presented as an annex and later incorporated as Part II of RLS.
- [20] Mahinda Chintana: Ten-year Horizon Development Framework (2006-2016), Department of National Planning, Ministry of Finance and Planning. This reflects President Rajapaksa electoral manifesto and was later updated in 2010 with Sri Lanka, the Emerging Wonder of Asia, Mahinda Chintana: Vision for the Future, Department of National Planning, Ministry of Finance and Planning. The document also substitutes the national PRSP
- [21] The position of the government is also reflected in recently approved strategies and action plans, such as the Public Investment Plan (2016–2020), the National Plan of Action for the Social Development of the Plantation Community (2016–2020). Department of National Planning, Ministry of National Policies and Economic Affairs. <http://www.mnpea.gov.lk/web/index.php/en/news-events/2-uncategorised/181-public-investment-programme.html>
- [22] 2016. WB. Country Partnership Framework.
- [23] There are a few other programmes conducted by the MoAg to improve food availability and productivity. These include: the food crop production and improvement programme; the farm mechanization programme to improve productivity; the fertilizer subsidy programme; and the renovation of small tanks, and minor irrigation programmes.
- [24] Vision 2025' prioritises increasing employment opportunities as well as re-skilling of the labour force to meet current and emerging socio-economic demands, with special prominence for women and youth. Taking note of existing disparities between regions in country, targeted regional economic development actions are also highlighted in the policy.
- [25] <https://www.ilo.org/colombo/lang--en/index.htm>
- [26] Ministry of Agriculture, Ministry of Fisheries and Aquatic Resources Development, Ministry of Plantation Industries, Ministry of Primary Industries, Ministry of Irrigation and Water Resource Management, Ministry of Livestock and Rural Development. At the time of the CSPE report finalization (January 2019), following some changes in the ministry portfolios late 2018, the Government is composed of 31 cabinet ministries. (<http://www.cabinetoffice.gov.lk/cab/index.php?>

option=com_content&view=article&id=22&Itemid=40&lang=en).

[27] For example, the Coastal Conservation Department, which was responsible for one of the IFAD-financed project, was initially in the Ministry of Fisheries and Aquatic Resources, moved to the Ministry of Defense and then to the Ministry of Mahaweli Development and Environment

[28] About eighty percent of adult women in Sri Lanka have reached at least a secondary level of education with no significant difference with men. The former can be compared to 35 percent in India and 26.5 percent in Pakistan. (2015 data).

[29] There has been a marked increase in Women Headed Households (WHHs) in post-war Sri Lanka. The 2012-13- Household and Income Expenditure Survey showed that in Sri Lanka, 1.2 million households or 23 percent of the households are WHHs .

[30] Government of Sri Lanka, MoW&CA, National Action Plan on Women Headed Households 2017- 2019. The National Framework for Women Headed Households (2017- 2019) has been introduced specially to improve the socio economic situation of women affected by the conflict. The government as well as the Banks have provided credit facilities for enhancing livelihood development activities for galvanizing the national policy for eradication of poverty. A recent initiative of the Ministry of Women and Child Affairs is the directive obtained from the Treasury to allocate a minimum of 25% investment for economic development of rural women. Programs are in place to encourage girls to enter into technological fields, which provide opportunities in accessing the labour market.

[31] SARP interventions will be guided by a gender strategy as outlined in Appendix 8

[32] These groups were formed under a World Bank project.

[33] 2018. FAO. Country Gender Assessment of the Agriculture and Rural Sector in Sri Lanka <http://www.fao.org/3/CA1516EN/ca1516en.pdf>

[34] Minority Rights, Minority and indigenous peoples, Sri Lanka <https://minorityrights.org/country/sri-lanka/>

[35] Government statistics 2014

[36] Defined as areas where changes in average weather will adversely affect living standards. Hotspots are the result of two interrelated factors: (a) the magnitude of predicted changes in average weather at the local level; and (b) the relationship between weather and living standards in that location

[37] Gunatilake, S.K., Samarasinghe, S.S. and Rubasinghe R.T., 2014. Chronic Kidney Disease (CKD) in Sri Lanka - Current Research Evidence Justification: A Review. Sabaragamuwa University Journal 2014, V. 13 NO. 2 pp 31-58

[38] Johnson R.J Heat Stress Nephropathy from Exercise-Induced Uric Acid Crystal Uria: A Perspective on Mesoamerican Nephropathy. American Journal of Kidney Disease. January 2016 <http://www.ajkd.org/article/S0272-6386%2815%2901156-7/abstract>

[39] Ministry of Health and Provincial Renal Disease Prevention and Research Unit - North Central Province, in a presentation at the Technical Working Group for Project Preparation in October 2015

[40] Ministry of Health. Sri Lanka Demographic and Health Survey 2016

[41] National nutrition and micronutrient survey 2012

[42] IFPRI (2016). The Global Nutrition Report.

[43] Medical Research Institute, 2016

[44] Global Nutrition Report, 2016

[45] Low weight-for-height: Wasting or thinness indicates in most cases a recent and severe process of weight loss, which is often associated with acute starvation and/or severe disease.

[46] IFAD Dry Zone Livelihood Support and Partnership Programme, Impact Evaluation, 2013.

[47] IFAD CSPE 2018; Dry Zone Livelihoods Project, UNDP, WFP

[48] IFAD CSPE 2018

[49] For specific investments promoted by the project, such as climate smart production technology and innovative information and communication technology development that serve the purpose of the project

[50] This refers to whether private investment and its impact would not have happened anyway in the absence of the IFAD intervention.

[51] 35-38% of post-harvest losses are reported throughout (central bank reports)

[52] Lessons utilized for the design of this project include (a) the UNDP Green Climate Fund project - Strengthening the Resilience of Smallholder Farmers in the Dry Zone; (b) WFP project - Building Resilience Against Recurrent Natural Shocks through Diversification of Livelihoods for Vulnerable Communities in Sri Lanka and (c) the World Bank Climate Resilience and Improvement Project (CRIP).

[53] The estimated number of households to be reached was derived from previously implemented projects linked to the overall budget of the project and adjusted for the dry zone rural population that is more dispersed than the potential areas.

[54] The hotspots are hydrologically defined as a catchment within a river basin that contains several Village Tank Cascades (VTCs) and individual tanks.

[55] Agriculture Sector Modernization Project is covering 7 districts and the Climate Smart Irrigation Project covers 11 districts and 17 river basins.

[56] The UNDP project Strengthening the resilience of smallholder farmers in the Dry Zone covers three river basins, 16 cascades in 7 districts. The WFP project, Building Resilience Against Recurrent Natural Shocks through Diversification of Livelihoods for Vulnerable Communities in Sri Lanka, covers 5 districts.

[57] These include 100 tanks in Anuradhapura district, 25 (Vavuniya), 35 (Puttalam), 25 (Mannar) 10 (Matale) and 105 (Kurenagala). The 300 tanks include 100 tanks in UNDP watersheds. The figure should be seen as an upper level target based on the capacity to design and construct over the project life as well as funding considerations.

[58] The targeting strategy as detailed in appendix 8 provides detailed vulnerability analysis, profile targets, risk mitigation measures, inclusion strategies. The vulnerability analysis provides an overview of the challenges faced by farmers including landlessness, smallholding, remoteness and inaccessibility to markets, institutions and inputs, meagre coverage under social protection, limited household incomes and assets, indebtedness, food insecurity, limited access to rural finance and enterprises, climate change vulnerability and social and economic marginalization faced by ethnic, indigenous, disabled, youth and women farmers.

[59] IFAD will work closely with WFP and government agencies to utilise the existing geographical and household targeting VAM system

[60] The criteria used for the selection of potential value chain commodities is elaborated on in the PIM.

[61] DoA has listed a set of climate smart agricultural (CSA) practices based on successful interventions carried out in other countries and tried and tested in Sri Lanka. The practices with high adoption rates include planting with the onset of rains, land preparation for rice utilizing rainfall in Yala, agroforestry and crop diversification (in home gardens), climate resilient crop varieties for paddy, short and ultra-short duration varieties, cover cropping and mulching and mechanised land preparation for rice, reducing fertiliser and pesticide use by mulching and agroforestry systems that promote good water and soil quality.

[62] The strategy is elaborated in Appendix 8

[63] The FBS methodology has been tried and tested in Sri Lanka and is well appreciated by stakeholders as an effective methodology for replication

[64] These will be an adaptation of the successful 4-P business models implemented under SARP.

[65] These will be an adaptation of the successful Public-Private-Producer Partnership (4P) business models implemented under SAPP.

[66] Enterprise Sri Lanka by the Department of Development Finance includes interest subsidy loan schemes, which are supposed to be implemented by all 19 public and private sector banks using their own funds while the interests are fully or partially subsidized by GoSL. For youth beneficiaries, GIZ is providing technical support to incorporate companies, maintain books and records, negotiations with FSPs and access to markets. The loan facility through state banks comes with a 75% loan installment paid by GoSL. SARP will explore the opportunity of participating in that scheme for youth beneficiaries of the entrepreneurial incubation support. The ADB grant for Women Entrepreneur Finance Initiative (We-Fi) for technical assistance and an extra grant for women in less developed regions, such as the dry zone, blended with a credit line (80% of the investment costs), would allow to build synergies for the support of women entrepreneurs targeted by SARP.

[67] This aligns with the focus of IFADs priority areas outlined in the Rural Youth Action Plan.

[68] Owing to the tight time line for rehabilitation of the tanks – over the dry period – the manual cash for work activities will be complemented by mechanized operations.

[69] For instance for disabled persons activities will be selected to account for specific disabilities.

[70] Linkages with SAPP will be through the P-4 commercialization options. SARP will strengthen the capacity of PO/FOs and will facilitate linkages to private sector buyers with the support of SAPP. The SAPP modalities will be used to access loan funding for the POs/ FOs through the commercial banking system. SAPP will facilitate links to financial organizations. Less formal PO/ FOs selling produce locally to small and medium agro-processors and/ or spot markets will be supported solely by SARP.

[71] 'Regaining Sri Lanka' (2002), the Mahinda Chintana (2006) and Vision 2025 (2017-2025) and the Food Production National Programme (2016-2018)

[72] WFP and UNDP have been identified as potential implementing partners to support capacity building and the community planning process as part of the resilience strategy.

[73] The revolving fund credit line operating through SAPP will be used to develop 4-P business models in the dry zone. However, some modification will be needed to the existing business model in order to incentivize the private sector to invest in facilities in the project vicinity.

[74] The detailed costings lay out some of the preliminary studies that will be undertaken. These include a baseline survey; an assessment of the water availability in the sub-catchments/ tanks; an analysis to see if the available water quantity is sufficient to meet the existing demands for water from different sectors (irrigation, drinking water, environment, etc.); and detailed hydrological and

water allocation modelling of the sub-basins selected. Other preliminary studies include a) a Climate Risk Analysis consultancy; b) preparation of the Environmental and Social Mapping Framework; c) VAM targeting and planning to be conducted by WFP.

[75] Based on assessments of the performance of the UNDP, WFP and IFAD-SAP projects currently under implementation

[76] The farm families can be divided into three categories of households – the extreme poor, poor with potential to sell in local markets and more commercially oriented smallholder farmers.

[77] Presidential Secretariat also coordinates the Multi-Sector nutrition approach .

[78] A financial management assessment was conducted to determine whether the Presidential Secretariat has acceptable FM systems to provide IFAD reasonable assurance that funds will be used for the intended purpose to enable project development objectives to be met. The assessment found the arrangements to be acceptable and the procedures employed by SAP, will be followed by SARP.

[79] The 'National Procurement Guidelines' and 'Guidelines on Selection and Employment of Consultants' were issued in 2006 and 2007 respectively.

Sri Lanka

Smallholder Agribusiness and Resilience Project

Project Design Report

Annex 1: Logframe

Document Date: 04/11/2019

Project No. 2000002583

Asia and the Pacific Division
Programme Management Department

Smallholder Agribusiness and Resilience Project

Logical Framework

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outreach	1.b Estimated corresponding total number of households members				RIMS	Annual	PMU	(A) Extreme climate change shocks do not occur. (A) Project management and support service capacity is supportive
	Household members		81000	180000				
	1.a Corresponding number of households reached				RIMS	Annual	PMU	
	Women-headed households							
	Non-women-headed households							
	Households		18000	40000	RIMS	Annual	PMU	
	1 Persons receiving services promoted or supported by the project							
	Females							
	Males							
	Young							
	Not Young							
	Total number of persons receiving services							
	Male			25				
Female			45					
Project Goal Contribute to smallholder poverty reduction, food security and nutrition in target Dry Zone districts	70% of project supported HHs reporting a > 30% increase in their income				Reference studies and HH surveys	Baseline, MTR, End-line	PMU	Extreme climate change shocks do not occur
	Number of HHs		10500	28000				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	% of children suffering from reduced prevalence of chronic malnutrition				HH survey	Baseline, MTR, End-line	PMU	
	% of children		25	50				
	% HH reporting improved food security				Food Insecurity Experience Scale (FIES) assessment	MTR	PMU	
	Households		40	80				
Development Objective Build resilience and market participation of rural households in geographical areas affected by climate change	No. of individual entrepreneurs and HH report a > 50% increase in resilience score				Specific application of the resilience methodology	Annual	PMU	A) Extreme climate change shocks do not occur. R).population increases may jeopardize sustainability of management systems. A) Sustainable and qualified business service providers are available to provide access to services
	Males							
	Females							
	Young							
	Not Young							
	Number of people		10000	28000				
	1.2.8 Women reporting improved quality of their diets				Baseline, MTR and Endline surveys	Annual	PMU	
	Women reporting improved quality of their diets							
	Percentage	0	20	50				
	Young							
	Not Young							

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outcome Climate resilient and value chain capacity built	Number of water user associations and producer organizations supported to manage climate-related risks				Evaluation studies	Annual	PMU	A) Social mobilization and group management support is available; A).Extreme climate change shocks do not occur; A) Sustainable and qualified SLM support is available to provide ecosystem services
	% water user associations		50	182				
	No. of Producer Organizations with capacity to manage group enterprises in a financially profitable and sustainable way				Project M&E system	Annual	PMU	
	Number of POs		100	400				
Output Service providers and producers' groups created and capacitated for better land and water management	No. of group members trained in land and water management				Specific Technical and project activity reports	Annual	PMU	Technical assistance is available through WFP in SLM
	Number members		2000	6000				
	Young							
	Not Young							
	Males							
	Females							
Output Farmers especially women and youth trained in business and marketing	No. of farmers, women and youth trained in business and marketing				Project M&E system	Annual	PMU	Sustainable and qualified business service providers are available to provide access to services
	Males							
	Young							
	Not Young							
	Number of people		800	1950				
Output Advocacy and Policy meetings conducted	Policy 1 Policy-relevant knowledge products completed				Project M&E System	Periodic	PMU	
	Number		2	5				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outcome Climate resilient climate change and value chain investments made	No. of households reporting improved access to water resources for productive and domestic use				Project M&E system	Annual	PMU	Extreme climate change shocks do not occur A) Sustainable and qualified SLM support is available to provide ecosystem services
	Households		4000	10450				
	Females							
	Males							
	Young							
	Not Young							
	No. of HH applying climate resilient technologies and practices				Periodic evaluation study	Annual	PMU	
	Households		10000	30000				
	Females							
	Males							
	Young							
	Not Young							
	Number of smallholder farmers, women and youth managing their enterprises profitably				Periodic evaluation study	Annual	PMU	
	Males							
	Females							
	Young							
	Not Young							
	Number of people		1500	6400				
	No. of farmers, women and youth reporting the use of knowledge in business and marketing				Periodic evaluation study	Annual	PMU	
	Males							

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Females							
	Number of people		1500	4600				
	Young							
	Not Young							
Output Minor irrigation tanks and water harvesting infrastructure constructed or rehabilitated	No. of hectares of farmland under water-related infrastructure rehabilitated				Regular project monitoring	Annual	PMU	Sustainable and qualified SLM support is available to provide ecosystem services
	Hectares of land		1000	3000				
Output Beneficiaries with access to market infrastructure and business services	No. of HHs utilising rural feeder roads constructed and/ or rehabilitated				Project M&E System	Quarterly	PMU	A) Local government planning support is available R) District level plans match the geographic targeting of districts and divisions
	Households							
	No. of HHs with access to improved support services through the ASCs				Project M&E System	Quarterly	PMU	
	Households		12000	20000				

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Smallholder Agribusiness and Resilience Project

Project Design Report

Annex 2: Theory of change

Document Date: 04/11/2019

Project No. 2000002583

Asia and the Pacific Division
Programme Management Department



Investing in rural people

Democratic Socialist Republic of Sri Lanka

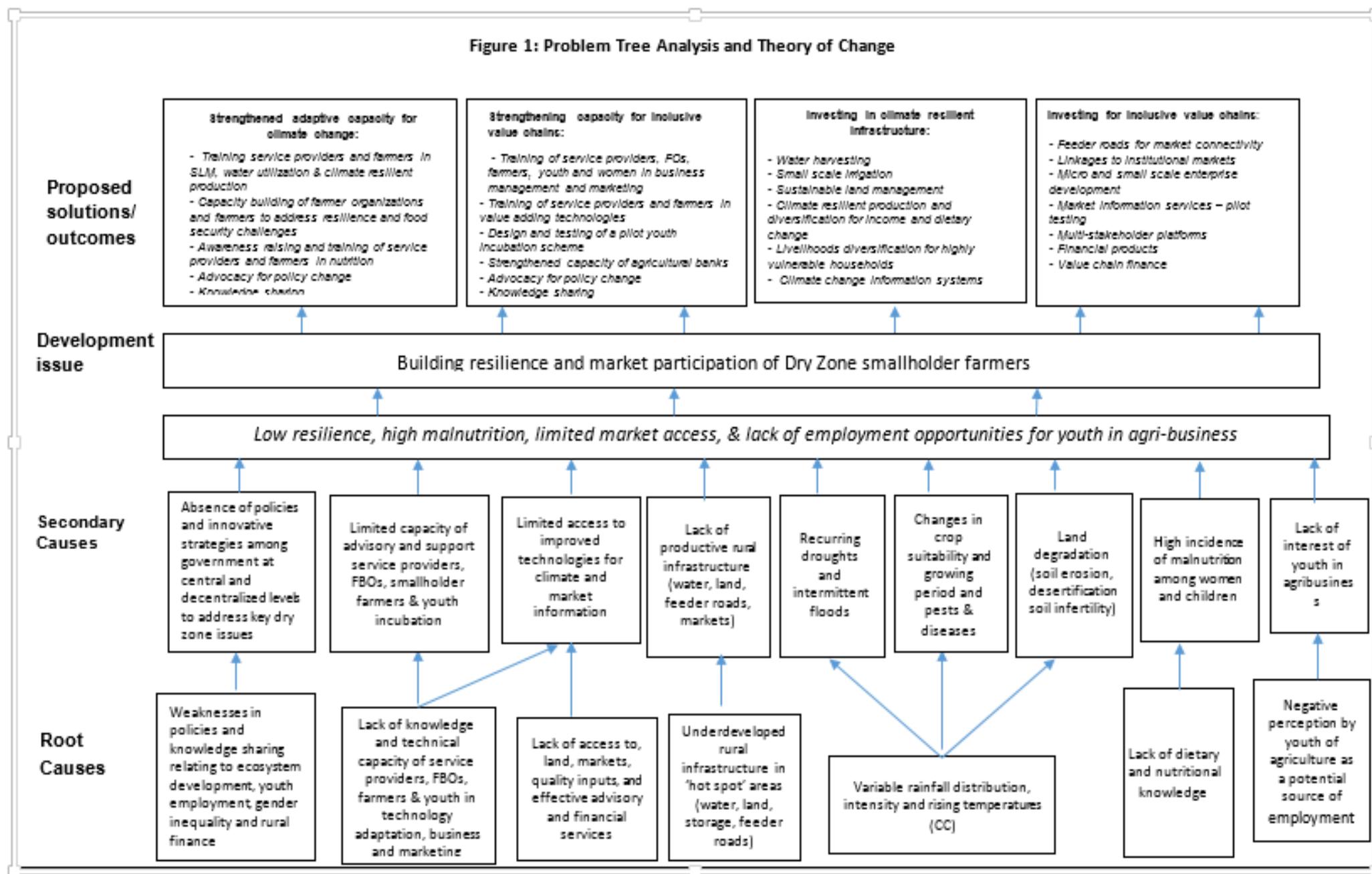
Smallholder Agribusiness and Resilience (SARP) Project Design Report

Annex 2: Theory of Change

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Project No.

Figure 1: Problem Tree Analysis and Theory of Change



Sri Lanka

Smallholder Agribusiness and Resilience Project

Project Design Report

Annex 3: Project cost and financing: Detailed costs tables

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Asia and the Pacific Division
Programme Management Department



Investing in rural people

Democratic Socialist Republic of Sri Lanka

Smallholder Agribusiness and Resilience (SARP) Project Design Report

Annex 3: Project Cost and Financing: Detailed Costs Tables

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Asia and the Pacific Division

Programme Management Department

Annex 3: Project cost and financing: Detailed costs tables

- 1. Main Assumptions** – This Annex presents the analysis of costs and financing for the SARP. It describes the assumptions made in estimating the Programme costs including the detailed cost tables and financing plan. The exercise used the COSTAB software to display the financial data and the detailed cost table for each component. The cost tables have been consolidated into summary tables that present the costs by component, category of expenditure and financiers. The full set of detailed and summary tables is presented in this Annex.
- 2. SARP** is proposed to be financed over a six-year period (2020-2025) based on information collected during the design mission providing the key parameters for the Programme costs. Data collected have been checked for consistency with average costs of goods and services in Sri Lanka. Costs have been estimated on the basis of prices prevailing during the period of design in June-July 2019.
- 3.** Inflation rate in Sri Lanka decreased to 3.8 percent in June of 2019, from 5.0 percent in the previous month. It was the smallest rate of inflation since January. Therefore, a declining local inflation rate of 2% was set as a base for the analysis for the Programme period 2020-2025. Foreign inflation rate has been set also at 2% for the same period. Both local and foreign inflation rates are compounded at mid-year. Inflation figures used in the calculation of the Programme costs are shown in Table 1 together with the derived exchange rate. Most of the cost items have been set in USD.

Table 1 Inflation and Exchange Rates

	2020	2021	2022	2023	2024	2025
Inflation (in %'s) /a						
Annual rates						
Local	2.0	2.0	2.0	2.0	2.0	2.0
Foreign	2.0	2.0	2.0	2.0	2.0	2.0
Compounded rates						
Local	1.0	3.0	5.1	7.2	9.3	11.5
Foreign	1.0	3.0	5.1	7.2	9.3	11.5
Exchange rates (Local/Foreign) /b						
ALL						
Rates actually used	180.0	180.0	180.0	180.0	180.0	180.0
						0
/a Yearly values are within Each Project Year						
/b Yearly values are at Project Year Midpoints						

- 4. Programme Costs.** Total SARP costs including price contingencies, duties and taxes are estimated at about USD 82 million over the six-year Programme implementation period. Of this amount, about USD 16 million (about 20% of total Programme costs) represents the foreign exchange content and USD 12.3 million (about 15%) are estimated as duties and taxes. Import duties (on vehicles, office furniture and equipment) and value added tax (VAT) are applied to costs of all transactions. A value 15% as an average was used for all project costs. Total base costs amount to about USD 73.2 million, while price contingencies are estimated to add to this amount another USD 8.8 million, corresponding to 12% of the base costs. Investment costs account for 96.5% of the total costs (and recurrent costs for remaining 3.5%). Component costs breakdown are as follows:
- 5.** Project financing by components are tentatively: USD10.5 million for Component 1 – Capacity building for climate resilience and inclusive value chains (24.0 percent of project costs) and USD58.3 million for Component 2 – Investments for climate resilience and inclusive value chains (70 percent of project costs). For Component 3 – Programme management and coordination, project costs came to USD4.4 million (6.0 percent of project costs). Physical and price contingencies were estimated at 3.6 and 5.1 million respectively. A summary breakdown of the Programme costs by component is shown in Table 2.

Table 2 SARP estimated costs by Component and Subcomponent

	(LKR Million)			(US\$ '000)			%	%
	Local	Foreign	Total	Local	Foreign	Total	Foreign Exchange	Base Costs
A. Capacity Building for Climate Resilience and Inclusive Value Chain								
1. Strengthening Adaptive Capacity of Service Providers and Farmers to CC								
a. Community organization, planning and mentoring	406.7	101.7	508.4	2,260	565	2,824	20	4
b. Climate smart technologies	332.3	83.1	415.4	1,846	462	2,308	20	3
c. Livelihood resilience building	95.4	23.8	119.2	530	132	662	20	1
d. Nutrition education and training	83.5	20.9	104.4	464	116	580	20	1
e. Action research for policy dialogue	2.9	0.7	3.6	16	4	20	20	-
f. Contracting service providers	441.6	110.4	552.1	2,454	613	3,067	20	4
Subtotal	1,362.5	340.6	1,703.1	7,569	1,892	9,462	20	13
2. Strengthening Capacity for Inclusive Value Chain Development								
a. FBS organization and training	45.6	11.4	57.0	253	63	317	20	-
b. Market appraisal, post-harvest and value addition	20.4	5.1	25.6	114	28	142	20	-
c. Skills development for youth	73.3	18.3	91.6	407	102	509	20	1
d. National Policy Engagement	15.8	3.9	19.7	88	22	110	20	-
Subtotal	155.1	38.8	193.9	862	215	1,077	20	1
Subtotal	1,517.6	379.4	1,897.0	8,431	2,108	10,539	20	14
B. Investments for Climate Resilience and Inclusive Value Chains								
1. Investments for climate resilient production and infrastructure								
a. Cascade water resource infrastructure development	3,808.2	952.1	4,760.3	21,157	5,289	26,446	20	36
b. Household water harvesting, irrigation and soil conservation	565.3	141.3	706.7	3,141	785	3,926	20	5
c. Household resilience and nutrition	703.7	175.9	879.6	3,909	977	4,887	20	7
d. Climate resilient farming practices	751.5	187.9	939.4	4,175	1,044	5,219	20	7
Subtotal	5,828.8	1,457.2	7,286.0	32,382	8,096	40,478	20	55
2. Investment for inclusive value chain development								
a. Feeder road rehabilitation and maintenance	1,177.8	294.5	1,472.3	6,544	1,636	8,180	20	11
b. Agrarian Service Centres and Agrarian Banks	665.3	166.3	831.6	3,696	924	4,620	20	6
c. Market Infrastructure and Stakeholder Platforms	208.8	52.2	261.0	1,160	290	1,450	20	2
d. Youth and women's enterprises	426.0	106.5	532.4	2,366	592	2,958	20	4
e. Market, Weather and Climate Information Services:	86.4	21.6	108.0	480	120	600	20	1
Subtotal	2,564.3	641.1	3,205.4	14,246	3,562	17,808	20	24
Subtotal	8,393.1	2,098.3	10,491.4	46,628	11,657	58,285	20	80
C. Project management and coordination								
1. Project Management Unit	208.2	14.8	223.0	1,157	82	1,239	7	2
2. M&E and Knowledge Management	166.5	41.6	208.1	925	231	1,156	20	2
3. Area & District Offices	114.7	7.9	122.7	637	44	681	6	1
4. Recurrent Costs	205.1	36.1	241.2	1,139	201	1,340	15	2
Subtotal	694.5	100.5	795.0	3,858	558	4,417	13	6
Total BASELINE COSTS	10,605.1	2,578.2	13,183.3	58,917	14,323	73,241	20	100
Physical Contingencies	530.3	128.9	659.2	2,946	716	3,662	20	5
Price Contingencies	735.1	179.0	914.1	4,084	995	5,078	20	7
Total PROJECT COSTS	11,870.5	2,886.1	14,756.6	65,947	16,034	81,981	20	112

Table 3 Expenditure Accounts Project Cost Summary

	(LKR Million)			(US\$ '000)			%	%
	Local	Foreign	Total	Local	Foreign	Total	Foreign Exchange	Base Costs
I. Investment Costs								
A. Civil Works	4,388.5	1,097.1	5,485.6	24,381	6,095	30,476	20	42
B. Goods								
Vehicles	60.9	15.2	76.1	338	85	423	20	1
Equipment	617.0	154.2	771.2	3,428	857	4,285	20	6
Subtotal	677.9	169.5	847.4	3,766	942	4,708	20	6
C. Technical Assistance and Studies	1,734.3	433.6	2,167.9	9,635	2,409	12,044	20	16
D. Training and Workshops	835.7	208.9	1,044.6	4,643	1,161	5,804	20	8
E. Contracts with Service Providers	441.6	110.4	552.1	2,454	613	3,067	20	4
F. Grants	2,090.0	522.5	2,612.5	11,611	2,903	14,514	20	20
Total Investment Costs	10,168.1	2,542.0	12,710.1	56,489	14,122	70,612	20	96
II. Recurrent Costs								
A. Salaries and Allowances	292.5	-	292.5	1,625	-	1,625	-	2
B. Operation and Maintenance	144.6	36.1	180.7	803	201	1,004	20	1
Total Recurrent Costs	437.1	36.1	473.2	2,428	201	2,629	8	4
Total BASELINE COSTS	10,605.1	2,578.2	13,183.3	58,917	14,323	73,241	20	100
Physical Contingencies	530.3	128.9	659.2	2,946	716	3,662	20	5
Price Contingencies	735.1	179.0	914.1	4,084	995	5,078	20	7
Total PROJECT COSTS	11,870.5	2,886.1	14,756.6	65,947	16,034	81,981	20	112

6. The proposed IFAD financing for the project is USD42.7 million from the IFAD11 PBAS allocation for Sri Lanka. This funding also includes a USD1 million grant for background studies that will contribute to project start-up and policy dialogue. The GoSL is expected to contribute about USD12.6 million (mainly taxes and duties), the private sector USD1.7 million (mainly through capital investments and loans), and beneficiaries USD13.2 million (mainly in-kind and through loans from the Agrarian Bank). The beneficiaries and private sector will contribute through a combination of loans and matching grants under sub-component 2.2. Additional resources to the amount USD13.8 million have been earmarked by UNDP and WFP as parallel funding. UNOPS has also committed USD300,000 towards SARP. Tables 5 to 7 present the financing plan per component, expenditure accounts and disbursement accounts respectively.

Table 4 Project Components by Year -- Totals Including Contingencies (in USD '000)

	Totals Including Contingencies						Total
	2020	2021	2022	2023	2024	2025	
A. Capacity Building for Climate Resilience and Inclusive Value Chains							
1. Strengthening Adaptive Capacity of Service Providers and Farmers	2,166	2,157	2,022	1,567	1,407	1,141	10,460
2. Strengthening Capacity for Inclusive Value Chain Development	114	285	406	255	80	49	1,189
Subtotal	2,280	2,442	2,428	1,822	1,486	1,190	11,649
B. Investments for Climate Resilience and Inclusive Value Chains							
1. Investments for climate resilient production and infrastructure	164	8,535	9,106	9,467	9,683	8,586	45,540
2. Investment for inclusive value chain development	1,596	3,956	3,986	3,742	3,649	2,961	19,890
Subtotal	1,759	12,492	13,092	13,209	13,332	11,546	65,431
C. Project management and coordination	1,241	666	768	637	650	940	4,901
Total PROJECT COSTS	5,281	15,600	16,288	15,669	15,468	13,676	81,981

Table 5 SARP financing plan by Expenditure Account (USD Million)

	IFAD Loan		IFAD Grant		UNDP		WFP		UNOPS		Private Sector		Beneficiaries		The Government		Total		
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	
A. Capacity Building Climate Resilience :																			
1. Capacity Building for Climate Resilience	6.9	66.2	0.3	3.2	-	-	0.5	5.1	-	-	-	-	-	-	2.7	25.6	10.5	12.8	
2. Capacity building for commercialisation	0.9	77.0	-	-	-	-	-	-	-	-	0.0	2.4	0.1	5.5	0.2	15.0	1.2	1.5	
Subtotal	7.8	67.3	0.3	2.9	-	-	0.5	4.6	-	-	0.0	0.2	0.1	0.6	2.9	24.5	11.6	14.2	
B. Investments for Climate Resilience and Inclusive Value Chains																			
1. Investing in climate resilience	18.6	40.7	-	-	8.8	19.4	2.1	4.5	0.3	0.8	0.7	1.6	9.9	21.7	5.1	11.3	45.5	55.5	
2. Investment in farm commercialization	11.2	56.4	0.7	3.4	-	-	-	-	-	-	0.9	4.7	3.2	16.1	3.9	19.4	19.9	24.3	
Subtotal	29.8	45.5	0.7	1.0	8.8	13.5	2.1	3.2	0.3	0.5	1.7	2.5	13.1	20.0	9.0	13.8	65.4	79.8	
C. Project management and coordination	4.1	84.4	-	-	-	-	-	-	-	-	-	-	-	-	0.8	15.6	4.9	6.0	
Total PROJECT COSTS	41.7	50.9	1.0	1.2	8.8	10.8	2.6	3.2	0.3	0.4	1.7	2.1	13.2	16.1	12.6	15.4	82.0	100.0	

Table 6 SARP financing plan by Expenditure Account (USD Million)

	IFAD Loan		IFAD Grant		UNDP Parallel Funding		WFP Parallel Funding		UNOPS		Private Sector		Beneficiaries		The Government		Total		
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	
I. Investment Costs																			
A. Civil Works	13.3	38.7	0.7	1.9	6.7	19.6	-	-	0.3	1.0	0.2	0.6	6.4	18.5	6.7	19.6	34.3	41.9	
B. Goods																			
Vehicles	0.2	50.0	-	-	-	-	-	-	-	-	-	-	-	-	0.2	50.0	0.4	0.5	
Equipment	2.6	53.4	-	-	0.1	1.4	-	-	-	-	0.2	3.3	1.3	26.9	0.7	15.0	4.8	5.8	
Subtotal	2.8	53.1	-	-	0.1	1.3	-	-	-	-	0.2	3.0	1.3	24.6	0.9	18.0	5.2	6.4	
C. Technical Assistance and Studies	7.8	58.6	0.0	0.1	2.0	15.0	-	-	-	-	0.3	2.0	0.1	1.0	3.1	23.2	13.4	16.3	
D. Training and Workshops	4.7	74.4	-	-	-	-	0.5	8.3	-	-	0.0	0.5	0.1	1.0	1.0	15.7	6.4	7.8	
E. Contracts with Service Providers	2.6	75.2	0.3	9.8	-	-	-	-	-	-	-	-	-	-	0.5	15.0	3.4	4.1	
F. Grants	7.9	48.4	-	-	-	-	2.1	12.6	-	-	1.0	6.4	5.3	32.5	0.0	0.1	16.3	19.9	
Total Investment Costs	39.1	49.5	1.0	1.3	8.8	11.2	2.6	3.3	0.3	0.4	1.7	2.1	13.2	16.6	12.3	15.6	79.0	96.4	
II. Recurrent Costs																			
A. Salaries and Allowances	1.7	92.0	-	-	-	-	-	-	-	-	-	-	-	-	0.1	8.0	1.8	2.2	
B. Operation and Maintenance	1.0	85.0	-	-	-	-	-	-	-	-	-	-	-	-	0.2	15.0	1.1	1.4	
Total Recurrent Costs	2.6	89.3	-	-	-	-	-	-	-	-	-	-	-	-	0.3	10.7	2.9	3.6	
Total PROJECT COSTS	41.7	50.9	1.0	1.2	8.8	10.8	2.6	3.2	0.3	0.4	1.7	2.1	13.2	16.1	12.6	15.4	82.0	100.0	

Table 7 SARP Disbursement Accounts by Financiers (USD Million)

	IFAD Loan		IFAD Grant		UNDP Parallel Funding		WFP Parallel Funding		UNOPS		Private Sector		Beneficiaries		The Government		Total	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Civil Works	13.3	38.7	0.7	1.9	6.7	19.6	-	-	0.3	1.0	0.2	0.6	6.4	18.5	6.7	19.6	34.3	41.9
Goods	2.8	53.1	-	-	0.1	1.3	-	-	-	-	0.2	3.0	1.3	24.6	0.9	18.0	5.2	6.4
Consulting Services	10.4	62.0	0.3	2.0	2.0	12.0	-	-	-	-	0.3	1.6	0.1	0.8	3.6	21.6	16.8	20.5
Grants	7.9	48.4	-	-	-	-	2.1	12.6	-	-	1.0	6.4	5.3	32.5	0.0	0.1	16.3	19.9
Training	4.7	74.4	-	-	-	-	0.5	8.3	-	-	0.0	0.5	0.1	1.0	1.0	15.7	6.4	7.8
Salaries & Allowances	1.7	92.0	-	-	-	-	-	-	-	-	-	-	-	-	0.1	8.0	1.8	2.2
Operating Costs	1.0	85.0	-	-	-	-	-	-	-	-	-	-	-	-	0.2	15.0	1.1	1.4
Total PROJECT COSTS	41.7	50.9	1.0	1.2	8.8	10.8	2.6	3.2	0.3	0.4	1.7	2.1	13.2	16.1	12.6	15.4	82.0	100.0

7. Tables 8 to 12 present the Detailed Cost Tables as follows: (i) Table 8 corresponds to Subcomponent 1.1; (ii) Table 9 corresponds to Subcomponent 1.2; (iii) Table 10 corresponds to Subcomponent 2.1; (iv) Table 11 corresponds to Subcomponent 2.2; and (v) Table 12 corresponds to Component 3.

Table 8. Sub-component 1.1: Capacity building climate resilience

Detailed Costs

	Unit	Quantities						Unit Cost (US\$)	Base Cost (US\$ '000)						Expenditure		Fin. Rule	
		2020	2021	2022	2023	2024	2025		Total	2020	2021	2022	2023	2024	2025	Total		Account
I. Investment Costs																		
A. Community Organization, Planning and Mentoring																		
1. Awareness raising and community organization	number	250	100	-	-	-	-	350	930	233	93	-	-	-	-	326	TRAL_WKSHPS	IFAD_LOAN (100%)
2. Training of agro-enterprise promoters	number	3	-	-	-	-	-	3	1,000	3	-	-	-	-	-	3	TRAL_WKSHPS	IFAD_LOAN (100%)
3. Training of project, AI and ARPA staff in watershed planning	number	4	-	-	-	-	-	4	1,000	4	-	-	-	-	-	4	TRAL_WKSHPS	IFAD_LOAN (100%)
4. Training of community members and preparation of watershed plans	number	300	450	450	-	-	-	1,200	500	150	225	225	-	-	-	600	TRAL_WKSHPS	IFAD_LOAN (100%)
5. Watershed management guidelines and planning	number	150	100	-	-	-	-	250	250	38	25	-	-	-	-	63	TRAL_WKSHPS	IFAD_LOAN (100%)
6. Training of producer group organization management	number	70	130	150	100	50	-	500	1,500	105	195	225	150	75	-	750	TRAL_WKSHPS	IFAD_LOAN (100%)
7. Training of FOs in O&M	number	-	150	150	57	-	-	357	357	-	54	54	20	-	-	127	TRAL_WKSHPS	IFAD_LOAN (100%)
8. Refresher training of agroenterprise promoters	number	-	-	3	-	-	-	3	1,000	-	-	3	-	-	-	3	TRAL_WKSHPS	IFAD_LOAN (100%)
9. Technical assistance																		
a. Institutions and social development expert	erson/mt	12	12	12	12	12	12	72	1,200	14	14	14	14	14	14	86	TA_STUDIES	IFAD_LOAN (100%)
b. Social inclusion and gender facilitators	erson/mt	24	24	24	24	24	24	144	350	8	8	8	8	8	8	50	TA_STUDIES	IFAD_LOAN (100%)
c. Agroenterprise promoters (1 promoter per district)	erson/mt	72	72	72	72	72	72	432	350	25	25	25	25	25	25	151	TA_STUDIES	IFAD_LOAN (100%)
d. Incentives for ARPAs /a																		
Full time ARPA paid by project	erson/mt	360	360	360	360	360	360	2,160	230	83	83	83	83	83	83	497	TA_STUDIES	IFAD_LOAN (100%)
Part time ARPAs paid by project	erson/mt	360	360	360	360	360	360	2,160	76	27	27	27	27	27	27	164	TA_STUDIES	IFAD_LOAN (33.3%)
Subtotal										110	110	110	110	110	110	661		
Subtotal										158	158	158	158	158	158	949		
Subtotal										690	750	665	329	233	158	2,824		
B. Climate Smart Technologies																		
1. Training in FFS-climate smart technologies for technical staff	number	2	2	2	2	-	-	8	15,000	30	30	30	30	-	-	120	TRAL_WKSHPS	IFAD_LOAN (100%)
2. Training in FFS-climate smart technologies for extension staff + youth	number	6	6	-	-	-	-	12	15,000	90	90	-	-	-	-	180	TRAL_WKSHPS	IFAD_LOAN (100%)
3. Training of master trainers (short training programmes of key trainers)	number	2	-	-	-	-	-	2	3,000	6	-	-	-	-	-	6	TRAL_WKSHPS	IFAD_LOAN (100%)
4. Establishment of FFS	number	-	100	100	100	-	-	300	500	-	50	50	50	-	-	150	TRAL_WKSHPS	IFAD_LOAN (100%)
5. Training of FFS facilitators (include Ais, ARPAs and lead farmers)	number	10	-	-	-	-	-	10	5,000	50	-	-	-	-	-	50	TRAL_WKSHPS	IFAD_LOAN (100%)
6. Refresher training FFS facilitators	number	-	-	10	-	-	-	10	5,000	-	-	50	-	-	-	50	TRAL_WKSHPS	IFAD_LOAN (100%)
7. Technical assistance																		
a. Natural Resource Management expert	erson/mt	12	12	12	12	12	12	72	1,200	14	14	14	14	14	14	86	TA_STUDIES	IFAD_LOAN (33.3%)
b. Agriculture + livestock specialist12 for 6	erson/mt	12	12	12	12	12	12	72	1,200	14	14	14	14	14	14	86	TA_STUDIES	IFAD_LOAN (33.3%)
c. Agricultural Officers (6 agricultural officers - 1 per district)	erson/mt	72	72	72	72	72	72	432	420	30	30	30	30	30	30	181	TA_STUDIES	IFAD_LOAN (33.3%)
d. Rice Specialist (CSA - AWD - IPM)	erson/mt	6	6	3	-	-	-	15	1,200	7	7	4	-	-	-	18	TA_STUDIES	IFAD_LOAN (33.3%)
e. Water resource engineers (1 per hub)	erson/mt	24	24	24	24	24	24	144	880	21	21	21	21	21	21	127	TA_STUDIES	IFAD_LOAN (33.3%)
f. Natural resource management officers (4 officers)	erson/mt	48	48	48	48	48	48	288	600	29	29	29	29	29	29	173	TA_STUDIES	IFAD_LOAN (33.3%)
g. Incentives for AIs at ASC level (6 AIs seconded with 100% incentive)	erson/mt	360	360	360	360	360	360	2,160	350	126	126	126	126	126	126	756	TA_STUDIES	IFAD_LOAN (33.3%)
h. Ai incentives one third at ASC level (6 Ais seconded with 30% incentive)	erson/mt	360	360	360	360	360	360	2,160	150	54	54	54	54	54	54	324	TA_STUDIES	IFAD_LOAN (33.3%)
Subtotal										296	296	293	289	289	289	1,752		
Subtotal										472	466	423	369	289	289	2,308		
C. Livelihood Resilience Building																		
1. Home gardens training	number	20	20	20	20	20	13	113	1,200	24	24	24	24	24	16	136	TRAL_WKSHPS	IFAD_LOAN (100%)
2. Fish Farming in the inland water reservoirs in selected seasonal and perennial tanks	number	10	10	10	10	10	-	50	1,200	12	12	12	12	12	-	60	TRAL_WKSHPS	IFAD_LOAN (100%)
3. Livestock farming																		
Semi intensive small scale dairy farming /c	number	-	20	20	20	20	3	83	1,200	-	24	24	24	24	4	100	TRAL_WKSHPS	IFAD_LOAN (100%)
Goat Rearing (semi-intensive goat management) /d	number	-	25	25	25	10	4	89	1,200	-	30	30	30	12	5	107	TRAL_WKSHPS	IFAD_LOAN (100%)
Commercial level Backyard Poultry /e	number	-	20	20	20	20	17	97	1,200	-	24	24	24	24	20	116	TRAL_WKSHPS	IFAD_LOAN (100%)
Subtotal										-	78	78	78	60	29	323		
4. Agriculture and livelihoods																		
Mushroom cultivation (technical and management training)	number	-	5	5	9	5	5	29	1,200	-	6	6	11	6	6	35	TRAL_WKSHPS	IFAD_LOAN (100%)
Technical and management training	number	-	3	3	3	-	-	9	1,200	-	4	4	4	-	-	11	TRAL_WKSHPS	IFAD_LOAN (100%)
Controlled agriculture /f	number	-	12	12	12	24	14	74	1,200	-	14	14	14	29	17	89	TRAL_WKSHPS	IFAD_LOAN (100%)
Agri- Small scale poultry hatchery /g	number	-	2	2	2	2	-	8	1,200	-	2	2	2	2	-	10	TRAL_WKSHPS	IFAD_LOAN (100%)
Subtotal										-	26	26	31	37	23	144		
Subtotal										36	140	140	145	133	67	662		

Table 8. Sub-component 1.1: Capacity building climate resilience (continuation)

D. Nutrition Education and Training																		
1. Training extension workers on nutrition	number	2	2	2	2	2	2	12	5,000	10	10	10	10	10	10	60	TRAI_WKSHPS	WFP_ (90%)
2. Training in social behavioural changes /h	number	1	-	1	-	1	-	3	75,000	75	-	75	-	75	-	225	TRAI_WKSHPS	WFP_ (90%)
3. Training in nutrient preserving techniques /i	number	5	10	10	10	5	-	40	7,000	35	70	70	70	35	-	280	TRAI_WKSHPS	WFP_ (90%)
4. Technical assistance: Nutrition expert	erson/mt	3	-	-	-	-	-	3	5,000	15	-	-	-	-	-	15	TA_STUDIES	IFAD_LOAN (100%)
Subtotal										135	80	155	80	120	10	580		
E. Action Research for Policy Dialogue (Workshop on integrated ecosystem developmer	number	-	-	-	1	-	-	1	20,000	-	-	-	20	-	-	20	TA_STUDIES	IFAD_LOAN (90%)
F. Contracting Service Providers																		
1. IWMI technical support /j	lumpsum	0.5	0.5	-	-	-	-	1	215,000	108	108	-	-	-	-	215	SVE_PROVIDERS	IFAD_GRANT (100%)
2. Climate Risk Analysis consultancy	erson/mt	2	-	-	-	-	-	2	20,000	40	-	-	-	-	-	40	SVE_PROVIDERS	IFAD_GRANT (100%)
3. Environmental and Social Management Framework	erson/mt	1	-	-	-	-	-	1	12,000	12	-	-	-	-	-	12	SVE_PROVIDERS	IFAD_GRANT (100%)
4. VAM targeting and planning	lumpsum	1	-	-	-	-	-	1	100,000	100	-	-	-	-	-	100	SVE_PROVIDERS	IFAD_GRANT (100%)
5. NGO SPs - community development, NRM etc. /k	lumpsum	1	1	1	1	1	1	6	450,000	450	450	450	450	450	450	2,700	SVE_PROVIDERS	IFAD_LOAN (100%)
Subtotal										710	558	450	450	450	450	3,067		
Total										2,043	1,994	1,833	1,393	1,225	974	9,462		

\a 12 ARPAs fully seconded 100% incentive and 1 partially seconded to SARP 30% incentive

\b Includes exposure visit to a well-functioning tank for knowledge sharing and learning from practitioners

\c Covers feed management, establishment of pasture/ fodder units, AI and calving etc.

\d Construction of elevated goat shed & maintenance and management

\e Construction and maintenance of BYP shed, rearing practices, feed management etc.

\f Protected agriculture technologies and management practices for women and youth

\g Small scale poultry hatchery business for youth and women - poultry mother stock rearing and management

\h Behaviour change communication: including nutrition information, education and communication for project's beneficiaries, cooking demonstration,

\i Nutrient-preserving techniques and business promotion of high nutrition value food (training, equipment

\j Includes personnel \$119,500 operational \$38,500 & costs of travel, field data collection \$23000, Indirect costs \$34000

\k There are currently four NGOs operating at field level in different districts - Janathakshan, Red Cross Society, Palm Community Dev. Foundation, S.Asia

Table 9. Sub-component 1.2: Capacity building commercialisation
Detailed Costs

	Unit	Quantities						Unit Cost (US\$)	Base Cost (US\$ '000)						Expenditure Account	Fin. Rule		
		2020	2021	2022	2023	2024	2025		Total	2020	2021	2022	2023	2024			2025	Total
I. Investment Costs																		
A. FBS Organization and Training																		
1. Training of core team of trainers /a	number	1	-	-	-	-	-	1	3,000	3	-	-	-	-	-	3	TRAI_WKSHPS	IFAD_LOAN (100%)
2. Adaptation of training materials /b	number	1	-	-	-	-	-	1	10,000	10	-	-	-	-	-	10	TRAI_WKSHPS	IFAD_LOAN (100%)
3. Training of service providers /c	number	4	-	-	-	-	-	4	2,000	8	-	-	-	-	-	8	TRAI_WKSHPS	IFAD_LOAN (100%)
4. Training of farmers /d	number	-	25	50	-	-	-	75	3,700	-	93	185	-	-	-	278	TRAI_WKSHPS	IFAD_LOAN (80%), BENE (20%)
5. Second generation farmer led FBS /e	number	-	-	10	10	10	-	30	600	-	-	6	6	6	-	18	TRAI_WKSHPS	IFAD_LOAN (40%), BENE (60%)
Subtotal										21	93	191	6	6	-	317		
B. Market Appraisal, Post-harvest and Value Addition																		
1. Training of extension workers in post-harvest/ GAP	number	3	3	3	-	-	-	9	2,000	6	6	6	-	-	-	18	TRAI_WKSHPS	IFAD_LOAN (100%)
2. Training of farmers in post harvest/ GAP	number	5	5	5	5	-	-	20	2,000	10	10	10	10	-	-	40	TRAI_WKSHPS	IFAD_LOAN (90%), BENE (10%)
3. Refresher training for extension workers	number	-	-	-	3	3	-	6	2,000	-	-	-	6	6	-	12	TRAI_WKSHPS	IFAD_LOAN (100%)
4. Value chain/ market studies, design and supervision	number	1	2	-	3	-	-	6	3,000	3	6	-	9	-	-	18	TA_STUDIES	IFAD_LOAN (100%)
5. Technical assistance																		
Post harvest technologist	person/mth	3	6	3	3	3	3	21	1,200	4	7	4	4	4	4	25	TA_STUDIES	IFAD_LOAN (100%)
Value chain and marketing specialist	person/mth	-	6	6	6	6	-	24	1,200	-	7	7	7	7	-	29	TA_STUDIES	IFAD_LOAN (100%)
Subtotal										4	14	11	11	11	4	54		
Subtotal										23	36	27	36	17	4	142		
C. Skills Development Training for Youth																		
1. Study to explore income opportunities	lumpsum	1	-	-	-	-	-	1	2,000	2	-	-	-	-	-	2	TRAI_WKSHPS	IFAD_LOAN (100%)
2. Mapping of incubators	lumpsum	1	-	-	-	-	-	1	2,000	2	-	-	-	-	-	2	TRAI_WKSHPS	IFAD_LOAN (90%)
3. Youth incubator training /f	number	20	100	100	100	100	30	450	340	7	34	34	34	34	10	153	TRAI_WKSHPS	IFAD_LOAN (80%), PRIVATE (20%)
4. Business training and preparation of business plans /g	number	50	100	150	200	-	-	500	700	35	70	105	140	-	-	350	TRAI_WKSHPS	IFAD_LOAN (100%)
5. Knowledge sharing & documentation	lumpsum	-	-	-	-	1	-	1	2,000	-	-	-	-	2	-	2	TRAI_WKSHPS	IFAD_LOAN (90%)
Subtotal										46	104	139	174	36	10	509		
D. National Policy Engagement																		
1. Agro-enterprise, finance, youth specialist	person/mth	6	3	3	3	3	1	19	1,200	7	4	4	4	4	1	23	TA_STUDIES	IFAD_LOAN (100%)
2. Farm business management training specialist	person/mth	9	6	6	6	6	6	39	1,200	11	7	7	7	7	7	47	TA_STUDIES	IFAD_LOAN (100%)
3. Workshops to discuss youth in agriculture	person/mth	-	1	-	-	-	1	2	20,000	-	20	-	-	-	-	40	TA_STUDIES	IFAD_LOAN (90%)
Subtotal										18	31	11	11	11	28	110		
Total										107	264	368	227	70	42	1,077		

\a This is an informal 5 day training of lead trainers in agribusiness with competency in training and curriculum development

\b FAO farm business school manuals will be used and adapted locally

\c Includes training of around 100 AIs and ARPAs to set up 75 schools

\d Each curriculum will cover approximately 35 sessions or meetings a year. Farmers will be paid \$2.5 per session

The schools will be supported by coaching/ mentoring visits from the core team of trainers

\e Lead farmer graduates will be certified to conduct second round training following year. Budget is minimal

\f Six month incubation costed at \$56 per month. 75 per district

\g 10 day business plan preparation training

\h 10 day business plan preparation training

Table 11. Sub-component 2.2 Investment in farm commercialization
Detailed Costs

	Unit	Quantities						Unit Cost (US\$)	Base Cost (US\$ '000)						Expenditure Account	Financing Rule		
		2020	2021	2022	2023	2024	2025		Total	2020	2021	2022	2023	2024			2025	Total
I. Investment Costs																		
A. Feeder Road Rehabilitation and Maintenance																		
1. Rehabilitation																		
Design and Supervision /a	Km	120	120	120	120	120	-	600	680	82	82	82	82	82	-	408	CW	IFAD_LOAN (50%), BENEF (10%)
Feeder roads rehabilitation works /b	Km	-	120	120	120	120	120	600	8,500	-	1,020	1,020	1,020	1,020	1,020	5,100	CW	IFAD_LOAN (50%), BENEF (10%)
Construction of structures/crossings /c	number	-	15	-	15	-	15	45	500	-	8	-	8	-	8	23	CW	IFAD_LOAN (50%), BENEF (10%)
Subtotal										82	1,109	1,102	1,109	1,102	1,028	5,531		
2. Maintenance																		
Road maintenance - groups set up	Km	-	10	20	10	10	10	60	150	-	2	3	2	2	2	9	CW	IFAD_LOAN (60%), BENEF (40%)
Routine maintenance	Km	-	120	120	120	120	120	600	2,000	-	240	240	240	240	240	1,200	CW	IFAD_LOAN (60%), BENEF (40%)
Periodic maintenance (every 3 years for rehabilitation)	Km	-	-	-	120	120	120	360	4,000	-	-	-	480	480	480	1,440	CW	IFAD_LOAN (60%), BENEF (40%)
Subtotal										-	242	243	722	722	722	2,649		
Subtotal										82	1,351	1,345	1,831	1,823	1,749	8,180		
B. Agrarian Service Centres and Agrarian Banks																		
1. Strengthening of Agrarian Service Centres																		
ASC strengthening and knowledge hub /d	number	10	10	10	-	-	-	30	80,000	800	800	800	-	-	-	2,400	TA_STUDIES	IFAD_LOAN (90%)
Agrarian service centre capacity development	number	5	5	5	5	5	-	25	2,000	10	10	10	10	10	-	50	TRAL_WKSHPS	IFAD_LOAN (80%)
Review of ASCs and Agrarian Rural Banks /e	unit	1	-	-	-	-	-	1	10,000	10	-	-	-	-	-	10	TA_STUDIES	IFAD_LOAN (100%)
MIS system investments /f	number	-	5	5	5	5	-	20	3,800	-	19	19	19	19	-	76	EQUIP	IFAD_LOAN (100%)
Training for bank staff	number	-	5	5	5	5	-	20	40,000	-	200	200	200	200	-	800	TRAL_WKSHPS	IFAD_LOAN (80%)
Technical assistance: Rural finance training	person/mth	-	6	6	2	2	-	16	1,200	-	7	7	2	2	-	19	TRAL_WKSHPS	IFAD_LOAN (100%)
Subtotal										820	1,036	1,036	231	231	-	3,355		
2. Construction of market centres and facilities																		
Design and Supervision	lumpsum	3	3	2	2	2	1	13	1,000	3	3	2	2	2	1	13	TA_STUDIES	IFAD_GRANT (60%), PRIVATE (10%), IFAD_LOAN (30%)
Construction of local markets + collection points	number	-	2	1	1	1	1	6	30,000	-	60	30	30	30	30	180	CW	IFAD_GRANT (60%), PRIVATE (10%), IFAD_LOAN (30%)
Construction of farmer's markets	number	-	1	1	1	1	-	4	168,000	-	168	168	168	168	-	672	CW	IFAD_GRANT (60%), PRIVATE (10%), IFAD_LOAN (30%)
Multi stakeholder platforms for value chain actors	number	-	4	4	4	4	4	20	20,000	-	80	80	80	80	400	CW	IFAD_GRANT (40%), PRIVATE (20%), BENEF (20%)	
Subtotal										3	311	280	280	280	111	1,265		
Subtotal										823	1,347	1,316	511	511	111	4,620		
C. Market Infrastructure and Stakeholder Platforms																		
1. Agri- Processing and value adding business	number	-	50	50	50	50	-	200	1,700	-	85	85	85	85	-	340	GRANTS	IFAD_LOAN (60%), BENEF (30%), PRIVATE (10%)
2. 4-P business models	number	-	2	2	2	2	2	10	55,000	-	110	110	110	110	110	550	GRANTS	IFAD_LOAN (60%), BENEF (30%), PRIVATE (10%)
3. Social enterprise business models	number	-	2	2	2	2	2	10	56,000	-	112	112	112	112	112	560	GRANTS	IFAD_LOAN (60%), BENEF (30%), PRIVATE (10%)
Subtotal										-	307	307	307	307	222	1,450		
D. Youth and Women's Enterprises																		
1. Local nurseries (1 plan 25,000 plants SKR 100 per plant)	number	-	4	3	3	2	-	12	14,000	-	56	42	42	28	-	168	GRANTS	IFAD_LOAN (60%), BENEF (30%), PRIVATE (10%)
2. Agri-machinery and equipment for hire service providers /g	number	-	25	25	25	25	25	125	5,600	-	140	140	140	140	140	700	GRANTS	IFAD_LOAN (80%), BENEF (10%), PRIVATE (10%)
3. Protected agriculture intervention	number	-	75	100	100	50	25	350	2,500	-	188	250	250	125	63	875	GRANTS	IFAD_LOAN (60%), BENEF (30%), PRIVATE (10%)
4. Quality seed production	number	-	10	10	10	10	10	50	5,600	-	56	56	56	56	56	280	GRANTS	IFAD_LOAN (60%), BENEF (30%), PRIVATE (10%)
5. Aggregator business model for gherkin	number	-	1	1	1	1	1	5	3,200	-	3	3	3	3	3	16	GRANTS	IFAD_LOAN (60%), BENEF (30%), PRIVATE (10%)
6. Semi-intensive small scale dairy production 3 cows + shed	number	-	30	20	20	20	20	110	5,600	-	168	112	112	112	112	616	GRANTS	IFAD_LOAN (60%), BENEF (30%), PRIVATE (10%)
7. Goat production 15-20 goats	number	-	10	10	10	10	10	50	1,100	-	11	11	11	11	11	55	GRANTS	IFAD_LOAN (60%), BENEF (30%), PRIVATE (10%)
8. Commercial backyard poultry	number	-	50	50	100	100	100	400	620	-	31	31	62	62	62	248	GRANTS	IFAD_LOAN (60%), BENEF (30%), PRIVATE (10%)
Subtotal										-	653	645	676	537	447	2,958		
E. Market, Weather and Climate Information Services:																		
1. Development of app & operationalisation /h	lumpsum	1	-	-	-	-	-	1	600,000	600	-	-	-	-	-	600	TA_STUDIES	IFAD_LOAN (25%), BENEF (25%), PRIVATE (50%)
Total										1,505	3,658	3,613	3,325	3,179	2,529	17,808		

/a Estimated at 8% (it shouldn't be more than 10%) of construction costs

/b Average of 22 tanks per cascade. Each tank has 2 access roads of 2km each = 80 km per cascade

/c an average of 20% of total road rehabilitation cost will be allocated to construct crossings

/d Supported by IWMI & includes soil testing lab. & other equipment

/e Overview assessment of the performance of ASCs and Agribanks

/f Includes computer, printer, internet connection

/g 2WT machinery and implements for land preparation, planting, transport etc.

/h Development of an app for 50,000 farmers + micro insurance (farmer invests 25% project bears 25% and 50% subsidy by private sector)

**Table 12. Component 3 Project management and coordination
Detailed Costs**

	Unit	Quantities						Unit Cost (US\$)	Base Cost (US\$ '000)						Expenditure			
		2020	2021	2022	2023	2024	2025		Total	2020	2021	2022	2023	2024	2025	Total	Account	Fin. Rule
I. Investment Costs																		
A. Project Management Unit																		
1. PMU Equipment																		
Computer and Printers	set	10	-	-	-	-	-	10	1,600	16	-	-	-	-	-	16	EQUIP	IFAD_LOAN (100%)
Laptops	set	10	-	-	-	-	-	10	1,500	15	-	-	-	-	-	15	EQUIP	IFAD_LOAN (100%)
Other office equipment	set	1	-	-	-	-	-	1	20,000	20	-	-	-	-	-	20	EQUIP	IFAD_LOAN (100%)
Accounting software	lumpsum	1	-	-	-	-	-	1	30,000	30	-	-	-	-	-	30	EQUIP	IFAD_LOAN (100%)
MIS/M&E system upgrade	lumpsum	1	-	-	-	-	-	1	20,000	20	-	-	-	-	-	20	EQUIP	IFAD_LOAN (100%)
Subtotal										101	-	-	-	-	-	101		
2. Vehicles	unit	4	-	-	-	-	-	4	60,000	240	-	-	-	-	-	240	VEHIC	IFAD_LOAN (100%)
3. PMU Training /a	lumpsum	1	1	1	1	1	1	6	10,000	10	10	10	10	10	60	TRAI_WKSHPS	IFAD_LOAN (100%)	
4. PIM Manual /b	lumpsum	1	-	-	-	-	-	1	10,000	10	-	-	-	-	-	10	TA_STUDIES	IFAD_LOAN (100%)
Subtotal										361	10	10	10	10	10	411		
B. M&E and Knowledge Management																		
1. Workshops/Forums for policy Engagement																		
Start-Up Workshop (one in Colombo)	number	1	-	-	-	-	-	1	20,000	20	-	-	-	-	-	20	TRAI_WKSHPS	IFAD_LOAN (100%)
Sensitization and Education Workshops (Crosscutting themes)	number	6	-	-	-	-	-	6	10,000	60	-	-	-	-	-	60	TRAI_WKSHPS	IFAD_LOAN (100%)
Annual Stakeholders Planning/Review Workshop	number	1	1	1	1	1	1	6	5,000	5	5	5	5	5	30	TRAI_WKSHPS	IFAD_LOAN (100%)	
Subtotal										85	5	5	5	5	5	110		
2. Studies and Surveys																		
Baseline/Annual Outcome/Impact Survey /5 /c	number	1	1	1	1	1	2	7	20,000	20	20	20	20	20	40	140	TA_STUDIES	IFAD_LOAN (100%)
Backstocking missions	number	1	2	1	2	2	1	9	30,000	30	60	30	60	60	30	270	TA_STUDIES	IFAD_LOAN (100%)
Midterm review	number	-	-	1	-	-	-	1	100,000	-	-	100	-	-	-	100	TA_STUDIES	IFAD_LOAN (100%)
Project completion report	number	-	-	-	-	-	1	1	250,000	-	-	-	-	-	-	250	TA_STUDIES	IFAD_LOAN (100%)
Technical studies	number	1	1	2	1	1	1	7	10,000	10	10	20	10	10	10	70	TA_STUDIES	IFAD_LOAN (100%)
External audit /d	number	1	1	1	1	1	1	6	1,000	1	1	1	1	1	1	6	TA_STUDIES	IFAD_LOAN (100%)
Subtotal										61	91	171	91	91	331	836		
3. Knowledge Management																		
Information and Communication Materials /e	number	1	1	1	1	1	1	6	10,000	10	10	10	10	10	10	60	TRAI_WKSHPS	IFAD_LOAN (100%)
Training Manuals	set	1	1	1	-	-	-	3	50,000	50	50	50	-	-	-	150	TRAI_WKSHPS	IFAD_LOAN (100%)
Subtotal										60	60	60	10	10	10	210		
Subtotal										206	156	236	106	106	346	1,156		
C. Area and District Offices																		
1. Vehicles	number	2	-	-	-	-	-	2	60,000	120	-	-	-	-	-	120	VEHIC	IFAD_LOAN (100%)
2. Motorbikes	number	18	-	-	-	-	-	18	3,500	63	-	-	-	-	-	63	VEHIC	IFAD_LOAN (100%)
3. Computer & printers	number	14	-	-	-	-	-	14	1,400	20	-	-	-	-	-	20	EQUIP	IFAD_LOAN (100%)
4. Office equipment	number	6	-	-	-	-	-	6	3,000	18	-	-	-	-	-	18	EQUIP	IFAD_LOAN (100%)
Subtotal										221	-	-	-	-	-	221		
Total Investment Costs										788	166	246	116	116	356	1,788		

Continues next page

Table 12. Component 3 Project management and coordination (continuation from previous page)

II. Recurrent Costs																		
A. Salaries																		
Project director	person/mth	12	12	12	12	12	12	72	1,500	18	18	18	18	18	18	108	SAL_DSA	IFAD_LOAN (100%)
Senior finance/ admin specialist	person/mth	12	12	12	12	12	12	72	1,200	14	14	14	14	14	14	86	SAL_DSA	IFAD_LOAN (100%)
Senior procurement specialist	person/mth	12	12	12	12	12	12	72	1,200	14	14	14	14	14	14	86	SAL_DSA	IFAD_LOAN (100%)
Assistant finance	person/mth	12	12	12	12	12	12	72	1,000	12	12	12	12	12	12	72	SAL_DSA	IFAD_LOAN (100%)
Assistant procurement	person/mth	12	12	12	12	12	12	72	600	7	7	7	7	7	7	43	SAL_DSA	IFAD_LOAN (100%)
Finance/ administration officers	person/mth	36	36	36	36	36	36	216	600	22	22	22	22	22	22	130	SAL_DSA	IFAD_LOAN (100%)
Monitoring and evaluation specialist	person/mth	12	12	12	12	12	12	72	1,200	14	14	14	14	14	14	86	SAL_DSA	IFAD_LOAN (100%)
Drivers	person/mth	48	48	48	48	48	48	288	400	19	19	19	19	19	19	115	SAL_DSA	IFAD_LOAN (100%)
Office assistants	person/mth	24	24	24	24	24	24	144	400	10	10	10	10	10	10	58	SAL_DSA	IFAD_LOAN (100%)
Secretary	person/mth	12	12	12	12	12	12	72	600	7	7	7	7	7	7	43	SAL_DSA	IFAD_LOAN (100%)
Subtotal										138	138	138	138	138	138	828		
B. Area and district offices																		
Area Coordinators (NRM specialists): 2 Area coordinators - 1 per h	person/mth	24	24	24	24	24	24	144	1,000	24	24	24	24	24	24	144	SAL_DSA	IFAD_LOAN (100%)
M&E Assistants (1 per hab)	person/mth	24	24	24	24	24	24	144	600	14	14	14	14	14	14	86	SAL_DSA	IFAD_LOAN (100%)
Drivers (2)	person/mth	24	24	24	24	24	24	144	400	10	10	10	10	10	10	58	SAL_DSA	IFAD_LOAN (100%)
Office assistants(1 per District)	person/mth	72	72	72	72	72	72	432	400	29	29	29	29	29	29	173	SAL_DSA	IFAD_LOAN (100%)
Subtotal										77	77	77	77	77	77	461		
C. Allowances																		
Travel and allowances	lumpsum	1	1	1	1	1	1	6	50,000	50	50	50	50	50	50	300	SAL_DSA	IFAD_LOAN (100%)
Honorarium to NSC participants	lumpsum	6	12	12	12	12	6	60	600	4	7	7	7	7	4	36	SAL_DSA	IFAD_LOAN (100%)
Subtotal										54	57	57	57	57	54	336		
D. Operation and Maintenance																		
Vehicle operating costs	unit	4	6	6	6	6	6	34	10,000	40	60	60	60	60	60	340	O_M	IFAD_LOAN (100%)
Motor bike operating costs	lumpsum	0.68	1	1	1	1	1	5.68	50,000	34	50	50	50	50	50	284	O_M	IFAD_LOAN (100%)
Other equipment	lumpsum	0.68	1	1	1	1	1	5.68	12,000	8	12	12	12	12	12	68	O_M	IFAD_LOAN (100%)
Office premises and rents	per office	4	7	7	7	7	7	39	4,000	16	28	28	28	28	28	156	O_M	IFAD_LOAN (100%)
Office operational expenses /f	per office	4	7	7	7	7	7	39	4,000	16	28	28	28	28	28	156	O_M	IFAD_LOAN (100%)
Subtotal										114	178	178	178	178	178	1,004		
Total Recurrent Costs										383	450	450	450	450	446	2,629		
Total										1,170	616	696	566	566	802	4,417		

\a Covers APR retreats and international study tours.

\b Includes Operations Manual, Financial and Administration Manual, M&E Manual and systems design.

\c Survey may be grouped together to provide one comprehensive survey or study. Includes MTR.

\d Costs covered by government with the exception of accommodation and transport

\e Includes production of material for broadcast (on TV and radio).

\f Include maintenance, communications, stationary, legal fees etc.

Sri Lanka

Smallholder Agribusiness and Resilience Project Project Design Report

Annex 4: Economic and Financial Analysis

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Investing in rural people

Democratic Socialist Republic of Sri Lanka

Smallholder Agribusiness and Resilience (SARP) Project Design Report

Annex 4: Economic and Financial Analysis

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Annex 4: Economic and Financial Analysis

EFA SUMMARY

- For the SARP Economic and Financial Analysis (EFA), 22 crop and activity models (Tables 1 to 22 in the Appendix) were prepared to represent targeted activities that the benefitted HHs would be improving. In addition, 10 HH/farm models (Tables 23 to 32 in the Appendix) show how the improved activities within their production systems would develop beneficiaries and their HHs annual income. The analysis was prepared using FARMOD software. Model summarized results (incremental benefits) show that beneficiaries' income would increase significantly (between 50 and 300 percent) as a result of the proposed interventions. The overall Economic Rate of Return (ERR) of the Programme was estimated at 18.6 percent (base case scenario) which is significantly above the opportunity cost of capital in Sri Lanka estimated at 10 percent. The following Tables present the logic behind the analysis.

A)		PRODUCTION										SERVICES PROVIDERS		MARKETING
F I N A N C I A L A N A L Y S I S	Farm models' net incremental benefits ('000 LKR)											Agro Service models' net incremental benefits ('000 LKR)		Model' net incremental benefits ('000 LKR)
	Farm Model 1	Farm Model 2	Farm Model 3	Farm Model 4	Farm Model 5	Farm Model 6	Farm Model 7	Farm Model 8	Farm Model 9	Farm Model 10	Rice harvesting service	Agro-service Youth Enterprise	Milk Chilling Center	
	PY1	(80)	(68)	(25)	(85)	(71)	(15)	(28)	(108)	19	75	(695)	(1,052)	(90)
	PY2	60	73	28	(88)	154	21	41	36	201	79	248	1,673	119
	PY3	115	105	59	228	308	84	50	118	205	541	845	316	201
	PY4	115	105	68	268	308	103	53	118	205	1,041	1,147	2,239	201
	PY5	115	105	68	350	308	103	54	118	205	1,541	1,147	2,095	201
	PY6	157	105	68	444	308	103	55	118	205	1,541	1,147	2,095	201
	PY7	157	105	68	444	308	103	55	118	205	1,541	2,520	3,764	470
	PY8	157	105	68	444	308	103	55	118	205	1,541	2,521	3,764	470
PY9	157	105	68	444	308	103	55	118	205	1,541	2,438	4,166	470	
PY10	157	105	68	444	308	103	55	118	205	1,541	976	4,166	470	
NPV@10%('000 LKR)	958	708	454	2,522	2,154	685	575	732	9,486	9,486	9,420	14,636	2,531	
NPV @10% (USD)	5,322	3,933	2,522	14,011	11,967	3,806	3,194	4,067	52,700	52,700	52,333	81,311	14,061	
FIRR (after financing)	>100%	>100%	>100%	>100%	>100%	>100%	>100%	>100%	75%	-	-	96%	>100%	>100%

B)						
PROJECT COSTS AND INDICATORS FOR LOGFRAME						
TOTAL PROJECT COSTS (in million USD)		82	Base costs	73.2	PMU	4.9
Beneficiaries	182,000 people	40,000 Households	1,025 groups			
Cost per beneficiary	451 USD x person	2,050 USD x HH	Adoption rates	68%		
Components and Cost (USD million)		Outcomes and Indicators				
<u>Capacity for Climate Resilience & Incl. Value Chains</u>	11.7 M	Climate resilient and value chain capacity built	No. of WUAs and POs supported to manage climate-related risks. No. of POs with capacity to managing group enterprises in a profitable			
<u>Investments for Climate Resilience & Incl. Value Chains</u>	65.4 M	Climate resilient climate change and value chain investments made	No. of households reporting improved access to water resources for productive and domestic use			
<u>Project management and coordination</u>	4.9 M	SARP will be fully integrated within the GoSL administration, and the project implementation will capitalize on existing government agencies at all levels	A framework for government engagement with civil society to deliver essential public services to the rural population of the Dry Zone will be developed.			

C)						
MAIN ASSUMPTIONS & SHADOW PRICES ¹						
FINANCIAL	Output	Av. Incremental Yields (%)		Price (in LKR/kg)	Input prices	Price (LKR/kg)
	Paddy Rice	25%		46	Fertilizer (Urea)	50
	Maize	22%		54	Pesticides (Kieserite)	85
	Milk	100%		65	Rice Seeds	84
	Green Chili	13%		200	Rural wage per day	1200
	Cow Pea	10%		178	Diesel per liter	130
	Onions	20%		150	Electricity (per KWH)	15
ECONOMIC	Official Exchange rate (OER)	0.18		Discount rate (opportunity cost of capital)	10%	
	Shadow Exchange rate (SER)	0.16		Social Discount rate	10%	
	Standard Conversion Factor	0.90		Output conversion factor	1	
	Labour Conversion factor	0.75		Input Conversion factor	1	

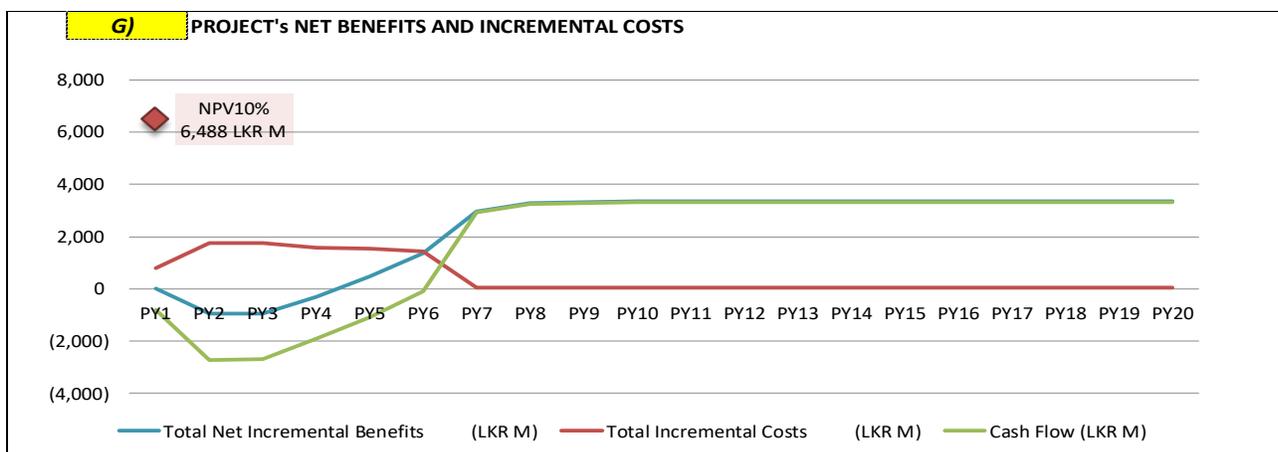
Note: The 10 % discount rate was selected following IFAD guidelines that recommend the use of the real interest the GoSL pays on their 10-year Bonds¹.

¹ Source: <https://investing.com/rates.bonds/sri-lanka-10-year>

D)	BENEFICIARIES, ADOPTION RATES AND PHASING (No of farms or enterprises)								Adoption rates	
	PY1	PY2	PY3	PY4	PY5	PY6	PY7	Total	68%	
Farm Mod 1 Commercial (1.25 ha)	-	1,000	1,500	800	200	0	0	3,500		
<i>Adjusted (adoption rate)</i>	-	700	1,050	560	140	0	0	2,450	70%	
Medium Farm Mod 2 (0.8 ha)	0	3,000	4,000	5,000	6,500	6,000	0	24,500		
<i>Adjusted (adoption rate)</i>	0	2,100	2,800	3,500	4,550	4,200	0	17,150	70%	
Small Farm Mod 3 Rainfed (0.8 ha)	0	1,000	1,000	2,000	2,000	1,000	0	7,000		
<i>Adjusted (adoption rate)</i>	0	700	700	1,400	1,400	700	0	4,900	70%	
Milk Farm Mod 4 (4 cows)	0	330	320	320	320	320	0	1,610		
<i>Adjusted (adoption rate)</i>	0	231	224	224	224	224	0	1,127	70%	
Goat Farm Mod 5 (22 head)	0	310	310	310	310	310	0	1,550		
<i>Adjusted (adoption rate)</i>	0	217	217	217	217	217	0	1,085	70%	
Poultry Farm Mod 6	0	50	50	100	100	100	0	400		
<i>Adjusted (adoption rate)</i>	0	35	35	70	70	70	0	280	70%	
Home Garden Farm Mod 7	0	1,890	2,365	2,650	2,990	3,250	0	13,145		
<i>Adjusted (adoption rate)</i>	0	1,134	1,419	1,590	1,794	1,950	0	7,887	60%	
Rice Seed Farm Mod 8	0	10	10	10	10	10	0	50		
<i>Adjusted (adoption rate)</i>	0	7	7	7	7	7	0	35	70%	
Protected Agriculture Farm Mod 9	0	80	100	100	50	22	0	352		
<i>Adjusted (adoption rate)</i>	0	56	70	70	35	15	0	246	70%	
Nursery Farm Mod 10	0	5	4	3	3	0	0	15		
<i>Adjusted (adoption rate)</i>	0	3	2	2	2	0	0	9	60%	
Rice harvesting service	0	18	18	18	18	18	0	90	100%	
Agro-Service Coop Youth	0	1	1	1	1	1	0	5	100%	
Milk Chilling center	0	174	174	144	82	50	0	624	90%	
<i>Adjusted (adoption rate)</i>	0	157	157	130	74	45	0	562		

E) OVERALL PROJECT AGGREGATION											
	NET INCREMENTAL BENEFITS (FROM BENEFICIARIES)					NET INCREMENTAL COSTS				Cash Flow (LKR M)	
	Net Value of Production (LKR M)	Beneficiaries' Investments (LKR M)	Beneficiaries' Operating Costs (LKR M)	Total Costs at Beneficiaries Level (LKR M)	Total Net Incremental Benefits (LKR M)	Economic Comp. 1 Costs (LKR M)	Economic Comp. 2 Costs (LKR M)	Economic Comp. 3 Costs (LKR M)	Total Incremental Costs (LKR M)		
E C O N O M I C A N A L Y S I S	PY1	0	0	0	0	0	348	250	190	788	(788)
	PY2	8	942	9	951	(943)	366	1,298	100	1,764	(2,707)
	PY3	1,527	1,290	1,173	2,463	(936)	356	1,292	113	1,761	(2,697)
	PY4	4,427	1,314	3,424	4,738	(311)	262	1,237	92	1,591	(1,902)
	PY5	7,259	1,262	5,539	6,801	458	210	1,229	92	1,531	(1,073)
	PY6	9,634	1,099	7,177	8,276	1,358	164	1,149	130	1,443	(85)
	PY7	11,422	151	8,297	8,448	2,974	0	53	0	53	2,921
	PY8	12,049	67	8,700	8,767	3,282	0	53	0	53	3,229
	PY9	12,071	32	8,712	8,744	3,327	0	53	0	53	3,274
	PY10	12,078	9	8,717	8,726	3,352	0	53	0	53	3,299
	PY11	12,078	9	8,717	8,726	3,352	0	53	0	53	3,299
	PY12	12,078	9	8,717	8,726	3,352	0	53	0	53	3,299
	PY13	12,078	9	8,717	8,726	3,352	0	53	0	53	3,299
	PY14	12,078	9	8,717	8,726	3,352	0	53	0	53	3,299
	PY15	12,078	9	8,717	8,726	3,352	0	53	0	53	3,299
	PY16	12,078	9	8,717	8,726	3,352	0	53	0	53	3,299
	PY17	12,078	9	8,717	8,726	3,352	0	53	0	53	3,299
	PY18	12,078	9	8,717	8,726	3,352	0	53	0	53	3,299
	PY19	12,078	9	8,717	8,726	3,352	0	53	0	53	3,299
	PY20	12,078	9	8,717	8,726	3,352	0	53	0	53	3,299
NPV@ 10 % (LKR M)		6,488									
NPV@ 10 % ('000 USD)		36,044									
EIRR		18.6%									

F) SENSITIVITY ANALYSIS (SA)					
		Δ%	Link with the risk matrix	IRR	NPV (USD M)
Base scenario				19%	36.04
Output prices	-10%	Combination of risks affecting output prices and/or yields		15%	20.29
Output prices	-20%			12%	5.73
Project costs	10%	Increase of construction material prices		18%	33.48
Project costs	20%			17%	30.91
1 year lag in ben.		Risks affecting low implementation capacity		16%	27.04
2 years lag in ben.				15%	19.17
Input prices	10%	Market price fluctuations		18%	33.01
Input prices	20%			17%	30.58
Adoption rates	-10%	Extension service outreach is limited, low uptake of good practices,		17%	28.98
Adoption rates	-20%			16%	22.45
Output prices -20% & Project costs +20%			Market price fluctuations	10%	0.60



I. BENEFITS AND BENEFICIARIES

A. Benefits

2. **Direct benefits** would reach to about 40,000 smallholder farmers. The goal of SARP is to contribute to Sri Lanka's smallholder poverty reduction and food security in the Dry Zone region. The outcome for the direct beneficiaries will be: a) 260 water tanks rehabilitated increasing their water holding capacity for water supply and irrigation addressing the main challenges posed by the Dry Zone environment through an integrated, area based approach; b) production and productivity increases from their resources (water, land and labour); c) reduced production losses due to climate-related negative events; d) enhanced engagement and sustainable partnerships with the private sector, and access to services (e.g. technical assistance, mechanization, post-harvesting, marketing, etc.); e) added value to agricultural production by developing processes including produce aggregation, conditioning, grading, drying, cooling, and storage; and f) enhanced farmers' entrepreneurial and business capacity. As a result of proposed project interventions, and based on the results achieved by other similar projects in the country², it is estimated that about 80 percent of the beneficiaries will improve their food security, 72 percent will have increased their resilience, and they will benefit from an average incremental annual income of more than 100 percent. It is also expected that beneficiaries will increase their productivity by around 75 percent, due to the adoption of improved and climate smart farm practices.
3. **Indirect benefits** will also arise in the Programme areas from increased economic activities, which will stimulate rural employment and, through multiplier effects, benefits will reach many more people beyond the direct beneficiaries. Numerous impact assessment studies in Sri Lanka and throughout Asia, point towards the cost-effectiveness of complementary interventions such as the upgrading of 600 km of rural roads, improving extension services of Agrarian Service Centers, facilitating access to rural credit through Agrarian Banks, and construction of market facilities enhancing market linkages, which will benefit many poor people living in remote areas by providing new commercialization opportunities. For example, the improvement to rural roads is expected to have a significant impact on the reduction of transport costs and improved access to social services. Complementary interventions focusing on market information and market development, including forward contracts, plus improving produce storage facilities, product quality and reducing post-harvest losses, will all be contributing for the neighboring farmers to be directly benefitted. Further indirect benefits will be generated through the Programme-supported national policy engagement on women and youth development and other key policy issues such as those related to the post-harvest, value addition and markets of agricultural products. Information support on commodity prices and access to agricultural credit will be necessary conditions and become instrumental for poor farmers to benefit from the new market opportunities.

² Based on assessments of the performance of the UNDP, WFP and IFAD-SAP projects currently under implementation

B. Beneficiaries

4. The primary beneficiaries to be covered by SARP will be approximately 40,000 smallholder households, and other value chain actors (traders, transporters and aggregators) participating in the supported value chains (of which at least 45 percent women and 25 percent youth). Assuming an average household size of 4.5 people, total beneficiaries would be about 180,000 people³. The number of households directly benefiting from different project activities are given in the table below.

Table 1: Total Household Beneficiaries

	Unit	Years						Total
		1	2	3	4	5	6	
Household water harvesting, irrigation and soil conservation								
Farm pond construction	HH	130	130	-	-	-	-	260
Micro-irrigation demonstration	HH	-	160	120	100	80	20	480
Low cost irrigation systems	HH	-	1,000	2,000	2,000	2,000	1,000	8,000
Soil conservation (bund)	HH	-	2,950	3,950	4,950	5,950	500	18,300
								27,040
Household resilience and nutrition								
Home gardens	HH	-	400	500	600	350	350	2,200
Home gardens + micro irrigation for 0.25 ac	HH	-	50	50	50	50	50	250
Nutritive rich home gardens	HH	-	40	20	20	20	20	120
Fingerlings	Persons	-	300	450	450	450	450	2,100
Aquaculture	Persons	-	150	200	200	200	200	950
Semi-intensive small scale dairy farming	Persons	-	300	300	300	300	300	1,500
Semi-intensive goat production	Persons	-	300	300	300	300	300	1,500
Income generating enterprises	Persons	-	200	200	160	80	40	680
								9,300
Youth and women enterprises								
Post harvest and value addition	Persons	-	50	50	50	50	-	200
Local nurseries	Persons	-	4	3	3	2	-	12
Agri-machinery and equipment for hire service providers	Persons	-	25	25	25	25	25	125
Protected agriculture intervention	Persons	-	75	100	100	50	25	350
Quality seed production	Persons	-	10	10	10	10	10	50
Aggregator business model for gherkin	Persons	-	1	1	1	1	1	5
Semi-intensive dairy production 3 cows + shed	Persons	-	30	20	20	20	20	110
Goat production 15-20 goats	Persons	-	10	10	10	10	10	50
Backyard poultry	Persons	-	50	50	100	100	100	400
								1,302
Climate resilient farming practices								
Commercial farmer model	HH	-	1,000	1,500	800	200	-	3,500
Market led farmer model	HH	-	3,000	4,000	5,000	6,500	6,000	24,500
Rainfed farmer model	HH	-	1,000	1,000	2,000	2,000	1,000	7,000
								35,000
Total farm households								
	HH							35,000
of which hh in command area	HH							13,000
of which hh in upstream areas	HH							18,300
of which hh with irrigation	HH							8,740
of which have homestead activities	HH							2,570
of which have IGAs	persons							6,730
other youth/ gender activities	persons							1,302
Other hh (WFP/UNDP)	HH							16,182
Total hh								
within catchment areas (command area + upstream)	HH							31,300
outside catchment areas	HH							8,700
Total direct beneficiaries								
	HH							40,000
other hh from WFP/UNDP	HH							16,182
Total beneficiary hh								40,000

³ The farm families can be divided into three categories of households – the extreme poor, poor with potential to sell in local markets and more commercially oriented smallholder farmers.

II. FINANCIAL ANALYSIS

A. Main Assumptions

5. The objectives of the financial analysis are to: (i) evaluate the viability of the improved production technologies and marketing interventions to be demonstrated, extended and adopted, as well as for various other livelihood options to be developed by targeted groups of FOs; (ii) evaluate the impact of these improvements on the poverty levels of adopting HHs, specifically on their income level improvements; (iii) assess the incremental production that would result from the project interventions; and (iv) provide a basis for the economic analysis of the project. The financial analysis was based on prices and costs collected by the design mission during its field work in June 2019.
6. The analysis was based on a set of representative crop, livestock, service provision and post-harvest activity models representing HHs and beneficiaries' joint activities that are foreseen to be supported by the SARP. Models include both 'without project' (WoP) and 'with project' (WP) scenarios. They present annual budgets for each crop or activity, including main parameters, annual gross and net revenues, and investment and operating costs in the WoP and WP interventions. Through enhanced water availability, and strengthening both agricultural production and marketing, the SARP is expected to impact on HH income by increasing production through (i) higher yields per unit of land, and per quantity of water used; (ii) increased and diversified cropped areas; (iii) irrigation development; (iv) technical assistance and other production support services; (v) enhanced linkages with markets; and ultimately (v) value addition and higher prices to be obtained by farmers from their livelihood activities.

B. Crop models and yields

7. The expected impact of the project interventions on the average yields of different crops is summarized in Table 2. Crop yield increases are highly conservative averaging 22 percent. For example, the productivity of paddy cultivation is currently about 4Mt/Ha which is below par comparing to other countries in the region where it averages around 9-10 Mt/Ha.

Table 2: Expected Programme impact on yields (tons/acre)

	Without programme	With programme	% increase
Irrigated			
Maha			
Paddy	2.10	2.60	24%
Red Onion	5.16	6.20	20%
Yala			
Paddy (irrigated)	2.20	2.8	27%
Maize	1.70	2.1	24%
Black gram	0.38	0.46	21%
Green Chilli	4.00	4.50	13%
Big Onion	5.40	6.50	20%
Red Onion	3.90	4.70	21%

Rainfed			
Maha			
Paddy	1.36	1.70	25%
Maize	1.60	1.90	19%
Cowpea	0.254	0.280	10%
Green Chilli	0.95	1.10	16%
Yala			
Paddy (rainfed)	0.85	1.2	41%
Cowpea	0.28	0.35	25%
Livestock			
Traditional milking cows(3)	900 lt	1,800 lt	100%
Improved milking cows(4)	5,040 lt	14,640 lt	190%
Traditional goats	80 lt	240 lt	200%
Backyard poultry	1,200 eggs	3,800 eggs	216%

C. Farm models

- These models were developed to represent the traditional farming production systems in targeted areas to show how average income would evolve as a result of the diverse and complementary project interventions. The demand driven project approach will target especially on rice production (as consumer of more than 90 percent of available water) and on livestock production, the second main livelihood activities in the project areas production systems. In addition, demand will define many other crop, post-harvest, and value addition activities to be developed, aiming to diversify production to higher value crops (HVCs). To assess the expected results, the focus was on analyzing the cases of: (i) enhanced access to irrigation water and the adoption of climate smart technologies (CSA) for rice and other crops, cropping intensification, and the diversification to HVCs, (ii) improved livestock production practices (through the introduction of improved breeds, better feeding practices and access to animal health services) leading to higher productivity; and (iii) support interventions for enhancing services provision (improved seed production, mechanization, etc.), as well as for post-harvest support linking farmers with buyers (or private aggregators).
- For the EFA, 22 crop or activity models (Tables 1 to 22 in the Appendix) were prepared to represent targeted activities that the HHs would be improving. In addition, 10 HH/farm models (Tables 23 to 32 in the Appendix) show how the promoted activities within their production systems would improve beneficiaries and HH annual income. Models allow the quantification of the expected results from the project interventions, including the rehabilitation of the water storage tanks and the irrigation networks, enhancing access to water, as well as the other support services and the post-production investments. Some models represent the support for solutions providing HH with small irrigation for 0.20 to 0.25 ha from wells or small water structures for enhancing production of home gardens and incorporating HVCs. The following Table 3 summarizes the main indicators for the models adopting the Programme improvements, quantifying the expected financial effect on beneficiaries.

Table 3: Financial impact of typical HH benefitted by SARP (in LKR)

Model	Value of production	Costs excl. family labour	HH net benefits	Family labour use (pers./days)	Returns per family labour	Incremental family benefits	FIRR	NPV
1. Commercial Farmer (1.25 ha)								
WoP	335,340	59,551	275,789	104	2,657		> 100%	
WP	528,120	94,892	433,228	135	3,207	157%		957,620
2. Small with market potential (0.8 ha)								
WoP	158,400	38,519	119,881	40	2,997		> 100%	
WP	277,350	52,859	224,491	58	3,887	187%		708,046
3. Subsistence Farmer (0.5 ha)								
WoP	132,075	30,170	101,905	36	2,854		> 100%	
WP	209,310	39,375	169,935	53	3,218	167%		454,130
4. Livestock Farmer (9 head, 4 milking)								
WoP	392,600	193,715	198,885	91	2,186		> 100%	
WP	1,031,600	388,645	642,955	321	2,005	323%		2,695,170
5. Goat rearing (22 head)								
WoP	6,000	0	6,000	5	1,200		> 100%	
WP	360,800	46,305	314,495	182	1,728	5242%		2,153,707
6. Backyard poultry (landless)								
WoP	25,125	1,500	23,625	15	1,575		> 100%	
WP	151,000	24,700	126,300	91	1,388	535%		685,775
7. Home garden								
WoP	40,698	7,345	33,353	11	2,991		> 100%	
WP	120,003	31,483	88,520	27	3,262	265%		375,041
8. Rice seed production								
WoP	241,865	53,851	188,014	47	4,017		> 100%	
WP	397,290	91,078	306,212	67	4,584	163%		731,791
9. Protected Agriculture								
WoP	5,025	300	4,725	3	1,575		> 100%	
WP	523,190	167,188	356,002	93	3,846	7534%		2,264,376
10. Nursery (mango seedlings)								
WoP	5,025	300	4,725	3	1,575		> 100%	
WP	1,915,690	250,360	1,545,330	514	3,006	32705%		9,486,248

10. The “without project” column in the detailed models presented in the Appendix - Tables 1 to 36 represents the traditional practices and results observed from HHs in the SARP production areas. The WoP yields are in line with the current averages, and the resulting returns to the HH families are low. They represent the current situation which is assumed to remain unchanged in the WoP scenario. Beneficiary farmers will be reached through extension agents using the FFS approach to induce the adoption of small but effective changes in their production systems, including small investments supported by project grants. Model summarized results (incremental benefits) show that HHs’ net income would increase significantly (from 50 to 300 percent) as a result of the planned interventions.
11. The farm models enable estimates to have been made for the following indicators: the expected increase in HH net benefits, the Financial Internal Rates of Return (FIRR) and the Net Present Values (NPV). The FIRR in all cases are in excess of 100 percent, the result of the use of project grants (seed and tools) supporting the farm improvements that vary between the equivalent to USD40 for the commercial oriented beneficiaries (Model 1, Table 23 in the Appendix), and USD80 per farm for the subsistence the farmers (Model 3, Table 25). Models 4 to 6 (Tables 26 to 28) show stronger Programme support targeting women and youth beneficiaries where grants vary from USD560 to USD660. Model 9 (Table 29) represent HHs supported for creating small ponds or other solutions in home gardens to capture water from intense rainfall, and adopting low-cost drip irrigation technologies that are easy to operate and maintain. In this case a grant of USD400 was included.
12. Models 8 to 10 (Tables 30 to 32 in Appendix) represent the cases of groups to be strengthened or formed with adequate technical support from the project. Benefits are significantly higher because they represent new activities to be undertaken mostly by women and youth. The models show positive results for most of the alternative crop and livestock activities suggesting significant potential for creating higher opportunities for targeted HHs, confirming that the proposed interventions and production packages will be financially attractive for the participants to be adopted. Expected results

also show that the HHs will have the capacity to cover the necessary incremental operating costs and the repayment of commercial Bank loans required for upgrading their traditional production practices.

D. Service provider models

13. Table 33 in the Appendix show the case of a group of 3 to 5 youth starting a rice harvesting enterprise with one combine harvester for providing this service to around 300 farmers; and Table 34 present an agro-service cooperative youth enterprise developing several production support services necessary in their areas. The main equipment, facilities and income generating sources in this case would be a combined harvester, two four wheel tractors (4WTs), two rice trans-planters and an integrated rice processing mill. Models also include operating costs and financing (matching grants and loans) showing that the investment is financially feasible with FIRR of 96% and more than 100% (after grants and debt service), which in addition, will allow around 500 farmers to reduce costs of production, increase yields and hence, improve their HHs income.
14. Table 35 in the Appendix presents a representative milk collection and cooling center for groups of 40 – 60 livestock farmers establishing milk societies including facilities for handling 600,000 liters per year. Uplifting of the milk quality by issuing milk analyses to the milk collecting centers as well as veterinary services will allow small dairy farmers to handle and sell their milk to processing plants at higher prices. These models are examples of activities to be supported by SARP both for supportive machinery service providers and for developing marketing facilities for rice, milk and other products.
15. Net income cash flows and the net present value indicators are shown in the Summary Table A. All farm system types and support activities examined were found financially viable. Returns to family-labour for each model were shown to be considerably above the daily wage thus providing a sound incentive for household production as well as an argument against outmigration of labour. It is estimated that the total days worked on the project area would increase from 1.3 million person days to 2.4 million, and on average, returns per family day worked would increase from LKR 2,840 to LKR 3,350.

III. ECONOMIC ANALYSIS

16. The estimation of the likely economic impact of the Programme interventions was done considering a 20 year period during which SARP will generate benefits, including the 6-year implementation period. Financial prices have been converted to economic by applying a standard conversion factor (SCF) of 0.9. For unskilled labour a conversion factor (CF) of 0.75 has been used in line with prevailing rates of rural unemployment among young people⁴. All models are expressed in 2019 constant prices. The analysis builds on primary data collected by the design team during the design mission in June-July 2019 provided by the GoSL, and derived from other on-going IFAD projects in the country. Conservative assumptions and parameters have been applied, in order to avoid over-estimation of benefits and provide realistic results.
17. Economic benefits at crop/activity and HH levels were built by taking into account the direct economic results per type of intervention or activities, and aggregated according to the project targets and expected adoption rates. The Appendix Tables provide detailed financial budgets and results indicators for most of the foreseen activities including both WoP and WP scenarios. For each model the net cash flow and overall net income was estimated. For the overall Programme the ERR and the NPV using 10 percent as discount rate are also presented in Table 36 in the Appendix. The 10%

⁴ Youth unemployment rate in Sri Lanka decreased to 19.60% in the 3rd quarter of 2018 from 22.50% in the 2nd quarter of 2018. It averaged 24.71% for 1992 - 2018 (<https://tradingeconomics.com/sri-lanka/youth-unemployment-rate>).

discount rate was selected following IFAD guidelines that recommend the use of the real interest the GoSL pays on 10-year Bonds⁵.

TABLE 4 PARTICIPATING FARMS AND FOs ADOPTING SARP IMPROVEMENTS (In Units)

	Project Year						
	1	2	3	4	5	6	7 to 20
Participating							
Farm Model 1: Commercial farmer (1.25 ha)	-	700	1,750	2,310	2,450	2,450	2,450
Farm Model 2: Medium market led (minor irrigation) 0.8 ha	-	2,100	4,900	8,400	12,950	17,150	17,150
Farm Model 3: Small rain fed (supplementary irrigation) 0.5 ha	-	700	1,400	2,800	4,200	4,900	4,900
Farm Model 4: Improved milk production (9 head, 4 milking cows)	-	231	455	679	903	1,127	1,127
Farm Model 5: Goat rearing (22 head)	-	217	434	651	868	1,085	1,085
Farm Model 6: Backyard poultry	-	35	70	140	210	280	280
Farm Model 7: Home gardens	-	1,133	2,552	4,141	5,935	7,889	7,889
Farm Model 8: Rice seed production (youth and women group)	-	7	14	21	28	35	35
Farm Model 9: Protected agriculture (red bell pepper in 100 sq mt poly)	-	54	124	194	229	245	245
Farm Model 10: Mango seedlings nursery (youth and women group)	-	3	5	7	9	9	9
Milk collection center (180,000 lt/year)	-	157	314	444	518	564	564
Rice harvesting service providers	-	18	36	54	72	90	90
Agro Service Cooperative Youth Enterprises at Cluster Villages	-	1	2	3	4	5	5
TOTAL	-	5,356	12,056	19,844	28,376	35,829	35,829

18. **The overall Economic Rate of Return (ERR)** of the Programme was estimated at 18.6 percent (base case scenario) which is significantly above the opportunity cost of capital in Sri Lanka estimated at 10 percent. It is emphasized that the computed ERR is realistic because it has been conservatively estimated considering only the direct beneficiaries. The analysis only considered the economic benefits at farm-gate and group of beneficiaries (including some post-harvest activities in the value chain). Most of the benefits to upstream and downstream actors in the value chain from increased production, enhanced quality of products, higher trade volumes, and value adding opportunities created beyond those few quantified for the analysis, have not been considered due to estimation difficulties. The economic Net Present Value (NPV) was estimated at SLR 6.5 billion (equivalent to USD 36 million) with the benefit stream based only on the quantified benefits.

IV. SENSITIVITY ANALYSIS

19. Sensitivity of the expected impact to major risks were tested.
- If the Programme investments would be higher by 20 percent, the ERR would drop to 17 percent;
 - If all agricultural output prices would drop by 20 percent, the ERR would decrease to 12 percent;

⁵ Source: <https://investing.com/rates.bonds/sri-lanka-10-year>

- If both previously named events would occur simultaneously (investment costs up by 20 percent and agricultural output prices down by 20 percent), the ERR would then drop to 10 percent;
- If implementation delays would determine 1 or 2 years delay in showing benefits, the ERR would decrease to 16% and 15% respectively;
- If adoption rates would drop by 10% or 20%, the ERR would drop to 17% and 16% respectively.

SENSITIVITY ANALYSIS (SA)					
		Δ%	Link with the risk matrix	IRR	NPV (USD M)
Base scenario				19%	36.04
Output prices	-10%	Combination of risks affecting output prices and/or yields		15%	20.29
Output prices	-20%			12%	5.73
Project costs	10%	Increase of construction material prices		18%	33.48
Project costs	20%			17%	30.91
1 year lag in ben.		Risks affecting low implementation capacity		16%	27.04
2 years lag in ben.				15%	19.17
Input prices	10%	Market price fluctuations		18%	33.01
Input prices	20%			17%	30.58
Adoption rates	-10%	Extension service outreach is limited, low uptake of good practices,		17%	28.98
Adoption rates	-20%			16%	22.45
Output prices -20% & Project costs +20%		Market price fluctuations		10%	0.60

20. Summarizing, the proposed Project will increase the beneficiaries' family income by at least 50 percent and up to three fold their current income. The overall investment would yield an ERR of 18.6 percent assuming the targeted beneficiaries would adopt the proposed climate smart agricultural and climate resilient practices to be promoted, assuming an adoption rate of about 70 percent. These positive results are considered strong as shown in the sensitivity analysis against adverse situations as cost over-runs, reduction of prices for the agricultural products, also in the case of both adverse events occurring simultaneously, delays in attaining the expected benefits and even with lower adoption rates.
21. The follow-up of these indicators - while monitoring performance during the implementation of the Project - can provide valuable information for adjusting the strategy and interventions to improve the Project impact.

