IFAD
Investing in rural people

Bangladesh

Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition

Project Design Report

Main report and annexes

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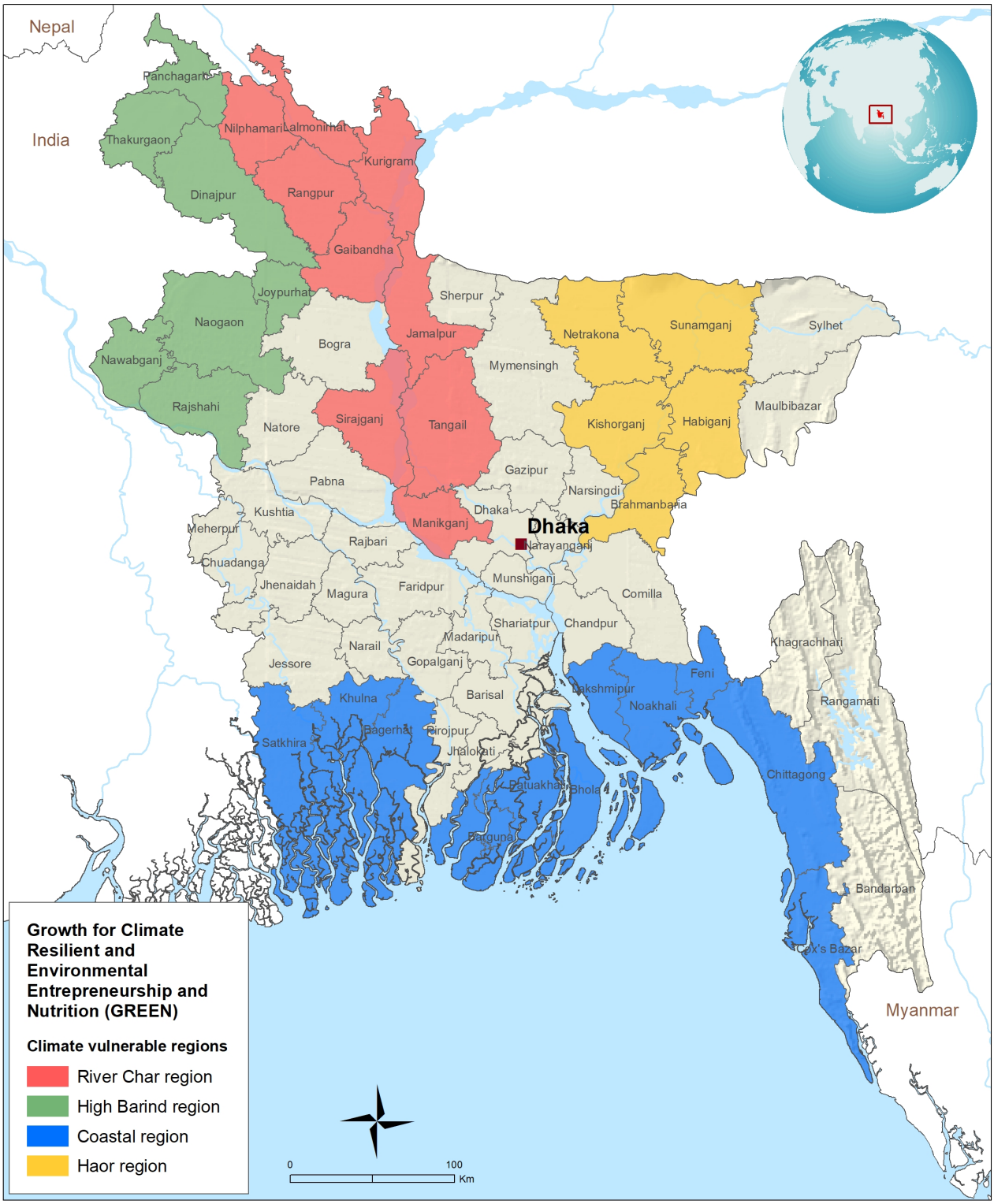
Map of the Project Area



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Abbreviations and Acronyms

ADP Annual Development Plan (of the government of Bangladesh)
BCCSAP Bangladesh Climate Change Strategy and Action Plan
BBS Bangladesh Bureau of Statistics
BIDS Bangladesh Institute of Development Studies
CALIP Climate Adaptation and Livelihoods Improvement Project (of IFAD)
CC Climate Change
CDRSWRMP Climate and Disaster Resilient Small-Scale Water Resources Management Project
CDSPIV Char Development and Settlement Project – Phase IV
COSOP Country Strategic Opportunities Paper (IFAD)
CRALEP Climate Resilience and Livelihoods Enhancement Project
DA Designated Account
DPP Development project pro forma (of the Government)
EA Executing Agency
EFA Economic and Financial Analysis
ERD Economic Relations Division (of MoF)
FAO Food and Agriculture Organization
FD Finance Division (of Ministry of Finance)
FFEWS Flash Flood Early Warning System (for Haor)
FID Financial Institutions Division (of Ministry of Finance)
FY Financial year
FYP Five-year plan
GDP Gross Domestic Product
GGAP Good Agricultural Practices
GoB Government of Bangladesh
GREEN Growth for Climate Resilient and Ecological Entrepreneurship and Nutrition (GREEN) project
HACCP Hazard Analysis Critical Control Points
hh/HH household
HIES Household Income and Expenditure Survey
HILIP Haor Infrastructure and Livelihoods Enhancement Project (of IFAD)
IFAD International Fund for Agricultural Development
IA Implementing Agency
ICT Information Communication Technology
ITCILO International Training Centre of the ILO
KM Knowledge Management
LOD Loan operations division (of PKSF)
MDD-W Minimum Dietary Diversity-Women
ME Microenterprise as defined by PKSF under its loan program
M&E Monitoring and Evaluation
MFI Microfinance Institution
MIS Management Information System
MoF Ministry of Finance
MoU Memorandum of Understanding
MSME Micro, small and medium enterprise
NAPA National Adaptation Program of Action (of Bangladesh)
NDC Nationally Determined Contribution
NGO Non–Governmental Organisation
NPAN-2 Second National Plan of Action for Nutrition 2016-2025
p.a. per annum
PACE Promoting Agricultural Commercialization and Enterprises (IFAD-Funded project of PKSF)
PARTNER Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience in Bangladesh (IFAD and World Bank funded project)
PC Project Coordinator
PCN Project Concept Note (of IFAD)
PDR Project Design Report
PKSF Palli Karma-Sahayak Foundation, Government established apex development agency for MFIs/NGOs
PIM Project Implementation Manual
PMU Project management Unit
PO Partner Organization (of PKSF)
PPA Project Procurement Arrangements
PROVATi[3] Promoting Resilience of Vulnerable through Access to Infrastructure, Improved Skills and Information
PSC Project Steering Committee (of the government)
PY Project Year
RMTP Rural Microenterprise Transformation Project
SACP Small Scale Agricultural Competitiveness Project
SECAP Social, Environmental, and Climate Assessment Procedures
SDG Sustainable Development Goal
SDR Special Drawing Rights
SGA Subsidiary Grants Agreement
SLGA Subsidiary Loan and Grant Agreement
SOE Statement of Expenditure
Upazila Sub-district
UNSDCF United Nations Sustainable Development Cooperation Framework
USD United States Dollar
WASH Water, sanitation and hygiene
VC Value chain
VCD Value chain development
WA Withdrawal Application
WFP United Nations World Food Programme
WRA Women of Reproductive Age

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

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

Executive Summary

WHO and WHAT: The Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition (GREEN) project aims to sustainably increase the income, climate resilience, food security, and nutritional status of beneficiary households in project areas and across selected value chains. The project will transform the production systems in project areas into sustainable, climate-resilient and environment-friendly systems by uptake of technologies and best practices, enhanced access to capital, and by enabling healthy diets and improved nutrition. The project builds on the achievements, lessons and systems established under PACE and RMTP and focuses on highly climate vulnerable districts and people, including youth and women, through a nutritional lens.

WHERE and WHEN: GREEN will be implemented nationally but will prioritize highly climate vulnerable, poverty-stricken regions of Hoaor, Coastal, High Barind and River Char. It will be implemented over a six-year period (2026-2031) and will reach 258,333 households and 1.1 million people, of which at least 70% will be women and 50% youth.

HOW: The project is structured with three interlinked components: Component 1: Climate-resilient and Environment-friendly Food System Development – supports the development of sustainable, climate-resilient and environment-friendly food systems through technical training, promotion of renewable energy, use of digital technologies, private sector linkages and enterprise development support while stimulating the demand for healthy food. Component 2: Financial Services for Value Chain Participants – develops and enhances a customized set of financial products for value chain activities and to meet the financial needs of underserved and climate vulnerable communities, predominantly youth and women, and ensuring the sustainability of the financial ecosystem. Component 3: Institutional Capacity Building of Implementing Partners – enhances PKSF, POs and government partners' capacity to mainstream climate change, building adaptive capacity, value chain development, and nutrition considerations into rural finance programs and products, thereby facilitating food system development.

WHY: Highly climate vulnerable areas of rural Bangladesh face persistent challenges: a) low profitability and local value addition, lack of diversified production (including nutritious foods), and stagnant productivity in farm and non-farm businesses compounded by weak engagement of women and youth in food systems and environmental degradation; b) limited access to customized financial services, including specialized youth products, cash flow based (seasonal) credit and flexible products to cope with or recover from climate shocks; and c) limited institutional capacities for integrated programming and service delivery. GREEN responds to this by expanding PKSF's proven value chain interventions into highly climate vulnerable and poor areas of Bangladesh, underpinned by customized finance.

The GREEN project reinforces the case that climate adaptation is not merely a defensive response to rising vulnerabilities, it is a catalytic investment in rural transformation. By targeting climate hotspots with integrated interventions that combine resilient food systems, tailored financial services, and institutional strengthening, GREEN showcases how adaptation can drive productivity, inclusion, and economic empowerment. Its emphasis on adaptation-linked finance, particularly for youth and women, offers a replicable model for building long-term resilience while simultaneously unlocking rural growth opportunities. In doing so, the project advances a next-generation approach to climate adaptation, one that is locally embedded, economically viable, and developmentally strategic.

FINANCING: The total project cost is USD 211.7 million, with USD 51.4 million from IFAD 13 PBAS Allocation (including USD 2.2 million Additional Climate Contribution), USD 69.4 million from the Palli Karma Sahayak Foundation (PKSF)[1] who is the implementing agency, USD 71.5 million leveraged from PKSK's Partner Organizations (POs) and USD 0.6 million from private sector. The financing gap of US$18.6 million may be sourced through subsequent resources cycles (under financing terms to be determined and subject to internal procedures and subsequent Executive Board approval) or by cofinancing identified during implementation. Discussions are on-going with the European Union (EU) and the European Investment Bank (EIB) to mobilize cofinancing in the form of loan and grant as additional finance to the project. Through GREEN, IFAD will demonstrate that profitable rural lending and financial inclusion remains achievable, utilizing only the concessionary margins embedded in the Line of Credit (LOC) and its sub loans, while delivering comprehensive interventions across agricultural value chains. In fact, the co-benefits of this approach—such as enhanced resilience, productivity, nutrition benefits and youth jobs—may outweigh any potential reduction in short-term profitability, thereby incentivizing PKSF and POs to sustain self-contributions from revenues.

IMPLEMENTATION: The Financial Institutions Division (FID) of the Ministry of Finance (MoF) and PKSF will be the Executing Agency (EA) and the Implementing Agency (IA), respectively. A Project Steering Committee (PSC) chaired by Secretary, FID/MOF, will monitor and guide the project. Other members of the PSC will be representatives from the Financial Institutions Division (FID), Finance Division (FD), and Economic Relations Division (ERD) of MoF and PKSF. Delivery will be through PKSF and their Partner Organizations (POs).

Chapter 1: Context

1.1 Project in brief

1. The Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition (GREEN) project aims to boost income and employment for poor rural households, particularly in climate-vulnerable districts. It will develop food systems that enhance profitability, support nutrition, and protect the environment. GREEN will promote climate-resilient and environmentally friendly technologies through training, building adaptive capacity, enterprise support, private sector linkages, and tailored finance. Partner

Organizations (POs) of the Palli Karma Sahayak Foundations (PKSF) and government counterparts will be trained in value chain and food systems development for both farm and non-farm sectors. A comprehensive nutrition assessment will identify context-specific entry points. The project will be implemented for a period of six years (2026–2031).

1.2 National or Regional Context

2. Bangladesh has made remarkable socio-economic strides since achieving lower-middle-income status in 2015. According to the 2022 Household Income and Expenditure Survey (HIES), the national poverty rate declined from 24.3% in 2016 to 18.7% in 2022, while extreme poverty fell from 12.9% to 5.6%. However, a new group of "transient poor" has emerged—households that hover just above the poverty line but lack the resilience to absorb external shocks, as seen during the COVID-19 pandemic. The economy, which slowed to 3.4% growth in 2020, rebounded to 7.2% in 2022. Inflation, however, remains a concern, peaking at 9.72% in June 2024 before easing to 8.48% in mid-2025.

3. Bangladesh's agriculture sector, covering crops, poultry, livestock, and fisheries, accounts for roughly 18% of GDP but supports nearly 65% of the rural population. Rice dominates the food production landscape, comprising 95% of output. The sector is highly vulnerable to climate-related shocks such as floods, droughts, and cyclones. Projections indicate a potential 7.4% annual reduction in rice yields by 2050 due to climate change. Environmental degradation and overreliance on a narrow set of commodities further constrain productivity and income generation.

4. The most climate-affected areas—Coastal, Haor, High Barind, and River Char regions—face compounded challenges of poverty, food insecurity, and limited non-farm opportunities. Livelihoods in these areas are highly dependent on agriculture and informal trading, which remain exposed to recurrent climate shocks and weak infrastructure. Low investments, energy poverty, and underdeveloped markets hamper rural growth, often forcing internal migration and the adoption of negative coping strategies such as reduced consumption of protein and nutrient-rich foods.

5. Nutrition remains a pressing concern. Between 2017 and 2022, the cost of a healthy diet rose from 3.03 to 3.64 PPP dollars per person per day, making it unaffordable for nearly half the population. Only 39% of women met minimum dietary diversity as of 2019–20, according to the National Micronutrient Survey. From 2018 to 2020, about 9.7% of the population was undernourished, and over 42% experienced moderate to severe food insecurity. Diets continue to lack essential foods like fruits, vegetables, legumes, and whole grains, especially among poor and rural communities.

6. Youth who represent nearly a third of the population, face high unemployment and underemployment, particularly in rural and climate-vulnerable areas. Access to quality education, vocational training, and resources remains limited. Yet, many young people are increasingly drawn to entrepreneurship, sustainable agriculture, and digital innovation. With greater investment in skills development, ICT, and inclusive policy frameworks, there is a strong opportunity to empower youth as key drivers of inclusive rural growth and climate resilience.

1.3 Strategic Alignment

7. GREEN is closely aligned with Bangladesh's national development priorities, including the 8th Five-Year Plan (2021–2025), Perspective Plan (2021–2041), and Delta Plan 2100. These strategies emphasize poverty reduction, agricultural diversification, employment generation, and climate adaptation—particularly for women and youth. GREEN also supports the objectives of the Bangladesh Climate Change Strategy and Action Plan (BCCSAP), the National Adaptation Plan (2023–2025), and the Nationally Determined Contributions (2021) by promoting resilient food systems, improved nutrition, and inclusive access to microcredit. Through its focus on value chain development, integrated services, and low-emission rural transformation, the project contributes directly to the country's climate and development goals.

8. In addition, GREEN complements key national initiatives on youth empowerment and nutrition. It supports the National Youth Policy (2017), the National Action Plan on Youth Employment (NAPYE), and the National Skills Development Policy (NSDP) by building rural youth employability through training, entrepreneurship, and inclusive finance. The project also aligns with the National Food and Nutrition Security Policy's Plan of Action (2020) and the 8th FYP, targeting the achievement of food and nutrition-related SDGs by 2030. By offering integrated, climate-resilient support for youth and nutritionally vulnerable populations, GREEN reinforces Bangladesh's ambition for inclusive and sustainable rural development.

9. GREEN is fully aligned with all three strategic objectives of IFAD's Strategic Framework 2016–2025 and supports the Bangladesh COSOP (2024–2028) goal of promoting rural prosperity through inclusive livelihoods for marginalized populations. It also reflects IFAD's mainstreaming priorities on gender, youth, nutrition, and climate adaptation. GREEN directly contributes to several SDGs, including SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 5 (Gender Equality), SDG 6 (Clean Water and Sanitation), SDG 10 (Reduced Inequalities), SDG 13 (Climate Action), and SDG 15 (Life on Land). The adoption of Minimum Dietary Diversity for Women (MDD-W) as a national target under SDG 2 further reinforces the project's strong nutrition focus.

10. It will build on key partnerships with the Government of Bangladesh, World Bank, and ADB in promoting farm and non-farm business development and inclusive finance. It will also create synergies with Green Climate Fund (GCF) initiatives and IFAD-supported CRALEP in shared target areas. In addition, lessons from the Pathways to Prosperity for Extremely Poor People – European Union (PPEPP-EU) project and other PKSF programs will inform implementation, leveraging PKSF's strong institutional capacity and experience.

1.4 Portfolio and Lessons Learned

11. IFAD has established a strong track record of supporting poor and vulnerable communities across Bangladesh, particularly in remote and climate-affected regions. Since 2003, IFAD has partnered with PKSF to deliver financial services to farming communities and microenterprises, while promoting business development services to enhance rural incomes. GREEN marks the sixth IFAD-financed project to be implemented by PKSF, building on a long-standing partnership that has driven inclusive rural

transformation.

12. GREEN draws from IFAD's Inclusive Rural Finance Policy and lessons from the PACE and ongoing RMTP projects, focusing on diversification of rural livelihoods, value chain development, and digital and market-based solutions, including:

    1. 1. **Integration of Financial and Non-Financial Services:** Timely access to finance alongside business development support has improved productivity and profits for microenterprises. These combined services have helped PKSF and its POs build dynamic, financeable pipelines in a cost-effective manner.
       2. **Customized Loan Products and Value Chain Development:** Tailored financial products, such as start-up and lease loans, have successfully supported young entrepreneurs. The value chain approach has proven effective in identifying bottlenecks and adapting to market and technology shifts.
       3. **Technology, Market Access, and Institutional Capacity:** While new technologies have boosted productivity, limited market access remains a challenge. GREEN will scale efforts to improve quality, packaging, and e-commerce engagement. Strengthening PO capacity in production, marketing, and digital tools—alongside private sector linkages—will be key to ensuring inclusive, tech-enabled growth.

13. The 2022 COSOP review confirmed that IFAD-supported projects in Bangladesh have been effective in reducing poverty by generating employment, supporting rural enterprises, and delivering comprehensive interventions in livelihoods, services, and infrastructure. These efforts, particularly when combined with value chain approaches and climate adaptation strategies, have led to tangible increases in household incomes and resilience among poor rural communities.

14. GREEN builds on strong national evidence linking financial inclusion with enhanced adaptive capacity. In the disaster-prone southwest coastal region, households with microfinance institution (MFI) membership showed lower social vulnerability due to habits such as regular savings, vocational training, and community participation. In the Haor region, access to microcredit and safety net programmes reduced the likelihood of poverty. A randomized control trial also found that farmers with access to emergency credit made more cost-effective adaptation choices and experienced less harm from climate shocks.

15. These findings reinforce the importance of integrating financial and non-financial services to drive rural adaptation and livelihood transformation. Customized financial products—such as seasonal loans, savings tools, or emergency credit—are more effective when paired with training, market access, and behavioural change interventions. GREEN is designed to operationalize this model, enhancing the capacity of PKSF and its Partner Organizations to apply a food systems and value chain lens in delivering inclusive rural finance.

16. PKSF's experience of implementing nutrition-focused activities under RMTP and PPEPP-EU projects indicates that target communities learn the importance of consuming animal source foods (e.g., eggs, fish, meat, and milk) and fruits and vegetables through the project's activities. The integration of nutrition and gender related behavioural change interventions with nutrition-sensitive agricultural interventions is an effective way to contribute to better nutrition outcomes. Finally having PKSF as implementing partner will speed up the implementation of GREEN since PKSF is not subject to go through the Government process of Development Project Proposal (DPP) approval which can delay project start up by 6 to 12 months.

1.5 Rationale and IFAD's comparative advantage

17. **Rationale:** Climate-related risks pose a significant threat to development and poverty reduction in Bangladesh, particularly in coastal and riverine regions. These risks are expected to reduce agricultural GDP and increase displacement among poor rural populations. GREEN directly addresses these vulnerabilities by embedding adaptive strategies that enhance agricultural productivity, lower production costs, improve livelihoods, and reduce exposure to climate shocks.

18. The target areas for GREEN rely heavily on agriculture and microenterprises but face systemic constraints—low product quality, limited market access, weak value addition, food safety issues, and minimal use of modern technologies. These challenges are exacerbated by low capital investment, fragile supply chains, and poor nutrition outcomes, especially among women and children. Women comprise nearly half of the disadvantaged population but have limited access to economic opportunities, with rural female labour force participation lagging at 38.6% versus 80.3% for men. Youth, who make up 18% of the population, also face high underemployment, particularly young women in rural and climate-affected regions.

19. Previous IFAD-financed projects in Bangladesh effectively integrated financial and non-financial services to expand rural livelihoods and support climate adaptation. However, these initiatives did not explicitly address the interlinked challenges of environmental degradation, youth marginalization, gender inequality, and poor nutrition. GREEN fills this gap by adopting a comprehensive, market-driven food systems approach. This includes promoting climate-resilient technologies and sustainable practices, investing in post-harvest handling and food processing, supporting green and efficient non-farm enterprises, and integrating nutrition-sensitive measures and education at the community level.

20. To enable these solutions, rural households must have access to high-quality inputs, functional markets, and tailored financial services delivered by capable intermediaries. GREEN will be IFAD's first project in Bangladesh to operationalize this holistic model by leveraging concessional finance across wholesale and retail levels. The project integrates financing directly with technical support, driving efficiency and deepening the impact of value chain development and rural finance. In doing so, GREEN sets a new benchmark for inclusive, climate-smart rural transformation that is both scalable and sustainable.

21. **IFAD's Comparative Advantage.** IFAD brings a strong comparative advantage to the GREEN project, grounded in its extensive experience integrating financial and business development services through a value chain approach. It has a proven track record in enhancing employment, food security, and resilience in rural communities by combining tailored finance with non-financial support. IFAD also leads globally in piloting and scaling climate adaptation solutions for smallholders, often aligned with goals on biodiversity, gender, youth, and indigenous inclusion. While Bangladesh and PKSF are recognized for their locally led innovations in climate resilience, PKSF's Partner Organizations (POs) have yet to fully mainstream climate change into their operations. GREEN will bridge this gap by identifying context-specific adaptation needs, introducing innovative practices, and building PO

capacity in training, service linkages, and financial product development through an adaptation lens—while ensuring women and youth are central to these efforts

22. Moreover, IFAD has forged strategic partnerships with key international actors such as the World Bank, Asian Development Bank (ADB), the Kingdom of Denmark, and the Kingdom of the Netherlands, along with national stakeholders, to scale up the impact of its investments. These efforts have resulted in a strong co-financing ratio of 5.72, reflecting IFAD's effectiveness in leveraging additional resources. In this regard, IFAD is in discussion with the EU and the EIB to mobilize additional financing to GREEN. This collaboration will strengthen GREEN impact and alignment with national priorities, delivering integrated solutions to combat rural poverty, enhance food security, and build climate resilience in Bangladesh.

23. Informed by global initiatives like the IFAD Rural Youth Action Plan, and local successes under PACE, HILIP, CALIP, and RMTP, GREEN will deploy targeted support for youth-led enterprises across farm and non-farm sectors. This includes enhanced access to climate-resilient technologies, digital tools, and entrepreneurship services. IFAD's active role in GREEN will also strengthen its policy engagement and advocacy for sustainable rural development in Bangladesh. Its trusted partnerships with local implementers, combined with technical know-how and a participatory approach, will be critical in achieving the project's long-term goals for inclusive, climate-smart rural transformation.