Appendix: Economic and Financial Analysis Tables

Table 1	Paddy Irrigated Yala Crop Model
Table 2	Paddy Rain fed Yala Crop Model
Table 3	Maize Irrigated Yala Crop Model
Table 4	Black gram Irrigated Yala Crop Model
Table 5	Cow peas Rain fed Yala Crop Model
Table 6	Greenchili Irrigated Yala Crop Model
Table 7	Big onion Irrigated Yala Crop Model
Table 8	Red onion Irrigated Yala Crop Model
Table 9	Paddy Irrigated Maha Crop Model
Table 10	Paddy Rain fed Maha Crop Model
Table 11	Maize rain fed Maha Crop Model
Table 12	Cow peas Rain fed Maha Crop Model
Table 13	Red onion Irrigated Maha Crop Model
Table 14	Greenchili rainfed Maha Crop Model
Table 15	Red bell Pepper in Polyunnel (100 m2) Crop Model
Table 16	Mango seedlings nursery Crop Model
Table 17	Traditional Milking cows (6 head, 3 milking cows) Activity Model
Table 18	Milking cows (9 head, 4 milking cows) Activity Model
Table 19	Traditional Goats rearing (15 head) Activity Model
Table 20	Goats rearing (22 head) Activity Model
Table 21	Backyard Traditional Poultry Activity Model
Table 22	Backyard Poultry - New Semi-intensive Activity Model
Table 23	Farm Model 1: Commercial farmer (1.25 ha)
Table 24	Farm Model 2: Medium market led (minor irrigation) 0.8 ha
Table 25	Farm Model 3: Small rain fed (supplementary irrigation) 0.5 ha
Table 26	Farm Model 4: Improved milk production (9 head, 4 milking cows)
Table 27	Farm Model 5: Goat rearing (22 head)
Table 28	Farm Model 6: Backyard poultry
Table 29	Farm Model 7: Home gardens
Table 30	Farm Model 8: Rice seed production (youth and women group)
Table 31	Farm Model 9: Protected agriculture (red bell pepper - youth and women group)
Table 32	Farm Model 10: Mango seedlings nursery (youth and women group)
Table 33	Rice harvesting service providers Youth Model
Table 34	Farmer organization - Agro-service Center
Table 35	Milk collection center (180,000 lt/year)
Table 36	Project Summary

Paddy Irrigated Yala Average Crop Model					Table 1
FINANCIAL BUDGET (In Local Per ac)	Existing				
	Technology	New Technology			
	1 to 15	1	2	3 to 15	
Revenue	101,200	101,200	115,000	128,800	
Input costs					
Ploughing	7,400	7,400	7,400	7,400	
Rice seed	3,584	3,584	3,264	2,880	
TSP	1,800	1,800	1,650	1,500	
Urea	5,000	5,000	4,500	4,000	
MOP	1,050	1,050	975	900	
Weedicides	3,500	3,500	3,250	3,000	
Pesticides	1,400	1,400	1,250	1,100	
Harvest (combine harvester)	8,000	8,000	8,000	8,000	
Transport produce to stores	1,200	1,200	1,300	1,400	
Sub-total Input costs	32,934	32,934	31,589	30,180	
Income (Before Labor Costs)	68,266	68,266	83,411	98,620	
Labor costs	22,800	22,800	24,900	27,000	
Income (After Labor Costs)	45,466	45,466	58,511	71,620	
YIELDS AND INPUTS (Per ac)					
		Existing			
	Unit	Technology	New Technology		
		1 to 15	1	2	3 to 15
Yields	ton	2.2	2.2	2.5	2.8
Operating					
Inputs					
Rice seed	kg	56	56	51	45
TSP	kg	36	36	33	30
Urea	kg	100	100	90	80
MOP	kg	21	21	19.5	18
Labor					
Land Preparation	md	2	2	2	2
Plastering bunds	md	4	4	4	4
Leveling and seeding	md	3	3	4.5	6
Fertilizing, & Agrochemicals applicatic	md	2.5	2.5	2.5	2.5
Water managment	md	4.5	4.5	4.5	4.5
Harvesting & Postharvesting	md	3	3	3.25	3.5

Paddy Rain fed Yala Average Crop Model					Table 2
FINANCIAL BUDGET (In Local Per ac)	Existing				
	Technology	New Technology			
	1 to 15	1	2	3 to 15	
Revenue	39,100	39,100	46,920	55,200	
Input costs					
Ploughing	8,800	8,800	8,800	8,800	
Levelling & broadcasting	2,950	2,950	3,450	3,950	
Rice seed	3,360	3,360	3,192	3,024	
TSP	1,500	1,500	1,400	1,300	
Urea	4,000	4,000	3,500	3,000	
MOP	1,000	1,000	875	750	
Weedicides	1,900	1,900	1,850	1,800	
Harvest (combine harvester)	7,500	7,500	8,000	8,500	
Transport produce to stores	700	700	750	800	
Sub-total Input costs	31,710	31,710	31,817	31,924	
Income (Before Labor Costs)	7,390	7,390	15,103	23,276	
Labor costs	15,600	15,600	17,400	19,200	
Land Preparation	2,400	2,400	2,400	2,400	
Income (After Labor Costs)	-8,210	-8,210	-2,297	4,076	
YIELDS AND INPUTS (Per ac)					
		Existing			
	Unit	Technology	New Technology		
		1 to 15	1	2	3 to 15
Yields	ton	0.85	0.85	1.02	1.2
Operating					
Inputs					
Rice seed	kg	40	40	38	36
TSP	kg	30	30	28	26
Urea	kg	80	80	70	60
MOP	kg	20	20	17.5	15
Labor					
Land Preparation	md	2	2	2	2
Plastering bunds	md	3	3	3	3
Leveling and broadcasting	md	4	4	5.5	7
Agrochemicals application	md	2	2	2	2
Harvesting and Postharvesting	md	2	2	2	2

Maize Irrigated Yala Average Crop Model		Table 3			
FINANCIAL BUDGET		Existing		New Technology	
(In Local Per ac)		Technology	1	2	3 to 15
		1 to 15	1	2	3 to 15
Revenue		91,800	91,800	102,600	113,400
Input costs					
Ploughing		5,000	5,000	5,000	5,000
Maize seed		6,107	6,107	5,641	5,175
Seeder		6,250	6,250	6,250	6,250
TSP		2,650	2,650	2,525	2,400
Urea		5,800	5,800	5,400	5,000
MOP		2,250	2,250	2,125	2,000
Threshing		1,800	1,800	1,900	2,000
Transport produce to stores		1,200	1,200	1,200	1,200
Sub-total Input costs		31,057	31,057	30,041	29,025
Income (Before Labor Costs)		60,744	60,744	72,559	84,375
Labor costs		51,600	51,600	52,200	52,800
Income (After Labor Costs)		9,144	9,144	20,359	31,575
YIELDS AND INPUTS					
(Per ac)					
		Existing		New Technology	
	Unit	Technology	1	2	3 to 15
		1 to 15	1	2	3 to 15
Yields	ton	1.7	1.7	1.9	2.1
Operating					
Inputs					
Maize seed	kg	5.9	5.9	5.45	5
Seeder	unit	0.25	0.25	0.25	0.25
TSP	kg	53	53	50.5	48
Urea	kg	116	116	108	100
MOP	kg	45	45	42.5	40
Labor					
Land Preparation	md	3	3	3	3
Digging holes and seeding	md	6	6	6	6
Weeding and earthing up	md	8	8	8	8
Fertilizing, & Agrochemicals applicatic	md	6	6	6	6
Water management	md	8	8	8	8
Harvesting & Postharvesting	md	12	12	12.5	13

Black gram Irrigated Yala Average Crop Model		Table 4			
FINANCIAL BUDGET		Existing		New Technology	
(In Local Per ac)		Technology	1	2	3 to 15
		1 to 15	1	2	3 to 15
Revenue		67,260	67,260	74,340	81,420
Input costs					
Ploughing		7,800	7,800	7,800	7,800
Black gram seed		3,100	3,100	3,100	3,100
MOP		-	-	1,250	2,500
Pesticides		2,350	2,350	2,350	2,350
Threshing		3,800	3,800	3,800	3,800
Transport produce to stores		240	240	240	240
Sub-total Input costs		17,290	17,290	18,540	19,790
Income (Before Labor Costs)		49,970	49,970	55,800	61,630
Labor costs		39,600	39,600	40,200	40,800
Income (After Labor Costs)		10,370	10,370	15,600	20,830
YIELDS AND INPUTS					
(Per ac)					
		Existing		New Technology	
	Unit	Technology	1	2	3 to 15
		1 to 15	1	2	3 to 15
Yields	ton	0.38	0.38	0.42	0.46
Operating					
Inputs					
Ploughing	lumsum	7,800	7,800	7,800	7,800
Black gram seed	kg	10	10	10	10
MOP	kg	-	-	25	50
Pesticides	lumsum	2,350	2,350	2,350	2,350
Threshing	lumsum	3,800	3,800	3,800	3,800
Transport produce to stores	lumsum	240	240	240	240
Labor					
Land Preparation	md	2	2	2	2
Preparation of beds and ridges	md	5	5	5	5
Seedind (manual)	md	4	4	4	4
Weeding & earthing up	md	8	8	8	8
Water management	md	3	3	3	3
Harvesting & Postharvesting	md	8	8	8.5	9
Threshing & processing	md	2	2	2	2
Transpoet	md	1	1	1	1

Cow peas Rain fed Yala Average		Table 5			
FINANCIAL BUDGET		Existing		New Technology	
(In Local Per ac)		Technology	1	2	3 to 15
		1 to 15	1	2	3 to 15
Revenue		49,840	49,840	56,070	62,300
Input costs					
Ploughing		5,300	5,300	5,300	5,300
Cowpea seed		3,640	3,640	3,640	3,640
Liquid fertilizer		1,100	1,100	1,100	1,100
Buffaloes work		1,800	1,800	1,800	1,800
Pesticides		1,000	1,000	1,000	1,000
Transport produce to stores		240	240	240	240
Sub-total Input costs		13,080	13,080	13,080	13,080
Income (Before Labor Costs)		36,760	36,760	42,990	49,220
Labor costs		28,200	28,200	28,800	29,400
Income (After Labor Costs)		8,560	8,560	14,190	19,820

YIELDS AND INPUTS		Existing				
(Per ac)		Technology	1	2	3 to 15	
		Unit	1 to 15	1	2	3 to 15
Yields		ton	0.28	0.28	0.315	0.35
Operating						
Inputs						
Cowpea seed		kg	13	13	13	13
Liquid fertilizer		kg	1,100	1,100	1,100	1,100
Labor						
Land Preparation		md	1.5	1.5	1.5	1.5
Seedind (manual)		md	3	3	3	3
Weeding & earthing		md	6	6	6	6
Fertilizing, & Agrochemicals aplicatic		md	2	2	2	2
Harvesting & Postharvesting		md	9	9	9.5	10
Threshing & processing		md	1	1	1	1
Transpoet		md	1	1	1	1

Greenchilli Irrigated Yala Average Crop Model		Table 6			
FINANCIAL BUDGET		Existing		New Technology	
(In Local Per ac)		Technology	1	2	3 to 15
		1 to 15	1	2	3 to 15
Revenue		800,000	800,000	850,000	900,000
Input costs					
Nursery Inputs		1,200	1,200	1,200	1,200
Ploughing		12,000	12,000	12,000	12,000
Greenchilli seed		1,600	1,600	1,600	1,600
TSP		5,000	5,000	5,000	5,000
Urea		7,500	7,500	7,500	7,500
Specific fertilizer mix		19,000	19,000	19,000	19,000
Pesticides		22,900	22,900	22,900	22,900
Water Management		16,000	16,000	16,000	16,000
Transport produce to stores		15,000	15,000	15,000	15,000
Sub-total Input costs		100,200	100,200	100,200	100,200
Income (Before Labor Costs)		699,800	699,800	749,800	799,800
Labor costs		168,000	168,000	169,800	171,600
Income (After Labor Costs)		531,800	531,800	580,000	628,200

Greenchilli Irrigated Yala Average Crop Model		April – March				
YIELDS AND INPUTS		Existing		New Technology		
(Per ac)		Technology	1	2	3 to 15	
		Unit	1 to 15	1	2	3 to 15
Yields		ton	4	4	4.25	4.5
Operating						
Inputs						
Greenchilli seed		kg	0.4	0.4	0.4	0.4
TSP		kg	100	100	100	100
Urea		kg	150	150	150	150
Specific fertilizer mix		LS	19,000	19,000	19,000	19,000
Labor						
Land Preparation		md	6	6	6	6
Preparation of beds and ridges		md	15	15	15	15
Nursery Preparation		md	5	5	5	5
Transplanting		md	9	9	9	9
Fertilizing, & Agrochemicals aplic		md	24	24	24	24
Weeding & earthing up		md	23	23	23	23
Water managment		md	22	22	22	22
Harvesting & Postharvesting		md	35	35	36.5	38
Transport		md	1	1	1	1

Big onion Irrigated Yala Average **Table 7**

FINANCIAL BUDGET (In Local Per ac)	Existing		New Technology	
	Technology	1	2	3 to 15
	1 to 15	1	2	3 to 15
Revenue	313,200	313,200	348,000	377,000
Input costs				
Nursery Inputs	2,100	2,100	2,100	2,100
Ploughing	12,000	12,000	12,000	12,000
Bigg Onion seed	36,190	36,190	36,190	36,190
TSP	5,000	5,000	5,000	5,000
Onion mix	19,500	19,500	22,750	26,000
Pesticides	16,380	16,380	16,380	16,380
Water Management	13,800	13,800	13,800	13,800
Transport produce to stores	3,800	3,800	4,000	4,200
Sub-total Input costs	108,770	108,770	112,220	115,670
Income (Before Labor Costs)	204,430	204,430	235,780	261,330
Labor costs	148,800	148,800	150,000	151,200
Income (After Labor Costs)	55,630	55,630	85,780	110,130

Big onion Irrigated Yala Average Crop IV

YIELDS AND INPUTS (Per ac)	Unit	April – March			
		Existing		New Technology	
		1 to 15	1	2	3 to 15
Yields	ton	5.4	5.4	6	6.5
Operating Inputs					
Bigg Onion seed	kg	2.75	2.75	2.75	2.75
TSP	kg	100	100	100	100
Onion mix	kg	300	300	350	400
Labor					
Nursery Preparation	md	5	5	5	5
Land Preparation	md	2	2	2	2
Preparation of beds and ridges	md	21	21	21	21
Transplanting	md	25	25	25	25
Fertilizing, & Agrochemicals applicatic	md	15	15	15	15
Weeding & earthing up	md	8	8	8	8
Water management	md	22	22	22	22
Harvesting & Postharvesting	md	23	23	24	25
Transport	md	3	3	3	3

Red onion Irrigated Yala Average Crop Model **Table 8**

FINANCIAL BUDGET (In Local Per ac)	Existing		New Technology	
	Technology	1	2	3 to 15
	1 to 15	1	2	3 to 15
Revenue	655,200	655,200	722,400	789,600
Input costs				
Ploughing	3,200	3,200	3,200	3,200
Red onion seed	132,921	132,921	132,921	132,921
TSP	2,900	2,900	2,900	2,900
Urea	3,000	3,000	3,000	3,000
Onion mix	6,435	6,435	6,435	6,435
Cow dung	16,380	16,380	16,380	16,380
Weedicides	1,900	1,900	1,900	1,900
Pesticides	2,500	2,500	2,500	2,500
Water Management	10,200	10,200	10,200	10,200
Harvest and Drawing	2,600	2,600	2,750	2,900
Transport produce to stores	2,800	2,800	2,800	2,800
Sub-total Input costs	184,836	184,836	184,986	185,136
Income (Before Labor Costs)	470,364	470,364	537,414	604,464
Labor costs	84,000	84,000	85,800	87,600
Income (After Labor Costs)	386,364	386,364	451,614	516,864

Red onion Irrigated Yala Average Crop Model

YIELDS AND INPUTS (Per ac)	Unit	April – March			
		Existing		New Technology	
		1 to 15	1	2	3 to 15
Yields	ton	3.9	3.9	4.3	4.7
Operating Inputs					
Red onion seed	kg	547	547	547	547
TSP	kg	58	58	58	58
Urea	kg	60	60	60	60
Onion mix	kg	99	99	99	99
Cow dung	bag	105	105	105	105
Labor					
Land Preparation	md	3	3	3	3
Seed Processing	md	3	3	3	3
Digging holes and seeding	md	7	7	7	7
Fertilizing, & Agrochemicals applic	md	3	3	3	3
Weeding & earthing up	md	6	6	6	6
Water management	md	24	24	24	24
Harvesting & Postharvesting	md	21	21	22.5	24
Transport	md	3	3	3	3

Paddy Irrigated Maha Crop Model		Table 9			
		FINANCIAL BUDGET			
		Existing Technology		New Technology	
(In Local Per ac)		1 to 15	1	2	3 to 15
Revenue		96,600	96,600	108,100	119,600
Input costs					
Ploughing		7,400	7,400	7,400	7,400
Rice seed		3,584	3,584	3,264	2,880
TSP		1,800	1,800	1,650	1,500
Urea		5,000	5,000	4,500	4,000
MOP		1,050	1,050	975	900
Weedicides		2,500	2,500	2,500	2,500
Pesticides		1,400	1,400	1,250	1,100
Harvest (combine harvester)		8,400	8,400	8,400	8,400
Transport produce to stores		800	800	800	800
Sub-total Input costs		31,934	31,934	30,739	29,480
Income (Before Labor Costs)		64,666	64,666	77,361	90,120
Labor costs		22,800	22,800	24,900	27,000
Income (After Labor Costs)		41,866	41,866	52,461	63,120

YIELDS AND INPUTS		Existing Technology			
		(Per ac)			
		Unit	1 to 15	1	2
Yields	ton	2.1	2.1	2.35	2.6
Operating Inputs					
Rice seed	kg	56	56	51	45
TSP	kg	36	36	33	30
Urea	kg	100	100	90	80
MOP	kg	21	21	19.5	18
Labor					
Land Preparation	md	2	2	2	2
Plastering bunds	md	4	4	4	4
Leveling and seeding	md	3	3	4.5	6
Fertilizing, & Agrochemicals applicatic	md	2.5	2.5	2.5	2.5
Water managment	md	4.5	4.5	4.5	4.5
Harvesting & Postharvesting	md	3	3	3.25	3.5

Paddy Rain fed Maha Crop Model		Table 10			
		FINANCIAL BUDGET			
		Existing Technology		New Technology	
(In Local Per ac)		1 to 15	1	2	3 to 15
Revenue		62,560	62,560	70,380	78,200
Input costs					
Ploughing		6,400	6,400	6,400	6,400
Rice seed		6,048	6,048	5,544	5,040
TSP		1,750	1,750	1,625	1,500
Urea		3,750	3,750	3,400	3,000
MOP		1,200	1,200	1,100	1,000
Weedicides		2,600	2,600	2,500	2,400
Harvest (combine harvester)		6,000	6,000	6,300	6,600
Transport produce to stores		200	200	220	240
Sub-total Input costs		27,948	27,948	27,089	26,180
Income (Before Labor Costs)		34,612	34,612	43,291	52,020
Labor costs		15,600	15,600	16,200	16,800
Income (After Labor Costs)		19,012	19,012	27,091	35,220

YIELDS AND INPUTS		Existing Technology			
		(Per ac)			
		Unit	1 to 15	1	2
Yields	ton	1.36	1.36	1.53	1.7
Operating Inputs					
Rice seed	kg	72	72	66	60
TSP	kg	35	35	32.5	30
Urea	kg	75	75	68	60
MOP	kg	24	24	22	20
Labor					
Land Preparation	md	2	2	2	2
Plastering bunds	md	3	3	3	3
Leveling and broadcasting	md	2	2	2.5	3
Agrochemicals application	md	3	3	3	3
Harvesting and Postharvesting	md	3	3	3	3

Maize rain fed Maha Crop Model		Table 11			
FINANCIAL BUDGET		Existing		New Technology	
(In Local Per ac)		Technology	1	2	3 to 15
		1 to 15	1	2	3 to 15
Revenue		86,400	86,400	94,500	102,600
Input costs					
Ploughing		7,700	7,700	7,700	7,700
Maize seed		5,796	5,796	5,796	5,796
Seeder		6,250	6,250	6,250	6,250
TSP		2,200	2,200	2,350	2,500
Urea		6,000	6,000	6,500	7,000
MOP		1,350	1,350	1,425	1,500
Threshing		2,200	2,200	2,200	2,200
Transport produce to stores		700	700	700	700
Sub-total Input costs		32,196	32,196	32,921	33,646
Income (Before Labor Costs)		54,204	54,204	61,579	68,954
Labor costs		33,600	33,600	33,600	33,600
Income (After Labor Costs)		20,604	20,604	27,979	35,354

Maize rain fed Maha Crop Model		April – March				
YIELDS AND INPUTS		Existing		New Technology		
(Per ac)		Unit	1 to 15	1	2	3 to 15
Yields	ton		1.6	1.6	1.75	1.9
Operating						
Inputs						
Ploughing	lumsum		7,700	7,700	7,700	7,700
Maize seed	kg		5.6	5.6	5.6	5.6
Seeder	unit		0.25	0.25	0.25	0.25
TSP	kg		44	44	47	50
Urea	kg		120	120	130	140
MOP	kg		27	27	28.5	30
Threshing	lumsum		2,200	2,200	2,200	2,200
Transport produce to stores	lumsum		700	700	700	700
Labor						
Land Preparation	md		3	3	3	3
Digging holes and seeding	md		6	6	6	6
Weeding and earthing up	md		7	7	7	7
Fertilizing, & Agrochemicals applicatic	md		4	4	4	4
Harvesting & Postharvesting	md		8	8	8	8

Cow peas Rain fed Maha Average Crop Model		Table 12			
FINANCIAL BUDGET		Existing		New Technology	
(In Local Per ac)		Technology	1	2	3 to 15
		1 to 15	1	2	3 to 15
Revenue		45,212	45,212	45,212	45,212
Input costs					
Ploughing		5,300	5,300	5,300	5,300
Cowpea seed		3,920	3,920	3,920	3,920
Pesticides		1,800	1,800	1,800	1,800
Transport produce to stores		240	240	240	240
Sub-total Input costs		11,260	11,260	11,260	11,260
Income (Before Labor Costs)		33,952	33,952	33,952	33,952
Labor costs		27,600	27,600	28,200	28,800
Income (After Labor Costs)		6,352	6,352	5,752	5,152

YIELDS AND INPUTS		Existing			
(Per ac)		Technology	New Technology		
	Unit	1 to 15	1	2	3 to 15
Yields	ton	0.254	0.254	0.254	0.254
Operating					
Inputs					
Cowpea seed	kg	14	14	14	14
Labor					
Land Preparation	md	1	1	1	1
Digging holes & seedind	md	3	3	3	3
Weeding & earthing	md	5	5	5	5
Fertilizing, & Agrochemicals aplic	md	1	1	1	1
Harvesting & Postharvesting	md	9	9	9.5	10
Threshing & processing	md	3	3	3	3
Transpoet	md	1	1	1	1

Red onion Irrigated Maha Cro		Table 13			
FINANCIAL BUDGET		Existing		New Technology	
(In Local Per ac)		Technology	1	2	3 to 15
		1 to 15	1	2	3 to 15
Revenue		681,120	681,120	752,400	818,400
Input costs					
Ploughing		13,600	13,600	13,600	13,600
Red onion seed		197,316	197,316	197,316	197,316
TSP		4,150	4,150	4,325	4,500
Urea		3,500	3,500	3,750	4,000
MOP		2,650	2,650	2,825	3,000
Onion mix		6,435	6,435	6,435	6,435
Cow dung		16,380	16,380	16,380	16,380
Weedicides		2,500	2,500	2,500	2,500
Pesticides		7,000	7,000	7,000	7,000
Water Management		6,100	6,100	6,100	6,100
Transport produce to stores		4,500	4,500	4,750	5,000
Sub-total Input costs		264,131	264,131	264,981	265,831
Income (Before Labor Costs)		416,989	416,989	487,419	552,569
Labor costs		111,600	111,600	113,400	115,200
Income (After Labor Costs)		305,389	305,389	374,019	437,369
YIELDS AND INPUTS					
(Per ac)					
		Existing		New Technology	
	Unit	Technology	1	2	3 to 15
		1 to 15	1	2	3 to 15
Yields	ton	5.16	5.16	5.7	6.2
Operating					
Inputs					
Red onion seed	kg	812	812	812	812
TSP	kg	83	83	86.5	90
Urea	kg	70	70	75	80
MOP	kg	53	53	56.5	60
Onion mix	kg	99	99	99	99
Pesticides	lumsum	7,000	7,000	7,000	7,000
Water Management	lumsum	6,100	6,100	6,100	6,100
Transport produce to stores	lumsum	4,500	4,500	4,750	5,000
Labor					
Land Preparation	md	1	1	1	1
Seed Processing & seeding	md	12	12	12	12
Preparation of beds and ridges	md	15	15	15	15
Fertilizing, & Agrochemicals applicatic	md	12	12	12	12
Weeding & earthing up	md	9	9	9	9
Water managment	md	20	20	20	20
Harvesting & Postharvesting	md	21	21	22.5	24
Transport	md	3	3	3	3

Greenchili rainfed Maha Crop Model		Table 14			
FINANCIAL BUDGET		Existing		New Technology	
(In Local Per ac)		Technology	1	2	3 to 15
		1 to 15	1	2	3 to 15
Revenue		190,000	190,000	205,000	220,000
Input costs					
Ploughing		7,300	7,300	7,300	7,300
Greenchilli seed		2,160	2,160	2,160	2,160
Transplanting		2,460	2,460	2,460	2,460
Urea		7,500	7,500	8,250	9,000
Specific fertilizer mix		11,600	11,600	12,800	14,000
Pesticides		10,100	10,100	10,100	10,100
Transport produce to stores		1,500	1,500	1,500	1,500
Sub-total Input costs		42,620	42,620	44,570	46,520
Income (Before Labor Costs)		147,380	147,380	160,430	173,480
Labor costs		93,600	93,600	96,000	98,400
Income (After Labor Costs)		53,780	53,780	64,430	75,080
YIELDS AND INPUTS					
(Per ac)					
		Existing		New Technology	
	Unit	Technology	1	2	3 to 15
		1 to 15	1	2	3 to 15
Yields	ton	0.95	0.95	1.025	1.1
Operating					
Inputs					
Greenchilli seed	kg	0.54	0.54	0.54	0.54
Urea	kg	150	150	165	180
Transport produce to stores	lumsum	1,500	1,500	1,500	1,500
Labor					
Land Preparation	md	9	9	9	9
Preparation of beds and ridges	md	7	7	7	7
Nursery Preparation	md	5	5	5	5
Transplanting	md	12	12	12	12
Fertilizing, & Agrochemicals apl	md	14	14	14	14
Weeding & earthing up	md	10	10	10	10
Harvesting & Postharvesting	md	20	20	22	24
Transport	md	1	1	1	1

Red bell Pepper in Polytunnel (100 m2) Crop Model

Table 15

FINANCIAL BUDGET

(In Local Per ac)

	New Technology	
	1	2 to 15
Revenue	-	507,500
Input costs		
Investment costs		
Poly tunnel construction	621,600	-
Bricks (for foundation)	5,400	-
Sub-total Investment Costs	627,000	-
Operating Costs		
Nursery trays	780	780
Red pepper seed	1,114	1,114
Nursery growing media	2,400	2,400
Fungicide	1,200	1,200
Albert solution 10:52:10+TE	49	49
Grow bags	50,000	50,000
100 lt tank	400	400
Fertirrigation	34,000	34,000
Electricity	375	375
Tools	300	300
Harvest trays (bell pepper)	12,000	12,000
Maintenance costs	-	62,160
Sub-total Operating Costs	102,618	164,778
Sub-total Input costs	729,618	164,778
Income (Before Labor Costs)	-729,618	342,722
Labor costs		
Investment costs	3,200	-
Operating Costs	58,200	58,200
Sub-total Labor costs	61,400	58,200
Income (After Labor Costs)	-791,018	284,522

Income Before Labor: IRR = 46.9%, NPV = 1,942,931.89

Income After Labor: IRR = 35.9%, NPV = 1,444,533.39

YIELDS AND INPUTS

(Per ac)

	Unit	New Technology	
		1	2 to 15
Yields	ton	-	1.45
Investment			
Poly tunnel construction	sq ft	1,110	-
Bricks (for foundation)	unit	120	-
Land levelling	md	1	-
Masonry	md	1	-
Operating			
Nursery trays	unit	6	6
Red pepper seed	1000 units	0.47	0.47
Nursery growing media	kg	0.8	0.8
Fungicide	kg	1,200	1,200
Albert solution 10:52:10+TE	kg	0.14	0.14
Grow bags	unit	400	400
100 lt tank	unit	1	1
Fertirrigation	kg	100	100
Electricity	KWH	25	25
Tools	lumpsum	300	300
Harvest trays (bell pepper)	unit	10	10
Maintenance costs	lumsum	-	62,160
Labor			
Seeding of trays	md	1	1
Nursery management	md	3.5	3.5
Bags and plant establishment	md	2	2
Soft pruning and training	md	24	24
Hard pruning and training	md	10	10
Harvesting & drawing	md	6	6
Transport	md	2	2

Mango seedlings nursery Crop Model
Table 16
FINANCIAL BUDGET

(In Local Per ac)

	New Technology				
	1	2	3	4	5 to 15
Revenue	-	-	900,000	1,400,000	1,900,000
Input costs					
Investment costs					
Poly tunnel construction	621,600	-	-	-	-
Bricks (for foundation)	5,400	-	-	-	-
Sub-total Investment Costs	627,000	-	-	-	-
Operating Costs					
Mango seed	13,750	21,250	27,500	27,500	27,500
Sand bed	5,000	6,000	7,000	7,000	7,000
Wetfactant	220	220	220	220	220
Fungicide	5,000	6,000	7,000	7,000	7,000
Insecticides	12,000	13,500	15,000	15,000	15,000
Urea	5,000	6,000	7,500	7,500	7,500
Granular Blue	12,600	15,120	18,900	18,900	18,900
Compost	2,975	4,165	4,760	4,760	4,760
Soil Cub	750	900	1,050	1,050	1,050
Coir dust	4,500	6,000	7,500	7,500	7,500
Labale	10,000	12,500	15,000	15,000	15,000
Printed bag	45,400	54,480	63,560	63,560	63,560
For grafting	2,160	2,880	3,600	3,600	3,600
Polythene	3,600	5,400	7,200	7,200	7,200
Maintenance costs	-	62,160	62,160	62,160	62,160
Sub-total Operating Costs	122,955	216,575	247,950	247,950	247,950
Sub-total Input costs	749,955	216,575	247,950	247,950	247,950
Income (Before Labor Costs)	-749,955	-216,575	652,050	1,152,050	1,652,050
Labor costs					
Investment costs	3,200	-	-	-	-
Operating Costs	550,800	652,800	729,600	729,600	729,600
Sub-total Labor costs	554,000	652,800	729,600	729,600	729,600
Income (After Labor Costs)	-1,303,955	-869,375	-77,550	422,450	922,450

Income Before Labor: IRR = 73.1%, NPV = 9,244,052.32
Income After Labor: IRR = 25.0%, NPV = 3,255,663.67
YIELDS AND INPUTS

(Per ac)

	Unit	New Technology				
		1	2	3	4	5 to 15
Yields	unit	-	-	4,500	7,000	9,500
Investment						
Poly tunnel construction	sq ft	1,110	-	-	-	-
Bricks (for foundation)	unit	120	-	-	-	-
Land levelling	md	1	-	-	-	-
Masonry	md	1	-	-	-	-
Operating						
Inputs						
Mango seed	'000 units	5.5	8.5	11	11	11
Sand bed	cu mt	0.5	0.6	0.7	0.7	0.7
Wetfactant	lt	1	1	1	1	1
Fungicide	kg	5,000	6,000	7,000	7,000	7,000
Insecticides	unit	12,000	13,500	15,000	15,000	15,000
Urea	kg	100	120	150	150	150
Granular Blue	kg	100	120	150	150	150
Compost	cu mt	0.5	0.7	0.8	0.8	0.8
Soil Cub	unit	1	1.2	1.4	1.4	1.4
Coir dust	cu mt	0.3	0.4	0.5	0.5	0.5
Labale	unit	1	1.25	1.5	1.5	1.5
Printed bag	'000 units	10	12	14	14	14
For grafting	unit	6	8	10	10	10
Polythene	kg	10	15	20	20	20
Maintenance costs	lumsum	-	62,160	62,160	62,160	62,160
Labor						
Selection & cutting seeds	md	4	5	5	5	5
BED PREPARATION	md	12	13	14	14	14
BAG MAKING	md	18	20	22	22	22
MEDEA PREPARATION & FILLING	md	60	70	80	80	80
TRANSPLANTING	md	8	10	12	12	12
WEEDING	md	30	35	40	40	40
REFILLING	md	60	70	80	80	80
FERTILIZER APPLICATION	md	20	22	14	14	14
SPRAYING	md	15	17	19	19	19
Grafting	unit	5,000	7,500	10,000	10,000	10,000
IRRIGATION	md	140	160	170	170	170
MAINTENANCE & ARRANGEMENTS	md	18	20	22	22	22
LOADING UNLOADING & TRANSPORT	md	14	16	18	18	18
OTHER/Label	md	10	11	12	12	12

Traditional Milking cows (6 head, 3 milking cows) Activity Model Table 17

FINANCIAL BUDGET (In Local)	Existing Technology		New Technology		
	1 to 15	1	2	3 to 15	
	Revenue				
Milk Fresh	58,500	58,500	87,750	117,000	
Calves	15,000	15,000	18,750	22,500	
Culled animals	25,000	25,000	31,500	37,500	
Sub-total Revenue	98,500	98,500	138,000	177,000	
Input costs					
Investment costs					
Cattle shed	-	236,000	-	-	
Operating Costs					
Fodder	-	-	1,250	2,500	
Minerals	-	-	5,700	11,400	
Medicines	6,000	6,000	9,000	12,000	
Artificial Insemination	-	-	750	1,500	
Transport produce to stores	-	-	1,150	2,300	
Extension	-	-	1,800	3,600	
Sub-total Operating Costs	6,000	6,000	19,650	33,300	
Sub-total Input costs	6,000	242,000	19,650	33,300	
Income (Before Labor Costs)	92,500	-143,500	118,350	143,700	
Labor costs					
Management & maintenance	72,000	72,000	81,600	90,000	
Income (After Labor Costs)	20,500	-215,500	36,750	53,700	

YIELDS AND INPUTS	Unit	Technology		New Technology		
		1 to 15	1	2	3 to 15	
Main Production						
Milk Fresh	lt	900	900	1,350	1,800	
Calves	unit	1	1	1.25	1.5	
Culled animals	unit	0.5	0.5	0.63	0.75	
Operating						
Inputs						
Fodder	kg	-	-	1,250	2,500	
Minerals	kg	-	-	30	60	
Medicines	head	3	3	4.5	6	
Artificial Insemination	head	-	-	1.5	3	
Transport produce to stores	lumpsum	-	-	1,150	2,300	
Extension	'000 lt	-	-	0.9	1.8	
Labor						
Management & maintenance	md	60	60	68	75	

Milking cows (9 head, 4 milking cows) Activity Model Table 18

FINANCIAL BUDGET (In Local)	Existing Technology		New Technology					
	1 to 15	1	2	3	4	5	6 to 15	
	Revenue							
Milk Fresh	327,600	327,600	639,600	951,600	951,600	951,600	951,600	
Calves	15,000	15,000	22,500	30,000	30,000	30,000	30,000	
Culled animals	50,000	50,000	50,000	50,000	50,000	50,000	50,000	
Sub-total Revenue	392,600	392,600	712,100	1,031,600	1,031,600	1,031,600	1,031,600	
Input costs								
Investment costs								
Cattle shed	-	472,000	-	-	-	-	-	
Milking machine	-	-	90,000	-	90,000	-	-	
Grass chopper	-	-	75,000	75,000	-	-	-	
Drip irrigation kit	-	-	30,000	30,000	-	-	-	
Azzola ponds	-	-	30,000	30,000	10,000	10,000	-	
Sub-total Investment Costs	-	472,000	225,000	135,000	100,000	10,000	-	
Operating Costs								
Fodder	-	-	15,250	30,500	30,500	30,500	30,500	
Concentrate	108,000	108,000	159,900	211,800	211,800	211,800	211,800	
Minerals	30,780	30,780	30,780	30,780	30,780	30,780	30,780	
Medicines	18,000	18,000	18,000	18,000	18,000	18,000	18,000	
Artificial Insemination	2,000	2,000	2,000	2,000	2,000	2,000	2,000	
Electricity	27,375	27,375	32,850	38,325	38,325	38,325	38,325	
Transport produce to stores	7,560	7,560	14,760	21,960	21,960	21,960	21,960	
Extension	-	-	14,000	29,280	29,280	29,280	29,280	
Training	-	-	500	1,000	1,000	1,000	1,000	
Insurance	-	-	2,500	5,000	5,000	5,000	5,000	
Sub-total Operating Costs	193,715	193,715	290,540	388,645	388,645	388,645	388,645	
Sub-total Input costs	193,715	665,715	515,540	523,645	488,645	398,645	388,645	
Income (Before Labor Costs)	198,885	-273,115	196,560	507,955	542,955	632,955	642,955	
Labor costs								
Management & maintenance	109,200	109,200	219,600	328,800	328,800	328,800	328,800	
Income (After Labor Costs)	89,685	-382,315	-23,040	179,155	214,155	304,155	314,155	

Income Before Labor: IRR = 51.9%, NPV = 2,402,967.79
Income After Labor: IRR = 25.1%, NPV = 823,273.49

Milking cows (9 head, 4 milking cows) Activity Mod	Unit	Existing Technology		New Technology					
		1 to 15	1	2	3	4	5	6 to 15	
YIELDS AND INPUTS									
Main Production									
Milk Fresh	lt	5,040	5,040	9,840	14,640	14,640	14,640	14,640	14,640
Calves	unit	1	1	1.5	2	2	2	2	2
Culled animals	unit	1	1	1	1	1	1	1	1
Investment									
Cattle shed	unit	-	1	-	-	-	-	-	-
Milking machine	unit	-	-	1	-	1	-	-	-
Grass chopper	unit	-	-	1	1	-	-	-	-
Drip irrigation kit	unit	-	-	30,000	30,000	-	-	-	-
Azzola ponds	unit	-	-	6	6	2	2	2	-
Operating									
Inputs									
Fodder	kg	-	-	15,250	30,500	30,500	30,500	30,500	30,500
Concentrate	kg	2,160	2,160	3,198	4,236	4,236	4,236	4,236	4,236
Minerals	kg	162	162	162	162	162	162	162	162
Medicines	head	9	9	9	9	9	9	9	9
Artificial Insemination	head	4	4	4	4	4	4	4	4
Electricity	KWH	1,825	1,825	2,190	2,555	2,555	2,555	2,555	2,555
Transport produce to stores	lumpsum	7,560	7,560	14,760	21,960	21,960	21,960	21,960	21,960
Extension	'000 lt	-	-	7	14.64	14.64	14.64	14.64	14.64
Training	lumpsum	-	-	500	1,000	1,000	1,000	1,000	1,000
Insurance	lumpsum	-	-	2,500	5,000	5,000	5,000	5,000	5,000
Labor									
Management & maintenance	md	91	91	183	274	274	274	274	274

Traditional Goats rearing (15 head) Activity Model

Table 19

FINANCIAL BUDGET (In Local)	Existing Technology		New Technology	
	1 to 15	1	2	3 to 15
	Revenue			
Milk (goat fresh)	16,000	16,000	32,000	48,000
Goat (adult)	3,000	3,000	3,600	4,200
Culled animals (goats)	2,200	2,200	2,475	2,750
Sub-total Revenue	21,200	21,200	38,075	54,950
Input costs				
Investment costs				
Goat shed	-	82,250	-	-
Utensils	-	1,000	-	-
Sub-total Investment Costs	-	83,250	-	-
Operating Costs				
Goat fodder	3,500	3,500	5,350	7,200
Mineral blocks (goat)	-	-	398	795
Medicines	-	-	1,600	3,200
Extension	-	-	125	250
Sub-total Operating Costs	3,500	3,500	7,473	11,445
Sub-total Input costs	3,500	86,750	7,473	11,445
Income (Before Labor Costs)	17,700	-65,550	30,603	43,505
Labor costs				
Management & maintenance	12,000	12,000	15,000	18,000
Income (After Labor Costs)	5,700	-77,550	15,603	25,505

Income Before Labor: IRR = 27.4%, NPV = 109,888.38
 Income After Labor: IRR = 21.1%, NPV = 66,740.88

Traditional Goats rearing (15 head) Activity Model
YIELDS AND INPUTS

Unit	Existing Technology		New Technology	
	1 to 15	1	2	3 to 15
Main Production				
Milk (goat fresh)	lt	80	80	160
Goat (adult)	kg	5	5	6
Culled animals (goats)	unit	4	4	4.5
Investment				
Goat shed	unit	-	0.5	-
Utensils	unit	-	1,000	-
Operating				
Inputs				
Goat fodder	lumpsum	3,500	3,500	5,350
Mineral blocks (goat)	lumpsum	-	-	1.5
Medicines	head	-	-	1,600
Extension	'000 lt	-	-	125
Labor				
Management & maintenance	md	10	10	12.5

Goats rearing (22 head) Activity Model

Table 20

FINANCIAL BUDGET (In Local)	Existing Technology		New Technology	
	1 to 15	1	2	3 to 15
	Revenue			
Milk (goat fresh)	-	-	60,000	120,000
Goat (adult)	6,000	6,000	108,000	210,000
Culled animals (goats)	-	-	15,400	30,800
Sub-total Revenue	6,000	6,000	183,400	360,800
Input costs				
Investment costs				
Goat shed	-	164,500	-	-
SS milking can	-	12,000	-	-
Utensils	-	1,500	-	-
Hoof trimmer	-	5,000	-	-
Sub-total Investment Costs	-	183,000	-	-
Operating Costs				
Goat fodder	-	-	6,250	12,500
Goat concentrate	-	-	238	475
Mineral blocks (goat)	-	-	1,590	3,180
Medicines	-	-	13,200	26,400
Extension	-	-	375	750
Training	-	-	1,500	3,000
Sub-total Operating Costs	-	-	23,153	46,305
Sub-total Input costs	-	-183,000	23,153	46,305
Income (Before Labor Costs)	6,000	-177,000	160,247	314,495
Labor costs				
Management & maintenance	6,000	6,000	112,800	218,400
Income (After Labor Costs)	-	-183,000	47,447	96,095

Income Before Labor: IRR = 122.2%, NPV = 2,052,100.52
 Income After Labor: IRR = 44.3%, NPV = 524,183.22

Goats rearing (22 head) Activity Model
YIELDS AND INPUTS

Unit	Existing Technology		New Technology	
	1 to 15	1	2	3 to 15
Main Production				
Milk (goat fresh)	lt	-	-	300
Goat (adult)	kg	10	10	180
Culled animals (goats)	unit	-	-	28
Investment				
Goat shed	unit	-	1	-
SS milking can	unit	-	2	-
Utensils	unit	-	1,500	-
Hoof trimmer	unit	-	1	-
Operating				
Inputs				
Goat fodder	lumpsum	-	-	6,250
Goat concentrate	lumpsum	-	-	238
Mineral blocks (goat)	lumpsum	-	-	6
Medicines	head	-	-	13,200
Extension	'000 lt	-	-	375
Training	lumpsum	-	-	1,500
Labor				
Management & maintenance	md	5	5	94

Backyard Traditional Poultry Activity Model

Table 21

FINANCIAL BUDGET (In Local)	Existing Technology		New Technology		
	1 to 15	1	2	3 to 15	
	Revenue				
Eggs	24,000	24,000	50,000	76,000	
Culled birds	1,125	1,125	1,688	2,250	
Poultry litter	-	-	100	200	
Sub-total Revenue	25,125	25,125	51,788	78,450	
Input costs					
Investment costs					
Poultry shed	-	45,000	-	-	
Wire mesh	-	10,000	-	-	
Herb plots (mukunuwenna & kangkung)	-	900	-	-	
Poultry feeders and waterers	-	3,000	-	-	
Biological assets (25 layer birds)	-	4,000	-	-	
Sub-total Investment Costs	-	62,900	-	-	
Operating Costs					
Egg trays	-	-	250	500	
Poultry feeders and waterers	-	-	390	750	
Biological assets (25 layer birds)	-	-	1,200	2,400	
Extension	-	-	150	300	
Layer feed	1,500	1,500	3,000	4,500	
Minerals	-	-	300	600	
Medicines	-	-	1,500	3,000	
Sub-total Operating Costs	1,500	1,500	6,790	12,050	
Sub-total Input costs	1,500	64,400	6,790	12,050	
Income (Before Labor Costs)	23,625	-39,275	44,998	66,400	
Labor costs					
Management & maintenance	18,000	18,000	27,600	36,000	
Income (After Labor Costs)	5,625	-57,275	17,398	30,400	

Income Before Labor: IRR = 55.8%, NPV = 250,411.49

Income After Labor: IRR = 34.0%, NPV = 120,473.13

Backyard Traditional Poultry Activity Model

YIELDS AND INPUTS

	Unit	Existing Technology		New Technology		
		1 to 15	1	2	3 to 15	
Main Production						
Eggs	unit	1,200	1,200	2,500	3,800	
Culled birds	unit	3	3	4.5	6	
Poultry litter	kg	-	-	20	40	
Investment						
Poultry shed	unit	-	0.5	-	-	
Wire mesh	unit	-	0.5	-	-	
Herb plots (mukunuwenna & kangkung)	lumpsum	-	0.3	-	-	
Poultry feeders and waterers	unit	-	1	-	-	
Biological assets (25 layer birds)	unit	-	10	-	-	
Operating						
Inputs						
Egg trays	unit	-	-	0.5	1	
Poultry feeders and waterers	unit	-	-	0.13	0.25	
Biological assets (25 layer birds)	unit	-	-	3	6	
Extension	'000 lt	-	-	150	300	
Layer feed	lumpsum	1,500	1,500	3,000	4,500	
Minerals	kg	-	-	300	600	
Medicines	head	-	-	1,500	3,000	
Labor						
Management & maintenance	md	15	15	23	30	

Backyard Poultry - New Semiintensive Activity Model

Table 22

FINANCIAL BUDGET (In Local)	New Technology		
	1	2	3 to 15
	Revenue		
Eggs	-	73,000	146,000
Culled birds	-	2,250	4,500
Poultry litter	-	250	500
Sub-total Revenue	-	75,500	151,000
Input costs			
Investment costs			
Poultry shed	90,000	-	-
Wire mesh	20,000	-	-
Herb plots (mukunuwenna & kangkung)	3,000	-	-
Poultry feeders and waterers	3,000	-	-
Biological assets (25 layer birds)	10,000	-	-
Sub-total Investment Costs	126,000	-	-
Operating Costs			
Egg trays	-	250	500
Poultry feeders and waterers	-	750	1,500
Biological assets (25 layer birds)	-	2,800	5,200
Extension	-	375	750
Training	-	1,125	2,250
Layer feed	-	2,500	5,000
Minerals	-	1,000	2,000
Medicines	-	3,750	7,500
Sub-total Operating Costs	-	12,550	24,700
Sub-total Input costs	126,000	12,550	24,700
Income (Before Labor Costs)	-126,000	62,950	126,300
Labor costs			
Management & maintenance	-	55,200	109,200
Income (After Labor Costs)	-126,000	7,750	17,100

Income Before Labor: IRR = 78.2%, NPV = 793,544.09

Income After Labor: IRR = 11.0%, NPV = 7,763.76

YIELDS AND INPUTS

	Unit	New Technology		
		1	2	3 to 15
Main Production				
Eggs	unit	-	3,650	7,300
Culled birds	unit	-	6	12
Poultry litter	kg	-	50	100
Investment				
Poultry shed	unit	1	-	-
Wire mesh	unit	1	-	-
Herb plots (mukunuwenna & kangkung)	lumpsum	1	-	-
Poultry feeders and waterers	unit	1	-	-
Biological assets (25 layer birds)	unit	25	-	-
Operating				
Inputs				
Egg trays	unit	-	0.5	1
Poultry feeders and waterers	unit	-	0.25	0.5
Biological assets (25 layer birds)	unit	-	7	13
Extension	'000 lt	-	375	750
Training	lumpsum	-	1,125	2,250
Layer feed	lumpsum	-	2,500	5,000
Minerals	kg	-	1,000	2,000
Medicines	head	-	3,750	7,500
Labor				
Management & maintenance	md	-	46	91

Farm Model 1: Commercial farmer (1.25 ha) FM
FINANCIAL BUDGET (DETAILED)
Table 23

(In Local) /a

	thout Project			With Project			
	1 to 20	1	2	3	4	5	6 to 20
Main Production							
Paddy	116,840	116,840	154,100	171,120	171,120	171,120	171,120
Greenchili	120,000	120,000	170,000	180,000	180,000	180,000	180,000
Milk Fresh	58,500	58,500	87,750	117,000	117,000	117,000	117,000
Calves	15,000	15,000	18,750	22,500	22,500	22,500	22,500
Culled animals	25,000	25,000	31,500	37,500	37,500	37,500	37,500
Sub-total Main Production	335,340	335,340	462,100	528,120	528,120	528,120	528,120
On-Farm Consumption							
Paddy	23,000	23,000	23,000	23,000	23,000	23,000	23,000
Milk Fresh	58,500	58,500	58,500	58,500	58,500	58,500	58,500
Sub-Total On-Farm Consumption	81,500	81,500	81,500	81,500	81,500	81,500	81,500
Net Value Of Production	253,840	253,840	380,600	446,620	446,620	446,620	446,620
Production Cost							
Investment							
Cattle shed	-	236,000	-	-	-	-	-
Operating							
Ploughing	10,680	10,680	12,760	12,760	12,760	12,760	12,760
Weedicides	3,200	3,200	3,800	3,700	3,700	3,700	3,700
Water Management	2,400	2,400	3,200	3,200	3,200	3,200	3,200
Nursery Inputs	180	180	240	240	240	240	240
Pesticides	5,115	5,115	6,330	6,120	6,120	6,120	6,120
Harvest (combine harvester)	10,000	10,000	11,600	11,600	11,600	11,600	11,600
Transport produce to stores	3,290	3,290	5,470	6,660	6,660	6,660	6,660
Fodder	-	-	1,250	2,500	2,500	2,500	2,500
Minerals	-	-	5,700	11,400	11,400	11,400	11,400
Medicines	6,000	6,000	9,000	12,000	12,000	12,000	12,000
Extension	-	-	1,800	3,600	3,600	3,600	3,600
Artificial Insemination	-	-	750	1,500	1,500	1,500	1,500
Rice seed	4,301	4,301	4,570	4,032	4,032	4,032	4,032
Greenchilli seed	240	240	320	320	320	320	320
TSP	2,910	2,910	3,310	3,100	3,100	3,100	3,100
Urea	7,125	7,125	7,800	7,100	7,100	7,100	7,100
MOP	1,260	1,260	1,365	1,260	1,260	1,260	1,260
Specific fertilizer mix	2,850	2,850	3,800	3,800	3,800	3,800	3,800
Sub-total Operating Costs	59,551	59,551	83,065	94,892	94,892	94,892	94,892
Sub-Total Production Cost	59,551	295,551	83,065	94,892	94,892	94,892	94,892
OUTFLOWS	59,551	295,551	83,065	94,892	94,892	94,892	94,892
Cash Flow Before Financing	194,289	-41,711	297,535	351,728	351,728	351,728	351,728
Farm Family Benefits Before Financing	275,789	39,789	379,035	433,228	433,228	433,228	433,228
Financial Inflows							
Disbursements on Long Term Loan	-	150,002	-	-	-	-	-
Transfer from Previous Period	2,978	2,978	4,153	4,745	4,745	4,745	4,745
Contribution from own savings	-	135,372	-	-	-	-	-
Grants	-	7,200	-	-	-	-	-
Sub-Total Financial Inflows	2,978	295,551	4,153	4,745	4,745	4,745	4,745
Financial Outflows							
Long Term Principal	-	-	34,802	36,542	38,369	40,288	-
Long Term Interest	-	-	7,500	5,760	3,933	2,014	-
Transfer to Next Period	2,978	4,153	4,745	4,745	4,745	4,745	4,745
Sub-Total Financial Outflows	2,978	4,153	47,047	47,047	47,047	47,047	4,745
Net Financing	-	291,398	-42,894	-42,302	-42,302	-42,302	-
Cash Flow After Financing	194,289	249,687	254,642	309,426	309,426	309,426	351,728
Sub-Total Change in Net Worth	-	-135,372	-	-	-	-	-
Farm Family Benefits After Financing	275,789	195,815	336,142	390,926	390,926	390,926	433,228
Returns per Family-Day of Labor	2,657	1,886	2,682	2,894	2,894	2,894	3,207

IRR = 110.7%, NPV = 957,620

/a 70% of the 3,500 commercial farmers to be reached (2,450) are assumed to succeed in adopting the model.

On average they will receive Rs 7,200 grant (\$40).

Main Production (ton)							
Paddy	2.54	3.35	3.72	3.72	3.72	3.72	3.72
Greenchili	0.6	0.85	0.9	0.9	0.9	0.9	0.9
Milk Fresh (lt)	900	1,350	1,800	1,800	1,800	1,800	1,800
Calves (head)	1	1.25	1.5	1.5	1.5	1.5	1.5
Culled animals (head)	0.5	0.63	0.75	0.75	0.75	0.75	0.75
On-Farm Consumption							
Paddy	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Milk Fresh	900	900	900	900	900	900	900

Farm Model 2: Medium market led (minor irrigation) 0.8 ha FM
Table 24
FINANCIAL BUDGET (DETAILED)

(In Local) /a

	Without Project		With Project	
	1 to 20	1	2	3 to 20
Main Production				
Paddy	78,200	78,200	99,360	110,400
Greenchili	59,000	59,000	105,500	112,000
Milk (goat fresh)	16,000	16,000	32,000	48,000
Goat (adult)	3,000	3,000	3,600	4,200
Culled animals (goats)	2,200	2,200	2,475	2,750
Sub-total Main Production	158,400	158,400	242,935	277,350
On-Farm Consumption				
Paddy	23,000	23,000	23,000	23,000
Milk (goat fresh)	16,000	16,000	16,000	16,000
Sub-Total On-Farm Consumption	39,000	39,000	39,000	39,000
Net Value Of Production	119,400	119,400	203,935	238,350
Production Cost				
Investment				
Goat shed	-	82,250	-	-
Utensils	-	1,000	-	-
Sub-total Investment Costs	-	83,250	-	-
Operating				
Ploughing	7,250	7,250	8,590	8,590
Weedicides	2,200	2,200	2,475	2,400
Water Management	800	800	1,600	1,600
Nursery Inputs	60	60	120	120
Pesticides	3,275	3,275	4,425	4,290
Harvest (combine harvester)	6,640	6,640	7,440	7,440
Transplanting	246	246	246	246
Transport produce to stores	1,620	1,620	2,520	2,550
Medicines	-	-	1,600	3,200
Extension	-	-	125	250
Goat fodder	3,500	3,500	5,350	7,200
Mineral blocks (goat)	-	-	398	795
Rice seed	2,867	2,867	2,938	2,592
Greenchilli seed	296	296	376	376
TSP	1,690	1,690	1,985	1,850
Urea	5,125	5,125	5,625	5,250
MOP	840	840	878	810
Specific fertilizer mix	2,110	2,110	3,180	3,300
Sub-total Operating Costs	38,519	38,519	49,870	52,859
Sub-Total Production Cost	38,519	121,769	49,870	52,859
OUTFLOWS	38,519	121,769	49,870	52,859
Cash Flow Before Financing	80,881	-2,369	154,065	185,491
Farm Family Benefits Before Financing	119,881	36,631	193,065	224,491
Financial Inflows				
Transfer from Previous Period	1,926	1,926	2,493	2,643
Contribution from own savings	-	103,643	-	-
Grants	-	16,200	-	-
Sub-Total Financial Inflows	1,926	121,769	2,493	2,643
Financial Outflows				
Transfer to Next Period	1,926	2,493	2,643	2,643
Net Financing	-	119,276	-149	-
Cash Flow After Financing	80,881	116,907	153,916	185,491
Sub-Total Change in Net Worth	-	-103,643	-	-
Farm Family Benefits After Financing	119,881	52,263	192,916	224,491
Returns per Family-Day of Labor	2,997	1,307	3,618	3,887

IRR = 128.5%, NPV = 708,046.43

a 70% of the 24,500 market led farmers to be reached (17,150) are assumed to succeed in adopting the model.

On average they will receive Rs 16,200 grant (\$90).

Main Production (tons)

Paddy	1.7	1.7	2.16	2.4
Greenchili	0.295	0.295	0.5275	0.56
Milk (Its goat fresh)	80	80	160	240
Goat (adult)	5	5	6	7
Culled animals (goats)	4	4	4.5	5
On-Farm Consumption				
Paddy	0.5	0.5	0.5	0.5
Milk (goat fresh)	80	80	80	80

Farm Model 3: Small rain fed (supplementary irrigation) 0.5 ha FM
Table 25
FINANCIAL BUDGET (DETAILED)

(In Local) /a

	ithout Project		With Project		
	1 to 20	1	2	3	4 to 20
Main Production					
Paddy	59,340	59,340	66,930	74,520	74,520
Maize	12,960	12,960	14,175	15,390	15,390
Manioc	34,650	40,950	40,950	40,950	40,950
Eggs	24,000	24,000	50,000	76,000	76,000
Culled birds	1,125	1,125	1,688	2,250	2,250
Poultry litter	-	-	100	200	200
Sub-total Main Production	132,075	138,375	173,843	209,310	209,310
On-Farm Consumption					
Paddy	23,000	23,000	23,000	23,000	23,000
Milk (goat fresh)	16,000	16,000	16,000	16,000	16,000
Sub-Total On-Farm Consumption	39,000	39,000	39,000	39,000	39,000
Net Value Of Production	93,075	99,375	134,843	170,310	170,310
Production Cost					
Investment					
Herb plots (mukunuwenna & kangkung)	-	900	-	-	-
Poultry shed	-	45,000	-	-	-
Wire mesh	-	10,000	-	-	-
Poultry feeders and waterers	-	3,000	-	-	-
Biological assets (25 layer birds)	-	4,000	-	-	-
Sub-total Investment Costs	-	62,900	-	-	-
Operating					
Ploughing	6,840	6,840	6,840	6,840	6,840
Weedicides	1,800	1,800	1,725	1,650	1,650
Pesticides	840	840	750	660	660
Harvest (combine harvester)	4,920	4,920	4,920	4,920	4,920
Threshing	330	330	330	330	330
Transport produce to stores	765	765	795	825	825
Minerals	-	-	300	600	600
Medicines	-	-	1,500	3,000	3,000
Extension	-	-	150	300	300
Layer feed	1,500	1,500	3,000	4,500	4,500
Poultry feeders and waterers	-	-	390	750	750
Biological assets (25 layer birds)	-	-	1,200	2,400	2,400
Egg trays	-	-	250	500	500
Seeder	938	938	938	938	938
Rice seed	2,150	2,150	1,958	1,728	1,728
Maize seed	869	869	869	869	869
TSP	1,410	1,410	1,343	1,275	1,275
Urea	3,900	3,900	3,675	3,450	3,450
MOP	833	833	799	765	765
Specific fertilizer mix	3,075	3,075	3,075	3,075	3,075
Sub-total Operating Costs	30,170	30,170	34,807	39,375	39,375
Sub-Total Production Cost	30,170	93,070	34,807	39,375	39,375
OUTFLOWS	30,170	93,070	34,807	39,375	39,375
Cash Flow Before Financing	62,905	6,305	100,036	130,935	130,935
Farm Family Benefits Before Financing	101,905	45,305	139,036	169,935	169,935
Financial Inflows					
Disbursements on Long Term Loan	-	17,010	-	-	-
Transfer from Previous Period	1,508	1,508	1,740	1,969	1,969
Contribution from own savings	-	60,151	-	-	-
Grants	-	14,400	-	-	-
Sub-Total Financial Inflows	1,508	93,070	1,740	1,969	1,969
Financial Outflows					
Long Term Principal	-	-	8,298	8,712	-
Long Term Interest	-	-	851	436	-
Transfer to Next Period	1,508	1,740	1,969	1,969	1,969
Sub-Total Financial Outflows	1,508	1,740	11,117	11,117	1,969
Net Financing	-	91,329	-9,376	-9,148	-
Cash Flow After Financing	62,905	97,635	90,659	121,787	130,935
Sub-Total Change in Net Worth	-	-60,151	-	-	-
Farm Family Benefits After Financing	101,905	76,483	129,659	160,787	169,935
Returns per Family-Day of Labor	2,854	2,142	2,897	3,045	3,218

IRR = 161.3%, NPV = 454,130

/a 70% of the 7,000 commercial farmers to be reached (4,900) are assumed to succeed in adopting the model.

On average they will receive Rs 14,400 grant (\$80).

Main Production (ton)

Paddy	1.29	1.29	1.455	1.62	1.62
Maize	0.24	0.24	0.2625	0.285	0.285
Manioc	0.825	0.975	0.975	0.975	0.975
Eggs (units)	1,200	1,200	2,500	3,800	3,800
Culled birds	3	3	4.5	6	6
Poultry litter	-	-	20	40	40

Farm Model 4: Improved milk production (9 head, 4 milking cows) FM
Table 26
FINANCIAL BUDGET (DETAILED)

(In Local) /a

	Without Project			With Project			
	1 to 20	1	2	3	4	5	6 to 20
Main Production							
Milk Fresh	327,600	327,600	639,600	951,600	951,600	951,600	951,600
Calves	15,000	15,000	22,500	30,000	30,000	30,000	30,000
Culled animals	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Sub-total Main Production	392,600	392,600	712,100	1,031,600	1,031,600	1,031,600	1,031,600
Production Cost							
Investment							
Cattle shed	-	472,000	-	-	-	-	-
Milking machine	-	-	90,000	-	90,000	-	-
Grass chopper	-	-	75,000	75,000	-	-	-
Drip irrigation kit	-	-	30,000	30,000	-	-	-
Azzola ponds	-	-	30,000	30,000	10,000	10,000	-
Sub-total Investment Costs	-	472,000	225,000	135,000	100,000	10,000	-
Operating							
Transport produce to stores	7,560	7,560	14,760	21,960	21,960	21,960	21,960
Fodder	-	-	15,250	30,500	30,500	30,500	30,500
Concentrate	108,000	108,000	159,900	211,800	211,800	211,800	211,800
Minerals	30,780	30,780	30,780	30,780	30,780	30,780	30,780
Medicines	18,000	18,000	18,000	18,000	18,000	18,000	18,000
Electricity	27,375	27,375	32,850	38,325	38,325	38,325	38,325
Extension	-	-	14,000	29,280	29,280	29,280	29,280
Training	-	-	500	1,000	1,000	1,000	1,000
Artificial Insemination	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Insurance	-	-	2,500	5,000	5,000	5,000	5,000
Sub-total Operating Costs	193,715	193,715	290,540	388,645	388,645	388,645	388,645
Sub-Total Production Cost	193,715	665,715	515,540	523,645	488,645	398,645	388,645
OUTFLOWS	193,715	665,715	515,540	523,645	488,645	398,645	388,645
Cash Flow Before Financing	198,885	-273,115	196,560	507,955	542,955	632,955	642,955
Financial Inflows							
Disbursements on Long Term Loan	-	300,003	-	-	-	-	-
Transfer from Previous Period	19,372	19,372	51,554	52,365	48,865	39,865	38,865
Contribution from own savings	-	227,540	-	-	-	-	-
Grants	-	118,800	-	-	-	-	-
Sub-Total Financial Inflows	19,372	665,715	51,554	52,365	48,865	39,865	38,865
Financial Outflows							
Long Term Principal	-	-	69,604	73,085	76,739	80,576	-
Long Term Interest	-	-	15,000	11,520	7,866	4,029	-
Transfer to Next Period	19,372	51,554	52,365	48,865	39,865	38,865	38,865
Sub-Total Financial Outflows	19,372	51,554	136,969	133,469	124,469	123,469	38,865
Net Financing	-	614,161	-85,415	-81,104	-75,604	-83,604	-
Cash Flow After Financing	198,885	341,046	111,145	426,851	467,351	549,351	642,955
Sub-Total Change in Net Worth	-	-227,540	-	-	-	-	-
Farm Family Benefits After Financing	198,885	113,506	111,145	426,851	467,351	549,351	642,955
Returns per Family-Day of Labor	2,186	1,247	607	1,558	1,706	2,005	2,347

IRR = 105.6%, NPV = 2,522,262

/a 70% of the 1,500 livestock farmers to be reached (1,050) would succeed in adopting the model. On average they receive Rs 118,800 grant (\$66)

Main Production (tons)

Milk Fresh	5,040	5,040	9,840	14,640	14,640	14,640	14,640
Calves	1	1	1.5	2	2	2	2
Culled animals	1	1	1	1	1	1	1

Farm Model 5: Goat rearing (22 head) FM		Table 27			
FINANCIAL BUDGET (DETAILED)		Without Project		With Project	
(In Local)		1 to 20	1	2	3 to 20
Main Production					
Milk (goat fresh)		-	-	60,000	120,000
Goat (adult)		6,000	6,000	108,000	210,000
Culled animals (goats)		-	-	15,400	30,800
Sub-total Main Production		6,000	6,000	183,400	360,800
Production Cost					
Investment					
Goat shed		-	164,500	-	-
SS milking can		-	12,000	-	-
Utensils		-	1,500	-	-
Hoof trimmer		-	5,000	-	-
Sub-total Investment Costs		-	183,000	-	-
Operating					
Medicines		-	-	13,200	26,400
Extension		-	-	375	750
Training		-	-	1,500	3,000
Goat fodder		-	-	6,250	12,500
Goat concentrate		-	-	238	475
Mineral blocks (goat)		-	-	1,590	3,180
Sub-total Operating Costs		-	-	23,153	46,305
Sub-Total Production Cost		-	183,000	23,153	46,305
OUTFLOWS		-	183,000	23,153	46,305
Cash Flow Before Financing		6,000	-177,000	160,247	314,495
Financial Inflows					
Transfer from Previous Period		-	-	463	926
Contribution from own savings		-	70,500	-	-
Grants		-	112,500	-	-
Sub-Total Financial Inflows		-	183,000	463	926
Financial Outflows					
Transfer to Next Period		-	463	926	926
Net Financing		-	182,537	-463	-
Cash Flow After Financing		6,000	5,537	159,784	314,495
Sub-Total Change in Net Worth		-	-70,500	-	-
Farm Family Benefits After Financing		6,000	-64,963	159,784	314,495
Returns per Family-Day of Labor		1,200	-12,993	1,700	1,728

IRR = >100%, NPV = 2,153,707

Main Production					
Milk (Its goat fresh)		-	-	300	600
Goat (adult)		10	10	180	350
Culled animals (goats)		-	-	28	56

70% of the 1,500 livestock farmers to be reached (1,050) are assumed to succeed in adopting the model. On average they will receive Rs 118,800 grant (\$660).

Farm Model 6: Backyard poultry FM		Table 28				
FINANCIAL BUDGET (DETAILED)		Without Project		With Project		
(In Local) /a		1 to 20	1	2	3	4 to 20
Main Production						
Eggs		24,000	-	73,000	146,000	146,000
Culled birds		1,125	-	2,250	4,500	4,500
Poultry litter		-	-	250	500	500
Sub-total Main Production		25,125	-	75,500	151,000	151,000
Production Cost						
Investment						
Herb plots (mukunuwenna & kangkung)		-	3,000	-	-	-
Poultry shed		-	90,000	-	-	-
Wire mesh		-	20,000	-	-	-
Poultry feeders and waterers		-	3,000	-	-	-
Biological assets (25 layer birds)		-	10,000	-	-	-
Sub-total Investment Costs		-	126,000	-	-	-
Operating						
Minerals		-	-	1,000	2,000	2,000
Medicines		-	-	3,750	7,500	7,500
Extension		-	-	375	750	750
Training		-	-	1,125	2,250	2,250
Layer feed		1,500	-	2,500	5,000	5,000
Poultry feeders and waterers		-	-	750	1,500	1,500
Biological assets (25 layer birds)		-	-	2,800	5,200	5,200
Egg trays		-	-	250	500	500
Sub-total Operating Costs		1,500	-	12,550	24,700	24,700
Sub-Total Production Cost		1,500	126,000	12,550	24,700	24,700
OUTFLOWS		1,500	126,000	12,550	24,700	24,700
Cash Flow Before Financing		23,625	-126,000	62,950	126,300	126,300
Financial Inflows						
Disbursements on Long Term Loan		-	34,020	-	-	-
Transfer from Previous Period		30	30	251	494	494
Grants		-	100,800	-	-	-
Sub-Total Financial Inflows		30	134,850	251	494	494
Financial Outflows						
Long Term Principal		-	-	16,595	17,425	-
Long Term Interest		-	-	1,701	871	-
Transfer to Next Period		30	251	494	494	494
Sub-Total Financial Outflows		30	251	18,790	18,790	494
Net Financing		-	134,599	-18,539	-18,296	-
Cash Flow After Financing		23,625	8,599	44,411	108,004	126,300
Residual value of						
Transfer to Next Period						
		-	-	-	-	-
Farm Family Benefits After Financing		23,625	8,599	44,411	108,004	126,300
Returns per Family-Day of Labor		1,575	-	965	1,187	1,388

IRR = 263.8%, NPV = 685,775

Main Production						
Eggs	unit	1,200	-	3,650	7,300	
Culled birds	unit	3	-	6	12	
Poultry litter	kg	-	-	50	100	

70% of the 3,730 livestock farmers to be reached (2,600) are assumed to succeed in adopting the model. On average they will receive Rs 100,800 grant (\$560).

Farm Model 7: Home gardens AM
Table 29
FINANCIAL BUDGET (AGGREGATED)

(In Local) /a

	Without Project		With Project				
	1 - 20	1	2	3	4	5	6 - 20
Main Production							
Maize	4,590	4,590	5,130	5,670	5,670	5,670	5,670
Black gram	3,363	3,363	3,717	4,071	4,071	4,071	4,071
Cow pea	-	-	2,492	2,804	3,115	3,115	3,115
Green gram	-	-	3,413	3,719	4,025	4,025	4,025
Red Onion	-	-	13,104	14,448	15,792	15,792	15,792
Manioc	23,100	27,300	27,300	27,300	27,300	27,300	27,300
Potato	-	-	28,900	28,900	28,900	28,900	28,900
Pumpkin	4,620	5,280	5,280	5,280	5,280	5,280	5,280
Banana	-	-	2,400	5,120	7,440	9,360	10,160
Eggs	4,800	4,800	10,000	15,200	15,200	15,200	15,200
Culled birds	225	225	338	450	450	450	450
Poultry litter	-	-	20	40	40	40	40
Sub-total Main Production	40,698	45,558	102,093	113,001	117,283	119,203	120,003
Production Cost							
Investment							
Banana Plants	-	500	500	500	500	500	500
Herb plots (mukunuwenna & kangkung)	-	180	-	-	-	-	-
Poultry shed	-	9,000	-	-	-	-	-
Wire mesh	-	2,000	-	-	-	-	-
Poultry feeders and waterers	-	600	-	-	-	-	-
Biological assets (25 layer birds)	-	800	-	-	-	-	-
Micro-irrigation set	-	90,000	-	-	-	-	-
Fertilizers	-	275	275	275	275	275	275
Sub-total Investment Costs	-	103,355	775	775	775	775	775
Operating							
Ploughing	1,737	1,737	2,871	2,871	2,871	2,871	2,871
Buffaloes work	-	-	90	90	90	90	90
Weedicides	255	255	343	393	443	493	493
Water Management	-	-	614	614	614	614	614
Pesticides	168	168	1,558	1,558	1,558	1,558	1,558
Threshing	280	280	349	354	354	354	354
Harvest and Drawing	-	-	52	55	58	58	58
Transport produce to stores	172	172	452	452	452	452	452
Tools	-	25	25	50	50	50	50
Fertilizers	-	-	750	1,500	2,250	3,000	3,000
Fuel	-	-	42	84	126	168	168
Minerals	-	-	60	120	120	120	120
Medicines	-	-	300	600	600	600	600
Extension	-	-	30	60	60	60	60
Layer feed	300	300	600	900	900	900	900
Poultry feeders and waterers	-	-	78	150	150	150	150
Biological assets (25 layer birds)	-	-	240	480	480	480	480
Egg trays	-	-	50	100	100	100	100
Seeder	313	313	313	313	313	313	313
Maize seed	305	305	282	259	259	259	259
Black gram seed	155	155	155	155	155	155	155
Cowpea seed	-	-	182	182	182	182	182
Greengram seed	-	-	131	131	131	131	131
Red onion seed	-	-	2,658	2,658	2,658	2,658	2,658
Potato seed	-	-	8,400	8,400	8,400	8,400	8,400
Pumpkin seed	609	609	609	609	609	609	609
Fertilizers	3,053	3,095	5,514	5,550	5,557	5,557	5,557
Sub-total Operating Costs	7,345	7,413	27,075	29,014	29,866	30,708	30,708
Sub-Total Production Cost	7,345	110,768	27,850	29,789	30,641	31,483	31,483
OUTFLOWS	7,345	110,768	27,850	29,789	30,641	31,483	31,483
Cash Flow Before Financing	33,353	-65,210	74,243	83,212	86,642	87,720	88,520
Net Financing	-	109,375	-97	-43	-42	-	-
Cash Flow After Financing	33,353	44,166	74,146	83,169	86,600	87,720	88,520
Change in Net Worth	3,053	3,095	5,514	5,550	5,557	5,557	5,557
Sub-Total Change in Net Worth	-	-38,401	-	-	-	-	-
Farm Family Benefits After Financing	33,353	5,765	74,146	83,169	86,600	87,720	88,520
Returns per Family-Day of Labor	2,991	508	3,119	3,217	3,276	3,263	3,262

IRR = 162.4%, NPV = 375,041

/a 70% of the 8,700 households to be reached (6,090) are assumed to succeed in adopting the model. On average they will receive Rs 72,000 grant (\$4

Farm Model 8: Rice seed production (youth and women group) AM **Table 30**

FINANCIAL BUDGET (DETAILED)

(In Local) /a

	Without		With Project	
	Project			
	1 to 7	1	2	3 to 7
Main Production				
Paddy	116,840	-	-	-
Greenchili	120,000	120,000	170,000	180,000
Rice seed	-	-	100,800	201,600
Eggs	4,800	4,800	10,000	15,200
Culled birds	225	225	338	450
Poultry litter	-	-	20	40
Sub-total Main Production	241,865	125,025	281,158	397,290
Production Cost				
Investment				
Herb plots (mukunuwenna & kangkung)	-	180	-	-
Poultry shed	-	9,000	-	-
Wire mesh	-	2,000	-	-
Poultry feeders and waterers	-	600	-	-
Biological assets (25 layer birds)	-	800	-	-
Micro-irrigation set	-	90,000	-	-
Sub-total Investment Costs	-	102,580	-	-
Operating				
Ploughing	10,680	1,800	13,460	24,520
Weedicides	3,200	-	2,240	4,480
Water Management	2,400	2,400	3,200	3,200
Nursery Inputs	180	180	240	240
Pesticides	5,115	3,435	6,190	7,800
Harvest (combine harvester)	10,000	-	6,860	13,720
Transport produce to stores	3,290	2,250	4,750	6,500
Minerals	-	-	60	120
Medicines	-	-	300	600
Poultry feeders and waterers	-	-	78	150
Biological assets (25 layer birds)	-	-	240	480
Egg trays	-	-	50	100
Bags (50kg)	-	-	1,288	2,520
Rice seed	4,301	-	3,584	7,168
Greenchilli seed	240	240	320	320
TSP	2,910	750	2,750	4,500
Urea	7,125	1,125	5,000	8,500
MOP	1,260	-	700	1,400
Specific fertilizer mix	2,850	2,850	3,800	3,800
Sub-total Operating Costs	53,851	15,330	55,740	91,078
Sub-Total Production Cost	53,851	117,910	55,740	91,078
OUTFLOWS	53,851	117,910	55,740	91,078
Cash Flow Before Financing	188,014	7,115	225,418	306,212
Financial Inflows				
Transfer from Previous Period	2,693	2,693	2,787	4,554
Contribution from own savings	-	43,217	-	-
Grants	-	72,000	-	-
Sub-Total Financial Inflows	2,693	117,910	2,787	4,554
Financial Outflows				
Transfer to Next Period	2,693	2,787	4,554	4,554
Net Financing	-	115,123	-1,767	-
Cash Flow After Financing	188,014	122,238	223,651	306,212
Sub-Total Change in Net Worth	-	-43,217	-	-
Farm Family Benefits After Financing	188,014	79,021	223,651	306,212
Returns per Family-Day of Labor	4,017	3,293	4,551	4,584

IRR = 75.8%, NPV = 731,791

∕a 70% of the 50 households to be reached (35) are assumed to succeed in adopting the model.

On average they will receive Rs 72,000 grant (\$400).

Farm Model 9: Protected agriculture (red bell pepper in 100 sq mt polytunnel) (youth and women group) AM

FINANCIAL BUDGET (DETAILED)

(In Local) /a

Table 31

	Without Project		With Project				
	1 to 20	1	2	3	4	5	6 to 20
Main Production							
Red bell pepper	-	-	507,500	507,500	507,500	507,500	507,500
Eggs	4,800	4,800	10,000	15,200	15,200	15,200	15,200
Culled birds	225	225	338	450	450	450	450
Poultry litter	-	-	20	40	40	40	40
Sub-total Main Production	5,025	5,025	517,858	523,190	523,190	523,190	523,190
Production Cost							
Investment							
Purchased Inputs							
Herb plots (mukunuwenna & kangkung)	-	180	-	-	-	-	-
Poultry shed	-	9,000	-	-	-	-	-
Wire mesh	-	2,000	-	-	-	-	-
Poultry feeders and waterers	-	600	-	-	-	-	-
Biological assets (25 layer birds)	-	800	-	-	-	-	-
Poly tunnel construction	-	621,600	-	-	-	-	-
Bricks (for foundation)	-	5,400	-	-	-	-	-
Sub-Total Purchased Inputs	-	639,580	-	-	-	-	-
Labor							
Skilled Labor	-	2,000	-	-	-	-	-
Sub-total Investment Costs	-	641,580	-	-	-	-	-
Operating							
Maintenance costs	-	-	62,160	62,160	62,160	62,160	62,160
Tools	-	300	300	300	300	300	300
Fungicide	-	1,200	1,200	1,200	1,200	1,200	1,200
Harvest trays (bell pepper)	-	12,000	12,000	12,000	12,000	12,000	12,000
Minerals	-	-	60	120	120	120	120
Medicines	-	-	300	600	600	600	600
Electricity	-	375	375	375	375	375	375
Extension	-	-	30	60	60	60	60
Layer feed	300	300	600	900	900	900	900
Poultry feeders and waterers	-	-	78	150	150	150	150
Biological assets (25 layer birds)	-	-	240	480	480	480	480
Egg trays	-	-	50	100	100	100	100
Nursery trays	-	780	780	780	780	780	780
Nursery growing media	-	2,400	2,400	2,400	2,400	2,400	2,400
Albert solution 10:52:10+TE	-	49	49	49	49	49	49
Grow bags	-	50,000	50,000	50,000	50,000	50,000	50,000
100 lt tank	-	400	400	400	400	400	400
Fertirrigation	-	34,000	34,000	34,000	34,000	34,000	34,000
Red pepper seed	-	1,114	1,114	1,114	1,114	1,114	1,114
Sub-total Operating Costs	300	102,918	166,136	167,188	167,188	167,188	167,188
Sub-Total Production Cost	300	744,498	166,136	167,188	167,188	167,188	167,188
OUTFLOWS	300	744,498	166,136	167,188	167,188	167,188	167,188
Cash Flow Before Financing	4,725	-739,473	351,722	356,002	356,002	356,002	356,002
Financial Inflows							
Disbursements on Long Term Loan	-	501,600	-	-	-	-	-
Transfer from Previous Period	15	15	8,307	8,359	8,359	8,359	8,359
Grants	-	270,000	-	-	-	-	-
Sub-Total Financial Inflows	15	771,615	8,307	8,359	8,359	8,359	8,359
Financial Outflows							
Long Term Principal	-	-	113,814	121,212	129,091	137,482	-
Long Term Interest	-	-	32,604	25,206	17,327	8,936	-
Transfer to Next Period	15	8,307	8,359	8,359	8,359	8,359	8,359
Sub-Total Financial Outflows	15	8,307	154,778	154,778	154,778	154,778	8,359
Net Financing	-	763,308	-146,471	-146,418	-146,418	-146,418	-
Farm Family Benefits After Financing	4,725	23,835	205,251	209,584	209,584	209,584	356,002
Returns per Family-Day of Labor	1,575	454	3,865	3,846	3,846	3,846	6,532

IRR = None, NPV = 2,264,376

la 70% of the 350 12 youth/women groups to be reached (105) are assumed to succeed in adopting the model. On average they will receive Rs 72,000 grant (\$400)

Financing Summary

Inflows							
Grants	-	270,000	-	-	-	-	-
Disbursements on Long Term Principal	-	501,600	-	-	-	-	-
Transfer from Previous Period	15	15	8,307	8,359	8,359	8,359	8,359
Total Inflows	15	771,615	8,307	8,359	8,359	8,359	8,359
Total Outflows	15	8,307	154,778	154,778	154,778	154,778	8,359
Net Financing	-	763,308	-146,471	-146,418	-146,418	-146,418	-

Farm Model 10: Mango seedlings nursery (youth and women group) AM
Table 32
FINANCIAL BUDGET (AGGREGATED)

(In Local) /a

	Without Project		With Project			
	1 to 20	1	2	3	4	5 to 20
Main Production						
Mango seedlings	-	-	-	900,000	1,400,000	1,900,000
Eggs	4,800	4,800	10,000	15,200	15,200	15,200
Culled birds	225	225	338	450	450	450
Poultry litter	-	-	20	40	40	40
Sub-total Main Production	5,025	5,025	10,358	915,690	1,415,690	1,915,690
Production Cost						
Investment						
Herb plots (mukunuwenna & kangkung)	-	180	-	-	-	-
Poultry shed	-	9,000	-	-	-	-
Wire mesh	-	2,000	-	-	-	-
Poultry feeders and waterers	-	600	-	-	-	-
Biological assets (25 layer birds)	-	800	-	-	-	-
Poly tunnel construction	-	621,600	-	-	-	-
Bricks (for foundation)	-	5,400	-	-	-	-
Labor	-	2,000	-	-	-	-
Sub-total Investment Costs	-	641,580	-	-	-	-
Operating						
Purchased Inputs						
Maintenance costs	-	-	62,160	62,160	62,160	62,160
Granular Blue	-	12,600	15,120	18,900	18,900	18,900
Fungicide	-	5,000	6,000	7,000	7,000	7,000
Minerals	-	-	60	120	120	120
Medicines	-	-	300	600	600	600
Extension	-	-	30	60	60	60
Layer feed	300	300	600	900	900	900
Poultry feeders and waterers	-	-	78	150	150	150
Biological assets (25 layer birds)	-	-	240	480	480	480
Egg trays	-	-	50	100	100	100
Compost	-	2,975	4,165	4,760	4,760	4,760
Soil Cub	-	750	900	1,050	1,050	1,050
Coir dust	-	4,500	6,000	7,500	7,500	7,500
Labale	-	10,000	12,500	15,000	15,000	15,000
Printed bag	-	45,400	54,480	63,560	63,560	63,560
For grafting	-	2,160	2,880	3,600	3,600	3,600
Polythene	-	3,600	5,400	7,200	7,200	7,200
Mango seed	-	13,750	21,250	27,500	27,500	27,500
Sand bed	-	5,000	6,000	7,000	7,000	7,000
Wetfactant	-	220	220	220	220	220
Insecticides	-	12,000	13,500	15,000	15,000	15,000
Urea	-	5,000	6,000	7,500	7,500	7,500
Sub-Total Purchased Inputs	300	123,255	217,933	250,360	250,360	250,360
Labor						
Labor	-	60,000	90,000	120,000	120,000	120,000
Sub-total Operating Costs	300	183,255	307,933	370,360	370,360	370,360
Sub-Total Production Cost	300	824,835	307,933	370,360	370,360	370,360
OUTFLOWS	300	824,835	307,933	370,360	370,360	370,360
Cash Flow Before Financing	4,725	-819,810	-297,576	545,330	1,045,330	1,545,330
Net Financing	-	900,015	381,482	-	-	-
Cash Flow After Financing	4,725	80,205	83,907	545,330	1,045,330	1,545,330
Residual value of						
Transfer to Next Period	-	-	-	-	-	-
Farm Family Benefits After Financing	4,725	80,205	83,907	545,330	1,045,330	1,545,330
Returns per Family-Day of Labor	1,575	194	177	1,061	2,034	3,006

IRR = None, NPV = 9,486,248

/a 75% of the 12 youth/women groups to be reached (9) are assumed to succeed in adopting the model.

On average they will receive Rs 1,300,000 grant (\$7,220).

Rice harvesting service providers Youth Model

Table 33

FINANCIAL BUDGET (DETAILED)

(In Local '000)

	With Project													
	1	2	3	4	5	6	7 to 8	9	10	11	12	13 to 15	16 to 18	19
Main Production														
Harvesting rice service	-	2,700	3,600	4,050	4,050	4,050	4,050	4,050	4,050	2,700	3,600	4,050	4,050	4,050
Production Cost														
Investment														
Combine harvesting machine	6,600	-	-	-	-	-	-	-	6,600	-	-	-	-	-
Operating														
Purchased Inputs														
Transport produce to stores	-	300	400	450	450	450	450	450	450	300	400	450	450	450
Lubricants	-	27	36	41	41	41	41	41	41	27	36	41	41	41
Maintenance costs	-	490	490	490	490	490	490	490	490	490	490	490	490	490
Fuel	-	126	168	189	189	189	189	189	189	126	168	189	189	189
Insurance	-	120	120	120	120	120	120	120	120	120	120	120	120	120
Sub-Total Purchased Inputs	-	1,063	1,214	1,290	1,290	1,290	1,290	1,290	1,290	1,063	1,214	1,290	1,290	1,290
Labor														
Skilled Labor	-	-	160	240	240	240	240	240	240	-	160	240	240	240
Sub-total Operating Costs	-	1,063	1,374	1,530	1,530	1,530	1,530	1,530	1,530	1,063	1,374	1,530	1,530	1,530
Sub-Total Production Cost	6,600	1,063	1,374	1,530	1,530	1,530	1,530	1,530	8,130	1,063	1,374	1,530	1,530	1,530
OUTFLOWS	6,600	1,063	1,374	1,530	1,530	1,530	1,530	1,530	8,130	1,063	1,374	1,530	1,530	1,530
Cash Flow Before Financing	-6,600	1,637	2,226	2,520	2,520	2,520	2,520	2,520	-4,080	1,637	2,226	2,520	2,520	2,520
Financial Inflows														
Disbursements on Long Term Loan	4,950	-	-	-	-	-	-	-	4,950	-	-	-	-	-
Transfer from Previous Period	-	53	69	76	76	76	76	76	159	53	69	76	76	76
Contribution from own savings	642	-	-	-	-	-	-	-	-	-	-	-	-	-
Grants	1,008	-	-	-	-	-	-	-	-	-	-	-	-	-
Sub-Total Financial Inflows	6,600	53	69	76	76	76	76	76	5,109	53	69	76	76	76
Financial Outflows														
Long Term Principal	-	779	873	977	1,095	1,226	-	-	-	779	873	977	-	-
Long Term Interest	-	594	500	396	278	147	-	-	-	594	500	396	-	-
Transfer to Next Period	53	69	76	76	76	76	76	159	53	69	76	76	76	-
Sub-Total Financial Outflows	53	1,442	1,450	1,450	1,450	1,450	76	159	53	1,442	1,450	1,450	76	-
Net Financing	6,547	-1,389	-1,381	-1,373	-1,373	-1,373	-	-83	5,056	-1,389	-1,381	-1,373	-	76
Cash Flow After Financing	-53	248	845	1,147	1,147	1,147	2,520	2,438	976	248	845	1,147	2,520	2,597
Contribution from own savings	-642	-	-	-	-	-	-	-	-	-	-	-	-	-
Farm Family Benefits After Financing	-695	248	845	1,147	1,147	1,147	2,520	2,438	976	248	845	1,147	2,520	2,597
Returns per Family-Day of Labor	-	1,240	4,224	5,736	5,736	5,736	12,602	12,189	4,881	1,240	4,224	5,736	6,281	6,354
IRR = 96.3%, NPV = 9,420														
Harvesting rice service (acre)	300	400	450	450	300	400	450	450	450	450	450	450	450	
Financing Summary														
Inflows														
Grants	1,008	-	-	-	-	-	-	-	-	-	-	-	-	-
Contribution from own savings	642	-	-	-	-	-	-	-	-	-	-	-	-	-
Disbursements on Long Term Princip	4,950	-	-	-	-	-	-	-	4,950	-	-	-	-	-
Transfer from Previous Period	-	53	69	76	76	76	76	76	159	53	69	76	76	76
Total Inflows	6,600	53	69	76	76	76	76	76	5,109	53	69	76	76	76
Outflows	53	1,442	1,450	1,450	1,450	1,450	76	159	53	1,442	1,450	1,450	76	-
Net Financing	6,547	-1,389	-1,381	-1,373	-1,373	-1,373	-	-83	5,056	-1,389	-1,381	-1,373	-	76

Farmer organization - Agro-service Center FM

Table 34

FINANCIAL BUDGET (DETAILED)

(In Local '000) /a

	With Project																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Main Production																			
Harvesting rice service	-	2,700	3,600	4,050	4,050	4,050	4,050	4,050	4,050	4,050	2,700	3,600	4,050	4,050	4,050	4,050	4,050	4,050	4,050
Rice mechanical seeding	-	540	720	810	810	810	810	810	810	810	540	720	810	810	810	810	810	810	810
Rice Transplanting mechanical	-	300	450	510	510	510	510	510	510	510	300	450	510	510	510	510	510	510	510
Weeding with machinery	-	360	480	540	540	540	540	540	540	540	360	480	540	540	540	540	540	540	540
Spraying mechanical	-	480	640	720	720	720	720	720	720	720	480	640	720	720	720	720	720	720	720
Rice Integrated Milling	-	1,800	2,400	2,700	2,700	2,700	2,700	2,700	2,700	2,700	1,800	2,400	2,700	2,700	2,700	2,700	2,700	2,700	2,700
Sub-total Main Production	-	6,180	8,290	9,330	9,330	9,330	9,330	9,330	9,330	9,330	6,180	8,290	9,330	9,330	9,330	9,330	9,330	9,330	9,330
Production Cost																			
Investment																			
Combine harvesting machine	6,600	-	-	-	-	-	-	-	-	6,600	-	-	-	-	-	-	-	-	-
2 Wheel Tractor with accessories	409	-	409	-	-	-	-	-	-	409	-	409	-	-	-	-	-	-	-
4 Wheel Tractor with Trailer	3,295	-	3,295	-	-	-	-	-	-	3,295	-	3,295	-	-	-	-	-	-	-
Weeder	101	-	101	-	-	-	-	-	-	101	-	101	-	-	-	-	-	-	-
Rice Transplanter	661	-	661	-	-	-	-	-	-	661	-	661	-	-	-	-	-	-	-
Seeder Multi-crop	203	-	-	-	-	-	-	-	-	203	-	-	-	-	-	-	-	-	-
Power sprayer	43	-	28	-	-	-	-	-	-	43	-	28	-	-	-	-	-	-	-
Rice Mill Integrated	1,329	-	-	-	-	-	-	-	-	1,329	-	-	-	-	-	-	-	-	-
Office equipment (2 PCs, printer, etc.)	422	-	-	-	-	-	-	-	-	422	-	-	-	-	-	-	-	-	-
Office (40ft modified container)	810	-	-	-	-	-	-	-	-	810	-	-	-	-	-	-	-	-	-
Sub-total Investment Costs	13,873	-	4,494	-	-	-	-	-	-	13,873	-	4,494	-	-	-	-	-	-	-
Operating																			
Purchased Inputs																			
Transport produce to stores	-	350	600	750	840	840	840	840	840	840	350	600	750	840	840	840	840	840	840
Lubricants	-	54	81	90	105	105	105	105	105	105	54	81	90	105	105	105	105	105	105
Maintenance costs	-	690	860	980	980	980	980	980	980	980	690	860	980	980	980	980	980	980	980
Fuel	-	252	336	378	420	420	420	420	420	420	252	336	378	420	420	420	420	420	420
Insurance	-	220	250	280	280	280	280	280	280	280	220	250	280	280	280	280	280	280	280
Sub-Total Purchased Inputs	-	1,566	2,127	2,478	2,625	2,625	2,625	2,625	2,625	2,625	1,566	2,127	2,478	2,625	2,625	2,625	2,625	2,625	2,625
Labor																			
Skilled Labor	-	1,200	1,960	2,400	2,400	2,400	2,400	2,400	2,400	2,400	1,200	1,960	2,400	2,400	2,400	2,400	2,400	2,400	2,400
Sub-total Operating Costs	-	2,766	4,087	4,878	5,025	5,025	5,025	5,025	5,025	5,025	2,766	4,087	4,878	5,025	5,025	5,025	5,025	5,025	5,025
Sub-Total Production Cost	13,873	2,766	8,581	4,878	5,025	5,025	5,025	5,025	5,025	18,898	2,766	8,581	4,878	5,025	5,025	5,025	5,025	5,025	5,025
OUTFLOWS	13,873	2,766	8,581	4,878	5,025	5,025	5,025	5,025	5,025	18,898	2,766	8,581	4,878	5,025	5,025	5,025	5,025	5,025	5,025
Cash Flow Before Financing	-13,873	3,414	-291	4,452	4,305	4,305	4,305	4,305	4,305	-9,568	3,414	-291	4,452	4,305	4,305	4,305	4,305	4,305	4,305
Financial Inflows																			
Disbursements on Long Term Loan	6,937	-	2,247	-	-	-	-	-	-	6,937	-	2,247	-	-	-	-	-	-	-
Transfer from Previous Period	-	55	127	98	101	101	101	101	101	239	55	127	98	101	101	101	101	101	101
Contribution from own savings	997	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Grants	5,940	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sub-Total Financial Inflows	13,873	55	2,374	98	101	101	101	101	101	7,176	55	2,374	98	101	101	101	101	101	101
Financial Outflows																			
Long Term Principal	-	1,218	1,297	1,776	1,892	2,015	477	508	-	-	1,218	1,297	1,776	1,892	2,015	477	508	-	-
Long Term Interest	-	451	372	433	318	195	64	33	-	-	451	372	433	318	195	64	33	-	-
Transfer to Next Period	55	127	98	101	101	101	101	101	239	55	127	98	101	101	101	101	101	101	101
Sub-Total Financial Outflows	55	1,796	1,767	2,310	2,310	2,310	641	641	239	55	1,796	1,767	2,310	2,310	2,310	641	641	101	-
Net Financing	13,818	-1,741	607	-2,213	-2,210	-2,210	-541	-541	-139	7,120	-1,741	607	-2,213	-2,210	-2,210	-541	-541	-	-101
Cash Flow After Financing	-55	1,673	316	2,239	2,095	2,095	3,764	3,764	4,166	-2,448	1,673	316	2,239	2,095	2,095	3,764	3,764	4,305	4,406
Contribution from own savings	-997	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Farm Family Benefits After Financing	-1,052	1,673	316	2,239	2,095	2,095	3,764	3,764	4,166	-2,448	1,673	316	2,239	2,095	2,095	3,764	3,764	4,305	4,406
IRR = 137.8%, NPV = 14,636																			
/a Main income sources will be combined harvester, 4WT, Rice Trans Planter and Integrated Rice processing Mill.																			
Financing Summary																			
Grants	5,940	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Contribution from own savings	997	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disbursements on Long Term Princip	6,937	-	2,247	-	-	-	-	-	-	6,937	-	2,247	-	-	-	-	-	-	-
Transfer from Previous Period	-	55	127	98	101	101	101	101	101	239	55	127	98	101	101	101	101	101	101
Total Inflows	13,873	55	2,374	98	101	101	101	101	101	7,176	55	2,374	98	101	101	101	101	101	101
Outflows	55	1,796	1,767	2,310	2,310	2,310	641	641	239	55	1,796	1,767	2,310	2,310	2,310	641	641	101	-
Net Financing	13,818	-1,741	607	-2,213	-2,210	-2,210	-541	-541	-139	7,120	-1,741	607	-2,213	-2,210	-2,210	-541	-541	-	-101

Milk collection center (180,000 lt/year) FM
Table 35
FINANCIAL BUDGET (DETAILED)

(In Local) /a

	With Project						
	1	2	3	4	5	6	7 to 20
Main Production							
Milk Chilled	-	6,120,000	12,240,000	12,240,000	12,240,000	12,240,000	12,240,000
Production Cost							
Investment							
Chilling tank (500 lt)	500,000	500,000	-	-	-	-	-
Collection shed with utilities	150,000	150,000	-	-	-	-	-
Testing kit	100,000	100,000	-	-	-	-	-
Sub-total Investment Costs	750,000	750,000	-	-	-	-	-
Operating							
Transport produce to stores	-	10,980	21,960	21,960	21,960	21,960	21,960
Milk Fresh	-	5,850,000	11,700,000	11,700,000	11,700,000	11,700,000	11,700,000
Electricity	-	19,170	38,325	38,325	38,325	38,325	38,325
Insurance	-	5,000	10,000	10,000	10,000	10,000	10,000
Sub-total Operating Costs	-	5,885,150	11,770,285	11,770,285	11,770,285	11,770,285	11,770,285
Sub-Total Production Cost	750,000	6,635,150	11,770,285	11,770,285	11,770,285	11,770,285	11,770,285
OUTFLOWS	750,000	6,635,150	11,770,285	11,770,285	11,770,285	11,770,285	11,770,285
Cash Flow Before Financing	-750,000	-515,150	469,715	469,715	469,715	469,715	469,715
Financial Inflows							
Disbursements on Long Term Loan	476,700	476,700	-	-	-	-	-
Transfer from Previous Period	-	117,169	235,406	235,406	235,406	235,406	235,406
Grants	300,000	300,000	-	-	-	-	-
Sub-Total Financial Inflows	776,700	893,869	235,406	235,406	235,406	235,406	235,406
Financial Outflows							
Long Term Principal	-	-	221,200	232,260	243,873	256,067	-
Long Term Interest	-	23,835	47,670	36,610	24,997	12,803	-
Transfer to Next Period	117,169	235,406	235,406	235,406	235,406	235,406	235,406
Sub-Total Financial Outflows	117,169	259,241	504,276	504,276	504,276	504,276	235,406
Net Financing	659,531	634,628	-268,870	-268,870	-268,870	-268,870	-
Farm Family Benefits After Financing	-90,469	119,478	200,845	200,845	200,845	200,845	469,715
Returns per Family-Day of Labor	-	1,991	1,674	1,674	1,674	1,674	3,914
IRR = 167.8%, NPV = 2,530,865							
\a About 88 youth/women groups will be supported for agribusiness initiatives.							
Group (3-5 members) will receive a grant of Rs 600,000 (\$3,330).							
Milk Chilled	-	90,000	180,000	180,000	180,000	180,000	180,000
Financing Summary							
Inflows							
Grants	300,000	300,000	-	-	-	-	-
Disbursements on Long Term Princip	476,700	476,700	-	-	-	-	-
Transfer from Previous Period	-	117,169	235,406	235,406	235,406	235,406	235,406
Total Inflows	776,700	893,869	235,406	235,406	235,406	235,406	235,406
Outflows							
Long Term Repayments	-	23,835	268,870	268,870	268,870	268,870	-
Transfer to Next Period	117,169	235,406	235,406	235,406	235,406	235,406	235,406
Total Outflows	117,169	259,241	504,276	504,276	504,276	504,276	235,406
Net Financing	659,531	634,628	-268,870	-268,870	-268,870	-268,870	-

Project Summary

Table 36

ECONOMIC BUDGET (AGGREGATED)

(In Local Million)

	Without Project		With Project								
	1 to 20	1	2	3	4	5	6	7	8	9	10 - 20
Main Production											
Yala & Maha Products	3,747	3,747	3,756	4,062	4,544	5,073	5,636	6,153	6,256	6,269	6,275
Provision of Services	-	-	-	49	118	194	272	350	376	385	385
Livestock Products	1,225	1,225	1,224	2,387	4,738	6,963	8,697	9,892	10,388	10,388	10,388
Sub-total Main Production	4,972	4,972	4,980	6,499	9,399	12,231	14,606	16,394	17,021	17,043	17,049
On-Farm Consumption											
Yala & Maha Products	564	564	564	564	564	564	564	564	564	564	564
Livestock Products	496	496	496	496	496	496	496	496	496	496	496
Sub-Total On-Farm Consumption	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060
Net Value Of Production	3,912	3,912	3,921	5,439	8,339	11,171	13,546	15,335	15,962	15,984	15,989
Production Cost											
Investment											
Purchased Inputs											
Production costs	-	-	2	2	4	5	5	4	4	4	4
Project Investments (SARP)	-	-	940	1,286	1,308	1,255	1,091	144	59	25	2
Fertilizers	-	-	0	1	1	2	2	2	2	2	2
Sub-Total Purchased Inputs	-	-	942	1,289	1,313	1,261	1,098	150	65	31	8
Labor											
Labor	-	-	0	1	1	1	1	1	1	1	1
Sub-total Investment Costs	-	-	942	1,290	1,314	1,262	1,099	151	67	32	9
Operating											
Purchased Inputs											
Production Costs	571	571	570	614	672	731	790	843	848	850	850
Production costs	75	75	75	96	139	191	252	314	344	347	348
Livestock Products	-	-	-	923	2,769	4,457	5,658	6,367	6,639	6,639	6,639
Project Investments (SARP)	7	7	12	20	30	39	47	53	55	55	55
Production inputs seeds & seedlings	89	89	89	102	118	135	154	175	173	173	173
Fertilizers	272	272	272	280	290	299	310	321	319	319	319
Sub-Total Purchased Inputs	1,233	1,233	1,239	2,289	4,339	6,239	7,656	8,569	8,900	8,908	8,912
Labor											
Labor	1,186	1,186	1,189	1,303	1,504	1,719	1,940	2,147	2,219	2,223	2,224
Sub-total Operating Costs	2,419	2,419	2,428	3,592	5,843	7,958	9,596	10,716	11,119	11,131	11,136
Sub-Total Production Cost	2,419	2,419	3,370	4,882	7,157	9,220	10,695	10,867	11,186	11,163	11,145
Other Costs											
Other Costs	-	788	1,764	1,761	1,591	1,531	1,443	-	-	-	-
OUTFLOWS	2,419	3,206	5,134	6,642	8,748	10,752	12,139	10,867	11,186	11,163	11,145
Cash Flow	1,494	706	-1,213	-1,203	-408	420	1,408	4,468	4,776	4,821	4,844
Net Economic Benefits	2,553	1,766	-154	-143	651	1,479	2,467	5,527	5,835	5,880	5,903

IRR = 18.6%, NPV = 6,488

Project Summary

PARTICIPATING AND FARM DISTRIBUTIONS

(In Units)

	With Project						
	1	2	3	4	5	6	7 to 20
Participating							
Milk collection center (180,000 lt/year)	-	157	314	444	518	564	564
Farm Model 1: Commercial farmer (1.25 ha)	-	700	1,750	2,310	2,450	2,450	2,450
Farm Model 2: Medium market led (minor irrigation) 0.8 ha	-	2,100	4,900	8,400	12,950	17,150	17,150
Farm Model 3: Small rain fed (supplementary irrigation) 0.5 ha	-	700	1,400	2,800	4,200	4,900	4,900
Farm Model 4: Improved milk production (9 head, 4 milking cows)	-	231	455	679	903	1,127	1,127
Farm Model 5: Goat rearing (22 head)	-	217	434	651	868	1,085	1,085
Farm Model 6: Backyard poultry	-	35	70	140	210	280	280
Farm Model 7: Home gardens	-	1,133	2,552	4,141	5,935	7,889	7,889
Farm Model 8: Rice seed production (youth and women group)	-	7	14	21	28	35	35
Farm Model 9: Protected agriculture (red bell pepper in 100 sq mt polytunnel) (youth and women group)	-	54	124	194	229	245	245
Farm Model 10: Mango seedlings nursery (youth and women group)	-	3	5	7	9	9	9
Rice harvesting service providers	-	18	36	54	72	90	90
Farmer organization - Agro-service Center	-	1	2	3	4	5	5
TOTAL	-	5,356	12,056	19,844	28,376	35,829	35,829

Sri Lanka

Smallholder Agribusiness and Resilience Project

Project Design Report

Annex 5: Social Environment and Climate Assessment (SECAP) Review Note

Document Date: 04/11/2019

Project No. 2000002583

Asia and the Pacific Division
Programme Management Department



Investing in rural people

Democratic Socialist Republic of Sri Lanka

Smallholder Agribusiness and Resilience (SARP) Project Design Report

**Annex 5: Social Environment and Climate Assessment (SECAP) Review
Note**

Document Date: 15/09/2019

Project No.

Asia and the Pacific Division

Programme Management Department

Annotated SECAP Review Note – Sri Lanka

Smallholder Agribusiness and Resilience Project (SARP)

1. Introduction

1. The goal of the Smallholder Agribusiness and Resilience Project (SARP) is to contribute to Sri Lanka's smallholder poverty reduction and food security in the Dry Zone provinces of Anuradhapura, Kurunegala, Mannar, Matale, Puttalam and Vavuniya. SARP objective is resilience building and market participation of 55,000 rural smallholder households in the project area. It has 2 technical components: 1) **Component 1 "Capacity building for climate resilience and agribusiness development"** consisting of the following sub-components: i) Sub-component 1.1 Strengthening adaptive capacity for service providers and farmers for climate change; and ii) Sub-component 1.2 strengthening capacity for farm commercialization and enterprise development; 2) **The Component 2 "Investments for climate resilience and agribusiness"** has the following sub-components: i) Sub-component 2.1. Investments in climate resilient production and infrastructure; and ii) Sub-component 2.2. investments in farm commercialization and enterprise development.
2. The SECAP Preliminary Review Note was prepared at the Concept Note stage of project design in order to identify social, environmental and climate risks to the project and impacts of the project at an early stage of the design process. The overall objective was to conduct early analysis of the issues so that solutions and recommendations could be incorporated into the project design and implementation. The methodology of the SECAP review note consisted of meetings with key Government entities, Development Partners, individual environmental experts, field visits to several sites in the dry zone of the country, informal discussions with smallholder farmers and literature reviews.

2. Situational analysis and potential project impacts

2.1 Socio-economic assessment

3. **Economic and social context:** Since the end of the civil war in May 2009, the Sri Lankan economy has grown at a steady rate, averaging 6-7 percent up to the present day resulting in significant poverty reduction¹². Real GDP growth was recorded at 3.2 per cent in 2018, compared to 3.4 per cent in the previous year³. This rapid economic growth rate has led to Sri Lanka being classified as a lower middle-income country with a per capita GDP of US\$4,104⁴.
4. Sri Lanka is currently undergoing a structural transformation away from agriculture, with agriculture accounting for only 10 percent of GDP, industry (30.5 percent) and services (60.0 percent). The shift is a result of productivity growth and accelerating urbanization. Agricultural exports as a share of GDP have also declined from 39 percent in 2000 to 21 percent in 2016. Remittances from Sri Lankan migrants working abroad and tourism play an important role in offsetting any trade deficit⁵. GDP growth, however, dropped slightly to a rate of 3.8 percent in the first half of 2017 as a result of drought affecting the agricultural and industrial sectors. However, this transformation is progressing relatively slowly and 30 percent of the labor force

¹ 2015. WB. Systematic Country Diagnostic.

² 2017. ADB. Country Partnership Strategy

³ <https://www.cbsl.gov.lk/en/news/the-annual-report-of-the-central-bank-of-sri-lanka-for-the-year-2018>

⁴

https://www.cbsl.gov.lk/sites/default/files/cbslweb_documents/publications/annual_report/2018/en/3_KEI.pdf

⁵ Remittances from migrant workers totaled around US\$7 billion in 2015.

remain in agriculture.

5. The population of Sri Lanka in 2018 was reported at 21.6 million, with a rural population accounting for over 81 percent of the total, the largest share in South Asia⁶. The fertility rate is relatively low compared to other countries in the region with annual population growth in 2016 reported as 1.1 percent, below the average for South Asia⁷.
6. **Poverty situation:** Extreme poverty is rarely found in Sri Lanka and where it exists is concentrated in geographical pockets. Whilst growth has contributed to poverty reduction, some 32 percent of the population remain 'nearly' poor or 'poor' with the majority living in the rural areas and estates and subsisting slightly above the extreme poverty line of US\$1.5 per day. The population groups most affected by poverty are agricultural smallholders, plantation workers, underemployed and landless labourers, particularly youth and women. Youth represent approximately 24 percent of the total population, and are the group with the highest unemployment rate.
7. Sri Lanka, however, can be considered a development success story having surpassed many of the Millennium Development Goals⁸. Absolute poverty declined from 22.7 to 4.1 percent from 2002 to 2016 while per capita consumption of the bottom 40 percent of the population grew at 3.3 percent a year, compared with 2.8 percent for the total population.⁹ This decline was mostly due to increased earnings linked to the shift to the industry and service sectors. Sri Lanka's Human Development Index (HDI) also increased over the period 1990 and 2015, from 0.63 to 0.77, above the average for this category of countries.¹⁰ Sri Lanka was ranked 73 out of 188 countries, decisively higher than other lower middle-income countries.¹¹ Primary school enrollment is near universal. Secondary and tertiary enrollment has substantially increased. Maternal and infant mortality rates are at very low levels.
8. These achievements at the national level, however, hide important differences by gender, age, ethnic group and geographic location.¹² The 2012/13 poverty headcount index by district shows a wide disparity from 1.4 percent in Colombo to 28.8 percent in the Northern Province. In general, pockets of poverty can be found mainly in the North and East. The income gap, according to the Gini coefficient, is high (39.8 in 2017) in comparison to other Asian countries.¹³
9. Over the last three decades, the food security situation in Sri Lanka has improved significantly but in 2017 it was estimated that 900,000 people live with borderline food consumption levels.¹⁴ Whilst availability of food at the national level is secure, this does not necessarily translate to food and nutrition security at the household level for all segments of the population, especially the socially and nutritionally vulnerable groups. SARP will contribute to Sri Lanka's smallholder poverty reduction and food security in the Dry Zone region through its gender, targeting and social

⁶ <http://www.statistics.gov.lk/PopHouSat/VitalStatistics/MidYearPopulation/Mid-year%20population%20by%20district.pdf>

⁷ In 1990, the total fertility rate in Sri Lanka was 2.48, whereas that in Bangladesh was 4.49 and 4.04 in India. In 2015 the figures were 2.06 in Sri Lanka, 2.14 in Bangladesh and 2.4 in India.

⁸ IFPRI 2017. Agricultural Transformation in Sri Lanka.

⁹ Based on the World Bank's international poverty line for lower-middle income countries at US\$3.2 per day.

¹⁰ 2016. UNDP. Human Development Report

¹¹. Op cit.

¹² Department of Census and Statistics and Poverty Global Practice, World Bank Group, 2015. The Spatial Distribution of Poverty in Sri Lanka.

¹³ World Bank databank. The Gini coefficient in some other lower middle-income countries in Asia was as follows: 39.5 for Indonesia (2013), 35.3 for Viet Nam (2016) and 35.1 for India (2011).

¹⁴ Food and Agriculture Organization (FAO) and the World Food Programme (WFP) Food Security study 2017

inclusion strategy focusing on nutrition sensitive approaches, inclusion of youth, indigenous people, excluded ethnic groups, marginalized communities and people with disability in project activities as detailed in Appendix 8.

10. **Gender:** Sri Lanka is ranked 75 out of 149 countries according to the Gender Inequality Index. Over the last decade, Sri Lanka has made significant improvements with respect to women's right. According to the RSPA, Sri Lanka's application of gender equality ranks 2.8, with women still largely under-represented and unheard in decision and policy making bodies. Although the gender gap in agricultural employment has reduced by 5 percent over the period 2000-2017, women still represent 29 percent in 2017 (versus 24 percent for men) with a wage gap of over 43 percent compared to men. Despite the notably high achievement in terms of education a relatively small percentage of women (30.2 percent) participate in the labour market¹⁵.
11. Women play an important role in agriculture (in addition to their domestic and reproductive role) comprising 53 percent of the agricultural labour force (often as unpaid family labour) and women headed households comprise 23 percent of rural households. The traditional norms, however, are biased in favour of men, resulting in obstacles to women's equitable access to resources (land, capital- including credit) and markets, and the control of assets. SARP will aim to focus attention to women's empowerment and voice including skills and capacities (at producer organizational level, and within communities as farmer leaders) and the promotion of economic activities best-suited to them. Particular consideration will also be given to nutrition determinants for the potential to engage with women and adolescent girls in project activities.
12. SARP places greater emphasis on nutrition and considering the multidimensional causes of malnutrition, SARP will have a basket of nutrition sensitive activities. Nutrition sensitive approaches including selection of nutrition sensitive value chains; nutrition-sensitive Farm Business School; increasing availability and dietary diversity through nutritious foods (rice, vegetables, fruits, legumes, homestead garden, poultry, fishery along with increased productivity and diversified income through these commodities and linking the farmers to local markets and enterprises will be operationalized through SARP components. The project will closely work with WFP to address malnourishment challenges in the Dry Zones focusing on increased production, availability and consumption of diverse, safe and nutritious food. The social inclusion strategy in Appendix 8, outlines a nutrition-sensitive approach with a situational analysis on nutrition of the targeted beneficiaries in Dry Zone and activities to address it. SARP will enhance awareness and nutritional knowledge through social behaviour change communication (SBCC -good nutrition awareness, knowledge, attitudes and practices) on nutrition practices, cooking healthy food platter, balanced diet and food diversity for all members of household.
13. Only 16 percent of all privately-owned land belongs to women in Sri Lanka. This inhibits their access to market, subsidies, credit, irrigation water and agricultural assets. Among the paid agriculture labourers, women get lesser wages than their male counterparts. The lack of substantial source of income and absence of assets such as land for collateral has made it difficult for women to avail high value loans that could enable them to move up the agricultural value chain.
14. Historically, Sri Lanka had segregated male and female farmer organizations. This has resulted in limited scope for women to share a common platform with men to participate in equal decision-making and dialogue. The lack of social capital in the agriculture sector, commercial spaces and markets, has created barriers for women's involvement in trade and commerce. They are less involved in commercial agriculture

¹⁵ About eighty percent of adult women in Sri Lanka have reached at least a secondary level of education with no significant difference with men. The former can be compared to 35 percent in India and 26.5 percent in Pakistan. (2015 data).

and medium-scale industries that could raise their incomes and profits¹⁶.

15. A majority of women-headed households are involved in subsistence farming in Sri Lanka. Women face greater resource constraints to credit, land, etc. than men, despite making up a greater percentage of the overall agricultural labor force. Women are overburdened with farming and household activities. Limited mobility is another serious constraint to access to necessary inputs, resources, training and markets. There has been a marked increase in Women Headed Households (WHHs) in post-war Sri Lanka. The 2012-13- Household and Income Expenditure Survey showed that in Sri Lanka, 1.2 million households or 23 percent of the households are WHHs¹⁷. Taking cognizance of the economic and social vulnerabilities of Women Headed Households (WHHs), the Ministry of Women and Child Affairs supported technically by UNFPA is implementing a national action plan on WHHs. The targeting of WHHs will be aligned with IFAD's approach of supporting government programmes and policies. 50% percent of SARP beneficiaries are women.
16. The gender strategy in Appendix 8 details the project activities and approaches towards gender equality and women's empowerment. Some key elements of it include building programme staff capacity to deliver on gender responsive and socially inclusive programme implementation; selection of gender responsive agribusiness and climate resilient agribusiness value chains, FBS, gender responsive M&E and gender sensitive selection of interventions to maximise returns to women's labour, reduce drudgery and unpaid work and support their social and economic empowerment such as direct targeting of homestead gardening interventions and farm production to local markets through capacity building of women, youth and marginalized groups; collectivised women's groups in marketing, advanced value chains and rural enterprises; women as change agents and gatekeepers of NRM and rejuvenated water systems
17. **Youth:** between the ages of 15-29, represent approximately 24 percent of the population of the country of which over 75 percent of whom live in rural areas. Youth continue to face challenges related to education, civic engagement, political participation and employment in particular. Unemployment for people aged between 20-24 and 25-29 is around 44 percent and 34 percent, respectively (2014). Sri Lanka's vulnerability to climate change has a strong impact on youth population, limiting their job opportunities and income-generating ability in agriculture. The challenges of young women's participation in the labour force are even more pronounced. Whilst young male participation is around 74.8 percent, only 35.8 percent of young females participate in the labour force. Other factors for youth unemployment include mismatched skills, limited employment creation in the formal private sector and lack of entrepreneurship. Self-employment is also constrained by a lack of business skills and financial literacy and the inability of youth to access finance. In rural areas youth who are self-employed often have little to show in terms of income and market access. The trend of departure of youth from agriculture and rural outmigration is seen across Sri Lanka.
18. SARP will mainstream the participation of youth and incentivize their engagement in the project activities. The project will provide tailor made activities to match the aspirations of youth through youth incubation scheme, agri-business development

¹⁶ 2018. FAO. Country Gender Assessment of the Agriculture and Rural Sector in Sri Lanka
<http://www.fao.org/3/CA1516EN/ca1516en.pdf>

¹⁷ Government of Sri Lanka, MoW&CA, National Action Plan on Women Headed Households 2017- 2019. The National Framework for Women Headed Households (2017- 2019) has been introduced specially to improve the socio economic situation of women affected by the conflict. The government as well as the Banks have provided credit facilities for enhancing livelihood development activities for galvanizing the national policy for eradication of poverty. A recent initiative of the Ministry of Women and Child Affairs is the directive obtained from the Treasury to allocate a minimum of 25% investment for economic development of rural women. Programs are in place to encourage girls to enter into technological fields, which provide opportunities in accessing the labour market.

along the value chains, mechanisation of agriculture, introducing new technology and innovation models and building capacities as change agents, training and skill development in agriculture. The project aims to train and build capacities of youth, to generate employment opportunities along the value chain and facilitate their access to rural finance, rural organizations, knowledge, skills and markets (Refer to Appendix 8 for more details on youth focused interventions).

19. **Indigenous People:** The principles of IFAD's policy on "Engagement with Indigenous people" will be fully adhered to by SARP. The project's approach to engaging with indigenous people includes the free and informed consent of all its beneficiaries and that there is a focus on the principle of community-driven development, valuing local knowledge, access to markets, gender equality and promoting climate-resilient agriculture. SARP is guided by social inclusion strategy, whereby specific emphasis to these groups during the community mobilization. The project would ensure that these communities engage in village level activities and that they are not left behind from the benefits of the project. The project at the outset will seek to identify and determine the extent of IP's in the project sites and based on this will ensure their active engagement in SARP. It should however be noted that the extent of IP populations in the project sites has not been determined at the design stage. Sri Lanka has small number of indigenous communities.
20. The forest-dwelling Wanniyala-Aetto (also referred to as Vedda) comprise a very small community of indigenous people. Their deep-rooted connections to their ancestral lands enabled them to maintain their cultural and spiritual traditions. They are distinguished by their hunting and gathering way of life, by their unwritten language, which is closely related to but distinct from Sinhalese, by their beliefs in traditional gods and ancestor spirits, and by the importance of ancestral lands to all aspects of their life. They lived mostly as nomadic forest-dwellers in the remote eastern parts of the country. Currently, the entire community is in danger of extinction and has been facing the brunt of marginalisation, landgrabbing, relocation and exclusion. Labelled as poachers and alienated from their ancestral land, they have taken up to Sinhala and have had marriages for their self-preservation and involuntary assimilation. Sinhala-speaking Veddas are found primarily in the southeastern part of the country, especially in the vicinity of Bintenne in Uva District. There are also Sinhala-speaking Veddas who live in Anuradhapura District (project area) in the North Central Province. The Project through its social inclusion strategy would include them as beneficiaries if they are present in the areas of intervention of SARP.
21. **People with disabilities:** The social inclusion strategy of SARP recognizes the vulnerabilities faced by people with disabilities. The exclusion and vulnerabilities are more pronounced for elderly, single women, widows, ex-combatants and youth with disabilities. SARP will pay specific emphasis to these groups during the community mobilization for their inclusion in project activities. The project implementation team will be trained to ensure access and benefits of the project to people with disabilities.
22. **Nutrition:** Under-nutrition remains a concern in Sri Lanka, with around 20 percent of children under five years of age regarded as stunted. Additionally, 13 percent suffer from wasting and 33 percent are underweight. More than 50 percent of children and women suffer from anaemia, with more than 9 percent of the female population affected by severe chronic energy deficiency. The high rate of low birth weight (18 percent) is also a major predictor of under nutrition. Although, the level of stunting is lower than other countries in the region (ranked at 44 out of 132 countries) there is significant inter-provincial variation. More than 33 percent of women and nearly 37 percent of men suffer from food deficiency. According to the RSPA, Sri Lanka's nutrition policies are prioritizing nutrition as a key national development strategy with a rank of 4.8, achieving satisfactory outcomes. The infant mortality rate has decreased from 10 to 7.5 deaths per 1,000 live births over the period 2010-2017, and

life expectancy increased up to 75 years¹⁸. The selection of the project districts was based on a combination of vulnerability and household data on poverty; vulnerability and sensitivity to shocks and stresses (drought and flood); food insecurity and malnutrition and land degradation, agro-ecological zone (dry zone) and others. The project would aim at increasing incomes and food security of the farmers through its activities following a nutrition sensitive approach which is detailed in Appendix 8.

2.2 Environment and climate context, trends and implications

a. Environmental assessment

23. Sri Lanka is a moderate-sized, continental island, listed as the 25th largest island in the world (Calder, 2009). Sri Lanka lies just south of the Tropic of Cancer between 5° 55' and 9° 51' North Latitude and 79° 41' and 81° 54' East Longitude. Sri Lanka is endowed with a coastline of 1,620 km. It covers a total area of 65,610 km², including 62,705 km² of land area and 2,905 km² of inland water bodies (C&SD, 2009)¹⁹.
24. The relief of the country is characterized by the existence of central hills and, in cross section, a step-like arrangement referred to as penepains. The first penepain extends from 0 metres above sea level to 300 metres. The second penepain rises from 301 to 1,500 metres. In these areas, the land rises gently, with low, rounded hills and are a special place for the development of the ancestral Cascade system²⁰ that augment water supply for crop production.
25. **Biodiversity.** Due to the isolation of the island for the greater part of the past 20 million years, Sri Lanka's biodiversity is characterized by an outstanding degree of endemism among the wild flora and faunal communities and is considered to be the richest per unit area in the Asian region with regard to mammals, reptiles, amphibians, fish and flowering plants²¹. Additionally, it is considered one of 25 biodiversity hotspots in the world. Under the Fauna and Flora Protection Ordinance and the Forest Conservation Ordinance Sri Lanka has a total area declared as protected areas of around 2.3 million ha, representing about 35% of the total land area (DWC, FD, 2016). A number of protected areas are located in the Project Districts, as shown in the figure 1 (natural parks and protected areas under the jurisdiction of the Forest Department). They notably host elephant sanctuaries, but there are also other wild animals like monkeys close to the project sites. To address this issue the project selection criteria exclude interventions in close proximity/adjacent to Protected Areas (see paragraph 54 below).

Figure 1: Protected Areas of Sri Lanka (under the Jurisdiction of the Forest Department and Department of Wildlife Conservation) (Source for PAs under the jurisdiction of the FD: MoE, 2012a; source for PAs under the jurisdiction of the DWC: DWC, 2015)²²

¹⁸ FAO Statistics & Global Nutrition Report, 2016

¹⁹ 2nd Communication to the UNFCCC

²⁰ FAO, together with the Ministry of Agriculture, has developed a proposal for Declaration of the Cascade Tank-Village System (CTVS) as a globally important agricultural heritage systems (GIAHS)

²¹ Ministry of Environment, Climate Change Secretariat, 2010. Strengthening Capacity for Climate Change Adaptation. ADB TA 7326 (SRI)

²² Ministry of Mahaweli Development and Environment. 2015. National Biodiversity Strategic Action Plan 2016-2022

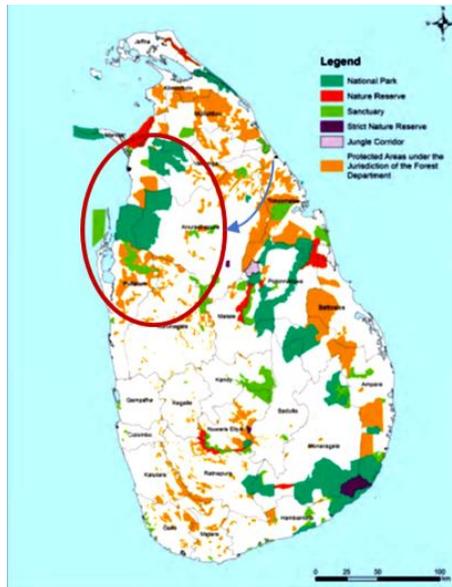
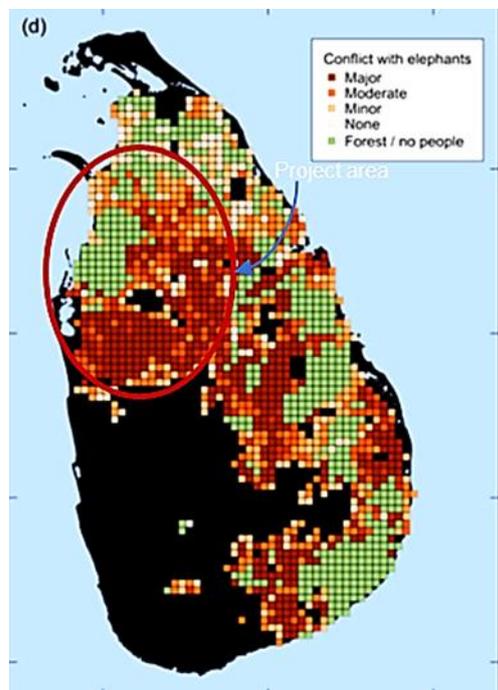


Figure 2: Results of a countrywide survey of Asian elephant *Elephas maximus* distribution in Sri Lanka over 2,714 5 × 5 km grid cells. (d) Severity of human–elephant conflict²³.



The survey of the Endangered Asian elephant (Fernand, P et al, 2019) highlights the fact that most of elephant-human conflicts coincides with that of elephant presence outside protected areas (Figure 2). The project Districts are the one where the severity of human–elephant conflict is very important (in red on the map). The survey results highlight the failure of the approach consisting in the segregation of people and elephants at a landscape level, by confining elephants to protected areas. According to this study the only option is to manage elephants in situ through a human–elephant coexistence model that promotes stakeholder awareness and mitigates conflict by protecting villages and cultivations with barriers such as electric fences.

26. Forests. Sri Lanka has a land area of 6,561,000 hectares and a total of 1,951,473 hectares of natural forests covering 29.7% of land area²⁴. In addition, there are about 75,000 hectares of Forest Plantations comprising of Teak, Mahogany, and other local species which accounted for nearly 1% of the land area. Most of the fuel wood (*Eucalyptus camaldulensis*, *E. tereticornis* and Acacias), and teak plantations are located in the dry zones of Sri Lanka²⁵. Rubber and Coconut Plantations and other agro-forestry systems such as home gardens, cover approximately another 20% of the land area. In Sri Lanka agricultural activity has been identified as a key driver of

²³ Fernando, P., De Silva, M., Jayasinghe, L., Janaka, H., & Pastorini, J. (2019). First country-wide survey of the Endangered Asian elephant: Towards better conservation and management in Sri Lanka. Oryx, 1-10. doi:10.1017/S0030605318001254

²⁴ <http://www.forestdept.gov.lk/index.php/en/#>

²⁵ <http://www.fao.org/3/ad678e/AD678E04.htm>

deforestation²⁶ (UNREDD, 201668) among others. The estimated extents of forest by forest cover class and by District in the project area are presented in the table below. Furthermore, due to deforestation and agricultural encroachment the human-wildlife conflict has worsened in the country and especially in the dry zone areas where the elephant herds and their routes exist.

Table 1: Estimated extents of forest by forest cover class and by District in the SARP area²⁷

Source: Forest Department

District	Total of land area of the district (ha)	Dense forest	Open and sparse forest	Mangrove	Savannah	Total	Percentage of district area
Project area							
Anuradhapura	717900	173317	85006	0	0	258393	36
Kurunegala	481600	7873	13845	0	0	21718	4.50
Mannar	199600	106958	17799	1351	0	126108	63.20
Matale	199300	60711	11797	0	0	72508	36.40
Puttalam	307200	58283	23937	1958	0	84178	27.40
Vavuniya	196700	104385	18435	0	0	122820	62.40

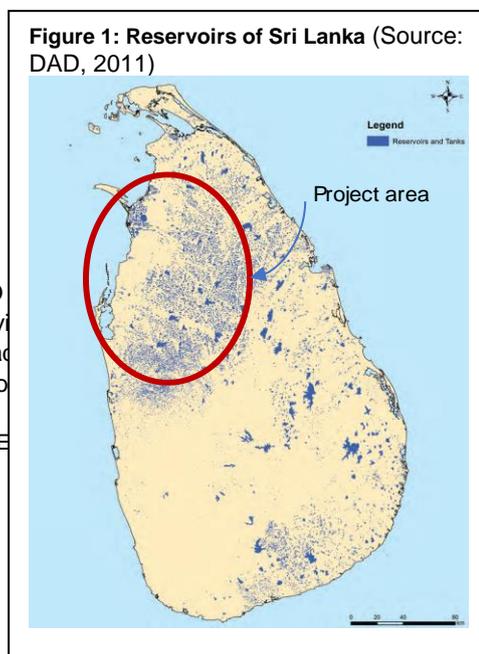
27. Water. Sri Lanka's inland wetland ecosystems comprises flood plains, swamps, lentic waters (tanks/reservoirs and ponds) (169,941 ha), river basins (5,924,500 ha) and wet villu grasslands (12,500 ha). There are 103 radial river basins in Sri Lanka with considerable variations in hydrological characteristics. The Mahaweli river system is the longest originating from central highlands and flowing through north central dry zone to the eastern coast. Sri Lanka depends primarily on its surface water resources for agricultural, domestic and industrial uses. Agriculture is largely sustained by direct rainfall and irrigation water extractions from rivers. The traditional Tank Cascade System, a network of small tanks to large reservoirs that exist in the Dry Zone, is aimed at recycling and re-using of water through a network of small to large scale tanks. More than 12,000 operational tanks and reservoirs have been identified within the Dry Zone, and a similar number still remains abandoned²⁸. These reservoirs provide services such as irrigation, domestic water, hydroelectricity power and fresh water fishery. The reservoirs also contribute to ecological services such as ground water recharge, maintenance of aquatic ecosystems and biodiversity²⁹. Groundwater use is less than 5% of the total water stocks. Water for agriculture is drawn from monsoon precipitation and the extensive irrigation system of reservoirs. Agro-wells tap the sub-surface water resources.

Table 2: Number of Tanks in the project area

Source: DAD, 2019

District	Mapped	DAD total
Anuradhapura	4278	3479
Kurunegala	6204	5545
Mannar	735	491

Figure 1: Reservoirs of Sri Lanka (Source: DAD, 2011)



²⁶ The annual deforestation rate is 1.14% according to FAO

²⁷ Natural Resources Management Division, Ministry of Environmental Conservation and Forestry, National Action Program (NAP) For Combating Land Degradation

²⁸ GOSL. Climate Smart Irrigated Agriculture Project: Environmental Framework. 2018

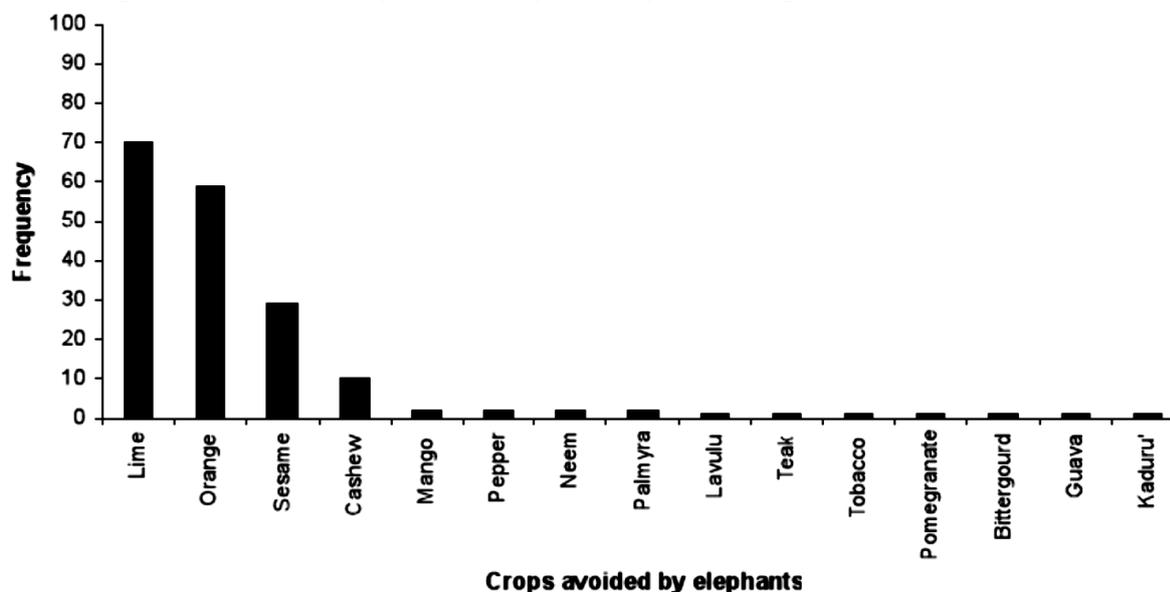
²⁹ Biodiversity Secretariat, Ministry of Mahaweli Development and Environment, National Environmental Policy Plan 2016-2022

Matale	400	430
Puttalam	1548	1296
Vavuniya	957	733
Total	14122	11974

28. The dry zone is dotted with more than 16,000 ancient irrigation reservoirs (tanks), relics of an ancient hydraulic civilization, extending, in total, over nearly 60,000 ha, and providing perennial and seasonal sources of water (Survey Dept., 2007)³⁰.

29. The project needs to consider the possible negative impact on biodiversity and the environment (such as the negative impact on environment of rehabilitation of roads and the rehabilitation/construction of infrastructures) and take necessary steps to mitigate it under the foreseen Environmental and Social Management Framework (ESMF) For example, where possible, project activities can include reforestation or biodiversity corridors along agricultural lands, cultivate crops that are less likely to be damaged by elephants and other large mammals (example of crops avoided by elephants are listed in the figure 2 below), and maintain buffer zones between national parks/protected areas and farmlands.

Figure 2. Cultivated crops avoided by wild elephants in agricultural areas³¹



30. The overuse of agrochemicals is a major problem in the country, resulting in illnesses and affecting soil quality and water pollution. The agricultural intensification activities of the project may exacerbate this issue and therefore it is imperative to conduct training workshops for farmers and extension workers on safe and sustainable agricultural practices and where possible to promote organic farming.

31. The wastage and overuse of water for agricultural lands is another issue which needs attention. With the construction of canals and other infrastructure works, the recharge of aquifers is less thereby affecting the groundwater table. The infrastructure component of this project such as the development of access roads may worsen this issue.

³⁰ Biodiversity Secretariat, Ministry of Mahaweli Development and Environment. National Biodiversity Strategic Action Plan 2016-2022

³¹ Santiapillai, Charles & Wijeyamohan, Shanmugasundaram & Bandara, Ganga & Athurupana, Rukmali & Dissanayake, Naveen & Read, Bruce. (2010). An assessment of the human-elephant conflict in Sri Lanka. J. Sci. (Bio. Sci.). 39. 21-33. 10.4038/cjsbs.v39i1.2350.

32. Waste management is a major problem in Sri Lanka where daily 3700 tons of municipal solid waste is generated and most of this is dumped in open sites causing health hazards and degrading ecosystems⁵. The project should consider initiatives such as the use of compostable packaging instead of plastics especially in the commercializing component, and encourage households to make organic compost, in order to improve waste management.

b. Climate trends and impacts

33. Sri Lanka's climate is characterised by the tropical monsoon system, and the rainfall pattern is of primary significance in defining the island's climate. Based on the variation in precipitation, Sri Lanka's climate is generally divided into four seasons:

- First inter-monsoon season (FIM): March -April
- Southwest monsoon season (SWM): May -September
- Second inter-monsoon season (SIM): October-November
- Northeast monsoon season (NEM): December- February

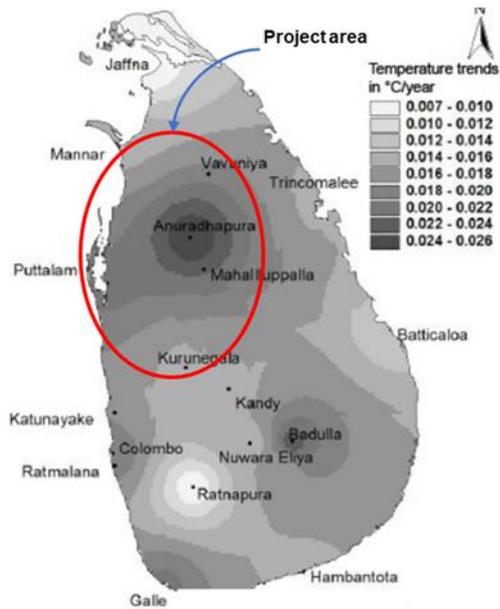
34. Sri Lanka has traditionally been generalized into three climatic zones: i) the 'wet zone' in the Southwestern region including central hill country (mean annual rainfall over 2,500 mm without pronounced dry periods); the 'dry zone' covering the Northern and Eastern parts of the country (mean annual rainfall of less than 1,750 mm with a distinct dry season from May to September); iii) and the 'Intermediate Zone', along the central hills except in the South and the West. Sri Lanka has been further divided into 46 agroecological regions that take into account the monthly rainfall amount and distribution in addition to the parameters considered for identifying climate zones.

Observed change

35. **Temperature.** The annual mean surface air temperature is in the range 20° C-30° C, with an average of about 27° C. The analysis of the meteorological data during the period 1960-2000 show that: number of warmer days has increased; number of warmer nights has increased; number of colder days has decreased; number of colder nights has decreased³².

Figure 3. Observed warming trends in mean annual temperature (Source: Zubair et al. 2005).

³² 2nd Communication to the UNFCCC, 2012

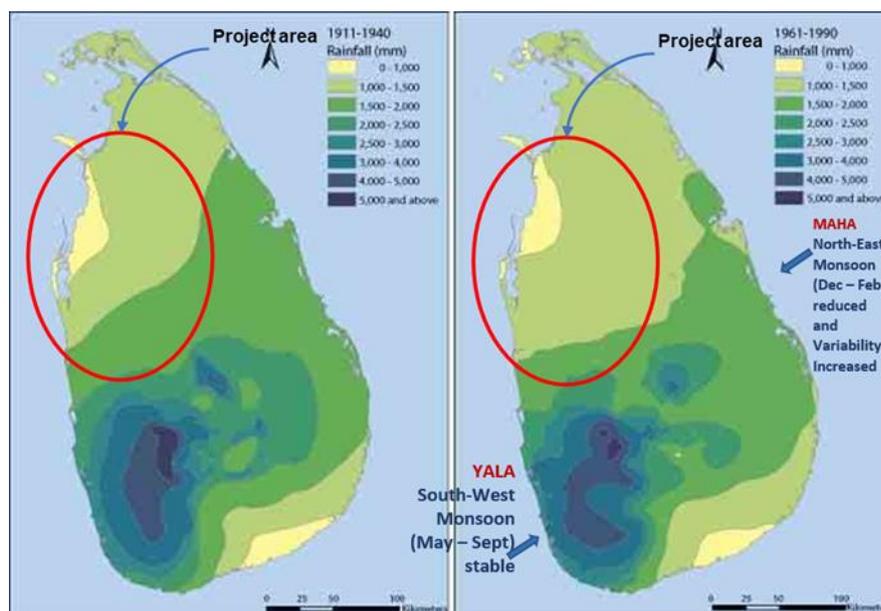


36. **Precipitation.** No clear trend has been observed in precipitation. However, many researchers agree that the variability of rainfall has increased over time, especially in *Yala* season (Chandrapala 2007b; Eriyagama et al. 2010; Punyawardena et al., 2013b). Moreover, the number of consecutive dry days has increased and the consecutive wet periods have decreased (Premalal, 2009; Ratnayake and Herath, 2005). Some studies suggest changes in distribution can even lead to shifting of agro-ecological boundaries (Eriyagama et al., 2010; Mutuwatte and Liyanage, 2013)³³. Indeed, the comparison of average precipitation during 1911-1940 and 1961-1990 (see figure 4) indicates an expansion of the dry zone (MAP < 1,750 mm).

Figure4. A comparison of average precipitation during (a) 1911-1940, and (b) 1961-1990, indicating expansion of the dry zone (MAP < 1,750 mm) (Source: Imbulana et al. 2006)

³³ National Adaptation Plan for Climate Change Impacts in Sri Lanka. 2016

(Prepared by U. R. Ratnayake, Department of Civil Engineering, University of Peradeniya, Sri Lanka)³⁴.



37. It has been observed an increase in frequency and intensity of climatic events along the last decades. The Dry Zone was particularly affected by these natural disasters. For example, the table below show the number of damaged tanks within the SARP area in 2012 and 2014 because of floods.

Table 3: Village Irrigation Systems in the SARP project area damaged in 2012 and 2014 floods by district. (Source: Department of Agrarian Development)

Year	2012		2014		
District	Damaged Reservoirs & diversions	Area affected	Damaged reservoirs	Damaged Diversions	Area affected ha
Anuradhapura	113	10,595	253	2	28,018
Kurunegala	84	2,328	22	-	9,286
Mannar	46	758	-	-	
Matale	136	1,136	21	8	486
Puttalam	85	3,628	18	8	5,037
Vavuniya	78	2,927	30	4	1,893

Climate trends include:

- Increase in mean annual temperature of 0.2°C per decade between 1961 and 1990.
- Increase in mean daytime maximum temperatures of 1°C between 1961 and 2001.
- Increase in mean nighttime minimum temperatures of 0.7°C between 1961 and 2001.
- Decrease in island-wide mean annual precipitation of 144 mm between 1961 and 1990.
- Increase in frequency and intensity of floods.
- Increase in frequency and intensity of droughts.

³⁴ Eriyagama, N.; Smakhtin, V.; Chandrapala, L.; Fernando, K. 2010. Impacts of climate change on water resources and agriculture in Sri Lanka: a review and preliminary vulnerability mapping. Colombo, Sri Lanka: International Water Management Institute. 51p. (IWMI Research Report 135). doi:10.5337/2010.211

- Uncertain rates of sea level rise around Sri Lanka, specifically, but accelerated rates across Asia with increases of 3.1 mm per year from 1993 – 2003, compared to 1.7 mm to 2.4 mm per year for the 20th century³⁵.

Projected trends

38. According to the National Adaptation Plan for Climate Change Impacts in Sri Lanka 2016 - 2025³⁶ key global projections applicable to Sri Lanka are projections for Asia in fourth and fifth assessments reports (AR4 and AR5) of IPCC. Some of the predictions with high confidence (very likely) applicable for South Asia are: mean annual temperature will increase by greater than 3° Celsius; increase in precipitation by mid-21st century; increased precipitation extremes related to monsoons, and; oceans getting warmer in tropical Asia (Hijioka et al., 2014).
39. Projections are less certain about the changes in rainfall pattern. However, locally downscaled models have predictions on change in precipitation towards both directions - increasing as well as decreasing mean annual rainfall. Some studies have projected increased rainfall in wet zone, intermediate zones and north and south-western dry zones and decreased rainfall in other areas of dry zone by 2050 (Basnayake and Vithanage, 2004). Recent projection has predicted that climate pattern in Sri Lanka is getting more polarized where the Dry zone becomes drier and Wet zone becomes wetter in years to come (Marambe et al., 2015; Punyawardena et al., 2013 a).
40. The figures below present the predicted temperature change over Sri Lanka by PRECIS RCM in combination with ECHAM4 GCM for B2 scenario³⁷.

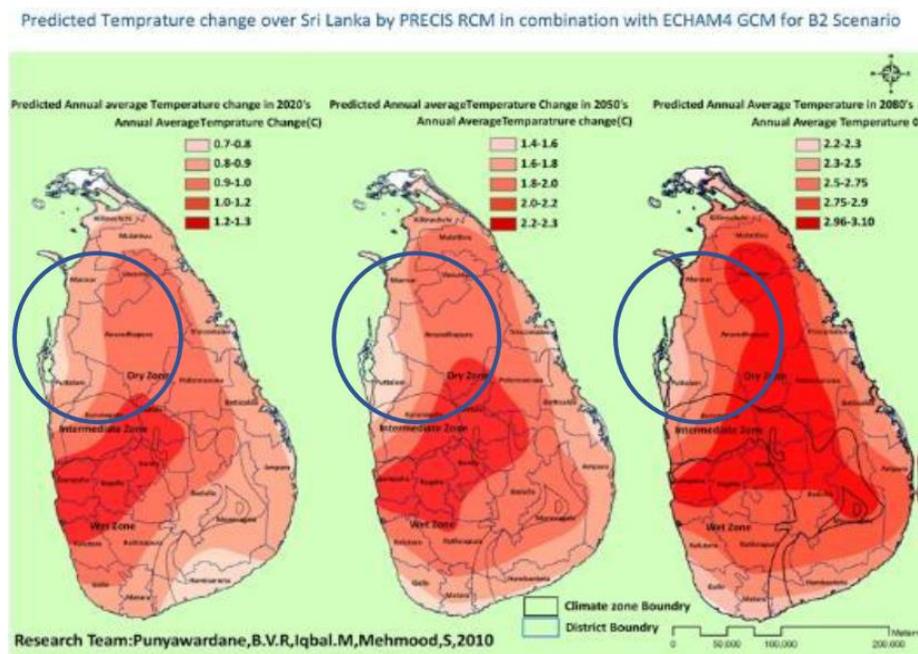


Figure 4: Predicted temperature change over Sri Lanka by PRECIS RCM in combination with ECHAM4 GCM for B2 scenario.

³⁵ USAID, 2018. Climate Risk in Sri Lanka: Country Risk Profile.

³⁶ Climate Change Secretariat, Ministry of Mahaweli Development and Environment. 2016. National Adaptation Plan for Climate Change Impacts in Sri Lanka 2016 - 2025

³⁷ UNDP, 2016. Technical Feasibility: Report Strengthening the resilience of smallholder farmers in the Dry Zone to climate variability and extreme events through an integrated approach to water management.

Projected Precipitation Changes over Sri Lanka by PRECIS RCM in combination with ECHAM4 GCM for B2 Scenario

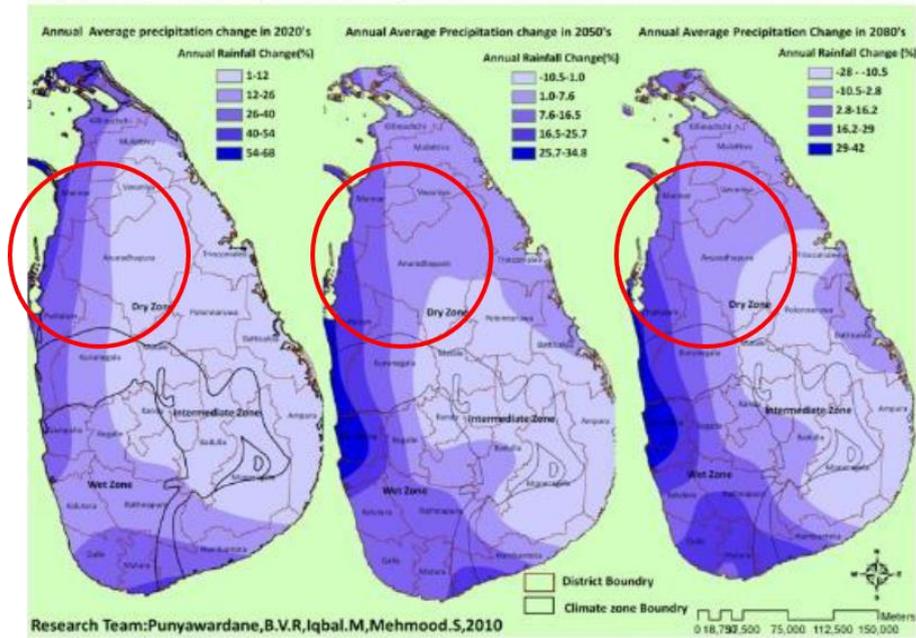


Figure 5: Predicted precipitation change over Sri Lanka by PRECIS RCM in combination with ECHAM4 GCM for B2 scenario

Projected changes include:

- Increase in mean annual temperature of between 0.8°C and 2°C by 2060.
- Increase in both daily maximum and minimum temperatures of between 0.7°C and 0.8°C by 2050.
- Projections of change in precipitation vary, with some predicting decreases and some increases, but generally, indicate an increase in variability and extreme events.
- Increase in cyclone frequency and intensity.
- Increased frequency and severity of floods, drought incidence, and landslides.
- Total sea level rise of between 0.2 and 0.6 meters by mid-century, compared to 1971-2010 levels.³⁸

c. Climate change adaptation measures

41. The National Climate Change Policy of Sri Lanka of 2011 has been developed to provide guidance and directions to address the adverse impacts of climate change efficiently and effectively. Its main objectives are to: 1) Sensitize and make aware the communities periodically on the country's vulnerability to climate change; 2) Take adaptive measures to avoid/minimize adverse impacts of climate change to the people, their livelihoods and ecosystems; 3) Mitigate greenhouse gas emissions in the path of sustainable development.; 4) Promote sustainable consumption and production; 5) Enhance knowledge on the multifaceted issues related to climate change in the society and build their capacity to make prudent choices in decision making; 6) Develop the country's capacity to address the impacts of climate change

³⁸ USAID, 2018. Climate Risk in Sri Lanka: Country Risk Profile.

effectively and efficiently; 7) Mainstream and integrate climate change issues in the national development process. The National Adaptation Plan to Climate change has identified and listed adaptation measures for the different priority socio-economic sectors.

42. It is worth noting that SARP is fully aligned on the proposed adaptation measures. The table below lists all the adaptation measures proposed by the Adaption Plan that SARP has already integrated in its foreseen activities. In addition, and in coherence with the recommendations of the National Adaptation Plan, SARP will develop a participatory approach as well as an integrated river-basin approach that considers the multiple uses of water and risks to such multiple users.

43. It is also planned to timely communicate on climate extreme events to at-risk communities. To this end the project will promote the use of modern communication methods (SMS/texts, free call-in services) to connect farmers to information centres on climate smart agriculture, marketing information and early warning for climatic hazards. In the field of Agriculture-Research SARP will also contribute to fill the identified gap related to new methods to improve water use in agriculture, and how to enhance the adoption of such knowledge, and use new cultivars and improved seeds, especially in those regions that are currently facing water deficits during the dry seasons.

Table 4: Adaptation options³⁹ already integrated in SARP

Sectors	Adaptation options
Agriculture/Food Security	<ul style="list-style-type: none"> - Educational and outreach activities to change management practices to those suited to a changing and more variable climate. Extend agro-forestry especially in uplands to increase climate resiliency, provide different sources of income, and reduce land erosion, especially in uplands and with very steep slopes, through Ecosystem Based Approaches (EBA) like integrated water resource management (IWRM) - Enhance irrigation efficiency and/or expand irrigation, through: i) the rehabilitation of the traditional village irrigation systems where the quality of the works is paramount; ii) the promotion of an integrated, holistic approach to enhancing water and land management through the interconnected elements of irrigation systems - Promote Conservation Agriculture (CA) as a sustainable agriculture production system whose farming and soil management techniques protect the soil from erosion and degradation, improve its quality and biodiversity, and contribute to the preservation of the natural resources, water and air. - Make farmers aware of climate change and inform them about different adaptation options including showcasing through "demonstration farms". - Increase productivity in the plantation and minor export crop sectors, and diversify agricultural production and food crop choices. - Develop drought-resistant and, if possible, fast-growing rice varieties to reduce the risk of yield losses from variable and unpredictable rains. - Increase agricultural productivity by introducing improved varieties and improved management practices.
Water resources	<ul style="list-style-type: none"> - Introduce and promote water harvesting techniques. - Upgrading of village irrigation systems, including the upstream catchments, based on cascade level natural resource development plans. The interventions will include: (i) reforesting the watershed (ii) restoring the reservoir bund (dam), spill, sluice and canals supplying the fields, and (iii) introducing low-cost drip irrigation technologies - Encourage minor storage reservoirs and promote participatory micro-

³⁹ GFDDR. Vulnerability, Risk Reduction, and Adaptation to Climate Change SRI LANKA. In *Climate Risk and Adaptation Country Profile*. April 2011

	<p>watershed management.</p> <ul style="list-style-type: none"> - Decrease water demands, e.g. by increasing efficiency, reducing water losses, water recycling, changing irrigation practices. - Increase water supply, e.g. by using groundwater, improving or stabilizing watershed management, de-silting the reservoir bed,
Energy and Industry	<ul style="list-style-type: none"> - Promote renewable energy technologies in place of fossil-fuel fired plants wherever they are technologically and economically feasible; local and low-cost technologies for rural areas. - Increase the use of biogas technologies, especially in rural areas. - Prepare baseline maps of disaster risk areas for specific extreme weather events.
Health /Safety	<ul style="list-style-type: none"> - Develop early warning systems (using, for instance, GIS techniques) for monitoring of natural disasters. - Develop and establish RS/GIS/early warning systems in vulnerable areas

2.3 Target groups profile

44. The goal of the SARP is to contribute to Sri Lanka's smallholder poverty reduction and food security in the Dry Zone region. The development objective is to build resilience and market participation of 40,000 rural smallholder households (1,80,000) in the project area. The duration of the project will be six years.⁴⁰ Women constitute 50 percent (90,000) and youth 20% (36,000) of the total beneficiaries.
45. SARP will target: (i) landless farmers and food insecure smallholder farmers, most of whom cultivate between 1 to 2 hectares of farm and but with potential for productivity increases; (ii) marginal farmers with holding sizes of less than 1.0 ha.; (iii) small farmer organisations set up to manage on-farm water use with the potential to graduate into social and business enterprises; (iv) women (at least 50% of beneficiaries) and youth (at least 20% of beneficiaries) involved in value adding and service-based enterprises and as smallholder farmers; and (v) other vulnerable groups including households suffering severe malnutrition, people with disabilities, indigenous communities, single women, women-headed households, and ex-combatants who will receive specific attention to facilitate their social integration in agricultural production and economic activities. The target beneficiaries will be 40,000 smallholder farmers, with a focus on women, youth as well as other rural vulnerable groups. Value chain actors who are not directly involved in farming will not be direct target beneficiaries but might from project activities.
46. The farm families can be divided into three categories of households – the extreme poor, poor with potential to sell in local markets and more commercially oriented smallholder farmers. The extreme poor are non-labour constrained households that are rainfed producers, with small fragmented holdings, as well as the landless, who are food insecure. The project during the initial stage of implementation through its community mobilisation strategy will ensure that they are made aware of project components, proactively participate and benefit from project activities. The main category of farmers will be vulnerable and moderately poor households that are economically active in agriculture and are located in cascades with minor irrigation systems. These farmers produce surpluses of rice, depending on the water availability and during the Yala season some cash crops, albeit the level of marketed sales is usually low. The households are often food secure but at risk of slipping back into the lower ranks of poverty due to climate and economic shocks.

⁴⁰ The estimated number of households to be reached was derived from previously implemented projects linked to the overall budget of the project and adjusted for the dry zone rural population that is more dispersed than the potential areas.

47. The better-off farmers and other value chain actors are more commercially oriented and play an important role in value chain development. SARP will draw the better off farmers together with the moderately poor households, youth and other value chain actors into selected value chains with links to processors and other private sector buyers. An attempt was made to estimate the number of farm households in each category through expert consultative processes. Some 10% of the households were defined as better-off more commercially oriented, 70% regarded as poor with potential and 20% as the most vulnerable and food insecure. Using an average of 4.5 people per household, this translates into a total of 1,80,000 direct beneficiaries. SARP will reach at least 50 percent women and 20 percent youth as beneficiaries. The project will introduce approaches that promote gender equality, women empowerment and social inclusion. The targeting strategy as detailed in appendix 8 provides detailed vulnerability analysis, profile targets, risk mitigation measures, inclusion strategies. The vulnerability analysis provides an overview of the challenges faced by farmers including landlessness, smallholding, remoteness and inaccessibility to markets, institutions and inputs, meagre coverage under social protection, limited household incomes and assets, indebtedness, food insecurity, limited access to rural finance and enterprises, climate change vulnerability and social and economic marginalization faced by ethnic, indigenous, disabled, youth and women farmers. The main target subgroups are described below (Refer to Appendix 8)
48. Food insecure smallholder farmers. The primary livelihood of over 85% of the rural population in the proposed districts is small scale subsistence farming which is associated with high climatic risks. This is the most representative of the agricultural producer groups found in the area. Farmers rely on timely rains as the major water source for the farming. Failures of and/or delays in the monsoon rains, erratic and insufficient rains, prolonged dry months as well as floods negatively affect their agriculture-based livelihoods. There are considerable risks associated with increased investment on higher value crops given the uncertainty of water availability throughout the production period and the vagaries of the market. Most of the crops rely on seasonal rains and without sufficient water for irrigation production is severely impeded. Water conservation practices are also not adequately followed by them. Significant water loss is happening in surface irrigation. Water is critical to the livelihoods of farmers and attention is consequently given towards the rehabilitation of the traditional village irrigation systems where the quality of the works is paramount. Risks of crop losses and reduced productivity are high when irrigation is insufficient. Significant numbers of community water harvesting systems (minor irrigation schemes) in the project area are in dilapidated status, thereby at reduced functional capacity to store sufficient rain water for irrigation. The main causes for the damages are erratic rainfalls, poor maintenance due protracted civil war and in some cases, requirement of high investment to restore to functional status. Food insecure smallholder farmers account for approximately 70% of the project area population. These households are essentially characterised by: (i) low production and productivity of the main crops (rice, maize etc.); (ii) vulnerability to climate change; (iii) lack of or low access to production factors (land, improved inputs, water and capital); (iv) limited access to mechanisation; (v) weak organisational capacity; and (vi) low income levels. In general, they do not produce enough to cover their food needs at times of climate shocks. The objective for these farmers is to increase production for home consumption and sales in local markets through adapted production technologies, improved access to water and inputs and enhanced income generation.
49. Market oriented family farms with some level of organisation. These are family farmers with diversified farming systems that comprise around 10% of the farming population in the project area. Some of these households have up to 2 ha of farm land and are able to produce for the market. They are able to access agricultural inputs and mechanical traction and operate irrigated or partially irrigated systems. The objective for this group is to stabilise production through the more efficient use of

water and the introduction of climate-smart technologies. By increasing the regularity of supplies and the quality and volume of agricultural production stronger links will be made to market outlets.

50. **Women.** Women make up about 51% of the population and in rural areas they are mainly involved in agricultural production and the keeping of small livestock. Women do farm work such as tillage, weeding, planting, harvesting, transportation and processing, and also take care of the family nutrition as well as the reproductive roles. Women heads of household, widows and young women are socially, culturally and economically disadvantaged but are responsible for ensuring the well-being of their families and agricultural activities. Many women-headed households regard farming as an important option. They, however, face the following challenges: (i) unequal access to resources (land, water, credit); (ii) lack of business development and management skills; and (iii) limited voice, leadership and decision-making capacity in farmer organizations and other groups. SARP will promote specific activities for women organized into groups for processing (using labour saving technologies), marketing and service provision. Specific training to enhance women's empowerment and effective participation in activities and household welfare will be included in the FBS curricula. Other activities targeting women concern nutrition, where women are at the centre of food preparation for the family.
51. **Youth:** Youth are leaving agriculture as it is unattractive to them. Interest in agriculture is diminishing as it is not regarded as a modern sector and it fails to bring a respectable and secure income. The lack of incentives in the agricultural sector (lack of land and capital to invest) leads to a large number of rural youth migrating to urban areas in search of formal employment. SARP will develop an incubation system to address the paucity of youth skills in farming and related value chain activities. Both technical and entrepreneurial skills of young people will be developed culminating in the preparation of business plans for implementation, which may be co-financed by a matching grant following specific eligibility criteria and approval procedures. It will also educate women and men on the effects of ownership and inheritance rights, including land. In areas where female groups and youth's groups do not exist, the project will conduct gender awareness training at community level and set up women's and youth-based self-help groups for knowledge-sharing on GAP and SLM practices. Youth entrepreneurship will also be promoted through the Farm Business School.
52. **Extreme poor.** This includes a significant disadvantaged group due to their economical and social exclusion, physical or mental disabilities. The ex-combatants are generally more elderly, between the ages of 50 and 80, and are both socially and economically disadvantaged. There are also landless and smallholder farmers trapped in indebtedness with little or no social protection. They will be targeted through training and capacity building activities linked to service provision, income-generation and off-farm income opportunities.

3. Institutional analysis

A. Institutions

53. Sri Lanka's institutional framework for service provision is complicated by multiple, and at times, overlapping levels of government. A large number of institutions provide different services in the water, agriculture, and disaster management areas, including water resources planning and management, groundwater management, agricultural extension, research, provision of agriculture-related services, drinking water supply and the management of watersheds.
54. For example, the National Ministries in charge of the different sectoral policies (environment, agriculture, disaster management...) work in the field through their own decentralized arms that align with District and Divisional Secretariats. In parallel, through the 13th Amendment to the Constitution in 1987, Provincial Councils

run their own Cabinet of Ministers. As a result, some technical subjects, such as agriculture and irrigation, are devolved to these Provincial Councils without a clear delimitation of responsibilities with the decentralized bodies. It explains why the irrigation systems in a cascade are often managed by several organizations based nationally or provincially. A recent study highlighted the fact that the water sector in Sri Lanka is heterogeneous and saddled with complex socio-political issues involving a multiplicity of state institutions⁴¹. The study indicates that the absence of clear national and sectoral policies is a major constraint for planning water sector interventions and investments. The same nature of institutional constraints has been identified in the Agriculture sector: institutional fragmentation, low capacity, lack of strategic policy direction, policy distortions, and structural constraints⁴². The strategy adopted by SARP to address these challenges is to:

- i) **Strengthen coordination at three levels: national, regional and local.**
 - a. The Secretary to the Presidential Secretariat will oversee the SARP National Steering Committee (NSC) and a Steering Committee will comprise representatives of the Ministry of Finance, Ministry of Planning and the respective departments of the Ministry of Agriculture as well as the Forest and Wildlife Departments of the Ministry of Mahawelli Development and Environment. Coordination will be made with the Ministry of Mahawelli Development and Environment which has responsibility for forestry and wildlife.
 - b. At District Level coordination will be conducted through the District Multi-Stakeholder Committees, Chaired by the District Secretary. Members will include the Director Planning, Asst. Commissioner, DAD & Land, the Provincial-District Director Agriculture, Provincial-District Engineer, the Irrigation Department, Provincial-District Director Animal Production and Health, District Forest Officer, District Director Wildlife, Environment Officer, a representative from the Chamber of Commerce and Project staff – of SARP and collaborating projects (UNDP, WFP).
 - c. At local level, Coordination Committees will be set up at the level of the Agrarian Service Centre and members will include project staff, counterpart ARPAs/ AIs, the Livestock Development Instructor, representatives of FOs and the private sector.;
- ii) **Give priority to capacity building of local services.** The project will mainly support the Agrarian Service Centres to transform them into a one-stop-shop facility for advisory and support services. They will be equipped and trained to deliver integrated planning and implementation services for climate smart water and agricultural management in cascade systems.

55. The main relevant institutes are: i) The **Institute of Policy Studies of Sri Lanka (IPS)**, an autonomous institution that aims to contribute to socio-economic development through high quality, policy-oriented economic research; ii) The **International Water Management Institute (IWMI)**, a non-profit, scientific research organization focusing on the sustainable use of water and land resources in developing countries. IWMI is the lead centre for the CGIAR Research Program on Water, Land and Ecosystems (WLE); iii) The **Natural Resources Management Centre (NRMC)**, mandated to optimize the use of land and water resources on scientific basis to improve national agricultural productivity in a sustainable manner;

⁴¹ Samad, Madar & Aheeyar, Mohamed & Royo Olid, Jaime & Arulingam, Indika. (2016). The Political and Institutional Context of the Water Sector in Sri Lanka. An overview. 10.2871/115395. m.

⁴²GOSL. 2018. Climate Smart Irrigated Agriculture Project: Environmental Assessment & Management Framework

iv) The **Central Environmental Authority (CEA)** administers provisions of the National Environmental Act, conducts environmental studies, specifies standards, and works to increase public awareness.

B. Policies, strategies and plans

56. SARP's interventions are consistent with key national policies and strategies that address disaster management, climate change, and biodiversity conservation.

57. The key relevant legislation, policy and plans are the following:

- **The Constitution of Sri Lanka** establishes the principle that the State shall protect, preserve and improve the environment for the benefit of the community. The 13th amendment to the constitution introduced a new level of institution for environmental protection and management: the provincial government also has legislative and executive power, the North Western Provincial Environmental Authority to control, prevent and monitor all environmental related activities;
- **The National Environmental Act. No. 47 of 1980 & its amendments** provides conservation and development guidelines for natural resources including water, soil, fisheries resources, forest, flora and fauna in Sri Lanka;
- **The Environmental Protection License (EPL)**, Sri Lanka's major regulatory program for control of industrial pollution;
- **The State Land Ordinance Act No 13 of 1949** provides necessary guidelines to the protection of any public stream, the protection of springs, reservoirs, lakes ponds lagoons, creeks, canals, aqueducts, the construction or protection of roads, as well as the prevention of the erosion of soil;
- **The Flood Protection Ordinance Act No.22 of 1955** has provisions to prepare schemes for protection of a flood area, and regulations for management of flood area and acquisition of land for the purpose of the ordinance;
- **The Fauna & Flora Protection Ordinance Act No. 49 of 1993 and its amendments** provides for the protection, conservation and preservation of the fauna and flora of Sri Lanka and identifies five categories of protected areas: Strict Nature Reserves, National Parks, Nature Reserves, Jungle Corridors and Intermediate Zones including sanctuaries;
- **The Sri Lanka Land Reclamation & Development Corporation (SLLRDC) Act No. 15 of 1968** provides for the formation of the SLLRDC;
- **The Mines and Mineral Act No.33 of 1992** which states that mining falls within the purview of the Geological Survey and Mines Bureau (GSMB). Exploitation for minerals, including sand, must be licensed under the Act by the GSMB;
- **The Water Resources Board Act No. 29 of 1964**, key player in the formulation of national policies relating to the control and use of water resources, as well as coordination of projects undertaken by Government departments, local authorities and public corporations relating to the conservation, utilization development of the subterranean water resources;
- **The Forest Ordinance No. 16 of 1907, including Amendments, deals with forest management/forest conservation** (Forest Reserves, protection of forest and forest Produce);
- **The National Wetland Policy (2005)** give effect to the National Environment Policy and other relevant national policies, while respecting national commitments towards relevant international conventions on wetland protection to which Sri Lanka is a party;
- **The Mahaweli Authority of Sri Lanka Act (Act No.23 of 1979)** establishes the Mahaweli Authority of Sri Lanka, which is the authority responsible for the

implementation of the Mahaweli Ganga Development Schemes including the construction and operation of reservoirs, irrigation distribution systems and installations for the generation and supply of electrical energy;

- **The Antiquities Ordinance (Revised in 1956 & 1998)** is the main legislation dealing with the preservation of cultural assets in Sri Lanka;
 - **The Disaster Management Act No. 13 of 2005** includes the formulation of a National Policy and Program on the management of disasters which shall provide for the protection of life of the community and environment and the maintenance and development of disaster affected areas;
 - **The Disaster Management Policy of Sri Lanka (2013)** advocates for a participatory, multi-agency, multi-stakeholder engagement in line with national and international standards for effective disaster relief and response;
 - **The World Heritage Convention** aims at assuring the effective implementation of any measure to protect designated World Heritage properties.
58. Regarding Climate Change and biodiversity issues the Government of Sri Lanka has adopted a set of instruments to fulfill its commitments as Party to the UNFCCC and to the UNCBD, and to put in practice such commitments. Legal texts adopted in this connection include : **The National Climate Change Policy (NCCP)(2011**, which promotes climate change adaptation and mitigation within the framework of sustainable development; **The National Climate Change Adaptation Strategy (NCCAS), 2011–2016; the Intended Nationally Determined Contribution (INDC)(2016);the National Adaptation Plan for Climate Change Impacts in Sri Lanka 2016 – 2025, and the National Biodiversity Strategic Action Plan 2016 – 2022**, which ensures that Sri Lanka’s rich biodiversity is conserved and used in a sustainable manner

4.Social category

59. The project will have positive impacts on the environment by developing an integrated watershed approach through the rehabilitation of the existing traditional Tank Cascade System in the target areas, conducive to greater water retention in the dry zones and a more climate resilient agriculture. Following the screening exercise (Annex 7, part A) **the environmental and social category assigned to SARP is B.**
60. The project will be carried out in different Districts that include protected areas (national parks and their buffer zones, wildlife/nature reserves, areas of high cultural/religious significance). The project took this situation into account by integrating the following criterion in the list of criteria for the selection of project sites: “Existence of Protected Areas: the project sites must not be in close proximity/adjacent to the Protected Areas” (PDR, § 54).
61. An Environmental and Social Management Framework (ESMF) will be conducted to set out the principles, rules, guidelines and procedures to assess the environmental and social risks and impacts for the project. The annexed ESMP details the actions needed to implement the measures, in accordance with national and international rules on this matter.

5. Classification

62. **The climate risk classification for SARP is High.** The project is located in areas where rural development projects have experienced significant weather-related losses and damages: flood events have negatively impacted roads, bridges and irrigation schemes; droughts, prolonged dry spells and floods have adversely affected the targeted smallholders. The Dry Zone reflects mainly rain-fed cropping systems which are subject to significant annual variations in rainfall, and therefore productivity

fluctuations. The project relies also on water-based (groundwater and/or surface water) development in areas where significant depletion and/or reduced flow has occurred from the effects of climate change and/or from overutilization.

63. An in-depth climate risk analysis climate vulnerability analysis will be conducted during project implementation to further inform the adaptation measures that SARP is expected to bring, including improvements in cropping technology, which will increase farmer's resilience to climate variability and associated climate change impacts. The study will be submitted for OPR review during project implementation.

6. Recommendations for project design and implementation

64. As the environmental categorization of the project is B any activity that falls within the list below should be prohibited:

- No single activity should be engaged in the protected area or area proposed for protection or area of known high conservation value or nearby an area, which is known to be a critical wildlife habitat (irrespective of whether or not inside a protected area).
- Critical wildlife habitats would essentially include habitats of globally threatened species as per the red list prepared by the IUCN and those that are listed as totally protected species in the Fauna and Flora Protection Ordinance (FFPO), or project/activity that depend on resources from those areas.
- Any activity that involves cutting of trees or land clearance within 100m on either side of the banks or edge of the rivers, streams, water courses or water sources kept as riparian reserve for conservation
- Any activity that involves significant conversion or degradation of critical forest areas or related critical natural habitats
- Any activity that may adversely impact nationally and/or internationally renowned/ listed physical cultural resource (within 50 m of its premise).
- Activities that could lead to invasion or spread of invasive weeds and feral animals or the use of toxic chemicals such as intensive use of pesticides.
- Activities that could dangerously lead to the exposure of sensitive/critical/vulnerable habitats
- Activities that would increase human-wildlife conflict – especially human-elephant conflict.
- Construction of large new infrastructure within or directly adjacent (in buffer zones) to protected areas
- Water irrigation schemes rehabilitation and/or development with more than 100 hectares per scheme
- Construction/ rehabilitation/upgrade of roads that entail a total area being cleared above 10 km long
- Extraction of material such as gravel, sand, metal, etc. from protected areas. Extraction of these resources outside the protected areas are subject to an Environmental Impact Assessment in conformity with the national laws and regulations.

65. These recommendations must be considered during the project implementation phase:

- Awareness and stakeholder engagement in relation to sustainable and environmentally appropriate and climate resilient farming, land and water systems.
- Participatory approach, awareness campaign, capacity building and facilitation for government and community leaders for community participation and inclusiveness.
- Capacity building and technical support for government and farmers on best practices of farm and irrigation management and land development and management, and how to reduce impact to the environment and ensure community management of land and water systems.

- Promote water efficient irrigation and water management through integrated climate-risk informed water management plans for 260 tanks and mobilization of cascade level water committees that will include men, women and youth from communities and the local field officers
- A proper diagnostic analysis will be conducted to assess current and water land use and ownership rights and ensure that existing arrangements are not infringed and proposed investments are made with community consent.
- Development of an independent grievance redress mechanism to ensure that communities can reach the project implementing agencies in case the activities deviates from its stated objectives or causes increases risks and vulnerabilities to the communities and the ecosystem.

66. The SARP Component 1 **Capacity building for climate resilience and agribusiness development** already addresses climate change adaptation by building providers and farmers' capacity on SLM, water utilization and climate resilient production. It is recommended that, under the sub-component 1.2 **Strengthening capacity for farm commercialization and enterprise development**, climate change adaptation and environment issues to be also included in the training content on business management and marketing, particularly focusing on youth entrepreneurs.

67. The Component 2 **Investments for climate resilience and agribusiness** takes into account climate change adaptation in all the activities related to tank rehabilitation, irrigation, production diversification and climate information management. It is recommended that adaptation measures include crop diversification and livelihood diversification, introduction of climate resilient seed varieties, and promoting soil and water conservation measures. The planning process for both natural resource management and livelihoods development will have to be community led and participatory.

68. Investments in road rehabilitation will follow national environmental rules and regulations as well as IFAD safeguards processes. In addition, it is proposed that the project develop an in-depth Climate Risk Analysis and an Environment and Social Management Framework (ESMF) to inform the adaptation measures that SARP is expected to bring, and to formalise them into the ESMF and its Environmental and Social Management Plan (ESMP).

69. **Potential partnerships.** The mission did not identify financial opportunities under the green climate funds to co-finance SARP. However, SARP will build partnerships and look for synergies and complementarity with other important actors dealing with the same development objectives and active in the Dry Zone. **UNDP** is implementing the "Climate Resilient Integrated Water Management Project (CRIWMP)", a USD 38,084,000 GCF funded project started in June 2017. The CRIWMP is implemented in the Dry Zone, in some areas overlapping with SARP target areas. The CRIWMP objective is to strengthen the resilience of smallholder farmers, particularly women, in the Dry Zone through improved water management to enhance lives and livelihoods. The project will invest in improving the community irrigation water infrastructure and associated agricultural practices, scaling-up decentralized drinking water systems, and strengthening Early Warnings (EWs) and forecasting for flood-response and water management. The project will also provide direct investments in drinking water systems.

70. Discussions held with UNDP highlighted very promising complementarities and synergies between SARP and CRIWMP, these two projects have in common the adoption of an integrated approach to watershed management. In addition, the SARP added-value will rely on the development of the Value Chain. Indeed, SARP will be innovative by strengthening capacity for farm commercialization and enterprise development (SARP, subcomponent 1.2), and investing in farm commercialization and enterprise development (SARP, subcomponent 2.2), These activities will make a

difference with regard to smallholders' resilience to climate change. By training service providers, farmers and youth in business management, marketing as well as in post-harvest and value addition, by investing in the development of rural and small-scale enterprise, promoting a market information system, linking producers to markets, SARP will contribute to securing farmers products commercialization and, though, consolidating their capacity to adapt to climate change.

71. The **Asian Development Bank (ADB)** is also active in the water management sector. The Integrated Water Productivity Improvement Project, an ADB 170.00 Million USD loan to Sri Lanka, will focus on river basins located within two provinces: North Western Province and Uva Province. These river basins straddle the dry and intermediate climatic zones and are identified as areas (i) vulnerable to climate change; (ii) requiring interventions in irrigation and water resources management to develop resilience to climate change;¹⁵ and (iii) not currently covered by ongoing or planned interventions. The objective is to reach: (i) optimum harnessing of available water by increasing reservoir capacity, enhancing water conveyance capacity, and introducing climate change adaptation investment and technologies; and (ii) improving the governance of national water management. The project 's value addition focuses on knowledge transfer, introduction of new technologies such as modern river basin planning and management procedures, irrigation systems, asset management, crop diversification, and farming systems.
72. The **World Bank** has an over six-decade partnership with Sri Lanka. The ongoing projects directly linked to agriculture and climate resilience are listed in the following table. It is worth noting that the World Bank Climate Smart Irrigated Agriculture Project has the same global objective than SARP (improving the productivity and climate resilience of smallholder agriculture). It would therefore be interesting to exchange on common themes such as the adoption of Climate Smart Agriculture (CSA) and marketing.

Table 5: List of ongoing WB projects in Sri Lanka

Project Title	Country	Project ID	Commitment Amount	Status	Approval Date
Climate Resilience Multi-Phase Programmatic Approach	Sri Lanka	P160005	310.0	Active	June 25, 2019
Climate Mitigation Action Support	Sri Lanka	P160552	1.8	Active	April 5, 2019
Climate Smart Irrigated Agriculture Project	Sri Lanka	P163742	125.0	Active	March 7, 2019
<u>Ecosystem Conservation and Management</u>	Sri Lanka	P156021	45.0	Active	April 25, 2016
<u>Climate Resilience Improvement Project Additional Financing</u>	Sri Lanka	P157392	42.0	Active	March 21, 2016
<u>Climate Resilience Improvement Project (CRIP)</u>	Sri Lanka	P146314	110.0	Active	April 22, 2014

73. The **FAO** 2018 – 2022 Country Programming Framework (CPF) has 3 results expected :1) the contribution of food systems to food and nutrition security and income generation is increased ; 2) The environment, natural resources, forests and ecosystems are more sustainably managed taking account of climate change, and increasing resilience of the most vulnerable to shocks, natural disasters and climate variability; 3) the capacity of concerned stakeholders to undertake policy formulation

and to collect, analyze and utilize data and information for evidence based decision making is increased.

74. The project should look for a cooperation with FAO based on FAO expertise. This could cover the implementation of the component 1, sub-component 1.1 (training of farmers in SLM, water utilization and climate resilient production) and/or the component 2, sub-component 2.1 (soil conservation, climate resilient production and climate smart agriculture).
75. In the same spirit a potential partnership could be built with **WFP** who is active in building resilience of the most vulnerable families to recover better from recurrent climate-induced shocks. In 13 disaster-prone and food insecure districts, WFP supports locally-driven projects, including environmental conservation, land rehabilitation, water harvesting, and skills training for livelihood support.
76. The **International Water Management Institute (IWMI)** is the lead centre for the CGIAR Research Program on Water, Land and Ecosystems (WLE). IWMI is involved in UNDP and WB projects in Sri Lanka because of its unique expertise, its knowledge on land and water resources management, and because of all the land and water data collected and processed by this institution. It is thus recommended that, rather than issuing a contract with IWMI for punctual studies, the project should look for a long-term contractual partnership with this institution. The rationale would be to rely on its expertise to both undertake specific studies, on request, and to play the role of technical advisor for the scientific monitoring of SARP activities.
77. With regard to potential partnerships with national institutions it is recommended that the project invest in capacity building of key actors in the sector, particularly the **Department of Agrarian Development (DAD)** and its **Agrarian Services Centres**. These Centres are located at subdistrict levels and provide technical advice, provide farmer subsidies, strengthen farmer organizations and manage the Farmers Bank. They are key actors for the success and sustainability of SARP activities. Strengthening their capacity is also a mean to secure sustainability in the framework of the exit strategy. It will be important for the project to liaise with the National Climate Secretariat, who has the mission to lead the country to take comprehensive action to contribute towards local, regional and global efforts in combating climate change. This will ensure that SARP activities addressing climate change are acknowledged as a contribution to the implementation of the National Policy on Climate Change.

7. Monitoring and evaluation

78. As a resilient project SARP has already listed the following indicators, linked to environment and climate change issues, that will be regularly documented.

Table 6: SARP Logical framework CC and NRM related indicators

Results Hierarchy	Indicators
Objective Build resilience and market participation of rural households in geographical areas affected by climate change	% of individual entrepreneurs and HH report a > 50% increase in resilience score (data disaggregated by gender of household heads)
Outcome Climate resilient investments and capacity built	% of water user associations and producer organizations supported to manage climate-related risks
	No. of households reporting improved access to water resources for productive and domestic use (data disaggregated by gender of household heads)
	No. of HH applying climate resilient technologies and practices (data disaggregated by gender)
Output Service providers and producers' groups created and capacitated for better land and	No. of group members trained in land and water management

water management	
Output Minor irrigation tanks and water harvesting infrastructure constructed or rehabilitated	No. of hectares of farmland under water-related infrastructure constructed or rehabilitated

79. However, some indicators are mandatory for projects which make specific investments to address climate change issues. It is proposed to add the following indicators to the already existing list of indicators:

- Indicator 1: Number of groups supported to sustainably manage natural resources and climate-related risks;
- Indicator 2: Number of persons provided with climate information services;
- Indicator 3: Number of hectares of land brought under climate-resilient management;

The detailed indicators sheets are presented in Annex 2.

8. Further studies needed

80. Further to the environmental categorization of the project the following studies are requested:

- An Environmental and Social Management Framework (ESMF),
- An in-depth climate vulnerability analysis to be done at the initial phase of the project implementation. However, the main climate risks and project mitigation measures are already listed in Annex 4.

The ESMP/climate risk table is presented in Annex4.

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Appendix 1

A. Environment, Social and Climate Risk Screening

Guiding questions for environment and social screening

Project title:	Smallholder Agribusiness and Resilience Programme		
IFAD project no.:		Version of checklist:	
Country:	Sri Lanka	Date of this version:	02/07/2019
Checklist prepared by (name, title and institution)			

Guiding questions for environment and social screening	Yes/no	Comments/explanation
Category A – the following may have significant and often irreversible or not readily remedied adverse environmental and/or social implications.		
Project location		
1. Would the project develop any wetlands? (Guidance statement 1)	No	
2. Would the project cause significant adverse impacts to habitats and/or ecosystems and their services (e.g. conversion of more than 50 hectares of natural forest, loss of habitat, erosion/other form of land degradation, fragmentation and hydrological changes)? (Guidance statements 1, 2 and 5)	No	
3. Does the proposed project target area include ecologically sensitive areas, ⁴³ areas of global/national significance for biodiversity conservation, and/or biodiversity-rich areas and habitats depended on by endangered species? (Guidance statement 1)	No	The project will be carried out in different Districts in the Dry Zone and sites within the districts that will exclude those in close proximity/ adjacent to the protected areas. In any event the project will be developed in accordance with the relevant legislations such as the National Environment Act, Antiquities Ordinance, Fauna and Flora Protection Ordinance Act, Forest Ordinance and National Heritage Wilderness Areas Act.
4. Is the project location subjected to major destruction as a result of geophysical hazards (tsunamis, landslides, earthquakes, volcanic eruptions)?	No	
Natural resources		
5. Would the project lead to unsustainable natural resource management practices (fisheries, forestry, livestock) and/or result in exceeding carrying capacity. For example, is the development happening in areas where little up-to-date	No	

⁴³ "Sensitive areas" include: protected areas (national parks, wildlife/nature reserves, biosphere reserves) and their buffer zones; areas of global significance for biodiversity conservation; habitats depended on by endangered species; natural forests; wetlands; coastal ecosystems, including coral reefs and mangrove swamps; small island ecosystems; areas most vulnerable to climate change and variability; lands highly susceptible to landslides, erosion and other forms of land degradation, areas that include physical cultural resources (of historical, religious, archaeological or other cultural significance), and areas with high social vulnerability.

Guiding questions for environment and social screening	Yes/no	Comments/explanation
information exists on sustainable yield/carrying capacity? (Guidance statements 4, 5 and 6)		
6. Would the project develop large-scale ⁴⁴ aquaculture or mariculture projects, or where their development involves significant alteration of ecologically sensitive areas?	No	
7. Would the project result in significant use of agrochemicals which may lead to life-threatening illness and long-term public health and safety concerns? (Guidance statement 14)	No	
8. Does the project rely on water-based (groundwater and/or surface water) development where there is reason to believe that significant depletion and/or reduced flow has occurred from the effects of climate change or from overutilization? (Guidance statement 7)	No	The project aims at increasing water use efficiency to address the decline of available water in the Dry Zone as a result of the recurring droughts. This will be achieved through, notably, the rehabilitation, construction and maintenance of small-scale water infrastructure facilities (minor reservoirs, small tanks) and water Harvesting
9. Does the project pose a risk of introducing potentially invasive species or genetically modified organisms which might alter genetic traits of indigenous species or have an adverse effect on local biodiversity? (Guidance statement 1)	No	
10. Does the project make use of wastewater (e.g. industrial, mining, sewage effluent)? (Guidance statement 7)	No	
Infrastructure development		
11. Does the project include the construction/ rehabilitation/upgrade of dam(s) and/or reservoir(s) meeting at least one of the following criteria? - more than 15 metres high wall; - more than 500 metres long crest; - more than 3 million m ³ reservoir capacity; or - incoming flood of more than 2,000 m ³ /s (Guidance statement 8)	No	
12. Does the project involve large-scale irrigation schemes rehabilitation and/or development (more than 100 hectares per scheme)? ⁴⁵ (Guidance statement 7)	No	Most smallholder farmers of the Dry Zone cultivate under “Village Irrigation Systems”, which consist of small reservoirs and water diversions, each irrigating less than 80 ha of land.

⁴⁴ The size threshold to trigger an Environmental and Social Impact Assessment (ESIA) may vary based on the country context and fragility of specific locations. Some countries have regulations on minimum size (usually ranging from a unit area of 10 to 50 hectares) and these will be adopted where they exist. However, where there are no standards, it is proposed to use 25 hectares as an aquaculture unit size to trigger an ESIA.

⁴⁵ The size threshold to trigger an Environmental and Social Impact Assessment (ESIA) may vary based on the country context and fragility of specific locations. Some countries have regulations determining size of irrigation development requiring a full ESIA and these will be adopted where they exist. However, where there are no standards, it is proposed to use 100 hectares as an irrigation development unit size to trigger an ESIA.

Guiding questions for environment and social screening	Yes/no	Comments/explanation
13. Does the project include construction/rehabilitation/upgrade of roads that entail a total area being cleared above 10 km long, or any farmer with more than 10 per cent of his or her private land taken? (Guidance statement 10). Will the works entail temporary and/or permanent resident workers?	No	The SECAP put a threshold avoiding rehabilitation/upgrade of roads that entail a total area being cleared above 10 km long (SECAP § 64)
14. Does the project include drainage or correction of natural waterbodies (e.g. river training)? (Guidance statement 7)	No	
15. Does the project involve significant extraction/diversion/containment of surface water, leaving the river flow below 20 per cent environmental flow plus downstream user requirements? (Guidance statement 7)	No	
Social		
16. Would the project result in economic displacement ⁴⁶ or physical resettlement of more than 20 people, or impacting more than 10 per cent of an individual household's assets? (Guidance statement 13)	No	
17. Would the project result in conversion and/or loss of physical cultural resources? (Guidance statement 9)	No	
18. Would the project generate significant social adverse risk/impacts to local communities (including disadvantaged and vulnerable groups, indigenous people, persons vulnerable to GBV and sexual exploitation and abuse and people with disabilities) or other project-affected parties? (Guidance statement 13)	No	
Other		
19. Does the project include the manufacture and transportation of hazardous and toxic materials which may affect the environment? (Guidance statement 2)	No	
20. Does the project include the construction of a large or medium-scale industrial plant?	No	
21. Does the project include the development of large-scale production forestry? (Guidance statement 5)	No	
Rural finance		
22. Does the project support any of the above (Question 1 to Question 21) through the provision of a line of credit to financial service providers? (Guidance statement 12)	No	
Category B – the following may have some adverse environmental and/or social implications which can be readily remedied.		
Location		
23. Does the project involve agricultural intensification and/or expansion of cropping area in non-sensitive areas that may have adverse impacts on habitats, ecosystems and/or livelihoods? (Guidance statements 1, 2 and 12)	Yes	The production activities will potentially entail intensification of cropping areas
Natural resource management		
24. Do the project activities include rangeland and livestock development? (Guidance statement 6)	Yes	Some small livestock activities are included in the Programme

⁴⁶ Economic displacement implies the loss of land, assets, access to assets, income sources, or means of livelihoods (guidance statement 13).

Guiding questions for environment and social screening	Yes/no	Comments/explanation
25. Does the project involve fisheries where there is information on stocks, fishing effort and sustainable yield? Is there any risk of overfishing, habitat damage and knowledge of fishing zones and seasons? (Guidance statement 4)	No	
26. Would the project activities include aquaculture and/or agriculture in newly introduced or intensively practiced areas? Do project activities include conversion of wetlands and clearing of coastal vegetation, change in hydrology or introduction of exotic species? (Guidance statement 4)	No	
27. Do the project activities include natural resource-based value chain development? (Guidance statements 1, 6 and 12)	Yes	The project will strengthen small farmers to improve small scale farms production to access market
28. Do the project activities include watershed management or rehabilitation?	Yes	The project will develop a watershed management approach including the rehabilitation of the Tank Cascade Systems in the targeted areas.
29. Does the project include large-scale soil and water conservation measures? (Guidance statements 1 and 5)	No	
Infrastructure		
30. Does the project include small-scale irrigation and drainage, and small and medium dam subprojects (capacity < 3 million m ³)? (Guidance statements 7 and 8)	Yes	Small scale irrigation will be developed
31. Does the project include small and microenterprise development subprojects? (Guidance statements 12 and 13)	Yes	Youth-led enterprises will be supported
32. Does the project include the development of agro-processing facilities? (Guidance statements 2, 6 and 12)	No	
33. Would the construction or operation of the project cause an increase in traffic on rural roads? (Guidance statement 10)	Yes	Rural roads will be rehabilitated and the value chain development and market linkages will result in increased traffic
Social		
34. Would any of the project activities have minor adverse impacts on physical cultural resources? (Guidance statement 9)	No	
35. Would the project result in physical resettlement of 20 people or less, or impacting less than 10 per cent of an individual household's assets (Guidance statement 13)?	No	
36. Would the project result in short-term public health and safety concerns? (Guidance statement 14)	No	
37. Would the project require a migrant workforce or seasonal workers (for construction, planting and/or harvesting)? (Guidance statement 13)	Yes	Increased agricultural production and construction/rehabilitation activities will require seasonal workers
Rural finance		
38. Does the project support any of the above (Question 23 to Question 37) through the provision of a line of credit to financial service providers? (Guidance statement 12)	No	

Guiding questions for climate risk screening

	Yes	No	Additional explanation of “yes” response*
1. Is the project area subject to extreme climatic events, such as flooding, drought, tropical storms or heat waves?	√		Sri Lanka has experienced floods and droughts that have adversely affected livelihoods and the economy
2. Do climate scenarios for the project area foresee changes in temperature, rainfall or extreme weather that will adversely affect the project impact, sustainability or cost over its lifetime?	√		Increased temperatures and variable rainfall are predicted
3. Would the project make investments in low-lying coastal areas/zones exposed to tropical storms?		√	
4. Would the project make investments in glacial areas and mountains zones?		√	
5. Would the project promote agricultural activity in marginal and/or highly degraded areas that have increased sensitivity to climatic events (such as on hillsides, deforested slopes or floodplains)?		√	
6. Is the project located in areas where rural development projects have experienced significant weather-related losses and damages in the past?	√		Floods and droughts have resulted in crop losses in the recent past
7. Would the project develop/install infrastructure in areas with a track record of extreme weather events?	√		Flood events have negatively impacted roads, bridges and irrigation schemes
8. Is the project target group entirely dependent on natural resources (such as seasonal crops, rainfed agricultural plots, migratory fish stocks) that have been affected by in the last decade by climate trends or specific climatic events?	√		Droughts, prolonged dry spells and floods have adversely affected the targeted smallholders
9. Would climate variability likely affect agricultural productivity (crops/livestock/fisheries), access to markets and/or the associated incidence of pests and diseases for the project target groups?	√		Crops and livestock are included in the targeted value chains and will be affected by increasingly variable rainfall
10. Would weather-related risks or climatic extremes likely adversely impact upon key stages of identified value chains in the project (from production to markets)?	√		Droughts and floods are likely to affect the production and market access stages of the value chains
11. Is the project investing in climate-sensitive livelihoods that are diversified?	√		The project will invest in conservative agriculture and climate smart agriculture while diversifying the
12. Is the project investing in infrastructure that is exposed to infrequent extreme weather events?	√		Floods have adverse impacts on the rural roads and irrigation schemes
13. Is the project investing in institutional development and capacity-building for rural institutions (such as farmer groups, cooperatives) in climatically heterogeneous areas?	√		The project will invest in institutional development and capacity building of different categories of actors. Farmer Organisations, public and private

	Yes	No	Additional explanation of "yes" response*
			advisory services, Agrarian Service Centres, climate information services will be strengthened to ensure that communities are resilient to climate variability and climate change, particularly within the Dry Zone region, and that the relevant institutions are able to provide the necessary support and services. In addition, sustained water infrastructures will be assured by capacitating Water User Associations.
14. Does the project have the potential to become more resilient through the adoption of green technologies at a reasonable cost?	√		The project will promote access and use of renewable energy such as solar energy. The climate smart technologies to be implemented by the project will include specific technologies matching the various agro-ecological conditions in the target districts, such as rainwater harvesting techniques, crop diversification and livestock integration, mulching and micro-irrigation.
15. Does the project intervention have opportunities to strengthen indigenous climate risk management capabilities?	√		Capacity building on climate risk management has been included in the project activities
16. Does the project have opportunities to integrate climate resilience aspects through policy dialogue to improve agricultural sector strategies and policies?	√		The project foresees to provide support for policy dialogue through studies to be conducted during implementation, and in collaboration with other agencies.
17. Does the project have potential to integrate climate resilience measures without extensive additional costs (e.g. improved building codes, capacity-building, or including climate risk issues in policy processes)?	√		Component 1 of the project is mainly dedicated to capacity building for resilience, through trainings in climate risk management for government technicians, service providers and farmers; The project foresees to strengthen climate information services and to support the elaboration of Natural Resource Management Plans at the local level, including climate change adaptation measures.
18. Based on the information available would the project benefit from a more thorough climate risk and vulnerability analysis to identify the most vulnerable rural population, improve targeting and identify additional complementary investment actions to manage climate risks?	√		

Appendix 2.

List of proposed additional Climate Change Adaptation and NRM related indicators

Indicator 1	Number of groups supported to sustainably manage natural resources and climate-related risks
<i>Definition</i>	<p>Refers to the number of groups (whether or not formally registered and 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, either during the past 12 months (annual reporting) or since project start-up (cumulative reporting), 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.</p> <p>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.</p>
<i>Additional indicators</i>	<p>The following additional indicators are to be reported upon:</p> <ul style="list-style-type: none"> ◆ Number of members in the groups supported (disaggregated by sex, youth, indigenous peoples) ◆ Number of groups with women in leadership positions ◆ Number of groups with indigenous peoples in leadership positions
<i>Data source</i>	<p>Data to be recorded by service providers or external trainers (if support is provided by external entities) or project staff (if support is provided by them).</p> <p>Project records should track the following data at least: training; /support date; type of support or training topic; number of groups supported; number of group members; number of women/indigenous peoples in leadership positions.</p> <p><i>Note: (a) If the same group has received more than one type of support during the past 12 months or since project start-up, 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 past 12 months, should not be counted for annual reporting.</i></p>
<i>Related intervention type</i>	Outreach
<i>Comment</i>	Modified current RIMS indicator 1.6.11; Mandatory indicator for projects which make specific investments to address climate change issues (this includes all projects with ASAP cofinancing).
Indicator 2	Number of persons provided with climate information services

<i>Definition</i>	<p>Refers to the number of individuals reached by weather, climate or seasonal forecasts and/or disaster early-warning information, either during the past 12 months (annual reporting) or since project start-up (cumulative reporting), according to the procedures agreed upon by government and other data providers. Households that have received advice in the past 12 months regarding the expected climate impacts on crops, livestock and fisheries, to enable better choices as to the type, timing and location of agricultural practices and to prevent, reduce and/or manage risks, should also be included.</p> <p>This indicator only refers to climate information services provided through extension workers, disaster preparedness or response teams, community volunteers or community leaders. Of the 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.</p>
<i>Disaggregation dimensions</i>	<ul style="list-style-type: none"> - Sex - Youth - Indigenous peoples
<i>Data source</i>	Data to be collected from service providers, who should record, at least, the number of individuals included in their message recipient lists and regularly contacted, or those using the service.
<i>Related intervention type</i>	Services and training
<i>Comment</i>	Modified current RIMS indicator 1.1.15; Mandatory indicator for projects which make specific investments to address climate change issues (this includes all projects with ASAP cofinancing).
Indicator 3	Number of hectares of land brought under climate-resilient management
<i>Definition</i>	<p>Refers to the number of hectares of land in which activities were started, either during the past 12 months (annual reporting) or since project start-up (cumulative reporting), to restore the productive and protective functions of the land, water and natural ecosystems and/or reverse degradation processes.</p> <p>Examples of climate-resilient practices or adaptation investments that reverse the process of degradation and protect agricultural land and production infrastructure include targeted farm and landscape management practices (e.g. reforestation, afforestation, improved rangeland management, watershed management, erosion control, agroforestry, removal of non-native species and weeds, reintroduction of native species); soil and water conservation infrastructure (terraces and other contour bunds and natural hedges constructed/planted or rehabilitated with project support, preventing soil erosion and sustaining soil moisture); the establishment and management of ecological buffer zones to reduce the impact of climate hazards (e.g. mangrove greenbelts, sand dunes, flood retention zones, storm breaks, groundwater recharge zones, shelter belts); and the establishment of protected areas and biodiversity corridors to restore the biological diversity and ecosystem services of endangered landscapes.</p>
<i>Related intervention type</i>	Natural resource management
<i>Comment</i>	Modified current RIMS indicator 1.1.17; Mandatory indicator for projects which make specific investments to address climate change issues (this includes all projects with ASAP cofinancing).

Appendix 3

Terms of reference for a detailed climate risk analysis

A. Background

The International Fund for Agricultural Development (IFAD) is an international financial institution and a specialized United Nations agency dedicated to eradicating poverty and hunger in the rural areas of developing countries. Working with poor rural people, governments, donors, non-governmental organizations and other partners, IFAD is one of the largest sources of development financing for agriculture and rural development in many developing countries.

IFAD acknowledges climate-related risks as one of the factors affecting rural poverty and as one of the challenges it needs to address. While climate change is a global phenomenon, its negative impacts are more severely felt by poor people in developing countries who rely heavily on the natural resource base for their livelihoods. As the most vulnerable and marginalized people in rural societies, smallholder farmers and herders are especially exposed to climate change.

They inhabit some of the most vulnerable and marginal landscapes, such as hillsides, deserts and floodplains. They often lack secure tenure and resource rights, relying directly on climate-affected natural resources for their livelihoods.

Responding to this prioritization, the IFAD Strategic Framework 2016-2025 proposes an overarching goal to enable poor rural people to improve their food security, raise their incomes and strengthen their resilience. Consistent with this approach, IFAD's Environment and Natural Resource Management Policy also recommends greater attention to climate-related risks and resilience in order to manage environment and natural resource related shocks.

For investment projects with a projected high sensitivity to climate hazards, IFAD requires a climate vulnerability analysis, which can help to improve the targeting of investment actions to include the most vulnerable and least resilient target groups.

The analysis can help:

- improve the robustness of development investments from climate-related hazards;
- increase the resilience of development outcomes; and
- avoid investment actions which inadvertently increase vulnerability to climate hazards over the longer term.

B. Description of services provided

The objective of the consultancy is to analyse:

- the occurrence of climate-related hazards in the prospective target area of the project (including a historical analysis of hazard types, intensities, frequencies and associated losses and damages);
- the physical exposure of livelihoods, ecosystems and critical infrastructure in different locations to the most prevalent climate hazards ("hot spots" mapping);
- the key properties that determine the susceptibility of livelihoods, ecosystems and critical infrastructure in the target area to the most prevalent climate hazards (sensitivity analysis); and
- impact of climate change along the value chain, as required.

In addition to this basic vulnerability analysis, the consultancy is expected to summarize:

- projected climate change impacts in the target area, based on representative ensembles of climate models and scenarios;
- the impacts of climate change on health in project-affected communities, indicating those communities or groups who may become more vulnerable to health risks as a result of the project; and
- preliminary recommendations on how climate risks in the target area can be addressed in a larger investment programme.

C. Supervision

The consultants will work under the joint responsibility of IFAD's regional climate and environment specialist and the country programme manager.

D. Tasks, results and deliverables

The consultants will undertake the following tasks:

- collection and synthesis of available biophysical and socio-economic maps and data at the targeted level (national, provincial or district);
- surface topography;
- surface hydrology (drainage patterns, catchment areas, wetness index, water availability and quality);
- flood risk areas;
- groundwater (levels, yield, water quality);
- vegetation cover (including woody and herbaceous layers) and, if available, vegetation cover trends (minimum 250 m resolution);
- rainfall variables (number of days with precipitation, rainfall intensity, mean annual precipitation, frequency of extreme events such as floods, droughts);
- temperature variables (annual temperature ranges, minimum/maximum temperatures);
- infrastructure (road networks, irrigation systems, rural roads at flood and/or erosion risk);
- at-risk local communities and small producers;
- collection and analysis of historical meteorological data to delineate hazard trends and occurrences;

Where possible, use the same information as that presented in the Environmental and Social Impact Assessment (ESIA) and/or ensure consistency in the data between the ESIA and the climate risk analysis.

- collection and analysis of loss and damage data in relation to climate-related hazards;
- as necessary, discuss the findings with local stakeholders in climate-risk hot spots; and
- integration of findings with other specialist studies and the ESIA team through meetings and workshops.

The consultancy is expected to achieve the following results:

- A set of georeferenced and GIS-compatible baseline maps outlining the exposure and sensitivity of vulnerable livelihood systems and people in the target area to prevalent climate shocks and stresses;
- An analysis of available future climate scenarios for the project area. As necessary, this can be based on the development of regional climate models at a scale of less than 50 km, based on statistical or dynamic downscaling. The analysis of climate change impacts should be based on a representative ensemble of climate models and focus on implications for the programming context (e.g. climate change impacts and implications on production, harvesting, post-harvesting, access to markets and wider landscape characteristics);
- Recommendations to reduce risks to extreme events and adapt to climate variability and change. These recommendations are expected to include specific practices and technologies to increase climate resilience of the targeted farming or value chain systems, and should be verified by consultations with key stakeholders in situ to solicit bottom-up recommendations and validate the findings from the analysis.

Based on the above work and analysis, the consultants will provide IFAD with the following deliverables:

- A vulnerability map with a preliminary assessment of the locations and populations within the project areas that are particularly vulnerable under present climate variability and projected climate change. This map should enable prioritization of geographic areas for IFAD interventions. The set of baseline maps used for the production of this vulnerability map needs to be annexed to the analysis.
- A technical report explaining how the maps were produced, including key data sources, modelling assumptions, consultations undertaken and limitations of the methodology.
- A short (maximum 10 pages) analytical report with a set of preliminary recommendations on the measures that are proposed to reduce climate risks and vulnerabilities in the proposed project context. The findings of this report can be assimilated into the ESIA report, as necessary.

E. Timing

The activities will be carried out in a time period of eight weeks between [insert dates], including documentation, a field mission [insert dates], consultations and validation activities, writing and editing. The final version of the report must be submitted no later than [insert dates].

F. Responsiveness

Timely responses to inquiries from IFAD are a part of the contractor's standard client service. IFAD will be kept informed on an ongoing basis of any significant developments that occur at the contractor, which may affect the provision of services.

The contractor's staff will respond to all enquiries within 24 hours through the use of the most appropriate communication channel as agreed between the contractor and IFAD. If further investigation is required, the contractor will promptly notify IFAD that further action is required with periodic updates on the status of the enquiry.

G. Profile of the service provider

- Proven experience in disaster risk reduction, climate risk management, climate change adaptation or environmental and natural resource management.
- Relevant university degree or higher education.
- In-depth understanding of climate and disaster risks in country X, including existing risk management policies, frameworks and strategies.
- Previous experience in conducting risk and vulnerability assessments.
- Previous experience with participatory, community-based consultation methods.
- Experience with GIS-based mapping and the management of georeferenced data.
- Familiarity with climate change concepts, models and scenarios.
- Proven track record in related consultancy work.
- Excellent writing and editing skills (in the relevant language).
- Good analytical and strategic thinking.
- Ability to work under pressure and meet deadlines.

SECAP – Appendix 4 Environmental and Social Management Plan

4.1 Environmental and Social Management Matrix

Consequences of project activities	Potential Impacts	Mitigation Measure	Schedule of Implementation	Monitoring Indicators	Authority Responsible	Budget source
Roads rehabilitation/ Tanks rehabilitation/Infrastructures						
Pre-Construction Phase						
Cut and fill Activities	Cutting of hill slope and earth removal from "borrow" areas could result in soil erosion and landslides	<ul style="list-style-type: none"> – Designs shall ensure that all cut and fill activities follow local and other regulations relating to extraction and are monitored at ensure compliance 	Design Phase	Review of technical document to make sure the issues are considered in the document	PMU/Contractor	Contractor
Erosion	Increased runoff and/or increased velocities which could lead to additional soil loss	<ul style="list-style-type: none"> – To reduce the impacts of erosion, engineering designs shall ensure: – The side slopes of cuttings and embankments will be designed to reflect soil strength and other considerations as included in the project specifications in order to reduce slips or erosion; – The Contractor will be responsible for ensuing: – Material that is less susceptible to erosion will be selected for placement around bridges and culverts; and – Re-vegetation of exposed areas. 	Design Phase Construction phase	Review of technical document to make sure the issues are considered in the document Status of ground cover in constructed areas	Implemented by Contractor with oversight from the PMU	Contractor
Emergency Response Plan	Production of hazardous materials, and work side accidents	<ul style="list-style-type: none"> – An emergency response plan which will cover containment of hazardous materials, and work-site accidents shall be prepared. The plan will detail the process for handling, and subsequently reporting, emergencies, and specify the organizational structure (including responsibilities of nominated personnel). 	Prior to the start of construction activities	Review of the document	The contractor and will be approved by PMU/	Contractor
Hydrology	Impact on surface water	<ul style="list-style-type: none"> – The Contractor shall ensure that no tools or machinery are washed in any water source or areas that shall drain into an existing watercourse, stream, or canal. – The Contractor shall ensure that rain runoff from the construction sites is not deposited directly into any watercourse, stream, or canal. – The Contractor shall construct, maintain, remove and reinstate as necessary temporary drainage works and take all other precautions necessary for the avoidance of damage by flooding and silt washed down from the Works. 	Construction phase.	Water quality. Nature of surface runoff from the site	Implemented by Contractor with oversight from PMU	Contractor
Hydrology	Impacts to structures	<ul style="list-style-type: none"> – All roadway embankments, bridges and drainage structures shall be designed to prevent potential impacts from high water levels and flood events. 	Implemented at design stage	Review of design package to make sure that hydrological	PMU	Contractor

				recommendations considered into design package		
Air Quality	Dust and Emissions that may increase respiratory disease among the local people	– Preparation of a dust suppression plan by the contractor. The plan will detail the action to be taken to minimize dust generation (e.g. spraying un-surfaced roads with water, covering stock-piles, and blasting with use of small charges etc.) and will identify the type, age and standard of equipment to be used.	Prior to the start of construction activities	Review of dust suppression plan and make sure it is part of project package	Prepared by the Contractor and approved by the PMU	Contractor
Chemicals and fuels	Poor management of chemicals and fuels	– Prepare spill management plan addressing measures	Prior to the start of construction activities	Review of spill management plan	Prepared by the Contractor and approved by the PMU	Contractor
		–				
Construction Phase						
Quarry Operations and rock crushing	Quarry operation and its potential effect on instability, landslide, water pollution, damage to farmland, disturbance in natural drainage	– Prior to opening of any quarry or rock crushing facility, the Contractor will require approval from the relevant local authorities and the PMU to ensure that the sites are not located in an area likely to cause significant detriment to the local environment.	Construction phase.	Site observation and reporting and make sure the quarry Ops is properly going on	Implemented by contractor with oversight from the PMU	Contractor
Spills/leaks	Producing of hazardous materials, oil spills and work side accidents	– Contract documents will contain provisions requiring contingency plans for actions in the event of contamination due to spills or hazardous materials.	Throughout construction phase.	Spot checks by ESMU/PMU	Implemented by Contractor with oversight from the PMU	Contractor
Construction activities (waste generation)	Improper disposal of construction wastes may lead to soil contamination in surrounding environment.	– Construction wastes will be stored and covered to avoid run off due to rain fall and contamination of soil and water bodies. The solid wastes will be collected and disposed off in designated sites.	Construction phase.	Solid waste disposal to landfill is verified	Contractor	0.Afs
Air Quality	Construction Impacts	– Potential air quality impacts in the construction stage of the Project will be mitigated by implementation of the following controls: – Construction equipment being maintained to a good standard and fitted with pollution control devices. – Ensuring that all vehicles transporting potentially dust-producing material are not overloaded and are adequately covered during transportation; – Material stockpiles being located in sheltered areas and be covered with tarpaulins or other such suitable covering to prevent material becoming airborne; – Regular watering/spraying of un-surfaced project roads and all un-surfaced roads being used for haulage of materials during the dry season; and	Construction phase.	- Visible particulate matter in the air; - Increase in upper respiratory tract ailments;	Implemented by Contractor with oversight from the PMU	Contractor
Chemicals and fuels	Poor management of chemicals and fuels	– Store and handle all chemicals, fuels, oils and potentially hazardous materials as specified in relevant standards and guidelines, as well as	Construction phase	Storage of hazardous materials and availability of	Implemented by Contractor with oversight	Contractor

		<p>in IFAD Guidance Statement 2- Agrochemicals and Guidance statement 14 – Community health .</p> <p>All hazardous materials to be approved for use onsite. All hazardous materials and construction fuel will be stored in appropriate storage facilities (e.g. fuel and chemicals will be stored in a bunded area).</p> <ul style="list-style-type: none"> – Hydrocarbon wastes shall be stored in color coded and labelled drums placed around fueling depots and disposed of. – Where possible, fuel and chemical storage and handling shall be undertaken at central fuel and chemical storage facilities, such as petrol stations/site depot. – Onsite storage of fuel and chemicals shall be kept to a minimum. – Emergency clean up kits for oil and chemical spills will be available onsite and in all large vehicles. – Refueling activities to preferentially occur off site however if required onsite ensure refueling activities occur in designated areas of the site where appropriate temporary protection measures have been designed/located and are no less than 20 meters from surface waters and drainage lines. 		emergency clean up kits verified	from the PMU	
Flora	Destruction of flora	<ul style="list-style-type: none"> – Contract documents should ensure that: – Vegetation clearance during construction activities, especially of trees and along the road-side, will follow national relevant regulation on this matter; – The contractor shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance. – If such action is unavoidable the Engineer shall be informed in advance to verify and report on the technical justification for the trees that will be required to be removed. – The following steps are to be followed if trees are identified for removal during the rehabilitation of the road. – Identify and document the number of trees that will be affected with girth size & species type – Trees shall be removed from the construction sites before commencement of construction with prior permission from the concerned department. – Compensatory plantation by way of Re-plantation of at least twice the number of trees cut should be carried out in the project area. 	Construction phase and operation phase	Tree plantation is verified.	Implemented by Contractor with oversight from the PMU	Contractor

		<ul style="list-style-type: none"> - The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority, if any with regard to felling of trees and removal of vegetation. - Removed trees of economic value must be handed over to the Timber Corporation. 				
Health & Safety	Health and Safety Impacts	<ul style="list-style-type: none"> - Work safety measures and good workmanship practices are to be followed by the contractor to ensure no health risks for laborers; - Provision of protective clothing for laborers handling hazardous materials, - Availability of safe drinking water for the workers; - Flammable and combustible liquids bunding/storage areas to be designed in accordance with appropriate international standards - Extinguishers are to be available within all site vehicle - No open fires are permitted within the project area - No cigarette butts are to be disposed of onto the ground throughout the project area, all smokers must carry a portable disposal bin to reduce the risk of a spot fire starting and general litter - Stockpiles of mulch are not to exceed two meters in height and width and must be turned regularly. - Train all staff in emergency preparedness and response (cover health and safety at the work site) - Check and replenish First Aid Kits 	Throughout construction phase.	Protected workers at sites.	Implemented by Contractor with oversight from the PMU	Contractor
Noise	Construction noise	<ul style="list-style-type: none"> - Contract provisions shall ensure: - Source Controls, i.e., requirements that all exhaust systems will be maintained in good working order; properly designed engine enclosures and intake silencers will be employed; and regular equipment maintenance will be undertaken; - Site Controls, i.e., requirements that stationary equipment will be placed as far from sensitive land uses as practical; selected to minimize objectionable noise impacts; and provided with shielding mechanisms where possible; 	Throughout construction phase.	Not to exceed 40 working Hours/per week.	Implemented by Contractor with oversight from the PMU	Contractor
Labor		<ul style="list-style-type: none"> - Contractor shall comply with the requirements for safety of the workers as per the ILO Convention No. 62 and Safety & Health Regulations of the Factory Ordinance of Sri Lanka to the extent that those are applicable to the project - The contractor should give priority to hiring labor from the surrounding areas to avoid the need for labor camps. 	Throughout construction phase.		Implemented by Contractor with oversight from the PMU	Contractor

		<ul style="list-style-type: none"> - The location, layout and basic facility provision of the labor camp must be submitted to Engineer of the relevant managing department prior to their construction. - The construction will commence only upon the written approval of the Engineer. - The contractor shall maintain necessary living accommodation and ancillary facilities in a functional and hygienic manner and as approved by the Engineer. - All temporary accommodation must be constructed and maintained in such a - fashion that uncontaminated water is available for drinking, cooking and washing.. 				
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Post Construction

	Clearing/Closure of Construction Site/Labor Camps	<ul style="list-style-type: none"> - On completion of the works, all temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses 	Construction phase and operation phase	Site clean	Implemented by Contractor with oversight from the PMU	Contractor
	Environmental Enhancement/ Landscaping	<ul style="list-style-type: none"> - Landscape plantation, including turfing of shoulders, slopes, edge treatment of water bodies shall be taken up as per either detailed design or typical design guidelines given as part of the Bid Documents. - The contractor also shall remove all debris, piles of unwanted earth, spoil material, away from the dam site and from other work places and disposed at locations designated or acceptable to the Engineer 	Construction phase and operation phase	Landscape as per design guidelines	Implemented by Contractor with oversight from the PMU	Contractor

Environment /Climate risk

Land degradation	Soil erosion; Landslide, soil nutrient loss, erosion leading to shallow soil and hence low water holding capacity	<ul style="list-style-type: none"> - Vegetative bunds, afforestation, soil conservation, Soil test based nutrient application; - Extend agro-forestry to increase climate resiliency through Ecosystem Based Approaches (EBA) like integrated water resource management (IWRM); - Preparation of environmental guidelines for selected districts/sites of the projects 	To be prepared in advance of project interventions and implementation	Crop yield, Conservative Agriculture practices adapted Soil Health	PMU	Project
Water resource management	Water scarcity due to climate change; Negative impact on the environment and on land productivity	<ul style="list-style-type: none"> - Enhance irrigation efficiency and/or expand irrigation; - Rehabilitation of the traditional village irrigation systems; - Promote water efficient irrigation - Introduce and promote water harvesting techniques. - Encourage minor storage reservoirs; - Promote participatory micro-watershed management - Decrease water demands, e.g. by increasing efficiency, reducing water losses, water recycling, changing irrigation practices 	To be prepared in advance of project interventions and implementation to be monitored at quarterly intervals thereafter	Number of village irrigation systems rehabilitated; Use of water harvesting techniques	PMU	Project

		<ul style="list-style-type: none"> – Increase water supply, e.g. by using groundwater, de-silting the reservoir bed, 				
Climate shocks, low adaptive capacity	Loss of crop leading to income loss, malnutrition	<ul style="list-style-type: none"> – Capacity building and technical support for government and farmers on best practices of farm and irrigation management and land development and management, and how to reduce impact to the environment and ensure community management of land and water systems, – Strengthen smallholder associations, water harvesting, heat tolerant crop variety, – Set up a system for climate smart information collection and dissemination to provide climate change adaptation options that will complement the Environmental and Social Management Plan (ESMP) 	To be prepared in advance of project interventions and implementation	Number of farmers/ smallholder Associations trained	PMU	Project
Intensive use of fertilizers and pesticides	Environmental and water pollution by chemicals	<ul style="list-style-type: none"> – Promote Climate Smart Agriculture (CSA) practices avoiding use of pesticides, avoiding/reducing use of fertilizers – Promote CSA technologies through the Farmer Field School (FFS) to the benefit of farmers – Provide trainings in CSA to DoA Agricultural Instructors (AIs), and DAD Agrarian Research and Productivity Assistants (ARPA) to deliver FFS services – Provide trainings in CSA to public and private advisory services. – Set up a system for climate smart information collection and dissemination to provide climate change adaptation options that will complement the Environmental and Social Management Plan (ESMP); – Where appropriate develop organic farming and non-chemical fertilizer and pesticides. – Promote efficient and environmentally sound management systems of fertilizers and pesticides. 	To be prepared in advance of project interventions and implementation	Amount of fertilizers used	PMU	Project
Energy	Use of non-renewable energy	<ul style="list-style-type: none"> – Investment in climate smart technologies (solar pumps, irrigation, water harvesting) 	To be prepared in advance of project interventions and implementation	Number of solar pumps water harvesting techniques used	PMU	Project
Proximity to Protected Area/ biodiversity hotspots	Encroachment on Protected areas or biodiversity hotspots	<ul style="list-style-type: none"> – Environmental guidelines and selection criteria which exclude interventions in close proximity/adjacent to Protected Areas 	To be prepared in advance of project interventions and implementation	to be monitored at regular intervals	PMU	Project

Impacts on cultural heritage.	Destruction of cultural and archeological sites	– If archeological findings or other chance finds appear on or near construction site immediate work suspension and local authorities notification is required;	Included in construction works	Included in supervision	Contractor In case of finding cultural heritage, supervision is implemented by the competent institution	No cost
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4.2 Sub-project Screening

Screening for environmental and social impacts using the Rapid Assessment Checklist (Attachment A) will be introduced for all sub-projects before implementation. The screening process will include: assessing impacts; examining alternatives to minimize the negative impacts; enhancing positive impacts; and compensating for adverse impacts. If the Rapid Assessment Checklist indicates that the possible negative impacts from implementation of the subproject would be minimal and that the positive impacts would certainly outweigh them, no further action with respect to environmental and social safeguards will not be required upon approval of the Checklist results by PMU. If the negative impacts are more than minimal or irreversible according to the Checklist, an Environmental Impact Assessment must be conducted and an Environmental and Social Management Plan (ESMP) developed to mitigate the negative impacts.

Attachment A: Rapid Assessment Checklist

4. "Additional Information" field must be completed when negative impact is identified or expected. For the purpose of allowing examination from various angles, some impacts are addressed more than once through different questions.

Section A: Project Siting

Screening Questions	Answer to Questions			Additional Information <ul style="list-style-type: none"> · Project/subproject stage for addressing the impact · Responsibility for addressing the impact · Budget implications · Other
	Yes	No	Not Applicable	
Of the project/subproject area covered by rapid assessment, what is/are:	The approximate size?			
	The GPS co-ordinates?			
	The main physical delimitation (e.g., river, lake, altitude, slope, rainfall)?			
	The estimated number of population (male, female, aged over 70, aged under 15)?			
	The dominant environmental feature (e.g., rainforest, dry forest, savannah, barren land, agricultural land, pasture, other)?			
	The likelihood of recurrent natural disasters (e.g., drought, flood, wild fire, strong wind)?			
	The level of capacity to absorb waste?			
	The level of economic resilience?			
Is the project/subproject area in or close to:	Densely populated areas?			
	Cultural heritage sites?			
	Protected areas?			

	Wetlands?				
	Mangroves?				

	Estuarine?				
	Buffer zones of protected area?				
	Special areas for protecting biodiversity?				
	Other				
Will the project/subproject require support facilities?					
Does the project involve large-scale irrigation schemes rehabilitation and/or development (more than 100 hectares per scheme)?					
Does the project include construction/rehabilitation/upgrade of roads that entail a total area being cleared above 10 km long, or any farmer with more than 10 per cent of his or her private land taken? Will the works entail temporary and/or permanent resident workers?					
When is the rapid assessment conducted?					

Section B: Environmental Impacts

Screening Questions		Answer to Questions			Additional Information <ul style="list-style-type: none"> · Project/subproject stage for addressing the impact · Responsibility for addressing the impact · Budget implications · Other
		Yes	No	Not Applicable	
Will the project/subproject cause:	Ecological disturbances or loss of ecological functions due to infrastructure construction?				
	Environmental degradation from any of interventions?				
	Environmental degradation from construction activities and equipment?				
	Accidental release of hazardous chemicals?				
	Increase in generation of solid waste?				
	Occupational health hazards due to exposure to dust, hazardous material, noise, etc.				
	Public health risks from solid, liquid, gaseous waste discharges?				
	Changes in water flows?				
	Eventual degradation of surface water bodies?				