Chapter 2: Project/Programme Description

2.1 Theory of Change

24. GREEN's Theory of Change (ToC) identifies four inter-connected and persistent challenges constraining rural livelihood transformation, particularly of women and youth, in climate-vulnerable areas of Bangladesh:

    1. low productivity, limited diversification (including nutritious food production) and environmental degradation, compounded by climate change and increasing climate variability (frequent floods, droughts, water salinity and rising temperatures that disrupt cropping cycles) - small and fragmented landholdings that limits economies of scale and investment in technology - weak infrastructure (storage, processing facilities, and cold chains leading to post-harvest losses) - poor market access and poor diets, nutrition and food safety;
    2. limited access to tailored financial services—particularly for the extremely poor, youth, and highly climate vulnerable households; and
    3. insufficient institutional capacity of government, implementing partners and Partner Organizations (POs) to address emerging climate vulnerabilities, deliver integrated programming, and engage in policy advocacy, leading to low enforcement of environmental regulations and limiting sustainable practices and private investment.
    4. rural youth, despite being a major demographic group, face structural barriers—such as limited access to land, skills, capital, and networks—which hinder their full participation in agriculture and rural enterprise. Without targeted interventions, these constraints may deepen existing inequalities and drive youth outmigration.

25. GREEN tackles these challenges through a coherent framework of three mutually reinforcing components, targeting highly climate vulnerable and economically marginalized districts.

    - Component 1 will leverage PKSF's methodologies for value chain prioritization, identify key entry points, support the improved production of local, nutritious foods, strengthen farm and non-farm entrepreneurship, and establish new linkages to private services—all through fostering a sustainable food systems development approach and integrating renewable energy and climate adaptation into agricultural value chains to enhance resilience, productivity, and income. It will also roll-out a campaign for micro-credit groups and communities on healthy foods, nutritious diets and WASH (water, sanitation and hygiene).
    - Component 2 will tailor and deploy financial products, expanding access to finance for underserved segments, to encourage and incentivize investments in the local value chain upgrading and climate-resilient innovations including those promoted by Component 1. Together, Components 1 and 2 will also result in improved PO and beneficiary knowledge, skills and capacities; stronger microcredit group cohesion; viable business pipelines for financial services, and equitable participation across gender and age groups.
    - Component 3 will ensure partners are equipped with knowledge, digital tools for Monitoring, evaluation and learning (MEL) as well as KM, and policy platforms—that strengthen their technical and operational capacities—to sustain value chain and sustainable food systems transformation approaches including the capacity to enforce environmental policies and regulations.

26. To summarize, the GREEN's Project Goal is to *contribute to climate resilient and inclusive rural transformation through sustainable and equitable economic growth.* The Development Objective is to *sustainably increase income, climate resilience, food security and nutritional status of beneficiary households by enabling healthy diets and improved nutrition behaviours, uptake of technologies and best practices, and enhanced access to capital.*

27. The project will enhance productivity and profitability in priority farm and non-farm by embedding the production, processing, marketing and consumption of climate-resilient and nutritious foods into value chain development, whilst promoting resource-efficient technologies and environment-friendly practices.

28. Complementary initiatives will focus on product quality/safety, facilitation of market access and other supporting services. Community- and group- level nutrition behaviour change efforts will comprise nutrition education and WASH campaigns, grant support for homestead-based horticulture and small-scale livestock, and village-level healthy food events. Microcredit group training on financial and business literacy will also be upgraded, leveraging digital tools developed in Component 3, to ensure beneficiaries are able to plan and make sound financial decisions. 1 will also promote entrepreneurship and job creation, especially among youth and women, through training on commodity (e.g., cereals, oilseeds, horticulture), fisheries and livestock production and associated

services, and non-farm enterprise development support. Targeted interventions that enhance (i) access to productive assets, inputs and tools, (ii) business incubation and management skills and capabilities, (iii) platforms for collaboration with private sector actors, and (iv) youth-led climate resilient and/or environment-friendly technologies will catalyse youth engagement, promote intergenerational skill transfer, increase employment opportunities, and foster local innovation in priority value chains.

29. GREEN's pathway to adaptive capacity and resilience works through production diversification and use of stress-tolerant crops and breeds; sustainable intensification[2] and local value addition to stabilize and/or increase farm productivity and incomes; and increased non-farm income and profitability, including promoting businesses less exposed to climate risks.

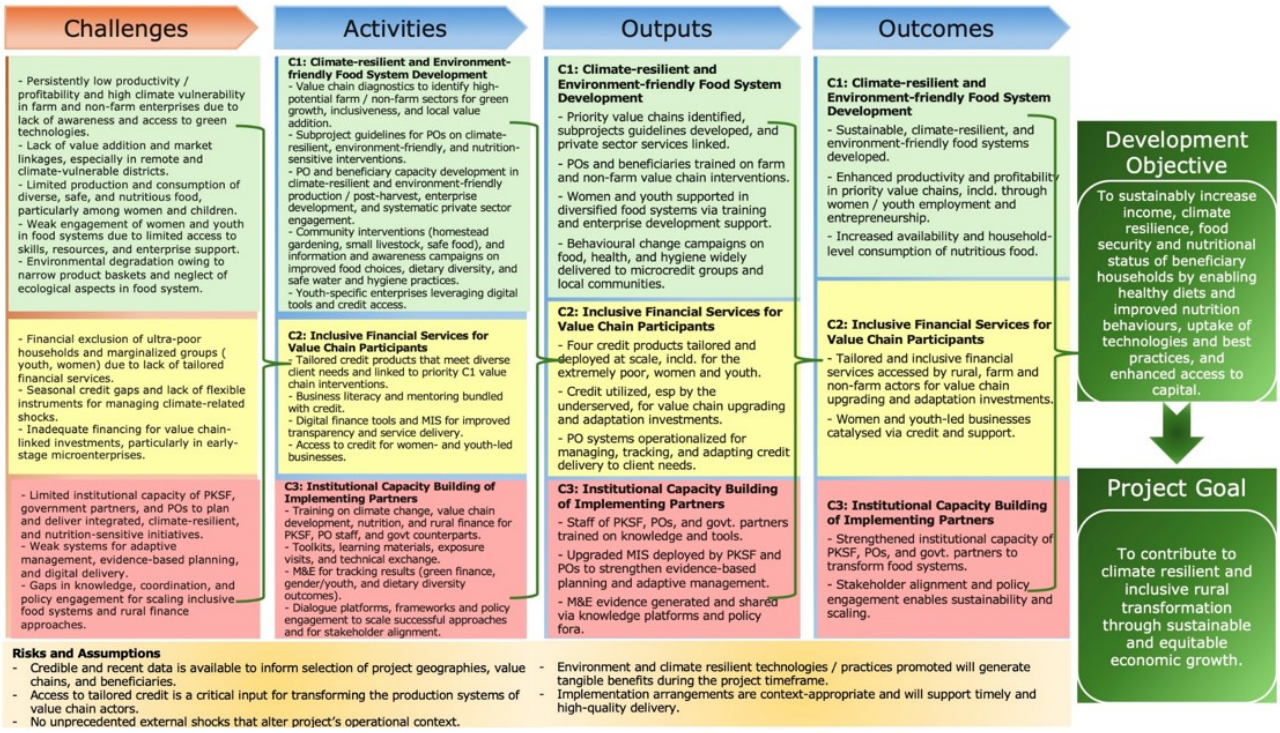
30. The project will ensure that financial products and services are customized to the needs of target beneficiary segments and value chain investment requirements, as credit for the extremely poor, seasonal loans, emergency loans, and enterprise finance. rural youth-friendly financial products and delivery mechanisms that enable starting or scaling farm and non-farm enterprises. GREEN's bundling of technical support (Components 1 and 2) with financial products (Component 2) is designed to incentivize and stimulate long-term investments in productive assets and climate-resilient, environment-friendly technologies. An implicit assumption is that financial barriers are a binding constraint to local value chain development (technology uptake, enterprise scaling), and that the expected returns on investments will outweigh cost of microcredit and yield measurable benefits within the project's timeframe. Component 2 supports household financial and risk management and catalysing women- and youth-led businesses by reducing formal credit gaps.

31. GREEN aims to increase household incomes or stabilize consumption (including, purchase of healthy and nutritious foods), improved overall wellbeing (food security, reduced livelihood vulnerability to climate shocks), and increased capital flow to rural economies, and microenterprises that are credit-constrained.

32. PKSF, their implementing Partner Organisations and government partners will contribute to a wide range of topics: financial product innovation, value chain development using a food systems approach, assessing climate risks and suitable adaptation options, environmental issues, and evidence-based policy engagement. Capacity development effort will also enable these actors to mainstream nutrition and youth considerations into their operations and outreach strategies.

33. Climate adaptation is at the core of GREEN's design, serving as a cross-cutting driver of rural transformation. The project embeds adaptation into every level of intervention, integrating climate risk considerations into value chain diagnostics, financial product design, and institutional capacity-building. Adaptive technologies such as stress-tolerant seeds, solar-powered irrigation, and efficient post-harvest systems are promoted alongside flexible credit instruments and targeted training. These enable rural communities to manage climate variability, reduce exposure to shocks, and invest in long-term resilience. By combining climate-smart value chain development, inclusive finance, and institutional strengthening, GREEN empowers rural households, particularly in climate-vulnerable areas—to lead healthier, more resilient, and economically secure lives. At the same time, the project acts as a catalyst for youth engagement in rural transformation by expanding access to productive resources, business services, and dignified employment opportunities.

34. **Theory of Change Schematic Diagram**



2.2 Targeting Strategy

35. The project's direct beneficiaries are estimated at 258,333 microfinance and business development recipients, comprising the extremely poor, transitional poor and enterprising poor. GREEN aims to directly benefit 258,333 households, translating to approximately 1.11 million individuals. The target population includes agricultural labourers, artisans, marginal and smallholder farmers, pond fisheries farming and backyard livestock-keeping households, non-agricultural producers, and poor young men and women.

36. The project targeting strategies are: a) Geographical targeting: combination of poverty and climate vulnerability considerations (See Table 1A); b) Poverty targeting: extremely poor (30%), transitional poor (50%), and enterprising poor (20%); c) Gender and youth targeting: Women will be the majority (70%), youth will be about 50%, and poor women-headed HHs about 15%. The project will ensure producers of all sizes are included in the value chain activities. The proportion of the three poverty groups is based on experience of similar projects implemented by PKSF. The actual proportion will be regularly monitored during implementation, and the PMU and POs will encourage poorer households to join the project and microfinance program to ensure the project is inclusive and all beneficiaries will be able to access services as needed.

37. Although national, the project will prioritize poverty-stricken and climate-vulnerable districts (see Table 1A below). Within the priority GREEN regions, some parts are more vulnerable than others such as subdistricts adjacent to the coast[3], those in flood plains, a majority of flash flood prone Haor subdistricts, and drought-prone[4] Barind subdistricts. During the initial stage of implementation, based on subproject criteria and guidelines, targeting within these districts will be refined utilizing the POs' intimate knowledge of the context. The operational definitions by poverty category of these groups are given in Table 1B.

38. **Table 1A: High Priority climate-vulnerable and poverty-stricken districts**

Climate 'Hotspot' Regions	**Districts**
Haor region	Kishoreganj, Netrakona, Sunamganj, Habiganj, and Brahmanbaria
Coastal region	Khulna, Bagerhat, Satkhira, Barguna, Patuakhali, Bhola, Lakshmipur, Noakhali, Feni, Chattogram, and Cox's Bazaar
High Barind region	Rajshahi, Naogaon, Chapai Nawabganj, Dinajpur, Joypurhat, Thakurgaon and Panchagar
River char region	Sirajganj, Gaibandha, Jamalpur, Kurigram, Rangpur, Lalmonirhat, Nilphamari, Tangail and Manikganj

39. **Table 1B: Beneficiary group definitions**

Beneficiary groups by poverty category	**Operational definitions**
Extremely poor (People living below the lower poverty line)	An extremely poor family may not have any agricultural land except a homestead, and sometimes live on *khas* (public land) land or donated land; poor women headed HHs are over represented in this category; they may lack regular daily or monthly income and mostly rely on agricultural labour. They may be food insecure in some months of the year.
Transitional poor (People living below the upper poverty line)	Mostly marginal farming families who own between 0.5 to 1 acre of land; these HHs may have other sources of income.
Enterprising poor (People living slightly above the upper poverty line but vulnerable to fall back into poverty)	Mostly small farmers who own between 1 to 2.5 acres of land; owners of farm and non-farm visible enterprises; families who have regular income from various sources such as business, wage/salary, agriculture, etc.

40. **Social Inclusion:** The project will mainstream gender, youth, and nutrition in all activities: women will comprise 70% of the beneficiaries of financial services (Component 2) and 57% in value chain development (Component 1); 50% of Component 2 beneficiaries are expected to be youth (between 18 and 35 years of age); and nutrition interventions will also specifically target poor women and youth. GREEN will address gender and youth dynamics in food systems to ensure inclusive participation and sharing of benefits of value chain activities. Development of inclusive value chain entails the delivery of financial and non-financial services that are adapted to women and youth, including collateral free lending and targeting mixed and single gender groups—both newly-formed and existing. GREEN will focus on engaging rural youth across a range of interventions, including participation in agricultural enterprises; training in digital agriculture applications such as weather and climate information, pest and price prediction; support for youth-led business incubators within agri-value chains and financing new businesses; and capacity building for e-commerce-based product promotion. To encourage youth into the agri-food system and to reduce the migration of youth to urban centers in search of

odd jobs, GREEN will promote more innovative approaches including youth specific financial products following the successes of PACE project.

41. The farm and non-farm value chains to be targeted will be market driven and demand led. Some of the value-chains likely to be selected i.e. poultry and small ruminant production, are dominated by women. The project will ensure that women, particularly the poorest and most nutritionally vulnerable, will be targeted for homestead gardening and poultry production as well as basic nutrition education. Additionally, investing in post-harvest handling and food processing can increase value-addition, improve food safety, and create non-farm jobs, including for un- and under-employed youth. Behavioural change activities will promote shared decision-making between household members - particularly between men and women - on income use, investment, and resource allocation, and will be embedded within training, extension, and enterprise development under value chain and livelihood interventions. Gender-specific criteria will also be considered when assessing project proposals submitted by PKSF Partner organizations (POs).

42. **Nutrition:** The project will also enhance nutrition outcomes through multiple pathways. The project strategy is to a) integrate nutrition considerations at each step of the value chain (production, processing and post-production) leading to improved availability of local, safe and nutritious foods; b) supporting homestead gardening and backyard poultry targeting women who are poor and nutritionally vulnerable c) organize community-level awareness generation activities amongst men and women to ensure that families prioritize self-consumption, while also stimulating demand for nutritious foods while simultaneously reducing the consumption of processed and sugar-sweetened foods. The project has a clear focus on mainstreaming gender which creates an enabling environment for improving nutrition of women and children. Furthermore, it will strengthen food safety within production systems. To maximize the nutrition benefits of income gains, financial literacy and household planning modules delivered to microfinance groups by loan officers will include messages on using additional income to improve family diets with safe and nutritious local foods.

43. **Ethnic Minority Strategy:** PKSF has extensive experience of engaging with Ethnic Minorities and including them in their loan operations, including targeting for livelihood development and Income Generating Activities (IGAs) such as traditional handicrafts. GREEN's Ethnic Minority targeting and engagement strategy includes the following approaches:

    1. The presence of Ethnic Minority is considered as a criterion for geographic targeting (by region and district). Overall, since Ethnic Minority peoples inhabit the most climate vulnerable regions of the country, they are likely to be included in many target regions and district.
    2. Free and Prior Informed Consent (FPIC) will ensure mutual respect and full and effective participation in decision-making on proposed investments.
    3. POs will adopt an adequate and cultural-sensitive strategy to target Ethnic Minority, thus making sure that their cultural specificities are valued (e.g. use of local language, support to traditional crops and products).
    4. Nutrition-sensitive interventions and nutrition-focused activities will be prioritized in Ethnic Minority areas. Nutrition campaigns will include attention to local food culture (e.g. educating on the nutritional value of traditional wild food that is accessible in forest areas)

2.3 Project/Programme Objectives

44. The development of the project is: *To sustainably increase income, climate resilience, food security and nutritional status of beneficiary households by enabling healthy diets and improved nutrition behaviours, uptake of technologies and best practices, and enhanced access to capital.* The project goal is: *To contribute to climate resilient and inclusive rural transformation through sustainable and equitable economic growth.*

45. The project through the main two components will expand and create economic opportunities by building the pipeline of farm and non-farm businesses of the beneficiaries and scaling them up by providing necessary financial services. The project is divided into three components plus project management and coordination.

46. Component 1 will leverage PKSF's methodologies for value chain prioritization, identify key entry points, support farm and non-farm entrepreneurship, and strengthen linkages to private sector —all through fostering a climate resilient food systems development approach, while raising household awareness and demand for nutritious foods.

47. Component 2 expands access to credit to all three categories of beneficiaries to finance their businesses, including beneficiaries of Component 1, to facilitate expansion of production, offer emergency financial solutions, leading to increased and resilient profits and household income.

48. Component 3 will strengthen human and institutional capacities of the government, PKSF and POs in areas of climate resilient project design and implementation, environment protection, nutritional aspects of farm and non-farm development, leading to the development of sustainable food systems.

49. The three components together enhance resilience of the beneficiaries by providing improved and sustained access to markets and financial services, contributing to diversification of livelihoods, and strengthening critical institutional capacity of PKSF and POs. The project management, Monitoring and Evaluation (M&E) system and knowledge management (KM), combine to ensure successful implementation.

2.4 Component, Sub-component and Activities

50. **Component 1: Climate-resilient and Environment-Friendly Food System Development (Total: USD 13.587 million; of which USD 7.1 million financed by PKSF, POs and Private sector; and Financing Gap of USD 6.5 million)**

51. **Component 1** will establish the foundation for environment-friendly and climate-resilient food systems through PKSF's methodologies for prioritization of inclusive and economically viable value chain, support farm and non-farm entrepreneurship, and

strengthen linkages to private sector while raising household awareness and demand for nutritious foods.

52. **Outcome 1.1:** Climate-resilient and environment-friendly food system developed in highly climate-vulnerable areas.

-
  - Output 1.1.1: Priority value chains identified, and guidelines for PO subprojects developed.
  - Output 1.1.2: Capacity of POs and beneficiaries to implement farm and non-farm value chain interventions enhanced.
  - Output 1.1.3: Partnerships between POs and private sector for production-related services established, facilitated, or expanded.

53. Through sub-component 1.1, the project aims to establish the foundation for environment-friendly and climate-resilient food systems that are both inclusive and, economically viable and will target all three categories of beneficiaries.

54. The sub-component will operationalize PKSF's well-established cost-effective value chain diagnostic framework to identify high-potential value chains suitable for the target geographies. This analytical process encompasses a comprehensive assessment of agroecological zones, market dynamics, profitability, climate risk exposure, and inclusion potential (for women, youth, and extremely poor households). The objective is to identify strategic entry points and recommend targeted interventions that optimize resource use, build adaptive capacities, and maximize co-benefits for nutrition and gender equality.

55. Given the acute vulnerability of the areas targeted under Sub-component1, the intensity of project interventions will be significantly higher compared to other regions. This includes a higher concentration of technical and financial support, more rigorous capacity-building activities, and deeper integration of climate resilience and environmental (particularly, natural resource) considerations. Priority will be placed on engaging high-performing POs with demonstrated outreach and operational capacity in climate hotspots.

56. More than 200 Partner Organizations (POs), which are primarily NGO-MFIs, have been POs of PKSF for more than 2-3 decades. PKSF will utilize its existing, well-tuned process of selecting POs along baseline criteria of: size and quality of loan portfolios, human capacity, strength of management system, internal programmatic and financial control, governance etc. From the pool, PKSF will select POs which are active in the project target areas, possess previous experience of successful implementation of value chain projects, some expertise in climate change adaptation activities, have a clientele with relevant segments of beneficiaries (women, men, and youth), and can be competitively assessed against their ability to deliver the services based on the project's requirements, and the demands of the beneficiaries while delivering on the project outcomes. PKSF has developed elaborate value chain project proposal review and approval process under IFAD-funded PACE and RMTP (on-going) projects, which will be adopted and modified by GREEN as necessary.

57. Key Activities:

1.
   1. Design and implement low-cost detailed value chain studies tailored to each agroecological zone.
   2. Develop operational guidelines, including scoring mechanisms for POs to prepare inclusive and climate-responsive subprojects.
   3. Facilitate participatory mapping of constraints and opportunities across each stage of selected value chains.
   4. Identify and promote context-specific green technologies such as stress-tolerant seeds, vermicomposting, organic pest control, water-conserving practices, solar-based drip irrigation systems to optimize water use, solar cold storage drying, processing, and packaging units Organize intensive and demand-driven training programs for POs and community groups on climate change, enterprise management, post-harvest practices, and resource efficiency. Training for beneficiaries will be sector specific (crop and horticulture, fisheries, poultry and livestock etc) in areas such as production technologies, enterprise management, e-commerce/f-commerce, etc.
   5. Strengthen backward and forward linkages through brokering partnerships with private sector players (input providers, traders, aggregators, processors)
   6. Mobilize and support women and youth-led enterprises through targeted business incubation and mentorship. Since smartphones are gradually expanding in rural areas, social media marketing will be expanded as has been done in the RMTP project.

58. **Outcome 1.2:** Climate-resilient and environment-friendly food system developed in moderately vulnerable districts.

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  - Output 1.2.1: Priority value chains identified and guidelines for PO subprojects developed.
  - Output 1.2.2: Capacity of POs and beneficiaries to implement farm and non-farm value chain interventions enhanced.
  - Output 1.2.3: Partnerships between POs and private sector for production-related services established, facilitated, or expanded.

59. Description: Sub-component 1.2 extends the project's value chain development model to other project districts that, while less exposed to acute
climate risks, face chronic vulnerabilities such as low input use, lack of market access, and underutilization of environmental technologies. These areas also represent significant untapped potential for climate-resilient and sustainable intensification, including diversification of production base.

60. Sub-component 1.2 shares the same outcome and outputs as Sub-component 1.1, as both address similar thematic areas and utilize the same set of indicators. However, results are disaggregated by geographic focus—highly vulnerable areas and other districts—to allow for differentiated monitoring and analysis. In line with good M&E practices, results will be disaggregated during implementation and analysis, while being aggregated for overall project-level reporting.

61. While the methodological framework remains consistent with Sub-component1, the level of support and intervention intensity will be calibrated to reflect the relatively lower climate risk profile and the existing capacities of implementing partners. Emphasis will be placed on replicating proven models, mainstreaming gender and youth inclusion, and scaling up the adoption of environment-friendly and nutrition-sensitive innovations with lighter-touch facilitation.

62. Key Activities:

    1.
        1. Rapid assessments of production potential, climate-resilient production opportunities, and enterprise bottlenecks.
        2. Support to POs for preparing value chain proposals that align with GREEN objectives and apply lessons from highly vulnerable zones.
        3. Trainings and refresher modules for PO field staff and microentrepreneurs, particularly led by women and youth.
        4. Mobilization of private sector partnerships through business-to-business (B2B) exchanges and match-making forums
        5. Dissemination of good practices in organic agriculture, diversified cropping, and post-harvest handling.
        6. Introduction of low-cost digital technologies to improve productivity and marketing.

63. **Outcome 1.3:** Healthy diet practices promoted through targeted nutrition education.

    - Output 1.3.1: Campaigns for healthy and nutritious foods organized for communities and microcredit groups.

64. Description: This sub-component 1.3 is designed to improve dietary quality and nutrition behaviours among rural households, particularly women and adolescent girls, by embedding Social and Behaviour Change Communication (SBCC) into the project's value chain interventions. Recognizing that availability of nutritious food alone does not guarantee improved consumption, GREEN will deploy evidence-based nutrition messaging and community-based outreach strategies to influence food choices, feeding practices, and hygiene behaviour.

65. Activities will be implemented in collaboration with selected POs, local health and WASH service providers, and trained community facilitators. These will be aligned with national guidelines on dietary diversity, maternal and child nutrition, and food safety.

66. Key Activities:

    1.
        1. Design and dissemination of nutrition-focused IEC materials tailored to local dietary gaps.
        2. Organization of household and group-based learning sessions during microcredit group meetings. This will not incur additional cost to the POs as the meetings are arranged as a part of microcredit operations. The project will provide some materials, some of which have already been produced by the on-going RMTP and PPEPP projects.
        3. Training of community nutrition champions and peer educators.
        4. Promotion of backyard/homestead gardens, small livestock/poultry rearing, and biofortified crops for self-consumption.
        5. Integration of WASH messaging with nutrition education to maximize impact on health outcomes.

67.
    Engagement of schools, youth clubs, and religious institutions in promoting community-wide behaviour change.

68. **Component 2: Inclusive Financial Services for Value Chain Participants (Total cost USD 185.3 million, of which 51.5 million financed by an IFAD loan, USD 53.8 million financed by PKSF, USD 70 million financed by POs and USD 10.1 million of Financing Gap)**

69. Outcome 2.1: Financial inclusion of extremely poor improved through tailored credit products

    - Output 2.1.1: Small credit product tailored for the extremely poor developed and rolled out.

70. Description: This sub-component targets the financial exclusion of the extremely poor households typically bypassed by conventional microcredit due to their limited repayment capacity, lack of collateral, and high perceived risk. These groups often live in the most climate-vulnerable areas and experience multiple deprivations, making access to capital a critical enabler for stepping into income-generating activities.

71. Building on PKSF's experience with its Buniad loan product, GREEN will expand and refine the delivery of extremely poor credit. The approach will emphasize low-ticket, high-flexibility financial instruments accompanied by intensive client mentoring and financial literacy training. These loans are not just capital injections but instruments for empowerment—allowing the poorest to build assets, manage shocks, and gradually enter higher rungs of the rural enterprise ladder.

72. Table 2A presents the terms and conditions of all four loan products of PKSF, which are updated and refined regularly to suit the needs of the beneficiaries.

73. Key Activities:

    1.
        1. Expand Buniad loans across climate-vulnerable districts with tailored repayment terms.
        2. Develop screening and onboarding tools suited for low-literacy, low-income clients.
        3. Provide complementary services such as savings facilitation, group mentoring, and microenterprise guidance.
        4. Train POs on inclusive credit delivery, risk mitigation, and follow-up support.

74. Monitor borrower progress and adapt loan features based on repayment trends and field data.

75. Outcome 2.2: Seasonal credit for farm and non-farm businesses addressed.

    - Output 2.2.1: Seasonal loans for farm and non-farm businesses developed and deployed.

76. Description: Sub-component 2.2 addresses the critical liquidity gap faced by producers and small businesses during seasonal investment cycles. With irregular income flows and lump-sum production costs, many smallholders are forced to borrow informally at exorbitant rates or cut back on key inputs. Seasonal credit under the Sufolon product line aims to break this cycle by offering structured, short-term loans aligned with agricultural calendars and enterprise cycles.

77. This credit window will be demand-responsive, climate-aware, and bundled with technical advice where feasible. For instance, many POs offer “Emergency Loans” to enable borrowers to cope after extreme events, and product improvements will be suggested so that POs are able to maintain and scale these services. It will support investments in both input procurement and small-scale processing equipment—laying the groundwork for stronger, more resilient enterprises.

78. **Table 2A: Terms and conditions of loans from PKSF to POs and POs to Beneficiaries**

Serial No.	Name of loan components	Target group	Loan ceiling PO to beneficiary (in Taka)		Service charge rate (%)		Loan period (year)		Number of installments		Type of loan repayment	Remarks
			Minimum	Maximum	PKSF-PO	PO-Beneficiaries	PKSF-PO	PO-Beneficiaries	PKSF to POs	POs to Beneficiaries		
1.	Extreme poor (Buniad)	Extreme Poverty	10,000	50,000	Small PO: 1% Medium size PO: 1% Large PO: 1%	Max. 20%	2 years with 6 months grace period	1 year	6 installments	46 installments with 15 days grace period	weekly	No fee will be received for pass book & loan form etc.
2.	Rural/Urban Micro Credit (Jagoron)	Graduated group from Extreme Poverty	30,000/-	60,000/-	Small PO: 5% Medium PO: 6% Large PO: 7.5%	24%	3 years with 6 months grace period	1 year	10 installments	46 installments with 15 days grace period	weekly	
3.	Microenterprise (Agrosor)	Entrepreneur or Progressive Members	60,000/-	1,000,000/-	Small PO: 5% Medium PO: 6% Large PO: 7.5%	24%	3 years with 6 months grace period	Maximum 2 year	10 installments	Depend on type of loan repayments	Weekly, Monthly, Quarterly, Half-yearly, and One-time	Financial analysis of business, execution of loan agreement on non-judicial stamp of Tk 300 and loan disbursement through account payee cheque

4.	Seasonal Loan, Agriculture Loan (Sufolon)	Buniad and Jagoron beneficiaries, small & marginal farmers	-	60,000/- (maximum 100,000/- for 2 loans)	Small PO: 5% Medium PO: 6% Large PO: 7.5%	24%	Maximum 14 months	Maximum 14 months	--	Depend on type of loan repayments	Weekly, Monthly, Quarterly, Half-yearly, One-time	Most POs repay PKSF in one installment.

79. Key Activities:

    1.
        1. Deploy seasonal loans targeting peak agricultural and business cycles in selected value chains.
        2. Work with Component 1 teams to align credit access with planned interventions (e.g., green technology adoption, emergency loans to avert negative coping strategies).
        3. Train borrowers in cash flow management and business planning.
        4. Digitize credit assessment and disbursement to improve efficiency and outreach.

80. Track repayment and performance indicators to refine loan structures and risk buffers.

    Outcome 2.3: Access to regular microcredit for farm and non-farm businesses expanded.

    - Output 2.3.1: Microcredit for farm and non-farm businesses disbursed.

81. Description: While specialized loan products address niche needs, regular microcredit remains the backbone of rural finance and enterprise continuity. Under this sub-component, GREEN will scale up Jagoron loans for rural entrepreneurs engaged in both farm and non-farm businesses. The focus is on enabling consistent access to working capital that can stabilize enterprise operations, expand market presence, and buffer small producers against moderate shocks.

82. The credit modality under Jagoron will also serve as a platform for financial deepening—encouraging borrowers to access other services such as insurance, digital payments, and group savings.

83. Key Activities:

    1.
        1. Disburse Jagoron loans across all project districts for eligible enterprises.
        2. Encourage productive loan use through coaching and community-level business advice.
        3. Link microcredit recipients to Component 1 and 3 services for skills, inputs, and capacity-building.
        4. Foster peer-to-peer learning among loan clients to promote shared accountability and innovation.

84. Pilot add-on services such as credit scoring, bundled insurance, or mobile repayment platforms.

    Outcome 2.4 Microenterprise loans for business incubation and growth enhanced.

    - Output 2.4.1: Microenterprise loans for farm and non-farm businesses improved and disbursed.

85. Description: To support the emergence of a dynamic rural enterprise sector, particularly among youth and women, GREEN will enhance and expand the Agrosor microenterprise loan product. These larger-ticket loans are designed to finance business start-up, expansion, and formalization. The sub-component bridges the gap between microcredit and SME finance, targeting rural entrepreneurs with scalable models and solid business acumen. By integrating additional non-financial support—including market linkages, business plan development, and targeted mentoring—this sub-component will transform credit into catalytic capital, fostering job creation, value addition, and local economic multipliers.

86. Key Activities:

    1.
        1. Deploy Agrosor loans to eligible entrepreneurs with growth potential. An analysis of ME loan outstanding of year 2024 shows the following sector distribution: Services (15%), agriculture/agribusiness (39%), processing (17%), and trade/shops (29%).
        2. Prioritize youth- and women-led businesses in high-potential value chains.
        3. Provide incubation support including feasibility studies, branding, and digital marketing.
        4. Establish a pipeline of investable projects and link them to private co-financing opportunities.
        5. Monitor enterprise performance and iterate support models based on growth trajectories.

87. To promote the adoption of clean and environment-friendly technologies, GREEN will strategically channel the existing Agrosor loan product, targeted at microenterprises, towards renewable energy investments. These may include solar-powered irrigation pumps, solar cold storage units, solar dryers, and other decentralized energy solutions that enhance productivity and reduce energy-related costs. Rather than introducing new financial products, the project will encourage Partner Organizations (POs) to identify renewable energy-related investments within their enterprise financing pipeline and support them using the flexibility of the Agrosor product, including tailored repayment schedules and grace periods where necessary. These investments will be promoted particularly among youth and women-led businesses engaged in priority value chains.

88. Renewable energy will be explicitly recognized as an eligible investment category under the GREEN Line of Credit, reinforcing the

project's alignment with national and global climate goals. PKSF will provide guidance to POs to identify and appraise viable clean energy investments, and where feasible, collaborate with technology providers to ensure quality and affordability. These efforts will be further complemented by interventions under Component 1—such as technical training, enterprise development support, and market access facilitation—enabling microentrepreneurs to maximize returns from clean energy technologies. This integrated approach will strengthen the long-term resilience, profitability, and environmental sustainability of rural enterprises while demonstrating the viability of climate-smart financing models in Bangladesh.

89. The following Table 2B provides a comprehensive snapshot of the current growth observed across all the four financial products over the past years.

90. **Table 2B: Microfinance program loans and beneficiaries**

Loan outstanding: From PKSF to POs (Taka in million)						
Loan Products	June 2021	June 2022	June 2023	June 2024	April 2025	Growth:2021-25 (%)
Regular microcredit (Jagoran)	20,750.5	22,895.4	27,587.4	31,998.4	36,149.4	74.21
ME loan (Agrosor)	28,947.6	34,268.1	47,108.3	55,089.2	60,248.6	108.13
Extreme Poor loan (Buniad)	2,874.2	3,925.5	4,922.7	5,506.3	6,785.3	136.08
Agricultural loan (Sufolon)	6,842.5	6,210.2	7,765.3	7,098.1	9,754.6	42.56
Total	59,414.8	67,299.2	87,383.7	99,692.0	112,937.9	90.08
Loan recovery rate of PKSF (%)	99.47	99.48	99.38	99.25	99.92	-
Source: PKSF						
Loan outstanding: From POs to Borrowers (Taka in million)						
Loan Products	June 2021	June 2022	June 2023	June 2024	April 2025	Growth:2021-25 (%)
Regular microcredit (Jagoran)	138,730	18,868	214,823	238,197	270,621	95.07
ME loan (Agrosor)	147,223	218,210	291,329	328,867	404,454	174.72
Extreme Poor loan (Buniad)	4,698	6,120	6,588	7,648	8,295	76.56
Agricultural loan (Sufolon)	32,097	40,404	45,628	47,160	55,468	72.81
Total	322,748	283,601	558,368	621,872	738,836	128.92
Cumulative loan Recovery rate of POs (%)	99.30	99.24	99.38	99.25	99.03	-
Portfolio at risk (%) (approx.)	1-2%	1-2%	1-2%	1-2%	n.a	-
Number of Borrowers by Loan products						
Loan Products	June 2021	June 2022	June 2023	June 2024	April 2025	Growth:2021-25 (%)
Regular microcredit (Jagoran)	7,078,060	8,127,363	8,232,395	8,652,047	8,912,425	25.92
ME loan (Agrosor)	1,728,176	2,213,356	2,740,366	3,008,159	3,510,875	103.15
Extreme Poor loan (Buniad)	405,753	470,718	464,985	491,258	573,020	41.22
Agricultural loan (Sufolon)	1,024,345	1,199,320	1,356,333	1,356,740	1,500,273	46.46
Total	10,236,334	12,010,757	12,794,079	13,508,204	14,496,593	41.62
Number of members by Loan products						
Loan Products	June 2021	June 2022	June 2023	June 2024	April 2025	Growth:2021-25 (%)
Regular microcredit (Jagoran)	10,081,441	11,236,061	12,011,156	12,549,005	12,910,530	28.06
ME loan (Agrosor)	2,151,542	2,678,506	3,326,986	3,724,240	4,300,305	99.87
Extreme Poor loan (Buniad)	703,686	776,016	764,212	778,521	800,210	13.72
Agricultural loan (Sufolon)	1,031,278	1,214,030	1,374,828	1,395,238	1,534,500	48.80
Total	13,967,947	15,904,613	17,477,182	18,447,004	19,545,545	39.93

91. As illustrated, the GREEN Line of Credit (LOC) will supplement those POs with a long track record of successful delivery. The increasing loan outstanding from PKSF to POs and POs to beneficiaries indicates growing demand for all types of loans. PKSF's loan outstanding to POs from June 2021 to April 2025 has grown by 90%. At the retail level, POs loans outstanding for all four

products has grown by 109%. During the same period, the number of borrowers (beneficiaries with a loan balance) has increased in all four loan types and the overall increase in borrowers is 41.6%. Among four loan products, microenterprise loan has posted highest growth rates in terms of borrowers and loan outstanding.

92. **Component 3: Institutional Capacity Building of Implementing Partners (USD 3.64 million, of which 1.64 million financed by PKSF and POs and 2 million of Financing Gap)**

93. Outcome 3.1: Capacity of Implementing Partners in Food System enhanced

- Output 3.1.1: Government of Bangladesh and PKSF staffs trained on financial product development and delivery, climate change, environment, and value chain/enterprise management.

94. Description: This sub-component will strengthen the Government of Bangladesh and PKSF's internal capacity to plan, supervise, and scale integrated programming that combines rural finance with climate-resilient agriculture, food systems innovation, and nutrition-sensitive value chains. Relevant staffs will receive systematic exposure to global and local best practices, new diagnostic tools, and cross-cutting programming approaches.

95. This capacity investment is vital for the Government of Bangladesh and particularly for PKSF to remain at the forefront of inclusive rural development in Bangladesh, especially as it expands its role in mobilizing blended finance and piloting green financial instruments. The project during implementation will conduct an assessment, regarding needs and nature of institutional development of PKSF and POs to determine training activities and technical assistance.

96. As part of its institutional strengthening agenda, GREEN will also explore the introduction of a light-touch policy dialogue platform in collaboration with the Ministry of Environment, Forest and Climate Change. This platform will facilitate informal exchanges on emerging lessons from project implementation, particularly on climate-smart value chains, nature-based solutions, and green rural finance, and support the Ministry's efforts to integrate community-based adaptation approaches into subnational planning processes. In parallel, the project will pilot a simplified environmental data dashboard, co-developed with the Ministry, to visualize localized environmental trends such as rainfall variability, land degradation, and uptake of climate-resilient technologies. This tool is intended to inform dialogue and decision-making across implementing partners and relevant agencies. By connecting field-level innovations with policy processes, GREEN contributes to more coherent and evidence-informed planning between rural development, adaptation, and environmental sustainability.

97. Key Activities:

1.
    1. Develop and deliver tailored training modules on green finance, gender and youth mainstreaming, and enterprise incubation.
    2. Organize exposure visits and exchanges with national and international institutions.
    3. Build institutional toolkits for value chain analysis, climate risk mapping, and nutrition integration.
    4. Strengthen internal monitoring, learning, and evidence-based decision-making systems.
    5. Establish an informal policy dialogue platform in partnership with the Ministry of Environment, Forest and Climate Change to share field-level insights and support the integration of climate adaptation models into subnational planning.

98. Co-develop a simplified environmental data dashboard with PKSF and relevant ministries to track key climate and environmental indicators and support evidence-based decision-making.

    Outcome 3.2: Capacity of POs on inclusive financial and non-financial service delivery strengthened

- Output 3.2.1: PO officials trained on financial product development and delivery, climate change, environment, and value chain/enterprise management.

99. Description: This sub-component focuses on strengthening the last-mile delivery capacity of Partner Organizations, which are central to GREEN's implementation model. The capacity-building approach will be modular, demand-driven, and inclusive—targeting field staff, branch managers, and technical teams.

100. Emphasis will be placed on mainstreaming climate, youth and nutrition lenses into day-to-day PO operations, improving client interface, and upgrading digital capabilities. The long-term goal is to professionalize the rural service delivery ecosystem so that POs can sustain and scale GREEN's innovations well beyond the project lifecycle.

101. Key Activities:

1.
    1. Conduct baseline capacity assessments and develop tailored learning paths for POs.
    2. Deliver training sessions on financial inclusion, enterprise support, climate change, etc.
    3. Facilitate knowledge-sharing forums between POs and sector stakeholders.
    4. Promote adoption of digital tools for MIS, credit tracking, and beneficiary feedback.
    5. Support development of internal M&E, accountability, and gender-inclusion frameworks.

2.5 Sustainability, Scaling Up and Exit Strategy

102. GREEN envisions a future where poor families in climate vulnerable regions escape poverty, build climate resilience, and engage in environment friendly production with a diversified livelihood base. Communities will have sustained access to well-developed markets, and receive bundled financial and non-financial services, including support for improving nutrition which will contribute to poverty alleviation and rural growth. The providers of these services will have in place a cost-effective financing model to sustain service delivery long after the project's implementation timeline.

103. Financial Sustainability **-** GREEN's design embeds a robust financing model utilizing lines of credit (LOC) and concessional funding to build a strong, scalable business pipeline for financial institutions. This model prioritizes the development of sub-loan portfolios that caters to market-responsive nutrition, climate adaptation, and youth-sensitive investments; thus, demonstrating that sustainable financial outcomes can be achieved without perpetual grant financing, provided concessionary capital continues and portfolio health is maintained. By delivering customized financial services—including savings products and emergency loans—the project aims to generate sufficient returns on financial and non-financial operations while PKSF and POs expand outreach to new clients.

104. Economic Sustainability **-** GREEN will drive economic transformation through the creation and strengthening of rural value chains, emphasizing integration with private sector firms to connect producers and microenterprises with expanding local and urban markets. Value chain activities will span the entire production cycle, from efficient production to product quality improvement, packaging, branding, and access to e-commerce platforms. This approach supports agricultural and livelihood diversification, localized value addition and market development, employment generation, and income enhancement—serving as a risk management strategy against climate-driven volatility.

105. Social Sustainability - The project's social objectives are closely aligned with national policy goals on poverty reduction, women's empowerment, and youth employment. GREEN prioritizes poverty-stricken and climate-vulnerable districts, where existing social inequities are exacerbated by food insecurity and environmental stressors, to address traditional barriers to economic participation and climate resilience. It is specially focused on asset-poor households and those who may be first-time borrowers for enterprise or seasonal loans. Customized financial services are tailored to the distinct needs of diverse populations, including youth, enabling them to transition from subsistence activities to value-addition within a stronger market system.

106. Environmental Sustainability - GREEN advances environmental sustainability—tightly integrated with climate change adaptation—by promoting resource efficient farm technologies, production diversification, and commercial solutions to waste reduction and energy efficiency where feasible. The uptake of these solutions is incentivized through provision of customized financial products and technical knowledge—often handholding microcredit borrowers and microentrepreneurs till economic returns are tangible and established. In this process, PKSK and PO's financial portfolio mainstreams environment (and climate) considerations across value chain of focus, eventually incorporating them into standard business operations.

107. Institutional Sustainability - Institutional sustainability is strengthened through the integration of GREEN within national development frameworks and through partnerships with government departments. Capacity building for implementing organizations (POs) focuses on modern production techniques, marketing strategies, and value chain development, solidifying institutional ownership through strong technical and operational capacities. PKSF's use of a proposal scoring system ensures coordinated outcomes, and knowledge management platforms and stakeholder engagement emphasizes cross-institutional learning.

108. Scaling up and scaling out of these lending and business development activities among POs are designed to persist beyond the project's timeline, ensuring ongoing economic benefits. The innovative funding approach, combined with an integrated system to support and develop value chain businesses, with elements of nutrition, youth and climate adaptation, recognizes that POs' provision of self-funded value chain support services creates a viable pipeline for their core business of lending, forming the basis of the exit strategy.

2.6 Project financing

109. Project cost: The total project cost is estimated at USD 211.7 million to be financed through: (i) IFAD loan of USD 51.4 million, (ii) a financing gap of USD 18.6 million potentially to be sourced through subsequent resources cycles (under financing terms to be determined and subject to internal procedures and subsequent Executive Board approval) or by cofinancing identified during implementation. PKSF will contribute USD6 million, (iv) The POs of PKSF will contribute USD 71.5 million, and (iv) the private sector will leverage USD 0.6 million. The project will be implemented over a six-year implementation period. The financing gap of US$18.6 million may be sourced through subsequent resources cycles (under financing terms to be determined and subject to internal procedures and subsequent Executive Board approval) or by cofinancing identified during implementation.

110. IFAD financing on blend terms will be wholly applied to component 2: Financial services for value chain participants, PKSF contribution will finance the project management costs and some portion of the three components, POs will contribute to financing the three components and beneficiary contribution will be wholly in-kind and applied to component 1 for the training activities.

111. The tables (Tables 3, 4, and 5) below reflect the project cost by components and financiers; expenditure categories and financiers; and Project cost by year respectively.

112. **Table 3: GREEN Cost by Components and Sub-Components and by Financiers (US $ '000)**

Components / sub-component	IFAD Amount	%	PKSF Amount	%	POs Amount	%	Private Sector (In-Kind) Amount	%	Financing Gap Amount	%	Total Amount	%
A. Climate-resilient and Environment Friendly Food System Development												
Climate-resilient and environment friendly food system development in vulnerable areas	-	-	4 027	54	-	-	452	6	3 000	40	7 479	4
Climate-resilient and environment friendly food system development in other districts	-	-	1 478	32	-	-	113	3	3 000	65	4 591	2
Campaign for Healthy and nutritious Food	-	-	9	1	1 009	67	-	-	500	33	1 517	1
Subtotal	-	-	5 513	41	1 009	7	565	4	6 500	48	13 587	6
B. Inclusive Financial services for value chain participants			-	-							-	
Financial inclusion of the extremely poor	7 246	32	8 787	39	5 000	22	-	-	1 541	7	22 574	11
Seasonal credit for farm and non-farm businesses	18 392	39	15 000	32	10 000	21	-	-	3 571	8	46 964	22
Access to regular microcredit for farm and non-farm businesses	14 714	22	15 000	22	35 000	52	-	-	2 857	4	67 571	32
Microenterprise loans for business incubation and growth	11 036	23	15 000	31	20 000	42	-	-	2 143	4	48 179	23
Subtotal	51 388	28	53 787	29	70 000	38	-	-	10 112	6	185 287	88
C. Institutional Capacity Building of Implementing Partners				-	-							-
Capacity building of Implementing Partners in Food System Development	-	-	547	27	-	-	-	-	1 500	73	2 047	1
Capacity building of POs on inclusive financial and non-financial service	-	-	602	38	492	31	-	-	500	31	1 594	1
Subtotal	-	-	1 149	32	492	14	-	-	2 000	55	3 641	2
D. Project Management	-	-	9 135	100	-	-	-	-	-	-	9 135	4
Total PROJECT COSTS	51 388	24	69 584	33	71 501	34	565	0	18 612	9	211 650	100

113. **Table 4: GREEN Cost by Expenditure Categories and by Financiers (US $ '000)**

Expenditure Category	IFAD Amount	%	PKSF Amount	%	POs Amount	%	Private Sector (In-Kind) Amount	%	Financing Gap Amount	%	Total Amount	%
I. Investment Costs												
A. Studies	-	-	165	100	-	-	-	-	-	-	165	0
B. Training	-	-	6 658	39	1 501	9	565	3	8 500	49	17 225	8
C. Credit	51 388	28	53 787	29	70 000	38	-	-	10 112	6	185 287	88
Total Investment Costs	51 388	25	60 611	30	71 501	35	565	0	18 612	9	202 677	96
II. Recurrent Costs			-	-								
A. Operation Cost	-	-	5 941	100	-	-	-	-	-	-	5 941	3
B. Salaries	-	-	3 033	100	-	-	-	-	-	-	3 033	1
Total Recurrent Costs	-	-	8 974	100	-	-	-	-	-	-	8 974	4
Total PROJECT COSTS	51 388	24	69 584	33	71 501	34	565	0	18 612	9	211 650	100

114. **Table 5: GREEN Cost by Components and by Year -- Totals Including Contingencies (US$ 1000)**

Components / sub-component	2026	2027	2028	2029	2030	2031	Total
A. Climate-resilient and Environment Friendly Food System Development							
Climate-resilient and environment friendly food system development in vulnerable areas	1 452	1 844	1 844	919	919	500	7 479
Climate-resilient and environment friendly food system development in other districts	818	977	977	659	659	500	4 591
Campaign for Healthy and nutritious Food	110	302	403	403	201	100	1 517
Subtotal	2 380	3 123	3 224	1 981	1 779	1 100	13 587
B. Inclusive Financial services for value chain participants							
Financial inclusion of the extremely poor	4 515	9 030	9 030	-	-	-	22 574
Seasonal credit for farm and non-farm businesses	9 393	18 785	18 785	-	-	-	46 964
Access to regular microcredit for farm and non-farm businesses	13 514	27 028	27 028	-	-	-	67 571
Microenterprise loans for business incubation and growth	9 636	19 271	19 271	-	-	-	48 179
Subtotal	37 057	74 115	74 115	-	-	-	185 287
C. Institutional Capacity Building of Implementing Partners							
Capacity building of Implementing Partners in Food System Development	303	412	526	306	250	250	2 047
Capacity building of POs on inclusive financial and non-financial service	106	424	651	212	100	100	1 594
Subtotal	409	837	1 177	519	350	350	3 641
D. Project Management	1 533	1 487	1 535	1 492	1 487	1 600	9 135
Total PROJECT COSTS	41 379	79 562	80 051	3 992	3 617	3 050	211 650

115. **Disbursement**

116. IFAD funds will be disbursed to a designated account with the Bangladesh Bank. The project will open operational accounts with a publicly listed bank licensed by the Bangladesh Bank. Choice of bank must be approved by PKSF Management and sent to IFAD for registration in the system. Designated Accounts for the project will be opened within four (4) weeks of the date of signing of the Financing Agreement and will be a condition for disbursement of the initial advance.