Eventual degradation of groundwater bodies?				
Soil contamination?				
Soil erosion?				
Siltation?				
Decrease in soil fertility?				
Air pollution?				

Section C: Social Impacts

Screening Questions		Answer to Questions			Additional Information <ul style="list-style-type: none"> · Project/subproject stage for addressing the impact · Responsibility for addressing the impact · Budget implications · Other
		Yes	No	Not Applicable	
Does the project/ subproject:	Operate where property rights on resources (e.g., land tenure) are legally recognized?				
	Cause changes to land tenure, land use, access to or use of resources?				
	Require land acquisition?				
	- How will the cost be shared between the project and the landowner?				
	Obtain private land with community funding and through willing-buyer-willing-seller arrangement?				
	Involve dislocation or involuntary resettlement of inhabitants?				
	Cause modification in technology and land uses, which affect current socioeconomic activities?				
	Increase unemployment?				
	Cause influx of laborers from other areas?				
	Create a possibility of uncontrolled in-migration of people and overloading of infrastructure from improved transportation system?				
	Have disproportionate impacts on the vulnerable groups (e.g., the poor, women, children, indigenous peoples, disabled)?				
Involve or be complicit in alteration, damage or removal of cultural heritage?					

Section D: Other Considerations

Screening Questions		Answer to Questions			Additional Information <ul style="list-style-type: none"> · Project stage for addressing the impact · Responsibility for addressing the impact · Budget implications · Other
		Yes	No	Not Applicable	

Does the national regulation in country/countries affected by the project/subproject require EIA or ESIA for the activities under the project?				
Does local capacity exist for fulfilment of EIA and ESIA requirements in country/countries affected by the project?				
Does the project address issues that have also been addressed by other projects or approaches?				
Does the project/subproject generate cumulative or long-term impacts?				
Is it possible to isolate the impacts from the project/subproject for monitoring?				

5. Attachment B: Suggested Methodology and Structure of Environmental and Social Management Plans

An Environmental and Social Management Plan (ESMP) will be prepared for each subproject will be where initial screening demands preparation of such a plan.

Suggested Structure

A suggested structure of ESMF is as follows:

1. Executive Summary

A summary of the contents and key findings written in a way that is easily understood by the general public. It should be concise, about 3 to 5 pages.

2. Background

Subproject specific background information will be included in this section.

3. Subproject Overview

This section will provide an overview of the subproject and its relation to the project to which the subproject belongs.

4. Objectives

The section will list the objectives of the Environmental and Social Management Plan specific to the subproject, based on its detailed information provided by the appropriate Project Management population Unit. The project and subproject details should include their precise nature and scope, site location, activities to be undertaken, and timing and scheduling.

5. Scope of Work

This section should list and describe all national, provincial legislations and regulations as well as World Bank policies that give rise to the Environmental and Social Management Plan. The scope should take into account the nature and the magnitude of the potential impacts in addition to the project location and size.

6. Screening of Environmental and Social Impacts

This section will contain the assessment results of anticipated impacts of the project activities on the environment and the people, including the list of key concerns and

potential impacts of the subproject on the environment and the people. The assessment will be the base for deciding whether any auxiliary plan would be required:

Baseline information

This section will describe proposed sites and their immediate surroundings with texts, maps, photographs as well as key environmental and social aspects of the sites and surroundings, such as demography, ethnicity, socio economic activities, occupation and livelihoods, land form and land use, land ownership, water resources, settlements, critical habitat or protected areas, formal and informal groups, methods of communication and transport, cultural heritage sites or graveyards, sensitive receptor such as schools, hospitals and access routes. The section will also include baseline data necessary to monitor all key environmental and social impacts identified through screening.

7. Environmental and Social Impacts

This section will outline both positive and negative impacts, including cumulative ones, of the subproject by each type of intervention, assess the severity of these impacts and the range of measures required to avoid (mitigate, in case avoiding is not possible) the negative impacts and enhance positive ones.

8. Stakeholder Consultations and Information Disclosure

This section will describe the objective, process, and outcome of the stakeholder consultations---with community members, relevant local and provincial officials, and NGOs with experience in the area--
-that are carried out during the ESMP preparation. The emphasis will be on the concerns and suggestions regarding the subproject and its potential impacts. This section will also list all project and subproject information shared with the stakeholders during the preparation of the plan and arrangements for disclosing subproject information.

Mitigation and Monitoring Plan

The section will describe all impacts (including cumulative ones), mitigation measures for each impact, indicators for each impact, the parties responsible for implementing each mitigation measure, and the parties responsible for monitoring each indicator. A single indicator may be monitored in different ways by multiple stakeholders to allow maximum participation of various stakeholders, and subsequently enhanced ownership and implementation of the project.

9. Capacity Assessment and Training

This section will detail capacity assessment among the relevant officials and other stakeholders on implementing environmental and social management plan. It will also include a plan to enhance the capacity of the stakeholders while implementing the subproject and the ESMP.

10. Cost Estimates and Sources of Funds

The section will indicate cost estimates and sources of funds for institution development activities, training programs for implementation teams and local institutions, technical assistance to authorities, costs for preparation of ESMP and other safeguard documents, and their implementation.

Sri Lanka

Smallholder Agribusiness and Resilience Project

Project Design Report

Annex 6: First Annual Work Plan and Budget (AWPB)

Document Date: 04/11/2019

Project No. 2000002583

Asia and the Pacific Division
Programme Management Department



Investing in rural people

Democratic Socialist Republic of Sri Lanka

Smallholder Agribusiness and Resilience (SARP) Project Design Report

Annex 6: First Annual Work Plan and Budget (AWPB)

Document Date: 11/10/2019

Project No.

**Sri Lanka-
Smallholder Agribusiness and Resilience
- SARP
Project Design Report (PDR)**

Annex 6: First Annual Work Plan and Budget (AWPB)

Summary Annual Work Plan and Budget for the first eighteen months year 1 (2020) and year 2 (2021)

Presented in this section are tables giving an overall picture of financial resources required and key summary activities for the first 18 months SARP AWPB. The budget information is presented by component and categories of expenditure. The first year of project implementation is 2020 commencing around June 2020 and for the AWPB, the total budget is estimated at USD 12.5 million.

Table 1: SARP 2020/2021 18 month Annual Work Plan & Budget (in '000 US\$) by Components and Subcomponents

Sri Lanka							
Smallholder Agricultural Commercialisation and Resilience Project (SARP)							
First 18 Months Annual Work Plan and the Budget (AWPB)							
Aggregate Summary							
Component & Sub Component	Activities	Design Total Budget (USD 000)	Year 1 (4Quarters)	Year 2 (2 Quarters)	Financiers		
					IFAD (USD 000)	Other (USD 000)	
Component 1: Capacity building for climate resilience and inclusive value chains							
	Sub-component 1.1:Capacity building climate resilience	9,139	2,075,620	1,226,665	2,362	940	
	Sub-component 1.2:Capacity building inclusive value chain	1018	128100	124800	2410	63.891	
Component 2: Climate sensitive investments for climate resilience and inclusive value chains							
	Sub-component 2.1: Investing in climate resilience	40,479	17,700	3,264,388	1,333	1,949	
	Sub-component 2.2 Investment in inclusive value chains	15,159	2,268,600	1,922,980	2,358	1,834	
Component 3: Project management and coordination							
		3,720	1,141,600	321,000	1243.21	219.39	
	Grand Total	69,515	5,631,620	6,859,833	9,706	5,007	

Table 2: SARP 2020/2021 18 month Annual Work Plan & Budget (in '000 US\$) by Expenditure Categories

Categories	Year 1 (USD)	Year 2 (USD)	Total
Service providers	5.5	1	6.5
TA-Studies	1806	938	2744
Training-w-shops	917	880	1797
CW	220	254	474
Equipment	67	2178	2245
Grants	0	3499	3499
O&M	15	8	23
Salary-DSA	315	158	473
Vehicles	24	0	24
Total	3369.5	7916	11285.5

Sri Lanka
 Smallholder Agricultural Commercialisation and Resilience Project (SARP)
 First 18 Month Annual Work Plan and Budget (AWPB)
 Component 1: Capacity building for climate resilience and inclusive value chains
 Table 1.1. Sub-component 1.1: Capacity building climate resilience
 Detailed Costs

Activities	Responsibility	IFAD expend. Category	Design total budget (USD 000)	Unit	Design total targets	18 Months Plan Period						Total	Unit Price (USD)	YEAR 1	Year 2	Total Year 1	Total Year 2	Total Budget (USD)	Financiers	
						Q1	Q2	Q3	Q4	Q5	Q6								IFAD Loan + Grant (USD)	Other (USD)
A. Community organization, planning and mentoring																				
Awareness raising and community Social inclusion Training-w-sh			326	No.	350	50	50	50	100	50	50	350	930	250	100	232,500	93,000	325,500	276,675	48,825
Training of agro-enterprise p Agro-enterpris Training-w-sh			3	No.	3	1	1	1			3	1,000	3	-	3,000	-	3,000	3,000	2,550	450
Training of project, AI and AF Watershed de Training-w-sh			4	No.	4	1	1	1	1		4	1,000	4	-	4,000	-	4,000	4,000	3,400	600
Training of community mem Watershed de Training-w-sh			600	No.	1200		100	100	100	150	150	600	500	300	300	150,000	150,000	300,000	255,000	45,000
Watershed management gu Watershed de Training-w-sh			63	No.	250		50	50	50	50	50	250	250	150	100	37,500	25,000	62,500	53,125	9,375
Training of producer group o Agro-enterpris Training-w-sh			500	No.	500			34	34	34	34	136	1,500	68	68	102,000	102,000	204,000	173,400	30,600
Training of FOs in O&M Training-w-sh			127	No.	357					30	35	65	357	-	65	-	23,205	23,205	19,724	3,481
Technical assistance																				
Institutions an PMJ TA-Studies			86	p-m	72	3	3	3	3	3	3	18	1,200	12	6	14,400	7,200	21,600	18,360	3,240
Social inclusio PMJ TA-Studies			50	p-m	144	6	6	6	6	6	6	36	350	24	12	8,400	4,200	12,600	10,710	1,890
Agroenterpris PMJ TA-Studies			151	p-m	432	18	18	18	18	18	18	108	350	72	36	25,200	12,600	37,800	32,130	5,670
Incentives for ARPAs 2/																				
Full time ARF PMJ TA-Studies			497	person-month	2160	90	90	90	90	90	90	540	230	360	180	82,800	41,400	124,200	105,570	18,630
Part time ARF PMJ TA-Studies			164	person-month	2160	90	90	90	90	90	90	540	76	360	180	27,360	13,680	41,040	11,512	29,528
															687,160	472,285	1,159,445	962,156	197,289	
B. Climate smart technology																				
Training in FFS-climate sma Agriculture team			120	No.	8		1		1	1	1	4	15,000	2	2	30,000	30,000	60,000	51,000	9,000
Training in FFS-climate sma Agriculture tec Training-w-sh			180	No.	12		1	2	3	3	3	12	15,000	6	6	90,000	90,000	180,000	153,000	27,000
Training of master trainers 3 Agriculture tec Training-w-sh			6	No.	2		1	1				2	3,000	2	-	6,000	-	6,000	5,100	900
Establishment of FFS Agriculture tec Training-w-sh			150	No.	300					25	25	50	500	-	50	-	25,000	25,000	21,250	3,750
Training of FFS facilitators 4 Agriculture tec Training-w-sh			50	No.	10		3	3	4			10	5,000	10	-	50,000	-	50,000	42,500	7,500
Technical assistance																				
Natural Resou PMJ TA-Studies			86	person-month	72	6	6	6	6	6	6	36	1,200	24	12	28,800	14,400	43,200	12,118	31,082
Agriculture + i PMJ TA-Studies			86	person-month	72	6	6	6	6	6	6	36	1,200	24	12	28,800	14,400	43,200	12,118	31,082
Agricultural OI PMJ TA-Studies			181	person-month	432	18	18	18	18	18	18	108	420	72	36	30,240	15,120	45,360	12,723	32,637
Rice specialis PMJ TA-Studies			18	person-month	15		2	2	3	3	12	1,200	6	6	7,200	7,200	14,400	4,039	10,361	
Water resourc PMJ TA-Studies			127	person-month	144	6	6	6	6	6	6	36	880	24	12	21,120	10,560	31,680	8,886	22,794
Natural resour PMJ TA-Studies			173	person-month	288	12	12	12	12	12	12	72	600	48	24	28,800	14,400	43,200	12,118	31,082
Incentives for PMJ TA-Studies			756	person-month	2160	90	90	90	90	90	90	540	350	360	180	126,000	63,000	189,000	53,015	135,986
AI incentives c PMJ TA-Studies			324	person-month	2160	90	90	90	90	90	90	540	150	360	180	54,000	27,000	81,000	22,721	58,280
															500,960	311,080	812,040	410,587	401,453	
C. Livelihood resilience building training programmes																				
Home gardens																				
Home garden training Agric/ Ag. ent Training-w-sh			136	No.	113		5	5	10	5	5	30	1,200	20	10	24,000	12,000	36,000	30,600	5,400
Aquaculture																				
Fish Farming in the inland w Agric/ Ag. ent Training-w-sh			60	No.	50			5	5	2	3	15	1,200	10	5	12,000	6,000	18,000	15,300	2,700
Livestock farming																				
Semi intensive small scale d Agric/ Ag. ent Training-w-sh			100	No.	83					5	5	10	1,200	-	10	-	12,000	12,000	10,200	1,800
Goat Rearing (semi-intensiv Agric/ Ag. ent Training-w-sh			107	No.	89					6	6	12	1,200	-	12	-	14,400	14,400	12,240	2,160
Commercial level Backyard Agric/ Ag. ent Training-w-sh			116	No.	97					5	5	10	1,200	-	10	-	12,000	12,000	10,200	1,800
Agriculture and livelihoods																				
Mushroom cultivation 14/ Agric/ Ag. ent Training-w-sh			35	No.	29					1	2	3	1,200	-	3	-	3,600	3,600	3,060	540
Agri-machinery and equipme Agric/ Ag. ent Training-w-sh			11	No.	9					1	1	2	1,200	-	2	-	2,400	2,400	2,040	360
Controlled agriculture 15/ Agric/ Ag. ent Training-w-sh			89	No.	74					3	3	6	1,200	-	6	-	7,200	7,200	6,120	1,080
Agri- Small scale poultry hat Agric/ Ag. ent Training-w-sh			10	No.	8					1	1	1	1,200	-	1	-	1,200	1,200	1,020	180
															36,000	70,800	106,800	90,780	16,020	
D. Nutrition and gender																				
Social inclusion																				
Training extension workers c inclusion Training-w-sh			60	No.	12		1		1	1		3	5,000	2	1	10,000	5,000	15,000	-	15,000
Social inclusion																				
Training in social behavioura inclusion Training-w-sh			225	No.	3		1					1	75,000	1	-	75,000	-	75,000	-	75,000
Training in nutrient preservin Post harvest t Training-w-sh			280	No.	40		1	2	3	2	3	11	7,000	6	5	42,000	35,000	77,000	-	77,000
Technical assistance																				
Nutrition expert PMJ TA-Studies			15	Months	3		2	1				3	5,000	3	-	15,000	-	15,000	12,750	2,250
															-	-	-	182,000	12,750	169,250
F. Contracting service providers																				
IWM technical PMJ Service provic			215	Ls	1	0.5				0.25	0.25	1	215,000	1	1	107,500	107,500	215,000	182,750	32,250
Climate Risk / PMJ Service provic			40	Month	2	2						2	20,000	2	-	40,000	-	40,000	34,000	6,000
Environmenta PMJ Service provic			12	Month	1	1						1	12,000	1	-	12,000	-	12,000	10,200	1,800
VAM targeting PMJ Service provic			100	Ls	1	0.5	0.5					1	100,000	1	-	100,000	-	100,000	85,000	15,000
NGO SPs - cc PMJ Service provic			2700	Ls	6	0.25	0.25	0.25	0.25	0.25	0.25	1.5	450,000	1	1	450,000	225,000	675,000	573,750	101,250
															851,500	372,500	1,042,000	885,700	156,300	
AL			9139												2,075,620	1,226,665	3,302,285	2,361,973	940,312	

Component 1: Capacity building for climate resilience and inclusive value chains																
Table 1.2. Sub-component 1.2:Capacity building inclusive value chain																
Detailed Costs																
Activities	Responsibility	IFAD expend. Category	Design total budget (USD 000)	Unit	Design total targets	18 Months Plan Period						Total	Unit Price (USD)	Total Budget (USD)	Financiers	
						Q1	Q2	Q3	Q4	Q5	Q6				IFAD (USD)	Other (USD)
A. FBS organization and training																
Training of core team of trainers 1/	FBS trainer	Training-w-shops	3	No.	1	1						1	3,000	3,000	2,550	450
Adaptation of training materials 2/	FBS trainer	Training-w-shops	10	Lump sum	1	1						1	10,000	10,000	8,500	1,500
Training of service providers 3/	FBS trainer	Training-w-shops	8	No.	4	1	1	2				4	2,000	8,000	6,800	1,200
Training of farmers 4/ 5/	FBS team	Training-w-shops	278	No.	75		5	5	5	5		20	3,700	74,000	50,320	23,680
Subtotal														95,000	68,170	26,830
B. Market appraisal, post harvest and value addition																
Training of extension workers in pos	Post harvest expert	Training-w-shops	18	No.	9	1	1	1	1	1		4	2,000	8,000	6,800	1,200
Training of farmers in post harvest/	Post harvest expert	Training-w-shops	40	No.	20		2	3	1	2		8	2,000	16,000	12,240	3,760
Refresher training for extension work	Post harvest expert	Training-w-shops	12	No.	6							0	2,000	-	-	-
Value chain/ market studies, design	Value chain expert	TA-Studies	18	No.	6	1				1		2	3,000	6,000	5,100	900
Technical assistance																
1. Post harvest technologist	PMU	TA-Studies	25	p-m	21		2	2	1	2		28	1,200	33,600	28,560	5,040
2. Value chain and marketing special	PMU	TA-Studies	29	p-m	24					3	3	30	1,200	36,000	30,600	5,400
														99,600	83,300	16,300
C. Skills development training in Agriculture for Youth																
Study to explore income opportunities	Agroenterprise expert	TA-Studies	2	Lump sum	1	1						1	2,000	2,000	1,700	300
Mapping of incubators	Agroenterprise expert	TA-Studies	2	Lump sum	1		1					1	2,000	2,000	1,530	470
Youth incubator training 7/	Agroenterprise expert	Training-w-shops	153	No.	450		10	10	25	25		70	340	23,800	16,184	7,616
Business training and preparation of	Agroenterprise expert	Training-w-shops	350	No.	500			25	25	25		75	700	52,500	44,625	7,875
Subtotal														80,300	64,039	16,261
D. Technical assistance																
Agro-enterprise, finance, youth spec	PMU	TA-Studies	23	erson-mon	19		2	2	2	2		10	1,200	12,000	10,200	1,800
Farm business management training	PMU	TA-Studies	47	erson-mon	39		3	3	3	3		15	1,200	18,000	15,300	2,700
Subtotal														30,000	25,500	4,500
GRAND TOTAL			1018											304,900	241,009	63,891

Sri Lanka																		
Smallholder Agricultural Commercialisation and Resilience Project (SARP)																		
First 18 Month Annual Work Plan and Budget (AWPB)																		
Component 2: Climate sensitive investments for climate resilience and inclusive value chains																		
Table 2.2. Sub-component 2.2 Investment in inclusive value chains																		
Detailed Costs																		
Activities	Responsibility	IFAD expend. Category	total budget (USD 000)	Design total targets	Unit	18 Months Plan Period						Total	Unit Price (USD)	Total Budget (USD)	Financiers			
						Q1	Q2	Q3	Q4	Q5	Q6				IFAD Loan (USD)	IFAD-GRANT	Other (USD)	
A. Feeder road rehabilitation and maintenance																		
1. Rehabilitation																		
Design and Supervision 1/	Civil engineer	CW	408	600	Km	30	30	30	30	15	15	150	680	102,000	43,350		58,650	
Feeder roads rehabilitation works 2/	Civil engineer	CW	5100	600	Km		30	30	30	15	15	120	8500	1,020,000	433,500		586,500	
Construction of structures/crossings 3/	Civil engineer	CW	22.5	45	No.					8	7	15	500	7,500	3,188		4,313	
Subtotal														1,129,500	480,038		649,463	
B. Agrarian Service Centre and market Infrastructure																		
1. Strengthening of Agrarian Service Centres																		
a. ASC strengthening and knowledge hub	Civil engineer	Equipment	2400	30	No.			5	5	5	5	20	80000	1,600,000	1,224,000		376,000	
b. Agrarian service centre capacity development	PMU	Training-w-sh	50	25	No.			2	3	1	2	8	2000	16,000	10,880		5,120	
c. Review of ASCs and Agrarian Rural Base	Rural Finance E	TA-Studies	10	1	Study	1						1	10000	10,000	8,500		1,500	
d. MIS system investments 7/	Rural Finance E	Equipment	76	20	No.					1	2	3	3800	11,400	9,690		1,710	
e. Training for bank staff	Rural Finance E	Training-w-sh	800	20	No.					1	2	3	40,000	120,000	81,600		38,400	
<u>Technical assistance</u>																		
Rural finance training	PMU	TA-Studies	19	16	n-					3	1	4	1200	4,800	4,080		720	
Subtotal														1,762,200	1,338,750		423,450	
2. Construction of market centres and facilities																		
a. Design and Supervision	Civil engineer	TA-Studies	13	13	Ls			1	1	1		3	1,000	3,000	747	1,530	723	
b. Construction of local markets + collection	Civil engineer	CW	180	6	No.							1	1	30000	30,000	7,470	15,300	7,230
c. Construction of farmer's markets	Civil engineer	CW	672	4	No.							1	1	168000	168,000	41,832	85,680	40,488
d. Multi stakeholder platforms for value chain	Value chain exp	CW	400	20	No.					1	1	2	20000	40,000	-	13,600	26,400	
Subtotal														241,000	50,049	116,110	74,841	
C. Commercial and Value Adding Enterprises																		
Agri- Processing and value adding business	Post harvest/ Value chain exp	Grants	340	200	HH					12	12	24	1700	40,800	20,808		19,992	
4-P business models	Value chain exp	Grants	550	10	No							1	1	55000	55,000	28,050	26,950	
Social enterprise business models	Value chain exp	Grants	560	10	No.							1	1	56000	56,000	28,560	27,440	
Subtotal														151,800	77,418		74,382	
D. Youth and women's enterprises																		
Local nurseries 8/	Agro-enterprise	Grants	168	12	No					1	1	2	14000	28,000	14,280		13,720	
Agri-machinery and equipment for hire service	Agro-enterprise	Grants	700	125	No					6	6	12	5600	67,200	45,696		21,504	
Protected agriculture intervention	Agro-enterprise	Grants	875	350	HH					15	20	35	2500	87,500	44,625		42,875	
Quality seed production	Agro-enterprise	Grants	280	50	No					1	2	3	5600	16,800	8,568		8,232	
Aggregator business model for gherkin	Agro-enterprise	Grants	16	5	No					1		1	3200	3,200	1,632		1,568	
Semi-intensive small scale dairy production	Agro-enterprise	Grants	616	110	HH					5	10	15	5600	84,000	42,840		41,160	
Goat production 15-20 goats	Agro-enterprise	Grants	55	50	HH						5	5	1100	5,500	2,805		2,695	
Commercial backyard poultry	Agro-enterprise	Grants	248	400	HH					12	12	24	620	14,880	7,589		7,291	
Subtotal														307,080	168,035		139,045	
E. Climate and market information services	PMU	TA-Studies	600	1	Ls	1						1	600000	600,000	127,500		472,500	
Grand total			15159											4,191,580	2,241,789	116,110	1,833,681	

Component 3: Project management and coordination
 Table 3.0 Component 3 Project management and coordination
 Detailed Costs

Activities	Responsibility	IFAD expend. Category	Design total budget (USD 000)	Unit	Design total targets	18 Months Plan Period						Total	Unit Price (USD)	YEAR 1	Year 2	Total Year 1	Total Year 2	Total Budget (USD)	Financiers	
						Q1	Q2	Q3	Q4	Q5	Q6								IFAD Loan (USD)	Other (USD)
1. Investment Costs																				
A. Project Management Unit																				
1. PMU Equipment																				
Computer & Laptops	PMU	Equipment	16	set	10	10	-				10	1600	10	-	16000	0	16,000	13,600	2,400	
Other office equipment	PMU	Equipment	15	set	10	10	-				10	1,500	10	-	15000	0	15,000	12,750	2,250	
Accounting MIS/M&E s	PMU	Equipment	20	unit	1	1	-				1	20,000	1	-	20000	0	20,000	17,000	3,000	
2. Vehicles	PMU	Equipment	30	unit	1	1	-				1	30,000	1	-	30000	0	30,000	25,500	4,500	
3. PMU Training	PMU	Training-w-shops	20	lump sum	1	1	-				1	20,000	1	-	20000	0	20,000	17,000	3,000	
4. PIM Management	PMU	TA-Studies	240	unit	4	4	-				4	60000	4	-	240000	0	240,000	204,000	36,000	
Subtotal			60	lump sum	6	1	1				2	10000	2	-	20000	0	20,000	17,000	3,000	
			10	lump sum	1	1	-				1	10000	1	-	10000	0	10,000	8,500	1,500	
													30	-	371000	0	371,000	315,350	55,650	
B. M&E and Knowledge Management																				
1. Workshops/Forums for policy Engagement																				
Start-Up W/ Sensitization	PMU	Training-w-shops	20	number	1	1	-				1	20000	1	-	20000	0	20,000	17,000	3,000	
Annual Staff	PMU	Training-w-shops	60	number	6		2	2			4	10,000	4	-	40000	0	40,000	34,000	6,000	
			30	number	6				1		1	5000	-	1	0	5000	5,000	4,250	750	
2. Studies and Surveys																				
Baseline/Av&E speciali		TA-Studies	140	survey	7	1					1	20,000	1	-	20000	0	20,000	17,000	3,000	
3. Knowledge Management																				
Information M&E Team		Training-w-shops	60	lump sum	6	1				1	2	10000	1	1	10000	10000	20,000	17,000	3,000	
Training Mechanical		Training-w-shops	150	set	3	1				1	2	50,000	1	1	50000	50000	100,000	85,000	15,000	
Subtotal															140000	65000	205,000	174,250	30,750	
C. Area and district offices																				
Vehicles	PMU	Vehicles	120	No.	2	2					2	60000	2	0	120000	0	120,000	102,000	18,000	
Motorbikes	PMU	Vehicles	63	No.	18	18					18	3500	18	0	63000	0	63,000	53,550	9,450	
Computer	PMU	Equipment	20	No.	14	14					14	1000	14	0	14000	0	14,000	11,900	2,100	
Printers	PMU	Equipment	18	No.	6	14					14	400	14	0	5600	0	5,600	4,760	840	
Office equip	PMU	Equipment		No.		6					6	3000	6	0	18000	0	18,000	15,300	2,700	
Subtotal													54	0	220600	0	220,600	187,510	33,090	
Total Investment Costs																	796,600	677,110	119,490	
2. Recurrent costs																				
A. Project Management Unit																				
Salaries																				
Project director	PMU	Salary-DSA	108	erson-mont	72	3	3	3	3	3	3	18	1500	12	6	18000	9000	27,000	22,950	4,050
Senior financial	PMU	Salary-DSA	86	erson-mont	72	3	3	3	3	3	3	18	1200	12	6	14400	7200	21,600	18,360	3,240
Senior procurement	PMU	Salary-DSA	86	erson-mont	72	3	3	3	3	3	3	18	1200	12	6	14400	7200	21,600	18,360	3,240
Assistant financial	PMU	Salary-DSA	72	erson-mont	72	3	3	3	3	3	3	18	1000	12	6	12000	6000	18,000	15,300	2,700
Assistant procurement	PMU	Salary-DSA	43	erson-mont	72	3	3	3	3	3	3	18	600	12	6	7200	3600	10,800	9,180	1,620
Finance/ accounting	PMU	Salary-DSA	130	erson-mont	216	9	9	9	9	9	9	54	600	36	18	21600	10800	32,400	27,540	4,860
Monitoring & evaluation	PMU	Salary-DSA	86	erson-mont	72	3	3	3	3	3	3	18	1200	12	6	14400	7200	21,600	18,360	3,240
Drivers	PMU	Salary-DSA	115	erson-mont	288	12	12	12	12	12	12	72	400	48	24	19200	9600	28,800	24,480	4,320
Office assistant	PMU	Salary-DSA	58	erson-mont	144	6	6	6	6	6	6	36	400	24	12	9600	4800	14,400	12,240	2,160
Secretary	PMU	Salary-DSA	43	erson-mont	72	3	3	3	3	3	3	18	600	12	6	7200	3600	10,800	9,180	1,620
Subtotal													192	96	138000	69000	207,000	175,950	31,050	
B. Area and district offices																				
Area Coordinator	PMU	TA-Studies	144	erson-mont	144	6	6	6	6	6	6	36	1000	24	12	24000	12000	36,000	30,600	5,400
M&E Assistant	PMU	Salary-DSA	86	erson-mont	144	6	6	6	6	6	6	36	600	24	12	14400	7200	21,600	18,360	3,240
Drivers /10	PMU	Salary-DSA	58	erson-mont	144	6	6	6	6	6	6	36	400	24	12	9600	4800	14,400	12,240	2,160
Office assistant	PMU	Salary-DSA	173	erson-mont	432	18	18	18	18	18	18	108	400	72	36	28800	14400	43,200	36,720	6,480
Subtotal													144	72	76,800	38,400	115,200	97,920	17,280	
C. Allowances																				
Travel and Honorarium	PMU	Salary-DSA	300	lump sum	6	1					1	2	50,000	1	1	50000	50000	100,000	85,000	15,000
	PMU	Salary-DSA	36	Jo. meeting	60	1		1			1	3	600	2	1	1200	600	1,800	1,530	270
Subtotal													3	2	51200	50600	101,800	86,530	15,270	
D. Operation and Maintenance																				
Vehicle operation	PMU	O&M	340	vehicle	34	1	2	1	1	1	1	7	10,000	5	2	50000	20000	70,000	59,500	10,500
Motor bike operation	PMU	O&M	284	lump sum	6	1					1	2	50000	1	1	50000	50000	100,000	85,000	15,000
Other equipment	PMU	O&M	68	lump sum	6	1					1	2	12,000	1	1	12000	12000	24,000	20,400	3,600
Office premises	PMU	O&M	156	Per office	39	1	1	1	1	1	1	6	4000	4	2	16000	8000	24,000	20,400	3,600
Office operation	PMU	O&M	156	Per office	39	1	1	1	1	1	1	6	4000	4	2	16000	8000	24,000	20,400	3,600
Subtotal													15	8	144,000	98,000	242,000	205,700	36,300	
Total Recurrent Costs																	666,000	566,100	99,900	
Grand total																	1,462,600	1,243,210	219,390	

Sri Lanka

Smallholder Agribusiness and Resilience Project Project Design Report

Annex 7: Procurement Plan for first 18 months

Document Date: 04/11/2019
Project No. 2000002583

Asia and the Pacific Division
Programme Management Department



Investing in rural people

Democratic Socialist Republic of Sri Lanka

Smallholder Agribusiness and Resilience (SARP) Project Design Report

Annex 7: Procurement Plan for first 18 months

Document Date: 11/10/2019

Project No.

**Procurement Plan - 2020/21
GOODS**

Country : Sri Lanka
 Project / Programme : Smallholder Agribusiness Resilience Project
 IFAD Loan No :
 Period : from 1st January 2020 to June 2021
 Exchange Rate : USD 1 = LKR 175

Sl.No.	AWPB Ref.	Description	Lot No./QTY	Basic data				Plan Vs Actual	Bid documents		Bid period		Bid evaluation report			Contract finalization			Completion date		
				Estimate LKR MN	Estimate USD '000	Procurement Method	Pre/post review		Finalised on	Date no objection	Bid invitation date	Bid closing opening	Bid evaluation report	IFAD NOL	PC Approval	Contracted amount LKR (000')	Date contract award	Date contract signature			
1		Level Gauges	20 nos.	0.525	3	LS	Post	Planned	20.10.2020		05.11.2020	05.12.2020	15.12.2020		20.12.2020		22.12.2020	24.12.2020	02.01.2021		
								Revised													
								Actual													
2		Rainfall measuring gauges	40 nos.	0.56	3.2	LS	Post	Planned	20.10.2020		05.11.2020	05.12.2020	15.12.2020		20.12.2020		22.12.2020	24.12.2020	02.01.2021		
								Revised													
								Actual													
3		Evaporation pans	25 nos.	2.5375	14.5	LS	Post	Planned	20.10.2020		05.11.2020	05.12.2020	15.12.2020		20.12.2020		22.12.2020	24.12.2020	02.01.2021		
								Revised													
								Actual													
4		Micro-irrigation demonstration Equip./1	80 hh	14.7	84	NCB	Post	Planned	20.08.2020		30.08.2020	01.10.2020	15.10.2020		25.10.2020		28.10.2020	01.11.2020	30.05.2021		
								Revised													
								Actual													
5		Low cost irrigation systems./2	500 hh	12.425	71	NCB	Post	Planned	20.09.2020		30.09.2020	01.11.2020	15.11.2020		25.11.2020		28.11.2020	01.12.2020	30.05.2021		
								Revised													
								Actual													
6		Soil conservation bund./3	1500hh	29.4	168			Planned													
								Revised													
								Actual													
7		MIS system investments	3No.	1.995	11.4	NCB	Post	Planned	20.09.2020		05.10.2020	05.11.2020	15.11.2020		20.11.2020		23.11.2020	25.11.2020	02.12.2020		
								Revised													
								Actual													
8		Computers and printers	24	6.3	36	NCB	Post	Planned	10.01.2020		05.02.2020	05.03.2020	15.03.2020		20.03.2020		23.03.2020	25.03.2020	31.03.2020		
								Revised													
								Actual													
9		Laptops	10	2.625	15	NCB	Post	Planned	10.01.2020		05.02.2020	05.03.2020	15.03.2020		20.03.2020		23.03.2020	25.03.2020	31.03.2020		
								Revised													
								Actual													
10		Other office equipments (to be specified)	7	6.65	38	NCB	Post	Planned	10.01.2020		05.02.2020	05.03.2020	15.03.2020		20.03.2020		23.03.2020	25.03.2020	31.03.2020		
								Revised													
								Actual													

Sl.No.	AWPB Ref.	Description	Lot No./QTY	Basic data				Plan Vs Actual	Bid documents		Bid period		Bid evaluation report			Contract finalization			Completion date		
				Estimate LKR MN	Estimate USD '000	Procurement Method	Prior/post review		Finalised on	Date no objection	Bid invitation date	Bid closing opening	Bid evaluation report	IFAD NOL	PPC Approval	Contracted amount LKR (000')	Date contract award	Date contract signature			
11		Accounting software	1	5.25	30	NCB	Post	Planned	20.01.2020		05.02.2020	05.03.2020	15.03.2020		20.03.2020		23.03.2020	25.03.2020	31.03.2020		
								Revised													
								Actual													
12		MIS/M&FE system upgrade	1	3.5	20	NCB	Post	Planned	20.01.2020		05.02.2020	05.03.2020	15.03.2020		20.03.2020		23.03.2020	25.03.2020	31.03.2020		
								Revised													
								Actual													
13		Vehicles / 4	6	63	360	ICB	Prior	Planned	15.01.2020	20.01.2020	05.02.2020	20.03.2020	30.03.2020	10.04.2020	20.04.2020		23.04.2020	25.04.2020	25.05.2020		
								Revised													
								Actual													
14		Motorbikes	18	11.025	63	NCB	Post	Planned	15.01.2020		05.02.2020	05.03.2020	15.03.2020		20.03.2020		23.03.2020	25.03.2020	31.03.2020		
								Revised													
								Actual													
15		ASC strengthening Equipment / 5	20 Nos.	140	800	ICB	Prior	Planned	05.01.2020	07.01.2020	10.01.2020	25.02.2020	10.03.2020	25.03.2020	08.04.2020		17.04.2020	20.04.2020	30.06.2021		
								Revised													
								Actual													

Note :

- 1 and 2 Since these items categorised as equipment in the AWPB, entire amount has been treated under the Procurement of Goods
3. As this item (Bund) refer to civil works though it has been categorised in AWPB as equipment it was included under the "Works" of th PP.
- 4 and 5 Since the total value of vehicles exceeds the NCB threshold PMU will have to follow International bidding procedure if they want to procure entire stock at once.

Procurement Plan - 2020/21

WORKS

Project / Programme : Smallholder Agribusiness Resilience Project

IFAD Loan No :

Period : from 1st January 2020 to June 2021

Exchange Rate : 1 USD =LKR175

SL No	AW/PB Activity No.	Description	Lot No/Qty	Basic data				Plan Vs Actual	Preparaton /Approval of			Bidding process				No objection	Contract finalization			Completion date		
				Estimate LKR MN	Estimate USD '000	Procurement Method	Prior / Post Review		Bid Document	Approval by PC	No objection	Advert/ Invitation of bids	Closing/Opening bids	Evaluated	PC Decision		Date of Award	Signed contract	Contract amount in LKR M			
1		Tank rehabilitation (LKR 200,000 per Tank) ¹	20 Nos.	3.9998	23	NCB	Post	Planned	20.10.2020	25.10.2020		30.10.2020	30.11.2020	10.12.2020	15.12.2020		23.12.2020	31.12.2020		30.06.2021		
								Revised														
								Actual														
2		Catchment agroforestry & soil conservation ² (USD 10,000 per tank)	100 ha	35	200	Com proc	Post	Planned														
								Revised														
								Actual														
3		Mechanical works -repair improvement ³	20 Nos.	8.05	46	Com proc	Post	Planned														
								Revised														
								Actual														
4		Watershed development ⁴	25 ha.	1.3125	7.5	Com proc.	Post	Planned														
								Revised														
								Actual														
5		Farm pond construction ⁵ (includes water pump & 0.25 acres micro-irrigation)	20 ha.	3.675	21	Com proc.	Post	Planned														
								Revised														
								Actual														
6		Feeder Road Design and supervision	150 km.	17.85	102	Direct ⁶	Prior	Planned														
								Revised														
								Actual														
7		Feeder roads rehabilitation works	120 km.	1.4875	8.5	Com. Proc	Post	Planned														
								Revised														
								Actual														
8		Construction or structures/crossings	15 Nos.	1.3125	7.5	Com proc	Post	Planned														
								Revised														
								Actual														
9		Construction of local markets + collection points	1 No.	5.25	30	NCB	Post	Planned	20.11.2020	25.11.2020		04.12.2020	05.01.2021	15.01.2021	20.01.2021		25.01.2021	30.01.2021		30.06.2021		
								Revised														
								Actual														
10		Construction of farmers markets	1	29.4	168	NCB	Prior	Planned	20.11.2020	25.11.2020	30.11.2020	04.12.2020	05.01.2021	15.01.2021	20.01.2021	22.01.2021	25.01.2021	30.01.2021		30.06.2021		
								Revised														
								Actual														
11		Multi stakeholder platforms for value chain actors	2	7	40	NCB	Post	Planned	25.09.2020	30.09.2020		04.10.2020	05.11.2020	16.11.2020	22.11.2020		25.11.2020	30.11.2020		30.06.2021		
								Revised														
								Actual														
12		Soil conservation bund /7	1500hh	29.4	168		Prior	Planned														
								Revised														
								Actual														

¹ For tank rehabilitation will be contract out and Unit cost is sum of LKR 200,000 per tank

² Soil conservation cost - 50% by Community (Unit = cost 5 ha @ USD 2000 per ha.). A suitable Community procurement procedure need to be devised based on the strenght of community organisations. (Per tank LKR 1.75 Mln.)

³ Community contribution 4-5 ha .petank (5ha @ USD 2300 per ha.); 2,3,4,5, - Assumed that work will be undertaken by the Community as there is a substantial contribution is expected from them

⁶ It is the usual practice to entrust Design and supervision of Rural access roads to the Technical officers at Pradeseeeya saba or Divisional secretariates at an agreed percentage

⁷ 50% contribution by the Coomunity. Same point given in above 2 is applicable.

**Procurement Plan - 2020/21
CONSULTANCIES**

Country : Sri Lanka
 Project / Programme : Smallholder Agribusiness Resilience Project
 IFAD Loan No :
 Period : from 1st January 2020 to June 2021
 Exchange Rate : USD 1 = LKR 175

Sl.No	AWPB Activity Code	Description	Selection method	Lump sum or time based	Unit	Quantity	Estimate LKR/MM	Estimate USD '000	Prior/post review	Plan Vs Actual	Request for EOI			Terms of reference			Bid proposal/RFP				Bid evaluation Technical (T) and Financial (F)				Contract Finalization			Date Completed		
											NOL for EOI	Date published	Closing Date	Date proposed	Date no objection	PC approval	NOL for RFP/Bid	PC appl.	Invitation date	Closing/opening date	Submitted evaluation report	NOL for evaluation report (T)	Opening financial proposal	Submitted evaluation report (T) & (F)	NOL for evaluation report (T) & (F)	Date of PC approval	Contract amount LKR ('000')		Date awarded	Contract Signature
1		Institutions and social development expert	CQS	Time based	MM	18	3.78	21.6	Post	Planned Revised Actual				10.01.20		15.01.20		15.01.20	20.01.20	15.02.20				25.02.20		28.02.20			05.03.20	10.03.20
2		Social inclusion and gender facilitators	CQS	Time based	MM	36	2.305	12.6	Post	Planned Revised Actual				10.01.20		15.01.20		15.01.20	20.01.20	15.02.20				25.02.20		28.02.20			05.03.20	10.03.20
3		Agroenterprise promoters (1 per district)	CQS	Time based	MM	108	6.615	37.8	Post	Planned Revised Actual				10.01.20		15.01.20		15.01.20	20.01.20	15.02.20				25.02.20		28.02.20			05.03.20	10.03.20
4		Natural Resource Management expert	CQS	Time based	MM	36	7.56	43.2	Post	Planned Revised Actual				10.01.20		15.01.20		15.01.20	20.01.20	15.02.20				25.02.20		28.02.20			05.03.20	10.03.20
5		Agriculture + livestock specialist	CQS	Time based	MM	36	7.56	43.2	Post	Planned Revised Actual				10.01.20		15.01.20		15.01.20	20.01.20	15.02.20				25.02.20		28.02.20			05.03.20	10.03.20
6		Rice specialist(CSA - AWD IPM)	CQS	Time based	MM	12	2.52	14.4	Post	Planned Revised Actual				31.01.20		05.02.20		05.02.20	10.02.20	05.03.20				15.03.20		20.03.20			25.03.20	01.04.20
7		Water resource engineers (1 per hub)	CQS	Time based	MM	36	5.53	31.6	Post	Planned Revised Actual				10.01.20		15.01.20		15.01.20	20.01.20	15.02.20				25.02.20		28.02.20			05.03.20	10.03.20
8		Natural Resource Mnaagement (4 officers)	CQS	Time based	MM	73	7.56	43.2	Post	Planned Revised Actual				10.01.20		15.01.20		15.01.20	20.01.20	15.02.20				25.02.20		28.02.20			05.03.20	10.03.20
9		Nutrition expert	CQS	Time based	MM	3	2.625	15	Post	Planned Revised Actual				15.01.20		20.01.20		25.01.20	31.01.20	27.02.20				05.03.20		10.03.20			15.03.20	20.03.20
10		Value chain/market studies, design & supervision	QCBS	No.	No.	2	1.05	6	Post	Planned Revised Actual				02.01.20		03.01.20		03.01.20	10.01.20	10.02.20	15.02.20		20.02.20	28.02.20		05.03.20		10.03.20	15.03.20	
11		Post harvest technologist	CQS	Time	MM	9	5.88	33.6	Post	Planned Revised Actual				02.05.20		03.05.20		03.05.20	06.05.20	05.06.20	15.06.20				20.06.20		25.06.20	01.07.20		
12		Value chain and marketing specialist	CQS	Time	MM	6	6.3	36	Post	Planned Revised Actual				25.10.20		01.11.20		01.11.20	05.11.20	05.12.20	10.12.20				15.12.20		20.12.20	01.01.21		
13		Study to explore income opportunities	QCBS	lump sum			0.35	2	Post	Planned Revised Actual				01.03.20		05.03.20		05.03.20	10.04.20	05.05.20	15.05.20		20.05.20	25.05.20		30.05.20		05.06.20	10.06.20	
14		Mapping of incubators	QCBS	lump sum			0.35	2	Post	Planned Revised Actual				10.06.20		15.06.20		15.06.20	20.06.20	20.07.20	25.07.20		05.08.20	15.08.20		20.08.20		25.08.20	01.09.20	

Sl.No	AWPB Activity Code	Description	Selection method	Lump sum or time based	Unit	Quantity	Estimate LKR/MM	Estimate USD '000	Prior/post review	Plan Vs Actual	Request for EOI			Terms of reference			Bid proposal/RFP				Bid evaluation Technical (T) and Financial (F)				Contract Finalization			Date Completed		
											NOL for EOI	Date published	Closing Date	Date proposed	Date no objection	PC approval	NOL for RFP/Bid	PC approval	Invitation date	Closing/opening date	Submitted evaluation report	NOL for evaluation report (T)	Opening financial proposal	Submitted evaluation report (T) & (F)	NOL for evaluation report (T) & (F)	Date of PC approval	Contract amount LKR ('000')		Date awarded	Contract Signature
15		Agro-enterprise, finance, youth specialist	CQS	Time	MM	10	2.1	12	Post	Planned Revised Actual				01.03.20		05.03.20		05.03.20	10.04.20	05.05.20				15.05.20		20.05.20			25.05.20	01.06.20
16		Farm business management training specialist	CQS	Time	MM	15	3.15	18	Post	Planned Revised Actual				01.03.20		05.03.20		05.03.20	10.04.20	05.05.20				15.05.20		20.05.20			25.05.20	01.06.20
17		Survey, design, construction & supervision /1	QCBS	No.	No.	20	70	400	Prior	Planned Revised Actual				10.03.20	15.03.20	10.04.20		15.03.20	20.03.20	25.03.20	26.04.20	02.05.20	10.05.20	15.05.20	30.05.20		02.06.20		10.06.20	15.06.20
18		Technical assistance ; Civil engineer (Chartered)	CQS	Time	MM	12	2.52	14.4	Post	Planned Revised Actual				01.04.20		05.04.20		05.04.20	10.05.20	05.06.20	15.06.20				15.06.20		20.06.20		25.06.20	01.07.20
19		Climate & Market information services / 2	QCBS	No.	No.	1	105	600	Prior	Planned Revised Actual				10.03.20	15.03.20	10.04.20		15.03.20	20.03.20	25.03.20	26.04.20	02.05.20	10.05.20	15.05.20	30.05.20		02.06.20		10.06.20	15.06.20
20		Review of ASCs and Agrarian Rural Banks	CQS		Unit	1	1.75	10	Post	Planned Revised Actual				03.01.20		05.01.20		05.01.20	10.01.20	10.02.20	20.02.20				20.02.20		25.02.20		27.02.20	01.03.20
21		Design and supervision Market centres	QCBS	lump sum			0.525	3	Post	Planned Revised Actual				05.04.20		10.04.02		25.04.20	01.05.20	01.06.20	10.06.20				15.06.20		20.06.20		25.06.20	01.07.20
22		Area coordinators (NRM specialists)	CQS		MM	36	6.3	36	Post	Planned Revised Actual				10.01.20		15.01.20		15.01.20	20.01.20	15.02.20				25.02.20		28.02.20			05.03.20	10.03.20
23		PIM Manual	CQS			1	1.75	10	Post	Planned Revised Actual				01.03.20		05.03.20		05.03.20	10.03.20	05.04.20	10.04.20				10.04.20		20.04.20		25.04.20	01.05.20
24		Baseline/Annual Outcome/Impact Survey	QCBS		No.	2	3.5	20	Post	Planned Revised Actual				10.01.20	15.01.20	10.03.20		15.03.20	20.03.20	25.03.20	26.04.20	02.05.20		10.05.20	15.05.20		20.05.20		01.06.20	05.06.20

1. Surve, Design and supervision cost need to be separated to estimate the cost of consultancy and decide the threshod for prior review by IFAD
2. Cost of the service need to be re-checked ? Can't be categorised as Services ?

Procurement Plan 2020/21 SERVICES (Non Consultancy)

Country : Sri Lanka
 Project / Programme : Smallholder Agribusiness Resiler
 IFAD Loan No :
 Period : from 1st January 2020 to June
 Exchange Rate : USD 1= LKR 175

SL No	Activity	Description	Selection method	Lump-sum or time-based	Unit	Quantity	Estimate LKR MN	Estimate USD '000	prior/post review	Plan Vs Actual	Request for EOI			Terms of Reference			Bid proposal / RFP				Bid evaluation Technical (T) and Financial (F)				Contract Finalization			Completed					
											NOL for EOI	Date published	closing date	Date proposed	Date No objection	PC approval	NOL for RFP/Bid	PC approval	invitation date	Closing/opening date	Submitted evaluation report	NOL for evaluation report (T)	Opening financial proposal	Submitted evaluation report (T) & (F)	NOL for evaluation report (T) & (F)	Date of PC approval	Contract amount LKR '000		Date awarded	Contract Signature			
1		IWMI technical support	QCBS	Lump-sum	Nos.	1	37.63	215	prior	Planned							15.01.20	20.01.20	21.02.20	16.03.20	20.03.20	23.03.20	25.03.20	30.03.20	05.04.20	10.04.20		16.04.20	18.04.20				
										Revised																							
										Actual																							
2		Climate Risk Analysis consultancy	QCBS	Time based	MM	2	7	40	post	Planned		20.01.20	15.02.20					20.02.20	25.02.20	25.03.20	30.03.20			05.04.20	10.04.20		16.04.20		20.04.20	25.04.20			
										Revised																							
										Actual																							
3		Envirenmental and social Management framework	QCBS	Time based	MM	1	2.1	12	post	Planned		20.01.20	15.02.20					20.02.20	25.02.20	25.03.20	30.03.20			05.04.20	10.04.20		16.04.20		20.04.20	25.04.20			
										Revised																							
										Actual																							
4		VAM targetting and planning	QCBS	Lump-sum	MM	1	17.5	100	prior	Planned	05.01.20	10.01.20	05.02.20*				15.02.20	20.02.20	25.02.20	25.03.20	30.03.20	05.04.20	16.04.20	21.04.20	26.04.20	30.04.20		05.05.20	10.05.20				
										Revised																							
										Actual																							
5		NGO SPs - community development, NRM etc.,	QCBS	Lump-sum		2	118.1	675	prior	Planned	05.01.20	10.01.20	05.02.20*				15.02.20	20.02.20	25.02.20	25.03.20	30.03.20	05.04.20	16.04.20	21.04.20	26.04.20	30.04.20		05.05.20	10.05.20				
										Revised																							
										Actual																							

*NOL for shortlisted bidders should be obtained.

Sri Lanka

Smallholder Agribusiness and Resilience Project Project Design Report

Annex 8: Project Implementation Manual (PIM)

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Asia and the Pacific Division
Programme Management Department

Democratic Socialist Republic of Sri Lanka

Smallholder Agribusiness and Resilience (SARP) Project Design Report

Annex 8: Project Implementation Manual (PIM)

Document Date: 15/09/2019
Project No.

Asia and the Pacific Division
Programme Management Department

Sri Lanka - Smallholder Agribusiness and Resilience Project Design Report Annex 8: Project Implementation Manual (PIM)

1. Background

1. Sri Lanka has abundant water resources but the water distribution is skewed in both time and space. Most rain falls during two distinct monsoons: during the period December to February and May to September as well as spatially, in the southwest and central highlands areas. In comparison, the country's lowlands are dry, particularly in the dry zone region where in the north mean annual rainfall is less than 1,500 mm and there are regular droughts. The dry zone covers 70 percent of Sri Lanka's land area and is the country's agricultural heartland and the main area where the staple rice crop is grown. The freshwater available per capita, on an annual basis, is less than half of the national average and below the level that denotes water stress. Water scarcity in the region is further deteriorating due to the increasing population and climate changes. Small-scale farmers with land holdings of less than 2 hectares dominate agriculture in the region.
2. Climate-related hazards pose a significant threat to economic and social development. Extreme variability of rainfall and droughts are already a defining feature of Sri Lanka's climate. Climate projections indicate an increasing rainfall trend in the wet zone and a decreasing rainfall in the dry zone. The implications are that the risks associated with water-related hazards are likely to increase. Climate change is expected to continue to impact the agricultural sector and in particular smallholder farmers in the dry zone. The World Bank-CIAT Climate Smart Agriculture (CSA) country profile for Sri Lanka (2015) points to critical vulnerabilities related to an overreliance on rain-fed systems, limited access to irrigation and limited diversification with a reliance on paddy rice.
3. Over the past millennia, local communities have managed this water stress by constructing small cascade systems of reservoirs, transfer canals and irrigation schemes. The dry zone is a hard rock region with naturally-occurring shallow groundwater which limits the opportunities for irrigation and relies on rain-fed agriculture. Historically, the cascade system evolved from the construction of small individual tanks followed by the construction of larger tanks with greater storage capacity which resulted in a cascade of tanks with stored water moving from highland to lowland areas. The Tank Cascade System (TCS) mitigates the negative consequences of chronic and recurrent droughts, seasonal flooding and land degradation.¹ Currently, the livelihood of a large population in the dry zone depends on small tank-based irrigated farming. The limited availability of water resources constrains the agricultural and commercial production of the region and suppresses its social and economic development.
4. A number of studies have confirmed that smallholder farmers cultivating under village irrigation systems are poorer and more vulnerable than dry zone counterparts who have access to major irrigation. These farmers are much more vulnerable to the impacts of climate change than farmers cultivating under larger irrigation systems. As productivity and crop yields decline with low water availability and unseasonal rains, resulting from climate variability and extreme events, smallholder farmers are dragged deeper into poverty and face food deficits which have to be met by buying food for consumption, increasing the level of indebtedness and further eroding their capacity to cope with climate risks.
5. The dry zone, however, has significant scope for agricultural productivity growth both through traditional and non-traditional agriculture and the potential for better linkages to domestic and export markets for fresh and value-added production.² Given the centrality of tanks to the agrarian

¹Geekiyanage, N.; Pushpakumara, D.K.N.G. *Ecology of ancient Tank Cascade Systems in island Sri Lanka*. J. Mar. Isl. Cult. 2013, 2, 93–101

² IFAD, 2015. Project Appraisal Document, Agricultural Sector Modernization Project in Sri Lanka. Washington DC: IFAD.

livelihoods of dry zone farmers, their current levels of neglect and the increasing vulnerability of these areas to *both* droughts and floods in quick succession with consequent impacts on agricultural production and incomes, the rehabilitation of tank-based irrigated agricultural systems is key to improving the resilience of these areas and the agrarian communities that depend on them. The Hot-Spot area development approach aims to enhance resilience of these areas and those who depend on it for their livelihoods by (1) the flexible and adaptive management of existing and improved irrigation water storage and delivery structures to make irrigation more reliable in the face of rising climatic variability; (2) better agricultural inputs, techniques and practices that, along with the additional water assist farmers to better stabilize their crop yields and reduce crop losses in the light of climatic variability; and (3) better access new markets and higher prices through better post-harvest management and value addition and inclusion in competitive value chains. Climate Smart Irrigated Agriculture (CSIA) addresses some of these challenges by addressing climate change adaptation whilst ensuring food security. The urgency and rationale for climate resilient economic development to benefit dry zone farmers is extremely relevant.

6. Since all dry zone areas cannot be taken up at the same time, the project approach is to work in climatically-vulnerable 'hot spot' areas, which are hydrologically defined (i.e., a catchment within a river basin), containing several tank cascades and individual tanks and also housing rain-fed farmers, especially in the higher-elevation areas of the catchment.

2. Project objectives, geographic area of intervention and target groups

7. The goal of SARP is to contribute to Sri Lanka's smallholder poverty reduction and food security in the dry zone region. The development objective is to build resilience and market participation of 40,000 rural smallholder households in the project area (180,000 persons) with women and youth constituting 50 percent (90,000) and 20% (36,000) of the total beneficiaries, respectively. The duration of the project is six years.³

8. Geographic area of intervention:

9. SARP will focus on priority districts in the North, North Central, Central, and North West provinces of the dry zone. The project will target selected cascades in three river basins – the Malwathu Oya, Mi Oya and Deduru Oya - that were identified by the Department of Agrarian Development (DAD) as most vulnerable, ecologically and socially. DAD classifies sub-watersheds and Village Tank Cascades (VTCs) according to their resilience to climate change. The selected cascades are located in so called 'hot spot' geographical areas covering an average of 25,000 ha. where farmers and farming livelihoods are highly exposed and vulnerable to increasing climatic variability. The criteria used for the selection of hot spots are: (a) the impact of drought and floods on crop losses and expenditures on drinking water and relief supplies; (b) the current climate vulnerability as reflected by income poverty, source of drinking water and participation in safety net programs; and (c) future climate vulnerability based on an index of 42 indicators measuring exposure, sensitivity, and adaptive capacity⁴. Cascades and VTCs have been selected during the design to avoid duplication of locations where the on-going World Bank projects are operating.⁵ Additionally, decisions have been taken to include cascades and micro-catchments where synergies can be developed with on-going UNDP and WFP projects to demonstrate the impact of an integrated watershed development⁶.

³ The estimated number of households to be reached was derived from previously implemented projects linked to the overall budget of the project and adjusted for the dry zone rural population that is more dispersed than the potential areas.

⁴ The hotspots are hydrologically defined as a catchment within a river basin that contains several Village Tank Cascades (VTCs) and individual tanks.

⁵ Agriculture Sector Modernization Project covering 7 districts and the Climate Smart Irrigation Project covering 11 districts and 17 river basins.

⁶ The UNDP project, "Strengthening the resilience of smallholder farmers in the Dry Zone" covers three river basins, 16 cascades in 7 districts. The WFP project, "Building Resilience Against Recurrent Natural Shocks through Diversification of Livelihoods for Vulnerable Communities in Sri Lanka", covers 5 districts.

10. The selection of project sites took into account:

- household data on poverty;
- vulnerability and sensitivity to shocks and stresses (drought and flood);
- food insecurity and malnutrition;
- land degradation, agro-ecological zone (dry zone), seasonality and livelihood, prepared through the World Food Programme, Vulnerability Analysis and Mapping (VAM) system;
- geographical advantage of working on cascade systems and rejuvenating the water tanks with the potential to provide perennial water sources for the rural communities;
- concentration of farmers engaged in the production of selected value chains;
- potential for agricultural diversification, agribusiness and market access;
- Selections aimed at avoiding duplication of activities with World Bank projects and to build synergies with UNDP (5 common target districts) and WFP (3 common target districts).
- Existence of Protected Areas: the project sites must not be in close proximity/adjacent to the Protected Areas

11. These elements were overlaid in order to select tentatively target divisions within districts where WFP and UNDP are operating. The hot spots and selected cascades traverse six districts in two clusters - Anuradhapura, Vavuniya, Matale, Mannar, Puttalam, Kurenagala - some of which have been targeted by UNDP and WFP and others suggested by DAD. Additional work will be needed to extend to the remaining districts.

		Cluster locations					
		District	DAD - CASCADE 1/	WFP 2/	UNDP	World Bank	River basin
Cluster 1		Anuradhapura	+	+	+	+	Malwathu oia
		Vavuniya,	+		+		Malwathu oia
		Mannar		+	+		Yan
Cluster2		Puttalam	+		+	+	Mii oia
		Matale		+			
		Kurenagala	+		+	+	Mii oia

Footnote: 1/ Districts where cascades selected by the Department of Agrarian Development where river basin analyses have been carried out and priority is given to development 2/ WFP is implementing its resilience project in two districts. In Anuradhapura work is being conducted on rice fortification

12. Farmers located in the vicinity of the cascades are supported by extension staff located in the Agrarian Service Centres. In the selected districts there is a total of 111 ASCs that cover a farming population of more than 231,000 farm households. The total number of village tanks in these districts are in excess of 8,400 with a command area of 98,000 hectares.

District	No. ASCs	No. tanks	Command area (Hectares)	No. of farm families	Av. Farm size command area (ha)
Matale	9	237	3422	11153	0.307
Puttalam	9	871	8554	16603	0.515
Kurunegala	41	4435	31878	113503	0.281
Mannar	12	112	3564	17000	0.210
Vavuniya	8	621	13901	13072	1.063
Anaradhapura	32	2141	36930	60464	0.611

Total	111	8417	98250	231795	0.42
Source: Department of Agrarian Development					

2. Targeting and Mainstreaming Priorities

13. The social inclusion strategy for SARP provides measures to ensure meaningful participation of youth, people with disabilities, indigenous people in the project activities and provides a nutrition sensitive approach to ensure food security for the beneficiaries. The strategy provides guidance on operationalization of mainstreaming priorities of IFAD. The targeting and mainstreaming priorities are elaborated on in Annex 1.

Target groups:

14. The target beneficiaries can be divided into three categories of households – the extreme poor, poor with potential to sell in local markets and more commercially oriented smallholder farmers. The extreme poor are non-labour constrained households that are rainfed producers, with small fragmented holdings, as well as the landless, who are food insecure. The main category of farmers will be moderately poor households that are economically active in agriculture and are located in cascades with minor irrigation systems. These farmers produce surpluses of rice, depending on the water availability and during the yala season some cash crops, albeit the level of marketed sales is usually low. The households are often food secure but at risk of slipping back into the lower ranks of poverty due to climate and economic shocks. The better-off farmers and other value chain actors are more commercially oriented and play an important role in value chain development. SARP will bring the better off farmers together with the moderately poor households, youth and other value chain actors into selected value chains linking them with processors and other private sector buyers. Other vulnerable groups including households suffering severe malnutrition, disabled persons and ex-combatants who will receive specific attention to facilitate their social integration in agricultural production and economic activities.
14. Through the cascade/ tank targeting process around 13,000 farm households have been identified as located in the command area of the tanks and a further 18,300 in upstream locations and adjacent areas. An attempt was also made to estimate the number of farm households in each category through an expert consultative process. Some 10% of the households were regarded as better-off and more commercially oriented, 70% regarded as poor with potential and 20% as the most vulnerable and food insecure. Using an average of 4.5 people per household, this translates into a total of around 154,000 persons. A further 8,700 beneficiary households will lie outside the catchment areas. SARP will reach at least 50% women and 20% youth as beneficiaries. The project will introduce approaches that promote gender equality, women empowerment and social inclusion.⁷

Targeting Strategy:

15. SARP will ensure the participation of the more marginal rural households, whilst being inclusive of so-called 'better-off' smallholder farmers and specific vulnerable groups. The mechanisms include: (i) geographic targeting, (ii) self-targeting; and (iii) direct targeting. SARP design includes empowering, enabling and procedural measures to promote sustainable socio-economic development with particular focus on the youth, women, indigenous people, women headed households, single women, widows and other vulnerable groups (ex-combatants and the disabled).

⁷ The targeting strategy as detailed in appendix 8 provides detailed vulnerability analysis, profile targets, risk mitigation measures, inclusion strategies. The vulnerability analysis provides an overview of the challenges faced by farmers including landlessness, smallholding, remoteness and inaccessibility to markets, institutions and inputs, meagre coverage under social protection, limited household incomes and assets, indebtedness, food insecurity, limited access to rural finance and enterprises, climate change vulnerability and social and economic marginalization faced by ethnic, indigenous, disabled, youth and women farmers.

16. The World Food programme's VAM system⁸ will be used to target specific numbers of sub-categories of households that could include: a) women headed households; b) young unemployed women; c) households with disability or kidney diseases as a result of CGD; d) conflict displaced/resettled persons; e) households affected by floods over the last five years; and f) families with children/women displaying low nutrition (underweight/ anaemic).
17. Direct targeting will be used to choose activities, taking into consideration where the most vulnerable farmers can be found. A differential approach will be used to ensure accessibility, relevance and impacts of different technological packages for women, men, youth, and the most vulnerable. Quotas will ensure the effective participation of the different vulnerable groups in project activities. Self-targeting will occur through participation in the FFS and FBS and direct targeting will be used for specific activities directed to women, youth, ex combatants, the disabled and other vulnerable groups in the communities. Mentoring will be done to ensure proper participation, achievement and sustainability of interventions, especially for the extreme poor, and specific disadvantaged groups – women headed households and the disabled.
18. The combined approach has three important aspects: (a) ensure the availability of water, increasing the cropping intensity and diversifying the farming system to introduce high value priority commodities. (b) focusing on value adding activities for women and youth including post production, the provision of support, advisory and information services; and (c) reaching the extreme poor through cash for assets and other cash transfers, graduating the beneficiaries into small income generating activities and building capacities.
19. Nutrition will be mainstreamed through the selection of nutrition sensitive value chains. Awareness raising and behavioural change regarding nutrition will be an integral part of the approach that will include social marketing and home gardening activities at community level. As many households are loosely organized into groups and this mechanism is widely used for the receipt of government subsidised inputs, SARP will engage directly with rural producer organizations to strengthen their capacity, governance and inclusivity whilst developing social and economic enterprises amongst those groups with potential.
20. An effective and well-defined social mobilization process will facilitate the inclusive and effective delivery of SARP activities. It will ensure that the project is able to effectively target and fully engage its intended beneficiaries. It will also enable project activities to be fine-tuned to respond to the local context, opportunities and the priorities of the households. The project's social mobilization and inclusion approach will involve selecting a community mobilisers for each target community (50 percent women and 20 percent youth) from within the local communities. These mobilisers will be supported by Social Inclusion and Gender Facilitators trained and tasked with using PRA techniques to undertake social and economic mapping of the communities to identify project beneficiaries for different activities and ensure their inclusion in project activities. The social mobilization team will be key to mobilizing and incentivizing the community to participate in project activities, build the capacity of women and men farmer groups to function more effectively and delivering empowerment and nutrition training as well as establishing an effective communication channel between the project beneficiaries and project implementers. The community facilitators will be supported by community development service providers and project staff working at the Agrarian Service Centres.

The main target subgroups are described below:

21. *Smallholder farmers (poor with potential)*. The primary livelihood of over 70 percent of the rural population in the proposed districts is small scale farming associated with high climatic risks. This is the most representative of the farmers found in the area. In general, they do not produce enough to cover their food needs at times of climate shocks. These households are essentially characterized by: (i) low production and productivity of the main crops (rice, maize etc.); (ii) vulnerability to climate change; (iii) lack of or low access to production factors (land, improved inputs, water and capital); (iv) limited access to mechanization; (v) weak organizational capacity;

⁸ IFAD will work closely with WFP and government agencies to utilise the existing geographical and household targeting VAM system

and (vi) low income levels. The objective for these farmers is to increase production for home consumption and sales in local markets through adapted production technologies, improved access to water and inputs and enhanced income generation.

22. Commercially oriented smallholder farms with some level of organisation. These are smallholder farmers with diversified farming systems that are more commercially oriented and comprise around 10 percent of the farming population in the project area. Some of these households have up to 2 ha of farm land and are able to produce for the market. They are able to access agricultural inputs and mechanical traction and operate irrigated or partially irrigated systems. The objective for this group is to stabilise production through the more efficient use of water and the introduction of climate-smart technologies. By increasing the regularity of supplies and the quality and volume of agricultural production stronger links will be made to market outlets.
23. Women. Women make up about 51 percent of the population and in rural areas they are mainly involved in agricultural production and the keeping of small livestock. Women do farm work such as tillage, planting, harvesting, transportation and processing, and also take care of the family nutrition as well as the reproductive roles. Women heads of household, widows and young women are socially, culturally and economically disadvantaged but are responsible for ensuring the well-being of their families and agricultural activities. Many women-headed households regard farming as an important option. They, however, face the following challenges: (i) unequal access to resources (land, water, credit); (ii) lack of business development and management skills; and (iii) limited voice, leadership and decision-making capacity in farmer organizations and other groups. SARP will promote specific activities for women organized into groups for processing (using labour saving technologies), marketing and service provision. Specific training to enhance women's empowerment and effective participation in activities and household welfare will be included in the FBS curricula. Other activities targeting women concern nutrition, where women are at the centre of food preparation for the family. Some 45 percent of the beneficiaries will be women.
24. Youth: Youth are leaving agriculture as it is unattractive to them. Interest in agriculture is diminishing as it is not regarded as a modern sector and it fails to bring a respectable and secure income. The lack of incentives in the agricultural sector (lack of land and capital to invest) leads to a large number of rural youth migrating to urban areas in search of formal employment. SARP will develop an incubation system to address the paucity of youth skills in farming and related value chain activities. Both technical and entrepreneurial skills of young people will be developed culminating in the preparation of business plans for implementation which may be financed by combination of loans and grants following specific eligibility criteria and approval procedures. It will also educate women and men about ownership and inheritance rights, including land. In areas where female groups and youth groups do not exist, the project will conduct gender awareness training at community level and set up women's and youth based self-help groups for knowledge-sharing on GAP and SLM practices. Youth entrepreneurship will also be promoted through the FBS. Some 25 percent of the beneficiaries will be youth.
25. Extreme poor. This includes the most vulnerable and food insecure households of which a significant group is disadvantaged due to their economic and social exclusion which include people with physical or mental disabilities. Ex-combatants have also been included in this category as they are generally more elderly, between the ages of 50 and 80, and are also socially and economically disadvantaged. There are also landless and smallholder farmers trapped in indebtedness with little or no social protection. They will be targeted through training and capacity building activities linked to service provision, income-generation and off-farm income opportunities.

3. Value chain development

26. A broad range of crops and livestock enterprises are grown in all parts of the dry zone. Fruits and vegetables with a wide national coverage are more prominent in North central, North Western, and Eastern provinces. The dairy sector is widely distributed nationally across many provinces with large numbers of farms in the North and Eastern provinces and goat production is more widely found in the dry zone. With regard to the farming population involved in these broad sub-sectors, data is imprecise and not generally available. Estimates, however, can be made based on the area of land under cultivation for some of these products. The average farmer has a less than 1 ha. of land, and on this basis the area under cultivation can be used to estimate the farming population involved in each product sector in the dry zone. Discussions held with technical staff at the Department of Agriculture suggest that for maize there are around 130,000 farmers, vegetables 600,000 farmers and ground nuts around 47,000 farm households. Many farmers, however, in the dry zone have small plots comprising several products so errors of double counting predominate.
27. A part of the project targeting and inclusion strategy is the sound selection of the suitable commodities to be supported. The project being limited to the dry zone is based on the VCs available in that area. The following table was compiled by technical experts with knowledge of the farming systems in the target districts. The predominant cropping pattern includes rice, chili, legumes, vegetables and fruit. Goat and dairy production predominate. Potential new crops that could be considered for diversification are Alovera, Moringa, big onion (seed production) and groundnut seed.

Districts	No. farmers major irrigation	Minor irrigation	Rainfed farmers	Crops					Livestock	Potential new crops
				Rice	chilli	Legumes – black and green gram, soya ground nut	Mango Guava Banana	vegetables		
Anuradhapura	23418	15682	N/A	Rice	chilli	Legumes – black and green gram, soya ground nut	Mango Guava Banana	vegetables	Goat	Alovera Moringa
Vavuniya	921	1775	N/A	Rice	chilli	Legumes – Black gram	Lime Mango Papaya Passion	vegetables	Goat Dairy	Red onion seed Soursop
Matale,	4982	723	N/A	Rice		Legumes– Black and green gram	Banana Mango Papaya	Vegetables	Dairy Goat	Alovera Big onion seed production
Mannar	10946	1409	N/A	Rice	chilli	groundnut	Lime Mango Passion Cashew	vegetables	Goat	Ground nut seed
Puttalam	7476	2808	N/A	Rice	chilli	Legumes– Black and green gram	Fruit Citrus Pomegranate Guava Cashew	vegetables	Goat	Dragon fruit
Kurenagala	21636	3924	N/A	Rice		Legumes– Black and green gram	Fruit Pineapple Guava Papaya Passion	vegetables	Dairy Poultry	Floriculture Apiculture

28. The numbers of farmers under major and minor irrigation schemes per district were compiled from district level agricultural statistics. Over 95,000 farm households can be found in the area under major and minor irrigation schemes with over 72 percent under major irrigation and 28 percent minor irrigation. The number of rainfed farmers – the most vulnerable category - are unknown from the official statistics. SARP will focus on those farmers currently under minor irrigation schemes as well as those in catchment areas where there is potential rehabilitate the tank system.

29. A set of criteria was used for the selection of potential value chain commodities. These are:

- potential for market growth demonstrated by unmet market demand either in the domestic or export markets;
- production potential demonstrated by current level of production and productivity;
- Suitability for climate adaptation
- potential outreach of smallholder households (current number of smallholder producers);
- profitability (net returns on investment/per worker);
- potential for inclusion of women, youth and other marginalized groups;
- nutrition sensitivity;
- enabling institutional and business environment for market-led development

30. A consultative workshop was organised for Ministry of Agriculture technical experts who are knowledgeable about the dry zone conditions. A long list of products was developed and ranked by the experts on a continuum ranging from 1 to 10 with the higher score more favourably addressing the criteria set. The findings show from the overall weighted score the following value chains predominate: finger millet, green gram, groundnut, chili, passion fruit, cashew and low country (off season) vegetables and seed crops (chili, onion and groundnut). Of particular interest are the specialised crops – aloe vera and moringa. The highest ranking livestock value chains are semi-intensive goat, backyard poultry and dairy. From a nutrition sensitive value chain perspective livestock, fruit and vegetables stand out suggesting the need to focus on agroforestry and small livestock around the homestead as a livelihood strategy. From an adaptation to climate perspective sorghum, legumes, cashew, aloe vera and moringa are particularly attractive.

31. These commodities may be added during the project subject to capacity, resources and opportunities for impact. To ensure the sustainability of benefits for small-scale farmers, capacity of farmers will be continuously built to look for new market opportunities rather than be tied to a single VC product.

Value Chain	Potential for market growth	Production potential	Suitability for Climate Adaptation	Potential smallholder outreach	Potential profitability /Income	Potential for inclusion of women/ youth	Nutrition sensitivity	Enabling institutional & business environment for market led development	Total
Weights	10	10	15	15	20	10	10	10	100
Cereals									
Rice	5	7	3	8	3	4	4	2	445
Maize	8	8	5	8	8	7	4	7	695
Kurakkan (Finger Millet)	8	8	9	8	7	7	9	6	775
Sorghum	7	7	9	8	5	8	8	6	715
Spices									
Tumeric	8	9	7	8	8	7	5	6	735
Ginger	7	2	3	4	3	4	2	2	335
Field crops									
Chilli	9	9	6	9	9	8	3	7	765
Big Onion	8	8	6	7	8	7	3	6	675
Black gram	8	7	9	7	7	7	8	5	730
Green gram	9	8	9	7	9	8	9	5	810
Soya	8	8	9	7	6	7	8	5	720
Groundnut	9	9	9	8	8	8	8	5	805
Sesame	7	8	8	8	8	7	7	5	740
Cowpea	8	7	9	7	7	7	8	5	730
Fruits									
Lime	8	7	9	7	8	5	4	7	710
Mango	9	8	8	7	7	6	7	8	745
Papaya	9	8	5	8	8	6	8	8	745
Passion	10	9	8	9	9	6	8	9	855
Banana	7	8	7	9	8	7	8	7	770
Guava	9	8	8	7	8	5	8	7	755
Cashew	8	7	10	7	9	7	9	9	835
Pomegranate	9	7	9	6	9	5	9	7	775
Water melon	9	8	5	8	8	6	8	8	745
Vegetables									
Low Country Vegetables	9	8	7	8	8	9	9	7	805
Specialized crops									
Aloe vera	9	9	9	8	8	8	6	6	795
Moringa	8	8	9	8	8	8	9	6	805
Livestock									
Dairy	8	8	7	8	7	8	9	7	765
Backyard Poultry	7	8	8	9	7	8	9	8	795
Semi intensive Goat	8	8	9	7	8	8	9	6	790
Seeds									
Chilli	9	8	8	5	9	9		8	794
onion	8	8	8	5	9	9		8	783
Paddy	9	7	7	7	7	7		8	733
Vegetables	9	8	7	5	8	8		8	744
Ground nuts	9	9	8	5	8	8		8	772

Annex 1 provides details on some of the value chain products identified for promotion.

32. Based on the above criteria, the table below summarises the commodities short-listed for possible inclusion in the project and provisional estimates of potential outreach in each via the project. These are based on the data and information gathered during the detailed design mission and will need to be verified during finalization of the design.

Candidate commodities and indicative expected outreach⁹

Commodity	Outreach smallholders
Livestock	
Goat	23,000
Dairy	9,000
Crops	
Paddy	45,700
Maize	9,900
Chili	14,000
Vegetables	25,000
Fruit	15,000
Legume seeds	9,000
<i>Total</i>	<i>150,600</i>

33. A gender and youth analysis of commodities was conducted during SARP design, warranting a gender balanced approach of commodities for which there is appetite in the market. It is expected that sufficient opportunities will be available for female and male adults and youth to participate in line with rates referred to above.

Table 1: Social screening of commodities considered in SARP design.

Commodities	Suitability for Men	Suitability for Women	Suitability for Male Youth	Suitability for Female Youth
Crops				
Vegetables	- men most interested in commercial scale production	- Generally cultivated by women - moderate labour intensity - only small areas of land needed, so can be seen as complement not a replacement to other cropping by men	- Short cycle; quick and steady returns. - lower levels of initial investment are feasible if aggregating output as part of a larger producer - Only requires small areas of land - opportunities in grading, packaging and marketing of producer from group as regular year round supply	
Vegetable seeds				
Legume seeds	Land based crops, well suited to un-irrigated and marginal land Very low entry costs if have access to land, so well suited to poorer farmers, but need to collaborate in group for processing, certification and marketing of seed.	May be well suited to women-headed households and women with access to un-irrigated land but willing to work together for processing, certification and marketing. Opportunities for mechanization can further reduce the labour required per ha., providing opportunities to offset lack of (male) labour.	Requires larger areas of land and so primary production not likely to be very accessible to young youth Seed sector requires significant post-harvest grading and packaging suited to youth employment opportunities	Requires larger areas of land and so primary production not likely to be very accessible to young youth Seed sector requires significant post-harvest grading and packaging suited to youth employment opportunities
Fruit	- men most interested in commercial scale	- Generally cultivated by women around	- Short cycle; quick and steady returns. - lower levels of initial investment are	

⁹ Data source – Republic of Sri Lanka Agricultural Statistics (2018) and expert consultation 2019

Commodities	Suitability for Men	Suitability for Women	Suitability for Male Youth	Suitability for Female Youth
	production	homestead - moderate labour intensity - only small areas of land needed, so can be seen as complement not a replacement to other cropping by men	feasible if aggregating output as part of a larger producer - Only requires small areas of land - opportunities in grading, packaging and marketing of producer from group as regular year round supply	
Livestock				
Dairy	- Dairy is predominantly owned by men. Likely to constitute the first entry group to cattle fattening opportunities	- Cattle owned in very few numbers, but goats more widely owned - Emerging dairy opportunities could be detached of the cultural baggage associated with cattle rearing at HH level by men	- some men are familiar with cattle - Could provide specific support services to owners such as with accessing veterinary drugs - Potential for producing quality animal feed	- Potential for producing quality animal feed
Goat	Raised by men and women	Raised by men and women - raised at the homestead, enabling production to be combined with other household activities - modern production and feeding systems provide further opportunities for women to take lead in household goat fattening/breeding	- Moderate cycle; requires little and not very good quality land - requires moderate level of initial investment - opportunities also in livestock production services for well-trained youth	

34. For the more commercial products - vegetables, fruit, legume and vegetable seeds, dairy and goats -SARP will catalyse the emergence of competitive clusters. These products have a confirmed market potential and comparative advantage for smallholder production in the project locations. Specifically, product clusters will be prioritized which have:

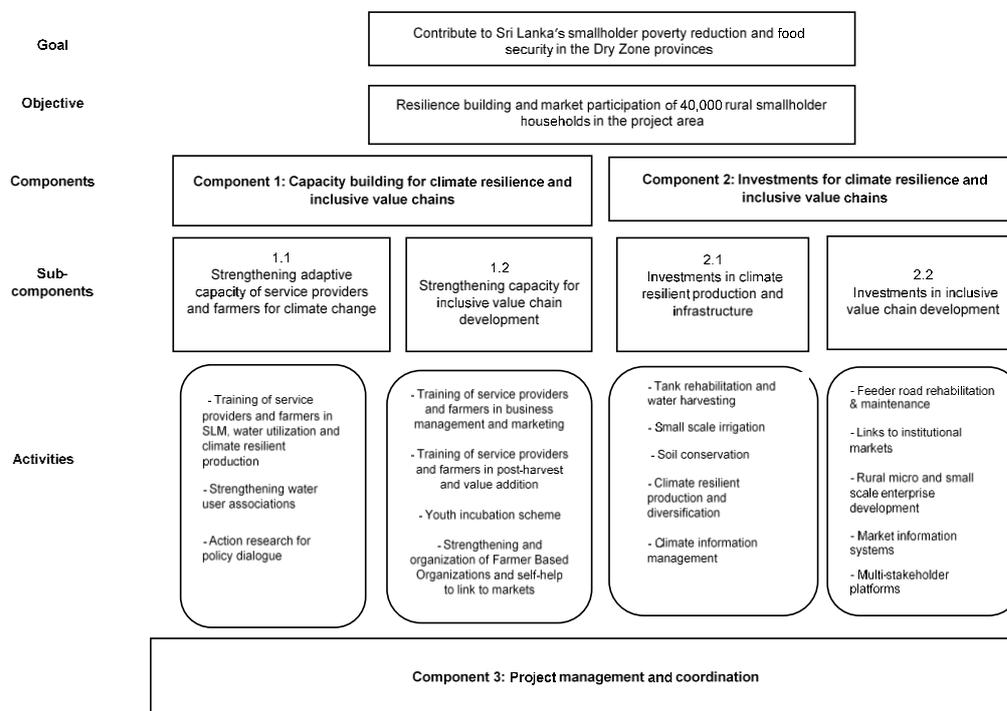
- (a) Clear, current market demand sufficient to absorb the expected increase in production;
- (b) Substantial confirmed interest from
 - (i) farmers, including smallholders and younger farmers, to expand and improve their production;
 - (ii) traders and agribusinesses to increase their sourcing from smallholders and producer groups in the cluster locations;
- (c) Opportunities for competitive, profitable and sustainable smallholder production raising current low levels of agricultural production and productivity;
- (d) Practical intervention opportunities for the project to facilitate the accelerated development of the particular industry and local cluster.

35. To be genuinely inclusive, there must be profitable and realistic "investment pathways" for the poorer and younger farmers to become successful players in a cluster. This means that the minimum initial investments by the target beneficiaries for all supported products must be affordable and lead to sufficient incremental incomes to enable reinvestment of part of the profits from each cycle back into the supported enterprise until it generates sufficient income at levels that are attractive. For the young, it is also essential that they see the first benefits quickly and feel they are on an upward path.
36. The fruit and vegetable sub-sectors represents attractive opportunities for women and youth to engage and in the latter case enjoy quick and timely benefits. However, there are challenges that need to be met. These are listed below, together with potential solutions and entry points. Social mobilization

Opportunities for impact & Key Entry Points for fruits and vegetables:

Problem/Opportunities	Solutions/entry points
Vulnerability for climate change	<ul style="list-style-type: none"> • Introduction of climate smart practices into cultivation (Ex: Protected agriculture, micro irrigation etc.) • Enhance the availability of water by rehabilitation of minor tanks and sustainable cascade management.
Prevalence of pest and diseases	<ul style="list-style-type: none"> • Incorporation of Integrated Pest Management (IPM) practices. • Possibility of introduction of GAP certification (Good Agricultural Practices) under the purview of Department of Agriculture.
Post-harvest loss	<ul style="list-style-type: none"> • Implementation of safe handling practices, cleaning, sorting, grading, and packing methodologies. • Implementation of safe transportation technologies (Temperature regulated transport) • Crate usage to trace back quality mismatches to the producer.
Unavailability of proper distribution network	<ul style="list-style-type: none"> • Well-coordinated & integrated supply chain system aiming to distribute production to meet demand assuring equitable distribution of perishables.
High price gap between farmer and consumer	<ul style="list-style-type: none"> • Reduction of excessive intermediary involvement along the supply chain. • Redistribution of profits to key stakeholders of the value chain including farmers, transporters and retailers.

5. Project components and activities



Component 1: Capacity Building for Climate Resilience and Inclusive Value Chains

Sub-component 1.1 Strengthening adaptive capacity of service providers and farmers to climate change

A. Community Organization, Planning and Mentoring:

37. A social mobilization process will be followed that develops self-reliance among community members. As a starting point, a savings-first approach should be adhered to together with the establishment of revolving cash and in-kind grant schemes. The social mobilisation process will involve targeting strategies that include the disabled and the other vulnerable groups identified previously. The social mobilisation process will be led by a Social Inclusion and Institutions Specialist – national consultant -who will lead a field team comprising two Social Inclusion and Gender Facilitators and volunteer community mobilisers selected from within local communities. The Social Inclusion and Institutions Specialist will lead the field team as well as provide technical support to local service providers (NGOs). The community facilitators will be responsible for mentoring farmer and community groups (interest and solidarity groups) and individuals comprising the most vulnerable households (women headed households, youth and the disabled). Support for social mobilization will also come from the local NGOs selected and contracted for this purpose. However, as capacity among local NGO potential partners is limited SARP will develop and strengthen their skills. The Social Inclusion and Gender facilitators will be directly responsible for community organization and the establishment and strengthening of farmer organizations, self-help groups and other organizational forms. A cadre of Agro-enterprise Promoters will also be recruited as project staff from within local communities and will support the field team as needed. As capacity amongst some of the local NGOs in social development is

likely to be weak, SARP staff will provide technical assistance to them. The local NGOs will be sub-contracted for when specialised inputs are required such as functional numeracy skills, gender and nutrition, amongst others.

38. An effective way of building self-reliance and reducing dependency is to clarify from the outset, the roles and responsibilities of the project and those of members of the rural community. Clear Terms of Partnership will be formed, setting out the responsibilities and obligations of both parties: the project and the beneficiary. The purpose of this activity is to establish a partnership between SARP the communities and farmer organizations within the communities to prepare local level plans at village and cascade level. The local level plans can take the form of natural resource management plans as well as covering village/ community activities. The complete process will involve the preparation and appraisal of a plan that includes water and land resource management and livelihoods activities at household/ group level. The process will consist of a phase of community and cascade organization followed by a planning process that includes the preparation of micro-project proposals that will need to be prepared, appraised and monitored. The successful conclusion of the "Community Organization" process is a pre-requisite for starting the planning process. Each stage of planning will be conducted in partnership with community members. The social mobilisation cum planning process should be made up of a series of meetings between the project and community members. The planning process for watershed development/ natural resource management is elaborated below. As part of the community organization process the community development team will encourage community members to set up
39. Community Development Forums (CDF), which would serve as a venue for all households members of the community to participate and where development decisions regarding community members will be discussed. This will be an important mechanisms to ensure inclusivity.
40. Prior to formation of a CDF, the Social Inclusion and Gender Facilitators shall with the help of the voluntary community facilitators and other selected members of the community, prepare a community profile containing basic data on the population, including the number of men, women, children and disabled people. The community profile would include a poverty profile, that should at a minimum, identify households that are destitute, very poor, poor, well to do and better off with respect to the impact experienced of droughts and floods. The criteria set will need to be understood and accepted by the community. The community profile should be compiled and presented to the Agrarian Service Centre committees (or technical sub-committees) in their regular monthly meetings.
41. Once the community agrees to set up a CDF and designate representatives to identify problems and priorities, the social inclusion team will present the type of interventions that SARP has been designed to implement. The technical support team should at this stage prepare Terms of Partnership for each community level activity that appears in the PDR. Individual members/ households will be in the position to make choices from the activities and enterprises on offer or alternatively identify other activities to which they have an interest. In all cases SARP will be demand responsive. Priorities for technical assistance and training will also be identified during this planning process. In the case of natural resource and water management measures at cascade level support will be provided by the technical project staff in collaboration with members of the communities located in the catchment area. Planned interventions should be discussed with the community to determine whether they are willing to implement them according to the Terms of Partnership set. It is important to make clear to the community members (men and women) that they are the final decision makers and that selection of activities/ measures will take place together with them based on feasible solutions and local constraints.

The formal Terms of Partnership need to be drawn up with the community as a prerequisite to implementation. The Terms of Partnership require a commitment of the project and the community to act in good faith with respect to each other's responsibilities and to adopt all reasonable measures to ensure the realisation of the objectives of the project.

The principles of the partnership could be:

- Adjusting leadership skill and social cohesion
- Raising awareness and sense of ownership on development intervention
- Joint participatory planning and sequential micro-project package for effective poverty alleviating
- Community contribution and resource sharing in implementation
- Transparency in financial dealings
- Honesty in transactions
- A joint commitment to assist the poorer members of the community
- Effort to help women and the disadvantaged.
- Establishment of community level institutions and coordinating body,
- Set indicators for participatory monitoring on performance and output.
- The convening of community assembly forums to transfer information and exchange experiential learning to and within community members

Catchment planning

42. This activity is designed to improve the capacities of local level actors - field officers, farmer organizations and women's groups - to develop integrated climate-risk informed water management plans for 260 tanks. The plans and guidelines will be implemented through the establishment of cascade level water/land management committees that should include men, women and youth from communities supported by technical staff at district and ASC level. Overall, the preparation of cascade level natural resource management plans will include: a) *Training of trainers*: The training programme will comprise provincial, district and ASC technical staff in the process of plan preparation; b) *Develop technical guidelines*: On climate resilient water management at sub-basin/cascade level with standard operating procedures (SOPs) agreed between Departments of Agrarian Development, Irrigation, and Agriculture; (c) *Training of farmers*: Training for district, ASC and FO officials/ lead farmers across 30 cascades to plan and implement VIS taking climate change risks into account including financial and maintenance planning for viability of these systems beyond the project lifetime. The training of farmers will ensure quality design, effective implementation, and O&M management of the Village Irrigation Systems (VIS); (d) *Plan preparation*: Development of a detailed climate change risk informed sub-basin or cascade-level water resources development plan with full participation of all relevant local government officials, ASCs, FOs, and other CBOs in each village system; and (e) *Form cascade water committees*: This is vital for coordinated climate change risk informed water management at sub-basin level and implementation of the water resources plan developed.

43. The community planning process will culminate in the preparation of cascade level Natural Resource Management Plans (NRMPs). The approach will be to develop community resource management plans on the basis of identified problems and challenges in land, water and forest resource use, in order to develop a vision of the future and ownership of the approach. SARP staff will work with nominated community members to carry out site visits, identify those farmers or groups interested in cascade rehabilitation and meet with them to understand their situation and identify measures. The community driven NRMP will allow communities to effectively map their available resources and outline agreed approaches to achieve the common objective of sustainable management¹⁰. A first stage of preparation of the NRM plan is an agro-ecosystem

¹⁰ A first stage of preparation of the NRM plan is an agro-ecosystem analysis where farmers are expected to better understand their ecosystem, and the consequences of poor management practices and opportunities that could arise from better management of the system. The approach will be to develop a vision of the future to ensure community ownership. Agreement will have to be reached by the various

analysis where farmers are expected to better understand their ecosystem, and the consequences of poor management practices and opportunities that could arise from better management of the system. Once agreement is reached the catchment/ community plan will be finalised. The plan should consist of identified interventions, a development plan map and a schedule of phased development. A schedule setting out the expected time for completion should also be drawn up. The overall activity plan would be broken down into annual or seasonal operational plans for implementation. A calendar of operations will be prepared listing the sub-activities to be undertaken in the community during the year. The plan would be used to guide the implementation process during the year. In general the larger community level schemes should be implemented first in order to generate community commitment and interest.

44. This stage will also involve the preparation of feasibility studies for the irrigation schemes where costs and benefits are estimated. The community should also be encouraged to form a Catchment Management Forum (CMF), in the watershed catchment areas. As part of the process, it will be necessary to prepare schemes for tank design and construction as well as land use/ capability maps that identify measures needed in the upland catchment area.

45. On approval of the watershed and community plans, MOUs should be prepared between the project and the farming community. The terms of the contract should reflect the original Terms of Partnership. Contracts could be drawn up between the community as represented by the Community Development Forum or smaller interest groups. This is necessary to ensure that each party is aware of its obligations and responsibilities. The formal contracts are used to legally bind the different parties in implementation. A commitment on the part of all of the parties concerned to make sure that the planned developments actually take place is a sine qua non for this to work effectively.

46. The expected output will be the development of at least 65 cascade level community natural resource management plans. Community led monitoring and evaluation will also play an important part in this process. Producer organisations in their various forms (farmer organisations, self-help groups etc.), will be encouraged to create and manage their own in-kind and cash revolving funds as a source of financial support in O&M.

47. Livelihoods analyses

48. The planning process will also involve the preparation of simple Micro-Project Proposals for livelihoods diversification for women and youth in groups or individually that will set out the objective of project and its coverage, cost and expected impact. The project field staff and service providers will assist in this process.

49. Steps in the planning process

50. The detailed steps in the process are outlined below:

a) *Preparation of community based participatory planning:* There are many ways to conduct participatory planning, ranging from extremely complex and time, resource, and capacity intensive

community members, which will require the active engagement of community leaders as part of a participatory process. The outputs of the planning process will be: a) a community map highlighting the agriculture and NRM features that will influence the types of production and NRM management activities implemented by SREP; and b) a prioritised list of both group based and individual

approaches, through to simpler and more rapid techniques. Preparation of community based development plans will need to be quick and simple but ensuring sufficient time for dialogue, listening and engaging with the communities, observing the area and conducting transect walks and producing simple maps. The process should also include adequate time for negotiations with the communities on aspects such as targeting, community responsibility in restoring assets and self-help efforts, amongst others. The activities should include conducting a participatory situation analysis¹¹ (community-based resource mapping and planning), identification and assessment of existing groups (such as farmer groups, self-help groups, and others that may have been formed through government or NGO schemes); wealth ranking and identification of vulnerable households; identification and ranking of main livelihood sources and income generating opportunities; and identification and selection of vulnerable households for mentoring.

The selection criteria for those households eligible for individual mentoring are:

- Willingness and capacity to respond to the mentoring process
- Possession of few household assets
- Many dependants, including caring for orphans, the chronically ill, persons with disabilities and/or the elderly
- Headed by women or children
- Limited or no income-generating activities
- Access to land and/or other natural resources that are not being used productively
- Poor nutrition and shelter, malnourished children, and socially isolated from community and development activities
- Women and children are the main sources of family labour
- School dropouts (before completing primary school)

Clear criteria will be needed to identify the community development facilitators as mentors. These could include the following:

- Technical competence in thematic areas (for example, finance, natural resource management);
- Interest and the time available to undertake this work on a full time basis;
- Good communication skills, including the ability to listen, build rapport, show respect for different opinions and address sensitive issues constructively;
- Empathy with the people they work with, and their hopes and challenges;
- Motivation and skills to support group members in their change process and to share the process with new households;
- Commitment to supporting an individual's change process;
- Ability to work equitably with both male and female household members (including youth and people with disabilities) in a participatory and inclusive manner; and
- Ability to network and provide linkages to other services, such as health, credit.

The community planning process could take up to 3 days and should cover the six year implementation horizon of the project.¹² The outcomes of the planning process will be a community

¹¹IFAD 2009, Good Practice in participatory mapping, A review prepared for IFAD – <http://www.ifad.org/pub/map>

IFAD 2010, The IFAD adaptive approach to participatory mapping: Design and deliver of participatory mapping projects.

IFAD 2010, Participatory mapping and communication: A guide to developing a participatory communication strategy to support participatory mapping.

IFAD 2011, Evaluating the impact of participatory mapping activities: Participatory monitoring and evaluation

IFAD 2013, adaptation in practice: Increasing adaptive capacity through participatory mapping.

¹² The following are sources that could be useful for better understanding some of the participatory tools that could be used in the Community Based Planning Process:

Participatory Rural Appraisal (PRA) tools: Provides interesting definitions and tools for PRA, recommending its use largely on problem identification rather than actual planning of interventions. available at: <http://goo.gl/1W3GWF>.

The Opportunities and Obstacles to Development - A Community Participatory Planning Methodology Hand Book(Tanzania, 2007) This handbook offers an easy to read set of principles, definitions and procedures for local level planning. United Republic of Tanzania, 2007. The Opportunities and Obstacle to Development: A Community Participatory Planning Methodology Handbook. Available at: <http://goo.gl/iCealT>.

map highlighting the watershed and natural management features that will influence the design of tank rehabilitation systems together with land management measures at sub-watershed level;

Steps in preparing the community plans:

Step 1: Pre-planning (district and ASC level)

- Selection of priority communities
- Sensitization of traditional community leaders, local administrators, etc.
- Organization of planning work & technical support, materials, logistics, etc

Step 2: Community sensitization on the purpose of the project and Terms of Partnership for implementation.

- Awareness meeting + followed by a series of community dialogues¹³
- Introduction of SARP planning team to community and explanation of planning steps
- Selection and organization of a community planning team or focal points

Step 3: Problem identification, vulnerability / wealth ranking & planning team composition

- Vulnerability ranking exercise (by the community)
- Formation of a representative community level planning team
- Problem identification & ranking exercise (gender sensitive)

Step 4: Socio-economic conditions & seasonal livelihood analysis

- Information on crop production, livestock, water, shocks, etc.
- Seasonal calendar & discussion (hardships, expenditure periods, labour, etc.)
- Gender dynamics, tenure issues, specific challenges & opportunities description

Step 5: Community area mapping & description of agro-ecological systems

- Map of the area (e.g. ground drawing map, google mapping, topomaps, etc.)
- Main climate/landscape features (e.g. land use, watershed boundaries, drainage)
- Profiling through transect walks & description; homestead sketching

Step 6: Identifying activities and design

- Identify main potential actions, linkages between specific problems & solutions
- Technical discussion on specific community asset activities, and their design
- Specific in depth technical design for physical and other activities planned

Step 7: Resource requirements, incl. capacity development

- Estimate work norms for proposed communal intervention and cash transfers, essential equipment, materials and tools
- Training & supervision requirements - including period for preparation/delivery
- Estimate budget (this step is completed after detail surveys are done)

b) Household profiling and selection: The household assessment will be conducted as part of the community level participatory planning process but could be undertaken in tandem. The assessment will be led by the Agro-enterprise Promoters together with ARPAs who will be trained as social mobilisers cum facilitators. The team will use the services of the village level community facilitators to conduct participatory targeting methods, such as vulnerability mapping, to identify the most vulnerable households (economically and socially), households with signs of malnutrition, female-headed households, individuals with disabilities and youth. The findings of these analyses should be shared with the local community and government representatives in the ASCs. The assessment could be incorporated as part of the baseline study and the M&E system design. The outcome of this process will be a set of micro-project proposals of individual and groups on livelihood cum income generating options for each category of the project beneficiaries.

At ASC level a Technical Working group (TWG) will be set up composed of ASC technicians and community representatives to oversee the process. Selected beneficiaries will be registered and given identification to prove their participation and entitlements. Selection criteria, once agreed, should be the same across all communities participating in SARP.

¹³ The sensitization meetings will need to ensure that all community members have the opportunity to participate in the development process.

c) *Capacity building support*: Capacity building for AIs, ARPAs, service providers and farmer leaders who will participate in the community planning processes will take place during the first 3 months of implementation. To strengthen capacities and facilitate the role of government institutions in leading livelihood assets building, a Technical Support Core Team (TSCT) to plan and implement the community, group and household activities. The TSCT will be composed of technical experts (project and government staff) and small field level technical teams will be set up in each District. The TSCT would become a permanent reference group established to support the field activities over the course of project implementation.

The activities are summarised below:

Activity	Responsibility
Social mobilization + dialogue	Social inclusion team + community mobilisers
Training of field staff in community planning	Social development experts + others
Preparation of community development plans	NRM field staff + community
Training of field staff in watershed development/ natural resource management	NRM team
Preparation of watershed/ natural resource management plans	NRM team, service providers + community
Preparation of micro-project proposals	Agro-enterprise team, service providers + community

51. Technical support: The community, natural resource management planning process will be led by the SARP technical experts with a natural resource management background supported by the SARP Technical Assistance team: the Area Coordinator and the national experts in watershed development and natural resource management. Additionally, funding will also be available to sub-contract local NGO service providers to assist in planning and implementation. The service providers will be competitively selected but must possess watershed/ natural resource management skills to support the community level natural resource management process. SARP technical staff will provide training and support to DOA, DOI and DAD technical and extension staff and contracted service providers as needed. Capacity building for service providers would be phased to precede the community mobilization and participatory mapping and planning process. Alternative approaches could also be used such as contracting trainers of trainers (ToT) to develop a cascade training programme for field staff and/or contracting implementing partners who would recruit and train their own staff to provide training directly to farm households/ groups.

B. Climate Smart Technologies

52. Climate smart agricultural technologies will be promoted through Farmer Field Schools¹⁴. The FFS approach will be facilitated by AIs, ARPAs and government and project technicians and service providers. The AIs, the ARPA cadre of animators will be trained in the FFS process. Backstopping mentoring and coaching support will be available from a Core Team of Trainers. The project will also provide technical assistance support through the recruitment of national agricultural officers supported by a national expert with experience in FFS. The training programme will also invest in awareness raising, knowledge generation, and learning for climate-

¹⁴ DoA has listed a set of climate smart agricultural (CSA) practices based on successful interventions carried out in other countries and tried and tested in Sri Lanka. The practices with high adoption rates include planting with the onset of rains, land preparation for rice utilizing rainfall in Yala, agroforestry and crop diversification (in home gardens), climate resilient crop varieties for paddy, short and ultra-short duration varieties, cover cropping and mulching and mechanised land preparation for rice, reducing fertiliser and pesticide use by mulching and agroforestry systems that promote good water and soil quality.

risk management including understanding and analysis of impacts and options for adaptation in the context of water management and agriculture planning (e.g. input and crop selection based on climatic conditions and seasonal forecasts). Approximately 300 schools will be established for 6,000 Dry Zone farmers. For each district it is expected that 50 schools will be set up.

53. The FFS methodology involves training a cadre of Master Trainers, elaborating a training curriculum, and the establishment of FFS groups (25-35 members in each) in each of the target districts. The training curriculum will be designed together with experts to match the social and agro-ecological challenges that they will face. The Master Trainers will train the Farmer Field School Facilitators, drawn from the ranks of the AIs and ARPAs assigned to the project. The training of facilitators will have a 3-4 week duration but could be broken down into a series of shorter durations. The core training will be followed up by periodic refresher training. One to two FFS facilitators will be selected for each school. The facilitators could form a two person team to implement the FFS curriculum in the field. The FFS facilitators will be supported and mentored/coached by the Master Trainers and project technical staff.
54. A typical FFS is expected to follow a cycle of 24 months over a two year period. The content of the FFS is expected to evolve from facilitated sessions in basic crops and participatory diagnostics of constraints to increasing productivity towards production improvements and crop diversification utilising climate smart technologies. The process will culminate in training contents that deal with farm commercialisation. The evolutionary process is intended to provide an opportunity to establish viable and sustainable commercial farmer based organizations (producer groups, cooperatives and/ or associations).
55. Each FFS group will receive a grant of USD 500 at the start of the first cycle which will allow them to purchase the necessary learning materials and field inputs needed for the school to operate. Part of the funds will be used to set up a communal field/ plot to generate income for the group to continue activities over future learning cycles. Beneficiaries are expected to make in-kind contributions to the FFS. The training is expected to be conducted within the community using the common plot as a learning venue. Women farmers should comprise around 50 percent of all trainees.
56. The first cycle will start with basic production techniques such as seeding and weeding, progressively tackling more complex matters, such as soil fertility management, aspects of conservation agriculture, nutrition and social/organizational issues. The content of the FFS, however, will need to be modified to match the training needs of their members that match the agro-ecological conditions of the target districts. Attention will be given to incorporate sessions on options for climate change adaptation including soil and water management, conservation agriculture and adaptive planning of the cropping calendar (what, when and where to plant), crop diversification, intercropping, and sequencing planting times to spread risks.¹⁵ Nutrition awareness could also be mainstreamed into the programme to promote food security and diversification of the household diet. For these sessions all family members will be invited to participate recognizing in particular the role of women in the decision-making on what families eat. The nutrition education activities will focus on: a) promoting healthy crop and animal protein choices in own production and healthy food purchases using increased incomes; b) joint cooking and exchange of local and new innovative recipes using local nutritious produce; and c) food preservation sanitation and hygiene practices. The available curriculum on Food and Nutrition will be reviewed and updated by a consultant (nutrition expert). Special strategies could also be applied to support the establishment of women FFS (reaching at least 50 percent women beneficiaries). Some consideration should also be given to include youth and vulnerable groups

¹⁵It should be pointed out that the FFS training curriculum should focus on subject areas of common interest to their members. More specialised technical training will be required for specific interest groups particularly in support of livelihood diversification activities. The proposed TA will be expected to cover these specialised trainings.

through Junior FFS approaches. When needed functional literacy and numeracy training and will also be included in FFS curricula.

57. Field activities to directly support FFS implementation will be led by the team of Master trainers mainly issued from the technical support team. FFS facilitators will comprise extension workers (AIs/ ARPAs) as well as selected farmers with capacity and interest to facilitate a school. For effective implementation of FFS, the ministry will need to ensure that each ASC participating in the project has at least three extension specialists – AIs and ARPAs – to support the programme.
58. The FFS activities will be led by a National Consultant – Agriculture (Farmer Field School) specialist. The expert will provide on the job-training, coaching and supervision to participating AI and ARPA staff, service providers and FFS facilitators.

The activities are summarised below:

Activity	Responsibility
Identification of NGOs, organizations, experts with capacity to lead specialised trainings	PMU + FFS team
Development of basic FFS curriculum	Agriculture (FFS) expert + technical staff + community members
Training of master trainers in FFS	FFS expert
Training of field staff in FFS	FFS master trainers
Establishment of FFS	Field level extension staff
Roll-out of FFS training	Field level extension staff
Identification of specialised subjects	FFS team
Backstopping support	FFS master trainers
Refresher training	FFS team

C. Livelihoods Resilience Building Training

59. The skills and capacities required amongst women in particular will be strengthened to ensure that communities become more resilient to climate-related shocks and that the necessary support services to communities and households will be readily available. The capacity building programme will involve a three step process of awareness raising of the potential benefits of agro-enterprises, experiential training and workshops and exposure visits to successful enterprises for knowledge sharing and learning from practitioners. A possible menu of interventions have been defined that include aquaculture, livestock development and other diversified activities. A total of 550 short training programmes have been programmed.

60. The table below describes the details of the training programmes for selected activities and sub-activities that have been tried and tested under the WFP and UNDP dry zone project areas.

Activity	Sub Activity	Programme description		
		Awareness creation programmes	Trainings / workshops	Exposure visit
	Culture based inland fisheries in the selected seasonal and perennial tanks	Resources and opportunities and conduct a Participatory Rapid Appraisal (PRA) to analyse the present condition of the selected Rural Fisheries Organization (RFO)	Tank business plan preparation with the RFO	Exposure visit to a well-functioning tank for knowledge sharing and learning from practitioners – based on the
		Legal provisions available on fisheries act related to inland	Reservoir fisheries management, fish species and its behaviour, feeding	

Activity	Sub Activity	Programme description			
		Awareness creation programmes	Trainings / workshops	Exposure visit	
Fish Farming in the inland water reservoirs		fisheries	and feeding habits, inland fisheries culture / management	requirement	
		Importance of business planning, record keeping, stocking & harvesting schedule	Record keeping and simple cash flow management		
		Fish postharvest handling of fish and technology transfer	Follow-up trainings on good practices for sustainable operation		
	Fingerling rearing nursery business – pond, floating cages	Sustainable fingerling rearing nursery business and benefits among the potential HH		Fingerling rearing nursery management, construction & maintenance of ponds / floating cages, fish species and its behaviour (5 days residential training at NAQDA Dambulla/	Exposure visit to a well-functioning nursery for knowledge sharing and learning from practitioners – based on the requirement
				Feed preparation using the locally available materials, feeding and feeding habits, diseases and treatments, harvesting, packing and marketing	
				Record keeping and small business cash flow management	
				Good management practices on fingerling rearing nursery management	
	Introduction of improved method of curing fish (smoked fish production)	Improved fish curing method (smoked fish production) and benefits among the existing and potential HH		Construction, operation and maintenance of FTT Thiaroye Kiln Unit	Exposure visit to a well-functioning smoking unit for knowledge sharing and learning from practitioners – based on the requirement
				Preparation of fish for smoking, quality maintenance, smoking, packing and marketing	
			Record keeping and cash flow management		
			Improved smoking practices		
Semi-intensive small scale dairy farming	Small scale semi intensive dairy farming and benefits among the potential HH		Semi-intensive dairy management and construction of cattle shed & maintenance	Exposure visit to a well-functioning farm for knowledge sharing and learning from practitioners – based on the requirement	
			Feeding Management and establishment of pasture/ fodder units		
			Clean milk production cattle & improved management practices to increase milk yield		
			Synchronization, Artificial insemination & calving management		
			Post & Disease management, Deworming & Vaccination		
			Record keeping and simple cash flow		

Activity	Sub Activity	Programme description		
		Awareness creation programmes	Trainings / workshops	Exposure visit
Livestock Farming	Goat Rearing (semi-intensive goat management)	Small scale semi intensive goat rearing and benefits among the potential HH	management	Exposure visit to a well-functioning small scale goat farm for knowledge sharing and learning from practitioners – based on the requirement
			Improved / good management practices	
			Construction of elevated goat shed & maintenance	
			Goat Management, Pest & Disease management, castration, Deworming & Vaccination	
	Commercial level Backyard Poultry (chicks/quail)	Commercial level BYP farming & quail farming and benefits among the potential HH	Record keeping and simple cash flow management	Exposure visit to Makadura, a government mushroom training center which has modern facilities of mushroom cultivation – based on the requirement
			Improved / good management practices	
Micro/ Small scale agri-enterprises	Mushroom cultivation	Mushroom cultivation and benefits among the potential HH	Mushroom cultivation and fruiting room/ shed construction & maintenance	Exposure visit to Makadura, a government mushroom training center which has modern facilities of mushroom cultivation – based on the requirement
			Record keeping and small business cash flow management	
			Improved / good management practices	
	Agri-machinery and equipment repair center (pick best trainers from VTC)	Small scale Agri-machinery and equipment repair services business management among the potential youths / vocational trainees	Small business management	Exposure visit to a protected agriculture site – based on the requirement
			Record keeping and small business cash flow management	
			Improve business management practices	
Protected agriculture intervention	Protected agriculture and benefits among the potential HH	Cultivation in protected environment and maintenances of the shelter	Exposure visit to a protected agriculture site – based on the requirement	
		Record keeping and small business cash flow management		
		Improved / good management and cultivation practices		

Activity	Sub Activity	Programme description		
		Awareness creation programmes	Trainings / workshops	Exposure visit
	Agri-Processing and value adding business	Small scale Agri-Processing and value adding business management among the potential youths / other HH	Agri base value addition and cereals processing (at IPHT or Cathy Rich food processing center) Small business management, record keeping and small business cash flow management Improved business management practices	
	Agri- Small scale Poultry hatchery	Small scale poultry hatchery business among the potential youths / other HH	Small scale poultry hatchery operation and maintenance Poultry mother stock rearing and management Small business management, record keeping and small business cash flow management Improved business management practices	
Skills development training in Agriculture for Youth	Skills development training on Agri-machinery and equipment repair and maintenance	Vocational training on Agri-machinery and equipment repair and maintenance		
Source: based on tested practices through the WFP Koica project				

61. An integral part of the training methodology is exposure visits to successful agro-enterprises to be seen as in class benchmarks. The Success Case Replication (SCR) methodology, based on the principles of farmer to farmer learning, and developed by FAO, will be applied by SARP. SCR was born from the observation that among the rural poor there are always innovators that are able to identify new income generating activities and successfully exploit particular market niches. As these niches may be untapped in other local markets, there is scope to promote and support the transfer and replication of the experience of these individuals and groups for the benefit of others. According to SCR this can be effectively done by motivating the original innovators to train other aspiring micro-entrepreneurs. The essence of the methodology is summarised in the box below. The methodology has primarily been used to address the needs of low-income rural households.

Success Case Replication

Objective:

To facilitate the dissemination of new profitable micro-enterprises through a “horizontal” farmer to farmer learning. In order to avoid market saturation and over-competition among micro-entrepreneurs the transfer is oriented towards local markets where there is a potential demand for the new products.

Process of implementation:

1. *Identification of success cases*: Field visits are conducted to collect information from key informants to identify innovators of micro enterprises. The so-called success cases are approached to act as a trainer for others rural households to learn from his/ her experience¹⁶.

2. *Assessing the viability of the enterprise in new markets*: An analysis of the potential demand for the new product and of the potential costs and benefits of the replicated enterprise is conducted. Feasibility studies are carried out with the assistance of the trainer-entrepreneur. If enough elements are collected showing that replication might be successful, a practical training program is designed. This normally consists in a number of short on-the-job training sessions spread over the whole production cycle.

3. *Selection of trainees*: On average between 5 to 10 trainees will take part in the training. Candidates would need to show a strong motivation to participate with determination to succeed. They should also own the capital assets required to start up the activity (land and other natural resources, labour force, tools and equipment and funds or access to credit).

4. *Assess farmer willingness to become a trainer*: Once a new enterprise is established and whenever the local market was found capable to absorb the increased production, new entrepreneurs are asked to train other people in different locations.

5. *Establish practical training programme*: Training would be tailored to suit the enterprise or activity to be replicated. Most agricultural activities require training at various points in the production process, with time gaps in between,

6. *Supervise training*: The main purpose in attending training is to assure that all the trainees receive all the information that is necessary to succeed at their new enterprise. This includes the three key elements of any enterprise: a) raw material supply, b) production process, including what might go wrong, and c) marketing of the produce.

Source: Orsini, JB; (2000). Success Case Replication: a manual for increasing farmer household income. ESCAP/FAO.

D. Nutrition Education and Training

62. Poor dietary diversity will be addressed by increasing the availability and consumption of nutritious and diverse foods and enhancing income to ensure healthy eating and improved family diets. The focus will be on training extension workers and service providers and through them members of the communities to understand the relevance of better nutrition to climate resilient productivity and livelihoods diversification. SARP will target 40 farmer organizations from within the 6 districts to support them with various nutrition-related activities to improve their diet diversity and over all diet quality. Firstly, as post-harvest losses remain problematic in Sri Lanka, adversely affecting food security and nutrition through both restricted food availability and access, participating farmers' organizations will receive financial and technical support for the implementation of a nutrient-preserving, value adding technology (i.e. drying facility). This will directly link to the project's objective to diversify livelihood of the targeted beneficiaries. Specific interventions will vary from one village to the next, based on community needs and market assessments which will take into consideration market demand and supply. This initiative will be particularly beneficial in its ability to increase income not only through a reduction in losses but also by value addition. Similarly, these nutrition preservation techniques will increase the

¹⁶ This is a sensitive step in the SCR process because the successful micro-entrepreneur might be frightened by the threat that competition can create to his/her own business. Notwithstanding, program experience has shown that if persuasive assurances are given that replication will not take place within the immediate market outreach of the enterprise, the enhanced public recognition deriving from the being recruited as a trainer and/or the additional income that can be obtained through training fees are enough to motivate many petty-entrepreneurs to collaborate to the transfer program.

availability of these products in the community. Both of the aforementioned pathways have shown to positively impact food security and nutrition.

63. Evidence informed Behaviour Change Communication (BCC) activities, adapted from WFP's ongoing work, will be implemented in all 6 districts to complement and promote positive behaviour changes related to improved nutrition and diet quality. BCC initiatives have been shown to increase beneficiary knowledge of nutrition, which is sustained for years after an intervention ends and have the potential to contribute to spillover effects in that the improved nutrition knowledge and behaviours are also witnessed among the neighbours of beneficiary households. As a result, BCC is recognized globally as one of the essential actions to improve nutrition.

64. Technical Assistance

65. The training programmes will be supported by a Nutrition Expert to be recruited on a short term basis to train and support the social development team in the field.

E. Action research for policy dialogue

66. SARP will take the ecosystem development approach as an example of what can be achieved if the implementation strategies are in order. This approach should be viewed as a paradigm shift for the project in that it promotes an integrated, holistic approach to enhancing water and land management through the interconnected elements of irrigation systems, soil conservation, agroforestry combined with improved farming practices. It will be the first time that an integrated approach to catchment management is being advanced *incorporating climate change concerns*, understanding linkages across river basins/sub-river basins, and including multiple uses of water.

67. It is expected that evaluation studies combined with other international experiences will provide the input into a number of workshops at national to discuss and debate the impact of the approach. It is envisaged that policy dialogue will take place together with other agencies working on similar themes in the dry zone and at policy level. Collaborators will include UNDP, WFP, World Bank and FAO.

F. Background studies:

68. A process for the selection of sub-basins and tanks will be followed to ensure the maximization of the returns on water infrastructure investments. The approach will involve a combination of collection and analysis of socio-economic and biophysical data. The process will follow three steps:

- i) an assessment of the water availability in the sub-catchments/ tanks;
- ii) an analysis to see if the available water quantity is sufficient to meet the existing demands for water from different sectors (irrigation, drinking water, environment, etc.); and
- iii) detailed hydrological and water allocation modelling of the sub-basins selected.

69. The last step in the process involves a checklist to verify the sociological, economic, technical, institutional and environmental suitability of the sub-basins/tanks as a guide for sustainability. The programme of work although commencing immediately will be spread over two years.

73. Other preliminary studies expected to be undertaken for start-up include a) a Climate Risk

Analysis consultancy; b) preparation of the Environmental and Social Mapping Framework; c) VAM targeting and planning to be conducted by WFP.

74. Currently in Sri Lanka, only 2 percent of farms are covered by weather index insurance policies. To fill this gap, SARP will build on work undertaken by the GIZ funded, Small and Medium Enterprise project in collaboration with Sri Lanka's Agricultural & Agrarian Insurance Board (AAIB) and the Global Index Insurance Facility (GIIF) in the field of commercial agricultural insurance. The GIZ funded project has introduced innovative technologies utilising drones with satellite imagery for claims assessments. This is combined with the digitization of insurance policies and claim processes through the development of a mobile app which has already shown first results in the dry zone. There are considerable opportunities for SARP to extend the innovations to other parts of the region under a public-private partnership arrangement that aims to introduce weather index based insurance combined with a price-index model for farmers to be assured of minimum prices for crops produce sold.
75. The IFAD hosted Platform for Agricultural Risk Management (PARM), which embeds the Weather Risk Management Facility will provide the insurance sector with capacity development and TA together with other development organizations in Sri Lanka (GIZ, Desjardins and FAO) to bring tested innovative crop insurance schemes to scale.
76. IWMI will also be viewed as a potential partner building micro insurance systems from its existing flood and drought monitoring systems to manage water risks at farm, tank and project-wide levels. Building on the flood and drought monitoring systems developed and supported by IWMI, the organization could support implementation of index-based agricultural insurance for water-related risks, as well as associated innovations in bundling of insurance products with climate information services for farmers and seed technologies. At the initial inception phase of implementation these potential services will need to be aligned with the needs and priorities of SARP.

Sub-component 1.2 Strengthening capacity for inclusive value chain development

This sub-component will provide the essential capacity building to ensure effective implementation of sub-component 2.2. Activities will include the roll out of the Farm Business School approach, establishment of a youth incubation scheme and conducting value chain and market analyses.

A. Farm business school

77. The FBS methodology will be used as a main instrument for reaching target individuals – men, women and youth - within the community. The FBS aims to develop the business skills of farmers, considered an essential basis for value chain commercialisation. The Farm Business School was introduced to Sri Lanka by FAO in 2010 and has been scaled up, albeit to a limited extent, through the World Bank Modernization Project¹⁷. A total of 10,974 farmers have accessed this training in the past and the majority have been women. The FBS has been regarded by the Department of Agriculture as a 'good practice' to be rolled out to scale, but shortages of funds have been a constraint. SARP will support DOA and DAD to adapt the FBS methodology and establish a further 75 schools in the Dry Zone, where it will link the participants to value chains. The aim is to reach a total of 2,000 farmers predominantly in those areas where commercialisation opportunities exist.
78. The FBS trains farmers and non-farm VC actors to enhance their understanding of the market demands such as preferred varieties, quality criteria, quantity and timing, required post-harvest practices, as well as gross margin calculations to assess profitability and plan production accordingly. Emphasis is put on the basics of Farm Business skills i.e. record keeping and calculation of break-even point, that are a pre-requisite to enable farmers to take informed decisions on investments in the context of commercialisation. A specific module on CSA practices will be included in the FBS training curriculum. This module will be provided with the help of District Agricultural Officers. The focus of the module will be on: (i) how to take into account Climate Change aspects in production planning; (ii) how to estimate and mitigate Climate Change risks, highlighting the role of weather information and the extension service support; and (iii) the

¹⁷ The FBS activities are expected to reach 1,776 farmers in 47 FB schools

costs of adopting VC specific climate smart agricultural practices/technologies with a particular emphasis on their sustainability over time.

79. SARP will ensure that DOA, DOD, DOI frontline staff are trained on this slightly expanded FBS approach through a Training of Trainers programme. They will then be involved in conducting the training to ensure spill-over effect and sustainability beyond the project's life. Furthermore, an innovation that was introduced in other countries in the region – the Philippines, Pakistan, Nepal - and has worked well, entails that participating lead farmers selected from farmer/VC groups will be expected to teach their own group members after each FBS session on the same topics (on average two lead farmers/VC actors from a group participate and train the 10 members of their group). This not only fosters their deeper understanding, but also enables further outreach beyond the direct FBS participants. Consequently, graduation of farmers and non VC actors from the FBS is contingent to successful training of their own group members.
80. The skills and capacities of field level staff social mobilisers and agribusiness facilitators will be developed to ensure that the necessary support to communities and households will be available to help them become more market oriented. This will be done through the Training of Trainers programme with backup coaching support from a Core Team of Trainers. The spillover and second generation impacts have not been assessed.
81. The activities to be supported include: (i) Selection of lead farmers from farmer organizations to enrol in the Farmer Business Schools (FBS); (ii) develop modules on CC and finance, (iii) train a team of master trainers that includes the cadre of Agro-enterprise Promoters; (iv) conduct an FBS ToT for AIs and ARPAs and selected District staff and farmers; (v) graduate AIs and ARPAs together with the Agro-enterprise Promoters will conduct the FBS training programme for farmers; (vi) provide regular coaching and mentoring support to the front line FBS trainers; (vii) facilitate community level review meetings with FBS instructors and Lead Farmers; and (viii) facilitate exchange visits of FBS member groups for knowledge sharing and learning.

Technical support

82. Technical assistance will be available from the Agro-enterprise development team comprising a dedicated Agro-enterprise specialist and Farm Business School lead trainer. The cadre of agro-enterprise promoters will be trained in group organization, business management and marketing as background to their participation in the FBS.

B. Skills development training for youth

83. SARP recognizes the various challenges that hinder youth from participating fully in agriculture and agri-business. The project will employ innovative mechanisms to address the challenges with the aim of employment creation, rural youth empowerment and improving their livelihoods. Support will be given to develop a youth incubation scheme to address the various challenges of youth participation in agriculture/ agri-business. SARP will use innovative interventions, such as Advanced Agri-Business mentorship (ABS) through incubators and access to financial services. Youth led groups or SME's will be linked to the Enterprise Sri Lanka programme that offers loans to finance product upgrade, volume increases and new product development, supported by business service providers/coaches to assist them to develop business plans.^{18 19} SARP will also draw from and build on lessons from SAP and other IFAD-supported projects to identify concrete areas of support for youth.

¹⁸ Enterprise Sri Lanka by the Department of Development Finance includes interest subsidy loan schemes, which are supposed to be implemented by all 19 public and private sector banks using their own funds while the interests are fully or partially subsidized by GOSL. For youth beneficiaries, GIZ is providing technical support to incorporate companies, maintain books and records, negotiations with FSPs and access to markets. The loan facility through state banks comes with a 75% loan installment paid by GOSL. SARP will explore the opportunity of participating in that scheme for youth beneficiaries of the entrepreneurial incubation support. The ADB grant for Women Entrepreneur Finance Initiative (We-Fi) for technical assistance and an extra grant for women in less developed regions, such as the dry zone, blended with a credit line (80% of the investment costs), would allow to build synergies for the support of women entrepreneurs targeted by SARP

¹⁹ This aligns with the focus of IFADs priority areas outlined in the Rural Youth Action Plan.

84. **Business Incubation:** SARP will use the business incubation model to strengthen capacity of youth as agripreneurs and for employment creation. Owing to the limits of funds, this can be regarded as a pilot intervention to be tested throughout the duration of the project. The model will engage incubators to train, coach and mentor selected youth. Some 2,500 young people will be targeted for this activity. During the first half year of project implementation, SARP will procure a two part study to first identify a pool of potential Incubators and secondly select mature incubators in the region. The incubators will be identified through a **mapping exercise** to be conducted for project readiness. The mapping will also assess support required for the incubators. Identification of Incubators will be based on the following criteria: (i) ongoing operations in the specific value chains prioritized for the project; (ii) clear linkage from the business operation to higher value and higher volume off-takers (markets); (iii) clear linkage from the business operation to reliable service and input suppliers; (iv) physical premises for the business; and (v) willingness to coach and mentor young agripreneurs.
85. Apprentices will originate from within the dry zone but preferably from communities where the Incubators have been selected. Each Incubator will support one to five eligible Apprentices for a six month business cycle of the Incubator's enterprise. The selection of Apprentices will begin with the identification of eligible candidates based on the following criteria: (i) SARP's target group that includes men and women between the ages of 18 and 35; or women with children under the age of 15 years; (ii) residents of the dry zone districts; (iii) ready, willing and able to undertake apprenticeship in the particular enterprise; (iv) willing to agree to sell a prescribed portion of their output to the Incubator as part of developing and maintaining the mentoring relationship. Selection of Apprentices will be done from among those considered eligible from the process above. To realize this, SARP will engage a service provider to assist in the first two screenings of applicants in consultation with the Incubators and other key stakeholders such as community based organisations, service provider organizations and ASC representatives. The final decision of Apprentices will rest with the Incubator based on his/her confidence that the candidate has the tangible commitment to learn and replicate the business.
86. There will be three levels of assistance: (i) market linkage assistance for Incubators and Apprentices; (ii) technical assistance to the Incubators and Apprentices; and (iii) capacity building assistance to strengthen the enterprises. The Apprentices will be taken through an advanced FBS training to develop their entrepreneurship skills before joining the incubation process. Within the incubation period, agro-enterprises emerging from the system will continue to receive technical assistance to sustain their profitability. Some of the new generation enterprises could develop into Incubators to scale up the project's on jobs creation.
87. **Incubation process:** Youth will be paired with incubators based on their selected value chain /enterprise. This will be an important step to establish commitment of both Apprentice and Incubators. The apprentices will receive a business orientation training through SARP prior to incubation. By the end of this training including the practical working/ training period with the incubator, the Apprentices will prepare a business plan to guide their actual operations following their graduation. The Apprentices will be paid USD60 per month for the six month incubation period to cover living costs and sundries. The Apprentice will start-up an enterprise, supported with seed capital from SARP, combined with loans through the Enterprise Sri Lanka or other programmes. The grant will be paid back following the first sales cycle. The Incubator will be expected to provide technical and marketing support to the youth enterprises through re-negotiated off-taker contracts.

B. *Market appraisal and value chain analysis*

88. A mapping and characterization of value chain actors and opportunities will be undertaken in the 6 Districts of the dry zone. This will facilitate the identification of viable value chains for investments with potential for inclusion of small farmers' organised into business oriented POs. The analysis will identify areas of sound investment that should generate sustainable rates of returns and benefits for the groups/ organizations. At the same time the value chain studies will identify opportunities for facilitating economic partnerships between beneficiary POs and other value chain actors including linking POs and individuals with PFIs (banks and non-bank microcredit institutions) to facilitate access to their services.

89. The value chain analyses would include:

- assessments of existing POs and other value chains actors in the 6 target districts;
- background market studies and technical studies;
- identification of value chain stakeholders and an assessment of their performance
- assessment of support service organizations – financial institutions and banks as well as non-financial services
- identification of opportunities to enhance business to business coordination, respond to farmer needs, and add value by better managing the process
- organisational audits and the screening of POs proposing business ideas for selecting POs complying with eligibility criteria, before embarking on a full scale business plan preparation;
- establishment of economic partnerships with large buyers/input suppliers that could become major of supply/output for POs benefiting from investment support;
- organisation of partnership meetings and dialogue platforms.

90. The studies will map existing actors, identify market opportunities and help define support for production, storage and marketing that should be prioritised at (private) PO level as well as (public) market access investments. The studies will also assess whether large agribusiness companies might consider smart subsidies in the form of cost-sharing and contracting farming arrangements.

91. Both the information/sensitization activities and assessment of actors, supply and demand in targeted value chains will facilitate the identification and selection of potential beneficiary POs that would be likely to comply with the PO eligibility criteria (see below) and would propose sound sub-project proposals (business plans).

92. Taking into account the findings of the value chain studies, existing POs and interest groups, committed to take on investments in improving their farming business, will be supported with further training and technical assistance. The aim is to enable them to meet the eligibility criteria for investment matching grants (see below).

Technical support

93. The value chain analysis and upgrading plans will be supported technically by a value chain and marketing specialist on a part-time basis. The expert will be expected to provide support to the Agro-enterprise team.

D. Post harvest and value addition

94. This activity involves developing the technical skills of women, youth and the most vulnerable households through practical training in post-harvest management and GAP. Training activities will include piloting and demonstrating new post-harvest management (PHM) and value adding (VA) technologies. Training programmes will be designed for district and ASC technical and extension staff who will be expected to organize a cascade training programme for farmers in all 6 districts. Some 20 training programmes at field level will be organized. Entrepreneurs with successful value adding businesses will be invited as resource cum training persons. Small PHM investment grants will be offered to households to fund investments in new PHM or value adding technologies that are not commercially available or accessible

Technical support

95. A Post harvest expert will be employed on a part time basis to train front line staff and facilitate linkages with other specialist sources of support which could be available under contract. The SCR methodology will be adapted and applied.

Implementation process

Activity	Responsibility
Training of project staff in value chain analysis	VC specialist + Agro-enterprise specialist
Value chain analyses conducted with support from contractors	VC specialist
Training of project staff in business management	Agro-enterprise & FBS specialists
Training of service providers in organizational management, and business skills development (FBS)	FBS specialist Agro-enterprise development specialist
Establishment of FBS and training roll-out	FBS team
Mentoring support to POs in organizational management, business skills development (FBS)	FBS team
Mapping of youth incubators	Agro-enterprise team/ contract
Identification of apprentices	Agro-enterprise team
Advanced business management training of youth	Agro-enterprise team
Mentoring support to Incubators and apprentices	Agro-enterprise team
Training of agro-enterprise promoters and service providers in post-harvest management and value addition	Post-harvest/ VA specialist
Identification of specialised trainers in value adding technologies	Agro-enterprise promoters
Beneficiary training using the SCR methodology for roll out of post-harvest and value adding enterprises	Agro-enterprise promoters

D. National policy engagement

96. Policy engagement will also be encouraged on the issues of youth employment in agriculture and micro-insurance. As part of the integrated approach to smallholder agribusiness and resilience development, micro-insurance can build resilience against risks. The IFAD hosted Platform for Agricultural Risk Management (PARM), which embeds the Weather Risk Management Facility will provide insurance sector training and TA together with other development organizations in Sri Lanka (FAO, GIZ and Desjardins) to test innovative crop insurance schemes. SARP will try to combine insurance with other tools and services, create public-private partnerships between the GOSL, financial sector and agribusinesses, and include micro-insurance approaches in national strategies to support an enabling environment for insurance programme designs and sharing lessons for scaling-up.

Component 2: Investments for Climate Resilience and Inclusive Value Chains

Sub-component 2.1 Investments for climate resilient production and infrastructure

A. Cascade water resource infrastructure development

97. Cascade water resource development attempts to build climate resilience in the agriculture production systems through a series of activities aimed at harnessing flood water to address dry spells and drought whilst increasing crop yields during the periods of climatic stress. It is necessary to build supportive irrigation infrastructure to promote more efficient use of surface water for agriculture, complemented with more sustainable use of groundwater, for improving both the availability and quality of water at farm level. Increased water will result in improved yields providing buffers against climate variability.
98. IFAD resources and government co-financing will be used to support the design and upgrading of the Village Irrigation Systems (VIS) and incorporate elements needed to enhance the resilience of these systems to climate change risks and impacts. About 260 village irrigation systems, including the upstream catchments, will be upgraded based on the cascade level natural resource development plans. The interventions to upgrade the irrigation systems include: (a) the restoration, rehabilitation, modernization, repair and operation and maintenance (O&M) of cascade tanks and individual villages tanks, catchment clearance and de-silting of supply channels of tanks, lining of water distribution channels in the tank commands and construction of recharge wells in tank beds; (b) drainage and flood control systems and agro-wells at the end of field and distribution canals; and (c) small water impounding structures in the upper catchment of the tanks to provide supplementary irrigation for rain-fed crops. These upgrades will incorporate climate risks and combine traditional and new design elements and practices including partial de-silting to deepen reservoirs close to the bund and retain more water during dry seasons, intensified reforestation of the catchment with multi-purpose trees, creating ponds and diversions for run-off capture in the catchment.
99. Preliminary studies will be supported by IWMI to provide the rationale for the selection of sub-basins and tanks for rehabilitation, to maximize the returns on the investments. The process for prioritization of tanks for selection will consist of three steps. 1) Assessment of the water availability in the sub-catchments or the tanks, which is the most important basic criteria; 2) Validate if the available water quantity is sufficient to meet the existing demands from different sectors (irrigation, drinking, environment, etc.); and 3) Detailed hydrological and water allocation modelling of the sub-basins under scrutiny. These preliminary studies were elaborated in subcomponent 1.1.
100. Following these studies the process of preparation of natural resource management plans for each sub-watershed will be needed. The catchment plans will be developed in the early stages of implementation to provide a foundation framework for undertaking project activities in the field. The catchment plans will be prepared using a combination of science based information and Indigenous Technical Knowledge, as described in sub-component 1.1. The objectives of this component are to facilitate (a) planning for water and land infrastructure necessary to support climate-resilient irrigated agriculture, (b) construction of the planned infrastructure and (c) co-management of this infrastructure by the district level technical staff and local communities to ensure adequate water storage and delivery.
101. Upstream interventions to redress land degradation will include undertaking soil conservation measures i.e. bunds and contour drains and agroforestry measures to prevent erosion. The main elements of erosion control is the presence of a good vegetation cover that reduces water splash and maximizes water infiltration, thereby reducing surface water volume and the velocity of runoff. Only when runoff is excessive and destructive soil and water conservation measures will be needed. Soil conservation and runoff control measures are lacking in many of the cascade areas and will be required to ensure that full replenishment of the aquifers will occur. Soil and water conservation measures will be identified through the preparation of the community level natural resources management plans. Some of the good practices of community-based natural resources management and climate change adaptation will be introduced at both micro-catchment and

household level. Attention will be given to the design and implementation of low cost physical and biological soil and water conservation measures on communal and cultivated land. These measures could include contour stone bunds, multi-purpose vegetative bunds, micro basins and trenches, and agroforestry. Catchment organization will be set up and supported to ensure sustainability and to avoid possible conflicts. Cash for Assets will be used to engage the most vulnerable households related to water tank renovation and maintenance drawing on the experience of WFP²⁰.

102. Selection of measures:

103. Interventions will be identified through the participatory catchment/ natural resource management planning. Grants of up to \$10,000 per cascade would be offered to support soil and water conservation and forestry activities. The plans developed by the community/ies should provide sufficient options, which can be costed and considered for incremental funding. This means in practice that communities can be supported in both cash and kind. Selection of land management measures will stem from the survey work conducted at watershed level and the local community natural resource management planning process described above. The community led natural resource management methodology as laid out in section 1.1 will include the following steps: a) meeting the community and organising a planning team; b) identifying micro-watersheds; c) conducting biophysical and socio-economic surveys; d) identifying and prioritizing interventions; e) approval of interventions by the community; and f) preparing the plans for implementation (mapping, input requirements, action plan).

104. Cash for assets

105. WFP has been involved in a Cash for Assets programme under their KOICA project. The Cash for Assets intervention cannot be regarded as an employment programme but rather set up to provide vulnerable able-bodied people with a cash transfer to cover assessed food consumption gap faced by them. The cash for work activity neither provides employment or a salary/transfer for other needs, but the assets created are expected to create or enhance self-employment by being combined with small enterprises. This graduation process will be encouraged through SARP.

106. The cash for assets activity will need to establish work norms for cash transfer payments. Although some work norms have been set for reservoir rehabilitation/ improvements and some downstream activities more needs to be done for the upstream catchment areas. A compendium of work norms and technical standards will need to be developed locally. Work norms should be set to cover the number of units to be constructed/ rehabilitated/ maintained per day or week, the expected number of working hours each day and the number of working days per week. The work norms will be needed to organize the work on site, help to monitor progress and help to raise participants' productivity in line with technical standards taking into account the local context. They will be needed to provide the basis for the provision of cash-based transfers to targeted beneficiaries.

107. The work norms could vary slightly depending on the type of soils and climate. In setting the work norms consideration needs to be made of the work time that participants may have available. This needs to be taken into account when establishing the productivity work-norms, the timing of interventions during the day, and the transfer value per day. Work norms should further be established through a **gender and nutrition lens**. WFP, ILO, IFAD and other organizations have produced guidelines for work norms that can be used as reference²¹.

²⁰ Owing to the tight time line for rehabilitation of the tanks – over the dry period – the manual cash for work activities will be complemented by mechanized operations.

²¹ The following sources could be used to benchmark and set work norms:

Introduction to labour-based approaches and labour-based work for the Food for Assets and Sustainable Employment project.269

<http://docustore.wfp.org/stellent/groups/public/documents/other/wfp042701.pdf>

Report on the establishment of Work Norms in Ethiopia.270

http://docustore.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp238161.pdf

Community-based Participatory Watershed Development Guidelines in Ethiopia.271

http://docustore.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp239381.pdf

Technical Assistance

108. A critical activity will be to enhance local capacities and put in place the coordination necessary to plan, manage and maintain the systems for improved climate-resilience of agricultural production in the future. As such technical assistance in the form of a Civil Engineer - water (1 full time), Water Resource Engineers (2 full time), Natural Resource Management expert (1 full time) and Natural Resource Management officers (4 full time) will be deployed to support the planning, construction, maintenance and management of the measures. The Civil Engineer supported by Water Resources team will be responsible for contract preparation and implementation of water resource surveys and feasibility studies for irrigation works.

B. Household water harvesting, irrigation and soil conservation

109. This activity covers the rehabilitation of minor irrigation schemes. Small scale irrigation will be extended through low-cost technologies that are easy to operate and maintain. Household level measures will include creating small ponds in home gardens to capture intense rainfall as well as low-cost drip irrigation technologies. These and other small scale irrigation/ water harvesting structures will be developed to increase water quality and availability for multi-purpose use. Larger schemes will be funded based on investment proposals that incorporate feasibility studies, detailed design, and environment management plans. No infrastructure investments will be made before the local authorities confirm the beneficiaries' land and water user rights. The site- or scheme-specific ESMP (to be prepared after the site/design details are known) need to consider the interests of downstream water users as well as environmental flow requirements. Criteria for selecting schemes will include: (i) existing markets to absorb production of the targeted commodities); (ii) hydrology (existence of sufficient, good quality water); (ii) agronomy (potential for high production/productivity, existing agronomic practices and farming system, etc.); (iv) topography (use of irrigation by sprinkler or drip, potential area covered due to optimum alignment of canals, use of cost effective technology, etc.); (v) land tenure system (existing of a certificate of property); (vi) socio cultural environment (existing irrigation practices, good level of adoption of irrigation, potential for farmers' mobilisation, etc.); and (vii) accessibility to the scheme (connection to markets).
110. Low cost drip irrigation systems and water harvesting measures at household level will be appraised following the preparation of a sub-project/ micro project proposal. The appraisal should include an assessment of technical feasibility, financial profitability and environmental soundness.
111. WUGs will be set up or existing groups strengthened to ensure sustainability in management and to avoid potential conflicts. New groups to be established will follow a 'bottom up' consultative process in order to ensure effective management and sustainability. Each group will be expected to draw up a constitution with rules and regulations that clarify the roles and responsibilities of the group organization and their members. Key functions of the WUG will include:
- Monitoring water availability and use;
 - Operating and maintaining a water service or structure (such as a well, small dam, or large irrigation system);
 - Managing the water distribution system, including setting tariffs and collecting fees;
 - Resolving conflicts related to water use and manage penalties.

- Respecting the collective-choice where all members should have the opportunity to play a role in changing the rules. All those directly involved should be able to voice their opinions and vote.

C. Household resilience and nutrition:

112. Supporting activities at household level will include the development of multi-purpose home gardens, nurseries, aquaculture and small scale livestock development (goats and dairy cows) and miscellaneous income generating activities. The objective of small livestock development is to build new livestock assets as a means to secure the livelihood of women and other vulnerable persons. Individuals in farm households and groups will be eligible for assistance from SARP to develop and diversify their livelihoods through a number of options that have been proven to be successful in the region. These include backyard poultry, semi intensive small scale dairy farming and semi-intensive goat production as a general strategy as well as aquaculture in specific locations where suitable. For the more vulnerable households with restricted access to land, or limited opportunities to support themselves, the basic package will provide an essential safety net and a graduation from the Cash for Assets activities.
113. Small stock are found around the farm homesteads for the dual purpose of providing animal protein and easy liquidation to access cash for household needs. The packages will utilize the genetic potential of local breeds upgrading them through minor improvements in feeding. In some situations, the very vulnerable households will be introduced to the small species for the first time so the programme will be accompanied by a support package that includes training for beneficiaries in livestock management.²²
114. Consideration will also be given to supporting 2,450 home gardens and 120 nutritive rich home gardens. The latter will be implemented in collaboration with WFP. Households that will receive commercial home gardening support will simultaneously receive technical support to produce nutrition dense products for home consumption. The nutritional-dense products have the potential to improve diet quality on two fronts, directly by increasing home consumption of the high-nutritional value products and indirectly through increased income from commercial-related activities. In this way the activity will enhance their purchasing power for a higher quality diet whilst addressing other underlying causes of malnutrition. In those districts where WFP is operating, some of the home garden activities will be integrated in the GoSL run Home-Grown School Feeding programme, which is a collaborative endeavour between WFP and the Ministry of Agriculture, Ministry of Health and Ministry of Education. The programme's objective is to link the existing national school meals programme to smallholder farmers.²³ These activities will be complemented by the Behaviour Change Communication (BCC) activities referred to under sub-component 1.1
115. In all cases the IGA packages and support for off-farm activities should not exceed a financial ceiling of US\$1,100 per household. Recipient households, however, may decide to come together as a group for ease of implementation. For goat rearing and fattening schemes the livestock recipients may be organised into small groups of 5-15 households in order to participate in a pass-on scheme which will strengthen social bonds between member households with peer pressures used to ensure that Project rules are followed.²⁴
116. Selection of activities will be demand driven drawn from the menu of options as described above and presented during the community planning process. Communities will be informed, through

²² Local breeds will be distributed through the programme as they are better adapted to local conditions, traditional management practices and feed availability and are likely to be more resistant to local diseases. They are also be the breeds that the beneficiaries are familiar with.

²³ WFP is starting this activity in 2 districts - Moneragala and Anuradhapura which could be scaled up under SARP implementation.

²⁴ Criteria for selection of households for the pass-on scheme are: a) willingness and interest to participate in the activity; b) experience and skills in keeping livestock; c) size and make-up of the household; d) access to adequate feed and water for the animals; e) agreement to keep the livestock until full repayment is made; f) agreement to report any sickness or death to Animal Health Workers; and g) agreement to keep records for health control.

awareness creation campaigns, about the menu of options and the associated terms of partnership for each activity. By offering households the choice of technical packages, they will be able to select an activity that matches their skills, resources and market demands. Local leadership and community members will be instrumental in selecting the beneficiary households, ensuring effective participation and transparency. Funds have been set aside to sub-contract local NGOs to oversee implementation of the livestock based activities. The livestock packages will target 3,700 households²⁵.

117. Examples of the menu of income generating options – based on the experience of WFP and UNDP are summarised below. These activities together with others will form the basis for the project policy on grants and loans and inputs into the development of specific technical Terms of Partnership for each activity which should be developed prior to the start of the community planning process.

Semi-intensive poultry production:

Inputs: Each household will receive 40 1 ½ month old BYP chicks and 2 feed and watering units, 2 bags of feed for the chicks and necessary vitamins and medicines for the initial stages of growth. The poultry package will be provided as a grant. The other livestock packages will be offered as a loan/multiplier system with repayment in cash or kind.

Selection criteria

- Should be an existing poultry farmer
- Women headed household is preferred.
- Availability of adequate place.
- Acceptability to extend the number of birds by self-hatching.
- Large family size (minimum 4 members).
- Monthly income should be less than district poverty line.
- Should be ensured the environmental protection / not to the daily labour families.
- Availability of veterinary supporting facility.
- Availability of marketing facility.
- Committed to continue improved management practices.
- Recommended by DAPH.

Steps in implementation:

- Awareness creation on commercial level BYP farming chick & quail farming and benefits among the potential HHs.
- Select beneficiaries according to defined selection criteria.
- Collect baseline information required to measure the outcome of the intervention.
- Prepare basic business plan for the commercial level backyard poultry business.
- Organize and conduct trainings and workshops.
- Assist the construction of shed.
- Provision of chicks, basic utensils, feed for few weeks (until changes occur in the feeding habit from formulated feed to scavenging), basic medicines and vitamins, etc.).
- Assist to establish systematic hatching plan & flock management schedule.
- Technical assistance packing and marketing of eggs.
- Technical support and guidance for minimum 1-year period for smooth exit and sustainability

Semi-intensive dairy:

²⁵The backyard poultry and goat/ sheep packages consist of a 70% grant with a household contribution of cash, feed, water and fencing/ housing

Inputs: The inputs include 4-cow cattle with automated drinking water facility, milking machines and grass choppers. Each households will be provided with rooted pasture cutting, and milking utensils, hormones for the livestock, AI, vaccines and minerals.

Selection criteria:

- Should be an existing dairy farmer or new farmer with experiences.
- Small scale dairy farmers reacting semi intensive management up to certain level.
- Number of existing herds per farmer should not exceed 4 cross breed high yielding cows or local cows.
- Availability of reliable water source.
- Committed to establish 40 perches (¼ Ac) improved pasture/ fodder Unit.
- Acceptability to conduct the artificial insemination & synchronization.
- Availability of milk marketing facility.
- Priority to youth/women.
- Committed to construct some four-cow cattle sheds.
- Committed to continue semi – intensive management practices.
- Recommended by DAPH.

Implementation process:

- Awareness creation on small scale semi intensive dairy farming and benefits among the potential HHs.
- Select beneficiaries according to defined selection criteria.
- Collect baseline information required to measure the outcome of the intervention.
- Prepare basic business plan for the successful sustainable semi intensive goat rearing.
- Organize and conduct trainings and workshops.
- Assist the construction of shed.
- Provision of milking utensils, milking machines, grass chopping machines, minerals and vitamins, etc.).
- Facilitate Department of Animal Production and Health (DAPH) to carry out the synchronization of cattle & artificial insemination in the newly established dairy farm Unit of the selected households.
- Motivate & facilitate to establish fodder crops & azolla units (selected farmers).
- Technical support and guidance guide the beneficiaries to follow improved dairy management practices for minimum 1-year period.

Semi-intensive goat production:

Inputs: Interventions in goat production will target all households but with a particular focus on women, women headed households and the most vulnerable. The selected households will receive assistance to construct elevated goat sheds and will receive a package of improved (Jamunapari) cross stud goats. They will also be offered medicines - deworming & vaccination (for first round practices) and a mineral block.

Selection criteria:

- Should be an existing goat farmer or new farmer with experiences.
- Practicing semi intensive management in a small way.
- Number of existing herd per farmer should not exceed 10 local goats.
- Availability of reliable water source.
- Committed to establish improved pasture/fodder Unit.
- Priority to youths/women.
- Committed to construct an elevated goat shed and live fence around.
- Committed to continue semi – intensive management practices.
- Recommended by DAPH.

Steps in implementation:

- Awareness creation on small scale semi intensive goat rearing and benefits among the potential HHs.
- Select beneficiaries according to defined selection criteria.
- Collect baseline information required to measure the outcome of the intervention.
- Prepare basic business plan for the sustainable semi intensive goat rearing.
- Organizing and conduct trainings and workshops.
- Assist construction of elevated goat shed for selected farmers with their labour contribution.
- Motivate & facilitate to establish fodder crops & azolla units (Selected Farmers).
- Provision cross breed stud goat (for selected well performing, needy HH), basic medicines, minerals and vitamins, etc).
- Technical support and guidance for minimum 1-year period to follow improved goat management practices.

Micro/small scale agro-enterprises - Mushroom cultivation**Inputs:**

- Assistancess to construct 60 "Fruiting rooms/shed" (12' x 11').
- Basic equipment & utensils (sterilization barrel, saw dust stove, wheelbarrow, weighing balance, thermometer, moisture meter, etc.
- 18,000 nylon rope (300m per HH).
- Potting materials (200 gage poli propylene bags (7" x 14", saw dust, rice bran, Calcium Carbonate, soya flour, Magnesium Sulphate, etc.).
- Mushroom seeds and cotton.
- Label and polythene for packaging.
- Growth media potting machines to the societies.

Selection criteria:

- Existing women farmers (doing in cottage level)/ women farmers with little knowledge about mushroom cultivation.
- Priority will be given to women headed/differently abled people/youths.
- Working as formal/informal production groups/ready to work as a producer group.
- Availability of adequate place to build the fruiting shed.
- Monthly income should be less than district poverty line.
- Availability of technical/supporting facility.
- Availability of marketing facility.
- Committed to follow the novel practices
- Committed to continue cultivation.
- Recommended by DoA.

Steps of implementation:

- Awareness creation on mushroom cultivation and benefits among the potential HHs.
- Select beneficiaries according to defined selection criteria.
- Collect baseline information required to measure the outcome of the intervention.
- Prepare basic business plan for the mushroom cultivation.
- Organize and conduct trainings and workshops.
- Assist the construction of shed and other structures.

- Provision of basic equipment & utensils (sterilization barrel, saw dust stove, wheelbarrow, weighing balance, thermometer, moisture meter, etc.), nylon rope, 200 gage poly propylene bags (7" x 14"), etc.
- Assist to establish systematic production plan.
- Assistance / linkages with market.
- Technical support and guidance for minimum 1-year period for productivity improvement, smooth exit and sustainability.

D. Climate resilient farming practices

118. Climate resilient agricultural production will be introduced as part of the cropping system to increase the cropping intensity of the farming system. In-kind grants for seed and tools will be given to smallholder farmers combined with fertiliser through the government subsidy programme supplemented by agricultural extension support. The intervention will be accompanied by the capacity building efforts to ensure sustainability of activities (Subcomponent 1.2). Approximately 30,000 farm households will be targeted for this activity.

119. Technical assistance

120. A Rice Specialist will be recruited on a short term basis to disseminate climate smart technologies through demonstrations and the training of technical staff and front line extension workers. The Rice Specialist will work under the guidance of the Agriculture Specialist.

Sub-component 2.2 Investment for inclusive value chain development

A. Feeder road rehabilitation and maintenance:

121. Connectivity to local markets through feeder road rehabilitation, storage facilities and other market infrastructure is an essential prerequisite for market access. Investments will be made to improve the condition of existing feeder roads in the vicinity of the catchment areas to access off-farm water infrastructure and agricultural markets .Access road rehabilitation will upgrade existing access tracks and pathways in the vicinity of the water tanks and will not exceed 10 km in length for any single track. Road infrastructure investments will not involve farm land expropriation and clearing. The activity will improve the condition of selected feeder roads through rehabilitation, connecting production areas to market outlets. It will also construct critical new roads, bridges and culverts as necessary.

122. Community managed maintenance groups will be formed and local road maintenance plans prepared. Roads will include the construction of access pathways and the setup of road maintenance mechanisms employing the most vulnerable households in temporary employment. The design will adopt innovative climate smart solutions and also promote good environmental management.

123. The road infrastructure development will be informed by climate hazards. The design will adopt climate smart solutions while promoting good environmental management. The interventions will comply with the Environmental Management Act (EMA), the Guidelines for Environmental Impact Assessment and the IFAD's SECAP requirements. All asset constructions will be in line with existing national building standards which will be integrated as needed to inform the design and construction. The interventions will be compliant with all national technical standards, particularly those relating to concrete adaptation measures for market structures as well as integrated watershed management.

124. Rehabilitation works. The project will target access roads located in the catchment areas for rehabilitation for sustained physical connection to markets. A total of 600 km of access roads will be constructed/ rehabilitated as per the following process.

125. Identification, selection and prioritisation. Roads to be developed connecting tanks within

cascades and cascades to major road arteries with access to markets. The identified roads will be screened through selection criteria including; i) technical (number and types of crossings and drainage structures to be constructed, complexity of works, remoteness/quality of borrow pits and other materials, availability of qualified contractors, etc.), ii) economic (estimated value chain targeted, other existing potentials to value, other project' activities to be covered, etc.); iii) financial (estimated cost of rehabilitation, availability of funds, possible joint-financing mechanism, etc.); iv) social (potential for mobilising local labour for rehabilitation and formation of community led road maintenance groups, existence and quality of labour, etc.); v) climate and environmental aspects (seriousness of damages to the environment, exiting remediation measures and their possible implementation, technological options to address climate threats, etc.). All these criteria will be scored for each road, and prioritisation of the selected ones will guide sequential order during further steps of implementation process. Following an inventory of the existing network of rural agricultural roads in target areas, a rural agricultural road improvement programme will be developed with the coordination of DAD and GA. A community-based road maintenance strategy will be developed and related road maintenance associations strengthened/formed at community level.

126. Survey and Design to be done by competitively recruited private consultancy firms. Design will include Environmental Social Impact Assessment (ESIA) and technical surveys (hydrology, topography, etc.) resulting in the production of good quality BoQs (including line diagrams, drawings, etc.) in coordination with DAD. Quarries for good quality and quantity material will also be identified prior to start of works. Such firms (of various sizes) would need to be registered and certified. Customised technical specifications for District Gravelled Roads in Sri Lanka will serve as reference to rehabilitate targeted roads. These include: (i) cross-sectional width of 5 m; (ii) thickness of gravel pavement layer (150 mm); (iii) provision of side and mitre drains; (iv) camber of 5-10%; (v) no shoulder. Each targeted road will be fully rehabilitated (including drainage structures), along its entire stretch. Technical surveys will identify climate specific hazards which will be mitigated through specific design measures in order to ensure that climate resilient roads are provided. Existing standard designs/drawings for structures will be customised to requirements of local milieu for sustainability. Various technological options to be considered to reduce damages resulting from effects of water on roads (extreme climatic events due to climate change).
127. Procurement. Selection of contractors will need to ensure good quality and timeliness of works. Criteria for their selection would include: (i) past experience on road infrastructure construction (at least five years); (ii) number of similar rehabilitation works implemented (at least five); and (iii) ownership of construction equipment (grader, wheel loader, tank truck, compactor, etc.). The project will plan the procurement process and contract award to allow execution of works during dry seasons. Each contractor to be assigned not more than six months to complete works, based on the scope of works.
128. Rehabilitation works. Road works will be executed by competitively recruited private contractors or PO through equipment-based approach with consultation with DAD. Few labour-based operations to carry out include: i) excavation (culverts, side/mitre drains, bridges, etc.); ii) provision of materials (transportation/loading of aggregates, water, sand, cement); iii) gravel spreading along road, etc. Execution of these to follow technical specifications of BoQs and allocation of lots. Before works start, sensitisation of communities along each road will be carried out (led by the Project) to ensure their effective participation. Local community participation will include provision of local material and unskilled labour to be paid by contractors. Such involvement will contribute to build their capacity for further maintenance of the constructed/rehabilitated roads. Works will consist of both earthworks (including drains) and structures. Before works start, an updated timeline of activities will be developed as a monitoring tool.
129. Supervision and follow up. The consultancy firm that will design the roads will be responsible for supervising on-going works and will be accountable to the Project Engineer in consultation with DAD technical staff. A supervision framework will need to be set up to ensure quality in the work conducted. This will include stationed supervisors on each (or group of) roads, depending on their geographic locations. They will ensure that works are in line with technical specifications of BoQs and timeframes. This will ease timely decision making process of any possible improvement during works. Both Project and District Engineers will undertake regular (weekly) field visits and take part to site meetings useful to assess work progress against timelines and

BoQs. Each follow up mission will be clearly documented, highlighting recommendations made to improve works.

130. Defect liability periods and hand-over. A defect liability period of one year will be observed for each rehabilitated road, during which all works will be guaranteed, under the responsibility of contractors. After that period, each road will be officially handed over (written document) to respective District offices for further management.
131. Mapping and Impact assessment. All roads will be mapped comprehensively, to include not only socio-economic information (population, social centres, etc.) but also technical characteristics of existing structures (location, dimensions, cost, etc.). This will be done at ASC and District levels. It is expected that investments in road rehabilitation will result in positive impacts in the lives and environment of beneficiaries. Analysing most aspects linked to the rehabilitation of roads will be useful. Socio economic information resulting from the involvement of communities (unskilled labour or aggregates sellers) will be collected for further impact analysis of these activities.
132. **Road maintenance works.** The Project will maintain all rehabilitated roads: annually routine maintenance will be planned and periodic maintenance (every three years). For ownership and sustainability purposes, the GOSL will share responsibilities in financing road maintenance works, on a cost-shared basis: i) for routine maintenance, it will be incremental (totally supported by SARP in PY1, funds will be reduced by 25% each year to end up being entirely endorsed by the GOSL in PY6); ii) periodic maintenance works will be funded on a 70% - 30% basis (70% for SARP and 30% for the GOSL). Maintenance works to be carried out during a period of the year that corresponds (as compromise between) to the end of the rainy season and the start of harvesting period. While routine maintenance activities will be aligned to the mechanism existing in the country, periodic ones will be implemented as per the procurement process described above for rehabilitation works. BoQs for periodic maintenance works to be developed by Project Engineer. Contractors will be hired on a competitive basis to carry out works according to specifications of BoQs.
133. On each constructed/ rehabilitated road, groups will be formed and capacitated through: (i) training in administrative/technical skills and (ii) equipped with light tools (cutlasses, diggers, shovels, wheelbarrows, spades, mason Head Pans, whippers, steel tampers, etc.). Based on national standards, each group will include 10 members with each member maintaining one kilometre of road.

B. Agrarian Service Centres and Agrarian Banks

134. The Agrarian Service Centres have been set up to serve clusters of villages. SARP will support the priority of DAD to transform the ASCs into 'one-stop-shops' for the provision of advisory and support services. ASCs in each target area will be capacitated to deliver integrated planning and implementation support to the cascade systems. While the ASCs were designed to provide various services required by the farmers in a coordinated manner, the weaknesses in the ASCs include a lack of trained advisors, shortage of funding, lack of modern equipment (computers and GIS software) inhibit the effective and efficient provision of support services to farmers. SARP will develop the capacity of 30 Agrarian Service Centres, located in proximity to the selected cascades, to serve as local knowledge, coordination, and communication hubs for planning, design, and implementation of project interventions. Investments will be made in awareness building, knowledge generation, learning and exchange. This will include providing essential IT software and mobile phone applications to support local level data gathering and dissemination. In conjunction with government co-financing, this activity will also develop capabilities (training and equipment) of ASCs to undertake scientific crop selection with farmers and Department of Agriculture through soil testing and input management. It will implement improved soil testing facilities to support farmers to rationally select crops, inputs and climate-smart practices according to soil conditions.
135. SARP will also work to strengthen the technical and financial capacity of 20 selected Agrarian Banks at the level of village clusters in the six project districts. It is expected that those banks that meet a minimum performance criteria, will receive additional liquidity by the Agrarian Development Division of the MoA to strengthen their capital basis and expand their lending portfolio. On the basis of an institutional assessment (technical, operational, financial), SARP will

render support to strengthen the delivery capacity of selected Agrarian Banks. Qualified local partner institutions, such as Institute of Bankers of Sri Lanka and Centre for Banking Studies of Central Bank of Sri Lanka, will be contracted to provide capacity development services based on the rigorous needs assessment. Staff training and technical assistance will be centered around risk management, loan portfolio management and capacity development in the management information system.

136. As lack of upfront capital may be a major drawback for farmers to adopt climate-resilient practices, appropriate financial channels and products to reduce the risks associated with climate smart agricultural innovations will be explored. These may require micro-finance, small grant and index-based weather insurance support. IWMI is in the position to provide those products to smallholder farmers.
137. SARP will also work closely with SAPP by rendering technical support to PFIs under the Consolidated Revolving Fund managed by the Central Bank of Sri Lanka (CBSL) to explore innovative technology applications, such as a new debit card, commonly known as "farmer card", service delivery through agency banking and value chain finance solutions specifically for the dry zone beneficiaries.

C. Market Infrastructure and Stakeholder Platforms

Market infrastructure

138. Market infrastructure will be established at district and ASC level in the form of construction of local markets, farmer's markets, and platforms for value chain stakeholders to convene. Investments could include collection points, storage and package facilities and local market and farmer market structures. SARP will construct 6 local markets and 4 farmer market centres. For their construction, prototypes of drawing and BoQs of main buildings will be developed following a participatory approach (involving all relevant stakeholders at ASC level), under the leadership of the Civil Engineer. The output resulting from this process will take into consideration lessons learnt from other farmer market centres set up in the country examining the facilities and their use. For each type of facility, all requirements for a sustainable and efficient use and functioning of the building will be considered and translated into final designs.
139. Prior to the development of new facilities, an assessment (feasibility study) will need to be carried out to determine their location, their sizes, their layout, required equipment to install, etc. Sites will be selected based on key criteria including: level of production of the area covered, physical access, existing potential for storage, existing practices (storage, trading, processing, etc.), presence of active and dynamic POs, capacity for each PO to raise its contribution, opportunities for trading (access to market) and the level of collective marketing activities.

Implementation arrangements:

140. Proposals for infrastructure sub-projects of a pure public good nature, smallholder farmer training and capacity building will be 90 percent funded by grants facility. Larger Micro-projects of up to \$100,000 for some of the market infrastructure investments under sub-component 2.2, will be screened for technical, financial, social and environmental feasibility before final approval. For assets like storage facilities which are jointly owned and operated by farmers and the private sector, and where a proper arrangement is in place for joint management, a 20 percent beneficiary and 20 percent private sector contribution will be required.

Multi-stakeholder Platforms

141. A network of multi stakeholder platforms (20) will be set up in selected locations as a pilot activity around bulking centres, field shops and storage facilities and as a venue for farmers, service providers (public/ private sector) and other private sector actors to meet, learn and negotiate arrangements. Direct linkages will be strengthened between the POs and other groups with private sector value chain stakeholders identified through the value chain studies. Multi-stakeholder meetings will be held regularly (at least 2 times per year) initially facilitated by the

project team but later jointly by the producers and private sector stakeholders themselves. Commercial and non-commercial suppliers (of technical or financial services or inputs) as well as government agencies and other supporters would also be active participants of these meetings. These platforms will be set up at ASC and/ or division and district levels. In some cases local community level platforms might be preferred depending on the demand from local stakeholders. At ASC level the platform could include the construction of aggregation or market facilities. Besides acting as a venue for farmers to communicate with input suppliers, buyers and service providers the platform would be used to identify where there are opportunities to improve market access and linkages. The ASC platform meetings should be composed of representatives of Producer Organizations, ASC staff and the private sector – input suppliers, produce buyers, service providers etc. The ASC one-stop-shop hubs, farmer's markets and the multi-stakeholder platforms should be regarded as pilot programmes.

142. Technical support

143. The market infrastructure works will be led by a full time Civil Engineer who will be responsible for holding discussions with the districts on priorities and location of feeder roads and market infrastructure as well as contracting, supervising and monitoring the work of sub-contractors.

Activity	Responsibility
Assessment of the performance of ASCs and Agrarian Banks	Agro-enterprise/ Rural finance/ Value chain specialists & contract with outside institution
Selection of target ASCs and banks in the target districts	Agro-enterprise/ Rural finance specialists
Capacitation of ASCs and Agrarian Banks	Agro-enterprise/ Rural finance specialists + field team
Community dialogue to identify market infrastructure needs and priority cluster locations	Agro-enterprise development team
Contract preparation for design and planning of civil works	Civil Engineer
Detailed studies conducted to prioritise locations for market centres	Contracted to private sector + value chain specialist
Preparation of feasibility studies and detailed design of market facilities and road infrastructure	Contracted to private sector
Rehabilitation of roads and market infrastructure	Contracted to private sector
O&M plans to manage infrastructure works	Contractor + agro-enterprise team
Organization of multi-stakeholder platforms in selected pilot locations	Agro-enterprise team

D. Youth and women's enterprises

144. An important focus of SARP – as noted previously – is women and youth entrepreneurship. Support in training and capacity building will be provided through sub-component 1.1 and reinforced through small investments for business development, sub-component 2.1. Attention will be given to youth who have participated in the Incubation process and women who have identified profitable business opportunities as reflected in their business plans. The approach will be to develop their technical and business skills whilst providing them with investment support to develop commercial profitable enterprises.

145. Combinations of matching grants and loans will be offered to them and other able bodied persons including entrepreneurial small farmers to provide commercial goods and services (input supplies, mechanization, spraying, transportation etc.) to farm households. The selection of viable business ventures will be guided by the findings of the value chain studies and identified opportunities for linking small farmers' POs to economic partners locally as well as larger scale input dealers, traders, exporters, retailers, and processors. Vegetables, fruits and small livestock – as identified from the value chain appraisal – will provide small-scale farmers with attractive options for diversifying their sources of income (and diets) while enhancing the

stability and sustainability of their farming systems. Agricultural machinery and equipment for hire service providers is seen to be an attractive and feasible source of income for young entrepreneurs and will be supported by youth employed in repair workshops. Other potential businesses for youth and women flourishing in the Dry Zone are protected agriculture, quality seed production, semi commercial dairy and goat production. Approximately 1,216 businesses will be supported in total. Business proposals will be prioritized to enable small family farmers' organised into groups/ organizations to increase their productivity, reduce post-harvest losses and respond competitively to increasing market demands for high value products.

146. Examples of eligible investments include:

- Machinery and traction equipment (ploughs, disc harrows, rippers, seeders, and cultivators)
- Seed multiplication, multiplication of vegetative planting material (beans, groundnut etc.), tree nurseries and orchards, etc.
- Aquaculture and apiculture
- Post harvest investments
- Equipment for protected agricultural production (metal poles, small shade houses, drip irrigation, small scale hydroponic systems)
- Vegetable and fruit preservation and drying equipment
- Low cost, appropriate technologies and small scale facilities for crop storage
- Small scale semi intensive dairying
- Semi-intensive goat production
- Semi-intensive backyard poultry
- Seed paddy production and processing

Women and youth would be eligible for these investments as individuals or alternatively as partnerships or small groups. Examples of successful small enterprises for women and youth that have been tried and tested in the Dry Zone by WFP and UNDP are given below

Agri-processing and value adding business

Inputs: Provision of basic machinery and equipment (grinding mills, splitters, polishers, oil expeller, flour mixer, drier, packing equipment, etc.).

Selection criteria:

- HH which have taken initiatives to set up value addition businesses.
- Priority will be given to trained youths/women HHs who have already trained on value addition.
- Having a feasible business plan/demand.
- Availability of adequate & suitable place to set up business.
- Family monthly income should be less than district poverty line.
- Committed to continue the business.
- Recommended by DS/Dept. Small industries.

Steps of implementation:

- Awareness creation on small scale agri- processing and value adding business management.
- Select beneficiaries according to defined selection criteria.
- Collect baseline information required to measure the outcome of the intervention.
- Prepare basic business plan for agri- processing and value adding business.
- Organize and conduct trainings and workshops.
- Assist to setup the business.
- Provision of basic machinery and equipment (grinding mills, splitters, polishers, oil expeller, flour mixer, drier, packing equipment, etc.).
- Linkages with market.
- Technical support and guidance for minimum 1-year period for productivity improvement,
- Smooth exit and sustainability.

Protected agriculture

Inputs: Assistancess to construct rain shelter/protected net house (20' x 40').
Provision of basic equipment & tools (thermometer, RH and soil moisture meter, etc).

Selection criteria:

- Existing-full time farmers, taken initiative to move protected agriculture in small way.
- Farmer having basic knowledge on protected agriculture/cultivation.
- Farmer practicing good agriculture practices/model farmer/farmer with enthusiasm to do new things.
- Priority will be given to women/youths.
- Working as formal / informal production groups/ready to work as a producer group.
- Availability of adequate place to build the rain shelter/poly tunnel.
- Monthly income should be less than district poverty line.
- Availability of technical / supporting facility.
- Availability of marketing facility.
- Committed to continue protected cultivation.
- Recommended by Department of Agriculture.

Steps of implementation:

- Awareness creation on protected agriculture and benefits among the potential HHs.
- Select beneficiaries according to defined selection criteria.
- Collect baseline information required to measure the outcome of the intervention.
- Prepare basic business plan for the protected agriculture.
- Organize and conduct trainings and workshops.
- Assist the construction of rain shelter / poly tunnel and other structures.
- Provision of basic equipment & tools (thermometer, RH and soil moisture meter, etc).
- Assist to establish systematic production plan.
- Assistance for/linkages with market.
- Technical support and guidance for minimum 1-year period for productivity improvement, smooth exit and sustainability.

Small scale poultry hatchery

Inputs:

- Incubator/hatching unit (100 egg capacity).
- Assistance to constitution sheds for mother stock.
- 1,000, one and half month old backyard poultry chicks (sexed) / month old quail /chicks
- Provision 80 numbers of feeders & waterers.
- Provision 40 bags (25Kg each) chick feed.
- Provision of necessary vitamins & medicines (for initial stages).

Selection criteria:

- HHs which has interest on doing hatchery business and rearing poultry.
- Priority will be given to trained youths/women HHs.
- Having a feasible business plan/demand.
- Availability of adequate & suitable place to set up business.
- Family monthly income should be less than district poverty line.
- Committed to continue the business.
- Availability of veterinary supporting facility.
- Availability of marketing facility.
- Recommended by DAPH.

Steps of implementation:

- Awareness creation on small scale poultry hatchery management.
- Select beneficiaries according to defined selection criteria.
- Collect baseline information required to measure the outcome of the intervention.
- Prepare basic business plan for small scale poultry hatchery business.
- Organize and conduct trainings and workshops.

- Assist to setup the business.
- Provision of hatching unit and mother stock.
- Linkages with market.
- Technical support and guidance for minimum 1-year period for productivity improvement, smooth exit and sustainability.

Vocational training on agricultural machinery and equipment repair and maintenance

Inputs:

- Necessary tools and equipment required to improve the quality of the training (based on the capacity assessment).
- Seed money for the tools (only for 90 the balance will get the support to set up business).

Selection criteria:

- Youths who have interest on Agri. Machine repair.
- Family monthly income should be less than district poverty line.
- Committed to continue.
- Recommended by DS/VTC.

Steps of implementation:

- Awareness creation.
- Select beneficiaries according to defined selection criteria.
- Select the VTC to conduct the skill training.
- Carryout the capacity assessment of the selected VTC.
- Collect baseline information required to measure the outcome of the intervention.
- Organize and conduct trainings and workshops.
- Assist to on the job training.
- Provide necessary tools and equipment required to improve the quality of the training.
- Provision of seed money to by basic tools.
- Linkages with agricultural machinery suppliers for employment

Support to Producer Organization Business Models

147. In the target districts there are reported to be approximately 11,400 producer groups set up for a range of products – paddy rice, vegetables, legumes, fruits, dairy and goat. The crop based groups operate on a seasonal basis receiving subsidised inputs through the government schemes. The groups, however, are not organised as business entities with a commercial mindset. SARP intends to support capacity building of producer/ farmer organizations (POs), with the rationale that strengthening of PO will empower the group to commercialise and enter product value chains. Amongst the better organised producer organizations it is expected that they would become an effective partner for the 4P schemes implemented under SAPP. Start-up funding will be provided through loans at group (PO) level and this will be complemented with support in business management training, mentoring and exchange visits. As part of the commercialisation process three main business models are proposed:

1) *Incipient Producer Groups, SHGs and other informal groups within the target ASCs.* Under this model, specific attention will be given towards supporting groups to link to markets. Financial support will be provided through combinations of grants for capitalisation and loans for working capital availed through the Agrarian Banks. The grants will be matched with some counterpart beneficiary financing. Financial support will be provided on a gradual basis to ensure solid management and absorption capacity. The POs supported under this model will be at a start-up stage of their business thus requiring a strong field presence to support their institutional strengthening. A target of 10 ‘social enterprise’ models will be developed.

2) *Mature POs or farmer organizations already managing sizable businesses.* Under this second model, the relatively more mature POs already engaged in market linkages, processing and/or value addition, will be provided with loans to support them to expand their business to the benefit of their members. Fresh and processed produce may be sold directly by the POs to local wholesale or retail markets. Given the limited number of effective POs in the target districts, the initial support will be for 10 POs and with an average membership of 80 members each, for a total outreach of 800 smallholder farmers over the programme.

3) *Private-sector led 4P partnership.* Under this last model SARP will coordinate support from SAPP to encourage private sector companies to present business proposals for outgrower schemes that foresee partnerships between private sector companies and farmers groups in the dry zone. SARP will strengthen the capacity of PO/FOs and will facilitate linkages to private sector buyers with the support of SAPP. The SAPP modalities will be used to access loan funding for the POs/ FOs through the commercial banking system. SAPP will facilitate links to financial organizations. As an incentive for the private sector to operate in the dry zone, the project will provide loans and other stimuli to encourage private sector companies to contract farmer organizations (and other groups) to supply raw materials and value-added products. SARP proposes a modified business model that offers private sector companies an incentive in the form of concessionary loans conditional on investing in non-movable assets relate to value addition in the dry zone target districts. The output of this business model will be accredited to SAPP.

Eligibility criteria for selecting POs under categories 2 and 3:

- PO management and members that have completed some advanced business management training, and/or specific group level training around their common interest;
- at least 50% of the PO or individual members sales are sold commercially for markets;
- PO members follow good governance practices, follow a savings first principle and have dynamic leaders and members who expect the rules established by the PO;
- the PO is willing and able to provide financial contributions for implementing its envisaged business plan;
- PO's existing for more than three years should present a positive organisational audit.

Support for business plan preparation

148. Any PO, SHG or individual requesting support for agro-enterprise development will be expected to prepare a business plan that will go through an appraisal process to determine its economic feasibility and sustainability. The business plan will define a clear marketing strategy, the production, storage, handling and processing investments needed, costs and expected benefits, risks, responsibilities to be shared among the producer organization members, partnership with other actors among others. Support will be given by the Agro-enterprise Promoters for business plan preparation, appraisal, implementation, monitoring and evaluation. ARPAs will be trained by project staff in order to support the Agro-enterprise Promoters to implement the following activities:

- Organise a training of trainers on the participatory preparation and analysis of business plans;
- Train selected field staff participating in BP preparation, appraisal and implementation support in various fields, as needed (such as environment & climate change adaptation, gender approach, nutrition-sensitive agriculture, etc.);
- Assist POs in the participatory and iterative preparation of their business plan that could meet the eligibility criteria for investment support.
- Assist the appraisal and environmental screening (when necessary) of prepared BPs by technical experts, before they are presented to the grant approval unit, the Technical Implementation Unit at District level (TIU);
- Support the implementation of approved BPs through project staff. service provider field staff, DAD and DOA staff and local consultants as envisaged in the approved BP;
- Ex-post evaluation of funded BPs after two years of implementation by the service provider staff and local consultants if necessary to generate lessons, and inform adequately the M&E system of the project.

149. It is important that the component supports BPs that are viable, sustainable, and likely to make a major contribution to increased productivity, production, and marketing, including value addition. The Agro-enterprise Promoters and ARPAs will receive training in the participatory preparation and analysis of BPs. They may in turn provide coaching to local service providers or consultants that might be subcontracted with PMU agreement-to carry out some of the tasks mentioned above such as assisting BP preparation and analysis, organizational audit of micro-projects, environment and social screening, etc.
150. Proposals will be identified, appraised, and approved based on a full set of eligibility and design criteria and evaluation procedures. Proposals will be evaluated and selected by an independent technical committee located in the Technical Implementation Unit. Defined criteria for evaluation will be drawn up.
151. The agro-enterprise team will review the project proposals/ business plans. Service providers and business coaches will support applicants to develop sound business plans and improve their marketing, business, technical and managerial skills, to be packaged in the micro-projects. Detailed application procedures and eligibility criteria, including eligible interventions and expenditures for the matching grants will be developed by the project start-up. Evaluation of proposals/business plans will also include outreach to poor households, integration of gender, youth, nutrition and climate change aspects.

Activity	Responsibility
Community dialogue to present the menu of micro-enterprise interventions on offer	Agro-enterprise team
Training of Agro-enterprise promoters on BP preparation	Agro-enterprise specialist + FBS trainer
Preparation of micro project proposals – technical feasibility, profitability, cash availability, risk management, etc.	Agro-enterprise team together with beneficiaries
Establishment of the enterprise + requisite training	Agro-enterprise team + SCR methodology
Mentoring support to prepare sub-project proposals for funding	Agro-enterprise team
Ex-post evaluation of funded BPs	Agro-enterprise team

Implementation arrangements:

152. Income generating and micro enterprise activities under Sub-components 2.1 and 2.2 will be implemented as grants and combinations of grants/ loans which will be put in place to address partially the financial constraints of the target groups to enable them to procure the necessary inputs and equipment. Activities under sub-component 2.1 relating to household resilience cater for low cost livelihood activities for the most vulnerable households. As such contributions from beneficiaries are considered to be low covering labour and some materials. Beneficiaries will be eligible to could request support either individually, as partnerships or as small groups. A ceiling of \$1,100 per person has been set based on the experience of other livelihood projects with similar activities in the Dry Zone.
153. Agro-enterprises for women and youth under subcomponent 2.2 will be more substantive with activities budgeted up to \$5,600 per beneficiary. Some of these investments are envisaged as partnerships and/ or for small groups. As part of the policy on grants and incentives, individuals could aggregate these amounts as part of a partnership or group activity. Matching grants at a ratio of 70 percent (IFAD loan) and 30 percent (beneficiaries) will be set. The applied matching grant ratios and funding ceilings will be periodically reviewed and recalibrated to take account of the changing circumstances and lessons learned during project implementation.
154. Based on experience in Sri Lanka it is estimated that for group activities the average PO small investment project cost will be about US\$50,000 and the average cost of smallholder group-level micro-projects around US\$25,000. A ceiling of \$25,000 has subsequently been set for these

IGAs. Proposals for small grants of up to \$25,000 will be required to include a simple business plan which will be prepared in a participatory manner with beneficiaries demonstrating the technical and financial feasibility of the proposal.

155. Technical and facilitation assistance will be provided for: (i) training of ARPAs, service providers and community and farm leaders as required; (ii) facilitation of the participatory planning and implementation processes for community-level and group-based micro-projects and verification of eligibility of communities, groups and their proposed investments; (iii) technical assistance for the screening, assessment and design of proposed investments, such as technical, financial, economic, social and environmental feasibility, as well as (iv) preparation of business, operation and maintenance plans.
156. The grant size capping is indicative and will be revised once more information is available on all active matching grant schemes for agriculture in Sri Lanka. The micro-project will be administered and managed by the PMU and Area Hub teams depending on the size of the business proposal. Grant disbursement for value chain activities will be performance based, phased, and linked to achievement of key development and business milestones, agreed in the grant contract. Grantees will be provided with training to build their capacity to accurately account for the funds received before disbursements. The agro-enterprise team in the PMU will engage with the grantees to ensure full accountability.

E. Market, weather and climate information services

157. SARP will assess the need to support the generation and dissemination of market, weather and climate information and will explore the possibility of designing and testing a system for index-based weather insurance.

Market information services

158. In Sri Lanka, the mobile phone-based market information services (MIS) is widely spread in rural areas for the intended benefit of a number of stakeholders, including farmers. However, a study noted insufficient evidence to suggest that existing mobile phone-based MIS which entails users subscribing to short (text) message service (SMS) price alerts, influence smallholder farmers' market participation decisions. Knowledge of prevailing prices is different from having the ability to take advantage of this information. The average Sri Lankan smallholder farmer often has no say in the prices they receive from vendors and lacks transportation to distant markets where prices may be better⁴⁵.
159. The ultimate aim of these systems is to create a level playing field for all actors, and increase clarity and transparency both on prices and volumes. Currently, a public sector provider of market information is the Agrarian Research and Training Institute (ARTI) under the Ministry of Agricultural Development and the Department of Agrarian Development. The mobile market information services can function both to push information to the farmers, but also pull information from them for M&E and for bringing buyers and sellers together. However, providers indicate it is still a challenge to get farmers to pay for these services. Also, the price information is not always very accurate for rural areas.
160. SARP will assess the need for further support and investments in the generation of market information and timely dissemination of this data. The actual need of farmers, combined with their bargaining power and realistic sales opportunities, will be leading in defining the required activities. Possibly this can be combined with an assessment of access to weather information. Important will be to build on and improve upon the existing market information systems, and not create new ones. In case the assessment indicates that market information for certain value chains is missing, this could be an opportunity for SARP to support an expansion of these systems. Activities to be supported would include an assessment of the need for market information in existing VCs and in new VCs, and consequently support for adaptation of existing MI systems.
161. SARP will assess the need for further support in the generation of market information and its timely dissemination. The aim will be to provide market information which will go beyond

commodity price information, but will focus to aid smallholder capacity to plan better and identify available market opportunities. The actual information needs will be determined and tailored to specific VC and geographical areas. The project will build on, improve upon and expand the existing market information systems/channels through mobile based messaging services and others to ensure adequate supply of information to cater for varied VC needs. Activities to be supported would include market information needs assessment in existing and in new VCs, and consequently identification of support required to enhance the delivery capacity of existing systems.

Climate and weather information services

162. Without knowledge about the upcoming season weather events, it is difficult to establish the types and quantities of input needed, the right type of practices, the suitable market to target, and the subsequent investments needed to successfully harvest for both consumption and profit. Climate services are intended to support the process of decision-making by providing farmers with information on the upcoming season accompanied by advisories for their livelihood decision-making. Provision of weather/climate services to inform farm management decision-making among smallholder farmers will: (i) facilitate the collection of historical agrometeorological data to inform the climate services;³⁰ (ii) produce downscaled seasonal and in-season forecasts for each district; (iii) develop advisories to accompany the dissemination of the seasonal forecasts; (iv) support extension officers to access, interpret, and disseminate the climate services; (v) disseminate climate services through SMS and knowledge platforms. Farm management decision-making by farmers is impacted by risk and uncertainty. Climate services integrate weather and agricultural information to help inform farmers' actions. Besides working on the basis of seasonal forecasts, in-season updates are needed to further inform the farmers. To optimize the use of the climate information in decision-making, the provision of climate services will need to be integrated into the extension support offered at district and ASC level. SARP will build on the approaches developed by UNDP and WFP which treats the issue in an integrated manner with a combination of hardware and software investments.
163. UNDP has taken a broad brush approach that includes the collection and dissemination of weather/climate information and access to advice on future seasonal conditions for agricultural planning as well as the early warning of storms and floods essential for water management - planning the release of water from the irrigation tanks. A number of interventions are being implemented to share data and information between the different institutions responsible for collecting, managing and using the different data sources. Attention has been given to monitoring the weather and hydrological conditions at local level to respond in a timely manner to weather vagaries and improve the forecasting of both weather conditions (high intensity rainfall causing flooding) and seasonal conditions (affecting agriculture and long-term water management). Some of the hardware investments made by UNDP include: a) setting up automatic rainfall stations for each river basin to increase coverage of rainfall data; b) establishing automatic water level sensors at critical locations in river basins²⁶; c) water level and rainfall monitoring of the village irrigation systems; d) manual water level gauges and simple rainfall gauges to be managed by the producer organizations²⁷. SARP will follow the same guidelines by investing in level gauges, rainfall measuring gauges and evaporation pans in the selected cascades and tanks.
164. Dissemination of climate/ weather information is being undertaken by UNDP and involves capacitating the relevant institutions involved in forecasting and flood water management. The improved climate and hydrological monitoring networks will provide basic data for improving long term forecasts, as well as calibrating satellite data and hydrological models to increase the extent to which information can be generated i.e. to areas not directly covered by the network. UNDP are training government staff (DoM, DAD, DoA) to operate and maintain these systems.

²⁶ Two automatic water level sensors are required for each sub-watershed, monitoring the upper and lower parts of the sub-watershed catchment.

²⁷ Some Producer Organizations already have water level gauges in their reservoirs. It is recommended that each irrigation reservoir selected for improvement be provided with a manually read water level gauge and a simple rainfall gauge, to be managed by the PO. This intervention is meant to enhance the capacity of the FO to relate flood events to measured rainfall and to set up their own simple operational rules

165. As SARP will extend activities outside the UNDP catchment areas the focus will be on dissemination and the use of data at local community level and through the ASCs. The activity will build on the community baseline assessments by identifying differentiated community needs in terms of weather and climate information and services, understand what information are most needed depending on their livelihoods, and specify the most appropriate mechanism(s) to ensure community members can access information when they need it. Particular attention will be given to ensure gender-specific needs are adequately reflected, together with specific needs linked to education and age. This will be followed by service provider training for extension workers, NGOs and government and project staff through the FFS and FBS methodologies. The University of Reading PICSA approach will be adapted for use. Through PICSA, farmers, with support from the extension officers, will be able to develop farm plans that help inform the way they undertake their agricultural practices. This plan will be informed by historical climate information and agronomical advice and be further supported by the seasonal and in-season forecasts. Complementing the training programme, advisories and agro-climatic content will be disseminated to households through ICTs (SMS, knowledge information hubs and the development of a mobile platform using the DEWN system operated by Dialog telecom). The use of SMS platforms (used to disseminate market information) will be instrumental to also broadcast updated weather information and allow to reach farmers beyond the extension services. A lump sum allocation has been set aside to develop SMS/ mobile communication through engaging the private sector in a cost sharing partnership. In this way SARP will complement the institutional capacity building work being implemented by UNDP.

166. Service Providers and Technical Assistance.

167. SARP will hire local service providers for community level activities – social mobilization, community planning and enterprise development - under multi-year results based contracts. The providers will establish teams located in the two hub cluster areas. Two service providers will be contracted to cover project implementation (possibly one team per cluster). The local NGO teams will be supported by a cadre of technical specialists recruited through the project. The local service providers should have demonstrated capacity to manage large contracts.

168. The implementation modalities for providing technical support to SARP include: (a) support to Farmer Field Schools (b) support in social mobilisation and planning as well as the preparation of subproject (SPs)/ business plans (BPs) for competitive funding; (c) provide specialised technical assistance to DOD, DOA and DOI staff and extension workers as well as smallholder beneficiaries in sustainable land management, gender, nutrition etc.; (d) provide implementation support to smallholder beneficiaries of sub-projects to ensure that the objectives of each SP/BP funded under the project are achieved; and (e) strengthen the capacity of local consultants and agricultural input providers to respond to the smallholder demands. Service providers are expected to sub-contract local consultants for specialised inputs. SARP technical staff will provide prior training for some of these activities.

169. The local service providers will provide training, coaching support to local farmer organizations and groups as well as individual one-on-one mentoring support to particular households and/ or individuals. This will increase the local level capacity and sustainability of the project interventions over time. It will also strengthen the capacity of local NGOs/consultants and agricultural input providers to be able to respond promptly to the smallholder needs. Selected NGOs' capacity will be strengthened to help disseminate knowledge and identify appropriate POs to prepare subproject proposals; private agricultural input suppliers will be strengthened in developing systems to supply critical agricultural inputs and services to smallholder farmers; and private enterprises' capacity will be strengthened in agricultural marketing, post-harvest management, specific value chains, and processing as well as in strengthening market linkages.

Organizational Framework

a. Project Management and Coordination

Project structure and organization:

170. The SARP implementation structure will have strong management foundations both at National and District levels. The project will be executed by Presidential Secretariat and the various

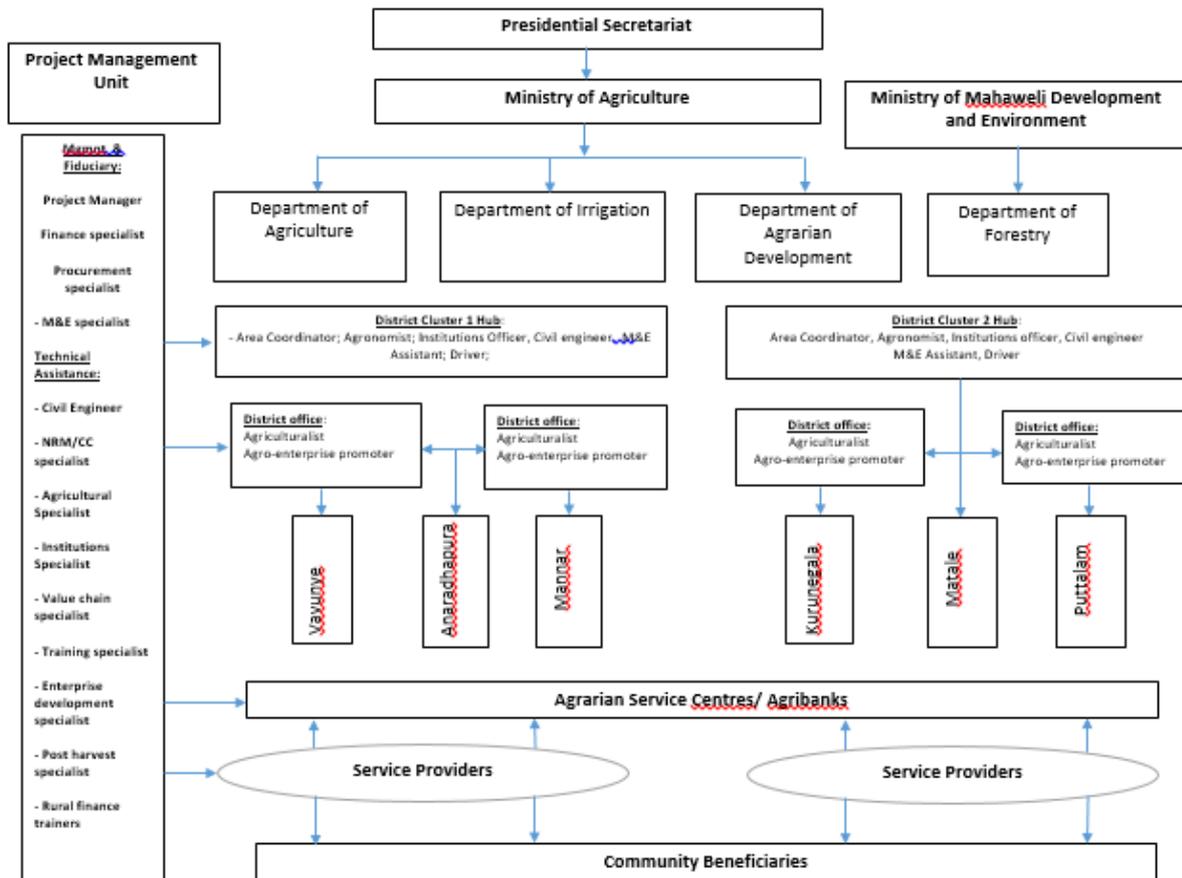
departments of the Ministry of Agriculture. The Secretary of the Presidential Secretariat will establish a Programme Management Unit (PMU) to manage and supervise the overall project. The Project Management Unit (PMU) will be led by a National Project Manager, and will have overall responsibility for project implementation. The PMU will be supported by a team of technical specialists and administrative and financial support staff. Two area based hubs will be set up to provide overall coordination and oversight of all project activities within the 6 districts and ensure adequate presence and support of the project management out in the districts level. The main project implementation activities will be undertaken at district levels. The PMU and district offices will be staffed by dedicated full time staff and supported by technical and administrative staff to ensure timely project delivery.

171. By being placed in the Presidential Secretariat it will work closely with SAPP its sister project²⁸. The Presidential Secretariat will be the principal coordinating body supported by technical lead agencies under the Ministry of Agriculture that include the Department of Agrarian Development, the Department of Agriculture and the Department of Irrigation. The Presidential Secretariat will work very closely with the PMU to oversee implementation. In order to capitalize on the experience and competences of SAPP to address the commercialization challenges of smallholder farmers, it was considered convenient to ensure that the two projects are coordinated by an experienced Programme Coordinator to provide strategic guidance and ensure closer project collaboration. This management structure will be first step towards the establishment of a single management unit for IFAD's future programme in Sri Lanka.
172. At central level the PMU will comprise a Project Manager, a Senior Finance Specialist, an Assistant Finance Officer, Finance/ Administrative Officers (3), a Senior Procurement Specialist, an Assistant Procurement Specialist, an M&E Specialist, Drivers, Office Assistants and Secretary. The technical team at central level will include a Civil Engineer (chartered), Natural Resource Management Specialist, an Agricultural Specialist, and Institutions Specialist, a Value Chain and Marketing Specialist, a Rural Finance Trainer, a Training Specialist (focusing on the Farm Business and Farmer Field School), a Post-harvest specialist and an Enterprise Development Specialist (also covering the youth incubation scheme).
173. At District level, SARP will set up two District Hub offices in selected districts led by Area Coordinators – technically trained in natural resource management or watershed development – who will be responsible for day to day implementation whilst doubling up as specialised technical support. Each District Hub will be staffed by an Agriculturalist, Institutions Officer, Water Resource/ Civil Engineer, M&E assistant and Driver. The remaining four Districts will have a contained technical staffing complement of an Agriculturalist (extension worker) and Agro-enterprise Promoter (who will double up as a social mobiliser). Each of the District Offices will have Office Assistants. The District Units will be housed under the District Offices in each district. The District Offices will be led by Area Coordinators and supported by the relevant support staff to provide implementation support and managing all project activities within the selected sub-watersheds and cascades.
174. The PMU will be supported by chartered engineer who will be responsible for managing the district engineering team for day to day management and coordination. The team will be for verifying the engineering design of the water, road and market infrastructure works and will supervise the construction/ rehabilitation works in the project area.

The Organogram for SARP is given below:

Figure 1: Implementation Structure Chart

²⁸ A financial management assessment was conducted to determine whether the Presidential Secretariat has acceptable FM systems to provide IFAD reasonable assurance that funds will be used for the intended purpose to enable project development objectives to be met. The assessment found the arrangements to be acceptable and the procedures employed by SAP, will be followed by SARP.

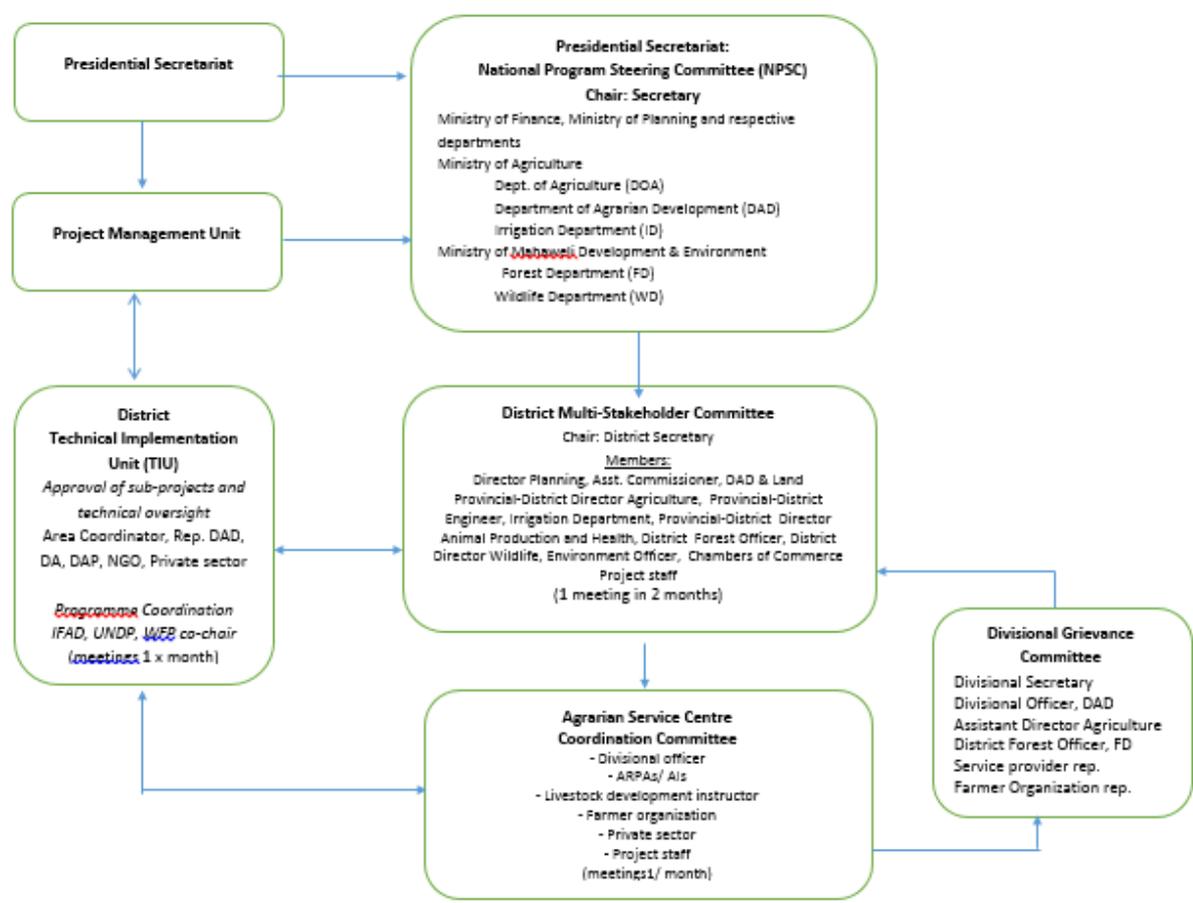


175. SARP will be fully integrated within the GOSL administration, and the project implementation is designed to capitalize on existing government agencies at all levels. The participating departments will carry out the project activities within their mandates, but coordinated by provincial DPD offices, with district units established at the Department of Agriculture (DoA)/Provincial Irrigation Department (PID)/Assistant Commissioner Agrarian Development (ACAD) offices and divisional units established at Agrarian Service Centers (ASCs).
176. While there will be no dedicated structure established at Provincial level, the provinces will focus on coordination and monitoring support and as such will not lead any activities nor manage activities in districts. They are considered necessary to provide closer support and backstopping to the District Offices during implementation.
177. Technical Implementation Unit. A Technical Implementation Unit (TIU) will be established at District level. The Technical Implementation unit will have executive and technical responsibilities. The TIU will consist of (at least) the Area Coordinator, the District Agrarian Development representative, the District Agriculture representative and the District Planning representative and appropriate project technical officers. The TIU will be responsible for the approval and implementation of micro project proposals relating to small irrigation systems, feeder roads, market infrastructure and small enterprise development. Larger cascade natural resource plans will need to be approved at PMU level where senior engineering and water resources staff are based. The task of the TIU will be to: (i) speed-up decisions and procedures; (ii) approve micro-projects under Sub-components 2.1 and 2.2; (iii) propose the agenda for the District MSC meetings and prepare the support documents; (iv) propose the Annual Work Plan and Budget (AWPB) to the District Cluster Hub and PMU for analysis and decision; (v) submit Annual Reports on sub-projects; and (vi) coordinate activities between SARP, UNDP, WFP and share technical experience. Periodically representatives of the two World Bank projects in the Dry Zone will be invited to participate. . The TIU will, in addition,

include representatives of NGO or civil society and a representative of the private sector, when deciding on the approval of micro-projects. Meetings will take place monthly.

178. Project coordination and grievance: The Secretary to the Presidential Secretariat will oversee the SARP National Steering Committee (NSC) which will provide strategic oversight to the project. The Steering Committee will comprise representatives of the Ministry of Finance, Ministry of Planning and the respective departments of the Ministry of Agriculture as well as the Forest and Wildlife Departments of the Ministry of Mahawelli Development and Environment. Coordination will be made with the Ministry of Mahawelli Development and Environment which has responsibility for forestry and wildlife.
179. At District Level coordination will be conducted through the District Multi-Stakeholder Committees, Chaired by the District Secretary. Members will include the Director Planning, Asst. Commissioner, DAD & Land, the Provincial-District Director Agriculture, Provincial-District Engineer, the Irrigation Department, Provincial-District Director Animal Production and Health, District Forest Officer, District Director Wildlife, Environment Officer, a representative from the Chamber of Commerce and Project staff – of SARP and collaborating projects (UNDP, WFP). Meetings are expected to be conducted once every two months.
180. At local level, Coordination Committees will be set up at the level of the Agrarian Service Centre. The committees will be chaired by the Divisional Officers and members expected to participate will include project staff, counterpart ARPAs/ AIs, the Livestock Development Instructor, representatives of FOs and the private sector. Meetings will similarly be convened once a month.
181. Communities, individuals and women who believe that they are adversely affected by SARP may submit complaints to the Divisional Grievance Committee to be set up at Divisional Level to redress grievances originating from the Agrarian Service Centre Committee. In the event that grievances cannot be addressed locally, they will be channelled to the District Multi-Stakeholder Committee for redress. The Grievance Committees will ensure that complaints received are promptly reviewed to address project-related concerns. Project affected communities and individuals may further submit complaints that are not resolved locally to the PMU where an independent Inspection Panel will be set up to determine whether harm occurred, or could occur, because of IFAD non-compliance with its policies and procedures.
182. IFAD has a Complaints Procedure to receive and facilitate resolution of concerns and complaints with respect to alleged non-compliance of its environmental and social policies and the mandatory aspects of its Social, Environmental and Climate Assessment Procedures. For more information, visit the IFAD webpage: [https://www.ifad.org/web/guest/accountability-and-complaints-procedure.](https://www.ifad.org/web/guest/accountability-and-complaints-procedure)

Figure 2: Coordination and Grievance Mechanisms



b. Planning, M&E, Learning and Knowledge Management

182. **Planning** – Programme planning will be an on-going process with annual reviews of activities at all level (community, ASC, district and central level) contributing to the development of Annual Work Plans and Budgets (AWPBs). The AWPBs, together with the log frames’ quantified results-based indicators and process indicators, will be the primary basis for programme monitoring, for identifying and integrating management priorities for implementation, forecasting procurement requirements and facilitating the mobilization of staff and resources when needed. An initial AWPB has been prepared for the initial 18 month period and will be used to ensure the timely start-up and usage of start-up funds prior to Entry into Force of the loan. The activities are based on the design document, but consultations with main stakeholders (including collaborating partners, ASC, and district staff) will play an important role.

183. **AWPBs** will cover the IFAD loan, co-financing partners, GoSL, private sector and beneficiary contributions. The programme structure is output based, with each activity developed to achieve a certain output, which in terms guides the outcomes. The same structure should be followed for future AWPBs, with a clear indication of responsibilities and division of budget lines amongst each of the PMU staff.

184. The annual plan should be treated as an indicative plan of project activities that sets targets, budgetary estimates and success indicators over the implementation duration. The annual plan should be sub-divided for each district. As the instrument for implementing the project according to its design, the annual work planning and budgeting process shall:
- Assess the previous year's achievements in comparison with the previous year's work plan and budget and in view of District review reports.
 - Plan outputs for the year to achieve the outcomes specified in the Strategic Results Framework of SARP.
 - Identify/ review key indicators for monitoring the delivery of project inputs and the achievement of project outputs.
 - Agree on the requirements and scheduling of reports to be submitted to the PMU; and
 - Review plans for staff/ beneficiary training
185. Annual work plan and budgeting– Following the Inception Workshop, a decentralised process will be put in place that focuses on the district level. Technical Implementation Units (TIU) will be set up at district hub level to coordinate the implementation of district plans. The Technical Implementation Unit will comprise the Area Hub Coordinator, SARP technical staff, representatives of DoA, DAD, DoA, DAP, service providers and implementing partner projects. The plans will be informed by the community level participatory plans expected to be prepared as part of the social mobilization and cascade planning processes.
186. The District Cluster Plans will be consolidated at the central – PMU - level into a Project-wide draft AWPB. The district plans will subsequently be shared with IFAD for review and expression of “No Objection”. The draft should be sent to IFAD latest by 31st October of every year or 60 days before the start of the next Project Year. IFAD will have 30 days for reviewing and provision of “No Objection” and the PMU will have a full month to revise and finalise the AWPB. This process is critical to ensure the timely submission of the draft to each level of approval. The finalised AWPB will be distributed to all SARP implementing partners by 31st December of every year to ensure a smooth transition from year to year. The AWPBs will be the basis for implementation.
187. In order to ensure flexibility in implementation, the plans can be adjusted on a quarterly basis in the light of information collected from the community together with the experience of field staff. This should be made at ASC and District level with adjustments made following the TIU meetings where the problems of particular communities would be discussed. The quarterly plans should include a list of interventions with budget and output estimates and a budgeted assessment of all inputs required for the district. Some of the input procurement, however, may be made in bulk from the central level PMU. Within the quarterly work plan budget, funds can be reallocated between interventions if under spending occurs. The TIU has the authority to make these modifications. The quarterly plans should be submitted together with a procurement plan that lists items to be procured by the PMU. The quarterly plans should be submitted 2 weeks ahead of the start of the semester. Changes to the AWPB must be sent for non-objection by IFAD.
188. Responsibilities for planning and coordination. Overall coordination of project components lies with the Project Director. After initial targeting and roll-out planning has been undertaken, the main responsibility for planning and coordination will lie at District Hub and District levels. AWPBs will be developed and consolidated at district level, with support of the M&E assistant, who will also be responsible for the final compilation. Final approval of the work plans rests with the Project Director.
189. Start-up activities.
- A number of preliminary studies should be conducted immediately after the Financial Agreement is drawn up. These include a Climate Risk Analysis consultancy and preparation of the

Environmental and Social Mapping Framework. These activities will be implemented in parallel to the start-up of the project in the field.

- A public launch will be held in Colombo in March – April 2020 that will include a wide range of stakeholders. The launch could include a start-up workshop for project staff and ministry officials directly involved in project implementation. The workshop would focus of implementation arrangement, setting the stage and updating and the roll out plan for project implementation.
- As the Inception Workshop will be to create a general awareness of the project, it should be followed up by Divisional level workshops (half or full day) to introduce the project locally and address some of the technical issues. Alternatively, one workshop could be held comprising staff from all 6 districts. At this workshop the roll-out plan will be validated and agreed upon. All staff will participate in this, for everyone to understand their role in reaching the development objective of the project. These workshops should be used to decide on the cascades, tanks, ASCs and communities for focus of project activities. The project will conduct some preliminary work and will set criteria for site selection before these are discussed in the technical workshops. This is a vital prerequisite to preparing detailed Annual Work Plans. Sufficient time will have to be given for the implementers to familiarise themselves with the PIM and ultimately take ownership over implementation. The workshops should be followed by the information campaign on identifying location for the target communities, as described in the detailed programme description. This launch will also sensitise beneficiaries to the upcoming surveys to be undertaken, and alert possible service providers of upcoming calls for proposals.
- As the project design documents are comprehensive there should not be a need to conduct many studies at start-up, other than collection of baseline information. The baseline study should include a review of the project areas and sites as described in more detail in the PIM.
- Actions should be taken to conduct an inventory of service providers/ implementing partners and assess their capacity to provide technical support to the subcomponents of the project. Sub-contractors could include international organizations, national NGOs, government offices and the private sector. The range of services to be provided should be advertised for competitive assessment.

The complete list of start-up activities are given below.

Activity	Responsibility
SECAP follow up activities	Country Director
Inception (start-up) workshop	PMU
District start-up workshops	PMU
Assignment of key national staff	PMU
Prepare ToR for Steering Committee and convene meeting	Initiator + PMU
Recruitment of national consultants	PMU
Identification and recruitment of MoA staff	MOA
Selection and contracting of service providers	PMU
Tender preparation for vehicles and motor bikes	PMU
Procurement of vehicles and motorbikes	PMU
National preparation of AWPB Workshop and PIM	PMU
Preparation of policy on grants and loans	PMU IFAD TA staff
VAM targeting and planning	Contracted organization
Design of M&E system + manual	M&E expert
Design of M&E software	M&E expert
ToR for baseline survey and preparatory studies	PMU
Baseline survey, assessment of Agrarian Service Centres and Agrarian Banks	Contracted organization

190. **Monitoring, evaluation and learning** – An M&E system will be established to provide information on progress and performance that monitors the implementation process and contributes to effective Project management, decision making and reporting, including to government and IFAD. Monitoring will focus on collecting data on the status of planned activities in the AWPB, and on creating a cumulative overview of the direct results (deliverables/outputs) from Project start-up until completion.

191. System design: SARP will put in place a results-based monitoring and evaluation system. This system will generate comprehensive and reliable information to support planning and decision-making. An annual survey will be conducted from PY3 to report on Core Indicators. The system will be participatory, decentralised, and compliant with IFAD requirements, and relevant data, analysis and reporting will be disaggregated by gender and age. The data will inform the preparation of above mentioned AWPBs and annual progress reports compatible with ORMS.

192. The project logical framework matrix reflects the theory of change behind the intervention, namely the reasoning behind the selected activities and outputs, for reaching the outcomes and objectives. The theory of change is the description of the changes we wish to see and the linkages between them that we believe to exist. The logical framework represents a simple framework for monitoring programme key performance indicators and for presenting the logic in reports etc. The number of indicators included in the log-frame is limited in number, and will act as key performance indicators. This will be supplemented by a series of more detailed progress indicators and data to be collected.

193. The objectives of the M&E system will be to:

- Monitor and guide programme implementation in terms of relevance, efficiency and success in impacting the lives of the target groups
- Share knowledge
- Evaluate programme impact.

194. The approved Annual Work Plan and Budget provides the basis for input monitoring, output monitoring, process monitoring, annual project reporting, and results-oriented annual reporting. To meet the monitoring and evaluation requirements, the Project Director in consultation with the Technical Assistance team will be responsible for including the following requirements into the draft work plan and budget:

- Expected outcomes, output targets, for each district
- Detailed schedules for activities to be undertaken and inputs to be delivered
- Monitoring indicators for delivery of inputs and production of outputs
- Baseline data on location and status of project target groups
- Schedule of formats for regular reporting

195. In line with the implementation approach, the M&E system will be decentralised. Training and backstopping will be provided to those involved in data collection and collation at the different levels. Since many of the activities will be subcontracted to service providers, the different service provider agreements would specify responsibilities for monitoring and include templates for consistent reporting.

196. The M&E system will assess progress and achievements of the interventions. Provision will be made for close monitoring and supervision of SARP activities; especially during the first two years to ensure that implementation of development activities proceeds smoothly, and that any problems are dealt with in a timely manner. The M&E system will also monitor and assess development objectives and priorities regularly. This will support prompt identification of problems (such as objectives that are not being met or are off-track) so that remedial actions can be taken.

197. Staffing and responsibilities: The M&E Specialist will be responsible for planning, monitoring, reporting, evaluation and assessment, learning, knowledge management and communication, as well as ensuring appropriateness and efficiency of implementation related to targeting. Two M&E

Assistants will be recruited and placed at the District Hubs, under the supervision of the M&E Specialist. The M&E Assistants at district level with the support of the M&E expert will lead the district level planning and monitoring activities which will align with the procedures of DoA/DAD/DoI. The M&E Specialist will oversee the M&E function. The relevant units of government at district level together with the main service providers, the implementation partners and the beneficiaries will play an important role in M&E functions.

198. Baseline data and surveys: Baseline data and studies are meant to provide the basis for measurement of results and comparisons over time and space for the mid-term review, completion and ex-post evaluations. Beneficiary surveys will be undertaken to quantify the coverage and usage of interventions differentiated by gender and age. It will further assess the extent to which SARP interventions meet the expectations of beneficiaries and determine the nature and magnitude of the outcomes of the interventions on households and communities. A baseline survey will be undertaken during the first six months after entry into force. The baseline survey data collection will be complemented by the community level planning process. Efforts will be made to identify gender issues and gaps so that these can be addressed.
199. Local level monitoring: The Community led Watershed Development Plans will provide the basis for input monitoring, output monitoring, process monitoring and outcome monitoring at community level. To meet the monitoring and evaluation requirements, the Social Inclusion and Gender Facilitators together with the Community Facilitators will be responsible for including the following requirements into the respective development plans: output targets for the community, schedule of delivery of inputs, projection of beneficiaries, and responsibilities and timing for reporting
200. Mid-term Review: A Mid-Term Review (MTR) will be conducted halfway through implementation (beginning of PY4) to assess the performance of the project, results attained against the established objectives, and the efficiency and effectiveness of SARP management. The MTR will evaluate whether the Project is on course to achieve the objectives and will identify any constraints and recommend remedial measures to achieve them. The recommendations will consider the likelihood of achieving the Project's targets during the remaining time and may modify those targets. Before completion, an impact assessment will be undertaken to inform the Project Completion Report (PCR) which will provide an assessment of the accomplishments of SARP and analysis of its performance.
201. Reporting:
 - Progress reports will be produced on a quarterly basis, for internal programme management use. District, quarterly or six-monthly Implementation Plans will provide the basis for input monitoring, output monitoring, process monitoring, annual project reporting, and results-oriented annual reporting at municipal level. Six month reports (with the annual report being larger) will be submitted to IFAD and GoSL. Reports will similarly be shared with service providers and beneficiaries. The PMU will produce monthly, quarterly and annual reports. Formats and content will be further developed at the start of implementation, including for various service providers and implementers. Key elements will include: progress reporting against physical and financial targets, evidence of outcomes for each component, etc. Standard sections on targeting, gender, partnerships and knowledge management.
 - Monthly field reports. Community facilitators will be expected to convene community level meetings through the Community Development Fora on a regular basis and will document the minutes. Information should include the progress of the activity, discussing problems, solutions and actions. They will also be expected to submit short monthly reports on planned activities that have not taken place, and identify the constraints and any type of support required. The Area Coordinators will review these with the purpose of initiating immediate actions to ensure that quarterly performance is on track. Standard reporting formats will be developed.
 - GoSL reporting. As per Ministry of Agriculture – DoA/ DAD requirements, the project will feed into annual sector reviews and reporting formats provided. Coordination with relevant ministry departments as well as participation in policy development meetings will be the responsibility of the PIU.