117. Government counterpart financing is not envisaged on this project. IFAD loan is fully on-lent to PKSF. Counterpart funds are from PKSF, Private Sector, Beneficiaries, and Partner Organizations covering all components.

118. The Revolving Fund modality under the report-based disbursements system will be the mechanism used for withdrawing funds from IFAD financing. Interim Financial Reports (IFRs) package will be used as a basis for submission of withdrawal applications to IFAD. The IFRs package and requirement will be included in the Financial Management and Financial Control Letter (FMFCL) and the PIM. The first advance should be equal to or less than the forecast amount of IFAD financed expenditures approved in the Annual Work Plan and Budget (AWPB) for six months. Further advances to the Designated Account will be made for the next reporting period based on the AWPB or expenditures forecast.

119. Each quarter, the PMU should submit the IFRs package (using the templates included in the FMFCL and the PIM) to report on the financial performance and to justify the specified percentages of the withdrawn advances as indicated in the FMFCL.

120. **Debt Sustainability**

121. The IMF Debt Sustainability Analysis (DSA), released on 26 June 2025, assesses Bangladesh's risk of debt distress as Moderate with limited space to absorb shocks—a downgrade from its previous rating. During IFAD13. The shift from a Low to Moderate risk rating since the June 2024 DSA is primarily attributed to a substantial downward revision of export data for FY23 and FY24, which affects projections throughout the forecast period. Despite this downgrade, Bangladesh's debt-carrying capacity remains assessed as Medium, consistent with prior assessments. Under the baseline scenario, external debt dynamics remain favourable, supported by a projected medium- to long-term GDP growth rate of 6.5 percent. The external public and publicly guaranteed (PPG) debt-to-GDP ratio is expected to stabilize at around 9.5 percent by FY45. All debt sustainability indicators under the baseline scenario improve relative to the previous DSA. However, under the most extreme shock scenario, the present value of external debt-to-exports ratio remains above the indicative threshold, reflecting the impact of the downward export revisions in FY23 and FY24.

2.7 Economic and Financial Analysis

122. GREEN project will reach 258,333 direct beneficiary households in a 6-year period. It aims to enhance the income, food security and nutrition, climate resilience and employment of targeted households, especially in climate-vulnerable districts, through a combination of appropriate financial and non-financial services in selected farm and non-farm value chains.

123. The benefit attribution of the project is based on the following principal assumption: access to credit and technical assistance provided by GREEN project for farm and non-farm entrepreneurial poor and microenterprises can incentivize them to invest in improved technologies. The combination of credit and technical assistance can therefore improve production, nutrition, and local employment. GREEN will offer financial services to poor, marginal and smallholder farmers, and non-farm microenterprises,

including artisans, traders, small processers, and transporters. Value chain participants will be marginal and smallholder farmers, non-farm producers, traders, support service providers, small processors etc. The farm and non-farm enterprises that were analyzed include three types of rice (Aman, Boro and aromatic rice), vegetables (6 type of vegetable), potatoes, bananas, mung beans, fish, dairy milk, beef fattening, poultry eggs and broiler, food processing (tomato processing), handloom and basket weaving representing women income generating activities, and eco-tourism (Kayaking and homestay).

124. The representative models were developed based on the following information: (i) the design mission and the staff of the PKSF and its POs collected all input and out prices for all the models; (ii) Final Impact Study of Promoting Agricultural Commercialization and Enterprises (PACE) project of PKSF (March 2024)[5]; (iii) Project Completion Report (PCR) of PACE project (March 2024); (iv) information extracted from various publications of the POs.[6] Other sources of information include Bangladesh Bank, World Bank Commodity Forecast, IFAD[7] and Bangladesh Bureau of Statistics. The main types of data that were used for the FEA include (i) market prices of all inputs and outputs of all models; (ii) crop and enterprise budgets for farm models; (iii) capital and working capital expenditure of processing facilities; (iv) cost of machineries; (v) international prices for computing parity prices of exportable commodities; and (vi) cost of application of GGAP and HACCP standards collected from PCR of PACE project.

125. The EFA was based on 2024 prices. All gross margin models for the with-project scenario were financially viable. With few exceptions, without-project scenario indicated financial profitability at lower level compared to the with-project scenario. PDR Annex 4 provides details, while Table 6 summarizes the short-term (annual at full development) and long-term (for 20 years with 13% financial discount rate) financial profitability parameters of all the models.

126. The project provides credit financing and the EFA estimated the demand for credit. The amount of credit demanded was based on (i) total requirement of capital expenditure and working capital of the enterprise models; and (ii) 50% of the cost of labour. It is assumed that the remaining 50% of labour comes from the family labour pool. The PDR Annex 4 presents credit demanded for each enterprise. The total demand was estimated to be USD 197 million, and this amount is slightly higher than the available credit funds of GREEN, which will be USD 195 provided by IFAD (USD 70 million) and PKSF and POs. In addition, the reflows will also be available to meet the full credit demand. With one round of reflows, the project will be able to meet the estimated total credit demand during the project period. The sustainability analyses, details of which is presented in Annex 4, indicate that all the beneficiaries who receives credit can repay the annual interest at 20% for poorer and 24% for all other enterprises plus the capital with a surplus net income remaining.

127. **Table 6: Financial profitability indicators of crops and livestock models, and enterprises**

				Without Project (WOP)				With Project (WP)				
Enterprises representing the VCs	Number of beneficiaries involved	Unit	Size of enterprise	Production (kg)	Total labour use (md)	Net benefits (USD)	Return to Labour (USD/md)	Production (kg)	Total labour use (md)	Net benef. (USD)	Return to Labour (USD/md)	% increase in net benefits
Aman Rice - Poor	12,917	ha	0.216	832	27	11	5.5	915	8	46	19.0	331%
Aman Rice - Avg Poor	12,917	ha	0.2	770	25	10	49.7	1,001	9	83	412.7	730%
Boro Rice - Poor??	6,458	ha	0.26	1,014	33	-44	9.0	1,318	9	15	16.4	65%
Boro Rice - Avg Poor	6,458	ha	0.2	780	25	-34	9.0	1,092	7	62	16.4	82%
Aromatic Rice	3,229	ha	0.2	1,150	28	41	0.6	1,380	28	104	9.2	156%
Potato	3,229	ha	0.2	3,300	38	105	8.0	4,320	25	234	16.0	122%
Banana	6,458	ha	0.2	3,880	26	152	11.1	5,044	19	329	24.8	117%
Vegetables (6 veg)	6,458	ha	0.132	1,091	48	205	11.4	1,199	51	209	12.5	2%
Mung Beans - Poor	6,458	ha	0.132	37	2	25	16.3	59	2	43	23.3	72%
Poultry - Eggs	25,833	Units	300 birds	19,200	100	808	13.2	30,240	150	1463	14.8	81%
Poultry - Broiler: Poor	64,583	Units	100 birds	120	20	20	6.1	270	20	210	15.6	972%
Broiler: Avg Poor	12,917	Units	150 birds	180	20	78	9.0	270	25	282	16.4	260%
Beef fattening: bull	19,375	Units	1 per Yr	175	20	86	9.4	245	20	280	19.1	224%
Fish Ponds	38,750	Units	1 Pond	210	10	243	29.4	420	40	686	22.2	183%
Dairy Milk	6,458	Units	1 Cow	1,440	15	-539	27.2	3,120	60	248	38.5	54%

128. The net benefit flow was discounted at 13%, which is the current average interest rate for the POs for capitalization of their funds available for lending. The Financial Internal Rate of Return (FIRR) is 30% with a 1.21 benefit cost ratio. The project will earn a sum of USD 756 million for a 20-year period. At the 8th year (2032), the project will be able to breakeven the total project investment and the beneficiaries' investment during the project period and start generating a positive net benefit flow.

129. The economic analysis was based on the following key assumptions: (i) 9% economic discount rate which is the weighted average fixed deposit rate; (ii) standard conversion factor (SCF) of 0.923; (iii) economic prices of paddy and fertilizers were based on FOB and CIF prices; and (iv) economic prices of all other commodities removing taxes and subsidies and applying SCF. PDR Annex 4 provides details of all other assumptions and estimation processes.

130. Table 7 presents the results of the economic analysis together with the sensitivity analyses. The results indicate that the project is economically viable with 41% economic internal rate of return (EIRR) with 1.26 benefit-cost (B/C) ratio. The sensitivity analyses show that the project will be viable to face many foreseeable risk factors with adequate economic viabilities.

131. Qualitative benefits of the project include enhanced financial and social service delivery capacities of the Partner Organizations of PKSF to their members; food safety and enhanced nutritional benefits in the project area; improved animal health (dairy, beef cattle, poultry and fisheries); and value chain (VC) development through improved market access, and development and expansion of rural businesses. GREEN will also generate employment opportunities for women and men, particularly the youth through their involvement of the value chain activities and related backward and forward linkages.

132. **Table 7: Economic viability indicators of the project and results of sensitivity analyses**

Sensitivity Analyses	EIRR	B/C Ratio	NPV (USD mn)	NPV (BDT mn)

Base Case	41%	1.26	843	70,845
All cost increase by 10%	26%	1.15	525	44,088
All cost increase by 20%	11%	1.05	206	17,330
All benefits decrease by 10%	25%	1.14	440	37,003
All benefits decrease by 20%	3%	1.01	38	3,161
Cost increase by 10% and benefits decrease by 10%	8%	1.03	122	10,246
1 year delay in getting benefits	16%	1.22	713	59,918

Chapter 3: Organisation and Management

3.1 Organisational set-up and Governance

133. **Organizational structure of the project**

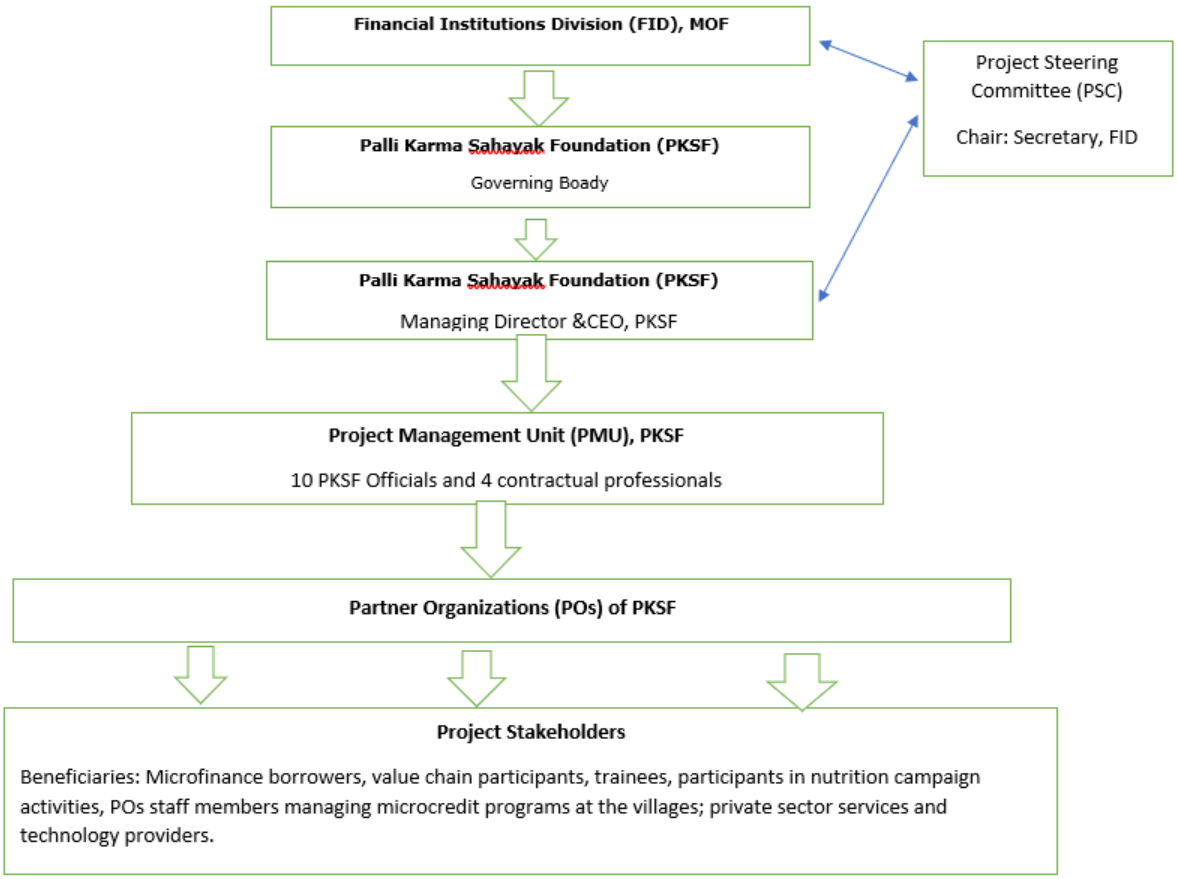
134. Implementation modalities. The GREEN project will be a non-ADP project of the government. The Financial Institutions Division (FID) of MoF and PKSF will be the Executing Agency (EA) and the Implementing Agency (IA), respectively. A Project Steering Committee (PSC) chaired by Secretary, FID/MOF, will monitor and guide the project. Other members of the PSC will be representatives from Financial Institutions Division (FID), Finance Division (FD), and Economic Relations Division (ERD) of MoF and PKSF.

1. 1. Agreement with MOF. The IFAD loan will be passed to PKSF by MoF in the form of a loan for the financial services component (component 2). Component 1, 3 and cost of managing the project will be paid by PKSF.
   2. The resources under the financial services component will be on-lent by PKSF to POs. FID will review and clear AWPBs before submission to IFAD. To monitor performance and progress towards objectives, IFAD will undertake annual supervision missions.
   3. Project Management. PKSF will establish a Project Management Unit (PMU), integrated in PKSF structure. The PMU will be headed by a Project Coordinator appointed from PKSF's pool of senior officials. The PMU will work with PKSF's Loan Operations Division to implement the financial services programme through POs as per established processes and norms. PKSF will work with POs and selected service providers for the implementation of the value chain component. PKSF's support divisions including Audit, Administration, Agriculture, Human Resources, Accounts and Finance, Research, Training, M&E, MIS and IT will provide relevant services to the project.

135. The project will be under the Environment and Climate Change Unit headed by a Deputy Managing Director (DMD). The project will be managed by ten PKSF officers and four contracted officials. The terms of reference, qualification, and experience for each position are in the Project Implementation Manual (PIM). The recruitment will follow PKSF's process and IFAD's service procurement rules. Component 2 will be implemented by PKSF's Loan Operations Division (LOD) as per its normal procedures, rules, and regulations.

136. Salary and other expenses. The salaries of contractual officials of the PMU, other management costs, and contribution of PKSF to the management costs are outlined in the PIM and presented in the project COSTAB.

137. **Figure 1: GREEN Organisational Structure**



138. **Responsibilities of PMU:** The Project Coordinator will have the overall responsibility and authority to implement project activities. S/he will be assisted by a set of professional staff members. The PMU will be based in Dhaka, and will plan, execute, monitor and report progress to PSKF management, FID and IFAD. The PMU is responsible for fund management and progress reporting. The PMU may bring in temporary skills as needed.

139. **Implementation of Project Activities**

140. PMU will directly manage Component 1 and 3 while Component 2 will be managed in coordination with the PKSF Loan Operations Division (LOD). Component 1 will be implemented through POs and capacity building under Component 3 will be managed by PMU in collaboration with other Government Institutions and POs.

141. **Management of Component 1 Climate-resilient and Environment-friendly Food System Development.**

142. **Role of PKSF in Component 1:** Under PACE and RMTP projects, PKSF built its capability in value chain development activities and integrated these with access to finance. In GREEN PKSF will: (i) continue to review and evaluate value chain subproject proposals through its Value Chain Evaluation Committee; (ii) organize and fund the capacity building of PKSF staff, POs and value chain actors; (iii) identify potential value chains to invest in, conduct and update value chain strategy papers; (iv) provide guidance to POs on preparation and management of value chain subprojects and management of mainstreaming activities; (v) contribute to and guide the preparation of value chain proposals by POs; (vi) share experiences with other value chain development operations and rationalize common activities; (vii) engage in policy advocacy for necessary changes in rules, laws, and standards; and, (viii) identify suitable technical assistance providers for capacity building to PKSF staff, POs, and value chain actors. GREEN will update and, for any new sectors of interest, replicate sectoral assessments previously conducted under RMTP.

143. GREEN will build on PKSF in-house skills including training on climate change adaptation with mitigation co-benefits, natural resource management (a focus on soil, land and water underpinning agricultural production) and reducing environmental degradation and pollution; business management; financial analysis; value chain analysis; integration of nutrition and other mainstreaming activities into projects; project management; M&E system design; and IT project management. This will be supported by technical assistance and exchange visits and integrated into the currently in place, people and processes.

144. **Role of POs in Component 1.** POs will: (i) undertake initial mapping of key actors in selected value chains as well as marketing channels and relevant associations; (ii) prepare proposals for value chain subprojects in line with prioritization and technical assessment criteria (including, whether the loanee proposal is sufficiently an climate change adaptation measure and will improve climate resilience); (iii) provide and manage credit and financial products for the extremely poor, poor and enterprising poor, producers and microentrepreneurs; (iv) guide the upgrading of the selected value chains; (v) provide linkages to qualified service providers; (vi) advise on input supply and market access; (vii) ensure that services to producers are supplied by the private sector (where feasible) on commercial basis; (viii) implement mainstreaming and SECAP activities as per agreed to proposals and, (ix) monitor, evaluate and report on progress, and analyze issues and lessons.

145. POs will be invited and trained to submit proposals for inclusion in GREEN. PKSF will provide guidelines for proposal development using the standard PKSF framework for scoring and project priorities on climate resilience, environmental sustainability, inclusion, and nutrition. PKSF will provide hands-on technical support, standards and minimums, and low-cost ideas/solutions for inclusion in microfinance and value chain activities. Proposals will be scored based on innovation and contribution to project outcomes achievement. PKSF will take a portfolio approach to achievement of outputs and outcomes.

146. **Implementation process**. New or existing microfinance groups will be the basis for organizing producers of value chains. New value chain subproject participants will join the project for value chain services and may eventually join microfinance groups for access to credit. These groups will be the main entry points for delivering most of GREEN's services but other innovative delivery channels will also be considered.

147. **Management of Component 2: Financial services for value chain participants.** Component 2 will be managed by PKSF as per its existing procedures, which are expected to be updated from time to time.

148. GREEN LOC disbursement will be based on PKSF loan outstanding to POs for the four loan types, ensuring increase of new funds to all four types of borrowers through the POs.

149. **Management of Component 3: Capacity development of Implementing Partners and POs.** For training of Government of Bangladesh and PKSF staff, the PMU will engage private/public training providers, individual trainers and/or in-house trainers. Capacity development on climate change, environmental management, and other prioritized topics will occur in parallel with implementation. For the POs, the PMU will, in consultation with the POs, identify training courses and engage appropriate training providers.

3.2 IFAD Supervision

150. **Annual Work Plan and Budget (AWPB):** IFAD, in collaboration with the Project Steering Committee (PSC), reviews and approves the AWPB. The AWPB includes detailed plans for project activities, budget allocations, and expected outputs for the upcoming year. IFAD's review ensures that the project remains on track to achieve its goals and that resources are allocated efficiently.

151. **Project Steering Committee (PSC):** The PSC, chaired by the Secretary of the Financial Institutions Division (FID), provides strategic guidance and oversight for GREEN. The PSC reviews and endorses the AWPB, monitors project progress and ensures alignment with national policies and strategies.

152. **Supervision and Implementation Support Missions:** IFAD will undertake twice-yearly supervision and implementation support missions to:

153. Verify that the procurement and contracting procedures and processes followed for the projects are in accordance with the Financing Agreement and the Project Procurement Arrangements (PPA).

154. Verify technical compliance, physical completion, and price competitiveness of each contract in the selected representative sample.

155. Review and comment on contract administration and management issues as dealt with by the Project Management Unit (PMU).

156. Review the capacity of the PMU in handling procurement.

157. Identify improvements in the procurement process considering any identified deficiencies.

158. Supervision missions include detailed field assessments, stakeholder consultations, and reviews of project documentation. The mission team typically includes IFAD staff and technical experts. The findings and recommendations from these missions are documented in supervision reports.

159. IFAD may conduct Implementation Support Missions (ISM) to address technical or operational challenges, offer capacity-building support, and support achievement of objectives.

160. **Mid-term Review:** A Mid-term Review (MTR) will be conducted midway through the project lifecycle to assess overall progress, identify challenges, and recommend adjustments, providing an opportunity to make necessary course corrections to ensure the project remains on track to achieve its objectives. The MTR involves a comprehensive evaluation of project activities, financial management, and impact on target beneficiaries and includes consultants who will offer a fresh eye on accomplishments and challenges and recommend any course corrections.

161. **Completion Mission:** A completion Mission will be conducted at the end of the project to evaluate overall success and sustainability. This mission will assess the achievement of project goals, the effectiveness of implementation strategies, and the long-term impact on target communities. The Completion Mission also identifies lessons learned and best practices for future projects.

3.3 Planning, Monitoring and Evaluation

162. **Planning:** The planning cycle begins with development of the Annual Work Plan and Budget (AWPB), linking the budget, activity implementation, and operations monitoring to achieve the objectives. The PMU will follow a participatory approach for preparing AWPB, which will serve as an M&E instrument, harmonized with product-level indicators, and will be used to control and monitor the achievement of objectives.

163. **Monitoring & Evaluation (M&E):** The M&E Plan is the fundamental tool guiding activities and is the first deliverable in the M&E area. The project will leverage the M&E system of the on-going RMTP project and identify best practices as well as lessons learnt

that will inform knowledge management. Similarly, Knowledge generated by the project will reinforce the M&E system for better data analysis and reporting. The M&E plan will define the responsibilities of implementation team members and identifying activities necessary to fulfil the monitoring and evaluation processes under the supervision and responsibility of the M&E officer.

164. **Monitoring & Evaluation System (MES):** The MES will be developed by the Project Management Unit (PMU) to reflect the GREEN indicators. It will be developed according to the M&E plan and will focus on monitoring indicators in the logical framework and the information needs for evaluation exercises. The MES will generate a unique code for each direct program beneficiary, preventing any duplication in calculating outreach. The system will also consider other stakeholders to ensure consistency with secondary information sources and IFAD Operational Results Management System (ORMS). The system should include an interactive dashboard for stakeholders' access. The system will adopt geospatial and remote sensing technology for locating beneficiaries and project activities.