- RIMS. As part of its corporate reporting system, IFAD has developed the Results and Impact Management System (RIMS), which aims to create a common set of indicators that can be compared across projects and countries. All IFAD-financed projects supervised by IFAD are required to report on the indicators annually, as well as undertake RIMS compliant baseline and impact assessment studies for reporting on anchor indicators of child malnutrition, food security and household assets. Considerable effort has been made during the design to ensure that this reporting requirement is consistent with the reporting requirements internally in the programme. Each year, by 31 March, the programme will report on the selected RIMS indicators and on programme outreach, for the previous calendar year, in an Excel format provided by IFAD.
202. Learning and Knowledge Management – Knowledge Management (KM) will ensure that Project implementation is a continuous learning process in which quantitative and qualitative data will be compiled, analysed and disseminated as lessons learned, together with thematic studies and stories from the field that explain challenges encountered and results achieved.
 203. The project will include some innovative features that include: a) the targeting and community-level planning methodology to be applied; b) new sustainable land management measures; c) linking nutritionally rich food items to institutional markets (e.g. school feeding); d) roll-out of the FBS approach; e) youth incubation pilot testing; f) small-scale mechanization hire services; and g) pilot-testing of climate data information and market information systems. The FBS approach and community planning processes have already been tried and tested in Sri Lanka and are available for scaling-up.
 204. Capturing and documenting lessons and innovations through on-going data collection, monthly/semi-annual reports, and thematic studies will be an integral part of SARP. The knowledge management function of the M&E will document and share knowledge through internal (e.g., learning events, stakeholder workshop meetings, etc.) and external mechanisms (e.g., website, blogs, radio, podcasts featuring programme stakeholders, etc.). Knowledge activities will proactively pursue gender and youth issues, and present success stories related to commercialisation of agriculture and increasing resilience. SARP will also have bi-annual and annual review meetings / workshops. Workshops will report on programme progress, lessons learned, challenges and solutions to implementation constraints. In complement, an SMS communication and broadcasting system will be developed to reduce the communication gap between field-level farmers and the project.
 205. For innovation and learning, coordination amongst donor programmes will be required as well as amongst the various extension services at the different administrative levels. Platforms for improved coordination and the effective dissemination and scaling of technologies will be established through platforms set up at district and community level.
 206. The information to be generated by the M&E system will enable DoA, DAD, DAP and other related departments, the Divisional Offices and other relevant stakeholders to carefully monitor SARP and provide reliable information on the different interventions and the resultant impacts (or lack thereof). Information sharing with other dry zone projects in Sri Lanka will receive particular attention. Knowledge gained in other countries of the region will be made available to SARP. In turn, the SARP experience will inform regional learning on integrated watershed development interventions.

c. Financial Management, Audit and Governance

207. The overall inherent risk of the country is deemed MEDIUM. Sri Lanka is ranked 89th out of 180 countries with the score of 38 in the Corruption Perception Index (CPI) in the survey conducted by Transparency International. The 2018 RSP rating is 3.7 – medium risk bracket. Overall, the financial management risk is rated as Medium. Taking into consideration recent experience of IFAD-financed projects, Financial Management Assessment was undertaken for the NADEP and SAP at this design, guided by the 'financial management questionnaire (FMAQ)'. In view of the mitigation measures and previous experience of the NADeP and SAP, the overall project fiduciary risk is assessed to be Medium at the design stage.
208. The Central Bank of Sri Lanka (CBSL) has as one of its four main functions, management of the country's public debt, on behalf of the government. All advance accounts related to foreign funds are opened and maintained at the CBSL. Government is in the process of implementing a series of focused legislative, administrative, institutional and capacity improvement measures. These initiatives mainly cover reforms in the areas of taxation, expenditure management, public enterprises, procurement and policy improvements.
209. The Presidential Secretariat as the Lead Project Agency (LPA), will have the overall accountability for the project, including fiduciary aspects. The project will (i) establish a control framework integrating periodic internal audits, independent external audits, and social safeguards to be adopted based on IFAD policies; (ii) adopt a good governance and *mutual accountability framework* to strengthen accountability and transparency in line with international best practices.(iii) outline the project specific financial management procedures and disbursement requirements in the PIM; and (iv) establish a Management Information System (MIS) to support the core project management functions
210. **Organisation and staffing.** The dedicated PMU for the SARP will be set up and established under the Presidential Secretariat, though strengthened to include additional positions relevant to achieving the SARP project objectives. This PMU will be responsible for implementing all operational-level fiduciary functions. The Finance department of the PMU will consist of a Finance Manager, released on a full-time basis, to be assisted by an Accountant and two Accounts Assistants. In addition, an Internal Auditor and a Procurement Officer with experience of National Procurement Procedures will be recruited to the PMU (and will also hold responsibility for contract management). Overall, the Finance department, reporting to the Project Coordinator for SAP and SARP, will take on the key functions of project administration.
211. **Budgeting.** Sri Lanka has a three-tier administrative structure: central, provincial, and local government. All activities of the government are predetermined and are set out in plans and programs. The annual estimates of expenditure detail the financial commitment of the government for the next year's program of activities. There are three budget areas—national, provincial, and local— corresponding to the three levels of government. The Constitution requires the central government to allocate adequate funds from the annual budget to the provincial councils to meet their needs. The Finance Commission is the intermediary between the central government and the provincial councils in finance matters.
212. The PMU, after consultations with project stakeholders, shall prepare its annual budget, linking all the planned activities to the cost categories outlined in Schedule II of the Financing Agreement; this exercise will take place in advance of the preparation of the national budget, to ensure that the required Government funds will be allocated and available on time from the General Treasury. All financing contributions should be clearly stated in the budget to be submitted to the NSC and IFAD for its approval.
213. The LPA should make adequate annual budgetary provisions for IFAD funds and Counterpart funds in the National Budget, based on the AWPB of the Project.
214. **Disbursement arrangements and flow of funds.** The Presidential Secretariat, the LPA, would be responsible for managing the funds flow from the loan proceeds and, opening and

maintaining the Designated Account in US Dollars at the Central Bank of Sri Lanka (CBSL) to receive loan resources in advance as soon as possible after entry into force of the Agreement. Replenishments of the DA would be effected through submission of Withdrawal Applications (WAs) and accompanying Statements of Expenditures (SOEs) and/or supporting document, in accordance with IFAD procedure as set out in the Letter to the Borrower and Loan Disbursement Handbook, to IFAD.

215. In accordance with Section 3.1 of the LDH, the Designated Account will be administered following Imprest Account arrangements. Advances from this Financing must be segregated from other funds for the Project
216. IFAD funds would be channelled through the Designated Account maintained at the CBSL. Under Imprest arrangements, the maximum authorized allocation to the Designated Account will be USD 4 million. One or more advances may be withdrawn within this authorized allocation. Before disbursement can begin, IFAD must receive, from the designated representative a letter designating the names of officials authorized to sign withdrawal applications which includes their authenticated specimen signature(s). The project is eligible and authorised to use the IFAD Client Portal (ICP), the applicable form is included in LTB.
217. Documentation evidencing the opening of the Designated Account, with details of the names and titles of the persons authorized to operate this/these account(s), must reach IFAD before withdrawal from the loan account can begin. The Project will maintain Project Accounts in *local currency* at a state owned commercial bank, to receive funds from the *Designated Account* for eligible expenditure for the project implementation. The government will maintain the Project Accounts in a state owned local currency at the commercial bank to provide counterpart funds for Project implementation.
218. The following are the SOE thresholds²⁹ that apply for withdrawal application under procedure (i) "Advance Withdrawal" and under procedure (iii) "Reimbursement": USD 50,000 for all expenditures categories.
219. **Internal controls and internal audit.** As part of internal control procedures, the PMU would give effect to a formal delegation of authority and clear segregation of duties among the project staff. In addition, the project's financial performance will be periodically reviewed by the National Steering Committee chaired by the Presidential Secretariat. The overall control measures and systems and procedures that are in place (applying Government rules) are relatively adequate to address needs of the proposed project. Furthermore, following Government circular, all donor-financed projects must employ an internal auditor, which will also be the case for SARP.
220. Management Information System (including Accounting software). The Project will establish a Management Information System (MIS) to support the core project management functions at the central and district levels, such as business plan development, financial management and project monitoring and evaluation.
221. The PMU will adopt an accounting software, customised to record and generate financial reports and preserve financial data per the requirements of IFAD. The customisation should comply to the chart of accounts, disbursement rules and share of financiers and should be able to generate Financial Statements and automate the preparation of Was.
222. **External Financial Audit.** The Auditor General (AG) who is constitutionally mandated to audit all government accounts and report to Parliament annually, will perform the external financial audit of the project. A copy of the Financing Agreement (FA) and other relevant information of the Project should be submitted to the AG's office in advance, enabling AG to issue necessary instructions and guidance to staff and ensure timely submission of audit report and management letters. Specific additional auditing requirements of IFAD will be communicated to the AG, and the AG would submit audited financial statement and a detailed audit report along with a Management Letter not later than six months after the end of the financial year.

223. IFAD will publicly disclose project financial statements and audit reports of projects financed by IFAD. In line with the standards of the International Aid Transparency Initiative, the government is encouraged to publish relevant financial information on their own websites, for increased accountability. The audit TORs explicitly mention the right of the borrower/recipient and of IFAD to publish the audit report, with no limitation-of-use clause.

224. Lending Terms and Financing Conditions

225. The Loan is granted on ordinary terms and shall be subject to interest on the principal amount outstanding of the Loan rate equal to the IFAD Reference Interest Rate, payable semi-annually in the Loan Service Payment Currency, and have a maturity period with a MAXIMUM 35 YEARS, including a grace period with MAXIMUM 10 YEARS starting from the date as of which the Fund has determined that all general conditions precedent to withdrawal have been fulfilled. The grace period and maturity period shall be confirmed at the financing agreement negotiation.

A summary of FM risks and mitigating actions at SAP design stage is presented below.

Summary of Project Fiduciary Risk Assessment at Design			
	Initial Risk Assessment	Proposed Mitigation	Final Risk Assessment
Inherent Risk			
1. TI Index	M Index: 38 in 2018 (ranking 89 out of 180)	The overall inherent risk of the country is deemed MEDIUM. Sri Lanka is ranked 89th out of 180 countries with the score of 38 in the Corruption Perception Index (CPI) in the survey conducted by Transparency International. The 2018 RSP rating is 3.7 – medium risk bracket-	M
Control Risks			
1. Organization and Staffing	H	<ul style="list-style-type: none"> • A dedicated PMU for SARP to be set up • Additional finance and procurement staff to be recruited • Comprehensive, user-friendly PIM to be finalized 	M
2. Budgeting	M	<p>All financing contributions should be clearly stated in the budget to be submitted to the NSC and IFAD for its approval.</p> <p>79. The LPA should make adequate annual budgetary provisions for IFAD funds and Counterpart funds in the National Budget, based on the AWPB of the Project.</p> <p>Early consultative process for preparation of AWPB and PP with timely submission to NSC and IFAD</p>	M
3. Funds flow and Disbursement Arrangements	M	<ul style="list-style-type: none"> • Clear definition of funds flow 	M
4. Internal Controls	M	The PMU would give effect to a formal delegation of authority and clear segregation of duties among the project staff. In addition, the project's financial performance will be periodically reviewed by the National Steering Committee chaired by the Presidential Secretariat. The overall control measures and systems and procedures that are in place (applying Government rules) are relatively adequate to address needs of the proposed project	M
5. Accounting Systems, Policies & Procedures	H	80. Management Information System (including Accounting software). The Project will establish a Management Information System (MIS) to support the core project management functions at the central and district levels, such as business plan development, financial management and project monitoring and evaluation.	M
6. Reporting and	M	<ul style="list-style-type: none"> • PIM to detail reporting and monitoring requirements and rules 	M

Summary of Project Fiduciary Risk Assessment at Design			
	Initial Risk Assessment	Proposed Mitigation	Final Risk Assessment
monitoring		<ul style="list-style-type: none"> Financial reporting to be automatically generated through accounting software 	
7. Internal Audit	M	81. , following Government circular, all donor-financed projects must employ an internal auditor, which will also be the case for 82. Project management to act on internal audit findings and recommendations	L
8. External Audit	M	<ul style="list-style-type: none"> Agree on TORs and maintain continuous dialogue with AG of Sri Lanka and IFAD to ensure submission of acceptable reports, timely submission of annual audits and informative management letters 	M
Project Fiduciary Risk Design	M		M

d. Procurement

226. The main purpose of this section is to provide implementation support to SARP to fulfil its procurement responsibilities. Accordingly, SARP is required to perform all procurement responsibilities in accordance with the Loan Agreement signed between the Government of Sri Lanka (GoSL) and International Fund for Agriculture Development (IFAD), Procurement Guidelines and Letter to the Borrower (LTB). The prime objective of procurement process is to achieve value for money, in an efficient, fair, equitable, transparent, competitive and cost-effective environment.

Regulatory framework of Public Procurement

227. Government Procurement Guidelines that are implemented across all government organizations and foreign funded projects without any exception, would be adopted by SARP to the extent that they are consistent with IFAD Procurement guidelines; any inconsistency, IFAD Procurement Guidelines supersede the Government Guidelines. The Government Procurement Guidelines issued in 2006 are still in force until the revised version of the Guidelines (2017 revision) that are being tabled at the Parliament are approved. The new Guidelines are supplemented with two Manuals covering procurement of Goods, Works, Information Systems, Services and selection and employment of consultants.

Procurement prior-review Threshold

228. The below-listed thresholds are set in consideration of country-specific risk-indicators, as well as experience from other completed and ongoing IFAD projects in Sri Lanka

Procurement & Prior-review Thresholds				
Currency: US\$				
	International Competitive Bidding	National Competitive Bidding	National Shopping	Prior-review
Goods	≥ 150.000	50.000 to 150.000	≤ 50.000	≥ 100.000
Works	≥ 400.000	100.000 to 400.000	≤ 100.000	≥ 100.000
	Request for proposal (internationally)	Request for proposal (nationally)	Request for quotation (National Shopping)	

Non-Consulting Services	≥ 80.000	50.000 to 80.000	≤ 50.000	≥ 50.000
Consulting Services	≥ 80.000 (QCBS)	50.000 to 80.000 (LCS)	≤ 50.000 (CQS/ICS)	≥ 50.000

(The Letter to the Borrower (LTB) includes further details.)

229. Ethics in Procurement

Fraud and corruptions: The project procurement process should strictly adhere to the Anti-Corruption Policy of IFAD (zero tolerance to corrupt, fraudulent, collusive, coercive and obstructive practices,) as required by Financing Agreement and IFAD Procurement Guidelines.

Confidentiality: All parties associated with procurement activities should maintain strict confidentiality throughout the process.

Conflict of interest: The officials, firms and any other individuals involved in procurement process should not have a conflict of interest. All members of Procurement Committees and Technical Committees are required to make a declaration that they do not have any conflict of interest in the procurement concerned, before participating in the process,

Use of project funds: Funds allocated under the project should be used only for the purposes provided and according to the accepted professional ethics and contractual obligations.

230. Procurement Management Unit

A dedicated Procurement Unit (PU) would be established in the PMU, headed by a Senior Procurement Officer assisted by a Procurement Officer with adequate supporting staff. The Senior Procurement officer will be reporting direct to the Project Manager (PM). The Procurement staff should have minimum five years' experience in donor funded projects and be selected by open advertisement followed by a formal interview. Their appointments are subject to IFAD NO-objection and their availability until the project completion is emphasized.

231. Procurement Roles and Responsibilities

User Depts:

- It is the responsibility of the user / beneficiary department, in this case Dept. of Agriculture, Agrarian Development and Irrigation, to submit the list of annual requirement of items (goods, services and works) based on their planned activities as reflected in the AWPB to the PMU; the list will serve as input into the Procurement plan of the project;
- Submission of TOR for services, Bill of Quantities for works and Specification of goods;
- Participate/represent in Technical Committee (TEC) meetings when finalizing TOR/BOQ/Specifications;
- Participate in Procurement Committee meetings and involve in contract monitoring process actively, depending on the nature of the contract.

Finance Unit of the SARP

- Provide confirmation on availability of funds for the procurement;
- Effect payment when the contract has been satisfactorily performed.

Procurement Unit of the SARP

While overall responsibility of project procurements rests with the PM, Procurement Unit (PU) headed by Senior Procurement Officer performs all project procurements. Accordingly, Senior Procurement Officer is directly responsible to the PM and the role played by him is as follows.

- Active participation in preparation of annual work planning process.
- Preparation of annual procurement plan in line with the AWPB and obtaining NOL of IFAD and subsequent revisions.

- (c) Initiating action to get Procurement and Technical Evaluation Committees (PCs and TECs) appointed by the relevant authorities according to the Government Procurement Guidelines and arrange meetings.
- (d) Preparation of draft bid documents and recommend appropriate procurement method to the PC /TEC.
- (e) Recommending evaluation criteria and assist TEC and PCs.
- (f) Ensuring prior review requirements are fulfilled.
- (g) Advertising and invitation of bids.
- (h) Making arrangements to receive bids and assist Bid opening committees in opening bids.
- (i) Obtaining approval of the appropriate authorities for the recommendation made by the PCs and convey decision of awards to the successful bidder and provide publicity of award through relevant websites and Newspapers.
- (j) Obtaining prior approval of IFAD for award when necessary.
- (k) Contract monitoring and suggesting remedial action to the PMU as necessary.
- (l) Maintaining the Contract Register and submission the same to the CPM monthly.

Procurement committee.

- (a) Approval of bidding documents and Procurement Time Schedule.
- (b) Review recommendation of the TEC and recommend award of Contract to the appropriate authority.

Note: TEC is composed of set of officers who are experts in the relevant field to assist PCs.

232. Procurement Methods

Procurement of goods, Works and Services and selection of consultants that does not involve international bidding will be carried-out according to the Government Procurement Guidelines. Competitive bidding is the basis for economical and efficient public procurement. However, depending on the nature of the procurement with emphasis to the market situation the project should select appropriate procurement method according to the Guidelines. The procedure that should be followed for every category of procurement financed by IFAD, is defined in the LTB. The details of the procurements that are to be completed during the year will be reflected in the annual Procurement Plan. Direct contracting and single sourcing may be used in exceptional circumstances when it can be justified that competitive method would not yield better value for money and with specific approval of IFAD. Procurement of small quantities of office supplies and equipment and consumable materials which are available locally at economical prices would be procured through shopping procedure based on quotations received from minimum three reliable suppliers.

233. Procurement Planning

The PMU would be responsible for preparing and forwarding procurement plan to IFAD for “No objection” on an annual basis, 60 days prior to the commencement of the relevant financial year and subsequent revisions. Procurements would be made according to the approved procurement plan and AWPB of the project. As provided in all Financing Agreements and Procurement Guidelines, IFAD review of and no objection to the Borrower’s procurement plans is compulsory. Annual procurement plan and subsequent revised plans would be submitted to IFAD for No-objection in the format with planned and actual rows across three different categories (first 18 month procurement plan is given in Annex 7). PMU is required to update Procurement plan to reflect changes of the project and timescale. It should minimum includes:

1. A brief description of each procurement activity to be undertaken during the period and name of the implementing agency responsible for the procurement;
2. The estimated value of each procurement activity;
3. The method of procurement to be adopted for each procurement activity and;
4. The method of review IFAD will undertake for each procurement activity indicating either post review or prior review.

234. Misprocurement

Instances where procurements are not carried out in accordance with the Guidelines and Financing Agreement, IFAD will declare that the procurements concerned are ineligible for funding by IFAD. Even if the contract was awarded following IFAD No-objection, still IFAD has right to declare Misprocurement if it concludes that the NOL was issued on inaccurate information provided by the Project.

235. Procurement process

Procurement process mainly comprised of preparation of bidding documents, bidding process, Bid evaluation and award of contract. All these steps are comprehensively explained in Government Procurement Guidelines and the project is expected to follow them. In case any provision in the Government Guidelines is inconsistent with IFAD Procurement Guidelines, as stated at the beginning of this Manual, IFAD Guidelines would be applied. The PMU should ensure that

- a) Procurement will be carried out in accordance with Financing Agreement and any duly agreed amendments thereto and procedure and limits specified in Letter to the Borrower;
- b) Procurement will be carried-out within the Project implementation period, except as provided under IFAD General Conditions;
- c) Procurement is to be consistent with the duly approved annual work plan and budget (AWPB) and procurement plan (for the first time, the procurement plan will cover the first 18 months of the project implementation period);
- d) Procurement is to result in the best value for money and fit for the purpose

It is appropriate to explain the provisions applicable for Direct contracting or sole-sourcing at this juncture, as special attention of project authorities deserve this area and it is allowed only in very exceptional circumstances with express approval of IFAD; and subject to possible misuse. Accordingly, the direct contracting and single sourcing is permitted under following circumstances:

- (a) An existing contract awarded in compliance with procurement procedure acceptable to IFAD may be extended to procure additional goods or works of similar nature to a maximum value of 25% of the original contract, provided that no advantage could be obtained by further competition and that the prices are reasonable.
- (b) Standardisation of vehicles, equipment or spare parts to ensure compatibility with existing vehicles, equipment or machinery may justify additional purchase from the original supplier.
- (c) The required equipment is proprietary and obtainable from one source.
- (d) Process design requires purchase of a critical item from a particular supplier as a condition for a performance guarantee.
- (e) Purchase from original supplier may be justified in exceptional cases and emergencies such as in response to natural disaster, situations such as emergencies, conflicts and post conflicts in the country. (For further details refer to Section E of the IFAD Procurement Guidelines.)

239. The post ordering phase and Contract Management

Post ordering phase: A contract or Purchase Order duly signed by the authorized personnel will be issued to the successful bidder with copies to the parties concerned. An order / contract acknowledgement should be examined to ensure that the order has been accepted on the terms and conditions agreed and filed. It may be necessary to monitor the progress of order to ensure that delivery dates are met or to expedite delivery of overdue orders. On receipt of the GRN (Goods Received Note) from the stores that goods are in the expected quality and quantity, Finance division would make the payment; and the procurement documents are transferred to completed orders file.

Contract Management: Contract Management procedure is designed to ensure that

- I. The supplier performs the contract in accordance with the terms and conditions in the contract;
- II. The procuring entity fulfills its obligations and duties under the contract; and
- III. Swift remedial or preventive action is taken when problems crop-up or are foreseen.

Overall contract management will be the responsibility of the Senior Procurement Officer who may draw on other sources such as technical expertise, payment services, legal services and supply management systems as required. All contracts will be listed in the Register of Contract in the format introduced by IFAD. Updated Contract Register would be submitted to the CPM monthly as required in the Loan covenant. In order to improve system of Contract management, PMU would take-up any issue that can not be solved at project level to the notice of the Steering Committee for appropriate action.

231 Filing system and Record Management As the procurement processes are subject to review by IFAD, External and Internal auditors of the country and Supervision missions to verify that the procurement procedure stipulated in the Loan Agreement, and Guidelines have been applied. In order to ensure the transparency and correctness of the procurement procedure, all original documents relating to their processing should be kept under safe custody of the Senior Procurement Officer until the project is completed and thereafter transferred to the LPA. As a best practice, each procurement activity will have its own separate file or folder or dossier containing properly coded records in chronological order which facilitates reviewing at any time the entire historical record of a certain procurement. Records relating to any procurement should be maintained for a period of five years from the completion of the project.

Preferred format of documents:

Document	Preferred Format
A copy of the published advertisement or list of suppliers in Limited tenders	Hard copy
A copy of the published pre-qualification and invitation documents and any amendments, extensions or clarifications that were requested and issued	Hard copy
Minutes of the bid opening and attendance sheet signed by all present	Hard copy
Bid received and evaluated, plus clarifications requested and responses received	Hard copy
Technical evaluation report	Hard copy
Signed minutes of all meetings relating to the procurement, including pre-bid and negotiation meetings where these were held	Hard or soft copy
A contract award notice	Hard copy
Letter of Bid /offer acceptance to the supplier, contractor or consultant	Hard copy
The signed contract document or letter of contract acceptance	Hard copy
Any contract amendments	Hard copy
All contractual correspondence between the procuring entity and a supplier, contractor or consultant	Hard or soft copy
Post-contract documents relating to the fulfilment of contract obligations, in particular photocopies of performance guarantee or advance payment payment guarantees.	Hard copy
Signed minutes of any meetings related to contract management, including contract progress or review meetings	Hard copy
Signed delivery documents evidencing delivery of supplies or signed completion certificates in relation to a contract for services or works under the contract including any contract delivery records	Hard copy
Copies of all invoices for works, services or supplies including work-papers verifying the accuracy of payments claimed and details of the actual payment authorized	Hard copy
A copy of cumulative payment worksheets/records evidencing management of all payments made	Hard and Soft copy
All submissions to and all decisions of the appropriate approval authority related to the procurement including the approval of the invitation documents, approval of the evaluation report(s), contract award, approval of contract documents and contract amendments and any decision to suspend or cancel procurement proceedings	Hard copy
Any claims made by the procuring entity in respect of any warranty, short supply, damage and other claims upon the provider or upon the procuring entity.	Hard or soft copy
In the case of IFAD prior review, all submissions and correspondence in relation to the seeking of IFAD's 'No Objection'	Hard or soft copy

Any other communications relating to the procurement in questions including internal entity correspondence	Hard or soft copy
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Frequency of procurement supervision

IFAD will monitor the procurement performance on a sample basis when semi-annual implementation support missions are carried out.

Environmental and social safeguards

Objectives. The objective of the Review Note of the Social Environment and Climate Assessment Procedures (SECAP) is for the project to take into account social, environmental and climate change issues. The Review Note summarizes the development context, looks how the project might impact it with regards to IFAD's mainstreaming themes (gender, youth, nutrition, indigenous peoples, climate and environment) and makes specific recommendations how the project can mitigate risks and better include social and environmental concerns. The SECAP aims at mainstreaming social, environmental and climate adaptation sustainability issues into all the components of the project, as well as at ensuring effective stakeholder engagement, including a procedure to respond to alleged complaints from project-affected individuals /communities.

Values and principles. The environmental and social values and principles include the following:

- Addressing the vulnerability and adaptation priorities of rural people, by ensuring the efficient use of natural resources and promoting approaches to (re)build social cohesion and good governance of natural resources.
- Promoting the sustainable use of natural resources and protection of key ecosystems in an integrated manner.
- Implementing participatory approaches, with special emphasis on the participation of and benefits to women and youth.
- Promoting the development of Indigenous Peoples and other marginalized groups.
- Promoting sound agricultural and manufacturing processes.
- Ensuring stakeholder consultation, transparency and accountability in programme/project operations.

Environmental and social safeguards Implementation. The environmental and social safeguards being mainstreamed in all SARP activities, all members of the PMU are concerned by their implementation, while the Project Director, the Natural Resource Management and Environmental Safeguards Specialist, the Monitoring and Evaluation Specialist and the Social Inclusion and Institutions Specialist have specific responsibilities for their implementation, monitoring and evaluation, as defined in their respective Terms of Reference. An Environment and Social Management Framework (ESMF) will be developed to inform the adaptation measures that SARP is expected to bring, and to formalize them into the ESMF and its Environmental and Social Management Plan (ESMP). The ESMP indicators will be monitored regularly, as appropriate. In addition, specific environmental and social indicators will be developed and integrated into the logical framework and will be regularly evaluated, as appropriate.

Sensitization on environmental and social safeguards. In view of raising awareness on the environmental and social safeguards the project will organize meeting, workshops, and seminars to the relevant target groups, under the responsibility of the Project Director, and with the support of the Natural Resource Management and Environmental Safeguards Specialist, the Monitoring and Evaluation Specialist and the Social Inclusion and Institutions Specialist.

APPENDICES

Appendix 1: Targeting and Mainstreaming Priorities

The social inclusion strategy for SARP provides measures to ensure meaningful participation of youth, people with disabilities, indigenous people in the project activities and provides a nutrition sensitive approach to ensure food security for the beneficiaries. The strategy provides guidance on operationalization of mainstreaming priorities of IFAD.

Youth between the ages of 15-29, represent approximately 24 percent of the population of the country with over 75 percent of whom live in rural areas. Youth continue to face challenges related to education, civic engagement, political participation and employment in particular. Unemployment for people aged between 20-24 and 25-29 is around 44 percent and 34 percent, respectively (2014). Sri Lanka's vulnerability to climate change has a strong impact on youth population, limiting their job opportunities and income-generating ability in agriculture. The challenges of young women's participation in the labour force are even more pronounced. Whilst young male participation is around 74.8 percent, only 35.8 percent of young females participate in the labour force. Other factors for youth unemployment include mismatched skills, limited employment creation in the formal private sector and lack of entrepreneurship. Self-employment is also constrained by a lack of business skills and financial literacy and the inability of youth to access finance. In rural areas youth who are self-employed often have little to show in terms of income and market access. The trend of departure of youth from agriculture and rural outmigration is seen across Sri Lanka.

SARP has mainstreamed the participation of youth and incentivize their engagement in the project activities. The project has tailor made activities to match the aspirations of youth through youth incubation scheme, agri-business development along the value chains, mechanisation of agriculture, introducing new technology and innovation models and building capacities as change agents, training and skill development in agriculture. Out of the total beneficiaries 40,000 rural smallholder households (180,000) in the project area, youth include 20% (36,000).

SARP adopts a youth sensitive approach for youth's engagements and ensuring they benefit from project activities:

- a) The project through the component will train and build capacities of youth, to generate employment opportunities along the value chain and facilitate their access to rural finance, rural organizations, knowledge, skills and markets. There is a strong focus on youth as agents of change and leaders in the innovative aspects of the project such as the youth incubation scheme, mentoring component and the promotion of mechanization within value chain activities.
- b) Special emphasis will be given to youth from marginalized sections, ethnic, minorities, indigenous communities, youth affected by civil war, youth with disabilities and young women.
- c) The community mobilization will focus on presenting agriculture as a business that can enable rural youth to have an income comparable to the one they might get in the city.
- d) Through engagement and capacity building of Agri-service centres, relevant market information, rural finance and market linkage will be strengthened for young people. Young people will be supported to develop entrepreneurial skills with innovative approaches and identify opportunities for pioneering activities within existing value chains to start new businesses.
- e) SARP community mobilization and inclusion approach will involve selecting a community mobilisers for each target community (50 percent women and 20 percent youth) from within the local communities to undertake social and economic mapping of the communities to identify project beneficiaries for different activities and ensure their inclusion in project activities.
- f) Combinations of matching grants and loans will be offered to youth and women to provide commercial goods and services (input supplies, mechanization, spraying, transportation etc.) to farm households. Incentive mechanisms in the form of matching grants will be applied for introducing and promoting innovative technologies, particularly with respect to resilience by individuals and agri-entrepreneurs. Agri-machinery and equipment for hire service providers is

seen to be an attractive and feasible source of income for young entrepreneurs and will be supported by youth employed in repair workshops. Other potential businesses for youth and women flourishing in the Dry Zone are protected agriculture, quality seed production, semi commercial dairy and goat production. Small post-harvest management (PHM) investment grants will also be offered to households to fund investments in post-harvest and value adding technologies.

- g) Data for SARP outreach/outputs indicators will be disaggregated by age, sex and ethnic/indigenous people
- h) Youth incubation schemes will focus on life-skills, personal development, vocational and skill development and will link the youth to existing ventures/business for employment as well as provide technical assistance for the formulation and implementation of agri-business plans. SARP will develop an incubation system to address the paucity of youth skills in farming and related value chain activities. Both technical and entrepreneurial skills of young people will be developed culminating in the preparation of business plans for implementation which may be financed by combination of loans and grants following specific eligibility criteria and approval procedures.
- i) It will also create awareness for women and men about the effects of ownership and inheritance rights, including land. In areas where female groups and youth groups do not exist, the project will conduct gender awareness training at community level and set up women's and youth based self-help groups for knowledge-sharing on GAP and SLM practices. Youth entrepreneurship will also be promoted through the FBS.

Indigenous People: The principles of IFAD's policy on "Engagement with Indigenous people" will be fully adhered to by SARP. The project's approach to engaging with indigenous people includes the free and informed consent of all its beneficiaries and that there is a focus on the principle of community-driven development, valuing local knowledge, access to markets, gender equality and promoting climate-resilient agriculture. SARP is guided by social inclusion strategy, whereby specific emphasis to these groups during the community mobilization. The project would ensure that these communities engage in village level activities and that they are not left behind from the benefits of the project. The project at the outset will seek to identify and determine the extent and needs of IP's in the project sites and based on this will ensure their active engagement in SARP. It should however be noted that the extent of IP populations in the project sites has not been determined at the design stage. Sri Lanka has small number of indigenous communities.

The forest-dwelling Wanniyala-Aetto (also referred to as Vedda) comprise a very small community of indigenous people. Their deep-rooted connections to their ancestral lands enabled them to maintain their cultural and spiritual traditions. They are distinguished by their hunting and gathering way of life, by their unwritten language, which is closely related to but distinct from Sinhalese, by their beliefs in traditional gods and ancestor spirits, and by the importance of ancestral lands to all aspects of their life. They lived mostly as nomadic forest-dwellers in the remote eastern parts of the country. Currently, the entire community is in danger of extinction and has been facing the brunt of marginalisation, landgrabbing, relocation and exclusion. Labelled as poachers and alienated from their ancestral land, they have taken up to Sinhala and have had marriages for their self-preservation and involuntary assimilation. Sinhala-speaking Veddas are found primarily in the southeastern part of the country, especially in the vicinity of Bintenne in Uva District. There are also Sinhala-speaking Veddas who live in Anuradhapura District (project area) in the North Central Province. The Project through its social inclusion strategy would include them as beneficiaries if they are present in the areas of intervention of SARP.

People with disabilities: The social inclusion strategy of SARP recognizes the vulnerabilities faced by people with disabilities. The exclusion and vulnerabilities are more pronounced for elderly, single women, widows, ex-combatants and youth with disabilities. SARP will pay specific emphasis to these groups during the community mobilization for their inclusion in project activities. The project implementation team will be trained to ensure access and benefits of the project to people with disabilities by ensuring their inclusion among the beneficiary groups, understanding needs of these groups and taking specific measures for their participation in project components.

Gender Strategy for SARP is guided by poverty and livelihood analysis of the region and provides pathways for ensuring gender equality and women's empowerment through SARP's key strategies.

Poverty and livelihood analysis Sri Lanka is ranked 75 out of 149 countries according to the Gender Inequality Index. Over the last decade, Sri Lanka has made significant improvements with respect to women's right. According to the RSPA, Sri Lanka's application of gender equality ranks 2.8, with women still largely under-represented and unheard in decision and policy making bodies. Although the gender gap in agricultural employment has reduced by 5 percent over the period 2000-2017, women still represent 29 percent in 2017 (versus 24 percent for men) with a wage gap of over 43 percent compared to men. Despite the notably high achievement in terms of education a relatively small percentage of women (30.2 percent) participate in the labour market³⁰.

Women play an important role in agriculture (in addition to their domestic and reproductive role) comprising 53 percent of the agricultural labour force (often as unpaid family labour) and women headed households comprise 23 percent of rural households. The traditional norms, however, are biased in favour of men, resulting in obstacles to women's equitable access to resources (land, capital— including credit) and markets, and the control of assets. Due attention will need to be given to women's empowerment and voice including skills and capacities (at producer organizational level, and within communities as farmer leaders) and the promotion of economic activities best-suited to them. Particular consideration will also be given to nutrition determinants for the potential to engage with women and adolescent girls in project activities.

Only 16 percent of all privately owned land belongs to women in Sri Lanka. This inhibits their access to market, subsidies, credit, irrigation water and agricultural assets. Among the paid agriculture labourers, women get lesser wages than their male counterparts. The lack of substantial source of income and absence of assets such as land for collateral has made it difficult for women to avail high value loans that could enable them to move up the agricultural value chain. Most of the unemployed and working poor include landless labourers, small-scale-holder farmers, plantation labourers, small and cottage industry workers, casual workers, construction workers, small traders, and domestic worker. This is the group that finds it difficult to move out of the poverty. Women are engaged in majority of these occupations and constitute among the poorest with little/no ownership and access to land, housing, savings and social infrastructure³¹.

Historically, Sri Lanka had segregated male and female farmer organizations. It has also resulted in limited the scope for women to share a common platform with men and participate in equal decision-making and dialogue. The lack of social capital in the agriculture sector, commercial spaces and markets, has created barriers for women's involvement in trade and commerce. They are less involved in commercial agriculture and medium-scale industries that could raise their incomes and profits³².

Sri Lanka is emerging from a history of conflict and ethnic tensions have not completely subsided. Poverty is exacerbated in conflict affected areas and these areas have shortages in food and lack of nutrition. The vulnerabilities of internally displaced people and war affected communities run deep including loss of identity and reduced access to education and coverage of health services. The restoration of livelihoods is dependent largely on the prospects of resettlement³³.

Family farming for subsistence is a strong feature in Sri Lanka. Many women-headed households also have farming as their high option. Women face greater resource constraints to credit, land, etc. than men, despite making up a greater percentage of the overall agricultural labor force. The women are overburdened with farming and household activities. Limited mobility is another serious constraint to access to necessary inputs, resources, training and markets. There has been a marked increase in Women Headed Households (WHHs) in post-war Sri Lanka. The 2012-13- Household and Income Expenditure Survey showed that in Sri Lanka, 1.2 million households or 23 percent of the households

³⁰ About eighty percent of adult women in Sri Lanka have reached at least a secondary level of education with no significant difference with men. The former can be compared to 35 percent in India and 26.5 percent in Pakistan. (2015 data).

³¹ United Nations Development Programme. Human Development Report
<http://hdr.undp.org/sites/default/files/hdr14-report-en-1.pdf>

³² 2018. FAO. Country Gender Assessment of the Agriculture and Rural Sector in Sri Lanka
<http://www.fao.org/3/CA1516EN/ca1516en.pdf>

³³ Asian Development Bank, 2009. Poverty and Human Development in Sri Lanka
<http://www.adb.org/sites/default/files/publication/27993/poverty-human-dev-sri-lanka.pdf>

are WHHs³⁴. Taking cognizance of the economic and social vulnerabilities of Women Headed Households (WHHs), the Ministry of Women and Child Affairs supported technically by UNFPA is implementing a national action plan on WHHs. The targeting of WHHs will be aligned with IFAD's approach of supporting government programmes and policies. 50% percent of SARP beneficiaries are women.

The impact of climate vulnerability and its subsequent coping mechanisms differ for women and men. A Gender-sensitive climate vulnerability and capacity analysis (GCVCA) of the Dry Zone provinces indicates that rural women are more vulnerable due to the adverse impact of drought, flooding and climate change as it has direct bearing on household water availability and consumption, domestic assets such as livestock and backyard poultry and health of family members. Women traditionally manage household water, family gardens and livestock and bear the brunt of managing impacts of reduced water availability and disaster impacts. This has a direct impact on their own intra-household food security, which can be exacerbated during extreme climate events and in the aftermath of a disaster³⁵. Women are also shouldering majority of the care work including taking care of children, elderly and family members with disability. In the Dry Zone districts of Sri Lanka the impact of war and disease has left a number of women widowed resulting in a significant number of female-headed households. Female-headed households are socially marginalized, are less empowered and have to work harder to access shared resources. The aftermath of the conflict, has further increased women's care giver responsibilities to those living with a disability. It has also resulted in pushing other women into precarious work, in Sri Lanka and overseas, as domestic migrant labour³⁶.

The Gender strategy is an outcome of in-depth gender-sensitive poverty and livelihoods analysis and Gender-sensitive climate vulnerability and capacity analysis (GCVCA). The Strategy focuses on analysing gender and social norms and power dynamics along with differential vulnerability to climate risks that affect increased adaptation and productivity for youth, women and vulnerable groups in Dry Zone. Some key elements of the gender strategy are highlighted below.

a) Farmer Business School (FBS) has a strong participatory, youth and women-focused extension approach that will enable them to build the relevant skills to increase production; access markets and sell at competitive prices; enhance nutrition; collaborate with each other; and engage in beneficial and efficient decision-making.

b) Building Programme Staff Capacity to deliver on gender responsive and socially inclusive programme implementation is budgeted in the project. Targeting and gender mainstreaming would be included in the TORs of all PMU staff with overall responsibility for ensuring that these aspects are given sufficient attention and resources during project implementation. There will be dedicated social inclusion and gender experts at decentralized levels to ensure the gendered outcomes of the project.

c) Selection of gender responsive agribusiness and climate resilient agribusiness value chains will be prioritized. Such a selection will address power and information asymmetries found in traditional agribusiness value chains (smallholder farmers, middle-men, processors and exporters) in Sri Lanka. Please refer to IFAD's document on Women in Value Chains and Gender-Sensitive Value Chain Mapping.

³⁴ Government of Sri Lanka, MoW&CA, National Action Plan on Women Headed Households 2017- 2019. The National Framework for Women Headed Households (2017- 2019) has been introduced specially to improve the socio economic situation of women affected by the conflict. The government as well as the Banks have provided credit facilities for enhancing livelihood development activities for galvanizing the national policy for eradication of poverty. A recent initiative of the Ministry of Women and Child Affairs is the directive obtained from the Treasury to allocate a minimum of 25% investment for economic development of rural women. Programs are in place to encourage girls to enter into technological fields, which provide opportunities in accessing the labour market.

³⁵ Country Gender Assessment Sri Lanka, An Update <http://www.adb.org/sites/default/files/institutional-document/172710/sri-lanka-country-gender-assessment-update.pdf>

³⁶ Aheeyar M.M.M Climate change adaptation in water management for food security: Recent developments in Sri Lanka-A review of Existing Knowledge and Information. Sri Lanka Water Partnership 2012 and Country Gender Assessment Sri Lanka, An Update <http://www.adb.org/sites/default/files/institutional-document/172710/sri-lanka-country-gender-assessment-update.pdf>

d) Gender sensitive selection of interventions to maximise returns to women's labour, reduce drudgery and unpaid work and support their social and economic empowerment such as direct targeting of homestead gardening interventions and farm production to local markets through capacity building of women, youth and marginalized groups; collectivised women's groups in marketing, advanced value chains and rural enterprises; women as change agents and gatekeepers of NRM & rejuvenated water systems. The selection criteria gives preference to women's for micro/small scale agro-enterprises - mushroom cultivation, dairy and goat production and value chain development.

To promote women enterprises, combinations of matching grants and loans will be offered to youth and women to provide commercial goods and services (input supplies, mechanization, spraying, transportation etc.) to farm households. Incentive mechanisms in the form of matching grants will be applied for introducing and promoting innovative technologies, particularly with respect to resilience by individuals and agri-entrepreneurs. Agri-machinery and equipment for hire service providers is seen to be an attractive and feasible source of income for young entrepreneurs and will be supported by youth employed in repair workshops. Other potential businesses for youth and women flourishing in the Dry Zone are protected agriculture, quality seed production, semi commercial dairy and goat production. Small post-harvest management (PHM) investment grants will also be offered to households to fund investments in post-harvest and value adding technologies.

e) Gender has been mainstreamed into the community mobilisation process (under targeting section)

f) SARP's M&E framework going beyond mere monitoring participation of youth, women and vulnerable groups in programme activities to measuring the impact of programme interventions on smallholder farmers. The use of sex and age disaggregated data and indicators in logframe will specifically measure changes in gender norms, empowerment of target groups, adaptive capacity, secure access to resources, markets and services, incomes, nutrition, workload and resilience.

Nutrition sensitive approach: Under-nutrition remains a concern in Sri Lanka, with around 20 percent of children under five years of age regarded as stunted. Additionally 13 percent suffer from wasting and 33 percent are underweight. More than 50 percent of children and women suffer from anaemia, with more than 9 percent of the female population affected by severe chronic energy deficiency. The high rate of low birth weight (18 percent) is also a major predictor of under nutrition. Although, the level of stunting is lower than other countries in the region (ranked at 44 out of 132 countries) there are significant inter-provincial variation. More than 33 percent of women and nearly 37 percent of men suffer from food deficiency. According to the RSPA, Sri Lanka's nutrition policies are prioritizing nutrition as a key national development strategy with a rank of 4.8, achieving satisfactory outcomes. The infant mortality rate has decreased from 10 to 7.5 deaths per 1,000 live births over the period 2010-2017, and life expectancy increased up to 75 years³⁷.

The nutritional situation analysis for the six districts based on government data and work of WFP in the country is presented below.

Districts	Nutrition situation (key indicators and interpretation)	Key interpretation
Anuradhapura	<ul style="list-style-type: none"> - Stunting = 19% (above national average of 17%) - Wasting = 19.7% (extremely high – above 15%) - Underweight in women (low BMI <18.5 kg/m2) = 7.4% (10%) - Overweight in women = 44.7% (45%) - Infant and Young Child Feeding amongst children 6-23 months <ul style="list-style-type: none"> • Children consuming 4 + food group = 58.6% • Consuming minimum meal frequency = 95.3 	<p>Across districts - Stunting prevalence either above or below national average of 17% is acceptable according to WHO benchmark (< 20%). However, where higher than national average should be monitored with caution.</p> <p>However, wasting is</p>

³⁷ FAO Statistics & Global Nutrition Report, 2016

	<ul style="list-style-type: none"> • With 3 IYCF practices = 65.9% - Micronutrient intake among children <ul style="list-style-type: none"> • Consumption of vitamin A rich food + (6-23 months = 96.5% + 24 -59 months = 96.4% • Consumption of iron rich food + (6-23 months = 67.2% + 24 -59 months = 70.4% - Diet diversity amongst mothers of children < 3 years of age <ul style="list-style-type: none"> • Milk = 15% • Food from grains = 98.1% • Food from roots/tubers = 72% • Food from legumes = 71.9% • Meat/fish/poultry/eggs = 75.45% • Cheese/yogurt = 24.4% • Vitamin A rich = 97.3% • Other fruits and vegs = 53.0% • Fats/oil = 18.2% • Sugary foods = 27.8% 	<p>extremely high above 15% in most of the districts (WHO benchmark and also national average). Even where it is below 15% is it still considered high according to WHO benchmark – calling for preventing actions.</p> <p>% of children consuming 4 + food groups is low – indicating low diet diversity – particularly low consumption of iron rich food</p> <p>Overweight/obesity among women of reproductive age is a problem, and although consumption of grains/roots food source is high – consumption of protein source and other vegetables are relative low.</p>
Vavuniya	<ul style="list-style-type: none"> - Stunting = 18.7% (above national average of 17%) - Wasting = 16% (extremely high – above 15%) - Underweight in women (low BMI <18.5 kg/m2) = 7.9% - Overweight in women =45.5% - Infant and Young Child Feeding amongst children 6-23 months <ul style="list-style-type: none"> • Children consuming 4 + food group = 45% • Consuming minimum meal frequency = 38.6% • With 3 IYCF practices = 12.4% - Micronutrient intake among children <ul style="list-style-type: none"> • Consumption of vitamin A rich food + (6-23 months = 79.5% + 24 -59 months = 93.4% • Consumption of iron rich food + (6-23 months = 58.2% + 24 -59 months = 68.8% - Diet diversity amongst mothers of children < 3 years of age <ul style="list-style-type: none"> • Milk = 57.7% • Food from grains = 90.3% • Food from roots/tubers = 46.5% • Food from legumes = 19.7% • Meat/fish/poultry/eggs = 60.8% • Cheese/yogurt = 6.7% • Vitamin A rich = 75% • Other fruits and vegs = 36.7% • Fats/oil = 13.2% • Sugary foods = 28.5% 	<p>From fill the nutrient gap (please see map which shows low diet diversity in dry zones as well).</p> <p>The diversity of complementary feeding for young children is a priority area for improving infant and young child feeding (IYCF) practices, and one where there has been little progress over recent years. Only 62 percent of all children aged 6–23 months received a minimum acceptable diet (MAD) that reaches the target on all three IYCF practices.</p>
Mannar	<ul style="list-style-type: none"> - Stunting = 20.8% (above national average of 17%) - Wasting = 13.6% (extremely high – above 15%) - Underweight in women (low BMI <18.5 kg/m2) = 7.6% - Overweight in women = 54.6% 	<p>The low proportion is mainly driven by low proportion achieving minimum dietary diversity (MDD) of four or more food groups among</p>

	<ul style="list-style-type: none"> - Infant and Young Child Feeding amongst children 6-23 months <ul style="list-style-type: none"> • Children consuming 4 + food group = 68.5% • Consuming minimum meal frequency = 83.5% • With 3 IYCF practices = 54.8% - Micronutrient intake among children <ul style="list-style-type: none"> • Consumption of vitamin A rich food + (6-23 months = 98.6% + 24 -59 months = 92.4% • Consumption of iron rich food + (6-23 months = 94% + 24 -59 months = 79.6% - Diet diversity amongst mothers of children < 3 years of age <ul style="list-style-type: none"> • Milk = 49% • Food from grains = 94% • Food from roots/tubers = 47% • Food from legumes = 36.5% • Meat/fish/poultry/eggs = 87.9% • Cheese/yogurt = 20.8% • Vitamin A rich = 69% • Other fruits and vegs = 30.1% • Fats/oil = 56.2% • Sugary foods = 25.1% 	<p>breastfed children and insufficient milk given to non-breastfed children.³⁸ MAD in breastfed children decreased slightly from 2006 to 2016 (from 83 percent to 79 percent) (Department of Census and Statistics & Ministry of Health Nutrition and Indigenous Medicine, 2017).³⁹ Over the same period, the proportion of non-breastfed children receiving milk or milk products dropped from 96 percent to 90 percent, and proportion of non-breastfed children with three IYCF practices as recommended decreased from 58 percent to 53 percent</p>
Puttalam	<ul style="list-style-type: none"> - Stunting = 11.7% (above national average of 17%) - Wasting = 17.2% (extremely high – above 15%) - Underweight in women (low BMI <18.5 kg/m²) = 7.6% - Overweight in women = 51.1% - Infant and Young Child Feeding amongst children 6-23 months <ul style="list-style-type: none"> • Children consuming 4 + food group = 73.1% • Consuming minimum meal frequency = 90.3% • With 3 IYCF practices = 62.2% - Micronutrient intake among children <ul style="list-style-type: none"> • Consumption of vitamin A rich food + (6-23 months = 93.3% + 24 -59 months = 94% • Consumption of iron rich food + (6-23 months = 62.% + 24 -59 months = 64.8% - Diet diversity amongst mothers of children < 3 years of age <ul style="list-style-type: none"> • Milk = 15% • Food from grains = 98% • Food from roots/tubers = 69% • Food from legumes = 65% • Meat/fish/poultry/eggs = 63.% • Cheese/yogurt = 13% • Vitamin A rich = 97.7% • Other fruits and vegs = 37% • Fats/oil = 30% • Sugary foods = 26% 	

³⁸ MAD is a composite indicator of minimum meal frequency, minimum dietary diversity (4 or more food groups) and breastmilk. For non-breastfed children, the third IYCF practice is consumption of milk or milk products.

³⁹ According to the DHS 2016 calculations consistent with the previous DHS from 2006-07.

Kurunegala	<ul style="list-style-type: none"> - Stunting = 17.7% (above national average of 17%) - Wasting = 13.5% (extremely high – above 15%) - Underweight in women (low BMI <18.5 kg/m2) = 9.5% - Overweight in women = 42.2% - Infant and Young Child Feeding amongst children 6-23 months <ul style="list-style-type: none"> • Children consuming 4 + food group = 65.7% • Consuming minimum meal frequency = 90.7% • With 3 IYCF practices = 59.1% - Micronutrient intake among children <ul style="list-style-type: none"> • Consumption of vitamin A rich food + (6-23 months = 96.5% + 24 -59 months = 96.4% • Consumption of iron rich food + (6-23 months = 67.2% + 24 -59 months = 70.4% 	
Matale	<ul style="list-style-type: none"> - Stunting = 14% (above national average of 17%) - Wasting = 9.9% (extremely high – above 15%) - Underweight in women (low BMI <18.5 kg/m2) = 8.3% - Overweight in women = 46.9% - Infant and Young Child Feeding amongst children 6-23 months <ul style="list-style-type: none"> • Children consuming 4 + food group = 74.8% (national = 72.6) • Consuming minimum meal frequency = 97.6% (86.1%) • With 3 IYCF practices = 72.7% (62%) - Micronutrient intake among children <ul style="list-style-type: none"> • Consumption of vitamin A rich food + (6-23 months = 93.4 (national – 92.3%) + 24 -59 months = 89.1% (national 89.4%) • Consumption of iron rich food + (6-23 months = 47.6% (59.2%) + 24 -59 months = 49.4% (60.7%) - Diet diversity amongst mothers of children < 3 years of age <ul style="list-style-type: none"> • Milk = 11% • Food from grains = 98.0% • Food from roots/tubers = 43% • Food from legumes = 75% • Meat/fish/poultry/eggs = 58% • Cheese/yogurt = 25% • Vitamin A rich = 95.5% • Other fruits and vegs = 46.9% • Fats/oil = 84% • Sugary foods = 36% 	

SARP places greater emphasis on nutrition and considering the multidimensional causes of malnutrition, SARP will have a basket of nutrition sensitive activities. The nutrition sensitive project components are designed to address the key challenges posed by nutrition situation analysis of the 6 project districts. SARP will closely work with WFP to address malnourishment challenges in the Dry Zones focusing on increased production, availability and consumption of diverse, safe and nutritious

food. The social inclusion strategy in Appendix 8, outlines a nutrition-sensitive approach with a situational analysis on nutrition of the targeted beneficiaries in Dry Zone and activities to address it. Nutrition has been mainstreamed in SARP through a multi-pronged approach and nutrition-sensitive implementation of the project. Some key activities are referred below.

a) Nutrition will be mainstreamed through the selection of nutrition sensitive value chains (as outlined on the section of value chain development). Awareness raising and behavioural change regarding nutrition will be an integral part of the approach that will include social marketing and home gardening activities at community level. As many households are loosely organized into groups and this mechanism is widely used for the receipt of government subsidised inputs, SARP will engage directly with rural producer organizations to strengthen their capacity, governance and inclusivity whilst developing social and economic enterprises amongst those groups with potential. Please refer to IFAD note on Nutrition sensitive value chains for selection and implementation of Nutrition Sensitive value chains.

b) Nutrition sensitive approaches including increasing availability and dietary diversity through nutritious foods (rice, vegetables, fruits, legumes, homestead garden, poultry, fishery. SARP will also ensure increased productivity and diversified income through these commodities and linking the farmers to local markets and enterprises.

c) Technical awareness and enhancing nutritional knowledge through social behaviour change communication (SBCC -good nutrition awareness, knowledge, attitudes and practices) on nutrition practices, cooking healthy food platter, balanced diet and food diversity for all members of household.

d) Nutrition-sensitive FBS and training activities where nutrition-related knowledge will be integrated in curricula and learning modules of FBS with a special attention on: (i) the production of nutrients enrich products (ii) food safety (both in storing and processing; (iii) pesticide management; as well as (iv) tracking and management of food waste and food loss.

e) Post-harvest losses remain problematic in Sri Lanka, adversely affecting food security and nutrition through both restricted food availability and access, participating farmers organizations will receive financial and technical support for the implementation of a nutrient-preserving, value addition technology (i.e. drying facility). This initiative will be particularly beneficial in its ability to increase income not only through a reduction in loses but also the value addition will mean they are able to sell their products at a higher profit margin than selling the raw materials.

f) Household who receive commercial gardening support will simultaneously receive technical and physical asset support to implement a new, or strengthen an existing, home garden facilitating and promoting the production of nutritional-dense products for home consumption.

g) The community mobilization strategy will focus on activities on nutrition, where social norms and behavioural issues are central to improving nutrition. Ensuring that farmers will get an improved nutrition sensitive agricultural production knowledge and skills and an understanding of how to fill seasonal nutrition gaps and improve dietary diversity and household food security.

h) Household who receive commercial gardening support will simultaneously receive technical and physical asset support to implement a new, or strengthen an existing, home garden facilitating and promoting the production of nutritional-dense products for home consumption. Again, this has the potential to improve diet quality on two fronts, directly by increasing home consumption of these high-nutritional value products and indirectly through increased income from commercial-related activities, thus enhancing their purchasing power for a higher quality diet or to improve other underlying causes of malnutrition (i.e. increased investment in improved water and sanitation facilities). For integrated homestead gardening for nutrition, the recent IFAD How To Do Note on the subject provides a useful reference.

Appendix 2: Value Chain Analyses

Table 1: Preferred commodities – status, entry points and opportunities

Commodity	Status / entry point / opportunities for impact
Rice	<p>1. Rice is the staple diet in Sri Lanka and is the single most important crop occupying 34 percent (0.77 /million ha) of the total cultivated area. On average 560,000 ha are cultivated during the main season and 310,000 ha during the second season making the average area of land sown around 870,000 ha. About 1.8 million farm families are engaged in paddy cultivation island-wide. Sri Lanka currently produces 2.5 million MT of rough rice annually and is virtually self-sufficient. The per capita consumption of rice fluctuates around 114 kg per year (including rice and rice based products) depending on the price of rice, bread and wheat flour.</p> <p>2. .</p> <p>It is projected that the demand for rice will increase at 1.1% per year and to meet this rice production needs to grow at the rate of 2.9% per year. Increasing the cropping intensity and national average yield are the options available to achieve these production targets. Since rice is the staple diet and its cultivation is the main occupation of millions of small scale producers the prices of both paddy and rice significantly affect the welfare of the people in the country. Prices, however, are fixed by government their effectiveness is limited. It is contended that both the producers and consumers are exploited by the other players in the value chain, particularly rice millers and wholesalers, who obtain an oligopolistic position in the market. These people are blamed for manipulating both paddy and rice prices particularly by private rice millers and who are allegedly cornering the markets of both paddy and rice.</p>
Maize	<p>Maize is an important input to the animal feed value chain. Local maize production was estimated at around 400,000Mt (2017-18) and 215,395 MT for the local animal feed industry. The total requirements of maize seeds are excessive and some 1,399 MT are imported. The gap of local demand is covered through imports with costs as US\$ 24 million. The local market for maize produced by small farmers is enormous and many companies such as Prima , CIC, Plenty food, Nelna Ltd etc. are potential partners in this sector for small farmers</p>
Vegetables	<p>Vegetables produced by small holders are attractive for both the domestic market as well as increasingly for the export market - ethnic and niche markets. More than 1 million US\$ worth of vegetable products are exported annually to EU, UK, Middle East and to Maldives. Vegetables are grown widely in all of the project districts although the actual combination of vegetables varies. The most commonly grown vegetables with economic potential are big onion, tomatoes, eggplant, and spine gourd. The total production of vegetables is sufficient for domestic market demand. The year round supplies of vegetables have become highly vulnerable to climate change resulting in gluts and scarcities at different times of the year.</p> <p>A rapid assessment of the vegetables sub-sector shows that the industry has some favourable prospects for growth in both the domestic and export markets given the diverse agro-climatic zones of the country which allow year-round production and emerging business partnerships between smallholders and a number of market players who are targeting niche commodities and seasonal windows for production of various commodity lines. Smallholder vegetable farmers have greatest opportunities in domestic and regional markets by targeting off-season production and product lines which are highly labour intensive. There is considerable potential to increase productivity, reduce post-harvest losses and better management during glut and lean periods is a clear way to go. Some varieties of protected agriculture crops cultivated such as bell pepper, cherry tomatoes and cucumber are supplied to local up-market outlets such as Sri Lankan Air Lines, hotels and restaurants, and super market chains.</p> <p>The major market-side constraint is the lack of commercial horticulture packhouses capable of serving domestic or export customers. On the production side, key areas requiring attention include stronger farmer organization for attaining minimum volume, quality and supply consistency thresholds required for sustainable engagement with profitable market; irrigation infrastructure development; adoption of productivity enhancing technologies, innovations and management practice and access to financial services.</p> <p>Entry points:</p>

Commodity	Status / entry point / opportunities for impact
	<ul style="list-style-type: none"> • The added value for SARP to target the vegetables sector is to support the development of a more sustainable, private sector-driven market access for smallholder farmers – especially through attracting greater investment into private agribusiness and pack houses linked to organized smallholder producer groups – with corresponding investments by both the enterprises and farmers. • There are already emerging business partnerships between farmers and private sector market players (supermarkets, exporters, etc.) which can be a good starting point within the SARP development approach. • Farmers will need ready access to relevant and affordable technical horticulture services, including advice and support on production systems for specific products, disease and pest management as well as access to appropriate small-scale commercial production technologies (e.g. poly-tunnels, drip irrigation, trellis netting)
Vegetable seed	<p>5. Of considerable potential is the production of vegetable seeds (and in particular onions) in the Dry Zone. The availability of high quality vegetable seeds is important for both food security and agricultural commercialization. Vegetable seed production comprise 3 types of seed categories – breeder seeds, basic or registered seeds, certified /standard /commercial seeds. The value chain involves the production of basic/ hybrid seeds and/or traditional seeds through a number of options: a) contract farming b) direct cultivation by private dealers c) production by public sector farms d) production by smallholder farmers. Commercial or certified seeds are produced by the government Department as well as private companies directly or alternatively through public and private sector collaboration. At present, Sri Lanka depends on imports of a large variety of vegetable hybrid seeds and prospects for local production of seeds is yet to be fully harnessed. The production of seed is way below the requirements of the country (less than 75% of demand is produced locally).</p> <p>At present, Sri Lanka produces a little over 20% of the country's vegetable seeds requirements through formal and informal systems. Vegetable seeds are essentially for the local market though there are small quantities exported informally by individuals. The Sri Lanka production and imports of vegetables seeds are around 2,000 to 2,500 MT– to the exclusion of the domestic production of uncertified seeds by farmers for their own use. In addition there are imports and local production of seed potatoes in excess of 2,500MT annually. Some of the certified vegetables seeds- hot pepper, beans, egg plants cucumber, okra, big onions, long beans, bitter gourd – are produced locally and account for more than 50% of country's requirements. Upcountry vegetable seeds such as carrots, cabbage, cauliflower Knol Khol, leeks, lettuce are currently imported to meet the country's needs. From discussions with the private sector and farmers it is recognised that there is a high potential market available in Sri Lanka for vegetable seeds which is growing and as such there are opportunities for seed production.</p> <p>The trend in the vegetable seed market is to demand hybrid seeds as against OP (Open Pollinated varieties).The access to high quality basic seeds for normal crops and for seeds crops at affordable prices and at appropriate time appears to be a key issue raised by small holder farmers. To address this situation, the Ministry of Agriculture through its departments encourages the local production of a variety of vegetable seeds by the private sector and directly by farmers themselves.</p> <p>There are more than 20 local companies involved in seed production and some of them such as Hayleys, CIC, Cargills and Land Mark Pvt Ltd have been in contact with SAPP for assistance. Increased local production of seeds in Sri Lanka would save an extensive amount of foreign exchange and could also be a great contributor to support many agriculture value chains. The Department of Agriculture has plans to meet at least 50% of the demand for quality seeds in the vegetable sector through involvement of private and public sector with farmers in the next few years.</p> <p>The demand for vegetable seeds including onions and potatoes is in excess of local production. The market is attractive and an incentive for the production of a wide range of seed varieties and combined with the necessary technical assistance, market linkages and a favourable policy environment, considerable potential exists. Incentives, however may be needed to attract seed marketing companies to link up to small farmers, particularly in the Dry Zone</p>
Chili	Chilli (<i>Capsicum annum L.</i>) is one of the important cash and condiment crop widely grown in Sri Lanka for dry chilli production and also a part of the chilli crop is harvested as green pods. Chilli is a high potential product as more than 70% of the national requirements are imported from India.

Commodity	Status / entry point / opportunities for impact
	<p>Green chilli also has the potential to generate annual net revenues in the region of \$7,190 – 19,642 per hectare depending on the irrigation system used (surface and sprinkler, respectively) Per-capita consumption of chilli in the form of dry chilli is estimated 2.8 kg per annum and the national annual requirement of dry chilli & green chilli are around 60,000 Mt & 63,000 Mt respectively. Chilli contributes an average \$28 million to GDP in the country.</p> <p>Chilli is mostly grown in the Dry Zone, especially in the North Central Province. The main chilli growing districts are “Anuradhapura, Monaragala, Ampara, Puttulum, Vavuniya, Kurinagala, and Hambanthota, The average area of land under green chilli was around 13,500 ha (2018) with an annual production of 50,289 Mt and 28,714 Mt in the “Maha” and “Yala” seasons, respectively. The annual production of dry chilli is around 7,500 Mt.</p> <p>The current national yield is around 5.8 Mt/ha which is significantly less than the potential yield using well adapted varieties and good agronomic practices. The Field Crop Development Institute introduced in 2015 their first local chilli hybrid, MICH HY 1, with a yield potential of 32t/ha as green chilli.</p> <p>Key Entry Points:</p> <ul style="list-style-type: none"> • Home garden cultivation of green chilli in parts of the dry zone as part of the ongoing programmes with District Offices. • Previously IFAD funded projects including NADeP & SAPP worked on developing Producer-Public-Private Partnerships (4Ps) and one such partnership with Landmark Agro Seeds Pvt. Ltd. specifically worked on chilli seed production under poly tunnels with beneficiaries in Anuradhapura District. There’s potential for scaling up the partnership under SARP through geographical expansion of the model. • There are already emerging farmer clusters in Anuradhapura District, cultivating chilli, which could be further strengthened through formal clusters and market linkages incorporating private sector investment. • Off-season cultivation during the Yala Season could be promoted by introducing new water saving technologies such as micro irrigation and protected agriculture combined with Integrated Pest Management (IPM) and drought tolerant varieties of seeds.
Fruits	<p>There is potential for fruit production in the Dry Zone and especially mango, pineapple, passion fruit and papaya as fresh and processed products. These fruits are pro-poor, nutritionally sensitive with high potential for both the local market and export. In 2016/17 production of these crops nationally exceeded 236,000 MT from which a notable proportion was exported at a value of more than US\$6 million. Mango is grown in almost all dry zone districts - Anuradhapura, Polonnaruwa Vavuniya, Matale, Mannar Ampara and Hambanthota and has the widest coverage of smallholders. Pineapple is more limited in coverage but represents the largest exportable commodity in the fruit sector. However, pineapple is restricted in coverage in the dry zone to areas with adequate water. Passion fruit can be found in large volumes in Vavuniya, Mannar, Ampara, and Kurenagala. All of these fruits are in high demand in local markets.</p> <p>The dominant fruit value chains are sold as fresh fruits in the local market and for juices and other processed products such as jams, chutneys and pickles. Limited quantities of fresh fruits are exported with the EU, Singapore, Middle east and Maldives the main destinations. The export values of mango, pineapple, passion fruit and papaya is \$ 379,520, \$ 5 million, \$391,160 and \$4,189,300, respectively (2015). More than 20 established companies are engaged in marketing fruits including local super market chains. A list of these companies identified is included in annex 3 of this report. Generally, a larger portion of these fruits produced in Sri Lanka finds itself a large market locally.</p> <p>Most of the fruits produced are often seen as a house hold garden crop without much maintenance and organization needed. Based on 2015-2016 planned production data by the Ministry of Agriculture, production of mangoes reached 28,800 MT in an area of 33,016 ha. Pineapple production reached 39,481 MT in 5,845 Ha, passion fruit production 3,591MT planted in 1,351Ha and papaya production is around 64,205 MT grown in some 7,299 Ha. Productivity in all these crops appears to be an issue compared with those of well managed plantations in the higher rainfall areas of the country. Yields of mango, pineapple, passion fruit and papaya are 3 to 4 MT, 6 to 7 MT, 2 to3 MT, and 8 to 9 MT per Ha. respectively,</p> <p>6. Mango, papaya and passion fruit have the greatest potential for productivity increases</p>

Commodity	Status / entry point / opportunities for impact
	<p>and pineapple is a very attractive export earner. The potential for pineapple lies in broadening the range of export markets combined with improvements in the quality of the produce in order to make it a preferred product in the international market. This could be done by focusing more on the varieties, package of practices and knowledge transfer. Banana is also an attractive perennial fruit crop as it gives economic gains throughout the year and can be found in five of the target districts - Anuradhapura, Polonnaruwa, Matale, Ampara, Kurenagala. Around 40,000 ha of banana are grown in the dry and intermediate zones. Annual banana production nationally is around 780,000mt and an average yield is 13mt/ha. Out of the total production only around 5 percent is exported.</p> <p>Hayleys, HJS Condiments, Cargills, and CBL Natural foods Alloy expo Ltd, and Nelna Co. are among more than 2 dozens of private companies involved in promoting the production and sale of fresh fruit in the local and export markets. These fruits are also used in the local fruit processing industry. Cargills, Hayleys, Lanka Canneries, HJS Condiments and several other companies are partnering with local producers to supply fresh fruits and processed fruit products to local market. The fresh fruit market is expanding and regular price fluctuations depending on seasons are recorded. The different production models practiced for fruits sector are generally sub-contracting of harvesting, and out grower contract farming system with private companies for passion fruit, papaya and pineapple. Some of the companies such as Hayleys, Cargills are working with SAPP.</p> <p>7. <i>onstraints:</i> Several constraints to promote local production of fruits were identified. In the mango sector lack of proper maintenance , inadequate control on fruit flies and phytosanitary regulations for exports , large post-harvest losses, inadequate local value addition, access to export markets , poor harvesting and post harvesting practices , inadequate flow of information and training to producers on new technologies and value addition are prominent constraints in the mango sector . In case of passion fruits and pineapples absence of planting materials and familiarization of best agriculture practices are stated. In case of papaya: its vulnerability to different diseases, difficult adaptability to climatic changes, and marketing issues are noted during the discussions. In terms of exports, all these fruits as fresh are subject to serious phytosanitary controls , standards and certification, and traceability issues.</p> <p>8.</p> <p>9. <i>pportunities:</i> Prospects for small holders in the fruit sector to generate increasing incomes lie in several areas. There is a minimum value addition to fruits at farm gate level depriving farmers a better return to investment while the consumer is deprived of a quality fruit. In addition to fresh exports and value addition to fresh products through processing, products such as mangoes and pineapples have large export markets as dried products. Fruit varieties are available throughout the country. There is considerable potential to develop the downstream of the value chain in fruit sector (collection in bulk, processing, packing, and marketing –export and local) to channel the full benefits of the markets to producers. In addition to fresh exports and value addition to fresh products through processing, products such as mangoes and pineapples have large exports markets as dried products.</p> <p>10.</p> <p>11. fruits and vegetables distribution in Sri Lanka plays a vital role in the final output of post-harvest cultivation. It has been found that nearly 25% - 30% of fruits and vegetables are wasted due to post harvest losses.</p> <p>12.</p> <p>13. The fruits varieties are available throughout the country and the market is extensive. Therefore , if facilities are made available and including access to training , information and other BDS services including financial access , the fruit sector offers an attractive opportunity for private sector to engage in a much sustainable manner for which there are number of established companies interested.</p>
Grains and pulses	<p>Grains and pulses such as black and green grams, finger millets have stable markets locally. The local demand for these products is not yet satisfied by the local production. Therefore some significant amounts of these are imported to the country. There are private partner companies available to support local farmers in this sector.</p> <p>Black Gram is one of the important grain legumes in the rain-fed farming system in dry and intermediate zones of Sri Lanka. It can be grown under low moisture and fertility conditions. It has high nutritive value and consist high content of proteins, vitamins and minerals. Presently,</p>

Commodity	Status / entry point / opportunities for impact
	<p>blackgram is successfully cultivated in the districts of Anuradhapura, Polonnaruwa, Vavuniya, Kurunegala, Puttalam, Killinochchi, Mulathiv, Batticaloa and Jaffna. About 80% of blackgram crop cultivated during “Maha” season as rain-fed SARP crop and rest is grown in “Yala” in paddy fields with supplementary irrigation. Cultivated extent and production of blackgram vary from year to year with a decreasing trend. Consequently, the production is not sufficient for the demand where the national average yield of blackgram has been stagnating around 0.7-0.8 t/ha over the years, and it is far behind the research yield, which is about 1.5-2.0 t/ha. Until early nineties, large quantities of blackgram were exported to various countries and no importation were recorded. However, recent figures illustrate that the large quantities of blackgram are imported annually highlighting the importance of increasing the cultivation extent with the objective of imports substitution. (DOA,SL)</p> <p>Opportunities for impact & Key Entry Points:</p> <ul style="list-style-type: none"> • The crop is resistant to drought conditions hence ideal for project locations especially the dry zone. It is well adopted for different cropping systems including monoculture in SARP/lowlands in both “Yala” & “Maha” seasons and either intercropping with Maize. • Soil fertility improvement through fixing Nitrogen and crop residue produced more organic matter soil texture development. • Plant protein supplementary for malnutrition. • Further it could be grown as a relay crop before the onset of “Yala” season. In addition, like most of the legumes, it could be grown in “Yala” season under major/minor irrigations successfully. • Black gram also could be grown with relatively less inputs (Less cost of production) hence it’s suitable for rural smallholder farmers. However, it’s important to secure the market through proper commercialization of the value chain itself. • Project could seek the possibility of working with Mahailuppallama (MI) research station to develop new varieties of Blackgram as no such upgraded varieties released to the market after late 1990s. <p>Finger millet is an important food crop in Sri Lanka and can be cultivated under the adverse soil and climatic conditions of the Dry Zone. It is grown as a rainfed crop under a short growing season and with resistance to pests and diseases. “Kurakkan” grains are highly nutritious and have an excellent seed storage quality. The area of land under finger millet has decreased nationally, from 21000 ha in late 1980s to 7,000 ha 2016 due to forest clearance regulations. Traditional finger millet cultivation is being replaced by other comparable and competitive crops such as maize, pulses and vegetables (DOA, SL). Nevertheless the productivity of finger millet has increased from 0.6 mt/ha in late 1995 to 1.17 mt/ha in 2015 due to newly improved varieties and adoption of improved cultivation practices. Finger millet is presently grown in number of Dry Zone districts including all project target districts. Seeds for the varieties Rawana and Oshadha are produced and distributed by the Department of Agriculture (DOA) as high yielding varieties.</p> <p>Opportunities for impact & Key Entry Points:</p> <ul style="list-style-type: none"> • The crop is resistant to drought conditions hence ideal for project locations especially in the dry zone. It could be cultivated during “Maha” season with the onset of monsoon or during “Yasa” in paddy fields effectively. • Finger millet could be grown with relatively less inputs (Less cost of production) hence it’s suitable for rural smallholder farmers. However, it’s important to secure the market through proper commercialization of the value chain itself. • Transplanting could be practiced instead of broadcasting of seeds to reduce seed cost and for higher productivity on the land. Further, weed control could be done through mechanical methods in an effective manner comparing to transplanting where weed control is difficult to manage which leads to lower productivity. • Finger millet is considered a highly nutritious food with low glycemic index, fortified with iron and calcium hence would be an ideal source for enhancing the diet at beneficiary households highlighting the possibility of promoting nutrition sensitive value chain development in project locations. • Low Glycemic Index (Low Glucose, Good for avoid Diabetic) • Value addition is an option for “Kurakkan” based products which could be promoted through FBOs under the guidance of the project.
Groundnut	The production of groundnut in Sri Lanka was 28,000 MT in 2015 and has seen a sharp growth in the last five years. This is mainly due to the opening up of additional growing areas in the

Commodity	Status / entry point / opportunities for impact
	<p>North and East of Sri Lanka – dry zone areas. Market demand is high from confectionery manufacturers – biscuits, roasted, fried and mixed snacks and sweets. There is no commercial production of groundnut oil or butter. Peanut butter is a relatively new commodity imported to Sri Lanka but in small quantities for high-end supermarkets.</p> <p>14. Yala production of groundnut has increased drastically in recent years contributing an average of 40% of total production. Groundnuts are produced and sold currently in the dry zone as raw commodities. There is a strong interest from buyers which is driving production. The main constraints facing the value chain are:</p> <p>15.</p> <p>a. <u>Low availability of seeds and quality of seeds:</u> The transition of seed supply from DoA to the private sector has not yet taken place in the region. Private seed production farms are very small and unable to cope with demand and are not certified. The seed certification program has not yet taken off at a scale that can sufficiently supply the market demand for seed during the planting season. Some private sector actors such as CBL Plenty Foods Ltd has shown a keen interest to pilot seed supply and lead the development of the chain. An alternative for small scale farmers is to develop low cost on-farm seed storage that can be replicated easily by farmers. Groundnut seed supply is not so much the constraint as the difference between the type of product demanded by the market and the one cultivated locally. The local seed variety has a lower cooking yield and is therefore commands only a very small local market and is mainly considered a subsistence crop.</p> <p>solutions, such as a machinery and equipment hire services could have a significant impact on the value chain.</p> <p>scale can be addressed farmers are more likely to produce at a level of around 2.5 ha. that can be managed with family labour and equipment. This could bring down cost of production.</p> <p>Potential action areas:</p> <ul style="list-style-type: none"> • Improved seed supply value chain linkages as a longer term solution involving the development of adequate supplies of certified seed and market mechanisms to purchase, store and re-sell the seed to farmers during the season. Agribusiness linkages with processors provide an opportunity through contract farming modalities. • Strengthen technical know-how and improve the use of machinery and equipment that will lower the costs of production. Strengthen producer organizations and value chain players to provide equipment for land preparation, tillage and harvesting to bring down the costs of production. Key activities could include technical training, provision of equipment, setting up agro-equipment hiring businesses which may be done as a producer organization strengthening activity.
Dairy	<p>Milk is a large, small holder production sector responding to an expanding local market throughout the country. In the Dry Zone dairy production is concentrated in the districts of Polonnaruwa Vavuniya Matale Moneragala Hambanthota, Kurenagala. Several established large companies are engaged in collecting milk for processing in to other products. About 350,000MT are produced annually which meets only a fraction of the local market. Due to this inadequacy, Sri Lanka imports more than 71,000 MT of milk products at a cost of US\$400 million annually. Large companies such as CIC, MILCO, Cargills, Nestle, and FONTERA are some of the private sector partners already operating in this sector with small holder producers.</p> <p>In Mannar the dairy value chain assessment showed low access to improved breeds, poor access to and use of veterinary and artificial insemination (AI) services, low level of technical know-how and application, impact of limitations on grazing land during the peak milk production period, quality of milk production and handling, and scattered production and difficult access in areas such as Madhu as key limitations that need to be addressed to upgrade the value chain</p>
Goat	<p>Goat contributes to the livelihood development of smallholder farmers of the country. Goat farming is one of the most affordable and sustainable ways of enhancing rural household income, especially in the areas where crop and dairy farming are not economical. Total recent goat counts of Sri Lanka are 314,800 (Department of Census and Statistics, 2018). The majority is concentrated in the dry and dry intermediate zones of Sri Lanka. A large share of the goat counts is concentrated in the northern dry zone - Mannar, Vavuniya, Anuradhapura and Amparai in the dry zone and Kurunegala and Puttalam in the intermediate zone (Department of Census and Statistics, 2016). The annual per capita consumption of goat meat in Sri Lanka in 2017 was about 0.1 kg (Department of Animal Production and Health, 2017). The total annual domestic production of mutton was 1350 MT (2015) the balance requirement (350.33 MT) was</p>

Commodity	Status / entry point / opportunities for impact
	<p>imported (Department of Animal Production and Health, 2015. Even though a considerably lower attention is paid for mutton production, many people demand mutton during festival seasons in the country. Therefore, development in mutton production should be taken into consideration in order to reduce the imports and to be self-sustained in future.</p> <p>Goat production is mainly comprises of intensive and semi intensive management systems. In both systems, animals are reared primarily for mutton though some does are also milked and the milk is sold. Goat milk is becoming popular due to its merit in contributing to health benefits and therefore rearing dairy goats under intensive management is becoming popular since recent past with rapid developments in Northern and Eastern provinces. The majority of goats reared are indigenous goats and crosses with improved breeds such as Jamunapari, Beetal, and Boer and usually, Indigenous goats produce less milk and are mainly reared for meat. However, the wealth of the indigenous goat could be improved by giving little attention comparing to upgraded breeds. Goats are relatively cheaper than cows which reflects in small initial investment and correspondingly small risk of loss by individual deaths. This makes goats an attractive proposition for household use and subsistence farming, especially for poor households. Goats can conveniently be cared for by women and children, occupy little housing space, and supply both meat and milk in quantities suitable for immediate family consumption, which is important in view of the difficulties of storage in rural areas including the Dry Zone.</p> <p>The benefits can be summarised as:</p> <ul style="list-style-type: none"> • Income - Important means of earning supplementary income. • Food - Provide animal proteins (milk and meat) that are important for the nutritional well-being of peasants/Smallholders. • Security - Sources of investment, security and stability. • Employment - Creation of employment including effective utilization of unpaid family labour. • Fertilizer - Contribution to farm fertility by the return of dung and urine. • By-product utilization - Enable economic utilization of non- marketable crop residues. • Leather SARP and handicraft - Skins are used extensively to produce various leather goods and handicraft.

Private sector contract farming programmes nationally

No.	Programmes started / mobilized	Partner company	Beneficiary farmers	
			Actual (direct)	Indirect
1	Fruits and Mixed Vegetable –	Cargills	241	37
2	Backyard Beekeeping-	CBL	600	15
3	Seaweed Cultivation-	Hayleys Aqua Agri	879	1564
4	Dairy Development –	Cargills Dairy	2,400	262
5	Dairy Development –	CIC Dairy	1,118	158
6	Gherkin Cultivation	Sunfrost Pvt. Ltd	1,600	254
7	Beekeeping	HJS Condiments	255	10
8	Seed onion –	Hayleys Agro Farms	150	10
9	Jalapeno pepper -	Sunfrost Pvt. Ltd	152	10
10	Passion Fruit -	HJS Condiments	94	8
11	Hybrid seeds –	Landmark Agro	400	15
12	maize production –	Nelna farms	2000	15
13	Dairy development –	Fonterra Brands Ltd	200	50
14	Dairy development-	cello Dairies Ltd	100	20
15	Maize cultivation	CIC	4080	
16	Poultry development	SL Poultry Ltd	100	
17	Kitul products	Lanka eco prod. Ltd	100	
Total			14,469	2,426

S. No.	Product Sector/ Value Chain	Private Companies – Marketing Partners	Type of Partner Private Companies						
			Grower	Super Retail/ Market	Processor	Exporter	.Co Small	.Co Medium	.Co Large
1	Fruits								
	Mangoes Pineapple Passion fruits Papaya	T JC Mango	X			X		X	
		H J S CONDIMENTS LTD			X	X			X
		GLOBAL TRADING & MARKETING PVT		X	X				
		NELNA	X			X			X
		LANKA CANNERIES LTD			X	X			X
		AGRI BIO TECH PVT LTD			X	X		X	
		SMAK			X	X			X
		FOODCITYSUPER MARKET, CARGILLS		X	X				X
		ARPICO SUPER MARKET		X	X				X
		LAUGF SUPER MARKET		X					X
		DOLE LANKA PVT LTD	X			X			X
		C R EXPORTS PVT LTD				X			
		MUBARAK TRADING CO				X		X	
		EXPOLANKA PVT LTD			X	X			X
		C B L NATURAL FOODS PVT			X	X			X
		EASTERN & ALLIED AGENCIES LTD				X		X	
		NIDRO SUPPLY PVT LTD				X		X	
		PULSES SPLITTING & PROCE INDUST P L		X		X			X
		TARGET AGRICULTURE PVT LTD				X		X	
		VEGILAND EXPORTERS PVT LTD	X			X		X	
	ISHANA EXPORTS PVT LTD		X	X	X			X	
	CONSOLIDATED BUSINESS SYSTEMS PT			X	X			X	
	ALOY EXPO PVT LTD				X		X		
2	Vegetables								
	Green Chilli Bitter Gourd Snake Gourd	C R EXPORTS PVT LTD				X			X
		EXPOLANKA PVT LTD			X	X			X
		EASTERN & ALLIED AGENCIES LTD				X		X	
		INTERNATIONAL FOODSTUFF COMPANY	X		X	X			X
		AGRI BIO TECH PVT LTD			X	X			X
3	Protected Agriculture Vegetables (Potential for Small Farmers with Higher Income Groups)								
	Bell Pepper	H J S CONDIMENTS LTD			X	X			X
		PRIMA CEYLON LTD			X				X
		CEYLON GRAIN ELEVATORS			X				X
		GOLD COIN FEEDS			X				X
		PUSESELLA FARM PVT LTD			X				X
4	Oil Seeds								
	Sesame Seeds (2015/16 Estimates)	CIC FEEDS			X				X
		NELNA FARM PVT LTD			X				X
		PLENTY FOODS PVT LTD			X				X
		PRIMA CEYLON LTD				X			X
		CEYLON GRAIN ELEVATORS				X			X
		GOLD COIN FEEDS				X			X
		PUSESELLA FARM PVT LTD				X			X
5	Perennial Spices								
	Pepper	EXPOLANKA PVT LTD			X	X			X

	Clove Cinnamon Nutmeg	BIO EXTRACTS			X	X			X
		C B L NATURAL FOODS PVT LTD			X	X			X
		BIO FOODS			X	X			X
		ADAMEXPO			X	X			X
		RENUKA AGRO EXPORTS LTD			X	X			X
		EOS ORGANIC			X	X			X
		HDDES Pvt			X	X		X	
6	Treacle								
	Kitul/Palmyra	EXPOLANKA PVT LTD			X	X			X
		INTERNATIONAL FOODSTUFF COMPANY			X	X			X
		AGRI BIO TECH PVT LTD			X	X		X	
		LAUGF SUPER MARKET		X					X
		ARPICO SUPER MARKET/ FOODCITY/		X					X
				X					X

Appendix 3: Terms of Reference

Project Director

Scope of work

The Project Director will lead the overall delivery of all aspects of the project and ensure close coordination between the technical assistance staff and national project staff and activities within scope, budget and timeline under the guidance of the National Project Steering Committee (NPSC) to achieve high quality and timely results and project deliverables. More specifically, responsibilities will include:

- Provide leadership, coordination and guidance on all matters pertaining to the smooth implementation of the Project, in accordance with procedures and obligations specified in the IFAD Loan Agreement and implementation arrangements detailed in the Project Implementation Manual (PIM);
- Responsible for elaboration and the implementation of procedures set forth in the PIM, the Environmental and Social Management Framework (ESMF) and other relevant documents;
- Ensure regular communication and coordination with the Presidential Secretariat, NPSC and all other partners and interested stakeholders, with regard to all project activity;
- Ensure the establishment of the Project Implementation structures both at national and district levels (i.e. the project Implementation Units and their link with the District Authorities and ASC staff);
- Supervise daily activities of the PMU, evaluating performance and operating effectiveness (including on-going staff performance evaluations and feedback), making recommendations for change, as necessary;
- Preparation of Annual Work Plans, including monthly targets and deliverables as well as annual spending targets in accordance with the Project Document. Tracking of work outputs throughout the year in light of these Annual Work Plans;
- Assumes direct responsibility for managing the project budget by ensuring that:
 - project funds are disbursed properly;
 - expenditure is in accordance with the project document and project work plans;
 - accounting records and supporting documents are properly kept and financial reports are prepared;
 - financial operations are transparent and financial procedures/regulations are properly applied;
- Ensure regular monitoring of the status of project activities (through the preparation and updating of implementation plans and schedules, operations manuals, disbursement projections, etc.), including preparation and transmission of comprehensive progress reports as required under the conditions of the Loan Agreement, and any other reporting requirements under the project (for example annual audits);
- Ensure that appropriate procedures are established and implemented for the inspection and monitoring of the work of consultants and contractors, so as to be able to certify that works and services are satisfactorily accomplished in compliance with Terms of Reference and evaluate performance considering the different levels of responsibilities of the Project and synchronize key components to ensure the right results;
- Arrange for short-term staff training, as needed, for PMU staff in areas such as procurement under IFAD Guidelines and IFAD loan disbursement procedures, and other areas as may be considered appropriate;
- Closely cooperate with all relevant stakeholders, and project beneficiaries in designing and implementing project activities according to project documents in the best way to accomplish maximum benefit and positive impact for the project beneficiaries;
- Carry out monitoring visits to Project sites on a regular basis; survey (informally) the intended beneficiaries and other stakeholders;

- Prepare project progress reports and the project final report and organize National Steering Committee Meetings, review meetings and evaluation missions;
- Organize meeting, workshops, and seminars to raise awareness about the project and to disseminate lessons learnt from the project to a wider audience, as appropriate. This will include all technical aspects of the project and those relating to environmental and social safeguards.

Qualifications and experience

- The Project Director should have demonstrated experience and knowledge of procedures applicable to multi- or bi-lateral financing. Experience in IFAD's rules and procedures will be a plus.
- Academic degree in Agronomy and rural Development, Business and Administration Management, Monitoring & Evaluation, Social Sciences or related studies and documented previous experience in similar assignments. A Master degree will be a preference;
- Proven experience of at least five (5) years in implementing IFAD or other international Agencies and NGOs funded projects;
- Extensive working experience in preparing and dealing with various reports and information analysis, a distinct advantage;
- Experience in monitoring, control and evaluation of IFAD or other International agencies and NGO's funded projects activities or any other project
- Good communication (verbal and written) and strong interpersonal skills (human resources management) and ability to work in a team (leadership);
- Excellent analytical and writing skills;
- Experience and knowledge of the rules and procedures in force at the IFAD and the Government of Sri Lanka will be an advantage;
- A good knowledge of English;
- Good computer skills especially in MS Word, Excel, PowerPoint;

Duty Station and Duration of services

The Project Director will be based in Colombo with field visits as may be required. Duration of services – 72 person months. Initially, the contract will be assigned for a period of twelve (12) months and its extension will be based upon performance evaluation.

Senior Finance Management Specialist

Scope of Work

The Finance Management Specialist will assist and report to the Project Director on all financial matters relating to implementation of the project. S/He will be mainly responsible for preparing Trimester Financial Progress, Project Account, Accounting Manual, SOE manual and other related financial reports as may be required by IFAD and the Government of Sri Lanka.

The incumbent will work closely with and under the supervision of the Project Director at the Project Management Unit (PMU) for the achievement of project's goals. The main responsibility is to assist the Project through the performance of the following duties and responsibilities:

- Develop and implement appropriate financial and accounting systems for the project to meet the requirements of IFAD and Government both at PMU and District levels;
- Lead the team of financial assistants;
- Develop annual budget in close collaboration with the Project Director and technical team both at PMU and District Hub levels;
- Develop Funds Flow Projections in collaboration with the Project Director and the Procurement Specialist at PMU levels
- Assist in the planning and budgeting for project implementation, taking the lead role in the financial plan and budgets and ensuring that the assumptions, parameters, guidelines and policies in planning are complied with;
- Ensure that all accounting records and bank accounts are up to date;
- Prepare a monthly bank reconciliation of all Bank Accounts having into consideration all "Cost Centers";
- Establish and improve the internal control systems (goods, services, assets and works) and verify that the accounting controls is put in place at all levels;
- Monitor financial disbursements and all administrative procedures in line with the IFAD and Government requirements;
- Provide assistance in compiling and consolidating accounts and preparing Unaudited and Audited Project Account in stipulated date for each Fiscal Year as agreed in loan/credit agreement;
- Maintain up to date the Financial Management Manual as per need of the project and train project staffs in adopting sub-project accounting and financial monitoring system;
- Ensure the timeliness of required financial reports to IFAD on a regular basis;
- Prepare the reports and the Annual Financial Statements for all project funds disbursed by PMU (IFAD and Government's);
- Integrate financial procedures and systems with the Management Information System (MIS) to track project progress and management performance;
- Provide orientation and on-the-job-training to upgrade performance skills of the project staff both at PMU and District Hub levels on all project related financial system such as disbursement and procurement process as per the IFAD procedures and guideline;
- Attend and participate in project meetings and give input to financial related matters;
- Monitor project progress through field visits, offer feedback and keep regular communication with related field and coordination level staff, if required;
- Ensure that entities that receive project funds for the implementation of micro-projects are complying with the Rules and Procedures in force;
- Ensure compliance with IFAD and Government standards and procedures, related to procurement, disbursements, Special Accounts, Expense Statements (Statement of Expenditure - SOE), the Financial Monitoring Reports (Financial Monitoring Report - FMR), the Special Commitments, etc.
- Review and monitor project performance and make recommendation to improve performance in relation to Financial Management;
- Cooperating with IFAD, Government and other partners to improve project financial management, particularly in terms of following up the action points agreed in the project legal documents, during the IFAD supervision missions and the recommendations of external auditors;
- Providing the Auditor with access to copies of all necessary documentation, information and supporting materials;

- Implement and monitor any tasks required by the Project Director

Qualifications and experience

- Academic degree in Finance, Economy, Accounting or Business and Administration Management and documented previous experience in similar assignments A Master degree will be a preference;
- Proven experience of at least five (7) years as Accountant, finance controller for IFAD or other international Agencies;
- Good knowledge of International Accounting Standards (IAS), International Standards on Accounting (ISA) and experience in IFAD projects or other international organizations are preferential conditions;
- Experience and knowledge of the rules and procedures in force at the IFAD and the Government of Sri Lanka;
- Have good computer skills especially in MS Word, Excel, PowerPoint and Accounting programs;
- Good knowledge of English

Duty Station and Duration of services

The Finance Management Specialist will be based in Colombo with field visits as may be required. Duration of services – 72 person months. Initially, the contract will be assigned for a period of twelve (12) months and its extension will be based upon performance evaluation.

Financial Assistant

Scope of Work

The Financial Assistant will be under the direct guidance of the Financial Management Specialist in Colombo. More specifically;

- The Financial Assistant will assist the Financial Management Specialist and report to the Project Director on all financial matters relating to implementation of the project. She/he will be mainly responsible for preparing regular reports and Annual Financial Statements for all project funds disbursed by PIU and required by IFAD and Government of Sri Lanka.
- Installation of appropriate accounting/reporting systems to ensure that the PIU and especially the Programme Coordinator are regularly informed of on-going financial status and transactions.
- Develop and implement appropriate financial and accounting systems for the project to meet the requirements of the IFAD and Government both at PMU and district hub levels;
- Develop annual budget in close collaboration with the Project Technical Team both at PMU and District levels;
- Ensure that all programme 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;
- Provide assistance to the Financial Management Specialist in compiling and consolidating accounts and preparing Unaudited and Audited Project Account in stipulated date for each Fiscal Year as agreed in loan/credit agreement;
- Ensure that all necessary supporting documents, records and accounts are kept in respect of all programme activities, with clear linkages between the books of account and the financial statements presented to the financiers;
- Develop Funds Flow Projections in collaboration with the Project Coordinator and the Procurement Specialist at PMU levels
- Assist in the planning and budgeting for the project program, taking the lead role in the financial plan and budgets and ensuring that the assumptions, parameters, guidelines and policies in planning are complied with;
- Ensure compliance with the IFAD and Government standards and procedures, related to procurement, disbursements, Special Accounts, Expense Statements (Statement of Expenditure - SOE), the Financial Monitoring Reports (Financial Monitoring Report - FMR), the Special Commitments, etc.
- Monitor financial disbursements and all administrative procedures in line with the IFAD and Government requirements;
- Establish and improve the internal control systems (goods, services, assets and works) and verify that the accounting controls is put in place at all levels;
- Liaise with external auditors to audit the Programme accounts to meet the required submission dates by both GoSL and IFAD.

Qualifications and experience

- Academic degree in Finance, Economy, Accounting or Business and Administration Management and documented previous experience in similar assignments A Master degree will be a preference;
- Proven experience of at least five (5) years as Accountant, finance controller for IFAD or other international Agencies;
- Good knowledge of International Accounting Standards (IAS), International Standards on Accounting (ISA) and experience in IFAD projects or other international organizations are preferential conditions;
- Experience and knowledge of the rules and procedures in force at the IFAD and the Government of Sri Lanka;
- Have good computer skills especially in MS Word, Excel, PowerPoint and Accounting programs;

- Good knowledge of English

Duty Station and Duration of Services

The Financial Assistant will be based in Colombo with field visits as may be required. Duration of services – 72 person months. Initially, the contract will be assigned for a period of twelve (12) months and its extension will be based upon performance evaluation.

Senior Procurement Specialist

Scope of Work

The Procurement Specialist will take full responsibility for procurement under the program. This will include two primary areas of responsibility:

- (i) direct responsibility for designing and establishing the procurement function, including the staffing structure, functional allocations, linkages with other departments, training and mentoring, and design of procedures and development of manuals for procurement;
- (ii) carrying out procurement activities including, among other things, the preparation and consolidation of the procurement plans with assistance from the Finance Administration Unit, preparation of bidding documents and RFP's, facilitation of obtaining required necessary clearances, preparation of advertisements, responding to bidders' clarifications on advertised contracts and playing a central role in the evaluation of bids and proposals, and contract management.

More specifically:

- Strengthen discipline of staff using IFAD's Standard Bidding Documents; prepare project's customized Bidding Documents and Request for Proposals (RFP). This should include standardized Forms to be used for International, National and Local Shopping Methods;
- Establish a simplified Procurement Tracking System for monitoring of the Project procurement activities and train staff to track procurement, to analyse recurrent weakness and strengths and to develop and implement mitigation measures;
- Prepare and train staff to prepare and update the Project's Annual Procurement Plan (including procurement method, types/kinds, quantity, value, delivery requirements, sources, etc.);
- Preparation of work plans, planning of budget and composing of budget applications jointly with a financial management specialist;
- Train staff to prepare the General Procurement Notice (GPN), and Specific Procurement Notices (SPN), and Expression of Interests (EOI) and ensuring their publication in the «UN Development Business» as well as local and international newspapers in accordance with the guidelines of IFAD;
- Support on the establishment of a register of qualified suppliers and consultants and periodical updates per project advertisements and consultant request;
- Review and coordinate the preparation of Technical Specifications and Terms of Reference concerning procurement activities, as well as review and finalization of Terms of Reference prepared by Groups of Experts with specific emphasis on ensuring they are comprehensive, generic and minimizing risks of misinterpretation at the evaluation stage;
- Initiate the procurement process, and participate in the preparation of the short lists and pre-qualification of suppliers where necessary;
- Coordinate the response to the inquires, and communicate the results of the evaluation process to the applicants;
- Coordinate the preparation of Bidding Documents and RFPs and issue the documents to the respective bidders and consultants;
- Supervise the procurement process for International and Local procurement;
- Manage complaints with comments related to procurement process/issues to the relevant authority and manage issue during the procurement processes as they arise.
- In cases of procurement actions requiring IFAD "No Objection", coordinate the dispatch of procurement documents to DAD and DOA monitor IFAD response time on issuing "No Objections" at different levels of the procurement process and follow-up accordingly;
- Prepare Procurement Performance report (e.g. time taken at each step of the procurement process, improvement of procurement cycle, best practices etc.);

- Monitor and ensure timely responses to procurement questions raised by IFAD;
- Publication of contract award information as required by IFAD guidelines;
- Follow-up with the short-listed consultants within 10 days of RFP dispatch to ensure their participation in the procurement exercise;
- Participate in constitution of the Evaluation Committees;
- Prepare and/or review the minutes of the Evaluation Committee meetings, and request for “No Objection” letters;
- Advise on arrangements for negotiation process, where necessary;
- Prepare and/or support in the preparation of draft contracts (agreements) and review the final contracts and supervise timely distribution of all relevant procurement and contract documents;
- Ensure timely receipt of the Goods documentation and consultant’s monthly status reports;
- Verification of payment documents under contracts for the supply of goods and services jointly with the financial management specialist;
- Ensure to maintain an accurate project filing system covering all project procurement activities.

Qualifications and experience

- Minimum Masters level degree in one of the following disciplines: Economics; Master of Business Administration, Public Procurement, Engineering or Statistics or similar.
- Proven experience of at least five (7) years as a Procurement Specialist for IFAD or other international Agencies;
- Good knowledge of International Procurement procedures, International Standards on Procurement and experience in IFAD projects or other international organizations are preferential conditions;
- Experience and knowledge of the rules and procedures in force at the IFAD and the Government of Sri Lanka;
- Have good computer skills especially in MS Word, Excel, PowerPoint and Accounting programs;
- Good knowledge of English

Duty Station and Duration of Services

The Procurement Specialist will be based in Colombo with field visits as may be required. Duration of services – 72 person months. Initially, the contract will be assigned for a period of twelve (12) months and its extension will be based upon performance evaluation.

Procurement Assistant

Scope of work

The Procurement Assistant (PA) work under the guidance of the Senior Procurement Specialist and will coordinate procurement activities of SARP. The position will be filled through a competitive recruitment process. The PA will coordinate the procurement function based on GoSL and IFAD guidelines and procedures. The position will be based at the project implementation unit in Colombo with frequent travel to the six districts.

Specific duties include:

- In collaboration with other members of the PMU, DOA and DAD government officials at District level and implementing partners, prepare a procurement plan for works, goods and services required by the project and submit same for approval by the GoSL NPSC and IFAD along with the AWPB.
- Identify the sources of supply, evaluate the eligibility and qualifications in order to prepare the list of suppliers/contractors and keep PC abreast on this;
- Prepare and collate tender and contract documents for specific procurements according to GOSL and IFAD guidelines
- Establish a register of qualified suppliers and consultants and periodical updates per project advertisements and consultant request;
- Maintain the contract register and regularly update the same with monitoring data on progress of all contracts
- Prepare procurement documents and facilitate procurement for the SARP following guidelines specified in the Project Implementation Manual (PIM). These will include procurement procedures for Goods, Works and Services, community-based procurement procedures, internal control, reconciliation and dispute resolution, risk management, post-procurement, audit and monitoring, etc.
- Review the final contracts and supervise timely distribution of all relevant procurement and contract documents;
- Assist establishing a performance monitoring database for all suppliers and consultants, and ensure timely updates of the system;
- Assist establishing a performance a procurement filing system, and supervise the efficiency, security and effectiveness of its use;
- Assist in handling Project procurement related complaints, including logging and recording, notifying the IFAD, and preparing response to the complaints, including in the preparation of qualitative justifications for settlement of disputes with consultants and suppliers;
- Contribute to the preparation of work plans, planning of budget and composing of budget applications jointly with the accountant;
- Review and coordinate the preparation of Technical Specifications and Terms of Reference concerning procurement activities, as well as review and finalize Terms of Reference prepared by lead technical experts;
- Verify the payment documents under contracts for the supply of goods and services jointly with the financial management specialist;
- Report in writing to the Project Director on potential or actual violation of contractual terms by contractors and service providers for appropriate sanctions
- Undertake any other duties assigned by the programme coordinator.

Qualifications and experience

- Minimum Bachelors level degree in one of the following disciplines: Economics; Master of Business Administration, Public Procurement, Engineering or Statistics or similar.
- A comprehensive knowledge of Public Procurement Regulations including the PPDA regulations, as well as procurement guidelines for IFAD.
- Experience in preparing tender and contract documents for national and international competitive bidding

- At least 5 years working experience in public organization/ Semi-Public organization for procurement of goods, works and services in projects financed by the government and or international financial organizations;

Duty Station and Duration of Services

The Procurement Assistant will be based in Colombo with field visits as may be required. Duration of services – 72 person months. Initially, the contract will be assigned for a period of twelve (12) months and its extension will be based upon performance evaluation.

Monitoring and Evaluation Specialist

Scope of work

- Establish the M&E system and strategy, including design, data-collection formats, data collection, data-analysis, and reporting format and systems;
- Develop a database for the project performance indicators, collect appropriate data from the sources, and maintain the database and prepare reports to meet the reporting requirements of SARP;
- Track and analyze progress towards agreed outputs of each of the Project components in line with the monitoring framework;
- Flag potential risks or challenges emerging from monitoring information;
- Develop the ToRs for the baseline and other monitoring surveys envisaged by the Project and select standards for the consultant organization selected to conduct the surveys
- Support the development of the Annual Plan and Budget, ensuring that all aspects of the Monitoring and Evaluation function are integrated. including environmental and social safeguards
- Ensure that the information is collected, consolidated and filed with continuity and Collaborate in the preparation of quarterly reports, identifying the differences and similarities between the areas of intervention.
- Support the development and implementation of capacity building training programs related to monitoring and evaluation;
- Participate in annual review meetings that monitor the progress of the Project and define, in coordination with PMU, plans for monitoring micro-projects and establish an analytical and comparative framework for each micro-project clarifying objectives and expected results.
- Develop a social and environmental development framework for SARP, including a plan for data collection and analysis and develop a methodology in accordance with the project documents.
- Based on the logframe indicators assist the PMU to ensure that the selected indicators for measuring social and environmental development outcomes are included in the M&E project design.
- Develop standardized methodologies for analysis of data pertaining to social and environmental development.
- Undertake follow up monitoring to ensure that proposed mitigation measures are implemented according to environmental and social mitigation implementation plan.
- Maintain and improve safeguard management processes, systems and tools.
- Compile monthly, quarterly and annual reports on safeguards related issues as part of the M&E reports.
- Compile and analysis the data pertaining to social impacts against envisaged project outcomes in respect of social development.

Qualifications and experience

- Degree in Agricultural Economics or a related subject;
- Extensive experience in the design and administration of monitoring and evaluation systems and instruments, especially in utilizing participatory techniques and information systems;
- Experience in providing management-level technical assistance and consensus-building among project staff in implementing the agreed actions of the project;
- Familiar with the agricultural sector and preferably with experience in M&E;
- Professional experience of at least seven years, of which at least five in the area of monitoring and evaluation;
- Experience in building capacity and knowledge of organizations;
- Excellent interpersonal relationships, group ease and interview skills.

Duty station and duration

The Monitoring and Evaluation Specialist will be based in Colombo with field visits as required. Duration of services – 72 person months. Initially, the contract will be assigned for a period of twelve (12) months and its extension will be based upon performance evaluation.

Monitoring and Evaluation Assistant (s)

Scope of work

The M&E Assistant, will work under the supervision of the Project Director and M&E Specialist. The M&E Specialist will oversee all M&E functions. The M&E Assistant will assist the M&E Specialist to design the project M&E system. Specific responsibilities include but are not limited to the following:

- Provide technical advice to the Project Director to establish and operate a viable monitoring and evaluation system. Such a system must be capable of measuring progress in relation to work plans for management purposes as well as being capable of measuring outputs and impacts in relation to selected project indicators.
- Organise and manage the data collection framework for the project and design a data base system.
- Develop data collection formats for service providers, and compile inputs received on regular basis, including taking responsibility for quality, accuracy and timeliness of data.
- Assist in annual data verification exercises in the field.
- Create and regularly update an e-library repository collecting knowledge and stories, and ensuring ease of access.
- Systematically compile lessons learned from programme implementation into formats suitable for dissemination.
- Provide technical support to the project team in data collection and analysis as necessary.
- Help organize stakeholder workshops for feedback to and input from all stakeholders.
- Through regular visits to the field sites ensure the efficient and timely operation of the M&E system.
- Contribute to work plans and reports as required.
- Support the M&E expert in monitoring social and environmental safeguards

Qualifications and experience.

The candidate should have at least a first degree (Master's degree is an added advantage) in rural development, agricultural economics, rural sociology with experience in the use of computer databases. Familiarity with participatory monitoring and evaluation methodologies and analytic tools will be an advantage.

Other qualifications include:

- At least five years of experience in designing and implementing monitoring and evaluation systems at project level.
- An understanding of community, agriculture and/rural development processes.
- Excellent quantitative and analytical skills.
- Good oral and written communication skills in English.
- Computer-literate and well-versed in the use of MS Word, MS Excel and the Internet, and have demonstrated capability in MS Access.

Duty station and duration

The Monitoring and Evaluation Assistant will be based in the District Hubs with field visits as may be required to all districts and ASCs. Initially, the contract will be assigned for a period of twelve (12) months and its extension will be based upon performance evaluation.

Senior Project Engineer

Scope of work

The Senior Project Engineer will be responsible for the planning and execution of the overall infrastructure related aspects of the project. He/she will review the designs and costing of various tank irrigation infrastructure, and help plan the construction activities, provide overall supervision of the construction of various infrastructure components planned under SARP in the respective districts.

- Support SARP in planning all infrastructure related works, including overseeing of the engineering surveys, review of the design and costing of various infrastructure proposed under the project in the respective districts
- He/she will check the design of various components of the engineering infrastructure planned under SARP for safety and cost effectiveness
- He/she will help in selection of contractors for execution of infrastructure related works, wherever necessary based on the set selection criteria
- He/ she will help in the planning and management of construction activities
- He/she will perform quality control and quality assurance of the infrastructure works based on the design of various components through random inspection.
- Recommend effective methods of completing work as per the schedules.
- Coordinate with PMU team on finance and procurement
- Prepare and analyse the progress report vis a vis infrastructure works and submitting to the PMU.
- Other duties as assigned by the SARP Project Director.

Qualifications and experience

- Bachelor's Degree in Civil Engineering.
- At least 7 years of relevant professional experience working on infrastructure projects, particularly in the area of water resources.
- Knowledge of engineering surveys, and design and construction of hydraulic infrastructure.
- Specialized training or certificate in construction or civil/ structure IFAD funded projects will be an advantage.

Duty station and location

Colombo with frequent travel to the project sites. Duration of services – 72 person months. Initially, the contract will be assigned for a period of twelve (12) months and its extension will be based upon performance evaluation.

Natural Resource Management and Environmental Safeguards Specialist

Under the overall guidance of the Project Director the Natural Resource Management Expert will be responsible for co-ordinating and managing the technical aspects of project implementation including watershed planning, soil and water conservation and community forestry. In particular the specialist will:

- Review the sources as background materials referred to in the Project Implementation Manual to plan and design natural resource measures suited to the arid and semi-arid conditions of the dry zone of Sri Lanka:
- Identify counterpart staff with requisite natural resource management background and train and mentor them throughout the duration of the assignment.
- Prepare Terms of Reference and select contracting institutions and monitor the preliminary surveys and modelling exercises of the cascade tank systems in the hot spot areas.
- Develop the community level watershed planning methodology to include technical guidelines for watershed development and the management of soil and water conservation measures in upstream areas
- Survey the project sites and identify potential areas for water resource development drawing on the technical assessment conducted during the project design process.
- Design measures, co-ordinate and manage technical aspects of water resources development, water harvesting and other related topics. He/she, and the Project Engineer, will jointly review the designs of various interventions planned for water infrastructure development and irrigation management.
- He/ She will conceptualize studies for assessing the effectiveness of agricultural water management interventions aimed at water saving and crop productivity improvement and will undertake data collection required for the purpose.
- He/She, together with the Project Engineer, will support the district hubs and district technical staff to design the studies required for planning water related interventions in the project area.
 - .Prepare site specific Environmental & Social Management Plans (ESMPs), for SARP and ensure that such plans are approved by relevant authorities before implementation.
- Guide the Natural Resource Management team to select and design suitable technical measures, set work norms for the cash for assets activities and prepare Terms of Partnership with the communities for agreed upon interventions
 - Provide technical guidance and organise trainings for project staff – natural resource management officers, counterpart staff and community facilitators in all aspects of natural resource management planning, soil and water conservation and community forestry activities.
 - Incorporate environmental concerns in the design, construction and operation of watershed management activities so as to minimize the negative impacts on environment.
- Guide the Monitoring and Evaluation team to ensure that social and environmental safeguards are met
- Conduct awareness and training programmes with project and government counterpart staff on social and environmental safeguards.
- Together with the Social Inclusion Expert Submit reports that address the Environmental Social Management Framework (ESMF) issues to the Project Director.
 - He/she will report to the SARP Project Director.