165. **Management Information System (MIS):** The MIS will primarily focus on project implementation processes, maintaining a direct relationship with financial information. This system, inherited from RMTP and adjusted to this program design, will report on the physical and financial progress in relation to the Annual Work Plan and Budget (AWPB). The M&E officer will generate periodic reports to provide feedback on progress to the project team. The project will capitalize the existing MIS system of the IFAD financing ongoing RMTP project, which is found to be robust, customizable based on the needs of the context.

166. **COI Surveys:** The Core Indicators of the project, reflected in the logframe, will be measure at baseline, midline, and endline. The surveys will follow IFAD COI guidelines and will contribute to monitoring achievements and give feedback to the project.

167. **Baseline Survey:** In parallel with the development of the MES, data collection for the project's baseline situation will be planned and conducted during the first year of implementation. The baseline will consider a representative sample design of potential project beneficiaries in the selected implementation areas. The baseline will use georeferenced information for locating the households interviewed.

168. **Midterm Review (MTR):** The MTR will have both summative and formative approaches to analyze the project's progress in achieving results and provide feedback on the strengths and weaknesses of implementation, and progress towards objectives. The MTR design will be consistent with the baseline to maintain comparability of the information collected. Additionally, it will follow IFAD's methodological guidelines for indicator construction.

169. **COI Endline Survey:**The endline survey will focus on gather data on the logframe's outcomes and impact indicators and generate a report that will become an important input for the Project Completion Report (PCR) mission.

170. **Annual Outcome Survey (AOS)**: The AOS will be conducted between MTR and COI Endline survey, following the defined IFAD methodological guidelines. This study will focus on the evolution of results at the outcome level, maintaining a consistent methodological design throughout the implementation period. The report will be shared with relevant stakeholders for feedback and will serve as input for the project's progress reports and for the COI endline survey.

171. **Data Collection Processes:** All data collection processes, whether internal or external, must follow the Computer-Assisted Personal Interviewing (CAPI) methodology to ensure data quality and improve time and resource efficiency. The M&E team will oversee all data collection processes and the methodological design of each, ensuring consistency with the M&E plan. Collected data must be continuously updated in the project's MES and MIS systems All data collection processes should consider geospatial information for locating interviewed households and creating graphical monitoring tools, such as spatial implementation maps.

3.4 Knowledge Management and Country Level Policy Engagement (CLPE)

172. The KM, learning, and communication activities will be detailed in the Knowledge Management and Communication (KMC) Plan, developed in parallel with the M&E Plan, and will serve as a guide for organizing evidence generation activities that will provide feedback to all relevant stakeholders and be a crucial input for scaling and sustainability activities.KM activities for GREEN will incorporate an ongoing process of learning and evidence generation based on the quantitative and qualitative data collected and will integrate monitoring of SECAP-related mitigation measures. The KM tools developed will synthesize best practices and lessons learned to provide feedback to the team and relevant project stakeholders. The learning process also considers experiences generated in previous IFAD projects implemented by PKSF, identifying best practices that will be adopted in all project planning and implementation processes. Additionally, the KM process will follow a participatory approach, involving the implementing team and relevant stakeholders, disseminating information continuously and collecting feedback to strengthen GREEN's programmatic strategy. To achieve the KM objectives the KMC tools will be used continuously and supplemented by other tools identified or developed by the project.

173. The project will also utilize interactive learning platforms, knowledge fairs, and digital storytelling to enhance outreach and cross-learning among project participants and wider stakeholders.

174. Collaboration with academic, research institutions with technical input from PKSF's Research Unit where required will be pursued to co-produce knowledge and facilitate applied research that strengthens evidence-informed policy engagement. As has been observed in PACE and RMTP, the policy formulation usually begins post MTR, using results and impacts generated by project initiatives. Policy engagement will be pursued through the dissemination of these papers, targeted meetings with relevant stakeholders, and advocacy activities. Experience from previous IFAD-funded projects with PKSF shows that changes in sector specific policies and practices leads to important changes benefitting the beneficiaries. Such changes may not be always from the government or government agencies but can be from business associations, NGO-MFIs and private sector. The project during implementation will identify such sector specific issues, record evidence, produce policy papers and suggest solutions, and conduct advocacy campaign for change.

175. Progress reports must identify the main lessons learned from management and provide accurate reports for team feedback. The reports will be shared with IFAD to feed into the COSOP information system, generating country-level evidence and sharing best

practices for on-going or future projects.

176. KM products will be developed drawing on multiple sources, including: (a) the M&E system (formal studies such as baseline, midline, and endline surveys; Annual Outcome Surveys (AOS); sector impact studies); (b) assessments of technology adoption; (c) case studies such as results on integrating financial and non-financial services with climate-resilient technologies and sustainable practices; (d) environmental and ecological studies; (e) performance reviews of value chain subprojects; (f) policy papers; and (g) MIS-generated progress reports.

177. Case studies are supplementary reports to those developed by the M&E area, focusing on best practices, lessons learned, scalability, and sustainability of the results. These studies would be identified by the PMU based on information needs observed during implementation.

178. At the country level, policy dialogues will be implemented using the learning and M&E tools generated by the project. Based on the experience of IFAD projects in the country, policy issues can be identified relating to: (1) the development and applications of fintech to address the perceived high cost of rural/microfinance; (2) the benefits of non-financial services and policy and structural barriers for agribusiness and small businesses; 3) weakness in service sectors; and 4) innovation to improve climate resilience, with mitigation and environmental co-benefits.

179. Information generated by the project will be disseminated through policy dialogues, information workshops, and study presentations. Additionally, the project will establish communication channels with policy actors, sharing evidence for informed decision-making.

3.5 Target group engagement

180. Target Group Engagement. PKSF and IFAD's PCN and design missions consulted with potential target groups, partner organizations (POs), value chain participants of on-going projects, private sector service providers, government stakeholders, and consolidated the experience of PACE and RMTP projects. The findings were part of the PCN and PDR as described in this document.

181. During implementation, the PMU will organize further consultations with direct and indirect beneficiaries as follows:

    1. 1. Value chain analysis. Analysis will be consultative with participants from each segment of value chains, including, input suppliers, producers, traders, wholesalers, processors, retailers, business associations, and support service providers, to identify constraints and opportunities in each segment—with substantive attention to climate risks and avoidance of maladaptive activities. In addition, context-specific adaptation interventions as well as environmental, ecological and human health/nutrition issues will be identified through consultations and observations. The findings will be used to design activities for value chain subprojects.
       2. Implementation of value chain activities. During implementation, the value chain participants will regularly provide information about various interventions' impacts used to assess the viability of specific activities.
       3. Microfinance services. The microfinance program of POs is 'borrower centered'. POs receive feedback weekly through usually weekly repayment systems and revise terms and conditions accordingly.

182. The primary purpose of engagement and feedback modalities is to better understand the priorities and needs of the women, men and youth who make up the target group, and thereby to better formulate project interventions to the needs of the beneficiaries. This will include Free, Prior and Informed Consent (FPIC) and relevant SECAP processes where applicable. Additionally, these modalities will collect feedback to monitor the delivery of project interventions, supporting real-time adaptation, and evaluate outcomes, including the satisfaction of target groups with the interventions delivered.

183. SECAP documents and other project-related information will be shared with target groups throughout the project lifecycle. Regular updates and feedback sessions will ensure transparency and continuous communication. Feedback will be collected through various methods, including community meetings, surveys, suggestion boxes, and digital platforms to ensure regular and timely inputs from the target groups.

184. To ensure effective engagement and feedback processes, the project will invest in capacity building of stakeholders including project beneficiaries, project management units, and service providers. The staff members of PKSF and POs will receive training on the implementation of IFAD safeguards, including the CLPI, the Program's Environmental, Social, and Climate Management Plan, Stakeholder Engagement, and Grievance Redress Mechanism. They will also be trained on the application of the participatory approach in monitoring and evaluation, identifying lessons learned and good practices for participation, accountability, among other aspects, considering IFAD's experience with other programs in the country.

185. **Grievance Redress Mechanism:** GREEN will provide an open and accessible grievance redress mechanism in line with IFAD's social and environmental policies. This mechanism will be available to the target population, and vulnerable groups to report any adverse impact of the project. The project will ensure that information about this mechanism's existence and functioning is available to project-affected populations.

186. POs have well established grievance reporting mechanisms to report on issues related to the microfinance program, staff behavior, and any adverse impact the microfinance and other activities may have. Microfinance group meetings are a good forum for venting grievances.

3.6 Strategic partnerships

187. PKSF partnership with its POs is the foundation of outreach and provide tailored financial services to beneficiaries. Their wealth of

experience of working together and knowing the agricultural sector make them the key partners for this project. Formal private firms established within the agricultural value chain play significant role in marketing access and transaction. As such, the project will support establishment of regular contract modalities between project beneficiaries and formal private sector for sustainability and impact. Priority will be given to partnerships with service providers, technology suppliers, market access facilitators, and problem-solving institutions capable of addressing specific challenges faced by beneficiaries. Such strategic partnerships will be selected for their potential to enhance value chain performance, sustainability, and market integration.

188. The project will also engage in collaboration with other development initiatives from partners, to create synergies and avoid conflicting support modalities (loan versus grant or contribution from beneficiaries versus no contribution) and reinforce ownership of beneficiaries. As such , the project will have close communication and coordination with the following on-going and under-design projects:

1. RMTP: This is a nationally implemented IFAD-funded value chain project implemented by PKSF. GREEN design has benefited from the lessons and management practices of RMTP including the rapid value chain analysis conducted, the scoring system for proposal development by POs and the system of delivery of value chain services under Component 1.
2. SMART project. The GREEN project will coordinate with the on-going SMART project funded by the World Bank and implemented by PKSF.
3. The recently approved IFAD-funded CRALEP project to be implemented by LGED in the Haor and Barind regions will have overall positive impacts due to infrastructure development. There is expected to be some geographical overlap between CRALEP and GREEN beneficiaries: therefore, whilst GREEN beneficiaries can benefit from livelihoods activities of CRALEP, especially the vocational training for the poor women and men, CRALEP beneficiaries can benefit the pipeline development and credit linkage of GREEN.

3.7 Financial Management

189. **Financial management organization and staffing**

- PMU will have an adequately staffed FM section with competitively recruited Finance Manager and other project officers on market-based salary and selection requiring No Objection from IFAD. Finance Manager will be assisted by two Account Officers with reporting to the Deputy Project Coordinator, Financial Services. Project will have centralized FM arrangements fully managed at PMU level. Implementation in districts and communities rely on the Partner Organizations, reducing the PKSF HR needs at those levels. PKSF must ensure POs have the requisite capacity to manage their role.
- All finance staff must undertake IFAD Online Finance Management practices and procedures course, IFAD anti-corruption training, and induction sessions on IFAD financial management. Detailed terms of reference and organigram for FM staff are provided in the PIM.

190. **Budgeting**

- PKSF shall prepare a draft Annual Work-plan and Budget (AWPB) for each project year, including inter alia, detailed description of planned project activities and procurement plan and the sources and uses of funds. All project activities will be guided by AWPB, based on PDR and Financing Agreement and duly approved by PKSF Management and IFAD No Objection. The first 18 months AWPB will be developed as part of the design. Subsequent AWPBs will be subject to clearance within the project governance systems of PKSF and submitted to IFAD no later than 2 months before the commencement of the fiscal year.
- AWPB will be prepared by PMU following consultation with POs with PKSF, PO and beneficiaries' contributions reflected in the budget. For ease of planning and monitoring, AWPB for each component will be detailed in six monthly physical and financial targets which are the basis for monthly and quarterly planning and progress reviews. PKSF Management will conduct regular reviews to assess progress against the annual plan and approve any adjustments, revisions, and remedial measures. Accounting software must be sufficiently customized to enable budget encumbrance, monitoring, and controls.

191. **Disbursement Arrangements and Flow of Funds.**

- IFAD will disburse funds to a designated account with the Bangladesh Bank. Funds will be transferred from the project designated account to the Program BDT operational account and from there to the bank accounts of Partner Organizations for dissemination to end beneficiaries. There will be separate accounts for each financier. The DA activity reports will show the balances of IFAD and any other international co-financiers. This is reported in the quarterly IFRs and annual financial reports.
- Government counterpart financing is not envisaged on this project. The IFAD Loan is fully on-lent to PKSF. Counterpart contribution is envisaged from PKSF, Private Sector, Partner Organizations etc. covering all components. Adequate reporting mechanism exists to report and trace counterpart financing. Counterpart financing is also reported in the IFR and annual financial reports.
- The Revolving Fund modality under the report-based disbursements system will be used for withdrawing funds from IFAD financings. Interim Financial Reports (IFRs) package will be used as a basis of submission of withdrawal applications to IFAD. The IFRs package and requirement will be included in the Financial Management and Financial Control Letter (FMFCL) and the PIM during implementation. The first advance should be equal to or less than the forecast amount of IFAD financed expenditures approved in the Annual Work Plan and Budget (AWPB) for the period of six months. Further advances to the Designated Account will be made for the next reporting period based on the AWPB or expenditures forecast. Each quarter the PMU shall submit the IFRs package (using the templates included in the FMFCL and the PIM) to report on the financial performance and to justify the specified percentages of the withdrawn advances as indicated in the FMFCL.
- PKSF now has over 280 Partner Organisations (PO). Each PO is registered under the Micro Credit Regulatory Authority (MRA). MRA closely monitors POs activities. POs management comprises of two important bodies as per its Charter/Articles of Association: The General Body and the Governing Body/Executive Committee to ensure the good governance and transparency in its activities. Due to the regular intervention of PKSF in PO activities, particularly in the implementation of project financed through PKSF, it is evident that there are significant improvements in governance at PO level. The POs are still at varying levels of capacity and governance systems; it will be imperative to converge at a minimum acceptable standard to minimize risks at the

PO level.

- The flow of funds to implementing partners will be further elaborated in PIM and will be reflected in their contracts. Flow of funds will be based on the activities and expenses agreed in the MOUs & contracts signed between PMU and IPs. Based on MOUs and AWPB targets and phasing, PMU may provide initial three quarterly advance to IPs. Subsequent releases will be based on submission of account and invoices against the advance, adjustment of any unspent advance, and release of next tranche.
- IPs will render quarterly financial statements of expenses and cash balance, to the District Offices and PMU. PMU Finance Manager will cause inspection of implementing partner accounts at least once every six months. Detailed financial management framework for PMU and IPs is provided in PIM.

192. **Internal Controls and Internal audit arrangements.**

- The project will operate within the robust framework of internal controls and audit already instituted within PKSF. The framework of financial and administrative procedures of PKSF will also apply subject to conformance with IFAD requirements. The internal control arrangements for the project will include: (a) competent personnel with clear responsibilities and adequate segregation of duties; (b) adequate financial records management system with complete and accurate audit trail; (c) physical safeguard including regular verification and controls for assets and financial documents of the project; (d) independent reviews; (e) clear procedures for timely monitoring and financial reporting from the Partner Organisations of the project.
- The Internal Audit Unit of PKSF will cover project activities including at the PMU and PO level. There would be regular field visits and verification of the project activities at all implementation levels. The annual workplan which includes the audit of the POs on a rotational basis would be reviewed and approved by the PKSF MD. The PIM will include anti-fraud and anti-corruption procedures as a component of the financial procedures manual and will include direct/specific reference to the IFAD Anti-Corruption policies and procedures. The internal controls and funds flow arrangements would ensure there are co-signatories to the project accounts and that the Finance Manager is provided access to ICP and bank account information of the project.
- Supervision missions would specifically examine whether the project is in full compliance with these internal control requirements.

193. **Accounting Systems and Financial Reporting mechanisms.**

- Project accounting will be managed in accordance with International Financial Reporting Standards (IFRS). The fully customised Accounting Software already in use at PKSF will be utilised and the finance team trained on its use. Financial reports should be auto generated from the accounting software. POs should be fully brought on board the digitisation drive of PKSF. All POs should be encouraged to maintain electronic records and utilise appropriate financial software. The project accounting system will manage and track funds in accordance with source of funds, component allocations, spending entities and disbursement categories. Financial reports at the PMU level should be auto generated from the accounting software.
- PMU will be required to submit three types of financial reports to IFAD. Interim quarterly financial reports within 30 days of close of each quarter, indicating progress under each component and expenditure category, duly reconciled with the bank, and signed by Finance Manager and PD. Detailed unaudited financial reports for each financial year within four months of the close of the financial year. And finally, the audited Financial Statements within 6 months of the close of the financial year (end of December each year).

194. **External Audit**

- PKSF will ensure the GREEN project complies with the requirements of the IFAD Handbook on Auditing and Financial Reporting. PKSF will ensure:
- Conduct of annual audit by an independent Chartered Accountancy firm in accordance with International Standards on Auditing (ISA)
- Conduct of annual audit terms of reference (TOR) to IFAD for NO
- Select auditors through competitive procurement process. A tender for audit services should be issued at least every three years, with the incumbent able to apply.
- Submit unaudited financial statements within four months of the financial year end.
- Submit an audited financial statement within six months of the financial year end.
- The Partner Organisations will be required to submit annual audit reports to PKSF.

3.8 Procurement

195. **Procurement Framework:** Pursuant to Section 7.05 of the IFAD General Conditions for Agricultural Development Financing, procurement of goods, works and services will be carried out in accordance with the provisions of the Borrower's procurement regulations, and specifically the Bangladesh Public Procurement Act (PPA, 2006), Public Procurement Rules (PPR, 2008) and the IFAD Project Procurement Guidelines. Procurement of goods works and services will be conducted through the e-GP portal, which has been developed in collaboration with the World Bank and incorporates standard tender documents – which are consistent with international procurement standards - and procedures to mitigate procurement risks.

196. **Procurement Risk Assessment and Mitigations :** A procurement risk assessment was carried out during project design and the inherent project procurement risk at design has been assessed as substantial. The risk assessment underscored that the main procurement risks are related to lack of compliance international procurement best practices, including a lack of independent review in the debarment process and sustainable procurement legislation and standards. Adequate mitigating measures were included in the procurement risk assessment and will be further developed in the Project Procurement Strategy ("PPS").

197. **Procurement Implementation Arrangements**

1. Guided by the aforementioned procurement risk assessment, the Project Procurement Arrangements ("PPA") will contain instructions on the execution of project procurement operations with respect to the acquisition of goods, works and services under the Financing Agreement. The planning and implementation of all procurement activities will be routed through OPEN,

IFAD's End-to-End Procurement system.

2. A Procurement Specialist will serve as the focal point, overseeing updates to the Procurement Plan, procurement activities and contracts in OPEN, maintaining procurement file records, and facilitating coordination with field Executive Engineers and project management personnel.
3. Procurement staff and other select members of the PMU will be enrolled in the BUILDPROC procurement certification program developed in collaboration with the ITCILO to further strengthen the procurement capacity of the PMU.
4. The Procurement Plan (PP) will serve as a monitoring and review tool, and the PMU will be encouraged to consistently update and enhance PPs within IFAD's OPEN system. Regular monitoring of contract implementation will also be conducted through the OPEN system.
5. Comprehensive records of procurement processes for works and goods will be accessible through the e-GP Portal, the OPEN system and supplemented by hard copies in separate procurement files.
6. GREEN shall adhere to the IFAD Anti-corruption policy (https://www.ifad.org/en/anticorruption) and Policy on preventing sexual harassment and exploitation and abuse (SH/EA) including contracted service providers, suppliers and individual consultants. Other good governance measures are incorporated in the PIM. Procurement considerations for SECAP requirements are also assessed and included in the PIM and will be incorporated in the bidding documents. Adherence is necessary to IFAD's Grievance Procedure, and the project will incorporate any future developments pertaining to Procurement Management.

198. **Project Procurement Strategy:** A Project Procurement Strategy ("PPS") has been prepared for adoption by the PMU to ensure procurement activities support the development objectives of the project in attaining the best value for money under a risk-based approach. The PPS contains the recommended procurement approach for procuring goods, works and services, as well as an initial market analysis divided by sector.

3.9 Risks and Risk Management

199. **Fiduciary risk.** Overall, inherent FM risk at design is Substantial considering high-country FM risk against moderate entity- and project-specific risks across the six FM pillars. Key mitigating measures will be enshrined in the financing agreement and executed at implementation to reduce residual risk. Residual risks will become lower once impact of the mitigating actions is assessed at the first supervision mission.

200. **Social and environmental risk screening.** Social and environmental risks are assessed as Moderate. Social risk associated with PKSF loan operations in rural areas are low, relating mostly to health and safety issues such as risk of zoonosis or vector-borne diseases linked to livestock and poultry production and exposure to toxic chemicals through excessive pesticides use (autonomous purchase). This risk is mitigated through integrated agro-chemicals management and shift to biological control, organic fertilizer, etc., which is part of PKSF strategy for promoting climate-resilient agriculture. Risk of zoonosis will be mitigated by integration of WASH interventions and biosecurity training in extension activities targeting poultry and livestock producers. Other risks related including those related to climate (heat, humidity) and ventilation, cleanliness, hygiene, and women friendliness are Low and will be targeted through "decent work" related advisory and support.

201. Nutrition risks are minimal, as PKSF promotes value-chains and production practices that enhance the availability and accessibility of diverse, safe, and nutritious food. GREEN will promote nutrition-sensitive value chains and target support to nutritionally vulnerable households and social groups through homestead gardening and small poultry interventions. It will also implement SBCC to generate awareness on healthy diets, leveraging its experience from RMTP and EU supported PPEPP projects.

202. The gender-related risks are related to disempowerment of women because of weak access to and control over income from production and sale, compounded by the burden of loan repayment responsibilities (women are 90% of PKSF borrowers). Women are heavily involved in primary production but tend to be excluded from marketing activities. This might negatively impact household nutrition and generate intra-household tensions. GREEN will reinforce family-based approach to microfinance and food systems, by integrating social behavior and norm-change messages in loan operations and livelihood development activities at the village level. PKSF has the requisite experience in working with women and youth from their past projects (RMTP, PACE and other donor financed projects) and therefore, any gender and youth related risk if arises viz., disempowerment or exclusion from the financial products will be properly dealt by them, in case of any concerns, the ISM and SM mission team will provide adequate support to mitigate those issues.

203. Specific risks for exclusion or dispossession of ethnic minorities groups have not been identified. PKSF has experience of engaging with marginalized social groups such as ethnic minorities and persons with disabilities. Yet, physical and socio-cultural barriers to the participation of persons with disabilities are persistent. To mitigate potential social exclusion risks, specific GESI criteria will be integrated into PKSF framework to evaluate PO's funding proposals and the extent to which they consider and include GESI measures.

204. Environmental risks associated with livelihood activities relate to excessive use of fertilizer / pesticide, improper use of antibiotics for livestock, poor biosecurity in poultry / livestock management, unsustainable harvest of crablets or fingerlings from river systems, monocropping, and inefficient use of water at the production stage. PKSF and its POs have proven capacity and track record in providing technical advisory and support for mitigation actions (use of organic fertilizer, vermicompost, integrated pest management / biological control, efficient water use, conservation of native species of crops / livestock / poultry, advice on fishery harvests – including recommending harvest pause, sustainable harvest of non-timber forest produce such as honey, etc.). At the post-production stage, there are environmental risks associated with safe food handling and food waste (specifically, use of plastics for packaging). Based on experience from earlier projects the inherent risks are likely to be limited and Moderate. GREEN will replicate and scale its "safe food" interventions from RMTP and other projects. It will also promote alternatives to plastics along the value chain where feasible.

205. As a financial intermediary, PKSF has developed and implemented an ESMS policy – particularly for Green Climate Fund projects; however, the mainstreaming of this policy within PKSF and its POs will be improved during GREEN using the Environmental and Social Action Plan (ESAP) as a reference. PKSF has proposed that the Project Coordinators from each PO selected for GREEN

will function as SECAP Focal Points and targeted for SECAP training.