Qualifications and experience:

A successfully completed Master's Degree Water Resource Engineering, Agricultural Engineering, Natural Resource Management or equivalent.

At least 7 years post qualifying experience working on water resource and natural resource management projects

Proficiency in English is essential

Duty station and location

Colombo with frequent travel to the project sites. Duration of services – 72 person months. Initially, the contract will be assigned for a period of twelve (12) months and its extension will be based upon performance evaluation.

Watershed Development and Irrigation Officers (2)

Scope of work:

Under the overall guidance of the Project Director, the Watershed Development and Irrigation Officers will take overall responsibility for the planning and implementation of the cascade/ sub-watershed infrastructure. In particular the expert (s) will:

- He/ She will support the PMU in planning agricultural water management and irrigation activities in the designated command areas
- He/She, together with the Project Engineer, will check the designs of various interventions for agricultural water management, including irrigation management
- Organize and conduct training to project counterparts and IA/ ARPA staff and the communities in the preparation of natural resource management plans.
- Participate in the Community Planning Process and prepare Terms of Partnership with the communities for agreed upon measures and provide guidance on issues related to water resources development.
- Select sites, and design measures based on their technical feasibility and assess the inputs and materials needed for construction and rehabilitation.
- Liaise with WFP and apply their work norms for the construction of small scale irrigation schemes using cash for work payment to beneficiaries.
- Appraise the feasibility of the water management schemes (technically, financially, and socially) and provide guidelines on the preparation of contracts.
- Provide technical guidance and organise trainings for AIs, service providers and farmers in all aspects of irrigation and water harvesting activities.
- Appraise the feasibility of irrigation and water management schemes (technically, financially, and socially) and provide guidelines on the preparation of contracts.
- Identify and recommend the equipment necessary for the construction of irrigation and water harvesting schemes.
- Monitor the technical quality of implementation ensuring that technical specifications are correct to enable cash for work disbursements to be made consistent with the technical guidelines provided by the project.
- Train the communities on the O&M of the developed infrastructure.
- Prepare reports on the physical impacts of various interventions on agricultural water management, including irrigation management
- Prepare and analyse the progress report vis a vis agricultural water management and submit reports to the PMU.
- He/she will report to the Natural Resource Management Specialist.

Qualifications and experience:

A successfully completed Bachelor's Degree Civil Engineering or equivalent. A Postgraduate Degree in Water Resource Management or other the relevant field. At least 5 years post qualifying experience working on water resources management projects

- Conversant with the design and execution of hydraulic structures such as embankments, spillways, sluices and channels and micro irrigation systems
- Conversant with irrigation management and command area development
- Excellent working knowledge of English, both verbal and written; Fluency both written and verbal in Sinhalese/Tamil
- Knowledge of IFAD rules will be an asset.
- Technical skills and experience in irrigation and water management.
- Proven background in training and skills transfer preferably within a rural development context.

Duty station and duration

District Hubs with frequent travel to the project sites.

Duration of services – 72 person months. Initially, the contract will be assigned for a period of twelve (12) months and its extension will be based upon performance evaluation.

Natural Resource Management Officers

Scope of work:

Under the overall guidance of the Project Director the Natural Resource Management Expert will be responsible for co-ordinating and managing the technical aspects of project implementation including watershed planning, soil and water conservation and community forestry. In particular the officers will:

- Review the sources as background materials referred to in the Project Implementation Manual to plan and design natural resource measures suited to the arid and semi-arid conditions of the southern provinces of Sri Lanka:
- Organize and conduct training to project counterparts and IA/ ARPA staff and the communities in the preparation of natural resource management plans.
- Take a lead in the community-based natural resource management planning in the selected catchment areas and provide guidance on planning issues related to the management of natural resources.
- Select suitable technical measures, set work norms for the cash for assets activities and prepare Terms of Partnership with the communities for agreed upon interventions
- Provide technical guidance and organise trainings for community facilitators and farmers in all aspects of soil and water conservation and community forestry activities.
- Ensure that environmental safeguards are met.

Qualifications and experience:

B.Sc. in Agriculture or a related subject area with at least 5 years field experience in soil and water conservation and conservation agriculture practices. Proven background in training and skills transfer preferably within a rural development context.

Proficiency in English is essential

Duty station and duration

District Offices with frequent travel to the project sites.

Duration of services – 72 person months. Initially, the contract will be assigned for a period of twelve (12) months and its extension will be based upon performance evaluation.

Area Based Coordinators (2) – Natural Resource Management Officers

Scope of work

As area coordinator

- Coordinate with the Project Director and all Technical Specialists in the PMU
- Guide and supervise the implementation of SARP's activities at district hub level
- Supervise, monitor and coordinate the implementation of project activities at district and ASC level to ensure the project is implemented as planned, and provide recommendations for improvement and follow up;
- Ensure that the planning and implementation processes are inclusive of women, youth and other vulnerable groups
- Prepare consolidated monitoring progress reports on the implementation of project activities at district, ASC, and community/ group level and submit to the PMU.
- Provide technical and supervisory support to the District Technical Teams
- Provide recommendations for more effective implementation of project activities.
- Assist in the conduct of training, preparing technical guidelines and advocacy to all local stakeholders
- Facilitate the documentation of best practices of the project

As Natural Resource Management Officer

- Review the sources as background materials referred to in the Project Implementation Manual to plan and design natural resource measures suited to the arid and semi-arid conditions of the southern provinces of Sri Lanka:
- Identify counterpart staff with requisite natural resource management background and train and mentor them throughout the duration of the assignment.
- Identify contact farmers in project communities to work as technical facilitators in the farmer field school
- Organize and conduct training to project counterparts and IA/ ARPA staff and the communities in the preparation of natural resource management plans.
- Develop the community level planning methodology to include technical guidelines for natural resource management - rangelands, management and soil and water conservation
- Take a lead in the community-based natural resource management planning in the selected catchment areas and provide guidance on planning issues related to the management of natural resources
- Select suitable technical measures, set work norms for the cash for assets activities and prepare Terms of Partnership with the communities for agreed upon interventions
- Provide technical guidance to the National Technical team in land use planning, soil and water conservation, community forestry.
- Provide technical guidance and organise trainings for community facilitators and farmers in all aspects of soil and water conservation and community forestry activities
- Ensure that environmental safeguards are met.

Qualifications and experience

- A Master's degree in Natural Resource Management, Agricultural Engineering or a related technical subject
- Experience of at least seven years in natural resource management
- Experience in managing small team of extension workers/ technical staff
- Experience in managing and delivering training
- Good communication (written and oral) in Sinhala and English

Duty station and duration

District Hubs with frequent travel to the project sites.

Duration of services – 72 person months. Initially, the contract will be assigned for a period of twelve (12) months and its extension will be based upon performance evaluation.

Agriculture and Livestock Specialist

Scope of work

The Agriculture/ Livestock Specialist will report directly to the Project Director and work collaboratively with District Government and other PMU personnel. She/he will have the following main responsibilities:

- Prepare guidelines for the implementation of agriculture related activities for implementation.
- Provide technical guidance to the technical team of agricultural officers and AI counterparts in climate smart technologies, livestock development; facilitating the setting up of demonstration sites; and disseminating improved/ tested technologies.
- Provide support to project technical and extension staff in the preparation of extension materials (IEC) in selected subject areas
- Assess immediate and future training and extension needs of the farming community for agriculture and livestock related activities.
- Conduct training courses for implementing aspects of agricultural and livestock development. .
- Provide technical guidance and organise trainings for AIs and ARPAs and farmers in all aspects of agriculture and livestock related activities.
- Liaise closely with all relevant Government departments and research institutions, testing research findings and adapting them to the conditions of the project area.
- Identify, procure and distribute input supplies and locally available equipment for agricultural related activities.
- Co-ordinate organizational and technical aspects for the organization of Farmer Field Schools providing backstopping support to the agriculture officers and AI extension workers.
- Monitor the procurement/ distribution of inputs, materials and equipment required for the establishment of natural resource management based activities.

Qualifications and Experience

- A Master's degree in agriculture, livestock management or a related subject ;
- Extensive knowledge of contemporary issues in production systems within the agricultural sector;
- A minimum of seven years at a senior level in a relevant public sector, private sector or NGO, with proven skills in the management and coordination of agriculture initiatives and programmes within the agricultural sector;
- Experience in implementing the Farmer Field School methodology.
- Computer literacy is a prerequisite, as is a very good command of spoken and written English.
- Fully aware of and alert to the crosscutting issues of gender, youth, and poverty targeting

Duty station and location

Colombo with frequent travel to the project sites. Duration of services – 72 person months. Initially, the contract will be assigned for a period of twelve (12) months and its extension will be based upon performance evaluation.

Agriculture and Livestock Officers (6)

Scope of work:

The agriculture officer will be required to support activities and assist the Agriculture and Livestock Specialist of the project. S/he will provide assistance with the implementation of project activities, including, but not limited to:

- Participate in community planning processes using participatory appraisal techniques.
- Preparing guidelines for the implementation of agriculture related activities for implementation.
- Provide technical guidance to the farmer in agriculture sector activities including soil and water conservation, design and implementation of on-farm trials; facilitating the setting up of demonstration sites on farmer's land; and disseminating improved/ tested technologies.
- Conduct demonstrations and design technical packages for implementation.
- Prepare and disseminate extension materials (IEC) in selected subject areas
- Assess immediate and future training and extension needs of the farming community for agricultural based activities.
- Identify contact farmers in project villages to work as technical facilitators in the Farmer Field Schools
- Guide the development and implementation of agricultural training and technical activities for Farmers and Farmer Groups/Associations through provision of agronomic advice to support extension programs for farmers, including women and youth;
- Conduct farmer level training and transfer of technologies to project beneficiaries.
- Conduct training courses for implementing aspects of agriculture and livestock development.
- Provide technical guidance and organise trainings for AIs ARPAs and farmers in all aspects of agriculture and livestock development.
- In consultation with District technical staff, IAs and ARPAs to prepare extension materials (IEC) in selected subject areas.
- In collaboration with Extension Workers, oversee the development of Demonstration Plots, researching, developing, and promoting farming practices or products that enhance farm productivity;
- Visit farms to collect seed, plant, and soil samples and testing samples for nutritional deficiencies, diseases, or other changes;
- Identify, procure and distribute input supplies and locally available equipment for agricultural related activities.
- Monitor the procurement/ distribution of inputs, materials and equipment required for the establishment of natural resource management based activities.
- Assist beneficiaries, groups and communities in the identification and preparation of micro-projects proposals and draw contracts based upon agreements concerning the target beneficiaries, type of activities, mode of operation (schedule, inputs, incentives, payment calendar, etc.) and quality standards.
- Prepare workplans, periodic progress reports as and when required.

Qualifications and experience:

The minimum of a tertiary degree in agriculture or a closely related field with at least five years field experience. He/ she should have appropriate technical skills and experience in the field of natural resource management. He/ she should have should also have a proven background in training and skills transfer preferably within a rural development context. He/ she must be keen to work in a multi sectoral team and be committed to the project's poverty alleviation GOALS and its demand driven approaches. Experience in implementing Farmer Field School methodologies.

Duty station and duration:

Duty station – District Offices.

Duration of services – 72 person months. Initially, the contract will be assigned for a period of twelve (12) months and its extension will be based upon performance evaluation.

Agro-enterprise Development Specialist/ Youth Expert

Scope of work

Under the overall guidance of the Project Director the Agro-enterprise Development Specialist will:

- Prepare guidelines for the implementation of micro-projects related to farm enterprise diversification.
- Participate in planning exercises, contributing to the planning process on issues related to socio-economic aspects with special focus on livelihoods/ market appraisals.
- Identify suitable income generating opportunities for groups and individuals.
- Prepare feasibility and market studies and surveys where and when required for the development of income generating activities.
- Assist newly formed groups to find suitable outlets for produce and facilitate in arranging for the sale of their produce.
- Identify and strengthen backward and forward linkages with individual producers, entrepreneurs and private sector outlets for improved marketing, procurement of inputs, sub-contracting, training and extension.
- Provide leadership in carrying out needs assessments of the capacity of extension workers in enterprise development and marketing.
- Identify training needs and design training programmes for project beneficiaries and field staff in aspects of farm business management.
- Develop training materials in agro-enterprise development and marketing for front line extension staff in collaboration (together with the Core Team of Trainers) and monitor the training and extension programme for extension workers and lead farmers.
- Organize and deliver a training programme for agro-enterprise promoters on data collection, compilation and analysis.
- Prepare training and extension material on subjects relating to farm business management and marketing.
- Train target beneficiaries management aspects of group organization and group marketing
- Train farmers in farm business management and marketing.
- Make periodic on-site visits to the districts and sites where the project is operating to provide back up support, coach and mentor staff and gain first-hand appreciation of the achievements and challenges.
- Design and implement simple systems of record keeping and data collection for farm enterprise diagnosis.
- Prepare monthly and quarterly monitoring of achievements, beneficiary profiles, and project status reports and activity impact assessments on an ad hoc basis when required.
- Arrange and organise inter-group visits both within and outside the project area.

Qualifications

Graduate degree in agricultural economics with specialization in business management and/ or marketing with at least seven years of practical experience in designing and delivering agro-enterprise development training programmes. Additionally, the consultant should possess:

- A degree from a well-recognised and reputable university or institute of technology.
- At least seven years practical experience in enterprise development.
- Fluency in the English language.

Duty Station and Duration:

Colombo with field visits as may be required. Duration of services – Project Duration

Agro-enterprise Promoters (AEP)

Scope of work

Under the direct supervision the Agro-enterprise Specialist, the AEPs will be directly responsible for the planning and implementation of income generating opportunities that add value to the priority value chains. Specifically, the AEP will be expected to perform the following tasks:

- Facilitate and support producers, producer organisations and value chain enterprises to develop micro-project proposals and investment/business plans for accessing grants and loans;
- Facilitate and support community facilitators for timely collection and assessment of business proposals / plans from technical, business, management, financial and inclusion perspective;
- Facilitate and support producer organisations, farmers groups, small agro-enterprises and agri-business to meet market requirements and strengthen technical, financial and business service support;
- Assist the communities/ groups/ producer organizations in designing a marketing strategy for beneficiaries, and assist them in undertaking its implementation.
- Facilitate the organization of periodic multi-stakeholder platform meetings at ASC level with amongst others, traders, transporters, marketing intermediaries, wholesale and commission agents and develop a programme to overcome systemic problems.
- Broker “win-win” and trust based business or service relationships among value chain stakeholders and contribute to improving the business enabling environment;
- Contribute to the knowledge development in the relevant commodities by undertaking case studies and document and promote learning in activities/investment following the knowledge agenda;
- Coordinate with other members of the team and mentor community facilitators and service providers in agro-enterprise promotion.
- Provide strategic support to community facilitators for inclusion of poorer individuals and households in developing respective investment proposals.
- Contribute to regular updating of results chain and implications for inclusion by different household and demographic profiles.
- Identify bottlenecks specific to poorer individuals and households and youth and explore technical resolution options.
- Explore options for providing embedded services and extending linkages between service providers and households.
- Undertake any other duties as requested by the Project Director and Agro-enterprise Development Specialist.

Qualifications and experience:

- Bachelor’s degree in Business Administration, Agribusiness Development, or relevant subjects.
- At least 3 years’ relevant experience in inclusive value chain development in particular agriculture markets, preferably working experience with private sector
- Sound experience in private sector led business development, service provision and supply chain development;
- Knowledge and experience in building capacity of stakeholders and facilitation of multi-stakeholder consultation workshops and training.
- Experiences that demonstrate creativeness, innovativeness and entrepreneurial skills;
- Excellent spoken and written English.
- Good interpersonal skills and capacity to work effectively as part of a team.

Preference given to:

- Experience in agro-enterprise development, agricultural value chains and market development.

Duty station and duration

Assigned district offices with extensive field travel to project sites. 72 months (12 months initially with possibility for extension based on performance)

Farm Business School Capacity Development Expert

Scope of Work

Under the general supervision of the Project Director and in close collaboration with the Agro-enterprise Development Specialist, the Farm Business Capacity Development Expert will select and train a Core Team of Trainers and front line extension workers in farm business management and marketing, assist in developing training materials and train other government staff at district level. Specifically, the expert will be expected to perform the following tasks:

- Prepare an FBS capacity building program for AI and ARPA staff and submit this to the Agro-enterprise Specialist and Project Director for approval to implement.
- Adapt the FAO FBS materials adding additional modules to respond to the dry zone conditions and needs
- Select and train a team of Core Trainers from amongst project and government field staff.
- Organise and deliver a 10-day training programme for the Core Team of Trainers
- Together with the Core Team of Trainers translate and adapt the training content to field conditions
- Provide operational guidance to FBS facilitators on setting up the FBS programme in their local area
- Provide guidance and backstopping support to the Core Team of Trainers in conducting the FBS training for front line FBS extension facilitators
- Monitor the FBS training and extension programme for extension workers and lead farmers.
- Together with the Agro-enterprise Specialist deliver a training programme for agribusiness subject matter specialists at provincial and district level in farm business management and marketing.
- Make periodic on-site visits to the districts and ASC sites where the project is operating to provide coaching and mentoring support to FBS facilitators and gain a first-hand appreciation of the achievements and challenges.

Qualifications

Graduate degree in agricultural economics with specialization in farm business management and/ or marketing with at least seven years of practical experience in designing and delivering farm business management related training programmes. The candidate should have experience and skills in preparing training materials and organising and delivering training programmes.

Duty Station and Duration: Colombo with frequent visits to the project area.

Duration of services – 39 person months.

Value Chain and Marketing Specialist

Scope of work

The Value Chain and Marketing Specialist will report directly to the Project Director and work collaboratively with other PMU technical staff and district personnel. She/he will have the following main responsibilities:

- Set criteria for the selection of priority value chains and conduct in-depth value chain analyses covering the following:
 - ✓ Appraise the current and potential local and national demand for agricultural produce and market structures.
 - ✓ Assess the organizational and managerial capacity of community members to plan and implement identified opportunities.
 - ✓ Assess the concentration of farm households for the potential crops and livestock products and delineate their spatial boundaries.
 - ✓ Differentiate the rural community based on socio-economic factors and estimate the potential household beneficiaries stratified according to the main commercial products.
 - ✓ Identify target communities/ villages/ groups and areas for concentration of project resources during implementation.
 - ✓ Assess the constraints and opportunities impacting on the value chain and propose ways of overcoming them.
 - ✓ Assess the scope and capacity of service providers within the project area to provide marketing, credit, input supply and extension services to generate income.
 - ✓ Propose practical upgrading strategies and actions with estimates of impact at farm household level.
- Assess government policies, ongoing and proposed programs for development of agribusiness, especially for identification of opportunities for private sector investments, and design of agribusiness support services
- From the value chain bottlenecks and constraints identified, provide technical guidance and capacity building services to make corrections for improvement;
- Undertake market analysis for priority value chains and proper costing of value chain infrastructure
- Prepare detailed market development plans for selected crops in the hot spot areas;
- Facilitate, oversee and guide the implementation of Value Chain activities from farm to end markets;
- Promote Producers Organizations (POs) for agricultural value chain interventions, market development and related downstream activities;
- In collaboration with farmer organisations, maintain regular contact with end buyers and monitor market development and opportunities;
- Provide guidance/training on value chain activities to assist extension and technical support programs for farmers, women and youth;
- Conduct feasibility studies for value chain interventions for selected crops and livestock products
- Assist farmer groups and associations in the preparation of sub and micro-project proposals incorporating value chain development and oversee their resultant activities and performance;
- Other tasks that may be assigned by the PMU or Area Coordinators.

Qualifications and Experience

- A Master's degree in agricultural economics, agribusiness, marketing, business administration, or related discipline;
- Good understanding of agribusiness value chains and knowledge of agricultural market behavior
- Extensive knowledge of contemporary issues in production and value chain systems in the agricultural sector in Sri Lanka;

- A minimum of 2 years of experience working with agri-business enterprises or Producers' Companies.
- A minimum of seven years at a senior level in a relevant public sector, private sector or NGO, with proven skills in the management and coordination of value chain initiatives and programmes within the agricultural sector;
- Computer literacy is a prerequisite, as is a very good command of spoken and written English;
- Fully aware of and alert to the crosscutting issues of gender, youth, and poverty targeting.
- Fluency in English and a good command over Sinhalese and Tamil.

Duty Station and Duration: Colombo with frequent visits to the project area. 24 months duration.

Social Inclusion and Institutions Specialist

Scope of work:

Community development and empowerment in SARP will be led by the Social Inclusion and Institutions Specialist, who will provide technical and mentoring support to the Social Inclusion and Gender Facilitators and local community development service providers. The Social Inclusion and Institutions Specialist will work under the general guidance of the Project Manager and in close collaboration with the Department of Agrarian Development - ARPAs.

Specific duties of the Social Inclusion and Institutions Specialist include but are not limited to the following:

- Identify, recruit, train and mentor the Social Inclusion and Gender Facilitators responsible for inclusive social mobilization and community development.
- Review the proposed social mobilization process set out in the Project Implementation Manual and make modifications if needed in line with the local conditions in the field.
- Set criteria and guidelines for the identification and recruitment of the cadre of Community Facilitators (CFs) – volunteer household mentors
- Prepare guidelines and training materials, to be applied by the national officers, in social inclusion, community mobilization and household targeting and mentoring. The materials should cover processes for sensitization, community entry, situation analysis, social and institutional mapping and vulnerability assessment. .
- Take responsibility for overseeing the identification, selection and contracting of NGO service providers to support the community development and household livelihoods development activities.
- Provide guidance and technical support to DAD and DOA extension staff and implementing partners to ensure that correct targeting is done.
- Oversee the identification, selection and training of CFs and provide support to the ARPA field staff and community leaders.
- Provide guidance in the processes of community organization, including establishment of Community Development Fora, establishment of Farmer/ Producer Organizations and self-help groups at community level.
- Guide the Monitoring and Evaluation team to ensure that social safeguards are met
- Conduct awareness and training programmes with project and government counterpart staff on social safeguards
- Together with the Natural Resource Management and Environmental Safeguards Specialist submit reports that address the Environmental Social Management Framework (ESMF) issues to the Project Director.

Qualifications and experience:

The Social Inclusion and Institutions Specialist should have a higher-level university degree in social science / or a field related to rural community development. A minimum of 7 years of experience in community development and applied gender mainstreaming at project / or institutional level. Experience with poverty, gender and youth targeting in agriculture-based rural development projects. Mastery of participatory tools and approaches.

Other qualifications and experience should include:

- Rural development project management and implementation
- Computer literate
- Strong inter-personal skills
- Strong analytical skills

- Fluency in English and Sinhala and preferably Tamil

Duty station and duration

Colombo with frequent travel to the project sites.

Duration of services – 72 person months. Initially, the contract will be assigned for a period of twelve (12) months and its extension will be based upon performance evaluation.

Social Inclusion and Gender Facilitators

Scope of work

Under the overall guidance of the Project Coordinators and supervision and support of the Community Development Specialist the Social Inclusion and Gender Facilitators will:

- Take the lead in the social mobilization and community development processes in their respective local areas.
- Draw up guidelines and criteria for the selection of the cadres of community facilitators (CFs) to be employed by the project.
- Provide on the job training and mentoring support to community facilitators and community and group representatives nominated by the community/ group in community mobilisation and organization.
- Review the availability and potential of national service providers to be sub-contracted to provide support in community mobilization and livelihoods development.
- Assist the Social Inclusion and Institutions Expert to develop terms of reference for national service providers in areas related to social mobilisation and gender related issues.
- Contribute in participatory planning covering socio-economic aspects.
- Identify training needs and design training programmes for project beneficiaries and field staff in aspects social development.
- Facilitate the formation, organization and training of community members to form Community Development Fora, Farmer Field Schools and user groups for community and group activities.
- Regularly monitor and provide technical support to community facilitators in group formation and development.
- Monitor the implementation of the services and the outcomes achieved by the local service providers with regard to farmer group composition, social inclusiveness, internal cohesion and reciprocal trust
- Assist in providing data to meet the projects monitoring and evaluation requirements as and when needed.
- Provide technical advice to the Project Director and Area Coordinators regarding social mobilisation and gender policies and activities with a view to ensuring their appropriateness and viability.
- Facilitate linkages between communities and implementation partners both within or external to the project.

Qualifications and experience:

A tertiary qualification in a discipline in a discipline relevant to social or rural development. Proven experience in participatory rural poverty alleviation activities would be an advantage. Training or experience in rural development or community development with emphasis on social and group management aspects. At least 5 years of experience in the implementation of rural and agricultural development projects and in particular the organization and development of community and user groups and community based organization,

Duty station and duration

In the District sub-offices with frequent travel to the project sites. 72 months (12 person months for the first year with extension depending on performance).

Rural Finance Specialist

Scope of work

Under the direct supervision and responsibility of the SARP Project Director and in close collaboration with the Departments of Agriculture and Agrarian Development, the consultant will develop a training programme in rural finance to strengthen the capacity of the Agrarian Banks. In particular, the consultant will:

- Set criteria to assess the performance of the Agrarian Banks and coordinate the performance assessment through contracting a consultant service provider in order to assess the capacity of the bank and their staff;
- Select Agrarian Banks for capacity building activities and conduct a needs assessment and prepare training materials to develop local capacity;
- Discuss design and layout of all training materials with project technical staff;
- together with other project staff, organize and hold two five-day training courses on aspects of rural financial management using the draft materials and amend the materials in light of comments received;

Qualifications:

Advanced degree in Banking, Rural Finance with experience working with rural banks. Fluency in written English. Extensive experience of agricultural finance in Sri Lanka, the preparation of training materials and conducting training courses.

Duty station: Colombo and selected districts.

Duration: 16 months

Post-harvest Management and Value Addition Specialist

Scope of work

Under the overall supervision of the budget holder and the technical supervision of the TSS (Technical Support Services) Senior Agribusiness and Enterprise Development Officer (LTO), Regional Office for Asia and the Pacific (RAP), and in collaboration with the National Team Leader and National Project Coordinator the consultant will carry out the following duties:

- Analyse the harvest and post-harvest handling system of the chili supply chains including costs and benefits of applying selected technologies;
- Recommend the introduction of improved post-harvest and value adding technologies;
- Assess the adequacy of on-farm and village level storage structures and recommend criteria for the design of improved structures both at farm and village level;
- Identify suitable packaging materials for introduction through practical training programmes for service providers and farmers groups.
- Advise on technologies required to improve efficiency, reduce costs and losses in the chili value chain
- In collaboration with the National Training Consultant and other project staff, identify target groups, and other relevant stakeholders involved in agricultural commodity value chains for chili in order to assess the need for support on post-harvest handling, storage and quality control;
- Prepare training materials in post-harvest handling, packaging, storage and primary processing of fresh and dry chili for service providers, SMEs, traders and farmers.
- Organise and deliver a programme of trainings on post-harvest handling procedures and value addition of chili for service providers, farmer group leaders, traders and SMEs;
- Provide on-site technical support for SARP beneficiary groups on;
 - ✓ basic food microbiology and quality assessments based on physical parameters
 - ✓ understanding and compliance with relevant food standards
 - ✓ various methods of processing and preservation of grains, fruits and vegetables, as applicable
 - ✓ packaging and storage techniques
 - ✓ quality assessments of raw materials, packaging materials and finished products
 - ✓ operation and maintenance of processing machineries and equipment
 - ✓ understanding and implementation of GAP
- Assess the need for and feasibility of introducing equipment to ensure consistent quality upgrading of chilli, specifying the technical specifications and recommending procurement;
- Supervise the construction and installation of appropriate storage structures at the agreed site(s) and provide training on their proper use, maintenance, management, etc.;
- Conduct periodic farm visits and monitor the use of on-farm and village level storage structures.
- Present a summary of findings on project accomplishment in the area of post-harvest management, packaging and value addition
- Other tasks that may be assigned by the PMU specialists and Area Coordinators

Qualifications and Experience

- The Food Processing Specialist will have a Master's degree in food science or a related field;
- At least seven years of working experience, on post-harvest technology and management of horticultural crops.
- Her/his background must include thorough training in food processing and engineering specifically related to fruits and/or vegetables and/or grains, food chemistry and plant sciences and experience working in the commercial food processing industry;
- Experience with chilli processing including threshing, washing, decortication, cleaning, grading, heat treatment, quality testing and Hazard Analysis and Critical Control Point (HACCP) controls, etc.;
- Experience with development of value-added chilli products;
- Extensive knowledge of contemporary issues in food processing systems within the agricultural sector;

- Computer literacy is a prerequisite, as is a very good command of spoken and written English and Sinhala;
- Fully aware of and alert to the crosscutting issues of gender, youth, and poverty targeting.

Duty Station and Duration:

Colombo with frequent travel to the project sites.

Duration of services – 21 person months.

Nutrition Specialist

Scope of work

- Select a team of Core Trainers to assist in preparing localised training materials on the relevance of improved nutrition to climate resilient productivity and livelihoods diversification.
- Prepare and deliver a Training of Trainers programme for the Core Team of Trainers on nutrition and Behaviour Change Communication as relevant to the dry zone conditions of the country.
- Provide back-up support to the Core Team of Trainers, extension workers and service providers and community facilitators as the field level training programme is rolled out.
- Prepare a specialised training programme on nutrition for application within the Farmer Field School.
- Design Nutrition Intervention Packages for the project area in close collaboration with the Value Chain Specialist and Extension staff with feedback from District offices
- Deliver a short training on nutrition for the cadre of community facilitators to familiarize them with content and strategies for implementing the nutrition packages in their districts
- Provide technical assistance and guidance to field level staff in the implementation of nutrition sensitive value chains to identify interventions at different stages of the Value Chain and nutritional challenges in each project district.
- Support and monitor the mainstreaming of nutrition in the project through field visits, providing course correction.
- Document lessons learnt and achievements in mainstreaming nutrition in the project.

Qualification and experience

- Postgraduate degree (or equivalent) in food security management, nutrition, public health or related discipline.
- Understanding of economic, cultural and gender dynamics that affect nutrition
- At least 6-7 years relevant professional experience
- Good writing skills in English

Duty Station and Duration: Colombo and target districts - 3 months (when actually employed)

APPENDIX 4

Financial Management Arrangements to the PIM

(Draft Version 1.0)

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Acronyms

AWPB= Annual Work Plan and Budget

CB = Central Bank

FA= Financing Agreement

FC = FM

IFAD = International Fund for Agricultural development

LPA = Lead project Agency

SDR = Special

MFI = Microfinance Institutions

MOA = Ministry of Agriculture

MOF = Ministry of Finance

PD= PD

PIM=Project Implementation Manual

PMU = Project Implementation Unit

WA = Withdrawal Application

1.0 Introduction

The following manual outlines the financial procedures to be followed by the Project Management Unit () during the following stages of the project cycle: i) preparation and planning, ii) implementation and iii) completion of the project. The manual aims to describe in detail the necessary steps to be undertaken by the relevant project staff and the Finance Manager (FM) (interchangeably identified as the Finance Controller - FC) in particular, when undertaking actions related to a) planning and budgeting, b) accounting, c) records management, d) internal controls, e) flow of funds, f) withdrawal of financing proceeds, g) processing of payments, h) financial reporting, i) fixed asset management, j) audit arrangements, k) supervision by IFAD and l) project completion and loan closure.

This manual is to be considered a living document and it is to be reviewed and updated at least once a year. It is to be read together with the Project Implementation Manual, the Procurement Manual, and the HR-manual. It is also important to note this manual makes references to the following IFAD key documents: Financing Agreement, IFAD General Conditions, Letter to the Borrower, IFAD Guidelines on Project Audits, as well as the Disbursement Handbook. Therefore, it is fundamental that the project staff, especially the PD and the FM master these documents before the implementation of the project begins. The generic IFAD documents listed above are available at <http://www.ifad.org/pub/basic/index.htm>.

1.1 The Project

The International Fund for Agricultural development (IFAD) has agreed to provide the Borrower on the terms and conditions set forth in the Financing Agreement, the amount of approximately USD 42.7 million to contribute to Sri Lanka's smallholder poverty reduction and food security in the Dry Zone region. Districts and divisions will be targeted on the basis of criteria that will include water scarcity, vulnerability of the people, and rainfall distribution. These provinces and districts will also include areas where possible partnerships with WFP, UNDP, ADB and AFD can occur. The selection of districts will be further examined during the detailed design stage.

The development objective is to build resilience and market participation of 40,000 rural smallholder households in the project area. The Project will consist of the following components/Sub-components as outlined in schedule 1 of the financing agreement:

Component 1: Capacity Building for Climate Resilience and Inclusive Value Chains (USD 10.5 million)

Sub-component 1.1 Strengthening adaptive capacity of service providers and farmers to climate change

Sub-component 1.2 Strengthening capacity for inclusive value chain development

Component 2: Investments for Climate Resilience and Inclusive Value Chains (USD 58.3 million)

Sub-component 2.1 Investments for climate resilient production and infrastructure

Sub-component 2.2 Investment for inclusive value chain development

Component 3: Project Management and Coordination (US\$4.4 million)

The Recipient/Borrower and IFAD have agreed within the Financing agreement (FA) to allocate the financing to categories of eligible expenditures shown in the Schedule 2 of the FA. The schedule 2 also specifies the percentages of such eligible expenditures to be financed by the Financing: 100% net of tax.

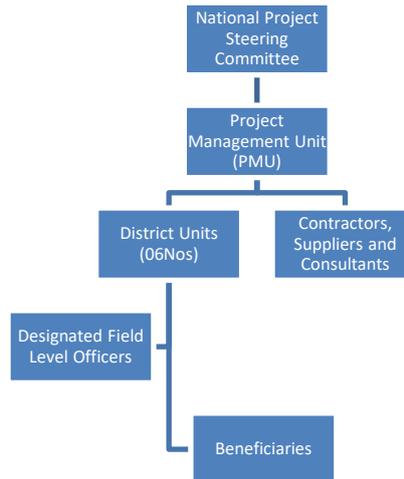
Category	IFAD loan (USD 000)	IFAD Grant (USD 000)	Total (USD 000)	Eligible expenditures (%) net of Tax
I. Civil Works	13,300	7000	14,000	100%
II. Equipment, Goods and vehicles	2,800		2,800	100%
III. Consulting services	10,400	3000	13,400	100%
IV Grants	7,900		7900	
V. Training and Workshops	4,700		4,700	100%
VI. Salaries	1,600		0	100%
VII. Operating costs	1,000		1,000	100%
Total	41,700	1,000	42,700	

(Table 1: Schedule 2 of the financing agreement - eligible expenditures by expenditure category)

In addition to IFAD financing the Project will also receive counterpart financing from the Government, equivalent to approximately USD 12.6 million. The counterpart financing will include xxxxx million in the form taxes and duties and USD xxxxx million in cash from the Government's budget. The project beneficiaries will also contribute approximately USD 13.2 million to the project.

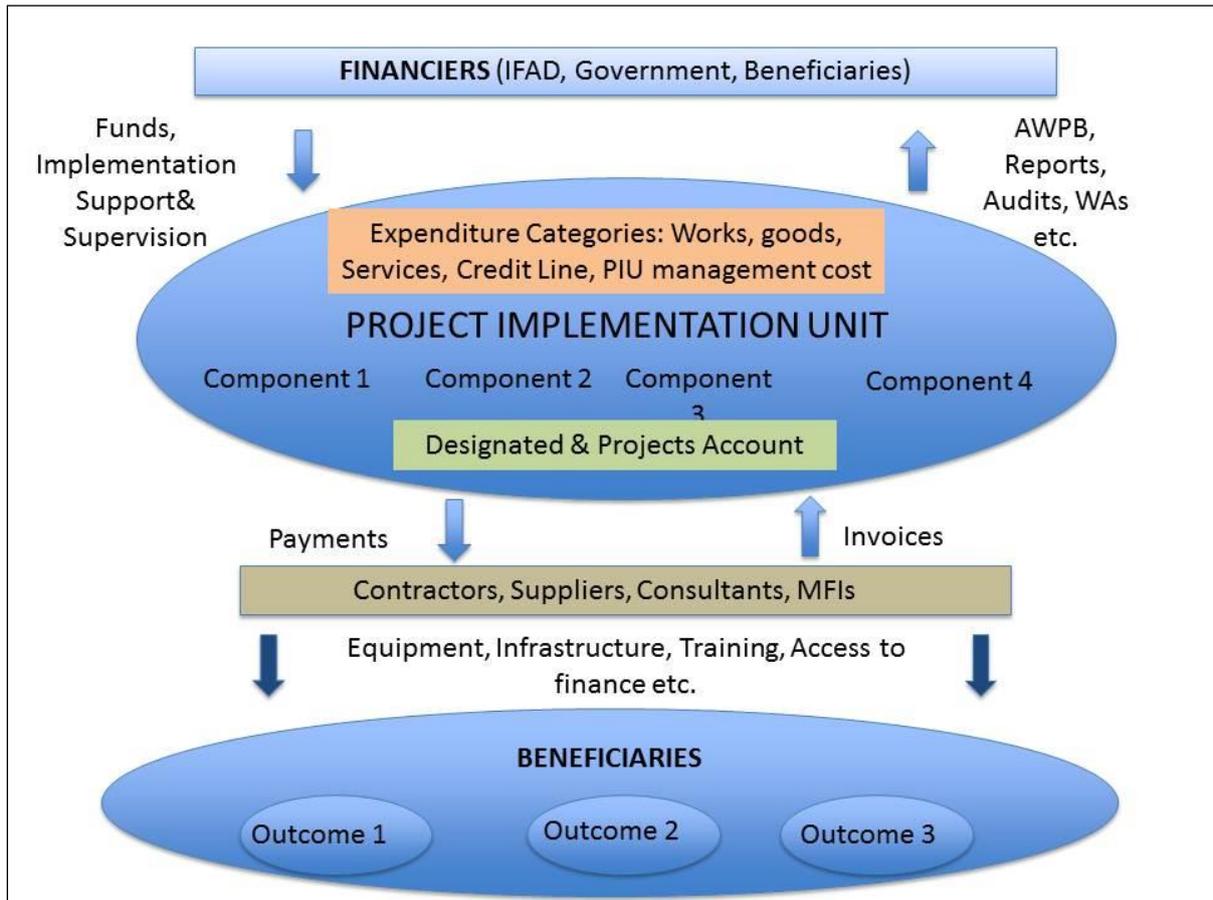
1.2 The Project Management Unit

The Project Management Unit (PMU) is responsible for implementing the project and its different components. That will be operating under the Presidential Secretariat of Sri Lanka (hereafter referred to as the Lead Project Agency – LPA). The PMU will be located in the facilities of the LPA in the capital with the exception of a small field office, located in the project area.



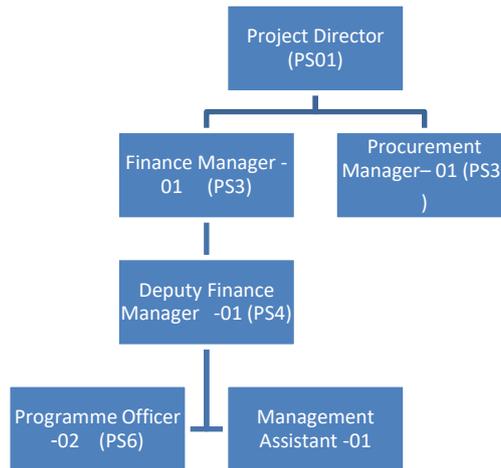
(Chart 1: organogram of the project implementation arrangements)

To implement the project and its components, the will receive funds from the financiers (IFAD, the government and beneficiaries), which will be channelled through a designated and project accounts to cover project expenditures, in accordance to the Annual Work Plan and Budget (AWPB) and the expenditure categories as per the schedule 2 of the FA.



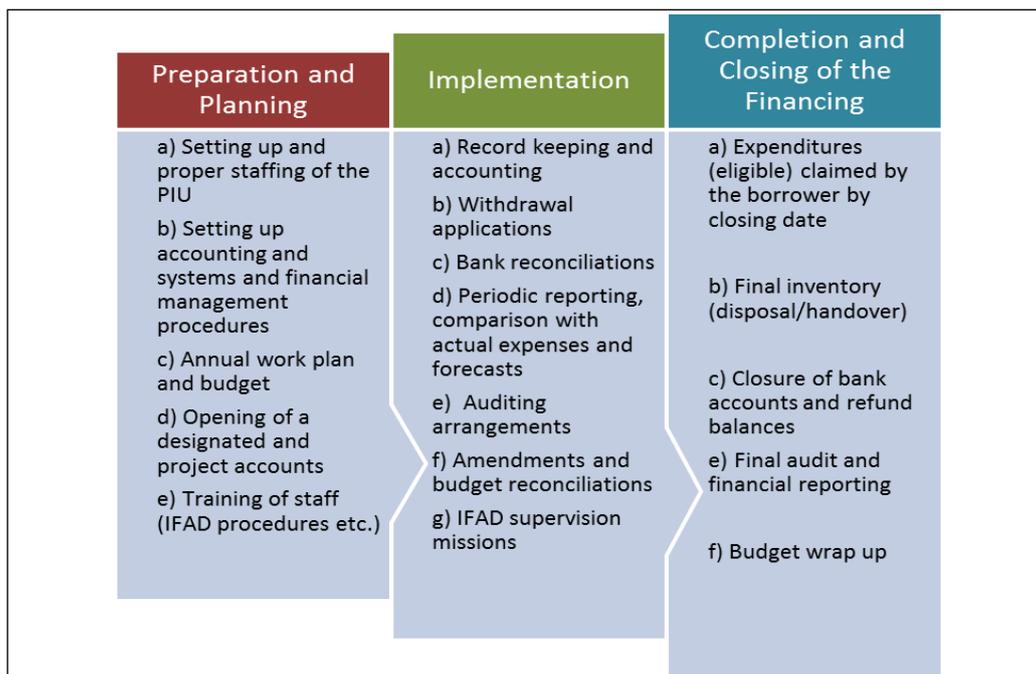
(Chart 2: The Financial operations environment of the PMU)

The Project and the will be managed by the PD (PD) who is responsible for setting up the PMU and the proper staffing of it. The project funds will be managed by the FM (FM) with support of Deputy FM (DFM) assisted by two Programme Officers (Finance) and a Documentation Officer under the direct supervision of the PD(PD).



(Chart 3: Organogram of the staff involved in financial operations)

In order to ensure that the financing proceeds are used for the intended purpose and as efficiently as possible, it is essential that the FM sets up and maintains adequate financial management arrangements in each stage of the project cycle: i) preparation and planning, ii) implementation as well as iii) completion and closing, as illustrated in the chart below.



(Chart 4: Financial management arrangements in the different stages of the project cycle)

Given the importance and complexity of managing the project, it is essential that SARP is staffed with qualified and motivated staff. The staff will be managed in accordance with the HR manual of the project. Equally it is important that the skills of staff are developed to meet the changing environment of the project. It is the FMs and the HR focal points responsibility to make sure the training needs are identified and that a staff development plan is included in the Annual Work Plan and Budget.



Sample Job descriptions for the PD, Financial Manager, Deputy FM, Programme Assistant (Finance), Documentation Officer are provided in annex 2. A sample staff development plan is provided in annex II: Table 6 of the AWPB.

1.3 Anticorruption policy

The management of the project funds shall be sufficiently rigorous to safeguard against Fraud and Corruption. Fraud and corruption include, but are not limited to:

- corrupt practice - offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party
- fraudulent practice - 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
- collusive practice - an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party
- coercive practice - 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

IFAD applies a zero-tolerance policy towards fraudulent, corrupt, collusive or coercive actions in projects financed through its loans and grants. 'Zero tolerance' means that IFAD will pursue all allegations falling under the scope of this policy and that appropriate sanctions will 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 www.ifad.org/governance/anticorruption/index.htm). The IFAD website also provides instructions on how to report any alleged wrongdoing to the Office of Audit and Oversight (<http://www.ifad.org/governance/anticorruption/how.htm>).



It is the PD's and the Financial Manager's responsibility to make sure that all staff including the financial department are aware of IFADs and the lead project agency's anticorruption policy and whistle blowing procedures.

2.0 Budgeting and Planning

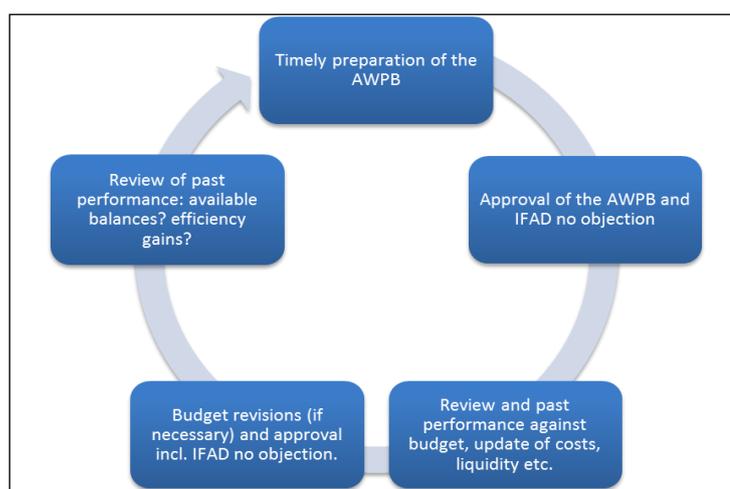
The PMU is responsible for developing an Annual Work Plan and Budget (AWPB). The AWPB is expected to contain several key elements such as:

- i) Introduction and brief background;
- ii) Strategic focus and outputs;
- iii) Major risks and mitigation actions;
- iv) Budget and Financing plan;
- v) Procurement plan;
- vi) Training and technical assistance schedule and,
- vii) PMU staff development plan

The budget and financing plan can be described as a detailed statement of the expected resources available to the project and the planned use of those resources for the upcoming project year. The AWPB and especially the budget and financing plan is an important tool for managing the financial performance of the project and to ensure sufficient cash flow.

The budgeting and planning process comprises of the following parts:

- Preparation of annual, semi-annual, quarterly and even monthly financial plans including procurement, receipts, expenditures and cash flows.
- Review of past performance against budgets and the procurement plan, to promote an understanding of the project cost base;
- Identification of potential efficiency savings; and
- Review of the main expenditure headings in light of the project implementation plan, procurement plan, and expected variations in cost e.g. pay increases, inflation and other anticipated changes.



(Chart 5: The project budget cycle)

2.1 Development of the AWPB

Before the beginning of each fiscal year for the project, the Financial Manager should in consultancy with other project staff and stakeholders, prepare the AWPB for the next year reflecting any updates to the project cost tables detailed in the project design. The budget and financing plan should be prepared and presented on a quarterly basis. The data on the number of activities to be implemented in the coming year and the estimates of the total funds needed to finance them should be presented by component and sub-component, by expenditure category as well as by financier. The estimates should be based on the project's (up to date) cost tables. In addition to the financial information described above, the budget should also take into account the physical outreach of the project (number of farmer's to be trained etc.).

When preparing the AWPB the following aspects should be taken into consideration:

- Consistency with other financial reports: It is practical to prepare the budget and financing plan in the same format as the periodic (financial) progress reports and the project financial statements of the project.
- Contingency provisions (physical and price) and allocation of funds from the unallocated expenditure category.
- Post implementation activities e.g. arrangements for after life of project, disposal of project assets (computers, vehicles etc.), future repair and maintenance.
- Availability for funds and arrangements for all audits.

After preparing the draft AWPB, the FM will send it to the PD and Steering Committee/LPA for review and clearance/approval before sending it to IFAD for no objection. In accordance with the FA, a draft

AWPB has to be submitted to IFAD no later than 60 days before the beginning of the relevant fiscal year of the project. If required the /LPA could propose adjustments in the AWPB during the relevant project year, which would become effective after IFAD' approval.

The AWPB must be accompanied by a procurement plan prepared by the Procurement Officer. The first Procurement plan should cover the first 18 months of the project lifecycle while the subsequent procurement plans should cover 12 months of the project lifecycle.



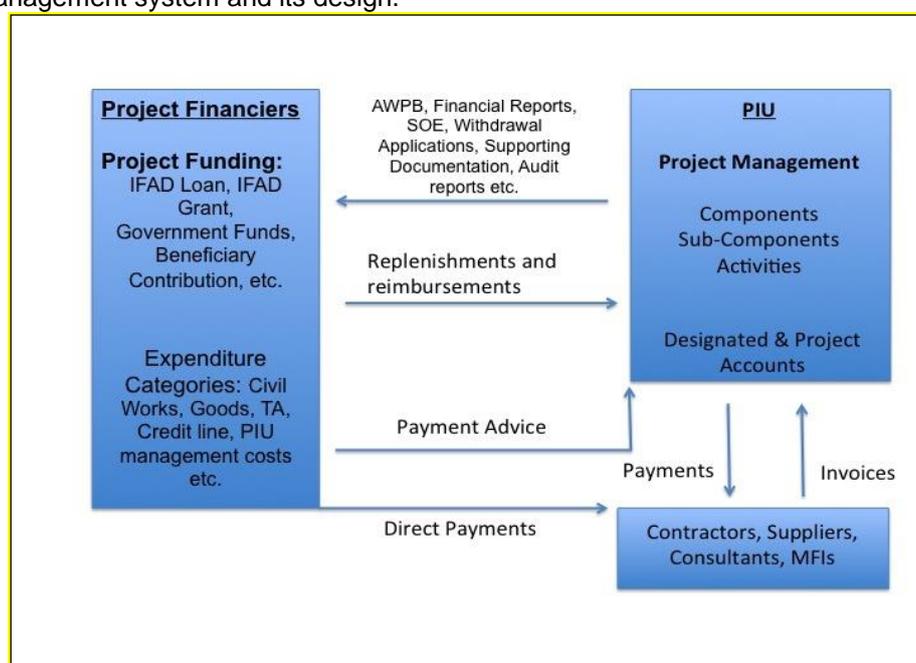
A sample of a budget and financing plan, procurement plan as well as a staff development plan is provided in Annex II.

2.2 Review of the AWPB

Every quarter, the FM should review the costs incurred during this time period. In case of differences between the planned and actual costs presented in the Annual Budget, the FM and the Programme Managers heading each component should collectively identify the reasons for those differences and detail them in the periodic Financial Reports presented to IFAD. In case of internal problems identified during the costs review, the FM and Programme Managers should take the necessary steps to eliminate them. Otherwise, the budget for the next quarters should be readjusted to reflect the difference between actual and planned figures.

3.0 Accounting system

The majority of project activities result in the receipt, commitment or expenditure of funds. The accounting system records, processes and organises this data in order to produce useful financial information in form of AWPB, Financial Reports, Withdrawal Applications, Financial Statements etc. needed by the Project Financiers (IFAD, Government, Beneficiaries) as well as the management. The accounting system should reflect the project's needs and be designed to provide the financial information required by all interested parties (PMU, LPA and IFAD). It should also fulfil all the legal and regulatory requirements of the borrower. The accounting system is a critical part of the project's financial management system and its design.



(Chart 6: The operating environment of the project accounting system)

The FM is responsible for the following key areas related to the accounting system of the project:

- Designing the accounting system of the project
- Selection and maintenance of an accounting software.
- Development of an accounting manual

3.1 Designing the project accounting system.

When designing the accounting system of the project the FM must undertake the following steps:

Step one: Identify the different kind of reports the system is expected to generate, based on the different stakeholders requirements. - What information and in what format needs to be produced by the PMU? As a minimum requirement the Accounting system will need to produce the following reports:

- Statement of cash receipts and payments (by category and by financier),
- Statement of cash receipts and payments (by component),
- Statement of comparative budget and actual amount by component,
- Statement of Special Account movements,
- Statement of Special Account Reconciliations,
- SOE-Withdrawal Application Statement.

Step two: List the transactions and activities, which the system must account for. As a minimum requirement the accounting system must include:

- a) Purchase orders, receipts, check books and other similar documents evidencing receipt, commitment or expenditure of funds.
- b) A journal for primary entry of all transactions, including adjustments, destined to be posted to the ledger.
- c) A petty cash book (PCB) for small cash expenditures below a certain low threshold. The credit side of the PCB should be analyzed into columns, one for each project component, The totals to be posted to ledger accounts monthly.
- d) A bank cash book (one for each source of financing). The credit side should also be analyzed into columns, one for each project component (like PCB). Total of these columns should be posted to their respective ledger accounts monthly.
- e) A ledger containing separate ledger accounts for each project component. The debit side of each ledger account should be analyzed into the expenditure categories defined in the IFAD Financing Agreement (Civil Works, Equipment, Goods and vehicles, Technical Assistance and Studies, Training and Workshops, Credit Line, PMU Management cost). The ledger accounts should be closed and trial balance prepared at the end of each month.
- f) Fixed asset register to record location, price and date of acquisition (or completion) of all buildings, vehicles, computers, printers, major equipment and furniture. There register should have a separate section for each type of fixed asset.

Step Three: Design the specific accounting books, including a chart of accounts and records to be maintained, the transactions to be recorded therein and the precise accounting entries on the occasion of each transaction.

Step Four: Incorporate the systemic accounting issues as agreed with IFAD and the government including the used accounting standards and valuation criteria. - In accordance with the project design document, all project accounts will be kept on a double entry system and the used accounting standards will be IPSAS Cash.

Step Five: Resolve accounting issues (if any) rising from the fact that the project is being implemented and expenditures are being incurred in different locations (HQ vs. field office). - The field office is to provide monthly reports and to HQ by electronically by using the internet connection or by hand carrying a USB-stick.

Step Six: Determine a tentative list of users and user rights for each staff member in line with their terms of reference in order to maintain a proper level of security.

Step Seven: In the light of steps 1-5 decide, select and procure the accounting software that is able to satisfy the needs of the project. The FM needs to have an answer to steps from 1 to 5 before approaching a software company.

Step Eight: Incorporate all decisions of the previous seven steps in an accounting manual. This manual will need to be reviewed and updated once a year.

3.2 The Selection of an Accounting Software

The accounting software of the Project is an important tool for collecting, analysing, storing, and disseminating information that is vital for decision making. In addition, it enhances transparency and accountability of the project activities, provides timely reports, helps detecting errors and shortfalls during project implementation and indicates necessary corrections. With the experience in NaDEP and SAPP Projects, SARP would continue with the same software

When choosing an accounting software the FM should ensure that the software is able to meet the following criteria:

- Reflect project needs and be designed to provide the minimum financial information required by all interested parties (PMU, LPA, IFAD) including the provision of accurate, timely, complete, reliable and consistent information and reports as well as fulfil the legal and regulatory requirements of MOF/MOA;
- The accounting software should be configured as a modular solution and the different modules should be suitably integrated. The software should contain the following modules: i) general ledger module, ii) accounting module incl. petty cash, iii) budget module, iv) fixed asset module, v) contract management and procurement management module. - The integration of budgeting module accounting module/system is important to enable comparison of the actual performance with budgets/targets (quarterly, annual, and cumulative for the Project).
- Ability to account under different bases of accounting (cash, modified accrual, accrual)
- Use the double-entry system of transactions;
- Have multi-currency and multi-lingual capabilities and reporting;
- Allow for multi-period and multi-user processing and reports;
- Able to output financial reports in a variety of formats including hard copy printouts, as an excel spread sheet and as an HTML file;
- Provide adequate documentation and complete audit trail to facilitate audit.
- Have security settings and different access levels for different users
- Be user friendly. Technical support, training and installation & configuration should be offered by the supplier and be easily accessible during project implementation.
- For procurement needs, the accounting software should capture and report on the following: Prior review thresholds; Procurement methods thresholds; Procurement reference; Activity description; Component (as per the description schedule of the Loan); Category (as per disbursement schedule); Estimated amount; Procurement method used; Prior/Post review; Date of issuance of advertisement; Bank no objection on bidding documents (Goods/works) or RFP (consultants); Date of bid (Goods/works) or RFP (consultants) submission; Bid opening date (goods/works) or Financial Proposal opening date(consultants); Bank No objection to evaluation report; Bank no objection to contract draft; Date of submission to the Fund of the Copy of signed contract; Contract related data (date of signature, date of completion, contract amount, contract amendments and payments terms).

In the installation phase of the accounting system, FM will need to determine the following:

- access level and different user rights e.g. (i) active use for inputting/editing of data for different modules; (ii) read-only use; or (iii) no-access.
- Information storage and back-up
- Design of the chart of accounts and the detailed list ledger accounts required to account for transactions under the project.
- Design the detailed formats of various accounting books, records, and statements (e.g., cash and bank books, journals, various ledgers, trial balance, voucher formats, etc.).



A sample of a TORs for an accounting software is provided in annex IV

3.3 Accounting Manual

The Accounting Manual is an integral part of the financial management manual of the project. It is to be prepared by the FM and the DFM and will become effective after it has been approved by the Steering Committee of the project. The accounting manual is to be reviewed and updated once a year.

When developing the accounting manual, it is essential that the FM and the DFM are familiar with the following:

- National legislation and IFAD Financing agreement including the reporting requirements
- International Public Sector Accounting Standards (IPAS)- cash basis
- The features and user manual of the procured accounting software.

The accounting manual should as a minimum address the following subtopics:

Used accounting standards:

International Public Sector Accounting Standards (IPAS)- cash basis

Chart of Accounts

The Chart of Accounts is used to: (i) capture the financial data under the appropriate headings and (ii) classify and group financial data for the various financial reports. The structure of the Chart of Accounts caters data to be captured by: (i) the Project components, sub-components, activities (ii) expenditure items under each component and sub-component, (iii) The IFAD expenditures categories for the Project, and (iv) sources of funding. Expenditure categories may also be recorded by using “cost centre” functionality which is commonly available in accounting software’s.

The structure of the Chart of Accounts should conform closely to the project cost tables (as presented in the project design report) to enable comparison of actual project costs during implementation with those estimated during the project preparation.



A sample of a chart of account is provided in annex III

Budgeting and budgetary control

The project budget will be recorded in the budget module of the accounting software. Budgeting is discussed more in detail in section 2 of this manual.

Recording and processing of transactions

Whenever a transaction takes place under the Project, it should be recorded and processed using the accounting software that meets the project’s specific accounting requirements. Processing of payments is discussed in detail in section 8 of this manual.

The recording of transactions under the Project follows the Cash basis of accounting with allows for the recognition of cash inflows in the period they are received and the reporting of expenses in the period those expenditures are paid.

Individual records of transactions are treated as source documents. For the project accounting

purposes, the following source documents are considered:

- Purchase orders/ Contracts
- Purchase invoices
- Service invoices
- Consultants/engineers' reports

All transactions occurred should be registered in the accounting software in accordance with the date of occurrence and under the form of journals. The journal should contain sufficient and detailed information about the date of the transaction, its type, amount and reference to the source document. All the transactions should be entered on the accounting software using the principle of double entry, which means that each transaction should be recorded twice, once on the debit side of the transaction and once on the credit side of the transaction. The accounting software will automatically process those transactions and post them to the ledger accounts, which are accounts where all transactions of similar type are recorded. This processing of transactions also allows for the production of timely reports.

The DFM should reconcile the project accounts on a monthly basis. In case certain adjustments of entries in the accounting process have to be made, the DFM should produce a memorandum in which the reasons and the way in which the adjustment has been made is explained. The memorandum will be authorized by the PD after being cleared by the FM.

Petty cash management.

The DFM will manage and periodically reconcile the petty cash account. The petty cash account is discussed more in detail in the section 6.2 of this manual.

Bank account reconciliations

The DFM will need to perform monthly bank account reconciliations between the different accounts. The reconciliation is discussed more in detail in section 6.3 of this manual.

Withdrawal of funds

The DFM will be responsible for preparing withdrawal applications to be submitted to IFAD. The necessary procedures are explained in section 7 of this manual and in the IFAD disbursement Handbook.

Financial reporting:

The DFM is not only in charge for recording the financial transactions on a daily basis but also for summing up the expenditures made under each component and sub-component and for each activity under those and posting the data on accounting/financial reports on a periodic basis during the reporting periods specified in the Letter to the Borrower and in the Financing Agreement. The DFM will also need to keep track and report on the availability of project funds in the different accounts (Designated accounts, project accounts and petty cash) as well as the commitments made by the PMU. The produced reports will be approved by the PD after being cleared by the FM. The different financial reports are discussed more in detail in section 9 of this manual.

Fixed asset register

The DFM needs to maintain a fixed asset register recording all fixed assets in the fixed asset module of the accounting software. Fixed asset management is discussed more in detail in section 8 of this manual.

Period for which records are to be kept

The DFM needs to file the original records in an organised way to be maintained by the PMU/LPA for a minimum 10 years after the project completion. Record management is discussed more in detail in section 4 of this manual.

Access Levels

The access to the accounting system should be governed by the privileged metrics defining the levels of access by different users: (i) active use for inputting/editing of data; (ii) read-only use; or (iii) no-access. This would allow a separated and controlled access to the Accounting module (i.e. Journal recording, posting to the General Ledger). Each accounting transaction records the user's ID, preventing unauthorized access to the system and an adequate level of protection against the input of false data or the destruction of the records. At the same time, the data-sharing nature of the system involves a strict coordination and active data exchange among its various users (primarily the PMU). In this respect the system should ensure the reliability in information storage and fast data processing.

Revision of accounting manual

The accounting manual is to be reviewed and updated once a year.

4.0 Records Management

Financial records must be created and preserved for every financial transaction performed under the project. Financial records are defined as any financial information including written, computer data, internal forms, e-mails, or any other form of storage information originated from the PMU such as internal forms, journal vouchers financial reports (Monthly & quarterly) copies of checks and withdrawal applications etc. or received by the PMU such as supplier invoices and receipts, bank statements, IFAD documents etc. within the framework of the project's official activities. The objective of this procedure is to preserve the financial records and files for further official use by the LPA, for financial audit and for review by the Fund during the supervision missions. The projects financial records are the property of the LPA/MoF and cannot be removed or destroyed.



It is important to note that in accordance with the IFAD general conditions, the recipient/borrower has to maintain the original records for a minimum 10 years after the project completion.

4.1 Filing of the financial records

The DFM is responsible for filing the financial records created or received by the project. To fulfil this responsibility, the DFM must maintain chronological files in which the financial documents have to be filed for future reference. Filing should be performed daily to prevent the accumulation of papers and to ensure that the financial records are maintained in an up-to-date manner at all times. Each financial record should be filed under its code in a chronological order, with a sequential number assigned to every document. Any kind of additions or amendments to the financial document should be filed in a chronological order immediately following the principal document.

4.2 Storage of financial records

The financial records of the project should be stored in the PMU office, at the LPA for a minimum 10 years after the project completion. The data should be stored within the accounting software, as paper copies, as scanned copies and as computer disc copies. The Financial Officer should allocate an appropriate storage area for the financial records in paper format and maintain them in locked cabinets, safe from water and fire, to which access is controlled and limited. The Financial Officer should also classify the financial records as "Confidential", or "General". All important correspondences should be filed.

4.3 Archiving of financial records

In order to prevent an unnecessary pile-up of files in a limited office space, the FM should make sure that the financial records are archived on a regularly basis. Once a year, the FM should make sure that the completed or inactive files are archived in a manner that will allow for easy retrieval of the files in case they are required at some future date.

4.4 Back-up procedures

To avoid the loss or damage of financial data, the information should be kept in two copies: i) at the computer server of the PMU/LPA and ii) in the locked cabinets of the PMU office. Only the PD, the FM and the DFM are allowed to access the financial records without authorization. The access of external persons is prohibited except for the auditors & IFAD staff.

5.0 Internal controls

Designing, Installing, and maintaining a system of internal financial control is an integral part of the Financial management function. Internal financial controls aim to ensure) efficiency, ii) reliability, of financial reports and iii) compliance with applicable laws and regulations including the conditions set forth in the financing agreement. The key features of the internal control system are summarised below:

- Segregation of duties;
- Authorization;
- Reconciliations and checks;

- Restricted access; and
- Monitoring and review.

5.1 Segregation of duties

An important element in any control system is the separation of those duties which would, if combined, enable one individual to record and process a complete transaction. It is the FM's responsibility to ensure that the following duties are segregated under the project: preparation, authorisation, execution, custody, recording and the and operation of systems.



(Chart 7: Example of Segregation of duties)

5.2. Authorization

Authorization controls require the certification that a transaction or event is acceptable for further processing. Several types of authorization are in effect at the project, mainly in the procurement cycle, payment cycle, bank and cash management cycle including reconciliation. The FM should ensure that the authorizations of PMU staff ensure efficient implementation while keeping the risk as low as possible. The authorization of project staff should be in line with their respective job descriptions.

5.3 Reconciliations and Checks

Reconciliations between independent, corresponding sources of data are a key control for identifying errors and discrepancies in balances. The FM should perform the following reconciliations each month:

- Bank reconciliation
- Reconciliation between system and special account receipts and payments statement
- Any reconciling or balancing amounts should be promptly cleared. Unusual or long outstanding reconciling items must be brought to the attention of the financial officer. The financial officer will review and sign all reconciliations as evidence of his review.

In addition physical checks should be performed on assets held and on petty cash.

5.4 Restricted Access

All data, records and assets should be kept in a physically secure environment. This should cover safe keeping of finance records such as official order forms and bank details. In addition, any petty cash should be kept securely. Financial data and other records should also be protected in the form of back up procedures. All work should be regularly backed up and copy records stored securely off site

5.5 Monitoring and Review

As detailed in financial reporting section 9, periodic financial reports must be prepared and submitted to the fund. For the purposes of internal control the same information should be prepared and monitored by the PD on a monthly/quarterly basis. The reports should be prepared on a timely basis and should normally be available for distribution two weeks after the end of the reporting period to which they relate. The periodic reports should be reviewed by the finance officer and the PD as a minimum. Where necessary, corrective action should be taken to ensure the authorized budget and procurement plan is not exceeded.

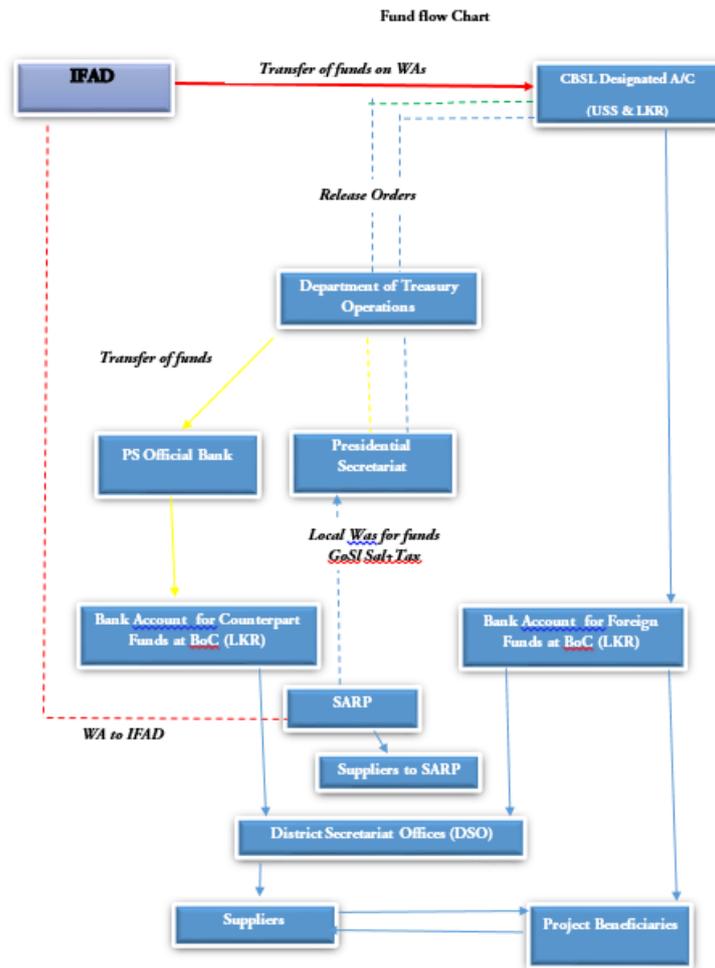
6.0 Flow of funds, cash and bank account management

The IFAD Loan will be disbursed over six years. The Loan Closing Date is the sixth anniversary of the date when the project was declared effective. IFAD disbursement procedures and the accompanied forms are outlined in detail in the Letter to the Borrower and the Disbursement handbook which should be read in parallel with this manual. Please refer to section 7 of this manual for more detailed information on the IFAD Disbursement procedures.

6.1 Flow of Funds, opening of special accounts and project accounts

As soon as entry into force, IFAD will open a loan and a grant account which will be credited with USD 41,700,000 and USD 1,000,000 respectively. These funds will be transferred to the project in accordance with the financing agreement and the IFAD's disbursement procedures.

The project will open two designated accounts in USD, one for the IFAD loan and another for the IFAD grant in the Central Bank of the country and two project accounts in local currency; one for the IFAD loan and another for the IFAD grant in a commercial bank acceptable to IFAD. The Project will also open two project accounts designated to receive counterpart funding from the government and from the beneficiaries. The funds under component 3 rural finance (expenditure category 5) will be transferred to the selected microfinance institutions through direct payments in accordance with section 7.5 of this manual.



(Chart 8: Flow of funds of the project)

6.2 Petty cash account

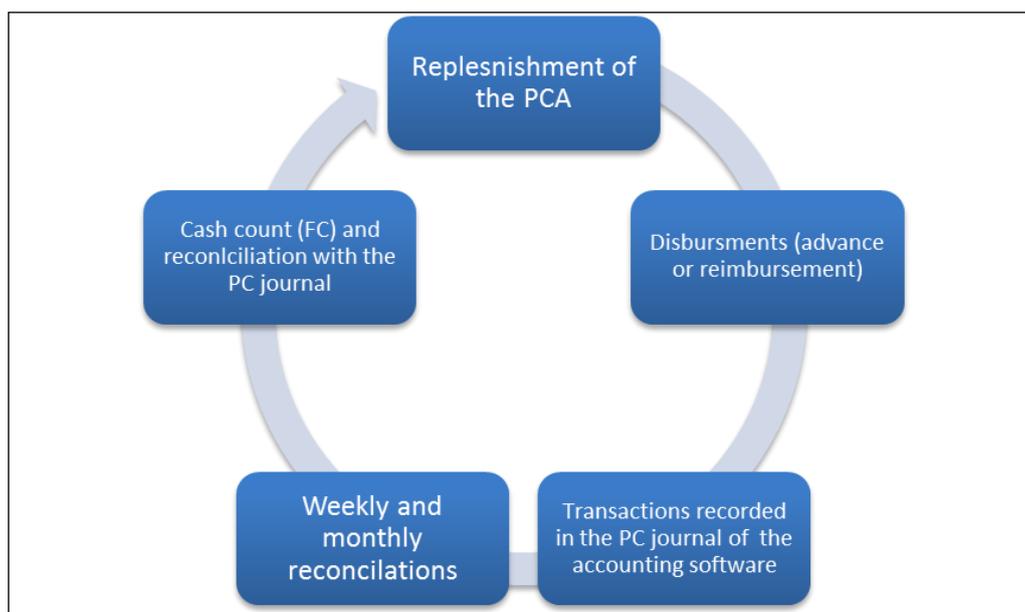
In addition to the bank accounts outlined in the section above, the PMU will operate a petty cash account in local currency up to the equivalent of LKR 25,000. The Petty cash will be operated by the DFM. The purpose of the petty cash is to allow the PMU to make payments for low value items (e.g. minor repairs, small supplies, newspapers, taxi fares, and other sundry expenses) in a quick and efficient manner. Payments through petty cash will only be allowed for amounts up to the equivalent of LKR 5,000 for a single transaction. The cash is placed in a locked box which is kept in the PMU safe.

The Petty cash disbursements may be in the form of an advance or a reimbursement (when the staff member has personally advanced the funds). In both cases, the requesting staff fills out a petty cash request form (Annex XXX). The payee name, the description of the goods or services, the estimated (or actual) cost and the transaction coding are indicated on the form, which is forwarded to the FM for approval and to the Account for processing.

For advances, the DFM delivers petty cash advances on the basis of the approved request. After the purchase is made, the requestor must return the invoice/receipt along with the change, if any, to the Account for recording into the Accounting system.

For reimbursements (i.e. when the goods or services have already been delivered), the invoice or receipt is given to the Account who reimburses the requesting staff member or directly pays the supplier. The form is signed by the individual who receives the money.

The petty cash transactions will be recorded in the accounting software petty cash journal as they happen as described in the accounting manual. At the end of each week, the DFM will reconcile the petty cash journal with the physical cash count (materialized on the form shown in Annex 6.h.). In addition, a surprise cash count will be conducted by the DFM or FC twice a month. It will also be followed by a reconciliation of the petty cash balance per the cash journal with the actual cash held in the petty cash box.



(Chart 9: Operation of the Petty Cash Account)

The petty cash will be replenished on a monthly basis (or more often if necessary) on the basis of the last reconciliation done by the DFM. The amount of the replenishment will be equivalent to the total disbursements made since the previous replenishment, so that the petty cash balance is maintained at the original level of the equivalent of USD 500. No funds can be deposited into the petty cash, other than the replenishments.



A sample of a petty cash reconciliation form and a petty cash request form is provided in annex VIII A&B.

6.3 Bank reconciliation

The FM must perform monthly reconciliations between the designated account(s) balance recorded on bank statements and local cash book balance, recorded on the system. Performance of the monthly reconciliation should follow the following steps:

- i) Designate Account balance recorded on bank statement on reconciliation date is taken as starting figure;
- ii) Add reimbursements/replenishments/other deposits that have been processed and are due to designated account, but not yet recorded on bank statements;
- iii) Subtract undelivered cheques. Any long-outstanding cheques should be identified and investigated
- iv) Following these adjustments, the bank statement and local finance system cash totals should agree. Any remaining difference should be reported and investigated;
- v) The completed bank reconciliation statement should be signed by the FM; and
- vi) The reconciliation should be reviewed and countersigned by independent finance team member who understands the reconciliation process.

Periodic designated account reconciliations will be submitted IFAD as part of periodic progress report as outlined in section 9.



Please refer to annex XII (also form 104 of the Disbursement handbook) for a standard Designated Account Reconciliation Statement

7.0 IFAD Disbursement Procedures

The IFAD disbursement procedures are governed by the Letter to the Borrower (LTB) and the Disbursement Handbook, which will be sent the PMU/LPA upon the project effectiveness. The handbook is also available on the IFAD site <http://www.ifad.org/pub/basic/index.htm>.

As stated in the LTB and the LDH, four standard disbursement procedures may be used for withdrawal of financing:

Procedure I

Advance withdrawal (using imprest accounts or revolving funds with replenishment to a bank account(s) designated to receive financing resources in advance). This modality is used to advance and/or replenish funds to a bank account as designated by the borrower. The Fund may place a limit on the amount to be advanced and/or replenished. Relevant details on the modality – which is project specific – are agreed between the borrower and the Fund, and detailed in the LTB.

Procedure II

Direct payment. This modality is used for eligible project expenditures to be paid directly by IFAD, generally for large contracts, to suppliers, contractors, consultants or third parties, as authorized by the borrower.

Procedure III

Reimbursement. This is applicable when eligible project expenditures, reimbursable under the financing, have been pre-financed by the borrower. Such reimbursements are expected to be claimed no later than 90 calendar days from the date of payment by the borrower.

7.1 Evidence of Authority to Sign Withdrawal Applications

The Fund requires the borrower's (or recipient's) representative, as designated in the financing agreement, to furnish satisfactory evidence of the authority and authenticated specimen signatures of the individuals who will sign WAs on behalf of the borrower. This evidence must reach the Fund before the first WA is presented by the borrower and should be the original (photocopies, facsimiles or other means of transmission are not acceptable). A sample template is provided in annex 1 of the disbursement handbook. Each WA should be signed by such duly authorized individuals, and the Fund must be notified of any change in the signatories authorized to withdraw funds from the loan/grant account.

The Fund must also be notified of the designated signatories for operating any designated and/or programme or other accounts, including changes thereto, whether or not these authorized signatories are included in the financing agreement. Such changes, as effected during the life of the project, must be communicated promptly to the Fund. The borrower, guided by the sample in annex 1 of the disbursement handbook, should 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 the Fund.

7.2 The Designated Account

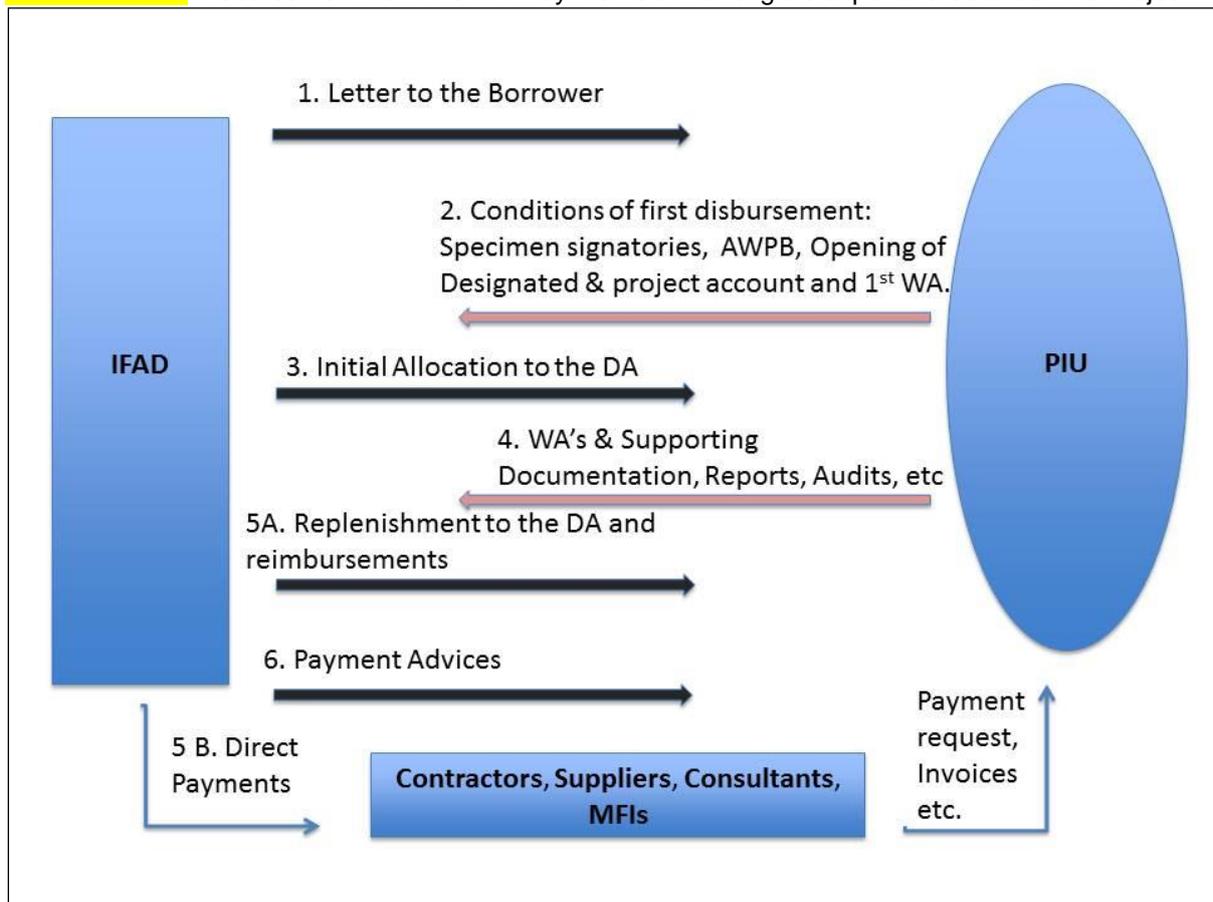
The flow of funds for the Project starts with the opening of the project Designated Account (DA), denominated in US Dollars, in the national central bank, in accordance with the Funds requirements identified in the Financing Agreement and the Letter to the Borrower. The FM is responsible for opening and managing the Designated Account including receiving on a monthly basis the DA Statement of Account from the bank and reconciling it against PMU records. Disbursements from the DA should be recorded in the PMU account records as of the date they are made, that is when the checks are issued.

7.3. Withdrawal of Financing Proceeds and Supporting Documentation

Based on the Letter to the Borrower and the Disbursement Handbook, the withdrawal of all Project financing proceeds (direct payments to contractors from IFAD, and to reimbursements and replenishments to the designated account) is done through the use of Withdrawal Applications (WA) - form 100 in the disbursement handbook.

It is the FM's and the DFM's responsibility to make sure that the WAs are correctly prepared, the documentation is complete and submitted to IFAD in a timely manner. The necessary forms and supporting documentation to be attached to the WA (form 100) are outlined in detail for each disbursement method in section 3 of the Disbursement Handbook

Upon Project entry into force and after sending to IFAD, the letter designating the two officials authorized to sign Withdrawal Applications (WA) with their names and specimen signatures, the FM will prepare the first Withdrawal application together with the necessary supporting documentation requesting the IFAD to transfer an initial advance to the designated account up to a ceiling of USD xxxxxxxxxxxxxx. Disbursement from the DA may then start for eligible expenditures under the Project.



(Chart 10: Withdrawal of IFAD Funds)

For the subsequent WAs, prepared by the DFM, the financial must ensure that the right supporting documentation is attached to the WAs before providing clearance. When submitted supporting documentation to IFAD should be copies the while the original documentation is to be retained by the PMU/LPA and securely located to enable inspection by IFAD representatives and auditors for a period of at least 10 after the project completion date in accordance with the IFAD General conditions.

As specified in chapter 3 of the IFAD disbursement handbook, for all payments (Works, goods, consultants' and other services) the following supporting documentation is required:

- a) The signed contract or confirmed purchase order (Showing the specified amount that is due paid. If this has been sent earlier to the fund a reference to the accompanying letter or document should be given in a footnote to the relevant Application summary Sheet – form 100)
- b) The bank guarantee for advance payment, as specified in the contract documents
- c) The bank guarantee for performance, as specified in the contract documents

- d) Copies of communications sent by the IFAD country programme manager to the lead project agency (LPA) providing the IFAD's no objection (post or Prior) to the contract award, and
- e) Evidence of payment.

For payments of goods, in addition to a-e:

- f) Supplier's invoice duly certified for payment by the PD – specifying the goods, their quantities and prices
- g) Bills of lading or similar documents; and
- h) As appropriate, the certificate of delivery (to include condition of goods to delivery)

For Payments of Consultants' and other services, in addition to a-e:

- i) The supplier's or consultant's claim, duly certified for payment by the PD and showing sufficient detail. If such Services relate to the importation of goods (for example, freight and insurance payments), adequate reference should be given to enable IFAD to relate each of these items to specific goods whose cost has been or is to be financed by the financing closing date; and
- j) As appropriate, a certificate of delivery of satisfactory services

For progress and retention payments of civil works in addition a-e:

- k) the claim if the contractor, including a financial progress report, stating the work performed and the amount due;
- l) A certificate signed by the project consultants or owner's representative, if any, or by the borrower's chief engineering officer or resident supervising engineer assigned to the project, to the effect that the work performed is satisfactory and the payment claimed is due in accordance with the terms of the contract, and
- m) A copy of the contract payment monitoring form signed in original by the certifying officer.

Together with each WA received for replenishment to the designated account, the project must submit the designated account reconciliation Statement, prepared by the DFM for the same reporting period in which the eligible expenditures are being claimed. This form needs to be accompanied by bank statements of the designated account and that of any other operating, district, project accounts ensuring that the closing bank balances for all these accounts correspond to the balances at the end of the same reporting period as indicated in the WA period.

In order to minimize transaction costs, the FM must make sure that withdrawals from the loan and/or grant account shall be made in amounts of no less than US\$ xxxxxxxx or its equivalent, or such other amount as IFAD may designate in an advice to the borrower from time to time.

7.4 Use of Statements of Expenditures (SOE) and SEO Thresholds

The statement of expenditure (SOE) procedure is normally used for those expenditure types where it is impracticable or unduly burdensome to require submission of full documentation. However, the supporting documentations for the Statements Of Expenditures must be maintained by the PMU/LPA and made available for review by IFAD supervision missions upon request and to external auditors during their annual review of project accounts to enable issuing of an independent audit opinion.

Details regarding the use of the Statement of Expenditure (SOE) are provided in section 4 of the disbursement handbook. In accordance with the Letter to the Borrower the SOE threshold applies for all project expenditures up to a threshold of USD 50 000.

The SOE thresholds above may be amended by the Fund during the course of project implementation.

8.0 Processing of payments

The Project will mainly finance, small works (rural roads, irrigation infrastructure etc.), consultants' services (design, supervision and studies), goods (office supplies, computers, cars), microfinance in the form of grants and credit as well as PMU operating costs (salaries, travel expenditures etc.). Last section outlined how the PMU will receive funds from IFAD to cover the incurred expenditures related. This section will outline the different steps involved in the outflow of funds from the PMU to the Contractors, Suppliers, and Consultants etc. The procurement process of these items, including the hiring process for consultants is detailed in the project procurement manual.

8.1 General instructions

For all payments, the FM should ensure that the following steps are performed:

- i) Preparation of Payment request voucher. A payment request voucher should be prepared for each payment.
- ii) Validation of invoice. The following validation checks should be performed by the FM on invoice:
 - Invoice arithmetically correct; and
 - Quantity and price recorded on invoice should be checked back to contract, order, certification of completion/delivery

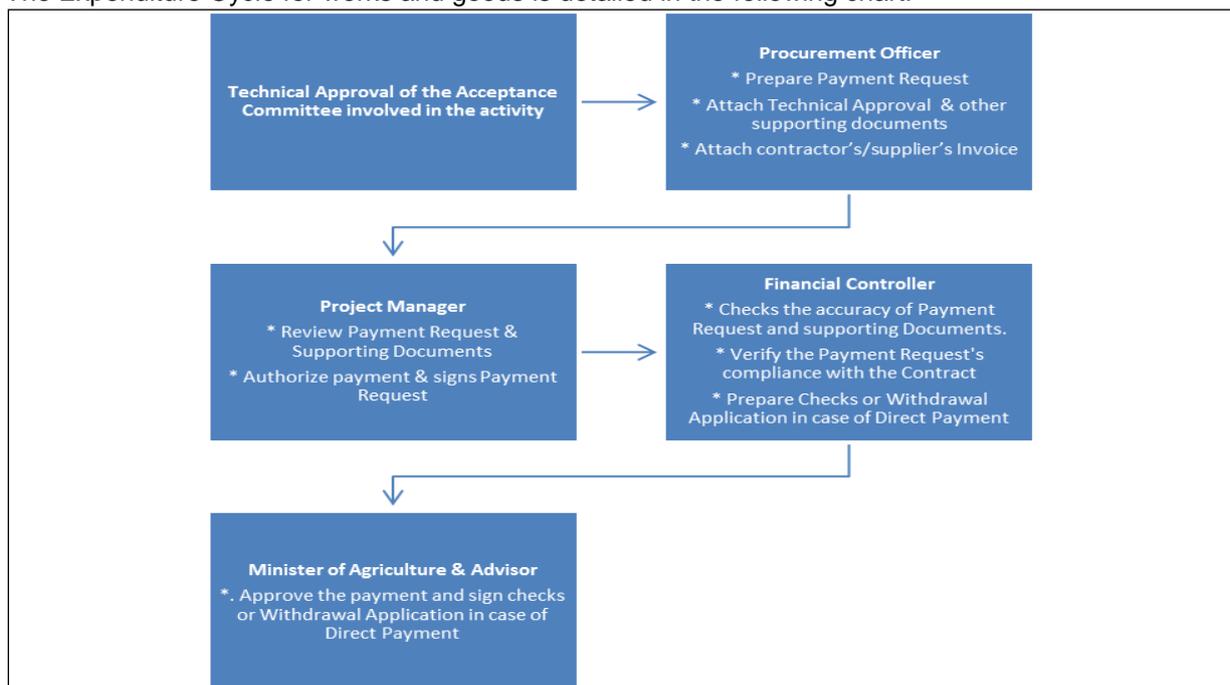
If there is any discrepancy identified, it should be raised with the vendor prior to proceeding with invoice processing,

- iii) Supporting documentation: the following documents should be attached to the payment voucher to support validation:
 - Copy of invoice;
 - Copy of letter of approval from technical committee or the specialist, minister;
 - Copy of purchase order, goods received note and contract if applicable; and
 - Copy of required guarantees

All vouchers are authorized by the Minister after signatures of the FM, PD the and Director General of the LPA

8.2 Processing of payments for Civil Works and Goods

Project will incur expenditures related to works under Component 2 - **Investments for Climate Resilience and Inclusive Value Chains** in the form of rural roads, market infrastructure, irrigation infrastructure etc. and goods under Component 3 **Project Management**, in the form of fixed assets. The Expenditure Cycle for works and goods is detailed in the following chart:



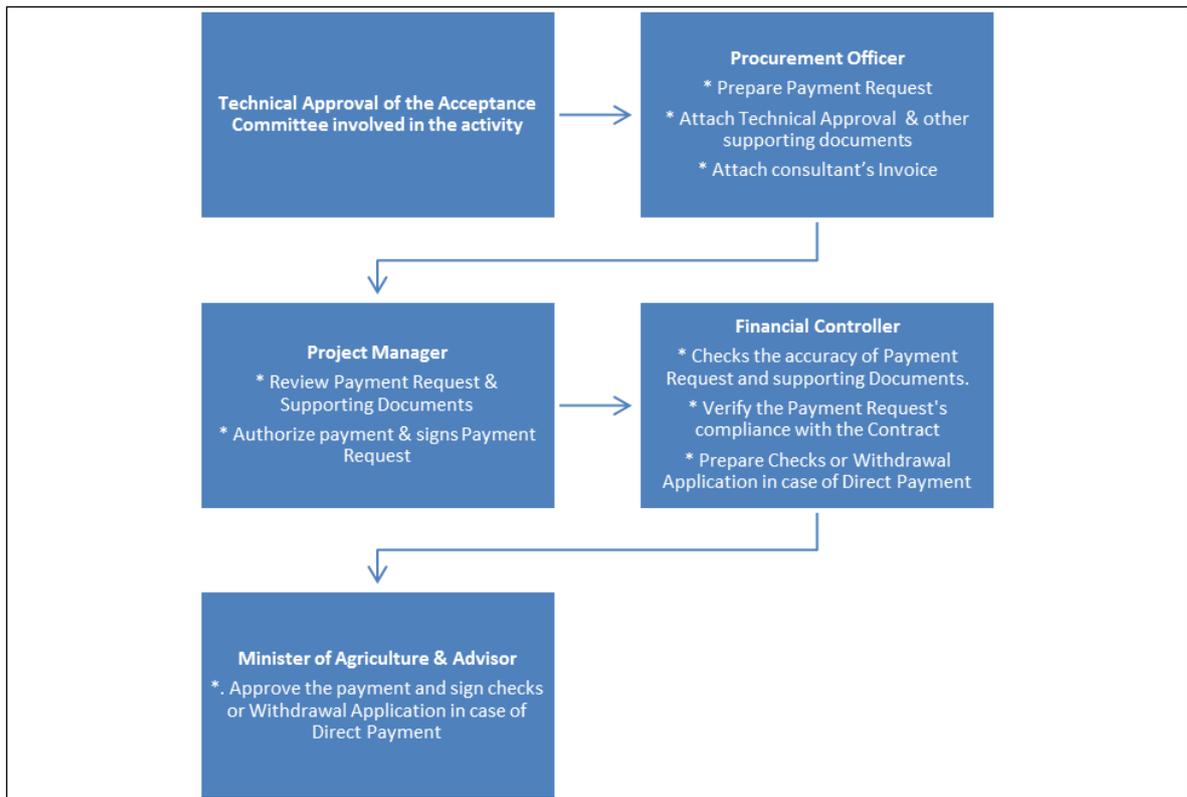
(Chart 12: Processing of payments for Works and Goods)

Before releasing the payment to the contractor or supplier, the FM will make sure the following processes are followed:

- A. The quantity of goods is checked back to the purchase order and to contract and bid award letter (if applicable). The committee members, assigned by steering committee/LPA after being assured that quality of goods is compliant with the contract conditions deliver an accepted delivery sheet or a compliant report to the Procurement Officer. The FM will ensure that the Procurement Officer provides all the necessary documents including the invoice and the acceptance/compliant report before proceeding with the payment.
- B. The condition of the goods are reviewed for any damage or impairments. Damaged goods are to be identified and returned to the supplier/replaced. If any goods are rejected or returned to the supplier because they are not as ordered or are of sub-standard quality, the FM should be notified. FM must keep a central record of all goods returned to suppliers and maintain a separate record of all goods and equipment delivered by suppliers by contracts funded by the IFAD financing.
- C. All the works, are to be monitored by an architect or engineer. It is good practise to assign the architect/engineer responsible for the design to monitor and assess the works of the contractor. The architect or engineer is responsible for sending compliant reports/certificate of completion to the Procurement Officer in the PMU which includes the percentage of completion of the construction and if the construction materials are compliant with the contract conditions and specifications. A request for payment is prepared by the Procurement Officer to be send to the FM. The FM will ensure that the payment request includes all the necessary documents including the invoice and the compliant reports/certificate of completion before proceeding with the payment to the contractor for the completed phase.

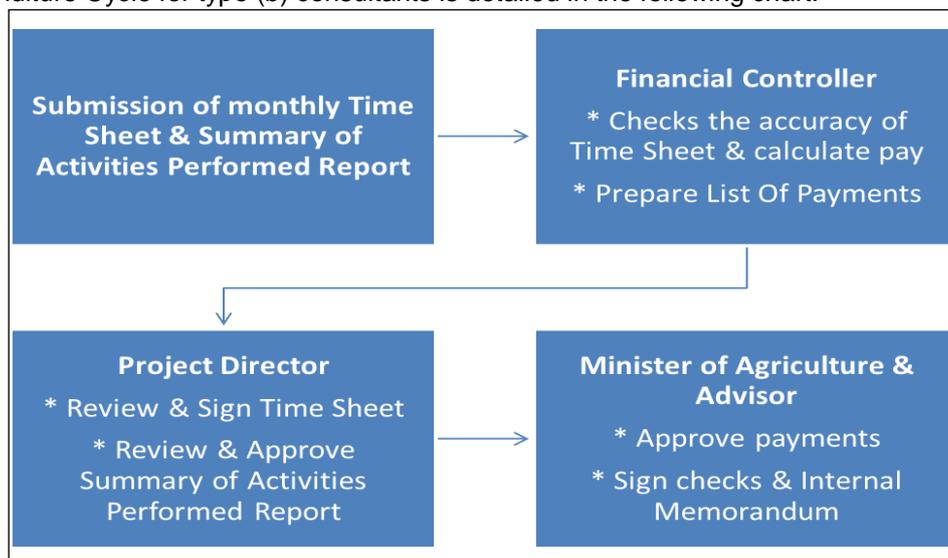
8.3 Processing of payments for Consultants' Services

Under the Project there are two types of consultants' services; a) Consultants with a lump sum contract, and b) Consultants with a time based contract. For type (a) consultants, payments will be made against the delivery of outputs as detailed in their contracts. For type (b) consultants, payments will be made against the submission of a time sheet and a summary of activities performed. PMU members will be paid against the submission of a monthly time sheet. The Expenditure Cycle for type (a) consultants is detailed in the following chart:



(Chart 13: Processing of Payments for consultants - type A)

The Expenditure Cycle for type (b) consultants is detailed in the following chart:



(Chart 14: Processing of Payments for consultants - type B)

Before releasing the payment to the consultant (firms), the FM will undertake the following steps:

- A) The consulting services reports are monitored by technical committees, assigned by the steering committee/LPA for the purpose of evaluating the deliverables submitted by the consultant (firms). Therefore the FM will ensure that no payment to the consultant is prepared unless an approved committee report or letter of approval received from the committee assures that the deliverable submitted by the consultant is compliant with the contract conditions, these documents should be passed first through the Procurement Officer.

- B) The consulting services reports are monitored by the specialist responsible for the activity for the purpose of evaluating the deliverables submitted by the consultant (Individual Consultant). Therefore the FM will ensure that no payment to the consultant is prepared unless an approved report received from the specialist assures that this report is compliant with the contract terms and conditions, these documents should be passed first through the procurement officer.

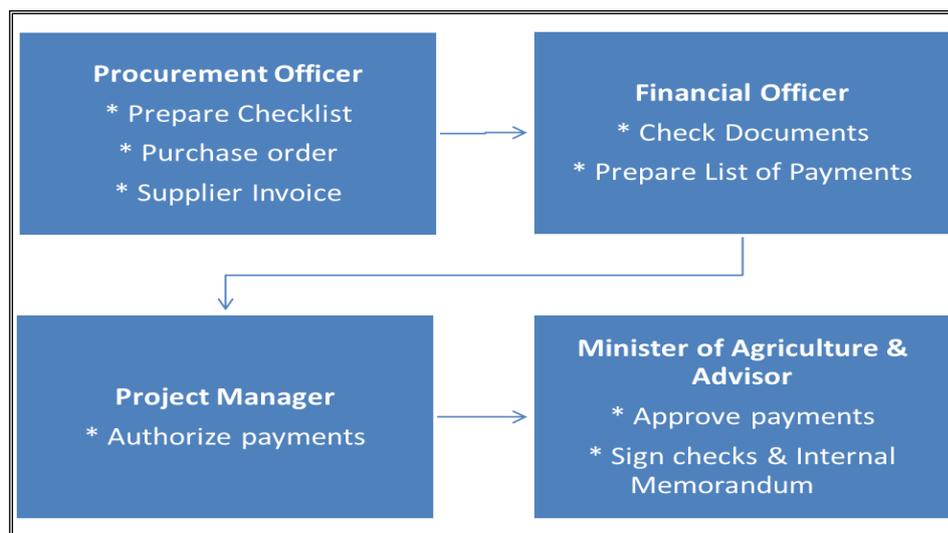
All Supporting Documents and Internal Forms must be retained at the PMU Office in the LPA and must be maintained and archived in accordance with the maintenance of records section of this manual.

8.4 Processing of Payments for Office Supplies and Other Operating Costs

The payment for office supplies and operating cost will be against the preparation by the procurement officer of a serially numbered checklist evidencing the receipt of office supplies, and the presentation of the Purchase order and supplier invoice. The FM will compare the information on the checklist to the purchase order and supplier invoice, then sign the checklist. The payment for services is against the presentation by the supplier performing the service of a service invoice.

At the end of each month, the FM will prepare a serially numbered "List of Payments" that detail all the incurred costs for office supplies and operating costs during the month and present it to the PD for review and authorization. After the PD's authorization of the payments, the FM will prepare the checks and send them to the PD who will prepare an "Internal Memorandum" detailing the check numbers, amounts, suppliers and explanation of payments. The "Internal Memorandum" and the checks will be presented to the Minister of Finance and his Advisor to approve the payments and sign the checks.

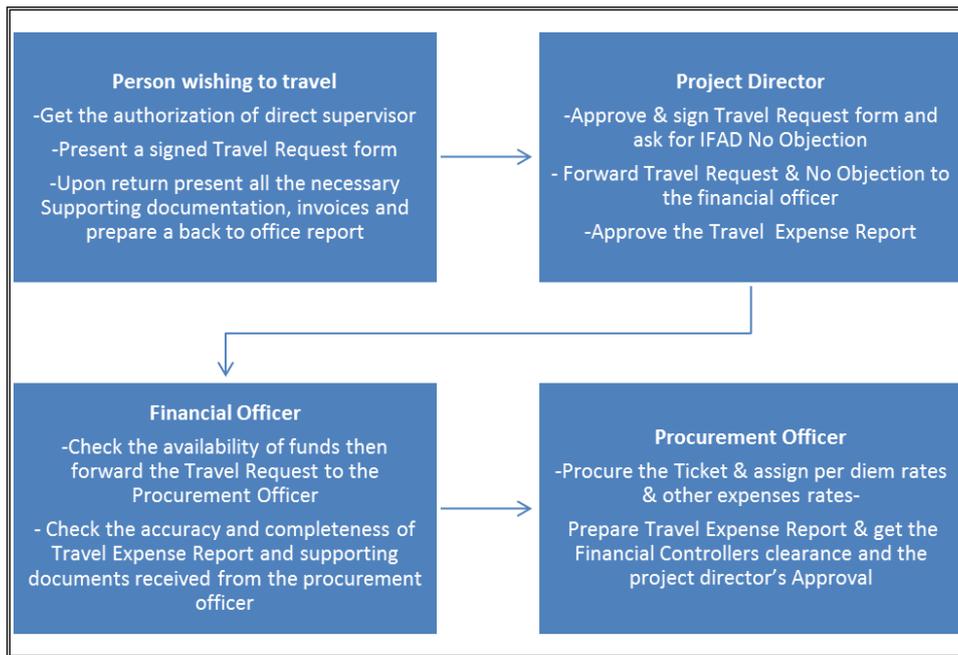
The following chart summarizes the process detailed above:



(Chart 15: Processing of Payments for Office supplies and operating costs)

8.5 Travel Arrangements & Processing of Travel Related Expenditures

Under the Project there is a budget allocated for workshops and study tours as well as staff training courses. The following chart summarizes the transaction cycle that should be followed to get approval for the travel and the expenditures related to it:



(Chart 16: Processing of Payments for Travel and Training)

9.0 Financial Reporting

Periodic financial progress reports are a formal requirement of the IFAD Financing Agreement. Sufficient information must be made available about what money is spent on, how much is spent and what the results are. The major financial reports include the following: AWPB, monthly financial reports, periodic financial progress reports, supervision reports, annual financial statements and audit reports.



(Chart 17: Project Financial reporting cycle)

In addition to the AWPB, supervision reports and audit reports (discussed in detail in section 2, 11 and 12 of this manual), the FM will ensure that the following financial reports are prepared in a timely manner and submitted to IFAD in due time (applicable to reports 2-4 only):

1. Monthly financial reports for PMU internal use only. These reports will be verified during IFAD supervision missions.
2. Periodic (semi-annual) progress reports, to be provided to IFAD within 45 days after the reporting period

3. Annual financial statements, to be provided to IFAD within 4 months after the end of the project fiscal year.
4. Annual financial statements audited by an independent auditor acceptable to the Fund and in accordance with internationally accepted auditing standards and terms of reference cleared by IFAD, to be provided to IFAD within 6 months after the project fiscal year (explained in detail in section 11).

9.1 Monthly Reports

In accordance with best practises, the FM will prepare monthly financial reports based on the accounting system to aid management decision and control. The monthly management accounts will include the following.

- Monthly Budget Execution Report, summarising the budget-actual comparison of the expenditures incurred, component-wise and category-wise. The report will also include a list of commitments entered into and still to be paid, by component and by category.
- Bank Reconciliation Statement (please refer to annex XIII or form 104 of the Disbursement handbook)
- Petty Cash reconciliation form



Please see a sample of the above mentioned report in annex V

9.2 Periodic Progress Reports

Semi-annual progress reports should be submitted to IFAD no later than 45 days after the end of reporting period during the programme implementation period.

The importance of the periodic progress reports lies in the fact that they provide IFAD with sufficient information to determine whether the funds disbursed to the project are being used as intended, the project implementation is on track and the budgeted costs will not be exceeded. The financial information should be linked to the information on physical progress and procurement to give assurance that the financial and physical progress are consistent.

The Periodic Progress Reports include the following:

- **Project Statement of Cash Receipts and Payments by Category:** This report summarizes the sources of project financing, with the uses of funds in accordance with the disbursement categories foreseen in the Financing agreement with the Fund. This report also states the cumulative expenditures from the start of the project until the date of the report as well as the cash flow forecast for the following semi-annual period. The automated accounting system has been talor made to generate the report with all required details.



The standard format for the presentation of this report is provided in Annex VI: Table 1.

- **Uses of Funds by Project category:** This report details the project expenditures by each expenditure category or sub category and by financier.



A sample of a Uses of Funds by Project category is provided in Annex VI: Table 2

- **Uses of Funds by Project Activity:** This report details the project expenditures by each component or sub-component consistent with those foreseen in the Financing Agreement. The total planned, actual and cumulative expenditures in this report should correspond to those mentioned in the uses of funds section of the “Sources and Uses of Funds” report presented above.



A sample format for this report is provided in Annex VI: Table 3

- **Cash flow forecast:** This report summarizes the cash inflow and outflow for the following semi-annual period and is explained in detail in section 9.3.



A sample of a Cash Flow Forecast is provided in Annex VI: Table 4

- **Designated Account Reconciliation Statement**



Please refer to annex XIII (also form 104 of the Disbursement handbook) for a standard Designated Account Reconciliation Statement.

- **SOE-Withdrawal Application Statement:** This report summarizes the claimed and received WA from IFAD during the reporting period.



A sample of a SOE-WA statement is provided in Annex VI: Table 5

- **Contract Expenditures:** This report details all the contracts signed and amounts paid during the quarter by category.



A sample format for this report is provided in Annex VI: Table 6

- **Physical progress report:** This report summarizes the quantitative physical progress made in achieving overall objectives and links them to project expenditures by component and by category. This report should also contain a narrative part on the strategic direction for the next planning cycle as well as the main financial problems encountered.



A sample format for this report is provided in Annex VI: Table 7

9.3 Cash Flow Forecast

Preparing periodic cash flow forecasts is essential to ensure the project has sufficient funds to meet its commitments (expenditures to contractors, service providers, suppliers of goods, salaries of the PMU staff, operating and maintenance cost of the PMU such as rent, electricity, internet etc.) as they fall due. It is the FM's responsibility to prepare periodic cash flow forecasts by undertaking the following steps:

1. Determining the opening balance of the time period
2. Determine (as accurately as possible) all the cash inflow already secured from different sources during the time period on a monthly basis.
3. Determine (as accurately as possible) all the payments due during the time period on a monthly basis.
4. Based on the calculation (steps 1-3) determine the estimated cash need for time period in question.

When preparing the cash-flow analysis, key sources for information include the AWPB (up-to-date), the procurement plan (up-to-date), disbursement timetable of all signed contracts and historic expense reports for PMU management costs as these can be assumed to stay relatively constant over the implementation period.

Based on the estimated cash flow needs, the FM in consultation with the PD will prepare and submit for approval the required withdrawal applications in a timely manner in order to ensure sufficient liquidity and avoid any delays to the project implementation.



Sample of a cash flow forecast is provided in annex VI, Table 4.

9.4 Annual Financial Statements and Audit Reports

IFAD requires that the financial statements are prepared in accordance with IFRS/IPSAS or IPSAS cash. (National Standards are also acceptable as long as they meet the minimum requirements) and that the annual statements are provided to IFAD within four months after the end of the fiscal year. In accordance with the Project Design Report, the project will prepare its financial statements in accordance with IPSAS cash.

The project financial statements should include the following information:

- Project Information and performance,
 - Statement of project management responsibilities,
 - Statement of cash receipts and payments (by category and by financier),
 - Statement of cash receipts and payments (by component),
 - Statement of comparative budget and actual amount,
 - Statement of Special Account movements,
 - Statement of Special Account Reconciliations,
 - SOE-Withdrawal Application Statement and Notes to the Financial Statements.



A sample of financial statements are provided in annex XV .

It is important to note that IFAD financing proceeds should be disclosed separately from the other financiers (donors, government, beneficiaries etc.). It is also important to note that where the project consists of more than one entity the lead-PMU must provide consolidated financial statements.

10.0 Fixed Asset Management

Fixed asset management is an important process that seeks to track fixed assets for the purposes of financial accounting and to ensure preventive maintenance, and theft deterrence. Adequate Fixed asset maintenance also increases the sustainability of the project.

There are three elements in fixed asset management that require the attention of the FM

- Purchase of equipment
- Setting up and maintaining an asset register including verification
- Setting up a plan for disposal and/or handover of the asset once the project is completed

10.1 Purchase of Equipment

All procurement and payments for project equipment will be processed in line with the guidance provided in the procurement section of the PIM. The DFM financial officer should assign a unique, sequential asset number to all furniture and equipment items purchased (excluding minor items such as stationary). This must be clearly labelled on each item. Each item of equipment must be recorded in the fixed asset register

10.2 Asset Register

The DFM must maintain a register of all (material) project equipment. This will be recorded on the asset management module of the accounting software. The asset register should record the following information for each individual piece of equipment: 1) Asset description, 2) Asset number, 3) Serial number of the item, 4) Officer responsible for asset, 5) Funding of asset (IFAD, government etc.), 6) Location; Date of purchase; and 7) Estimated life. The



A sample of a fixed asset register is provided in annex VII.