206. **Climate risk screening.** Climate risks are assessed as Substantial. All four targeted geographic regions were identified as climate hotspots in Bangladesh Delta Plan 2100 and already experience high temperatures and heatwaves. The Coastal region is particularly prone to cyclones, sea-level rise, tidal surges, waterlogging and salinity; the Barind region to droughts and hailstorms; and the River Char and Hoar region to flash floods as well as riverbank erosion; the Coastal areas adjoining the Hilly region is additionally prone to landslides, dry season droughts and storm surges—affecting arable land and freshwater availability for crop, livestock and fisheries production. The agri-food sector is also exposed to indirect climate risks, such as new or increased frequency of pest and disease outbreaks. While the project is not expected to substantially contribute to higher greenhouse gas (GHG) emissions, in priority value chains such as livestock and rice (where applicable), activities that deliver methane and GHG reduction co-benefits will be prioritized and integrated.

207. To respond to climate risks, adaptation measures ranging from non-farm activities, cropping system diversification, soil fertility management, rainwater harvesting to home and nutrition gardens, stress-tolerant varieties of crops and crop varieties, and appropriate livestock and poultry breeds will be implemented. During the assessment of PO proposals for inclusion in GREEN, assessment criteria will consider climate-adaptive and environment-friendly (focused on soil, land, agrobiodiversity, freshwater) interventions and innovations.

208. In general, PKSF's Integrated Agriculture Unit (IAU) advises the POs who then provide their members with agroecological context-specific and climate risk-informed advice on the choice of suitable value chains and entry points, including the use of production calendars. At start-up, the Targeted Adaptation Assessment will be updated and will function as a reference for POs to develop their proposals.

209. The regular training sessions implemented by loan officers will be updated to include discussion of climate risks and adaptation innovations. The use of IC4TD will be explored to deliver weather / climate information – leveraging existing initiatives of BMD, BWMD, etc. – to group members, and facilitate their climate-informed decision making throughout the agricultural season. Upgrade of modules related to financial literacy and household planning will provide advice on options to cope with or recover from weather and climate shocks. "Emergency loan" product lines will be reviewed with recommendations for credit worthiness assessment (e.g., well ahead of the rainy or cyclone season).

3.10 Implementation Readiness

210. **Activities between design and approval of FA:** GREEN will be a non-ADP project, which means PKSF does not have to prepare the standardized Development Project Pro-forma (DPP), the government project However, it will need to prepare a subsidiary loan agreement (SLA) to be signed with the Ministry of Finance (MOF) after the IFAD's Financing Agreement (FA) is signed with the government. PKSF may follow the SLA already available for the on-going IFAD-funded RMTP.

211. RMTP has developed sector strategy papers, training modules on business management, and promotional and training materials on nutrition campaigns. Similarly, training materials on the environment and climate change are also being used by PKSF's on-going projects. The GREEN team should revise/upgrade and customize these important documents for future use, which will help reduce time for launching the project.

212. The newly appointed Project Coordinator (PC) and his/her team will familiarize themselves with IFAD procurement and financial management procedures, supervision mission reports, value chain project proposals from POs and approval process within PKSF, value chain and sector analysis, etc. The on-going RMTP will be a useful reference on these issues.

213. To jump start the GREEN project activities, designated PKSF officials will receive a short orientation on RMTP activities and implementation process by the RMTP team, including field visits.

214. **Prior to project start-up:** Several critical steps are important before the project can be launched: 1) formal appointment of the Project Coordinator by PKSF (PC has been designated during the design mission); 2) assignment of key PKSF officials to the project; and 3) allocation of office spaces within PKSF.

215. The key activities of the initial months are, a) recruitment of key officials as stipulated in the PDR; b) setting up of accounting and financial management system; c) procurement and implementation of initial activities as in the AWPB and procurement plan; d) start-up workshop for potential POs, including SECAP 2021 introduction; e) Formal orientation training of all PMU staff members on project implementation activities, including SECAP 2021 training; and f) Setting up of MIS and M&E system.

216. As per plan, start implementing activities planned for the first year of the project.

Footnotes

[1] PKSF is government owned but completely autonomous institution.

[2] For example, mechanization, high-quality and complementary inputs, management practices that are low-cost and environment-friendly (such as mulching, organic fertilizer, stall feeding, integrated pest management), vegetable collection centers, and drip irrigation and buried pipe systems for irrigation management.

[3] The coastal subdistricts experience storm surges and high winds during the cyclone season each year, with the frequency and intensity of cyclones increasing under climate change and are also subject to waterlogging and/or salinity intrusion on arable land and homesteads.

[4] Depleted groundwater resources and poor soil quality, primarily owing to unsustainable intensification—especially rice production, is both worsened by climate change, and exacerbates its impacts.

[5] Final Impact Study of Promoting Agricultural Commercialization and Enterprises (PACE) project of PKSF, Development Technical Consultant Pvt Ltd, Niketon, Gulshan – 1, Dhaka-1212, March 2024

[6] The references include: (i) Society for Social Service (2017), “Dairy Value Chain - Income Augmentation and Employment Generation Through Dairy Cattle Rearing in the Char Areas”, PACE Project. (ii) Ghorakanda Safe Vegetable Production Association, Winter Vegetable Production – Tomato, Cabbage, Cauliflower, Bottle Gourd production data. (iii) Mohila Bohumukhi Shikkha Kendra (MBSK), Annual Report, 2017-2018, Balubari, Dinajpur-5200.

[7] Arslan, A. and Higgins, D. (2019) [Draft]. Impact assessment report: Coastal Climate Resilience Infrastructure Project (CCRIP), People's Republic of Bangladesh. IFAD: Rome, Italy

IFAD
Investing in rural people

Bangladesh

Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition

Project Design Report

Annex 1: Key Files

Mission Dates:	22/06/2024 15/09/2024
Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

Asia and the Pacific Division
Programme Management Department

Annex 1: Key files

Key File Table 1: Rural Poverty, Microfinance and Enterprise Development Sector Issues

Priority Area	Affected groups	Major Issues	Actions Needed
Rural Poverty	• Very poor (ultra-poor) HHs • Landless and marginal farmers • Artisans • Agricultural labour • Poor women headed HHs • Poor young men and women • Small producers in non-farm sector	• At the national level poverty and extreme poverty head count rates (HCR) is 5.6% and 18.7% respectively (HIES 2022). • The economy and food security are still dependent of agriculture: about 40% of total employment is in agriculture. • High youth unemployment and under employment rate • Rate of economic growth is still below that needed to have a significant impact in terms of poverty reduction. • Vulnerability to natural disasters. • Ultra-poor families have limited access to primary health care; malnutrition is high among women and children. • Farm and off-farm wage laborers face limited earning opportunities. • Environmental and ecological degradation	• Create self- and wage employment with focus on climate vulnerable and poverty-stricken regions. • Improve agricultural and non-farm enterprise productivity. • Improve access to finance for all farm and non-farm enterprises. • Private and public sector investments targeting farm and non-farm sectors including infrastructure. • Build physical protection where appropriate. • Support human development for the poor and implement programmes targeted at the ultra-poor including nutrition enhancing interventions, together with appropriate safety nets and social protection. •
Climate change vulnerabilities	• Rural poor • Agricultural and non-agricultural labourers, • Artisans, • Marginal and smallholder farmers, • Microentrepreneurs • Fishing communities, • Agricultural producers, • Non-agricultural producers, • Traders • Poor young men and women	• Increasing frequency and intensity of droughts and floods contributes to high vulnerability of livelihoods. • Climate change poses real threat to the poor households as it increases the risk of early floods and increase in rainfall in some regions. • Marginal and small farmers reliant on seasonal crop cultivation suffer losses. • In the haor areas pre-monsoon floods affect the harvesting and storing boro rice, causing loss of food, income and employment and resulting in increased poverty, food insecurity, malnutrition and outmigration. • Droughts have severe and far-reaching effects on water resources, agriculture, ecology, and population health. • Groundwater depletion and recurring droughts significantly impact the agro-based economy and livelihoods annually, leading to poverty and food insecurity. • Drought leads landowners to switch to mechanized fruit cultivation, leading to job loss for poor agricultural laborers. • Increasing salinity in the southern Bangladesh.	• Promote saline, waterlogging and heat / drought tolerant crops and crop varieties of agricultural commodities; Diversify basket of agricultural products. Ensure livestock breeds are suited to local ecological conditions. • Promote value addition in farm sector. • Promote non-farm sector enterprises to create more business and employment opportunities. • Link farming and other communities with good climate and weather services. • Lobby for pro-poor climate resilient infrastructure in remote and vulnerable areas.

		• Poor WASH facilities that affect the women and girls' health, hygiene practices	
Youth employment	• Young men and women • Families with young men and women	• Approximately 41 percent of youth in Bangladesh are out of full-time work, considering they are neither in education nor employment nor receiving any job training. Notably, the rate of underemployment is significantly higher among girls, standing at 61.71 per cent, while among boys, it is lower at 18.59 per cent.[1]	• Promote entrepreneurship development within young population. • Support inclusion of young people in financial services and other business service projects.
Micro Finance	• All types of microfinance borrowers	• Access to microfinance has vastly increased but loan products are still standardized that do not always match with the cash flow or investment term of enterprises. • Interest rate is considered high for microenterprise loan although the loan size is much higher than other loan products. • Application of Fintech in service delivery is yet to be adopted by microfinance sector in the country. • Cost of borrowing from commercial banks by MFIs is high (Currently 12.5%) • Informal credit systems limited and/or exploitative.	• Continue to develop customized microfinance products for various segments of borrowers. • Promote and support micro-insurance by MFI sector. • Support application of Fintech in MFIs. • Support more and more electronic transactions among the MFI beneficiaries. • Continue supporting reduction of rate of interest through efficient delivery of MFI services. • Promote microfinance services in hard-to-reach areas.
Enterprise development	• Farm and non-farm producers (marginal and small farmers; microenterprises). • Input sellers and other traders. • Support service providers.	• Low productivity. Poor quality except basic commodities compared to products of products of large companies and imports. • Poor access to markets, especially for expanding businesses that have out-grown local markets. • Inadequate technology access, extension and uptake, resulting in low productivity, poor product quality, and inability to compete. • Poor management and accounting systems • Largely unskilled and untrained workforce	• Improve value chain linkages for small enterprises. • Improve access to new technologies and other business development services. • Improve management skills of business owners and technical skills of workforce. • Improve bankability of enterprises
Gender	• Poor women, young women; • Women owned microenterprises.	• Increasing participation of poor and rural women in economic activities – but work often pay less than men. • Unpaid participation of women in HH production activities.	• Promote employment and self-employment for women through access to credit. • Enhance education, literacy and skill training. • Increase awareness amongst men and women regarding gender issues and legal rights.

[1] Bangladesh Bureau of Statistics (BBS) Bangladesh Sample Vital Statistics Report of 2022

		• Low levels of education, and skills. • Limited access to assets and employment opportunities.	

Key File Table 2: Organisation Capabilities Matrix

Organisation	Strengths	Weaknesses	Opportunities	Threats
PKSF	• Government owned, but fully autonomous. • Has more 200 partner NGOs all over the country. • Established procedures for selecting and on-lending to NGOs. • Well-established and extremely thorough system for monitoring NGO performance. • Established four distinct windows for lending to four distinct client groups which could be readily expanded. • Strong management, committed to developing microfinance sector. • Financial resources from GoB, World Bank, ADB, IFAD, EU, SDC & others.	• Need to deepen capacity of developing climate resilient, ecology friendly programs, information technology, fintech etc.	• Utilise proven funding mechanism to provide credit to MFIs. • Can help POs to provide non-financial services and support to micro-enterprises. • Further enhance expertise in wider enterprise development issues and influence sector and national policies in support of the poor and rural economy.	• Risk that government may not continue to allow full autonomy.
Large POs	• Have significant financial, human and physical resources. • Can provide and facilitate "one stop" service such as credit, training, and other non-financial services. • Already have significant micro-enterprise lending programmes	• Needs to develop capacity in areas of climate change and environmental issues, project management, fintech etc.	• Develop new products for micro-enterprise and other types of customized loan products. • Provide non-financial services alongside credit.	• Relations with government can be difficult if seem as an "alternative state" or involved in politics. • Becoming independent of PKSF resources, so risk that portfolio quality will decline. With reduced oversight
Medium and small POs	• Local presence and knowledge of local circumstances. • Source of innovation in terms of approaches and services. • Well managed microfinance program. • Developed some capacities of project management.	• Some POs may depend on a few people for management; weak middle management. • Staff lack skills in non-financial services project management.	• Good potential for expansion in non-financial services areas.	• Weak governance and overdependence on founders.
Formal private firms	• Responsive to new market opportunities • Strong management and financial resources • A few have tried to develop subcontracting and other methods to establish linkage with farmers and small businesses.	• Many lack interest to link with small-scale local businesses. • Not all larger businesses are well managed.	• Linking with commercial sector to micro-enterprises through contracting and e-commerce platforms.	• Not always competitive with imported products.

Key File Table 3: Complementary Donor Initiative/Partnership Potential

S.N.	Donor/Agency	Projects (ongoing)	Geographical Area	Remarks
1.	Government of Bangladesh, the World Bank and the Asian Infrastructure Investment Bank (AIIB)	Bangladesh Rural Water, Sanitation and Hygiene for Human Capital Development Project (Duration: 2021-2025) Implementing agency: PKSF	Patuakhali, Pirojpur, Barishal, Brahmanbaria Chandpur, Chattogram, Cumilla, Feni, Laxmipur, Noakhali, Manikganj, Rajbari, Bagerhat, Khulna, Magura, Jhenaidah, Mymensingh Jamalpur, Sherpur, Rajshahi Chapainawabganj, Pabna Bogura, Gaibandha, Kurigram, Lalmonirhat, Nilphamari, Sylhet, Habiganj, Sunamganj and Moulvibazar	• **Possible areas of synergy/collaboration:** ➢ BCC Campaign for sanitation and hygiene ➢ Potable water supply
2.	German Agency for International Cooperation (GIZ)	Climate-resilient Infrastructure for Sustainable Community Life in the Haor Region of Bangladesh (Duration: 2023-2025) Implementing agency: PKSF	Sunamganj	• **Possible areas of synergy/collaboration:** ➢ Protection of Villages (Hati) during flash flood by plantation ➢ Raising plinth of community common space for drying and harvesting of crops
3.	Green Climate Fund (GCF)	Extended Community Climate Change Project-Drought (ECCCP-Drought) (Duration: 2023-2027) Implementing agency: PKSF	Naogaon, Rajshahi and Chapainawabganj	• **Possible areas of synergy/collaboration:** ➢ Awareness building on climate change issues. ➢ Improve availability of surface and ground water for irrigation and drinking by renovation of ponds and canals ➢ Cultivation of draught crop varieties and fruit gardens
4.	Green Climate Fund (GCF)	Extended Community Climate Change Project- Flood (ECCCP-Flood) (Duration: 2020-2024) Implementing agency: PKSF	Nilphamari, Lalmonirhat, Kurigram, Gaibandha and Jamalpur	• **Possible areas of synergy/collaboration:** ➢ Flood tolerant high value crop cultivation, perch system goat farming, etc. ➢ Safe drinking water and sanitation ➢ Raising of homestead plinth for livestock rearing
5.	Asian Development Bank	Microenterprise Financing and Credit Enhancement (MFCE) Project (Duration: 2023-2027) Implementing agency: PKSF	Throughout the country	• **Possible areas of synergy/collaboration:** ➢ Training on entrepreneurship skill development for women ➢ Development of disaster and climate change risk management systems in microenterprises ➢ Digital transformation system to reduce the cost and increase the efficiency of loan operations

S.N.	Donor/Agency	Projects (ongoing)	Geographical Area	Remarks
6.	European Union	Pathways to Prosperity for Extremely Poor People-European Union (PPEPP-EU) (Duration: 2019-2025) Implementing agency: PKSF	Thakurgaon, Rangpur, Dinajpur, Kurigram, Gaibandha, Nilphamari, Satkhira, Khulna, Bagerhat, Bhola, Patuakhali, Kishoreganj	• **Possible areas of Synergy/ collaboration** ➢ Climate resilient livelihood (both farm and off-farm) ➢ Promote saline tolerant/stress tolerant varieties of agriculture, fisheries, poultry & livestock. ➢ Nutrition sensitive and nutrition specific services ➢ WASH ➢ Value chain development and market linkage ➢ Disaster preparedness ➢ Skill development training/Vocational training ➢ Gender, disability, disaster as cross-cutting issue
7.	The World Bank	Recovery and Advancement of Informal Sector Employment (RAISE) (Duration: 2022-2026) Implementing agency: PKSF	Throughout the country	• **Possible areas of synergy/collaboration** ➢ Capacity development training for the youth
8.	Green Climate Fund (GCF)	Resilient Homestead and Livelihood Support to the Vulnerable Coastal People of Bangladesh (RHL) Project (Duration: 2023-2028) Implementing agency: PKSF	Khulna, Bagerhat, Satkhira, Barguna, Patuakhali, Bhola, Cox's Bazar	• **Possible areas of synergy/collaboration:** ➢ Climate resilient livelihood options (e.g. crab farming) ➢ Raising of homestead plinth ➢ Plantation
9.	The International Fund for Agricultural Development (IFAD) and the Danish International Development Agency (DANIDA)	Rural Microenterprise Transformation Project (RMTP) (Duration: 2020-2025) Implementing agency: PKSF	Throughout the country	• **Possible areas of synergy/collaboration:** ➢ Value Chain Development in crop & horticulture (high-value cereal crops, fruits, vegetables, pulses, beans, etc.), livestock (dairy production, red meat, poultry, eggs, etc.) and fisheries (crab, carp, crayfish, etc.) ➢ Information Communication Technology (ICT) through 'Distributed Digital Ledger Technology (Block chain)', e-commerce and branding. ➢ Financial services through crowd funding and other new technologies

S.N.	Donor/Agency	Projects (ongoing)	Geographical Area	Remarks
10.	Japan International Cooperation Agency (JICA)	The Project for Developing Inclusive Risk Mitigation Program for Sustainable Poverty Reduction (IRMP) (Duration: 2021-2025) Implementing agency: PKSF	Throughout the country	• **Possible areas of synergy/collaboration:** ➢ Capacity development on environment and climate change, disaster risk management
11.	The World Bank	Sustainable Microenterprise and Resilient Transformation (SMART) (Duration: 2023-2028) Implementing agency: PKSF	Throughout the country	• Concept note preparation completed. Sub-concept paper preparation by the POs under process.

Key File Table 4: Target Group Priority Needs and Project Proposals

Typology	Poverty Level And Causes	Coping Actions	Priority Needs	Support from Other Initiatives	Potential Response
Extreme poor Approximately 15% of population. Poor farm and off-farm wage labourers.	• Chronic (year-round) food shortage. • Mostly live below poverty line • Rely on casual labour for main income – seasonal shortage of work. • Many HHs will be female headed. • Indigenous men and women • No cultivable land at all, and many do not own a homestead – so lack space for IGAs. • Minimal assets such as livestock – some have some poultry. • Poor quality housing and water & sanitation	• Search for temporary employment and accommodation. • Seasonally migrate to other districts to find menial work. • Daily wage labour • Domestic service for women – minimal pay • Sell possessions at time of hardship. • Some access GoB safety nets • Some share-rear cattle • Some fish – but lack access to fishing grounds. • Advance sale of labour and crops	• Self-employment and access to finance. • Support for family-based income generating program. • Need external assistance to overcome any crisis. • Employment in construction and maintenance works • Health, nutrition support • Access to land and water resources • Health, nutrition support • Access to WASH facilities.	• Support by IFAD and other donor funded projects for access to micro enterprise and livelihoods training. • Government social safety net program.	• Access to microfinance for self-employment. • Bring them to value chain services for sustainable IGAs. • Improved targeting of government's safety net programmes and primary health care program.
Moderate Poor (marginal farmers)	**Moderate** • Resource poor, small ownership of land, small equity capital • Up to 1acre agricultural land • Low profitability of farming small areas • Lacks diverse source of income. • Livestock • Own homestead • Unskilled	• Credit from NGOs, relatives and moneylenders, mortgage land. • Small scale farming. • Raising livestock. • Migration.	• Wage employment for young family members. • Self-employment of family members • Diversify sources of income from other than crops • Support for primary health. • Skill development	• Mainstream micro-credit programmes. • Agricultural extension and livestock support services.	• Participation in value chain project.
Small farmers/ **entrepreneurs**	**Vulnerable** • Small farmers vulnerable to agricultural disasters • Low profitability of farming • Lack access to markets etc.	• Credit from relatives and moneylenders, mortgage land • Some join NGO micro-credit groups • Fisheries and livestock farming • Small businesses • Wage employment for family members	• Agricultural and non-farm business development • Small business promotion • Skill development	• Agricultural extension programmes • Some participate in NGO micro-credit programmes.	• Small rural entrepreneurs will also be a target group of the project.

Key File Table 5: Stakeholder Matrix/Project Actors and Roles

Outcome / Component	Activity	Principal institution(s) involved	Supporting institution(s)	Other Possible Partners in Execution
Component 1: Ecology and Environment Friendly Food System Development	• Selection of a product or group farm and non-farm products for value chain development. • Selection of POs and training of PO staff in value chain development. • Value chain sub-sector studies with focus on ecology, environment, and human health issues as part of value chain analysis. • Design and implement value chain subprojects along with related technical support such as promotion on production technologies, training to beneficiaries, marketing program development, application of ICTs in value chain implementation, and other value chain services specific to a value chain. • Develop and manage campaigns related to nutrition and healthy food related activities.	• PKSF • PKSF POs • Micro-credit groups • Value chain participants such as input sellers, producers, traders, transport operators, small processors, retailers, support service providers, etc.	• Private sector agribusinesses, manufacturers of machines, traders, vets, trainers etc. • Local GOB agricultural extension departments	• Research organizations, Universities, Consulting firms.
Component 2: Financial services for value chain participants	• Provision of loans (extremely poor loans and seasonal loans) to POs for on-lending to beneficiaries. • Training of PO staff in various loan programs and updated credit policies • Microcredit monitoring	• PKSF. • PKSF POs • Micro-credit groups of POs	• Research and training organizations.	• Microcredit Regulatory Authority (MRA). • Credit and Development Forum • Institute of Inclusive Finance (InM)
Outcome 3: Capacity of PKSF and POs enhanced in climate change, environment, and food system development mainstreaming	• Organizing training courses • Preparation of case studies and policy documents • Exchange visits, seminar and workshops	- PKSF - POs	- Training institutions and Universities offering training courses. - Research organizations	--
Project Coordination and Management	• Project coordination. • Monitoring and evaluation	• PKSF • POs to coordinate own value chain subprojects.	• Consultants and research organisations. • Individual trainers, researchers	

Key Table 6: Illustrative impacts of climate change, major environmental and ecological issues

Climate vulnerable regions	Adverse impacts of climate change	Major environmental and agri-ecological issues	Development responses
Haor region	Increased frequency of flash floods and monsoon floods due to increased rain fall within Bangladesh and Assam/Meghalaya basin of India; untimely rainfall; Damage to infrastructure and crops; food in security due to pre-monsoon flash floods.	Heavy siltation in Haor and in rivers and canals that reduces water carrying capacity. Unsafe level of pesticides in rice and other crops. Anti-biotics in pond fisheries.	Weather services, climate resilient infrastructure; promotion of alternative non-farm livelihoods
Coastal region	Increased frequency of cyclone and tidal surges, increased erosion of land; not enough water flow in river system; Damage to infrastructure and crop; food in security.	Increased salinity; Deforestation and converting jungle into homestead and rice/shrimp/crab farms; excessive collection of crablets and other fingerlings (baby fish) from the river system. Increased sandy soil; excessive use of pesticides; repeated mono-cropping system.	Salt tolerant crops; non-farm and service type businesses; agricultural processing.
Hill region	Untimely rain leads landslides	Slash and burn practices of cultivation leads to destruction of topsoil and landslides. Deforestation. Mono crops (pineapple, zinger and turmeric on hill sides).	Establishment of fruit orchards; tree plantation; spice production. Non-farm business promotion. Water shed management.
High Barind region	Prolonged drought and heat wave affects crop production due to lack of rain and water; fish production decreases due to reduced or no water in ponds in dry season; animal health affected due to heat, power failure, and lack of water and fodder.	Deterioration of soil organic contents; overuse of chemical fertilizer and pesticides. Same or similar crop cultivation. Pollution of ponds/canals from farm (for example, livestock) and non-farm sources (for example, industrial pollutants such as textile dyes). Depletion of water table.	Drought tolerant crops (but it not easy to develop such crops), irrigation projects, short-term fisheries, cooler farmhouses for cattle (Bamboo-made), tree plantation in and around homestead, feed stocking (silage etc.). promotion of vermi-compost, IPM, crops that need less needs for water. Pollution control in non-farm sector.
River char (flood plain) region	High intensity annual floods; prolonged and high level of floods. Damage to life and livelihoods.	Sand casting in some areas; two season agriculture; not much non-farm livelihoods. A few suitable agricultural products for sandy soil.	Flood information sharing and disaster preparedness; portable house construction and plinth raising; rapid communication and relocation during floods; High value agriculture for two seasons; non-farm (tourism) is one possibility.

Key table 7: GREEN Procurement Quality Assessment Matrix/Checklist

Pillars/Areas of Quality assessment	Parameter/issue requiring QA scrutiny	Rating of this Parameter *(Six-Points Rating Scale or Assessment Scale)*
1. National Legal and Institutional frameworks of **Public Procurement in the Borrower's country**	*The assessment of the Acceptability of the National Procurement system is based upon analysis of the below-mentioned parameters and, in case of deficiency, assessment of Quality will scrutinise the expected effectiveness of foreseen mitigation measures:*	*The rating of each parameter by QAG is made after assessing the quality and sufficiency of the respective mitigation measure prescribed in the PDR*
	1. The national public procurement legal framework achieves the established IFAD procurement principles and complies with applicable obligations and the hierarchy of national legal instruments is clearly established (law, Regulations and procedures).	Rating: 5 Justification: The country have a public procurement legal framework and public procurement is regulated by the Public Procurement Act 2006 (PPA-2006), and Public Procurement Rules (PPR 2008). Central Procurement Technical Unit (CPTU) issues Standard Tender Documents and relevant procurement guidelines. The principles of these procurement rules and guidelines generally comply with IFAD Procurement Guidelines.
	2. National Procurement Methods are sufficient to meet the full range of project's needs with clear conditions for use of competitive methods and ensure value for money, fairness, transparency, proportionality and integrity.	Rating: 5 Justification: Under PPR 2008, use of National Competitive Bidding Methods are always prioritised. Proposed project will adopt IFAD Procurement Guidelines as assessed and through Project Procurement Arrangements letter, the project would be able to use full range of selection methods, with the exclusion of QBS.

	3.National Advertisement rules are compatible with IFAD requirements	Rating: 5 Justification: The time limit may slightly vary , taking into account the nature of materials and delivery requirements. Project will follow IFAD requirements for advertising.
	4. Rules for participation do not exclude foreign bidders based on nationality or unnecessary national requirements	Rating: 5 Justification: Fully Compliant. There is domestic preference of local suppliers.
	5. Bidders' qualifications criteria are pass/fail and related to deliver the specific contract. (Exclusions can be justified in case of convictions related to criminal or corrupt activities, non-payment of taxes and social security contributions and for administrative debarment under the national law)	Rating: 5 Justification: Fully Compliant
	6.National domestic preferences rules are in line with IFAD's requirements	Rating: 5 Justification: Similar clauses are incorporated
	7. National Law/Regulations require that Bid evaluation process is confidential and bid evaluation criteria are objective, relevant to the subject matter of the contract, and precisely specified in advance in the procurement documents.	Rating:6 Justification: Fully Compliant.
	8.National Law/Regulations require that Quality is the basis for selection in consultancy services	Rating: 5 Justification: QCBS is default evaluation methodology in selection of consulting firms. Alternative mode is Least Cost Selection. Project by following IFAD Procurement

		Guidelines will apply appropriate selection methods.
	9. National Law/Regulations require “public” bid opening and disclosure of record of bid opening session	Rating: 6 Justification: Fully compliant. e-GP procurement system provides even more transparency for public opening.
	10. National Law/Regulations require neutral specifications based on international norms while admitting equivalent national standards, and provide for the use of functional /performance specifications where appropriate.	Rating: 5 Justification: Fully compliant
	11. National SBDs are available and the contents of the such documents is sufficient for suppliers/contractors/service providers to respond to the procurement requirement on fair and non-discriminatory basis. National SBDs include provisions on Fraud and Corruption, IFAD’s right to audit, SECAP standards and SH/SEA provisions equivalent to those in IFAD’s SBDs.	Rating: 5 Justification: Fully Compliant. The Standard Bid documents closely align with IFAD's prescribed ones, ensuring adherence to IFAD's policies and requirements.
	12. National SBDs include standard contract conditions which are consistent with internationally accepted practice and which prescribe arbitration as an ultimate forum for dispute settlement in case of contracts with foreign vendors.	Rating: 5 Justification: Fully compliant.
	13. The national legal framework grants bidders the right to challenge Procuring Entity decisions through a two-tier	Rating: 5

	bidders' complaint procedure, the second being independent of the procurement operations and is empowered to grant remedies that are necessary to enforce compliance with the law by Procuring Entities	The procurement process adheres to the guidelines outlined in the Public Procurement Regulations of 2008 (PPR-2008), which delineate various levels of appeals and provide clear procedures and timelines. Ultimately, any disputes are resolved through review by the CPTU Review Panel, ensuring transparency and fairness.
	14. The national legal framework prescribes record-keeping rules (should cover the entire procurement process, including contract management phase), and the PDR addresses these rules in an effective and adequate manner ensuring they are respected in practice efficiently.	Rating: 5 Justification: Compliant. PPR-2008 guidelines prescribe maintenance of records both in Physical and Electronic form
	15. National Law/Regulations prescribe the need for a Procurement Manual detailing all procedures for the correct implementation of procurement regulations and laws and which is to be periodically updated.	Rating: 6 Justification: Compliant. Separate Procurement Rules are detailed under the act, PPA-2006. CPTU is responsible for the issueance of various guidelines, rules and standard documents.
	16. National Law/Regulations allow for sustainability and a national SPP (Sustainable Public Procurement) plan exists.	Rating: 3 Justification: There is no overarching Sustainable Procurement Policy for the country.

	17.National Guidance documents exist to enable Procuring Entities to introduce a well-balanced application of sustainability criteria to ensure value for money	Rating: 4 Justification: Value for Money (VFM) practices are still in the process of refinement, awaiting the introduction of new and pertinent rules and guidelines to enhance their effectiveness.
	18. National Law recognizes precedence of international obligations like those reflected in IFI's Financing Agreements	Rating:6 Justification: Compliant.
.	19. Presence and effectiveness of a central Procurement Regulatory authority which is independent from transacting public procurement and assumes its role in disseminating professional guidance and rules concerning prevention of conflict of interest and integrity in the work of bid evaluation committees	Rating: 6 Justification There is effective Central Procurement Regulatory Authority.
	20. Definitions of fraud, corruption and other prohibited practices in procurement Law/Regulations are consistent with IFAD's and evidence of enforcement is presented.	Rating: 5 Justification: Compliant. PPR-2008 rules in this regards are aligned with IFAD Procurement Guidelines
2. Implementation Capacity of the parent Ministry (the Implementing Agency) and related management systems, the capacity of the Project's Implementation Unit (PIU) to	*The assessment of quality for this Pillar will be based on undermentioned parameters which are meant to measure the capacity of the parent ministry and PIU to undertake project procurement and contract management in a timely and effective manner as per the prescribed design of the project's procurement arrangements and the adequacy of the parent*	

undertake project procurement and contract management	*ministry's management systems and related interface with the PIU/PCU/PMU:*	
	1.The parent Ministry (or the Implementing Agency) possesses the 3 P's necessary for project implementation: (i) People (full range of technical and managerial expertise), (ii) Processes (Management systems, delegation of authority, segregation of roles in budget allocation, procurement processing/approval and subsequent payments to vendors. (ii) and (iii) Product/Performance (as demonstrated by successful past experience and ability to deliver public services timely and at the right quality. Foreseen Mitigation measures in the PDR are to be assessed for sufficiency with respect to the 3P deficiencies. Examples of mitigation measures: 1. Creation of PIU 2. Hiring of Project Management and/or Technical consultants 3. Formulation of PIM with adequate interface between the project and parent ministry systems and with adequate internal control measures including avoidance of situations of conflict of interest. 4. Appointment of external auditors, as relevant. 5. Training of parent ministry staff connected with project activities.	Rating:5 Justification: PMU do not have certified procurement personnel and need comprehensive procurement capacity training within 3 months of engagement. Current Processes are partially compliant. Performance is varied depending on procurement and contract management weaknesses as reflected by audit observations. Foreseen mitigation measures are sufficient to address 3P deficiencies. These measures include hiring of Procurement Specialist, procurement performance audit arrangements. Draft PIM provide responsibility matrix, e-procurement system, contract management internal controls and specific guidance for record retention. Technical capacity of project staff would be supplemented by IFAD or other external TA's

	2. PIU Director is issued a charter with clear reporting lines and well-defined and appropriate delegation of authority to transact project business and command timely provision of needed inputs from the parent ministry's various departments.	Rating: 5 Justification: Based on past IFAD financed projects an officer will be designated as project director with reporting and delegated authority to be able to implement project business.
	3. PIU staffing levels, in case PIU is established: • Number and range of expertise of PIU staff is adequate to cover all activities of the project (minimum 1 full-time Procurement Officer and 1 Assistant) • Foreseen tasks of needed consultancy firms are clear and established in completed TORs • Training allocations for PIU staff are foreseen especially when parent ministry staff are seconded to the PIU • PIU personnel for Procurement and Contract Management are at adequate levels of past experience in similar activities • The bulk of PIU personnel are selected based on fair and open competition in accordance with precise job descriptions.	Rating: 5 Justification: Project yet to hire Procurement Specialist responsible for procurement and contract management. Training allocations are provided in cost tabs. Procurement Specialist and PMU Staff to be enrolled in IFAD BuildProc Training or Public Procurement Training.
	4. Project budget includes adequate financial allocations (salaries, running expenses and per-diems etc.) and other resources (vehicles, decent office working area, equipment and tools etc.) needed by the PIU to deliver its tasks.	Rating: 5 Justification: Covered in proposed cost tables.

	5. Payment, Quality Assurance and Change Management procedures are fully developed by the PIU or mitigation measures are foreseen to deal with any deficiencies as early as possible at project commencement. Examples: Measures to ensure timely authorization and actual processing of due payments to vendors.	Rating:4 Justification: There are delays observed in the payment. Quality assurance of outputs received exhibit weaknesses. PIM and PPS have included provisions to mitigate the weaknesses.
	6. Codes of Conduct and the consequences of breach of obligations are known to all parent ministry and PIU staff engaged in project activities on part-time or full-time basis.	Rating: 4 Justification The codes of conduct for hired consultants are typically referenced in the Terms of Reference (ToR). As for the Permanent Staff of the Project Management Unit (PMU), their code of conduct is governed by its own established regulations.
	7. The parent ministry's system for suspension/debarment of bidders ensures due process and is consistently applied.	Rating: 3 Justification: The Project Management Unit (PMU) typically does not verify debarment lists, and there is a lack of integrated data for this purpose. However, when issuing Prior Review Contracts, IFAD verifies the debarment status of contractors. To address this gap, the PMU must develop consistent debarment procedures and an approval process.
	8. The project builds-in third party or civil society and stakeholders' access to procurement information as a transparency safeguard and a precondition for effective monitoring of project's procurement operations.	Rating: 3 Justification: The Civil Society organizations could obtain information only by applying under provisions of Right to Information Act. PIM/PPS provides all procurement to be done

		through Government e-procurement system for soliciting bids/proposals and awards to be published on the project website as well.
3. National Market Competitiveness and Delivery Capacity	*The assessment of quality for this Pillar will be based upon undermentioned parameters which measure the extent to which the chosen optimal procurement strategies for the acquisition of the project's procurement needs are established following adequate market research which has fed into the design of the project's Procurement Plan:*	
	1.Market Research is the basis for formulation of the project's procurement strategy for the acquisition of each substantial procurement contract and evidence of: • comparison with alternative strategies is evident in the analysis presented in the PPS, at least for major contracts market capacity to deliver at competitive rates is present.	Rating: 5 Justification: PPS provides market research strategy.
	2.The identification of the project's procurement needs is done in consultation with the stakeholders and is objective without exaggeration or understatement of the procurement needs.	Rating: 4 Justification: Consultation done with implementing agencies but its is too early to obtain any feedback from any of the stakeholder.
	3.National sustainable development goals of as well as relevant IFAD mainstreaming themes (in particular Youth, Gender, Environment & Climate as relevant) have been considered in procurement strategy preparation.	Rating: 5 Justification: Compliant

	4. Procurement strategy clearly demonstrates understanding of any constraints facing private firms in their participation in public procurement competitions (e.g. difficulties in obtaining bid securities, insurance policies etc.).	Rating: 6 Justification: Compliant. e-GP i.e. Government e-procurement Portal allows for digital payment of tender fees and Guarantees.
	5.Evidence of Market Engagement with respect to advance dissemination of SECAP requirements and encouragement of the private sector to comply. Evidence of assessment of the capacity of the national market to comply including any foreseen SECAP training plans for the private sector.	Rating: 5 Justification: This would be elaborated and built into the PIM and PMU to advise service provider, supplier and the contractor to ensure adherence or the measure as foreseen.
	6.Evidence that cost estimation of procurement contracts are based on market research for Goods or alternatively scientific estimation methods (like bottom-up, analogous or parametric cost estimation methods) for Works and Services.	Rating: 4 Justification: Too early as procurement packages are well defined. To be undertaken when project is launched and staff are already in place .
4. SECAP compliance	*The assessment of quality for this Pillar will be based upon undermentioned parameters which are needed to verify that SECAP standards have been implemented throughout all stages of the procurement process: definition of procurement needs/specifications, bidders' selection and qualification criteria, bid evaluation criteria and contract terms and conditions:*	
	1.SECAP standards are considered in identification of project's procurement requirements and evidence that alternatives were considered.	Rating:5 Justification: Compliant.

	2. SECAP and SH/SEA standards are incorporated in the bidding documents especially where national SBDs are used.	Rating: 5 Justification: For compliance with respect to SECAP. Previous IFAD Financing Agreements did not require incorporation of SECAP standards in SBDs.
	3.SECAP standards are implemented at all stages of the procurement process: setting of bidders' selection and qualification criteria, bid evaluation criteria and contract terms and conditions including mandatory Self-Declarations by bidders.	Rating:5 Justification: Compliant. Previous IFAD Financing Agreements did not require incorporation of SECAP standards.
5. Fitness for Purpose of the project's Procurement Plan, Supervision Arrangements and status of project design and its readiness for implementation	*The assessment of quality of this Pillar is based upon* *undermentioned parameters needed to verify that the project's procurement plan takes into consideration the findings of all above assessment pillars/parameters and that the IFAD Supervision Plan is commensurate with the complexity of the project's procurement and the assessed capacity of the implementing agency and the PIU (i.e. both procurement and supervision plans are fit for purpose):*	
	1.The Procurement Plan incorporates the findings of all above assessment parameters which have been arrived through the use of adequate management tools like SWOT and PESTLE analysis or equivalent methods, market research techniques and sound risk prioritization/mitigation measures.	Rating: 5 Justification: Compliant
	2. The Procurement Plan is conducive to facilitate the project's timely completion and builds-in relevant time	Rating:5

	contingencies depending on the project's readiness for implementation	Justification: 18 month PP clearly identifies pre-project procurement to be undertaken prior to entry into force.
	3. IFAD's Procurement Supervision Plan is commensurate with the complexity of the project's procurement and the assessed capacity of the implementing agency and the PIU.	Rating: 5 Justification: Compliant
	4. The provisions of the Financing Agreement and the Letter to the Borrower support the findings of the design of the project's procurement arrangements.	Rating: N/A Justification: Not applicable at this time

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Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition

Project Design Report

Annex 2: Logframe

Mission Dates:	22/06/2024 15/09/2024
Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

Asia and the Pacific Division
Programme Management Department

Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition

Logical Framework

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Outreach Project outreach in terms of beneficiaries receiving project services and corresponding households and HHs members	1 Persons reached by project-supported activities				MIS/MES	semester/annual	PMU	
	Males (number)	0	76250	76250				
	Females (number)	0	182083	182083				
	Young (number)	0	129167	129167				
	Not Young (number)							
	Non-Indigenous people (number)							
	Total number of persons receiving services (number)	0	258333	258333				
	1.a Corresponding number of households reached				MIS/MES	semester/annual	PMU	
	Women-headed households (number)	0	38750	38750				
	Non-women-headed households (number)	0	219583	219583				
	Households (number)	0	258333	258333				
	1.b Estimated corresponding total number of households members				MIS/MES	semester/Annual	PMU	
	Household members (number)	0	1110832	1110832				
Project Goal To contribute to climate resilient and inclusive rural transformation through sustainable and equitable economic growth	HHs reporting increase in income				COI HH survey	BL, MT, End	PMU	
	Households (%)	0	12	40				
	CI 1.2.8 Women reporting minimum dietary diversity (MDDW)				COI HH Survey	BL, MT, End	PMU	
	Women (number)	0	16387	54625				
	Women (%)	0	9	30				
	Households (%)	0	9	30				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Households (number)	0	16387	54625				
	Households Member (number)	0	70471	236526				
Development Objective To sustainably increase income, climate resilience, food security and nutritional status of beneficiary households by enabling healthy diets and improved nutrition behaviours, uptake of technologies and best practices, and enhanced access to capital	2.2.1 Persons with new jobs/employment opportunities				COI HH survey	BL, MT, PCR	PMU	
	Males (number)	0	7750	25833				
	Females (number)	0	7750	25833				
	Young (number)	0	6200	20667				
	Total number of persons with new jobs/employment opportunities (number)	0	15500	51666				
	Average Ability to Recover from Shocks (ATR) among targeted households improves over the project period				COI HH Survey	BL, MT, PCR	PMU	
	Average ATR increase (%)	0	5	15				
	SF.2.1 Households satisfied with project-supported services				COI HH Survey	MT, End	PMU	
	Household members (number)	0	266600	888666				
	Households (%)	0	24	80				
	Households (number)	0	62000	206666				
	SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers				COI HH Survey	MT, End	PMU	
	Household members (number)	0	49987	166625				
	Households (%)	0	12	40				
	Households (number)	0	11625	38750				
Outcome 1: Climate-resilient and environment-friendly food system developed in highly and moderately climate-vulnerable areas	3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices				COI HH outcome survey	BL, MT, End	PMU	
	Total number of household members (number)	0	113793	379311				
	Households (%)	0	23	75				
	Households (number)	0	56897	189656				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Households reporting an increase in annual sales				COI HH Survey	BL, MT, End	PMU	
	Household (%)	0	9	30				
	Household (number)	0	22759	75862				
Output 1.1: Priority value chains identified and guidelines for PO subprojects developed	1.1.3 Rural producers accessing production inputs and/or technological packages				MIS/MES	semester/annual	PMU	
	Males (number)	0	5690	18966				
	Females (number)	0	13276	44253				
	Young (number)	0	9483	31609				
	Total rural producers (number)	0	18966	63219				
Output 1.2: Capacity of POs and beneficiaries to implement farm and non-farm value chain interventions enhanced	1.1.4 Persons trained in production practices and/or technologies				MIS/MES	semester/annual	PMU	
	Total number of persons trained by the project (number)	0	75863	252874				
	Young people trained in crop (number)	0	37931	126437				
	Males trained at least once by the project (number)	0	22759	75862				
	Females trained at least once by the project (number)	0	53104	177012				
	Persons provided assistance for marketing including e-commerce				MIS/MES	semester/annual	PMU	
	Total (number)	0	75863	252874				
	Male (number)	0	22759	75862				
	Female (number)	0	53104	177012				
	Young (number)	0	37931	126437				
Output 1.3: Partnerships between POs and private sector for production-related services established, facilitated, or expanded	3.1.1 Groups supported to sustainably manage natural resources and climate-related risks				MIS/MES	semester/annual	PMU	
	Total size of groups (number)	0	56897	189656				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Groups supported (number)	0	2267	7586				
	Males (number)	0	17069	56897				
	Females (number)	0	39828	132759				
	Young (number)	0	28448	94828				
Output 1.4: Healthy diet practices promoted through targeted nutrition education	1.1.8 Persons provided with targeted support to improve their nutrition				MES - GIS	semester/annual	NPCU	
	Total persons participating (number)	0	75862	252874				
	Males (number)	0	64483	214943				
	Females (number)	0	11379	37931				
	Households (number)	0	75862	252874				
	Household members benefitted (number)	0	328483	1094944				
	Young (number)	0	37931	126437				
Outcome 2: Inclusive and tailored financial services are accessed by rural farm and non-farm actors for value chain upgrading and adaptation investments	1.2.5 Households reporting using rural financial services				COI HH survey	BL, MT, End	PMU	
	Total number of household members (number)	0	77500	258333				
	Households (%)	0	100	100				
	Women-headed households (number)	0	11625	38750				
	Households (number)	0	77500	258333				
	CI 1.2.5 Households reporting using rural financial services				COI HH survey	BL, MT, End	PMU	
	Non-women-headed households (number)	0	65875	219583				
Output 2.1: Number of persons in rural areas benefiting from inclusive and tailored financial services facilitated through the project	1.1.5 Persons in rural areas accessing financial services				MES	semester/annual	PMU	
	Total number of accesses to financial services (number)		258333	258333				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Men in rural areas accessing financial services - credit (number)		76250	76250				
	Women in rural areas accessing financial services - credit (number)		182083	182083				
	Young people in rural areas accessing financial services - credit (number)		129167	129167				
	Total persons accessing financial services - credit (number)		258333	258333				
	1.1.5 Persons in rural areas accessing financial services				MES - GIS	semester/annual	PMU	
	Cumulative loan disbursement by Pos over the project period (Taka in Billion) (number)		23	23				
	Increase in loan outstanding from PKSF to POs (Taka in Billion) (number)		7	15				
	Increase in loan outstanding from POs to beneficiaries (Taka in Billion) (number)		12	24				
	Extreme poor loan - Bunia				MES - GIS	semester/annual	PMU	
	Men in rural areas accesing financial services - credit (Extreme poor loan - Bunia) (number)	0	12500	12500				
	Women in rural areas accesing financial services - credit (number)	0	50000	50000				
	Young people in rural areas accessing financial services - credit (number)	0	31250	31250				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Total persons accessing financial services - credit (number)	0	62500	62500				
	Cumulative loan disbursement by Pos over the project period (Taka in Billion) (number)	0	2.93	2.93				
	Increase in loan outstanding from PKSF to POs (Taka in Billion) (number)	0	1.15	2.3				
	Increase in loan outstanding from POs to beneficiaries (Taka in Billion) (number)	0	1.4	2.8				
	Seasonal credit for farm and non-farm business (Sufolon)				MES - GIS	semester/annual	PMU	
	Men in rural areas accessing financial services - credit (number)	0	25000	25000				
	Women in rural areas accessing financial services - credit (number)	0	58333	12500				
	Young people in rural areas accessing financial services - credit (number)	0	41667	41667				
	Total persons accessing financial services - credit (number)	0	83333	83333				
	Cumulative loan disbursement by POs over the project period (Taka in Billion) (number)	0	5.85	5.85				
	Increase in loan outstanding from PKSF to POs (Taka in Billion) (number)	0	2.3	4.6				
	Increase in loan outstanding from POs to beneficiaries (Taka in Billion) (number)	0	3.45	6.9				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Regular microfinance (farm and non-farm)				MES - GIS	semester/annual	PMU	
	Men in rural areas accessing financial services - credit (number)	0	26250	26250				
	Women in rural areas accessing financial services - credit (number)	0	61250	61250				
	Young people in rural areas accessing financial services - credit (number)	0	43750	43750				
	Total persons accessing financial services - credit (number)	0	87500	87500				
	Cumulative loan disbursment by POs over the project period (Taka in Billion) (number)	0	8.19	8.19				
	Increase in loan outstanding from PKSF to POs (Taka in Billion) (number)	0	2.3	4.6				
	Increase in loan outstanding from POs to beneficiaries (Taka in Billion) (number)	0	4.03	8.05				
	Microenterprise loan for farm and non-farm business				MES - GIS	semester/annual	PMU	
	Men in rural areas accessing financial services - credit (number)	0	12500	12500				
	Women in rural areas accessing financial services - credit (number)	0	12500	12500				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
	Young people in rural areas accessing financial services - credit (number)	0	12500	12500				
	Total persons accessing financial services - credit (number)	0	25000	25000				
	Cumulative loan disbursement by POs over the project period (Taka in Billion) (number)	0	5.85	5.85				
	Increase in loan outstanding from PKSF to POs (Taka in Billion) (number)	0	1.73	3.45				
	Increase in loan outstanding from POs to beneficiaries (Taka in Billion) (number)	0	2.88	5.75				
	Increase in average loan size for extreme poor (%)				MES - GIS	semester/annual	PMU	
	% of increase in average loan size (%)	0	6	20				
	Percentage of value chain participants receiving a loan				MES - GIS	semester/annual	PMU	
	% of value chain participants receiving a loan (%)	0	30	100				
	Percentage of extreme poor value chain participants receiving a loan after joining value chain groups				MES - GIS	semester/annual	PMU	
	% of extreme poor value chain participants receiving a loan (%)	0	24	80				
Outcome 3: Capacity of PKSF, POs and other relevant government institutions on financial services, food systems, and climate resilience enhanced	PKSF and POs staff perceived and increase in their capacities to provide services				Qualitative assessment	BL, MT, End	PMU	
	Total persons (number)	0	100	250				
	Male (number)	0	70	175				
	Female (number)	0	30	75				

Results Hierarchy	Indicators				Means of Verification			Assumptions
	Name	Baseline	Mid-Term	End Target	Source	Frequency	Responsibility	
Output 3.1: Government of Bangladesh and PKSF staffs trained on financial product development and delivery, climate change, environment, and value chain/enterprise management	Number of staff trained				MES	semester/annual	PMU	
	Total (number)	0	40	100				
	Males (number)	0	30	75				
	Females (number)	0	10	25				
Output 3.2: PO officials trained on financial product development and delivery, climate change, environment, and value chain/enterprise management	Number of staffs trained				MES	semester/annual	PMU	
	Total (number)	0	60	150				
	Males (number)	0	40	100				
	Females (number)	0	20	50				

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Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition

Project Design Report

Annex 3: Project Cost and Financing

Mission Dates:	22/06/2024 15/09/2024
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Project No.	2000004922
Report No.	7318-BD

Asia and the Pacific Division
Programme Management Department

Bangladesh

Growth For Climate Resilient and Environmental Entrepreneurship and Nutrition (GREEN)

Annex 3: Project Cost and Financing

1. This annex presents the project cost tables of FAST project developed using the COSTAB programme. All the unit costs are based on 2024 prices. The other assumptions used are listed in Table 1.