10.3 Asset Verification Review

The FM must ensure that a verification count of all equipment recorded in the fixed asset register is performed at least once a year. This should include the following checks:

- Verify that all equipment is still held in the location recorded on the register; and
- Check that equipment is still in a reasonable state of repair.
- Discrepancies between the verification exercise and the fixed asset register should be investigated. Where assets are missing or seriously damaged, they should be removed from the asset register. The removal should be formally documented and approved by the financial officer and by the LPA.

The verification review must be performed by different staff from those who use the equipment, to ensure adequate segregation of duty.

10.4 Vehicle Maintenance and Fuel

The drivers are required to record all trips and fuel refills in a logbook and collect all the supporting documentation (invoices etc.). The vehicle logbook provides control over the use of the cars as well as fuel consumption. Fuel distribution is handled by the DFM. Fuel is purchased on an as-needed basis by giving coupons to the drivers who must use the selected fuel station. The PMU is billed by the station twice a month. Unused coupons are kept in the office safe in the custody of the DFM. For official missions, a special cash provision is given to mission leaders to allow them to purchase fuel (at reputable gas stations) during the trip.

The safety of cars is the responsibility of the recipient staff members and drivers assigned to the vehicles. Consequently, they must ensure that the cars are parked in a secure area when not in use or outside working hours. The drivers are required to monitor the maintenance of their assigned vehicles under the supervision of the PMU. The drivers must notify the PMU of maintenance needs so that the cars can be serviced on a timely basis. The cars must always be taken to the selected PMU garage for repairs and maintenance.

The DFM should on a monthly basis review the mileage and fuel usage as well as any undertaken service as reported in the log book of each car and compare these with the official invoices and travel authorizations etc. to make sure the numbers are accurate.

An insurance policy must be taken by the PMU to ensure all cars and passengers against all risks, including damage, theft, fire, as well as injury and property damage to third parties. The insurance must also cover the same risks when the cars are used by the recipient staff members outside of normal working hours.



A sample of a vehicle log and vehicle history record log is provided in annex IX A & B.

11.0 Audit Arrangements

The project audit is an ex-post review of financial statements, records of transactions & financial systems; It examines the adequacy of accounting systems & procedures, capacity to maintain appropriate accounts & documentation of the project/grant expenditures. The objective of the project audit is to provide credibility and assurance of accountability.



In accordance with the IFAD general conditions and the IFAD guidelines for project audits, the PMU must have its financial statements audited by an external auditor acceptable to IFAD. Accordingly, the Supreme Audit Institution i.e Audit Office of Sri Lanka will act as the external auditor to the Project. The Audited financial statements need to be sent to IFAD no later than 6 months after the end of the fiscal year. The detailed instruction regarding project audit are outlined in the IFAD guidelines for project audits available at <http://www.ifad.org/pub/basic/index.htm>

11.1 The Audit Cycle and Appointing the Auditor

The complete audit cycle can be divided into the three main roles carried out by the FM/PMU, the Auditor and IFAD.

The PMU and the financial officer will:

- Timely prepare TORs of the Audit and submit these to the Fund for no objection,
- manage the selection process of the auditor (if relevant)
- and appoints the auditor.
- Prepare the financial statements for reporting period
- Make available all the financial information necessary to the auditors.

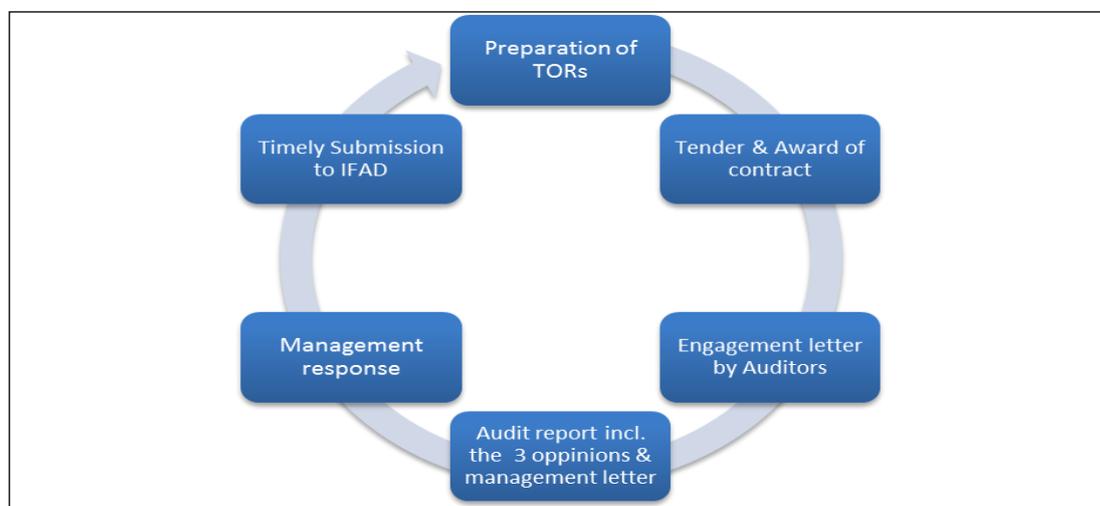
- should respond to the audit findings and recommendations.
- Submit the audit report to the fund no later than 6 months after the end of the project fiscal year.

The Auditor will:

- perform the audit work including the three audit opinions
- Indicate any ineligible expenditures
- Provide a management letter

The Fund will:

- Provide a non objection to the auditors TORs
- Monitor timely submission and review of audit reports
- Follow up on remedial action\apply sanction and /or remedies if relevant including suspension of disbursement and or cancellation of loan balance (Legal Notice is sent to the LPA after 3 months of delay. Suspension of disbursement to the project after 6 months delay.)



(Chart 18: Project Audit cycle)

When appointing the auditor the financial officer will need to ensure that the following steps are followed:

- Financial Officer/PMU prepares TORs for the auditor and sends it to IFAD for review and no-objection.
- IFAD communicates “no objection” to borrower.
- Financial Officer/PMU r initiates the procurement process using the agreed TORs.
- Financial Officer/PMU informs IFAD of the name of proposed auditor and the procurement process followed for the selection.
- IFAD communicates “no objection” to borrower on the selection of proposed auditor upon performance of the necessary due diligence.
- Financial Officer/PMU appoints the auditor.
- The auditor appointed normally issues a formal engagement letter

11.2. TORs of the Auditors and the Engagement letter

When preparing auditors TORs the financial officer should address the point outlined below:

- Description of the employing project authority or entity;
- Term of the auditor’s engagement, namely whether it is for a fiscal year or some other period;
- Description and the timing of the financial statements and other material to be provided by project management for the audit;
- Terms for delivery of the audit report;

- f) Specification that the audit be carried out in accordance with internationally accepted auditing standards;
- g) Provision of a management letter;
- h) Statement of access to project records, documents and personnel available to the auditor;
- i) Details regarding submission of a proposal and work plan by the auditor.

Furthermore, the contents of the TORs should include:

- a) A description in the TORs of the entity engaging the auditor and whether it is acting on behalf of or is a constituent part of a larger entity
- b) Legal and general descriptions of the project and the LPA, in sufficient detail to enable the auditor to understand their nature, objectives and activities.

The following additional information should also be considered:

- c) Organizational charts;
- d) Names and titles of senior managers;
- e) Names and qualifications of officers responsible for financial management, accounting and internal audit;
- f) name and address of any existing external auditor, if a change is made;
- g) Description of information technology facilities and computer systems in use;
- h) and
- i) Copies of the latest financial statements, financing agreement, minutes of financing negotiations, project design document, and annual work programme and budget, if it is available.

The auditors are required to provide a formal engagement letter confirming their acceptance of the appointment and outlining the methodology, scope and responsibilities under the audit. The borrower's representative will sign and return a copy of the letter to the auditor.



A sample of an engagement letter is provided in annex V of the IFAF guidelines for project audits.

11.3 The Audit Report

The Audit Report must include the following elements which should also be reflected in the auditor's TORs:

- An opinion on the Project's financial statements
- A separate opinion on the eligibility of expenditures included in the WA /Statement of Expenditure procedure
- A separate opinion if the use of the Special Account/Designated Account is in compliance with the financing agreement
- In addition to the audit report, the independent auditor will prepare a management letter. This will include comment and recommendations on the adequacy of the financial management system, and on the system of internal control. The management letter should also include a follow up section on the status of implementation of previous years recommendations

12.0 IFAD Supervision

The project will be subject to extensive supervision from IFAD during the whole implementation period to ensure that the PMU fiduciary requirements are completed on time and to minimise the project's fiduciary risk.

If financial arrangements of the PMU are deemed acceptable, IFAD will rely on them to provide assurance that the financing proceeds are being used for the intended purposes. In the case that IFAD identifies weaknesses in the financial arrangements, it will require the PMU/LPA to take the appropriate measures to mitigate those risks e.g. changing the design and operation of internal control processes or modifying the disbursement arrangements for an operation.

The IFAD supervision of the project includes the following measures:

- Monitor of timely submission of audit reports and review of these reports
- Verify compliance to audit recommendations and recommendations made by past supervision missions.
- Monitor the submission of timely periodic financial reports and review of these reports
- Monitor disbursements rate and the quality of the received Withdrawal Applications
- Annual or semi-annual financial management supervision missions.

12.1 Supervision missions by the Fund

Throughout project implementation, IFAD will conduct annual financial supervisory missions to develop financial management ratings and ensure compliance with the IFAD's requirements. During the supervisory missions, IFAD will assess and monitor the adequacy of the PMU/LPA financial management arrangements such as accounting, budgeting, internal controls, flow of funds, financial reporting and the auditing practices. The key findings and recommendations of the mission will be captured in the Aid Memoire.

When preparing for and during an IFAD supervisions mission, the necessary supporting actions by the FM will include the following:

- Update and make available for the mission, the project financial information and especially the incurred expenditures by component, by category and by financier as of the last day of the preceding month.



Please refer to annex XI for the financial tables required for the aid memoire

- Update and make available reports on the status of counterpart funding (has the Borrower/Lead Project Agency made available financing proceeds to the Project as planned?)
- Provide a walkthrough of the existing accounting system including its main modules, budgeting, accounting, financial reports, fixed asset register as well as the security settings in use.
- Facilitate checking of the internal controls, by system "walk through" to ensure that approved procedures are consistently being followed.
- Make available Withdrawal Applications, Statement of Expenditures and all supporting documentation regarding expenditures claimed under the SOE thresholds to facilitate the verifying of adequacy, completeness and validity of claims.
- Make available evidence of qualifications and educational background of the financial staff including, organogram of the PMU, CVs, TORs of each position and PMU training plan.
- Update and make available a complete a fixed asset register and facilitate sample test check of physical existence of the asset.

- Make available written procedures regarding financial operations such as processing of transactions, financial administration manual, accounting manual, fixed asset maintenance and records management as well as the lead project agency's anticorruption policy and whistle blowing procedures.
- Prepare and make available the updated bank account reconciliation statement and bank account statements for all designated and project accounts.
- Arrange meeting with the auditors and any other selected party requested by the mission.
- Make available all necessary documentation and contracts regarding procurement not subject to prior review.
- Provide an update on the actions taken regarding past audit recommendations as well as action points outlined in the past aide memoires.
- Make available the most recent AWPBs, annual and semi-annual reports
- Participate in report writing if necessary.

13.0 Loan completion and Closing

The closing of the loan/grant is due six months after the project completion date. Both the completion and the closing date of the loan have financial implications on the project management such as: development and submission of a recovery plan, ensuring eligibility of expenditures and submission of the necessary documents outlined below. Please also refer to section 1.3 of the Disbursement Handbook.

13.1 Recovery plan

To ensure that the designated account is completely and timely justified, the financial officer/PMU has to develop and submit to the Fund a so called recovery plan outlining the percentages per withdrawal application that will recovered and paid respectively. The recovery plan should be submitted to the fund around 6 months before the completion date or when the outstanding balance (amount still undisbursed by IFAD is less than the double of the authorized allocation).



Please refer to annex XII for a sample recovery plan.

13.2 Loan Completion

As defined in the Financing agreement the completion date of the loan its 6th anniversary; that is six years after it entered into force. By the completion date all the project activities must have been finalised. The payments can be done also after the completion date, as long as the commitments/ contracts are signed prior to the completion date. Activities that have continued after the completion date are not considered as ineligible expenditures and can therefore not be financed by the IFAD funds.

After the completion date but no later than the closing date (six months after the completion date) the PMU can still incur expenditures related to so called winding up expenditures e.g. Final Audit, Project completion report, Project staff salaries involved in the winding up activities, PMU maintenance cost, project completion workshop.

13.3 Loan Closure

The Fund requires the following to be provided by the PMU in order to close the loan:

- Confirmation of last withdrawal application
- Submission of final audit report
- Submission of project completion report



The Final Audit Report has to cover, the final project year up to the final expenditures and it can be paid from the loan available balance by using for example direct payment or Reimbursement of pre financed expenditures.

Annexes:

Annex I: Sample Job descriptions related to Financial Management and Administration

Annex II: Sample Annual Work Plan and Budget

Annex III: Sample chart of account

Annex IV: Sample TORs for an accounting software

Annex V: Sample Monthly Budget Execution Report

Annex VI: Sample Periodic Financial Progress Report

Table 1: Sample Statement of Cash Receipts and Payments by Category

Table 2: Financial performance per expenditure category and financier

Table 3: Financial performance per component and per financier

Table 4: Project Cash Flow Forecast

Table 5: SOE-Withdrawal Application Statement.

Table 6: Signed Contract Listing

Table 7: Physical Progress Report

Annex VII: Fixed asset register

Annex VIII A: Petty Cash Request Form

Annex VIII B: Petty Cash Reconciliation Form

Annex IX A: Vehicle Log

Annex IX B: Vehicle History Record

Annex X : Sample Terms of Reference for the Audit of Project

Annex XI: Required Aide Memoire tables for IFAD Supervision missions

Table 1: Cumulative expenditures by component and Financier -

Table 2: Budgeted Expenditures and Performance against previous year's AWPB

Table 3A: Financial performance by financier

Table 3 B. Financial performance by financier by component

Table 3 C: Expenditures by category -

Annex XII: Sample recovery plan

Annex XIII: Designated account reconciliation statement (Imprest account)

Annex XIV: Checklist for Withdrawal Application

Annex XV: Sample of financial statements

Annex I: Sample Job descriptions related to Financial Management and Administration

A. PD

Responsible for all aspects of IFAD projects implementation under direct supervision of the Steering Committee and the Lead Project Agency. Specific duties:

- Plan, organize and coordinate project implementation in line with rules and regulations and provisions of the loan/grant agreements.
- Elaborate and review project documents as well as IFAD standard procurement and disbursement documents.
- Organize, coordinate, monitor, and control the work plan, budget and procurement plan to ensure delivery of project outputs.
- Ensure the efficient management of project resources in a transparent manner.
- Supervise project disbursement, accounting and financial management and ensure eligibility of funds use in accordance with the loan/grant agreements.
- Ensure that procurement of goods, services and works is carried out according to project design and IFAD procedures.
- Manage the PMU staff to ensure efficiency, including appraising their performance annually.
- Communicate the projects' objectives and components, to target groups including stakeholders to ensure sustainability and ownership of the project.
- Assess qualifications and pre-qualifications of implementing partners, consultants, and contractors that may be selected for project implementation.
- Negotiate contractual arrangements with various implementing partners and contractors.
- Evaluate performance of implementation by governmental and non-governmental implementing partners, consultants and contractors.
- Prepare agreements with beneficiaries, stipulating the conditions of their participation.
- Ensure a close cooperation and coordination with other national and international development partners at national and district level.
- Update the Project Implementation Manual if and when necessary,
- Prepare quarterly and annual reports to IFAD, the steering committee and LPA as well as other stakeholders (if any).
- Develop and maintain a M&E and MIS to monitor project progress and performance.
- Ensure full compliance with directives issued by the Project Steering Committee and the LPA .

B. FM

Under the direct supervision of the PD , and within the framework of projects appraisal reports and loan/grant agreements, responsible for the financial and administrative management of the PMU , including Accounting, Budgeting , financial reporting, internal controls, auditing arrangement, flow of funds and the efficient management of projects resources. Specific duties:

- Prepare together with the PD the Annual work plan and budget and the budget and financing plan in particular.
- Master IFAD key documents such as, the disbursement handbook, procurement guidelines and handbook, IFAD guidelines for project audits, the Financing Agreement (FA) and the Letter to the Borrower (LTB).
- Develop and maintain an efficient accounting system and reliable internal control procedures and guidelines for financial reporting and recordkeeping.
- Responsible for the preparation, review and monitoring of projects budgets including financing plan, procurement plan (together with the Procurement Officer), and staff development plan (together with the training focal point)
- Prepare/verify all withdrawal applications for submission to IFAD, and ensure the availability of funds for all planned activities. Manage the projects bank accounts, approve and co-signs all payments.
- Responsible for all project procurement, either directly or by delegation.
- Prepare and provide financial reports including the sources and uses of funds statement, incurred expenditures by component, expenditure category and financier, designated account

reconciliation statement, fixed asset list and cash flow forecast etc. for submission to the Project steering committee, LPA and IFAD on a semi and annual basis, and maintain all records in a form appropriate for audit.

- Lead the process of contracting an external audit firm to conduct an independent audit of the annual project accounts, ensuring that annual audits are carried out within the specified timeframe.
- Develop and maintain a system of financial control over all expenditure incurred by implementing partners.
- Responsible for developing and managing an effective and performance based human resources management system.
- Supervise and coordinate the work of staff placed under his/her direct authority.
- Review and regularly update the Financial and Administrative Manual of the PMU.
- Develop together with the Financial DFM the Accounting manual of the PMU.
- Responsible for the organization and supervision of the PMU office, assets, logistics, and all administrative matters.
- Undertake any other activities assigned by the PD.

C. DFM

Under the direct supervision of the FM; specific duties include:

- Assist the FM in the implementation of a sound financial management system.
- Prepare financial reports, including monthly funds reconciliation, and monthly, quarterly, semi-annual and annual expenditure statements;
- Prepare transaction vouchers, and input all transactions into the PMU accounting system before submission to the FM for approval;
- Process all payments, ensuring that PMU procedures are strictly adhered to;
- Process monthly payroll, payment of salaries to staff and project contributions;
- Manage and report on the use of Petty Cash in accordance with the approved procedures;
- Assist the FM in the preparation of withdrawal applications;
- Prepare cash flow forecasts as required;
- Monitor financial returns from Implementing Partners, including periodic visits to their offices;
- Assist in the preparation and monitoring of annual operational budgets
- Functional supervision and training of Accounts & Administrative Assistants in PMU.
- Maintenance of a well organized and up-to-date filing system for accounting and financial records as well as an fixed asset tagging system;
- Perform physical inventory of project assets each year;
- Assist the FM in the preparation of the accounting manual of the PMU
- Provide assistance to the external auditors as required;
- Undertake any other activities assigned by PMU management.

D. Administrative Assistant

Under the direct supervision of the FM. Specific duties include:

- Assist the Financial DFM in the implementation of a sound financial management system.
- Assist the Financial DFM in preparing financial reports, including monthly funds reconciliation, and monthly expenditure statements;
- Assist the FA in prepare transaction vouchers, and input all transactions into the PMU accounting system before submission to the FM for approval;
- Assist the FA in process all payments, ensuring that PMU procedures are strictly adhered to;
- Assist the FA in process monthly payroll, payment of salaries to staff and Project contributions;
- Assist the Financial DFM and FM in the preparation of withdrawal applications;
- Assist the FA and FC in prepare cash flow forecasts as required;
- Assist in reviewing and monitor financial returns from Implementing Partners, including periodic visits to their offices;
- Assist in the preparation and monitoring of annual operational budgets
- Collate data received from colleagues into the system.
- Manage a well organized and up-to-date filing system for accounting and financial records;
- Assist in providing assistance to the external auditors as required;
- Undertake any other activities assigned by PMU management.
- Supervise the driver(s) and office attendant.

- Perform secretarial duties, including maintenance of a well organized filing system.
- Collect and review financial reports from implementing partners at district level.

Annex II: Sample Annual Work Plan and Budget

Table 1-4: Sample Budget and Financing Plan

Summary table 1: Planned Project Expenditures by Component and Financier

Component	Total		Financing Source				Beneficiaries
	Local	USD	IFAD Loan	IFAD Grant	Government (Budget)	Government (Tax)	
1. Rural Market Development 1 a. Rural Market innovation strategy 1b. Rural Market infrastructure 1c. Women Capacity Building							
2. Irrigation Infrastructure							
3. Rural Finance							
4. Programme Management							
Total							

Summary table 2: Planned Project Expenditures by Expenditure Category and Financier

Category	Total		Financing Source				Beneficiaries
	Local	USD	IFAD Loan	IFAD Grant	Government (Budget)	Government (Tax)	
I. Civil Works							
II. Equipment, Goods and vehicles							
III. Technical assistance and Studies							
IV. Training and Workshops							
V. Credit line							
VI. Incremental Operating Costs							
Total							

Summary table 3: Planned Project Expenditures by Component and Expenditure Category

Component	1. Rural Market Development	1 a. Rural Market innovation strategy	1b. Rural Market infrastructure	1c. Women Capacity Building	2. Irrigation Infrastructure	3. Rural Finance	4. Programme Management	Total
Category								
I. Civil Works								
II. Equipment, Goods and vehicles								
III. Technical assistance and Studies								
IV. Training and Workshops								
V. Credit line								
VI. Incremental Operating Costs								
Total								

Table 4: Detailed Tables per Component, Expenditure Category and Financier

Category	Description of activity by Component/subcomponent	Items				Physical Outreach	Timeline					Financing Source				
		Unit	Unit cost	Quantity	Total		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total	IFAD Loan	IFAD Grant	Gov. (Budget)	Gov. (Tax)	Benef.

	1. Rural Market Development				
	1 a. Rural Market innovation strategy				
III. Technical assistance and Studies	value chain expert				
	consultant	30 000	1	3000 0	
	Awareness building Workshop	workshop 4 000	12	48 000	
	Baseline study	500		1500	
	Local Market survey	Study 0	3	0	
		120		1200	
	Seminar	report 000	1	0	
		Seminar 21 000	3	6300 0	
	Publications and booklets	15	5000	7500 0	
	1b. Rural Market infrastructure				
III. Technical assistance and Studies	Feasibility study				
		10 000	1		
	Awareness building seminar	20 000	4		
	Publications	20	200		
I. Civil Works	Rural roads	KM	4000	#### ###	

Table 5: Sample Procurement Plan

Table 5: Procurement plan																						
								Preparation of Tendering Process		Bidding Process					Evaluation Process				Contract			
Component	Subcomponent/Activity	Item	Unit	Quantity	Unit cost estimate (USD)	Total cost estimate (USD)	Financing Source	Procurement Method	Bid Document	IFAD no objection	Publication (date)	EOI	Response Time	Closing Date	Opening Session	Bid/quote evaluation (date)	Prior review required	Final report	No Obj	Notification of Award	Signature	End Date
WORKS																						
	item1																					
	item2																					
GOODS																						
	item3																					
SERVICES																						
	item4																					

Table 6: Sample Staff Development Plan

Table 6: Staff Development Plan

Category	Component	Name and description of person(s)	Description of training activity	Proposed trainer/training institution	Loaction of the training activity	Estimated cost of the training activity (USD)	Additional costs (e.g. travel, accomodation. DSA)	Financing source
IV. Training and Workshops	4. Programme Management	Financial controller of the PIU	Financial Management Course	ITC/ILO	Turin Italy	4 000	3 500	IFAD Loan
IV. Training and Workshops	4. Programme Management	Administrative assistant of the PIU	advanced course in English	Professional Language Institute	Local	2000	na	IFAD Loan

Annex III: Sample chart of account (This will be adjusted once the cost tabs are finalised)

Chart of Accounts

Account code	Account name
1-00-0-0	Establishment of a Macro-Fiscal Analysis Unit
1-01-0-0	International Advisory Services
1-01-0-1	Macroeconomic Analysis & Modeling Advisor
1-02-0-0	Local Advisory Services
1-02-0-1	Full-Time Macroeconomic Analysis & Modeling Advisor
1-02-0-2	Fiscal Team Support Advisor
1-02-0-3	Public Enterprise Coverage Advisor
2-00-0-0	Public Expenditure Management
2-10-0-0	Cross-Cutting Issues
2-11-0-0	International Advisory Services
2-11-0-1	Legal Consistency Advisor
2-11-0-1	Senior Advisor PIP/ Loi-Programme
2-20-0-0	Expenditure Planning & Budget Formulation
2-21-0-0	International Advisory Services
2-21-0-1	Resident Budget Planning Advisor
2-21-0-2	Visiting Budget/ Sectoral MTEF Advisor
2-21-0-3	High-Level Review of BC / CoA Advisor
2-22-0-0	Local Advisory Services
2-22-0-1	Budget Preparation Advisor
2-22-0-2	Sectoral Economist A
2-22-0-3	Sectoral Economist B
2-22-0-4	Review of BC / CoA Advisor
2-30-0-0	Budget Execution, Monitoring & Audit
2-31-0-0	International Advisory Services
2-31-0-1	Senior Public Audit Expert
2-31-0-2	Treasury Management Strengthening Advisor
2-31-0-3	Budget Execution System Diagnostic & Solutions Advisor
2-32-0-0	Local Advisory Services
2-32-0-1	Treasury Management Strengthening Advisor
2-32-0-2	Development of a Cash Forecasting Tool (Software Development)
2-32-0-3	Budget Execution System Diagnostic Advisor
3-00-0-0	Debt Management
3-01-0-0	International Advisory Services
3-01-0-1	Debt Strategy Formulation Advisor
3-01-0-2	Cost Risk Analysis Advisor
3-01-0-3	Debt Strategy Implementation Advisor
3-01-0-4	Data & Debt Recording Advisor
3-02-0-0	Local Advisory Services
3-02-0-1	Debt Management Advisor
3-02-0-2	Legal Advisor
4-00-0-0	Aid Coordination & Management
4-01-0-0	International Advisory Services
4-01-0-1	Resident Aid Coordination & Management Advisor
4-02-0-0	Local Advisory Services
4-02-0-1	Aid Coordination & Management Advisor
4-03-0-0	Miscellaneous Expenses
4-03-0-1	Representation at Donor Meetings
5-00-0-0	Training & Capacity Building
5-01-0-0	International Advisory Services
5-01-0-1	Training Design & Implementation Advisor
5-02-0-0	Local Advisory Services
5-02-0-1	Training Coordinator
5-03-0-0	Miscellaneous Expenses
5-03-0-1	Workshops
5-03-0-2	Study Tours
6-00-0-0	Project Management
6-01-0-0	Local Advisory Services

- 6-01-0-1 Project Manager
- 6-01-0-2 Financial Management Specialist
- 6-01-0-3 Procurement Specialist
- 6-02-0-0 Miscellaneous Expenses**
- 6-02-1-0 Operating Costs**
 - 6-02-1-1 Accounting Software
 - 6-02-1-2 Office Equipment
 - 6-02-1-3 Office Equipment Maintenance Expense
 - 6-02-1-4 Stationary & Office Supplies
 - 6-02-1-5 Advertising Expense
 - 6-02-1-6 Post Expense
 - 6-02-1-7 Translation Expense
 - 6-02-1-8 Printing Expense
 - 6-02-1-9 Bank Charges
- 6-02-2-0 Project Audit**
- 7-00-0-0 A/C Payables**
- 8-00-0-0 Bank & Related Accounts**
 - 8-01-0-0 BDL Designated Account
 - 8-02-0-0 IFAD Account
 - 8-03-0-0 Foreign Exchange Difference

IFAD Project XXXX

Accounting Information System

A. Background

The LPA is currently in the process of implementing an IFAD Project XXXX. The project is implemented through a project implementation unit (PMU) within the LPA. In order to comply with IFAD's reporting requirements the LPA will need to procure an Accounting Software to be used by the PMU for the Project for the following purposes:

- 1) to collect, analyze, store, and distribute information that is useful for decision making
- 2) to provide transparency and accountability of the project activities,
- 3) to provide timely reports, help detect errors and deficits during project implementation and indicate necessary corrections, and
- 4) to prepare and present progress reports to the PMU, LPA and IFAD.

The project will be managed from the PMU/LPA located in the Capital and four regional offices situated in the districts of CC,BB, and BB where the project will be implemented. The main functions will be run from the PMU in the capital but accounting entries will also be executed from the regional offices in the three districts.

B. Specifications of the Software

General features

1. The Accounting software should be configured as a modular solution and the different modules should be suitably integrated, the following are the basic modules:
 - a. Chart of Account
 - b. Accounting
 - c. Financial Reporting
 - d. Budget
 - e. Assets
 - f. Withdrawal Application
 - g. Contract Management, and integrating other modules if needed.
2. classifying the levels of the Chart of account into four levels;
 - a. Type (Assets – Liabilities – Expenses)
 - b. General Ledger Account
 - c. Subsidiary Accounts
 - d. Subsidiary -1 Accounts, to end up with auxiliary accounts.
3. Handling all the financial transactions of the Project according to the chart of account, that is used to:
 - a. Capture the financial data under the appropriate headings
 - b. Classify and group financial data for the various financial reports. The structure of the Chart of Accounts caters data to be captured by:
 - i. the Project components and sub-components
 - ii. expenditure items under each component and sub-component
 - iii. The IFAD disbursement category for the Project
 - iv. Sources of funding
4. All vouchers used in the system are based on double entries.
5. Ability to account under different bases of accounting (cash,modified accrual, Accrual)
6. using adjusting entry when needed
7. Handling the definition of various currencies used by the system
8. Holding multi – donor's information, with notification that no contract will have more than two donors.
9. recording the daily currency rates for all the predefined currencies, if reports can be demanded by Lebanese Government currency
10. Recording the loan number and source of fund.
11. Capacity to customize reports by e.g. exporting data to excel.

Financial reporting

12. Produce the periodic Financial Reports as requested by IFAD:
 - a. Statement of Cash Receipts and Payments per Project components showing quarterly, yearly and cumulative balances for the quarter and cumulative;
 - b. Statement of Cash Receipts and Payments per Project categories showing quarterly, yearly and cumulative balances for the quarter and cumulative;
 - c. Statement of Designated Account reconciling period-opening and end balances;
 - d. Statement of Project commitments, i.e., the unpaid balances under the Project's signed contracts;
 - e. Statement of fixed assets,
 - f. Statement of Cash Payments using SOE.
13. produce other financial statements on a quarterly and annually basis, which are as follows;
 - a. Journal and Payment Vouchers
 - b. Statement of Special Accounts
 - c. Cost Center Statements
14. Progress report (physical) and not financial by contract, component and category (all projects). This request will involve:
 - a. A function will be designed and developed to allow the user to define the planned (estimated) physical % completion on each period (year, Quarter).
 - b. A function will be designed and developed to allow the user to enter/modify the actual reported on physical % completion on each period (year, Quarter).
 - c. An Inquiry function to display physical progress on each contract
- d. A report showing detailed physical progress reporting per period
- e. A report showing up-to-date physical progress reporting per period
15. Consolidated report (financial report) of all projects managed under the software.
16. Recording the budget of all the activities of the project, and enable comparison of the actual performance with budgets/targets (quarterly, annual, and cumulative for the Project).
17. a fixed assets listing report indicating all relevant information (such as description, location, quantity, serial number, etc.) which needs to be updated and include any discrepancies between the regular physical inspection and the accounting records
18. Enhancement on the Withdrawal Application report to include the SOE and Summary sheet

Procurement

19. Keeping detailed records for all the contractors and consultants (ID number, Name, Nationality, Address, Phone, Fax, e-mail, contact name "position, phone number, fax, bank account bank address" and other information needed, and the accounting system should afford information regarding the procurement cycle that took place before contract signature and report on the following:
 - a. Prior review thresholds;
 - b. Procurement methods thresholds;
 - c. Procurement reference;
 - d. Activity description;
 - e. Component (as per the description schedule of the Loan);
 - f. Category (as per disbursement schedule);
 - g. Estimated amount;
 - h. Procurement method used;
 - i. Prior/Post review;
 - j. Date of issuance of advertisement;
 - k. Bank no objection on bidding documents (Goods/works) or RFP (consultants);
 - l. Date of bid (Goods/works) or RFP (consultants) submission;
 - m. Bid opening date (goods/works) or Financial Proposal opening date(consultants);
 - n. Bank No objection to evaluation report;
 - o. Bank no objection to contract draft;
 - p. Date of submission to the Bank of the Copy of signed contract;
 - q. Contract related data (date of signature, date of completion, contract amount, and contract amendments and payments terms).

Security

20. Handling the required security according to predefined system security and privileges.
21. The program has adequate security features including password protection , not possible to delete a posted transaction, controlled access
22. Includes proper backup and system maintenance procedures.

Training and support

- 23. Training of the Financial officer and head DFM and four regional DFMs on all features of the software.
- 24. Provide a complete and a user friendly manual
- 25. Configuration and Full installation of the software in seven computers, three in the capital four in the different regional offices.

C. Delivery time table

The commencement of services for this assignment is expected to be no later than the forth week of March 2012.

The main objective of the firm is to deliver a well designed software, that facilitates reflection of project needs and be designed to provide the financial information required by all interested parties (the LPA, Ministry of Finance and IFAD) and fulfil the legal and regulatory requirements of the Ministry Of Education.

The firm is expected to deliver the system during the phase mentioned below:

Ref	Deliverable's Title	Duration
	Deliverable 1 : install the present system	1 week
	Deliverable 2 : needed modifications should be applied on the system	3 weeks
	Deliverable 3 : Training sessions on the system	1 week.

6. Monthly Budget Execution Report

			ACTUAL			Planned/Budgeted			Variance			Commitments Entered (not payed) To - Date
			Current Quarter	Year-To Date	Cumulative To-Date	Current Quarter	Year-To Date	Cumulative To-Date	Current Quarter	Year-To Date	Cumulative To-Date	
Cash Payments per Component												
1-	Component 1											
		Sub Component 1.1										
		Sub Component 1.2										
		Sub Component 1.3										
2-	Component 2											
3-	Component 3											
4-	Component 4											
Total												
Cash Payments per Expenditure category												
	Category 1:Works											
	Cactegory 2: Goods											
	Category 3: Consultancy Services											
	Category 4: Credit line											
	Category 5: PIU cost											
Total												

Table 1: Sample Statement of Cash Receipts and Payments by Category

1 . Statement of Cash Receipts and Payments by Category (all financiers)

	Reporting Period (Quarterly/Semi-annually)	Cumulative	Forecast: next 6 months
	US\$	US\$	US\$
Receipts			
IFAD Loan Designated Account	R	R [^]	R*
IFAD Loan Direct payments	S	S [^]	S*
IFAD Grant Designated Account	T	T [^]	T*
IFAD Direct payment	U	U [^]	U*
Government Funds	V	V [^]	V*
Beneficiary Funds	Y	Y [^]	Y*
Total Receipts	P=R+S+T+U+Z+V+Y	P[^]=R[^]+S[^]+T[^]+U[^]+Z[^]+V[^]+Y[^]	P*=R*+S*+T*+U*+Z*+V*+Y*
I. Civil Works	a	a [^]	e
II. Equipment, Goods and vehicles	b	b [^]	f
III. Technical assistance and Studies	c	c [^]	g
IV. Training and Workshops	d	d [^]	h
V. Credit line	f	f [^]	j
VI. Incremental Operating Costs	g	g [^]	k

Total Payments Foreign Exchange difference	O=a+b+c+d+f+g X	O^=a^+b^+c^+d^+f^+g^ X^	W=e+f+g+h+j+k
Receipts less Expenditures	=P-O+X	=P^-O^+X^	"=P*-W"
Opening Cash Balance Comprising IFAD Loan Designated Account IFAD Loan Direct payments IFAD Grant Designated Account IFAD Direct payment Project Account Counterpart Accounts (for government and beneficiary funds)	L	L^	G
Closing Cash Balances	=L+P-O+X	=L^+P^-O^	=G+P*-W

Table 2: Financial performance per expenditure category and financier

2. Summary of Expenditures by Loan Categories and By Financiers (USD)													
Loan Category	Description of category	Financing Source (USD)											
		IFAD Loan		IFAD Grant		Government (budget)		Government (Tax)		Beneficiaries		Total	
		Report ing period	Cumula tive	Report ing period	Cumula tive	Report ing period	Cumula tive	Report ing period	Cumula tive	Report ing period	Cumula tive	Report ing period	Cumula tive
I	Civil Works												
II	Equipment, Goods and vehicles												
III	Technical assistance and Studies												
IV	Training and Workshops												
V	Credit line												
VI	Incremental Operating Costs												
Total													

Table 3: Financial performance per component and per financier

3. Financial performance by financier by component (USD '000)

Component	IFAD loan						IFAD grant						Government (Budget & tax)						Beneficiaries						Total						Total Allocation per design report	Revised allocation			
	Reporting period			Cumulative			Reporting period			Cumulative			Reporting period			Cumulative			Reporting period			Cumulative			Reporting period			Cumulative							
	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance	Planned	Actual	Variance					
Component 1																																			
Sub-component 1																																			
Sub-component 2																																			
Sub-component 3																																			
Component 2																																			
Component 3																																			
Component 4																																			
Total																																			

Table 4: Project Cash Flow Forecast

5. Semi-annual cash flow forecast						
	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
Cash Inflow						
IFAD Loan						
IFAD Grant						
Government						
Beneficiary						
Other Sources						
Total Cash Inflow	0	0	0	0	0	0
Cash Outflow						
Category 1: Works						
Category 2: Equipment, Goods and vehicles						
Category 3: Technical assistance and Studies						
Category 4: Training and Workshops						
Category 5: PMU cost						
Salaries						
Rent						
stationary						
etc.						
Total Cash Outflow						
Net Cash flow						
Opening Balance						
Funds Available						

Table 5: SOE-Withdrawal Application Statement

5. Statement Of Expenditures Withdrawal Application Statement							
By category of Expenditures in Local Currency							
WA submitted to IFAD							
		WA n..		WA n..	WA n..	WA n..	Total
Category	Category Description						
1	AAAA	xx		xx	xx	xx	xx
2	BBBB	xx		xx	xx	xx	xx
3	CCCC	xx		xx	xx	xx	xx
<i>Total</i>		xx		xx	xx	xx	
In USD equiv/		xx		xx	xx	xx	
Rejected from IFAD		xx		xx	xx	xx	
<i>Net Reimbursed</i>		xx		xx	xx	xx	
WA pending submission to IFAD							
		WA n..	WA n..		WA n..	WA n..	
Category	Category Description						
1	AAAA	xx		xx	xx	xx	
2	BBBB	xx		xx	xx	xx	
3	CCCC	xx		xx	xx	xx	
<i>Total</i>		xx		xx	xx	xx	

Withdrawal applications are submitted for reimbursement to IFAD using the historical exchange rate of the transfers to the Operating Account.

Expenditures partially or totally rejected by IFAD (if any) should be detailed here.

This statement should be reconciled with the Statement of Receipts and Payments

Table 6: Signed Contract Listing

6. Signed Contract Listing									
Reporting period:		Contract Information							
Disbursement Category	Contract Description	Contract Start	Contract End	Supplier/ Contractor Name	Contract No.	Total Contract Value	Total Contract Amount Invoiced to date	Total Disbursed on Contract	Total Undisbursed Amount
Description									
Category 1: Works									
Category 2: Equipment, goods And Vehicles									
Category 3: Consultancy services									
Category 4									
Total									

Table 7: Physical Progress Report

Table 7: Physical Progress Report		
Description of activities	Progress and Cost	Plan to completion

Category	Project activity by component/Sub-component	Physical Progress to date		Cost to date			Revised		Original	
		Actual	Planned	Actual	Planned	Actual as % of Plan	Total cost	Completion date	Total cost	Completion date
1. Works	2. Irrigation Infrastructure Road infrastructure Road works Design Civil works -site clearance Civil works - construction Civil works finishing									
3. Consultancy services	1 a. Rural Market innovation strategy feasibility studies market survey									
4. Training and Technical assistance	1c. Women Capacity Building Workshops Training courses									
5. Credit line	3. Rural Finance Micro Credit Grants									

Annex VIII A: Petty Cash Request Form

Date: _____

Requested by : _____
Name

Mode of payment

Signature

- Reimbursement
- Advance

Description of purchases (goods/services)	Unit price	Quantity	Total cost**	Budget/ Activity code	Explanation / Comments
TOTAL AMOUNT*					

Approved by **Processed by**

Payment received

FM DFM

* Total amount cannot exceed xxxxx.

** Attach supporting document (invoice, receipt, etc.).

Annex VIII B: Petty Cash Reconciliation Form

Project _____ **Date of reconciliation** _____

Part i. Petty cash reconciliation

Petty cash balance brought forward (a) _____
 Replenishments during the current month (b) _____
 Total petty cash balance (c = a + b) _____
 Disbursements during the current month (d) _____
 Petty cash book balance (e = c - d) _____
 Cash count balance (f) – see part ii. below _____
 Difference (G = E - F) _____

Explanation Of Difference

Part ii - Cash Count

Description	Quantity	Total amount
bank notes		
500		
1 000		
2 000		
coins		
10		
20		
50		
total in local currency		

Counted/reconciled by (DFM) _____

Reviewed by (FC) _____

Date _____

Annex IX B: Vehicle History Record

Vehicle registration number _____

Assigned driver _____

Date	Repairs			Service & maintenance			Insurance			Fitness tests	
	Description of repair	Garage	Cost	Description of service	Garage	Cost	Type	Period covered	Cost	Checked by	Cost

Report accidents in the space below, providing all relevant details for each occurrence:

Date:

Place:

Name of driver:

Circumstances:

Damage to PMU vehicle:

Damage to other vehicles:

Injuries (indicate name of victims and describe injuries):

Insurance settlement:

Annex X : Sample Terms of Reference for the Audit of SARP

The following are the terms of reference ('ToR') on which **the LPA** agrees to engage **audit firm** 'the Auditor' to perform an Audit and to report in connection with the Agreement with the International Fund for Agricultural Development (IFAD) concerning **the project XXX** where in these ToRs the 'Contracting Authority' is mentioned this refers to **IFAD** which has signed the Agreement with the **Recipient/Borrower** and finances the services. The Contracting Authority is not a party to this engagement.

1.1 Responsibilities of the Parties to the Engagement

Recipient/Borrower refers to the entity that provides the services and that has signed the Agreement with the Contracting Authority.

- The PMU/LPA is responsible for providing a Financial Statements for the services financed by the Loan/ Grant and for ensuring that these Financial Statements can be properly reconciled to the PMU/LPA records and accounts in respect of these services.
- The PMU/LPA accepts that the ability of the Auditor to perform the procedures required by this engagement effectively depends upon the PMU/LPA providing full and free access to its staff and records and accounts.
- The PMU/LPA shall provide the auditors with all the necessary documentation to perform the assignment properly; in particular the following information shall be provided to the auditors before the beginning of the assignment:
 - a) Project Agreement;
 - b) Annual Progress Report;
 - c) Project Implementation Manual;
 - d) Financial Management Manual;
 - e) Organizational charts along with names and titles of senior managers;
 - f) Names and qualifications of officers responsible for financial management, accounting and internal audit.
 - g) Description of information technology facilities and computer systems in use and
 - h) Copies of the minutes of negotiations, the project design document, the annual work programme and budget and the letter to the borrower if available.

'The Auditor' refers to the Auditor who is responsible for performing the agreed-upon procedures as specified in these ToR, and for submitting a report of factual findings to the PMU/LPA.

The Auditor shall provide:

- **A separate opinion on Project Financial Statements (PFS)**

Minimum content of the PFS:

- a) Yearly and cumulative statements of sources and application of funds, which should disclose separately IFAD's funds, other donors funds and beneficiaries funds;
- b) Statement of sources and application of funds.
- c) Yearly and cumulative SOEs by withdrawal application and category of expenditures; reconciliation of the SA.
- d) Reconciliation between the amounts shown as received by the project and those shown as being disbursed by IFAD should be attached as an annex to the PFS. As part of that reconciliation the auditor will indicate the procedure used for disbursement (SA funds, letters of credit, special commitments, reimbursement or direct payment) and indicate whether the expenditure is fully documented or uses the Summary of Expenditures format.
- e) Notes accompanying the Financial statements
- f) Cumulative status of funds by category
- g) A statement of comparison between the actual expenditures and the budget estimates
- h) Full disclosure of cash balances and
- i) Other statements or disclosures relevant to the project .e.g. financial monitoring reports, credit lines etc.

- **A separate opinion on the use of the Designated Accounts/Special Accounts (DA/SA);**
The auditor is also required to audit the activities of the DA/SA associated with the project including the initial advance, replenishments, interest that may accrue on the outstanding balances, and the year-end balances. The auditor must form an opinion as to the degree of compliance with IFAD procedures and the balance of the DA/SA at year end. The audit should examine: (i) the eligibility of withdrawals from the DA/SA during the period under review; (ii) the operation of the DA/SA in accordance with the relevant financing agreement; (iii) the adequacy of internal controls within the project appropriate for this disbursement mechanism; and (iv) the use of correct exchange rate(s) to convert local currency expenditures to United States dollars.
- **A separate opinion on Withdrawal Application Statement / Statement of expenditures / Summary of Expenditures (SOEs);** the audit will include a review of SOEs used as the basis for submitting withdrawal applications. The auditor will carry out tests and reviews as necessary and relevant to the circumstances. SOE expenditures will be carefully compared for eligibility with relevant financial agreements, and the disbursement letter, and with reference to the project appraisal report for guidance when necessary. Where ineligible expenditures are identified as having been included in withdrawal applications and reimbursed, auditors will note these separately. A schedule listing individual SOEs withdrawal applications by reference number and amount should be attached to the PFS. The total withdrawals under the SOE procedure should be part of the overall reconciliation of IFAD disbursements described above. The auditor's opinion should deal with the adequacy of the procedures used by the project for preparing SOEs and should include a statement that amounts withdrawn from the project account on the basis of such SOEs were used for the purposes intended under the agreement.
- **A separate management letter addressing the adequacy of the accounting and internal control systems of the Programme, including compliance with IFAD's Procurement Guidelines and such other matters as IFAD may notify the PMU/LPA to include in the audit.**

The auditor is requested to:

- a) Comment on economy, efficiency and effectiveness in the use of project resources;
 - b) Comment on achievement of planned project results;
 - c) Comment on legal and financial obligations and commitments of the project and the extent of compliance or non-compliance thereof;
 - d) Comment on systems and procedures such as improvements in accounting, information technology or computer systems, and operations that may be under development, on which the auditor's comments are necessary to ensure effective controls;
 - e) Comment on other activities on which an auditor may consider it appropriate to report
- **Auditors shall certify :**
 - a) Whether the PFS are drawn up in conformity with international accepted accounting standards (IFRS or IPSAS)
 - b) Whether the PFS are accurate and are drawn up from the books of accounts maintained by the Project.
 - c) Whether the provisions of the Project Agreement are adhered to.
 - d) Whether Procurement has been undertaken by the Project in accordance with **Article VI** of the Project Agreement, IFAD's Procurement Guidelines
 - e) Carry out a physical verification of any significant assets purchased and confirm their existence and use for project purposes.
 - f) Whether the project has an effective system of financial supervision or internal audit at all levels.
 - g) Whether the expenditure claimed through SOEs are properly approved, classified and supported by adequate documentation.
 - h) The Auditor is a member of the International Federation of DFMs (IFAC).

1.2 Subject of the Engagement

The subject of this engagement is the financial statements of the years **20XX**, **20XY**, and **20XV** for the **IFAD Loan XXX and Grant XXX**. The information, both financial and non-financial, which is subject to verification by the Auditor, is all information which makes it possible to verify that the expenditures claimed by the **PMU/LPA** in Financial statements have occurred, and are accurate and eligible.

1.3 Reason for the Engagement

The **PMU/LPA** Service Provider is required to submit to the Contracting Authority an Audit report produced by an external auditor.

1.4 Engagement Type and Objective

This constitutes an engagement to perform specific agreed-upon procedures following the IFAD Guidelines on Project Audits provided to the Auditors by the **PMU/LPA** in Annex 1 of these TOR. The objective of this audit is for the Auditor to verify that the expenditures claimed by the **PMU/LPA** in the financial statements for the services covered by the Agreement have occurred ('reality'), are accurate ('exact') and eligible and to submit to the **PMU/LPA** a report of factual findings with regard to the agreed-upon procedures performed. Eligibility means that expenditure have been incurred in accordance with the terms and conditions of the Agreement.

1.5 Scope of Work

1.5.1 The Auditor shall undertake this engagement in accordance with these Terms of Reference and:

- in accordance with the International Standard on Audit (ISA) to perform Agreed-upon Procedures regarding Financial Information as promulgated by the IFAC;
- In compliance with the Code of Ethics for Professional DFMs issued by the IFAC. Although ISRS 4400 provides that independence is not a requirement for agreed-upon procedures engagements, the Contracting Authority requires that the auditor also complies with the independence requirements of the Code of Ethics for Professional DFMs.
- In accordance with International Standards on Auditing and in line with IFAD's Guidelines for Project Audits.

1.5.2 The Terms and Conditions of the Agreement

The Auditor verifies that the funds provided by the Agreement were spent in accordance with the terms and conditions of the Agreement.

1.5.3 Planning, procedures, documentation and evidence

The Auditor should plan the work so that effective audit can be performed. For this purpose he performs the procedures specified the IFAD Guidelines on Project Audits and he uses the evidence obtained from these procedures as the basis for the report of factual findings. The Auditor should document matters which are important in providing evidence to support the report of factual findings, and evidence that the work was carried out in accordance with ISA and these ToR.

1.6 Reporting

The report on this audit should describe the purpose and the agreed-upon procedures of the engagement in sufficient detail in order to enable the **PMU/LPA** and the Contracting Authority to understand the nature and extent of the procedures performed by the Auditor. Use of the financial and audit reporting is compulsory.

1.6.1 **Periods covered**

The reports on this audit should cover the following:

- a) **IFAD Loan XXX and Grant XXX** for the years 20XX
- b) **IFAD Loan XXX and Grant XXX** for the years 20XY
- c) **IFAD Loan XXX and Grant XXX** for the years 20XV

Reports covering items **a** must be delivered no later than 120 calendar days as of the date of signing the agreement.

Reports covering items **b and c** must be delivered within months after the end of the respective fiscal year .

Annex XI: Required Aide Memoire tables for IFAD Supervision missions

Table 1: Cumulative expenditures by component and Financier -as at DD/MM/YYYY (USD '000)

	IFAD Loan	IFAD Grant	Benef.	Government	Total
1. Rural Market Development					
1 a. Rural Market innovation strategy					
1b. Rural Market infrastructure					
1c. Women Capacity Building					
2. Irrigation Infrastructure					
3. Rural Finance					
4. Programme Management					
Total					

Table 2: Budgeted Expenditures and Performance against previous year's AWPB (USD '000)

	IFAD Loan	IFAD Grant	Benef.	Government	Total	Financial Performance (%)
1. Rural Market Development						
1 a. Rural Market innovation strategy						
1b. Rural Market infrastructure						
1c. Women Capacity Building						
2. Irrigation Infrastructure						
3. Rural Finance						
4. Programme Management						
Total						

Table 3A: Financial performance by financier - as at DD/MM/YYYY

Financier	Approval (USD '000)	Current (USD '000)	Disbursements (USD '000)	Per cent disbursed
IFAD loan				
IFAD grant				
Government				
Beneficiaries				
Total				

Table 3 B. Financial performance by financier by component - as at DD/MM/YYYY (USD)

	IFAD Loan			IFAD Grant			Government			Beneficiaries			Total		
	Ap pr.	Act ual	%	Ap pr.	Actual	%	Ap pr.	Act ual	%	Ap pr.	Act ual	%	Ap pr.	Act ual	%
1. Rural Market Development															
1 a. Rural Market innovation strategy															
1b. Rural Market infrastructure															
1c. Women Capacity Building															
2. Irrigation Infrastructure															
3. Rural Finance															
4. Programme Management															
TOTAL															

**TABLE 3 C: Expenditures by category - as at DD/MM/YYYY
(USD)**

Category description	Original Allocation	Revised Allocation	Expenditures	W/A pending	Balance	Per cent Spent
I. Civil Works						
II. Equipment, Goods and vehicles						
III. Technical assistance and Studies						
IV. Training and Workshops						
V. Credit line						
VI. Incremental Operating Costs						
Unallocated						
Total						

Annex XII: Sample recovery plan

Recovery Plan								
Designated Account								
IFAD Loan No.:				IFAD Loan Amount (SDR)		20 000 000.00		
Project Completion Date:		31-Dec-12		Loan Closing Date:		30-Jun-13		
Particulars Reporting Period	WA No.	Date	US \$	EUR	SDR	Unjustified balance USD SDR		
Authorized Allocation	1	18/01/2006	\$ 250 000.00	€ -	172 648.51	0.00	(77 351.49)	
				€ -	172 648.51			
					0.00			#VALUE!
			Exchange Rate:					
Justification:								
Ref. No.	WA No.	Date	Estimated WA value (SP)	Estimated WA value (USD)	Proposed Recovery %	Recovery Amount (USD)	Commulative Recovery Amount (USD)	Commulative Unjustified balance (USD)
1	40	21-Feb-12		111 832.56	45%	50 324.65	50 324.65	(50 324.65)
2	41	3-Mar-12		72 685.11	35%	25 439.79	75 764.44	(75 764.44)
3	42	5-May-12		74 685.11	35%	26 139.79	101 904.23	(101 904.23)
4	43	7-Jul-12		70 885.11	42%	29 771.75	131 675.98	(131 675.98)
5	44	5-Sep-12		64 885.11	40%	25 954.04	157 630.02	(157 630.02)
6	45	31-Dec-12		82 627.66	80%	66 102.13	223 732.15	(223 732.15)
7	46	10-Jun-13		26 065.11	100%	26 267.85	250 000.00	(250 000.00)
8								
				TOTAL		503 665.77 USD	250 000.00 USD	
In accordance with IFAD procedures, any amount unjustified at the time of loan closing date will be promptly refunded to IFAD.								
Prepared by:						15-Oct-11		
						Date		
Confirmed by:								
						Date		

Annex XIII: Designated account reconciliation statement (Imprest account)

5 A. Designated Account Reconciliation Statement (imprest account)																	
Designated Account No:																	
Bank Name:																	
1. Total Advanced by IFAD	USD _____																
2. Less total amount recovered by IFAD	USD _____																
3. Equals present outstanding amount advanced to the designated account (line 1 less line 2)	USD _____																
<hr/>																	
4. Balance of designated account per attached bank statements as of (Date: day/month/year)	USD _____																
5. Plus balance of the project account(s) (listed separately)	USD _____																
Plus balance of sub accounts (listed separately)	USD _____																
Plus balance of Cash in Hand	USD _____																
Total of Bank Balances (designated A/C, PA, SUB accounts& cash in hand balance) (line 4+line 5)	USD _____																
6. Plus total amount claimed in this WA no.	USD _____																
7. Plus total amount withdrawn from the designated/PA/Grant account and not yet claimed for replenishment) or WAs pending submission	USD _____																
8. Plus amounts claimed in previous applications but not yet created at the date of bank statement and/or claimed after date of bank statement	USD _____																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Application No.</th> <th style="text-align: left;">Date</th> <th style="text-align: left;">USD</th> <th style="text-align: left;">Amount</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td style="text-align: center;">\$</td> <td></td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">\$</td> <td></td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">\$</td> <td></td> </tr> </tbody> </table>		Application No.	Date	USD	Amount			\$				\$				\$	
Application No.	Date	USD	Amount														
		\$															
		\$															
		\$															
9. Minus Interest earned (to be completed. If zero, please enter zero)	USD _____																
10. Total Advance accounted for (line 5 through line 9)	USD _____																
11. Explanation of any difference between the totals appearing in Lines 3 and 10	USD _____																
e.g.	Non eligible amount to be refunded to the designated account USD _____																
e.g.	calculation errors in application of percentage financing USD _____																
e.g.	counterpart financial resources to be reimbursed USD _____																
e.g.	cheques not yet cleared/presented to Bank USD _____																
12 DATE _____	SIGNATURE _____ Name in full _____ Title in Full _____																

Annex XIV: Checklist for Withdrawal Application

IFAD Financing No. ----

WA No. ---

Reporting period [from --- to ---]

FORM 100 - APPLICATION FOR WITHDRAWAL	Yes or No
1. Sequential numbering of withdrawal application	
2. Withdrawal application amount tallies with sequentially numbered summary sheets	
3. Categories/subcategories charged according to schedule 2 of financing agreement	
4. Percentage of financing applicable for each category or subcategory	
5. Availability of funds in categories and the overall financing amount	
6. Currency of payment	
7. Completeness and accuracy of banking instructions	
8. Complete name and address of correspondent bank	
9. WA is signed by Authorized Representative	
STATEMENT OF EXPENDITURE	
1. Eligibility of expenditures claimed (a) Within SOE financial ceiling (b) Expenditures under specific category [----] eligibility	
2. Form 102 signed by designated Project DFM, PD, Authorized Representative	
3. Form 102 supported by signed Form 101 (for items reported in 2, but over the financial ceiling)	
DESIGNATED ACCOUNT – REPLENISHMENT REQUESTS	
1. Amount within ceiling figure agreed as a reasonable limit [-- US\$ or --]; or per AWP/B period	
2. Amount at least equal to 20 per cent of the agreed limit; or per AWP/B projected requirements	
3. Amount agreed sufficient to cover a specific reporting period (revolving fund option)	
4. Exchange rate used	
5. Completeness of designated account banking and account details	
6. Enclosed designated account reconciliation and bank statements	
SUPPORTING DOCUMENTATION (attached when/if required)	
1. Copy of contract	
2. Copy of invoice, certified by PD	
3. Copy of bank guarantee and performance guarantee (for advance payment)	
4. Copy of delivery receipt	
5. Copy of evidence of payment	
6. Completed Form 101	
7. Completed Form 102 (A or B)	
PROCUREMENT	
1. Copy of 'no objection(s)' provided by IFAD (attached)	
2. Copy of Contract Payment Monitoring Form(s) (attached)	
COMPLIANCE WITH CONDITION(S) FOR DISBURSEMENT	
1. In accordance with terms in section E of the Financing Agreement	
2. In accordance with terms in the Letter to the Borrower/Recipient	
EXPENDITURE INCURRED/COMMITTED BEFORE PROJECT COMPLETION DATE	
1. Expenditure verified as eligible: (a) contract signed before project completion date (b) goods delivered before project completion date (c) services completed and/or rendered before project completion date	

Remarks:

Prepared by: Project DFM/FM
Dated: _____

Certified by: PD
Dated: _____

Annex XV: Sample Project Financial Statements

STATEMENT OF RECEIPTS AND PAYMENTS (BY CATEGORY OF EXPENDITURES) FOR THE YEAR ENDED June 30, 201X

	Notes	201X		Cumulative
		MWK	MWK	to date
Balance B/F	4	XXX	XXX	
FINANCING				
Receipts from IFAD				
Initial Deposit				XXX
Replenishments to SA		XXX	XXX	XXX
IFAD Direct Payments	5	XXX	XXX	XXX
Government Funds	6	XXX	XXX	XXX
Other Donors	7			
Other Receipts	8			
TOTAL FINANCING		XXX	XXX	XXX
PROJECT EXPENDITURES: (BY CATEGORY OF EXPENDITURES)				
IFAD Financed				
Vehicles, Motorcycles and Equipment	9	XXX	XXX	XXX
Technical Assistance, Trainings, workshops and Studies		XXX	XXX	XXX
Support for Adaptive Research		XXX	XXX	XXX
Support for Knowledge Management and Communication		XXX	XXX	XXX
Support for Improved Agricultural Extension		XXX	XXX	XXX
Support for Access to Key Agricultural Inputs		XXX	XXX	XXX
Salaries and Allowances		XXX	XXX	XXX
Incremental Operating Costs		XXX	XXX	XXX
		XXX	XXX	XXX

Malawi: Sustainable Agricultural Production
STATEMENT OF RECEIPTS AND PAYMENTS (BY CATEGORY OF EXPENDITURES)
FOR THE YEAR ENDED June 30, 201X

		Notes	201X	201X-1	Cumulative to date
			MWK	MWK	MWK
Government Funds					
1	Vehicles, Motorcycles and Equipment	9	XXX	XXX	XXX
	Technical Assistance, Trainings,				
2	workshops and Studies		XXX	XXX	XXX
3A	Support for Adaptive Research		XXX	XXX	XXX
	Support for Knowledge Management and				
3B	Communication		XXX	XXX	XXX
	Support for Improved Agricultural				
4A	Extension		XXX	XXX	XXX
	Support for Access to Key Agricultural				
4B	Inputs		XXX	XXX	XXX
5	Salaries and Allowances		XXX	XXX	XXX
6	Incremental Operating Costs		XXX	XXX	XXX
TOTAL PROJECT EXPENDITURES			XXX	XXX	XXX
BALANCE C/F			4	XXX	XXX

1.

Malawi: Sustainable Agricultural Production Programme (SAPP)
STATEMENT OF RECEIPTS AND PAYMENTS (BY COMPONENT)
FOR THE YEAR ENDED JUNE 30, 201X

	Notes	Cumulative		
		201X	201X-1	to date
		MWK	MWK	MWK
Balance B/F	4	XXX	XXX	
FINANCING				
IFAD Credit				
Initial Deposit				XXX
Replenishments to SA		XXX	XXX	XXX
IFAD Direct Payments	5	XXX	XXX	XXX
Government Funds	6	XXX	XXX	XXX
Other Donors	7			
Other Receipts	8			
TOTAL FINANCING		XXX	XXX	XXX
PROJECT EXPENDITURES:				
(BY COMPONENT)				
IFAD				
Adaptive Research and Knowledge Management				
Adaptive Research		XXX	XXX	XXX
Knowledge Management and Communication		XXX	XXX	XXX
		XXX	XXX	XXX
Farmer Adoption of GAPs				
Awareness Raising and Sensitisation		XXX	XXX	XXX
Access to Key Agricultural Inputs		XXX	XXX	XXX
		XXX	XXX	XXX
Programme Management and Coordination		XXX	XXX	XXX
		XXX	XXX	XXX
Government Funds				
Adaptive Research and Knowledge Management				
Adaptive Research		XXX	XXX	XXX
Knowledge Management and Communication		XXX	XXX	XXX
		XXX	XXX	XXX
Farmer Adoption of GAPs				
Awareness Raising and Sensitisation		XXX	XXX	XXX
Access to Key Agricultural Inputs		XXX	XXX	XXX
		XXX	XXX	XXX
Programme Management and Coordination		XXX	XXX	XXX
		XXX	XXX	XXX
TOTAL PROJECT EXPENDITURES		XXX	XXX	XXX
BALANCE C/F	4	XXX	XXX	XXX

Malawi: Sustainable Agricultural Production Programme (SAPP)
STATEMENT OF COMPARISON OF BUDGET AND ACTUAL AMOUNTS
FOR THE YEAR ENDED JUNE 30, 201X

		201X Budget	201X Actual	Variance
Notes		MWK	MWK	MWK
FINANCING				
IFAD Credit				
	Replenishments to SA	XXX	XXX	XXX
	IFAD Direct Payments	XXX	XXX	XXX
	Government Funds	XXX	XXX	XXX
TOTAL FINANCING		XXX	XXX	XXX
PROJECT EXPENDITURES: (BY CATEGORY OF EXPENDITURES)				
Cat	IFAD Financed			
	Vehicles, Motorcycles and			
1	Equipment	XXX	XXX	XXX
	Technical Assistance,			
	Trainings, workshops and			
2	Studies	XXX	XXX	XXX
	Support for Adaptive			
3A	Research	XXX	XXX	XXX
	Support for Knowledge			
	Management and			
3B	Communication	XXX	XXX	XXX
	Support for Improved			
4A	Agricultural Extension	XXX	XXX	XXX
	Support for Access to Key			
4B	Agricultural Inputs	XXX	XXX	XXX
5	Salaries and Allowances	XXX	XXX	XXX
6	Incremental Operating Costs	XXX	XXX	XXX
		XXX	XXX	XXX

Malawi: Sustainable Agricultural Production Programme (SAPP)
STATEMENT OF COMPARISON OF BUDGET AND ACTUAL AMOUNTS
FOR THE YEAR ENDED JUNE 30, 201X

		201X Budget	201X Actual	Variance
Notes		MWK	MWK	MWK
Government Funds				
1	Vehicles, Motorcycles and Equipment	XXX	XXX	XXX
2	Technical Assistance, Trainings, workshops and Studies	XXX	XXX	XXX
3A	Support for Adaptive Research	XXX	XXX	XXX
3B	Support for Knowledge Management and Communication	XXX	XXX	XXX
4A	Support for Improved Agricultural Extension	XXX	XXX	XXX
4B	Support for Access to Key Agricultural Inputs	XXX	XXX	XXX
5	Salaries and Allowances	XXX	XXX	XXX
6	Incremental Operating Costs	XXX	XXX	XXX
		XXX	XXX	XXX
TOTAL PROJECT EXPENDITURES		XXX	XXX	XXX
Surplus/Deficit for the period		XXX	XXX	XXX

The excess/deficit of actual expenditures over the Budget of 10% was due to....

Sustainable Agricultural Production Programme (SAPP)
STATEMENT OF DESIGNATED ACCOUNT ACTIVITIES
FOR THE YEAR ENDED JUNE 30, 201X

Account No: _____

Bank: _____

Address: _____

		USD	MWK
Opening Balance	Notes	XXX	XXX
Add:			
IFAD Replenishments:			
Date	WA No	XXX	
Date	WA No	<u>XXX</u>	
		XXX	
Bank Interests		XXX	XXX
Total		<u>XXX</u>	<u>XXX</u>
Deduct:			
Transfers to Operating Accounts:			
Date		XXX	
Date		<u>XXX</u>	
		XXX	
Bank Charges		XXX	XXX
Exchange Rate Difference			XXX
Closing Balance as at 30/06/201X		<u>XXX</u>	<u>XXX</u>
(as per Bank Statement)			

**Sustainable Agricultural Production Programme (SAPP)
STATEMENT OF DESIGNATED ACCOUNT RECONCILIATION
FOR THE YEAR ENDED JUNE 30, 201X**

Account No: _____
Bank: _____
Address: _____

		USD	MWK
Notes			
1	Initial Deposit	XXXX	XXXX
2	Less amount(s) recovered:	XXXX	XXXX
3	Outstanding Amount advanced	XXXX	XXXX
Represented by:			
4	Special Account Balance as at 30/6/201X	XXXX	XXXX
5	Plus amounts claimed but not yet credited as at 30/6/201X:		
	WA	XXX	Date
	WA	XXX	Date
	WA	XXX	
		XXXX	XXXX
Plus amounts withdrawn not yet claimed, composed of:			
Was Prepared not yet submitted:			
	WA	XXX	
	WA	XXX	
	WA	XXX	
	WAs not yet prepared:	XXX	
6	Total amount withdrawn not yet claimed	XXXX	XXXX
7	Less Interest earned and/or plus Bank charges (if included in the Special Account)	XXXX	XXXX
8	Total Designated Account Advance as at 30/6/201X	XXXX	XXXX
	Difference between Line 3 and line 8	XXXX	XXXX

Notes:

- a Explain any difference between lines 3 and line 8
- b Indicate if amount in line 6 is eligible for financing by IFAD and provide reasons for not claiming

Malawi: Sustainable Agricultural Production Programme (SAPP)
SOEs-WITHDRAWAL APPLICATION STATEMENT
FOR THE YEAR ENDED JUNE 30, 201X
by Category of Expenditures in Local Currency

Notes	Category descripti on	Category descripti on	Total	In USD Equivale nt	Rejected from IFAD	Net Reimburs ed
Cat No WA No:	1	2				
	XXX	XXX	XXX	XXX	XXX	XXX
	XXX	XXX	XXX	XXX	XXX	XXX
	XXX	XXX	XXX	XXX	XXX	XXX
	XXX	XXX	XXX	XXX	XXX	XXX
Total						XXX
WA Pending for Submission:						
WA No:	XXX	XXX	XXX	XXX	XXX	XXX
	XXX	XXX	XXX	XXX	XXX	XXX
						XXX
TOTAL						
L	XXX	XXX	XXX	XXX	XXX	XXX

Withdrawal Applications are submitted for reimbursement to IFAD using the historical exchange rate of the transfers to the Operating Account. Expenditures partially or totally rejected by IFAD (if any) should be detailed here. This statement should be reconciled with the Statement of Receipts and Payments.

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED JUNE 30, 201X

1. FINANCIAL REPORTING UNDER INTERNATIONAL PUBLIC SECTOR ACCOUNTING STANDARDS (IPSAS)

In accordance with International Public Sector Accounting Standards (IPSAS), notes to the financial statements of an entity should:

- Present any information about the basis of preparation of the financial statements and the specific accounting policies selected and applied for significant transactions and other events, and
- Provide additional information **which is not presented on the face of the financial statements but is necessary for a fair presentation of the entity's cash receipts, cash payments, cash balances and other statements as statement of financial position**

2 SIGNIFICANT ACCOUNTING POLICIES

The principle accounting policies adopted in the preparation of these financial statements are set out below:

A Basis of Preparation: The financial statements have been prepared in accordance with International Public Sector Accounting Standards (IPSAS) with particular emphasis on Cash Basis Financial Reporting under the Cash Basis of Accounting

B Cash Basis of Accounting: The cash basis of accounting recognizes transactions and events only when cash is received or paid by the entity.

C. Foreign Currency Transactions: Foreign currency translation for the income and expenditure account items are converted using the actual historic exchange rate at the conversion from designated to local account. Where part of the expenditures has to be met from the proceeds of subsequent draw downs from designated to local account, this is done on First in First out (FIFO) basis. All local expenditures paid from the local accounts/currency are translated back to the USD at the actual rate used for the transfer from designated to local account. Cash balances held in foreign currency are reported using the closing rate. Gains/Losses on foreign currency transactions/balances are dealt within the Statement of Designated Account Activities

3 BUDGET:

The budget is developed on the same accounting basis (cash basis), same classification and for the same period as the financial statements. Material variances (above XXX) have been explained as notes to the financial statements

4 DIRECT PAYMENTS

These payments were made directly by IFAD from the Loan/Grant account to the specified supplier/service provider in accordance with the terms and conditions of the financing Agreement

Include here details of direct payments

WA, Date, currency and amount received, amount in local currency

4. CASH/FUND BALANCES

Reconciliation

	201X MWK	201X-1 MWK
Cash Accounts	XXX	XXX
Advances	XXX	XXX
	XXX	XXX

Analyses of aging of advances to be included detailing and providing reasons for long outstanding advances

4-a CASH DETAILS

	200X MWK	200X-1 MWK
A/c No _____ Project Operating/ Holding Account	XXX	XXX
A/c No _____ IFAD Designated Account (as per SA Statement)	XXX	XXX
Petty cash	XXX	XXX
	XXX	XXX

5 GOVERNMENT COUNTERPART FUNDS

Details here. Cumulative contributions, yearly contributions (compared to budget). For information only Include details of tax treatment and counterpart contributions as tax exemption.

Note 7: OTHER DONOR FUNDS

	200X MWK	200X-1 MWK
List of Donors	XXX	XXX
	XXX	XXX
	XXX	XXX
	XXX	XXX
Add details of cumulative and expected contributions		

Note 8: OTHER RECEIPTS

	200X MWK	200X-1 MWK
Interest Income	XXX	XXX
other income (specify)	XXX	XXX
	XXX	XXX
	XXX	XXX

Note 9: NON-CURRENT ASSETS (this is for disclosure purposes only since under IPSAS Cash basis fixed assets should have be expensed but controlled through assets register)

Financial Statement Currency

	Vehicles		Motorcycles		Equipment	
	201X	201X-1	201X	201X-1	201X	201X-1
Opening Balance	XXX	XXX	XXX	XXX	XXX	XXX
Additions (Statement of Receipts and Payments)	XXX	XXX	XXX	XXX	XXX	XXX
Disposals	XXX	XXX	XXX	XXX	XXX	XXX
Closing Balance	XXX	XXX	XXX	XXX	XXX	XXX

This schedule includes all assets acquired from the commencement of the Project. These assets are stated at cost. Existence and beneficial ownership to be verified by the auditors. Apart of the summary schedule, details schedules for yearly changes to be included.

Note 10: YEARLY PROCUREMENTS

Include here a list of the yearly procurements including methods

Note 11: ALLOCATION AND USE OF THE FUNDS OF THE LOAN/GRANTS

	Allocated		Disbursed		Available Balance	
	SDR	USD	SDR	USD	SDR	USD
1 Category Vehicles, Motorcycles and Equipment	XXX	XXXX	XXXX	XXXX	XXXX	XXXX
2 Technical Assistance, Trainings, workshops and Studies	XXX	XXXX	XXXX	XXXX	XXXX	XXXX
3A Support for Adaptive Research	XXX	XXXX	XXXX	XXXX	XXXX	XXXX
3B Support for Knowledge Management and Communication	XXX	XXXX	XXXX	XXXX	XXXX	XXXX
4A Support for Improved Agricultural Extension	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
4B Support for Access to Key Agricultural Inputs	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
5 Salaries and Allowances	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
6 Incremental Operating Costs	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX

Note 12: RECONCILIATION OF FUNDS DISBURSED BY IFAD AND FUNDS RECEIVED BY THE PROGRAMME

Appendix II

FINANCIAL MANAGEMENT ASSESSMENT QUESTIONNAIRE (FMAQ)⁴⁰

Project # _____	Date :
Implementing Entity _____	
Self-assessment completed by _____	Date :
Review completed by _____	Date :

GUIDANCE: NOTES

The FMAQ provides an indicative list of issues and questions to be considered in the financial management assessment. It is clearly difficult for a single questionnaire to adequately cover the diversity of IFAD's operating environment and projects. The FMAQ should be customized to better address specific project circumstances by adapting the questions (adding, deleting, or modifying) to better suit the assessment objectives.

The FMAQ has been designed to primarily cover an assessment of a Lead Project Agency which is a Government Department and/or a PIU.

Before commencing the assessment it is essential to have a clear view of the probable project implementation arrangements - where the project financial management arrangements are administered through a PIU which primarily uses stand-alone financial systems the PIU is effectively the Implementing Entity and so focus of the FMA should be on the financial management arrangements in the PIU.

Advice on applying the Financial Management Questionnaire (FMAQ) for a self -assessment should be sought from the CFS Finance officer.

If there is more than one implementing agency, an FMAQ should be completed for each entity that will receive and disburse project funds.

⁴⁰ This questionnaire should be used as guidance for and in support of the Summary Project Fiduciary Risk Assessment @ Design (Annex III).

Implementing Entity:

	Topic	Response	Remarks
1.	Organization and Staffing		
	<p>Implementing Entity</p> <p>NOTE:</p> <p>In the case of a Government Department, the FMS should initially focus on the status of the country PFM systems in order to gauge level of fiduciary risks to which the proposed project may be exposed.</p> <p>Once an understanding of the PFM environment has been ascertained, the FMS should switch focus down to project level and focus on the department(s) or unit(s) that will financially administer the project.</p>		
1.1	Which entity is the LPA? What is the entity's legal status?		
1.2	Will financial management of the project be the responsibility of a the LPA or be undertaken within the-PIU?		
1.3	Has the entity implemented a donor financed project in the past - if so, please provide details?		
	Staffing		
1.4	What is the (proposed) organizational structure of the accounting department? Attach an organization chart.		
1.5	Identify the (proposed) accounts staff, including job title, responsibilities, educational background and professional experience. Attach job descriptions and CVs of key accounting staff.		
1.6	Are written position descriptions that clearly define duties, responsibilities, lines of supervision, and limits of authority for all of the officers, managers, and staff?		
1.7	Is the finance and accounts staff adequately qualified and experienced?		
1.8	Are the project accounts and finance staff trained in IFAD procedures?		
1.9	Are any Finance Staff appointed on contract What is the duration of the contracts Indicate key positions not contracted yet, and the estimated date of appointment		
1.10	What is training policy for the finance and accounting staff?		
1.11	Is there evidence that finance staff are regularly transferred to other Government departments At what frequency are personnel transferred?		
1.12	Is the project finance and accounting function staffed adequately		

Topic		Response	Remarks
2.	Budgeting		
2.1	Who is responsible for preparation and approval of project budgets?		
2.2	Are project budgets prepared for all significant project activities in sufficient detail to provide a meaningful tool with which to monitor subsequent performance?		
2.3	Are procedures in place to plan project activities, collect information from the units in charge of the different components, and prepare the budgets?		
3	Funds Flow/Disbursement Arrangements		
3.1	Does the Implementing Entity have previous experience of using imprest fund and donor funding SOE procedures? Were there any problems or issues encountered by project staff in the operation of the imprest fund or SoE procedures in the past?		
3.2	Does the Implementing Entity have experience in the management of disbursements from IFAD or other donors? Have there been the major problems in the past in receipt of funds by the entity?		
3.3	Does the entity have/need to develop capacity to manage foreign exchange risks?		
3.4	Are the beneficiaries required to contribute to project costs? How are payments made for the counterpart funds? If counterpart funds are to be contributed in kind (in the form of labour), are proper guidelines formulated to record and value the labour contribution?		
3.5	Is part of the project implemented by communities or NGOs? Does the PIU have the necessary reporting and monitoring features built into its systems to track the use of project proceeds by such agencies?		
3.6	Describe (proposed) project funds flow arrangements; (attach flow chart and explanation of the flow of funds from IFAD, government and other financiers.		
3.7	In which bank will the Imprest Account be opened?		
3.8	Are the (proposed) arrangements to transfer the proceeds of the financing (from the government / Finance Ministry) to the Implementing Entity satisfactory?		

Topic		Response	Remarks
4.	Internal Controls		
4.1	Segregation of duties - are the following functional responsibilities performed by different units or persons: (i) authorization to execute a transaction; (ii) recording of the transaction; and (iii) custody of assets involved in the transaction?		
4.2	Are the functions of ordering, receiving, accounting for, and paying for goods and services appropriately segregated?		
4.3	Are bank reconciliations prepared by someone other than those who make or approve payments?		
5.	Accounting Systems, Policies and Procedures		
5.1	Does the entity have an integrated accounting system that allows for the proper recording of project financial transactions, including the allocation of expenditures in accordance with the respective components, disbursement categories, and sources of funds? Will the project use the entity accounting system?		
5.2	Are controls in place concerning the preparation and approval of transactions, ensuring that all transactions are correctly made and adequately explained?		
5.3	Is the chart of accounts adequate to properly account for and report on project activities and disbursement categories?		
5.4	Can cost allocations to the various funding sources be made accurately?		
5.5	Are the General Ledger and subsidiary ledgers reconciled and in balance?		
5.6	Are all accounting and supporting documents retained on a permanent basis in a defined system that allows authorized users easy access?		
5.7	What is the basis of accounting (e.g., cash, accrual)?		
5.8	What accounting standards are followed?		
5.9	Does the project have an adequate policies and procedures manual to guide activities and ensure staff accountability?		
5.10	Do procedures exist to ensure that only authorized persons can alter or establish a new accounting principle, policy or procedure to be used by the entity?		
5.11	Is there a written policies and procedures manual covering all routine project financial management activities? Are manuals distributed to appropriate personnel?		

Topic		Response	Remarks
	Payments		
5.12	Are all invoices stamped PAID, dated, reviewed and approved, and clearly marked for account code assignment?		
	Cash and Bank		
5.13	Does the organization maintain an adequate, up-to-date cashbook, recording receipts and payments?		
5.14	Are bank and cash reconciled on a monthly basis?		
5.15	Indicate names and positions of authorized signatories of project bank accounts.		
	Safeguard over Assets		
5.16	Is there a Fixed Asset accounting system, with a Fixed Asset Register, fully implemented - as part of an integrated accounting system Is the system maintained up to date ?		
5.17	Are there periodic physical reconciliation of fixed assets and stocks?		
	Other		
5.18	Has the project advised employees, beneficiaries and other recipients to whom to report if they suspect fraud, waste or misuse of project resources or property?		
5.19	Do policies and procedures clearly define conflict of interest and related party transactions (real and apparent) and provide safeguards to protect the organization from them?		
5.20	Do controls exist for the preparation of the project payroll and are changes to the payroll properly authorized		
6.	Reporting and Monitoring		
6.1	Does the reporting system need to be adapted to report on the project components?		
6.2	Does the project have established financial management reporting responsibilities that specify what reports are to be prepared, what they are to contain, and the frequency of production.?		
6.3	What is the frequency of preparation of financial statements? Are the reports prepared in a timely fashion so as to useful to management for decision making?		
6.4	Do the financial reports compare actual expenditures with budgeted and programmed allocations?		
6.5	Are financial reports prepared directly by the automated accounting system or are they prepared by spreadsheets or some other means?		

Topic		Response	Remarks
6.6	(In case of need of consolidated financial statements) Is the accounting system sufficiently equipped to ensure proper consolidation of entities' financial data?		
Information Systems			
6.7	Is the financial management system computerized?		
6.8	Can the system produce the necessary project financial reports?		
6.9	Is the staff adequately trained to maintain the system?		
6.10	Are adequate systems in place to "back up" financial records		
7. Internal Audit			
7.1	Is there an internal audit department in the LPA?		
7.2	What are the qualifications and experience of internal audit department staff?		
7.3	To whom does the internal auditor report?		
7.4	Will the internal audit department include the project in its work program?		
7.5	Are actions taken on the internal audit findings?		
8. External Audit			
8.1	Who is the external auditor of the entity?		
8.2	Are there any delays in audit of the entity? When are the audit reports issued?		
8.3	Is the audit of the entity conducted according to the International Standards on Auditing?		
8.4	Were there any major accountability issues brought out in the audit report of the past three years? Were there any issues noted in prior audit reports related to the operation of project imprest accounts or use of SOE procedures?		
8.5	Will the entity auditor audit the project accounts or will another auditor be appointed to audit the project financial statements?		
8.6	Has the project prepared acceptable terms of reference for an annual project audit?		

Supporting Documents

GUIDANCE: The supporting documents may include the following items.

- Financial regulations, standards or pronouncements used by the project/entity.
- Evidence of consideration of the work of the Internal Auditor (if applicable)
- Chart of Accounts.
- Project or entity Financial Management Manual.(Index page)
- External Audit terms of reference.
- Terms of reference and curriculum vitae for key financial and accounting personnel.
- Copy of most recent audit report (if applicable).

Appendix II (continued)

FIDUCIARY RISK ASSESSMENT FRAMEWORK

Control Area	Key Objective	Key Controls
Implementing Organization	To ensure that the project implementation arrangements are (or will) provide adequate control of project finances.	The FMA indicates that the FM systems are sufficiently robust and so can be used to manage and administer project finances.
Staffing	To ensure that staff will be adequate in terms of numbers, skills, capabilities, and experience.	Organization structure, Staff in post/vacancies, Qualifications/experience, Job descriptions, Training records.
Budgeting	To ensure that an appropriate budgeting system is in place.	Activity and cash planning capacity. Budgetary control systems? Capacity for administration of AWPB?
Funds Flow & Disbursements	To ensure that the proceeds of the loan/grant will be used for their intended purposes.	Bank Accounts – Central bank or commercial banks: reliable? Disbursement procedures. Involvement of NGOs/Community organisations in disbursement process. Downstream fund flows monitoring, documentation?
Internal Controls	To ensure that funds reach intended beneficiaries.	Evidence of funds reaching intended beneficiaries. FM manuals and rules on use of funds.
Accounting Systems, Policies and procedures	To ensure that an effective system of financial management is in place so that all financial transactions are properly authorized and actioned according to defined procedures.	<ul style="list-style-type: none"> • Appropriate financial policies and procedures are codified and followed • An effective Financial Accounting System is in place and is maintained on a timely basis • A robust budget allocation and control system is in place • Payment systems are sound with strong “internal check” • Appropriate Cash and banking arrangements in place to minimize risk of misappropriation of project funds • assets created by the project will be recorded in the entity’s financial records

		<ul style="list-style-type: none"> assets will be maintained in order to ensure sustainability
Reporting & Monitoring	To ensure that complete, accurate and timely reports will be produced.	Underlying transaction systems adequate to provide accurate and timely project financial reports (to maintain budget control) e.g., General Ledger, Contracts Ledger.
Internal Audit	To ascertain if there is a strong IA function which monitors compliance.	Appropriately staffed IA Unit in place (i.e., number of qualified, experienced and trained staff). Comprehensive Audit program. Audit reports available.
External Audit	To ensure that Project Accounts will be audited to standards acceptable to IFAD.	Proposed arrangements meet IFAD requirements <ul style="list-style-type: none"> “approved” Auditor Audit reports will be submitted within 6 months of year end.

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Smallholder Agribusiness and Resilience Project Project Design Report

Annex 9: Integrated Risk Framework (IRF)

Document Date: 04/11/2019
Project No. 2000002583

Asia and the Pacific Division
Programme Management Department

Risk categories	Risk Probability	Risk Impact	Mitigations/comments
1. Political and governance	Medium	Medium	Political changes following the December 2019 election could result in changes of personnel at senior decision making levels with a subsequent risk of delays in approval of the project and the start of implementation. Some on-going tensions in the north of the country and risks of terrorist attacks need to be acknowledged as a risk.
2. Macroeconomic	Medium	Low	Gross public debt is projected at 79.9 percent of GDP in 2018, well-above peer emerging markets. As a result SARP will attempt to minimise grant funding and will focus attention on loan funding and leasing along the value chain.
3. Sector strategies and policies	Low	Low	Policies relating to land tenure, agricultural extension and an enabling environment for agricultural value chain development have been posed as potentially impacting on the project. SARP has grant resources of US\$1 million to conduct studies to contribute to policy dialogue at national level.
4. Technical aspects of project or program	Low	Low	There is a low likelihood that factors related to the technical design of the program or project may adversely impact the achievement of the project objective. Project implementation will be phased in line with absorptive capacity of the public sector institutions. The detailed design of SARP investments in water harvesting and small irrigation, climate smart agricultural production and market access will be informed by a comprehensive planning process before implementation. Additionally, IFAD has good experience implementing similar and associated projects effectively.
5. Institutional capacity for implementation and sustainability	Medium	Medium	Sri Lanka has an overall solid track record in project implementation ranked moderately satisfactory by the CSPE, 2019. Institutional instability has been a negative factor in some of the past portfolio. Activities were implemented effectively, albeit with some delays. A positive aspect of Government performance has been the capacity to devolve project implementation responsibilities to various partner agencies and decentralized institutions within the local government system. But issues do arise with financial management, M&E and project staffing. At provincial and district level coordination could pose a challenge given the number of donor funded projects operating in the region. Some concern should be given to absorptive capacity. However, integration of line ministry services at district level can be effective and efficient of contributing to strong district ownership. SARP implementation responsibility will be designated to the Presidential Secretariat, which is also responsible for implementation of SAP. Close collaboration between both projects is proposed with a single PMU. Involvement of experienced technical staff from SAP will also speed up project implementation.

Risk categories	Risk Probability	Risk Impact	Mitigations/comments
6. Financial management	Medium	Medium	<p>The overall project fiduciary risk is assessed to be Medium at the design stage.</p> <p>Financial Management Assessment was undertaken at this design. A number of fiduciary management and process issues have negatively affected the efficiency of past projects. The portfolios' financial management were weakened by various factors i.e lack of qualified project staff and high staff turnover; IFAD-financed programmes in Sri Lanka suffered from some delays as for NADeP and STaRR, it was more than one year from the date of entry into force to the date of first disbursement, resulting in slow start-up. To the extent possible, new financing should build on existing structures and mechanisms, and early and continuous consultation with Government is essential to mitigate delays.</p> <p>To ensure a smooth start-up of the project including early recruitment of service providers and implementation of construction activities in PY1, preparatory planning, establishment of the PSU, recruitment of staff and procurement of service will take place at earlier stage.</p>

Risk categories	Risk Probability	Risk Impact	Mitigations/comments
7. Procurement	Medium	Medium	<p>There are difficulties in attracting experienced procurement professionals and this has adversely affected almost all donor funded projects in Sri Lanka. In addition, poor status of progress monitoring and contract management resulting in undue delays in completion of contracts and limited public access to procurement need to be addressed when taking into account mitigation measures.</p> <p>To mitigate these risks a dedicated procurement unit should be established in the PMU consisting of a Senior Procurement Officer and Procurement Officer. Officers identified should be qualified and experienced with prior experience in donor-funded projects. Wide publicity should be given when calling for applications for the positions and once selected, s/he should be required to undergo extensive training in IFAD procurement procedure arranged by the project.</p> <p>The project should also ensure:</p> <ul style="list-style-type: none"> • Public access to procurement information through relevant web sites and other means of communication. • Participation of Senior Procurement Officer in the annual work planning process. • Procurement Plans to follow IFAD's plan in compliance with IFAD requirements • Clear separation of the procurement and finance functions • Regular progress review meetings and submission of a contract Register to the CPM on a monthly basis. • IFAD to include requirements for the submission of Annual Procurement plans along with Annual Work Plan and Budgets, sixty days prior to the commencement of the year. • Awareness of the staff regarding IFAD policy of zero tolerance for corruption and procedure and access points for reporting such incidence to IFAD as well as government authorities.
8. Stakeholders	Low	Low	<p>The likelihood and/or impact of stakeholder opposition to the project is low. Project objectives, approach and activities were discussed during the concept note preparation mission at a stakeholder meeting composed of representatives of the main line ministries, the External Relations Department and the Presidential Secretariat. The project will be coordinated through an Environmental and Social Management Framework (ESMF) to examine the risks and impacts of the proposed activities, including potential environmental and social vulnerabilities. The ESMF will specify the environmental and social management requirements (including labour and working conditions, grievance redress system, health and safety) that will be the responsibility of contractors and primary suppliers hired to construct the irrigation infrastructure. SAP will also strengthen the institutional development of various natural resource and infrastructure management committees to support joint management of limited resources within catchment areas.</p>

Risk categories	Risk Probability	Risk Impact	Mitigations/comments
9. Environment and social	High	Medium	<p>As a result of the Dry Zone's vulnerability to cyclical and persistent drought events, there is a moderate to high probability that climate change will challenge the achievement of project objectives, taking into account the likelihood of extreme variability of rainfall occurrences. Land fragmentation and high population density continue to lead to catchment degradation. However SAP is designed in direct response to these risks so the potential impact of these risks on project objectives is moderate. SAP will adopt an integrated watershed and sub-management approach that will integrate appropriate crop and livestock production practices such as improved crop varieties; the promotion of a wide range of cost-effective water harvesting and soil conservation measures (contour bunds, grass strips, planting of fodder grasses on bunds/ridges, use of permanent, perennial vegetation on contours, etc.); and agro-forestry (intercropping, integration of trees on farm plots, etc.). Climate information will be made available through mobile phone technology to all relevant project stakeholders at sector, district, farmer organization and community to help them cope with climate variability and climate change effects. Resilience will also be strengthened through the promotion of climate smart agriculture.</p> <p>To mitigate any adverse environmental and social impacts of the project, the larger irrigation schemes will be subjected to an Environmental and Social Impact Assessment (ESIA) before funds are released for the specific investments. The ESIA's will be aligned with the national General Guidelines for ESIA (2006) and the Environmental and Social Management Guidelines for agriculture projects (2016). The exact nature and extent of adaptation measures to be adopted during design and implementation phases will be determined according to specific site locations and proposed size of irrigation, water harvesting and small storage technologies. Furthermore, the whole project will be coordinated through an ESMF to examine the risks and impacts of the proposed activities.</p>
Overall	Medium	Low	

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Smallholder Agribusiness and Resilience Project

Project Design Report

Annex 10: Exit Strategy

Document Date: 04/11/2019

Project No. 2000002583

Asia and the Pacific Division
Programme Management Department



Investing in rural people

Democratic Socialist Republic of Sri Lanka

Smallholder Agribusiness and Resilience (SARP) Project Design Report

Annex 10: Exit Strategy

Document Date: 11/10/2019

Project No.

EXIT STRATEGY

SARP has been designed in consultation with and involvement of relevant government agencies, technical line departments of the Ministry of Agriculture and development partners. These consultations and discussions have resulted in a sound approach and a suite of interventions which will be implemented with strong community participation and engagement of local officials. Building on this foundation, it is expected that the investments as well as the results of the interventions will be sustained beyond the project period and over the long term. Sustainability considerations that have guided project design include:

a) Capacity building for integrated, locally owned solutions: SARP will invest in building capacities for climate-resilient, integrated solutions for irrigation following the ecosystem/ cascade approach. The project will promote institutional planning and coordination across government officials and communities to overcome the sectoral and piecemeal approach to water management that was adopted in the past. Project outputs will also contribute to enhancing organisational capacity of farmers to plan for and implement climate-risk informed local water management solutions, adopt technologies and systems for climate-smart agricultural production and integrate climate information and advisories for water management ensuring their financial and human resource viability post-project. In designing such solutions, the approach is to strongly engage communities at every level of planning and execution. By doing so, SARP will not only ensure that the investments respond to beneficiary needs but also ensure that community organisations, including youth and women's groups, will have sufficient technical and financial capacity to keep improving system design and operations, even as climate variability increases and seasons become more unpredictable.

b) Operations and Maintenance plans: More specifically, SARP will support watershed groups to prepare O&M plans that include budgeting the human and financial resources required for implementation. The plans will reflect local ownership and commitment to the long-term sustainability of the project activities and outcomes. SARP will finance and leverage financing to support the human and technical resources required for O&M initially, with a decreasing contribution towards the end of the project lifetime, after which domestic financing will be expected to continue to support O&M. This approach will build on farmers' traditional system of managing by themselves the village irrigation systems. The project will improve the capacity of FOs to function more efficiently. Supported by an increased incomes from agriculture it is expected that the FO contribution would also increase.

c) Farmer producer organizations. Outside the watershed, SARP will also ensure institutional sustainability and effectiveness through dedicated support to farmer producer organizations to establish them as independent economic entities and actors. Farmer/ producers will be supported with capacity building and technical assistance, to form more cohesive common interest groups, eventually graduating to a more mature and evolved organization; based on regular maturity assessments, the eventual formation of sustainable producer companies is envisaged. The project will provide extensive capacity building in business management skill development, support to registration, and access to finance through financial institutions with a mandate to support small farmers together with targeted matching grants.

d) Private sector development: SARP will build the capacity of young men and women to engage in managing economic enterprises at community level. The engagement of women in FOs and as interlocutors between private sector markets for climate smart value chain products will increase livelihood options and income sources for women entrepreneurs in villages. SARP will simultaneously seek to leverage commercial private sector investments. The project will build on lessons learned and experience of SAP placing greater emphasis on strengthening producer/ farmer voice and encouraging the preparation of farmer-led business plans. Investment commitments from the private sector, including from farmer producer organizations and

agribusinesses, are also expected to provide an important indication for the business rationale and longer-term sustainability of agricultural and commercial activities.

e) *Establishment of Agrarian Service Centre Hubs*: SARP will also strengthen the ASCs as one-stop-shop service and information platforms. Some of the service offered such as quality seed, mechanization hire services, and market/ weather information will be developed and managed by local youth. The strengthened ASCs will serve as a platform for public-private sector collaboration and with access to funding through the Agrarian Banks could incentivize private sector investment beyond the project life span.

f) *Policy support*. To ensure longer-term sustainability, the project will also provide support for policy dialogue informed by targeted studies to be conducted during implementation. Topics such as integrated watershed development, youth employment in agriculture and micro insurance have been singled out as priorities. Complementary policies or strategies would be expected to help improve the overall enabling environment for development of the Dry Zone and hence contribute to long-term sustainability.

SARP's exit strategy, consequently, relies on building capacity at different levels; at farmer/FO level but also of the public and private advisory services in climate smart technologies as well as farm business management, marketing and commercialisation. Capacity building will be undertaken at the institutional, community and household levels. The skills and capacities required will be strengthened to ensure communities are resilient to climate variability and climate change and that the relevant institutions at all levels are able to provide the necessary support and services.

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Smallholder Agribusiness and Resilience Project

Project Design Report

Annex: Gender Checklist

Document Date: 04/11/2019

Project No. 2000002583

Asia and the Pacific Division
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Gender Checklist for SARP

	Design
<p>1. The project design report contains – and project implementation is based on - gender-disaggregated poverty data and an analysis of gender differences in the activities or sectors concerned, as well as an analysis of each project activity from the gender perspective to address any unintentional barriers to women’s participation.</p>	<p>Sex-disaggregated data on poverty has been used in the analysis and gender sensitive climate vulnerability and capacity analysis has been conducted to guide the project activities.</p>
<p>2. The project design report articulates – or the project implements – actions with aim to:</p> <ul style="list-style-type: none"> Expand women’s economic empowerment through access to and control over productive and household assets; 	<p>Economic empowerment such as direct targeting of homestead gardening interventions and farm production to local markets through capacity building of women, youth and marginalized groups; collectivised women’s groups in marketing, advanced value chains and rural enterprises; women as change agents and gatekeepers of NRM & rejuvenated water systems. The selection criteria gives preference to women's for micro/small scale agro-enterprises - mushroom cultivation, dairy and goat production and value chain development.</p> <p>SARP promotes economic empowerment of women through promoting women enterprise and combinations of matching grants and loans will be offered to youth and women to provide commercial goods and services (input supplies, mechanization, spraying, transportation etc.) to farm households</p>
<ul style="list-style-type: none"> Strengthen women’s decision-making role in the household and community, and their representation in membership and leadership of local institutions; 	<p>SARP builds capacities for reviving and developing women enterprises in the Dry zones and also of potential businesses for youth and women flourishing in the Dry Zone (including protected agriculture, quality seed production, semi commercial dairy and goat production). With 50% targets as women, the capacity building interventions of SARP takes into consideration their vulnerabilities and enable them to become change agents at the household and community level.</p>
<ul style="list-style-type: none"> Achieve a reduced workload and an equitable workload balance between women and men. 	<p>Gender sensitive selection of interventions to maximise returns to women’s labour, reduce drudgery and unpaid work and through gender sensitive programme implementation through project components. Such as selection</p>

	gender sensitive value chains, nutrition sensitive value chains, homestead gardens, etc
3. The project design report includes one paragraph in the targeting section that explains what the project will deliver from a gender perspective.	Yes. Refer to Appendix on Targeting and Mainstreaming Priorities
4. The project design report describes the key elements for operationalizing the gender strategy, with respect to the relevant project components.	Elaborated under each project components. Refer to PIM.
5. The design document describes - and the project implements - operational measures to ensure gender- equitable participation in, and benefit from, project activities. These will generally include:	
<i>5.1 Allocating adequate human and financial resources to implement the gender strategy</i>	<p>PMU will have a Social Inclusion and Institutions Specialist and Social Inclusion and Gender Facilitators</p> <p>SARP will build on staff capacity to deliver on gender responsive and socially inclusive programme implementation is budgeted in the project</p>
<i>5.2 Ensuring and supporting women's active participation in project-related activities, decision-making bodies and committees, including setting specific targets for participation</i>	The community mobilization strategy would ensure that women would understand the project components well and meaningfully engage in them. Capacity building interventions of SARP, including Farmer Business School (FBS) has a strong participatory, youth and women-focused extension approach that will enable them to build the relevant skills to increase production; access markets and sell at competitive prices; enhance nutrition; collaborate with each other; and engage in beneficial and efficient decision-making.
<i>5.3 Ensuring that project/programme management arrangements (composition of the project management unit/programme coordination unit, project terms of reference for staff and implementing partners, etc.) reflect attention to gender equality and women's empowerment concerns</i>	The PMU will reflect a gender balance among its composition. Gender and targeting deliverables are integrated in the ToRs of the PMU staff and the PMU will staff a Social Inclusion and Institutions Specialist and Social Inclusion and Gender Facilitators to ensure the gender mandates of SARP.
<i>5.4 Ensuring direct project/programme outreach to women (for example through appropriate numbers and qualification of field staff), especially</i>	The community mobilization and gender strategy and the appointment of decentralized Social Inclusion and Gender Facilitators, will ensure the

<p><i>where women's mobility is limited</i></p>	<p>programmes intervention and benefits will reach the targeted women groups.</p>
<p><i>5.5 Identifying opportunities to support strategic partnerships with government and others development organizations for networking and policy dialogue</i></p>	<p>Partnering with WFP and UNDP, there will be greater opportunities scaling up results by leveraging policy changes, mobilizing additional resources and learning to bring the results to scale. Also deliberations are currently on-going between IFAD, WFP, and FAO to utilize SSCT funding for a follow-up RBA programme in the Dry Zone of Sri Lanka.</p>
<p>6. The project's logical framework, M&E, MIS and learning systems specify in design – and project M&E unit collects, analyses and interprets sex- and age-disaggregated performance and impact data, including specific indicators on gender equality and women's empowerment.</p>	<p>SARP's M&E framework is going beyond mere monitoring participation of youth, women and vulnerable groups in programme activities to measuring the impact of programme interventions on smallholder farmers. The use of IPs, sex and age disaggregated data and indicators in logframe and M&E will specifically measure changes in gender norms, empowerment of target groups, adaptive capacity, secure access to resources, markets and services, incomes, nutrition, workload and resilience.</p>

Targeting Checklist for SARP

	DESIGN
1. Does the main target group - those expected to benefit most- correspond to IFAD's target group as defined by the Targeting Policy (poorer households and food insecure)?	SARP will target three categories of households – the extreme rural poor (20%), poor with potential to sell in local markets (70%) and more commercially oriented smallholder farmers (10%). The extreme poor are non-labour constrained households that are rain fed producers, with small fragmented holdings, as well as the landless, who are food insecure. The main category of farmers will be moderately poor households that are economically active in agriculture and are located in cascades with minor irrigation systems. These farmers have holdings of less than 1 ha. and produce surpluses of rice, depending on the water availability and during the yala season some cash crops, albeit the level of marketed sales is usually low. The households are at risk of slipping into the lower ranks of poverty and food insecurity due to climate and economic shocks. These constitute the majority of the target groups.
2. Have target sub-groups been identified and described according to their different socio-economic characteristics, assets and livelihoods - with attention to gender and youth differences? (matrix on target group characteristics completed?)	Refer to PDR and PIM. The detailed are provided.
3. Is evidence provided of interest in and likely uptake of the proposed activities by the identified target sub-groups? What is the evidence? (matrix on analysis of project components and activities by principal beneficiary groups completed?)	Refer to PDR and PIM. The detailed are provided.
4. Does the design document describe a feasible and operational targeting strategy in line with the Targeting Policy, <i>involving some or all of the following measures and methods:</i>	
4.1 Geographic targeting – based on poverty data or proxy indicators to identify, for area-based projects or programmes, geographic areas (and within these, communities) with high concentrations of poor people	SARP will focus on the Dry Zone region covering priority districts in the North, North Central, Central, and North West provinces. The project will focus on selected cascades in three river basins – the Malwathyu Oya, Mi Oya and Deduru Oya - that were identified by the Department of Agrarian Development (DAD) as most vulnerable, ecologically and socially. The selected cascades are located in so called 'hot spot' geographical areas of around 25,000 ha on average, where farmers and farming livelihoods are highly exposed and vulnerable to increasing climatic variability. The criteria used for the selection of hot spots are: (a) the impact of drought and floods on crop losses and expenditures on drinking water and relief supplies; (b) the current climate vulnerability as reflected by income poverty, source of drinking water, and participation in safety net

	<p>programs; and (c) future climate vulnerability based on an index of 42 indicators measuring exposure, sensitivity, and adaptive capacity¹. The Department of Agrarian Development (DAD) classifies sub-watersheds and Village Tank Cascades (VTCs) according to their resilience to climate change. The cascades and VTCs were selected to avoid duplication of locations where the on-going World Bank projects are operating.² Additionally decisions were taken to include cascades and micro-catchments where synergies can be developed with on-going UNDP and WFP projects to ensure integrated watershed development³. The selection of the project sites took into account</p> <ul style="list-style-type: none"> • household data on poverty; • vulnerability and sensitivity to shocks and stresses (drought and flood); • food insecurity and malnutrition; • land degradation, agro-ecological zone (dry zone), seasonality and livelihood, prepared through the World Food Programme, Vulnerability Analysis and Mapping (VAM) system; • local demand and request by Government of Sri Lanka and agribusiness potential; • geographical advantage of working on the cascade systems and rejuvenating the water tanks with the potential to provide perennial water sources for the rural communities; • concentration of farmers engaged in the production of selected value chains; • potential for agricultural diversification, agribusiness and market access; <p>Selected on the basis of cascade systems aimed at avoiding duplication of activities with World Bank projects and to build synergies with UNDP (5 common target districts) and WFP (3 common target districts)</p>
<p>4.2 Direct targeting - when services or resources are to be channelled to specific individuals or households</p>	<p>Direct targeting will be used to choose activities, taking into consideration where the most vulnerable farmers can be found. A differential approach will be used to ensure accessibility, relevance and impacts of different technological packages for women, men, youth, and the most vulnerable. Quotas will ensure the effective participation of</p>

¹ The hotspots are hydrologically defined as a catchment within a river basin that contains several Village Tank Cascades (VTCs) and individual tanks.

² Agriculture Sector Modernization Project covering 7 districts and the Climate Smart Irrigation Project covering 11 districts and 17 river basins.

³ The UNDP project Strengthening the resilience of smallholder farmers in the Dry Zone covers three river basins, 16 cascades in 7 districts. The WFP project, Building Resilience Against Recurrent Natural Shocks through Diversification of Livelihoods for Vulnerable Communities in Sri Lanka, covers 5 districts.

	<p>the different vulnerable groups in project activities. Self-targeting will occur through participation in the Farmer Field School (FFS) and Farm Business School (FBS) and direct targeting will be used for specific activities directed to women, youth, ex combatants, the disabled and other vulnerable groups in the communities. Mentoring will be done to ensure proper participation, achievement and sustainability of interventions, especially for the extreme poor, and specific disadvantaged groups – women headed households and the disabled.</p> <p>The combined approach has three important aspects: (a) ensure the availability of water, increasing the cropping intensity and diversifying the farming system to introduce high value priority commodities. (b) focusing on value adding activities for women and youth including post production, the provision of support, advisory and information services; and (c) reaching the extreme poor through cash for assets and other cash transfers, graduating the beneficiaries into small income generating activities and building capacities.</p>
<p>4.3 Self targeting – when goods and services respond to the priority needs, resource endowments and livelihood strategies of target groups</p>	<p>Self-targeting will occur through participation in the FFS and FBS and the proposed activities for these different categories of beneficiaries are summarised in PIM.</p>
<p>4.4 Empowering measures - including information and communication, focused capacity- and confidence-building measures, organisational support, in order to empower and encourage the more active participation and inclusion in planning and decision making of people who traditionally have less voice and power</p>	<p>The community mobilisation and social inclusion strategy would ensure that the target groups would understand the project components well and meaningfully engage in them and handholding support is provided to them. It will also enable project activities to be fine-tuned to respond to the local context, opportunities and the priorities of the households. The capacity building interventions of SARP, FFS and FBS will build their capacities to enable their active participation in project components while recognising that exclusion and vulnerabilities are more pronounced for elderly, single women, widows, ex-combatants and youth with disabilities.</p>
<p>4.5 Enabling measures –to strengthen stakeholders’ and partners’ attitude and commitment to poverty targeting, gender equality and women’s empowerment, including policy dialogue, awareness-raising and capacity-building</p>	
<p>4.6 Attention to procedural measures - that could militate against participation by the intended target groups</p>	<p>Procedural measures are addressed in PIM to prevent the elite capture while selection of beneficiaries and project areas. Refer to PIM.</p>

<p>4.7 Operational measures - <i>appropriate project/programme management arrangements, staffing, selection of implementation partners and service providers</i></p>	<p>Targeting responsibilities are explicitly mentioned in TORs for all PMU staff. Refer to PIM.</p>
<p>5. Monitoring targeting performance. Does the design document specify that targeting performance will be monitored using participatory M&E, and also be assessed at mid-term review? Does the M&E framework allow for the collection/analysis of sex-disaggregated data and are there gender-sensitive indicators against which to monitor/evaluate outputs, outcomes and impacts?</p>	<p>Yes, Please refer to M&E sections in the PIM. The M&E gives strong emphasis to monitoring of targeting performance and reporting against disaggregated data according to sex, age and IPs.</p>