Table 1: Assumptions used to design the project budget

	Inflation and Exchange Rates							
	Up to Negotiation	Up to Project Start	2025	2026	2027	2028	2029	2030
Inflation (in %'s) /a								
Zero								
Annual rates								
Local	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compounded rates								
Local	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rate								
Annual rates								
Local	2.0	2.0	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	2.0	2.0
Compounded rates								
Local	2.0	2.0	3.0	5.1	7.2	9.3	11.5	13.7
Foreign	2.0	2.0	3.0	5.1	7.2	9.3	11.5	13.7
Exchange rates (Local/Foreign) /b								
Zero								
Rates actually used	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
Constant purchasing parity rates	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
% deviation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rate								
Rates actually used	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
Constant purchasing parity rates	115.0	115.0	115.0	115.0	115.0	115.0	115.0	115.0
% deviation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

\a Yearly values are within Each Project Year
\b Yearly values are at Project Year Midpoints

2. **Project cost:** The total project cost inclusive of taxes and duties, and contingencies amounts to USD 211.65 million over a six-year implementation period with US$ 0.1 million contingencies. All costs are estimated based on currently (June 2024) prevailing prices in Bangladesh. Project costs by component are presented in Table 1. Project financing by components are: US$ 13.58 million for Component 1, (6.4 percent of project costs), US$ 185.28 million for Component 2 (87.5 percent of project costs), US$ 3.64 million for Component 3 (1.7 percent), and US$ 9.13 million for project management (4.3 percent of project costs).

3. **Project financing**: The IFAD loan will finance US$ 51.388 million of the total project cost (24.3%); PKSF including taxes will provide US$ 69.58 million (32.9%); Partner Organizations (POs) of PKSF, US$ 71.5 million (33.8%) and the private sector will provide in-kind contribution of US$ 0.565 million (0.3%). The project is designed with a Financing Gap of US$ 18.61 million. More details can be found in the project's COSTAB in Annex 3.

4. Tables 1, 2, and 3 summaries the Project cost by components and financiers; expenditure categories and financiers; and Project cost by year respectively. The detailed cost tables are presented after Table 3.

Table 1

Project costs by component and subcomponent and financier

(Thousands of United States dollars)

	IFAD		PKSF		POs		Private Sector (in-kind)		Financing Gap		Total	
Components / sub-component	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**
A. Climate-resilient and Environment Friendly Food System Development												
Climate-resilient and environment friendly food system development in vulnerable areas	-	-	4,027	53.8	-	-	452	6.0	3,000	40.1	7,479	3.5
Climate-resilient and environment friendly food system development in other districts	-	-	1,478	32.2	-	-	113	2.5	3,000	65.3	4,591	2.2
Campaign for Healthy and nutritious Food	-	-	9	0.6	1,009	66.5	-	-	500	33.0	1,517	0.7
Subtotal	-	-	5,513	40.6	1,009	7.4	565	4.2	6,500	47.8	13,587	6.4
B. Inclusive Financial services for value chain participants			-	0.0							-	
Financial inclusion of the extremely poor	7,246	32.1	8,787	38.9	5,000	22.1	-	-	1,541	6.8	22,574	10.7
Seasonal credit for farm and non-farm businesses	18,392	39.2	15,000	31.9	10,000	21.3	-	-	3,571	7.6	46,964	22.2
Access to regular microcredit for farm and non-farm businesses	14,714	21.8	15,000	22.2	35,000	51.8	-	-	2,857	4.2	67,571	31.9
Microenterprise loans for business incubation and growth	11,036	22.9	15,000	31.1	20,000	41.5	-	-	2,143	4.4	48,179	22.8
Subtotal	51,388	27.7	53,787	29.0	70,000	37.8	-	-	10,112	5.5	185,287	87.5
C. Institutional Capacity Building of Implementing Partners			-	0.0							-	
Capacity building of Implementing Partners in Food System Development	-	-	547	26.8	-	-	-	-	1,500	73.3	2,047	1.0
Capacity building of POs on inclusive financial and non-financial service	-	-	602	37.8	492	30.9	-	-	500	31.4	1,594	0.8
Subtotal	-	-	1,149	31.5	492	13.5	-	-	2,000	54.9	3,641	1.7
D. Project Management	-	-	9,135	100.0	-	-	-	-	-	-	9,135	4.3
Total PROJECT COSTS	51,388	24.3	69,584	32.9	71,501	33.8	565	0.3	18,612	8.8	211,650	100.0

Table 2

Project costs by expenditure category and financier

(Thousands of United States dollars)

	IFAD		PKSF		POs		Private Sector (in-kind)		Financing Gap		Total	
Expenditure Category	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**
I. Investment Costs												
A. Studies	-	-	165	100.0	-	-	-	-	-	-	165	0.1
B. Training	-	-	6,658	38.7	1,501	8.7	565	3.3	8,500	49.3	17,225	8.1
C. Credit	51,388	27.7	53,787	29.0	70,000	37.8	-	-	10,112	5.5	185,287	87.5
Total Investment Costs	51,388	25.4	60,611	29.9	71,501	35.3	565	0.3	18,612	9.2	202,677	95.8
II. Recurrent Costs			0	-								
A. Operation Cost	-	-	5,941	100.0	-	-	-	-	-	-	5,941	2.8
B. Salaries	-	-	3,033	100.0	-	-	-	-	-	-	3,033	1.4
Total Recurrent Costs	-	-	8,974	100.0	-	-	-	-	-	-	8,974	4.2
Total PROJECT COSTS	51,388	24.3	69,584	32.9	71,501	33.8	565	0.3	18,612	8.8	211,650	100.0

Table 3

Project costs by component and subcomponent and project year (PY)

(Thousands of United States dollars)

Components / sub-component	2026	2027	2028	2029	2030	2031	Total
A. Climate-resilient and Environment Friendly Food System Development							
Climate-resilient and environment friendly food system development in vulnerable areas	1,452	1,844	1,844	919	919	500	7,479
Climate-resilient and environment friendly food system development in other districts	818	977	977	659	659	500	4,591
Campaign for Healthy and nutritious Food	110	302	403	403	201	100	1,517
Subtotal	2,380	3,123	3,224	1,981	1,779	1,100	13,587
B. Inclusive Financial services for value chain participants							
Financial inclusion of the extremely poor	4,515	9,030	9,030	-	-	-	22,574
Seasonal credit for farm and non-farm businesses	9,393	18,785	18,785	-	-	-	46,964
Access to regular microcredit for farm and non-farm businesses	13,514	27,028	27,028	-	-	-	67,571
Microenterprise loans for business incubation and growth	9,636	19,271	19,271	-	-	-	48,179
Subtotal	37,057	74,115	74,115	-	-	-	185,287
C. Institutional Capacity Building of Implementing Partners							
Capacity building of Implementing Partners in Food System Development	303	412	526	306	250	250	2,047
Capacity building of POs on inclusive financial and non-financial service	106	424	651	212	100	100	1,594
Subtotal	409	837	1,177	519	350	350	3,641
D. Project Management	1,533	1,487	1,535	1,492	1,487	1,600	9,135
Total PROJECT COSTS	41,379	79,562	80,051	3,992	3,617	3,050	211,650

GREEN Project: Detailed Cost Tables

Growth For Climate Resilient and Environment Friendly Entrepreneurship and Nutrition (GREEN)
Table 1. Climate-resilient and Environment Friendly Food System Development /a

Detailed Costs	Unit	Quantities 2026	2027	2028	2029	2030	2031	Total	Unit Cost (Taka)	Unit Cost (US$)	Base Cost (Taka '000) 2026	2027	2028	2029	2030	2031	Total	Parameters (in %) Phy. Cont. Rate	For. Exch.	Gross Tax Rate	Summary Divisions Component	Other Accounts Disb. Acct.	Fin. Rule
I. Investment Costs																							
A. Climate-resilient and environment friendly food system development in vulnerable areas																							
1. Project start-up activities																							
Sector value chain analysis by PMU/PKSF for strategy paper development /b	Number	4	-	-	-	-	-	4	100,000	870	400	-	-	-	-	-	400	0.0	0.0	0.0	COMP_1_1	STUDIES_DA	PKSF (100%)
Prepare guidelines for food system subproject development by PKSF for POs /c	Number	1	-	-	-	-	-	1	50,000	435	50	-	-	-	-	-	50	0.0	0.0	0.0	COMP_1_1	STUDIES_DA	PKSF (100%)
Green project start-up workshop /d	Number	1	-	-	-	-	-	1	300,000	2,609	300	-	-	-	-	-	300	0.0	0.0	0.0	COMP_1_1	TRAINING_DA	PKSF (100%)
Training on sector strategy for PO staff members /e	# batch	8	-	-	-	-	-	8	100,000	870	800	-	-	-	-	-	800	0.0	0.0	0.0	COMP_1_1	TRAINING_DA	PKSF (100%)
Training on food system subproject development for POs /f	# batch	5	-	-	-	-	-	5	200,000	1,739	1,000	-	-	-	-	-	1,000	0.0	0.0	0.0	COMP_1_1	TRAINING_DA	PKSF (100%)
Training on ecology and environment friendly food system subproject implementation for POs staff members /g	# batch	5	-	-	-	-	-	5	100,000	870	500	-	-	-	-	-	500	0.0	0.0	0.0	COMP_1_1	TRAINING_DA	PKSF (100%)
Subtotal											3,050	-	-	-	-	-	3,050						
2. Investment costs from PKSF /h																							
Food system (Value chain) subproject costs: Poultry and livestock	Lumpsum	5	7	7	2	2	-	23	10,000,000	86,957	50,000	70,000	70,000	20,000	20,000	-	230,000	0.0	0.0	0.0	COMP_1_1	TRAINING_DA	PKSF (100%)
Food subproject (Value chain) subproject costs: Pond fisheries and aquaculture	Lumpsum	1.4	2.1	2.1	0.7	0.7	-	7	10,000,000	86,957	14,000	21,000	21,000	7,000	7,000	-	70,000	0.0	0.0	0.0	COMP_1_1	TRAINING_DA	PKSF (100%)
Food system (Value chain) subproject costs: Crops including pulses, nuts, and oil seeds and high value horticulture	Lumpsum	2.2	3.3	3.3	1.1	1.1	-	11	10,000,000	86,957	22,000	33,000	33,000	11,000	11,000	-	110,000	0.0	0.0	0.0	COMP_1_1	TRAINING_DA	PKSF (100%)
Food system subprojects: Non-farm sectors including service sectors	Lumpsum	1	1.5	1.5	0.5	0.5	-	5	10,000,000	86,957	10,000	15,000	15,000	5,000	5,000	-	50,000	0.0	0.0	0.0	COMP_1_1	TRAINING_DA	PKSF (100%)
Financing Gap (Investment cost for poultry/livestock, fisheries/aquaculture, crops subprojects)	Lumpsum										57,500	57,500	57,500	57,500	57,500	57,500	345,000	0.0	0.0	0.0	COMP_1_1	TRAINING_DA	FINANCING_GAP (100%)
Subtotal											153,500	196,500	196,500	100,500	100,500	57,500	805,000						
3. Private sector contribution in food system development /i																							
Basic training on poultry farming including vaccination and curative services /j	# batch	160	240	240	80	80	-	800	5,000	43	800	1,200	1,200	400	400	-	4,000	0.0	0.0	0.0	COMP_1_1	TRAINING_DA	PVT_SECTOR (100%)
Basic training on animal husbandry /k	# batch	640	960	960	320	320	-	3,200	5,000	43	3,200	4,800	4,800	1,600	1,600	-	16,000	0.0	0.0	0.0	COMP_1_1	TRAINING_DA	PVT_SECTOR (100%)
Vaccination and animal services for large animals /l	# batch	640	960	960	320	320	-	3,200	5,000	43	3,200	4,800	4,800	1,600	1,600	-	16,000	0.0	0.0	0.0	COMP_1_1	TRAINING_DA	PVT_SECTOR (100%)
Basic training on pond fisheries /m	# batch	240	360	360	120	120	-	1,200	5,000	43	1,200	1,800	1,800	600	600	-	6,000	0.0	0.0	0.0	COMP_1_1	TRAINING_DA	PVT_SECTOR (100%)
Basic training on selected fruits farming	# batch	128	192	192	64	64	-	640	5,000	43	640	960	960	320	320	-	3,200	0.0	0.0	0.0	COMP_1_1	TRAINING_DA	PVT_SECTOR (100%)
Basic training on vegetable production, IPM etc /n	# batch	272	408	408	136	136	-	1,360	5,000	43	1,360	2,040	2,040	680	680	-	6,800	0.0	0.0	0.0	COMP_1_1	TRAINING_DA	PVT_SECTOR (100%)
Subtotal											10,400	15,600	15,600	5,200	5,200	-	52,000						
Subtotal											166,950	212,100	212,100	105,700	105,700	57,500	860,050						
B. Climate-resilient and environment friendly food system development in other districts																							
1. Investment costs from PKSF /o																							
Food system (Value chain) subproject costs: Poultry and livestock	Lumpsum	1.2	1.8	1.8	0.6	0.6	-	6	10,000,000	86,957	12,000	18,000	18,000	6,000	6,000	-	60,000	0.0	0.0	0.0	COMP_1_2	TRAINING_DA	PKSF (100%)
Food subproject (Value chain) subproject costs: Pond fisheries and aquaculture	Lumpsum	0.4	0.6	0.6	0.2	0.2	-	2	10,000,000	86,957	4,000	6,000	6,000	2,000	2,000	-	20,000	0.0	0.0	0.0	COMP_1_2	TRAINING_DA	PKSF (100%)
Food system (Value chain) subproject costs: Crops /p	Lumpsum	1.2	1.8	1.8	0.6	0.6	-	6	10,000,000	86,957	12,000	18,000	18,000	6,000	6,000	-	60,000	0.0	0.0	0.0	COMP_1_2	TRAINING_DA	PKSF (100%)
Food system subprojects: Non-farm sectors including service sectors	Lumpsum	0.6	0.9	0.9	0.3	0.3	-	3	10,000,000	86,957	6,000	9,000	9,000	3,000	3,000	-	30,000	0.0	0.0	0.0	COMP_1_2	TRAINING_DA	PKSF (100%)
Financing Gap (Investment cost for poultry/livestock, fisheries/aquaculture, crops subprojects)	Lumpsum										57,500	57,500	57,500	57,500	57,500	57,500	345,000	0.0	0.0	0.0	COMP_1_2	TRAINING_DA	FINANCING_GAP (100%)
Subtotal											91,500	108,500	108,500	74,500	74,500	57,500	515,000						
2. Private sector contribution in food system development /q																							
Basic training on poultry farming including vaccination and curative services /r	# batch	40	60	60	20	20	-	200	5,000	43	200	300	300	100	100	-	1,000	0.0	0.0	0.0	COMP_1_2	TRAINING_DA	PVT_SECTOR (100%)
Basic training on animal husbandry /s	# batch	160	240	240	80	80	-	800	5,000	43	800	1,200	1,200	400	400	-	4,000	0.0	0.0	0.0	COMP_1_2	TRAINING_DA	PVT_SECTOR (100%)
Vaccination and animal services for large animals /t	# batch	160	240	240	80	80	-	800	5,000	43	800	1,200	1,200	400	400	-	4,000	0.0	0.0	0.0	COMP_1_2	TRAINING_DA	PVT_SECTOR (100%)
Basic training on pond fisheries /u	# batch	60	90	90	30	30	-	300	5,000	43	300	450	450	150	150	-	1,500	0.0	0.0	0.0	COMP_1_2	TRAINING_DA	PVT_SECTOR (100%)
Basic training on selected fruits farming	# batch	32	48	48	16	16	-	160	5,000	43	160	240	240	80	80	-	800	0.0	0.0	0.0	COMP_1_2	TRAINING_DA	PVT_SECTOR (100%)
Basic training on vegetable production, IPM etc /v	# batch	68	102	102	34	34	-	340	5,000	43	340	510	510	170	170	-	1,700	0.0	0.0	0.0	COMP_1_2	TRAINING_DA	PVT_SECTOR (100%)
Subtotal											2,600	3,900	3,900	1,300	1,300	-	13,000						
Subtotal											94,100	112,400	112,400	75,800	75,800	57,500	528,000						
C. Campaign for Healthy and nutritious Food /w																							
1. Development and revising nutrition and healthy diets specific campaign materials by PKSF	Set	1	-	-	-	-	-	1	500,000	4,348	500	-	-	-	-	-	500	0.0	0.0	0.0	COMP_1_3	TRAINING_DA	PKSF (100%)
2. Development of training materials on nutrition and nutrition sensitive activity	Set	1	-	-	-	-	-	1	500,000	4,348	500	-	-	-	-	-	500	0.0	0.0	0.0	COMP_1_3	TRAINING_DA	PKSF (100%)
3. Orientation on nutrition, climate change, environment, ecology for microfinance group members /x	Number of Group	1,000	2,000	3,000	3,000	1,000	-	10,000	2,000	17	2,000	4,000	6,000	6,000	2,000	-	20,000	0.0	0.0	0.0	COMP_1_3	TRAINING_DA	PO (100%)
4. Village level healthy food events	Number of event	200	400	600	600	200	-	2,000	20,000	174	4,000	8,000	12,000	12,000	4,000	-	40,000	0.0	0.0	0.0	COMP_1_3	TRAINING_DA	PO (100%)
5. Orientation on homestead fruits veg gardens and small scale poultry production	Number	1,000	2,000	3,000	3,000	1,000	-	10,000	2,000	17	2,000	4,000	6,000	6,000	2,000	-	20,000	0.0	0.0	0.0	COMP_1_3	TRAINING_DA	PO (100%)
6. Village level WASH campaign for 100% sanitation and safe water	Number	200	400	600	600	200	-	2,000	18,000	157	3,600	7,200	10,800	10,800	3,600	-	36,000	0.0	0.0	0.0	COMP_1_3	TRAINING_DA	PO (100%)
7. Financing gap for healthy food activities	Lumpsum										-	11,500	11,500	11,500	11,500	11,500	57,500	0.0	0.0	0.0	COMP_1_3	TRAINING_DA	FINANCING_GAP (100%)
Subtotal											12,600	34,700	46,300	46,300	23,100	11,500	174,500						
Total											273,650	359,200	370,800	227,800	204,600	126,500	1,562,550						

\a IFAD Loan does not finance this component
\b PKSF in house work. No procurement
\c PKSF in house work. No procurement
\d PKSF in house work. No procurement
\e Training on sector strategy for PO staff members (Livestock, fisheries, crop and horticulture and non-farm subprojects) (@2 batch per sector; one day training); PKSF In-house work
\f (@ 25 persons per batch; 2day training) - PKSF in house work. No procurement
\g Training on ecology and environment friendly food system subproject implementation, including SECAP, for POs staff members (@25 per batch; one day training) - PKSF in-house work
\h Direct offer to selected PO; non-competitive; no procurement
\i Non-cash contribution for training and other cost-shared activities - no procurement
\j Basic training on poultry farming including vaccination and curative services (Half a day training; @25 persons per batch)
\k Basic training on animal husbandry (Half a day training; @25 persons per batch)
\l Vaccination and animal services for large animals (Half a day training; @25 persons per batch)
\m Basic training on pond fisheries (pond preparation, stocking, feed management, biosecurity) (Half a day training; @25 persons per batch)
\n Basic training on vegetable production, IPM etc (Half a day training; @25 persons per batch)
\o Direct offer to selected PO; non-competitive; no procurement
\p Food system (Value chain) subproject costs: Crops including pulses, nuts, and oil seeds and high value horticulture
\q Private sector contribution in food system development (non-cash contribution for training and other cost-shared activities)
\r Basic training on poultry farming including vaccination and curative services (Half a day training; @25 persons per batch)
\s Basic training on animal husbandry (Half a day training; @25 persons per batch)
\t Vaccination and animal services for large animals (Half a day training; @25 persons per batch)
\u Basic training on pond fisheries (pond preparation, stocking, feed management, biosecurity) (Half a day training; @25 persons per batch)
\v Basic training on vegetable production, IPM etc (Half a day training; @25 persons per batch)
\w POs' own staff members will do the job
\x @three sessions per group

Growth For Climate Resilient and Environment Friendly Entrepreneurship and Nutrition (GREEN)

Table 2. Inclusive Financial services for value chain participants

Detailed Costs	Unit	Quantities 2026	2027	2028	2029	2030	2031	Total	Unit Cost (Taka)	Unit Cost (US$)	Base Cost (Taka '000) 2026	2027	2028	2029	2030	2031	Total	Parameters (in %) Phy. Cont. Rate	For. Exch.	Summary Divisions Gross Tax Rate	Other Accounts Component	Disb. Acct.	Fin. Rule
I. Investment Costs																							
A. Financial inclusion of the extremely poor																							
1. IFAD Line of credit for microloan to extremely poor persons: IFAD loan to PKSF	Lumpsum	0.2	0.4	0.4	-	-	-	1	1,010,505,000	8,787,000	202,101	404,202	404,202	-	-	-	1,010,505	0.0	0.0	0.0	COMP_2_1	CREDIT_DA	IFAD (82.46272902%), FINANCING_GAP (17.53727098%)
2. PKSF line of credit for microloan to extremely poor persons: PKSF loan to POs	Lumpsum	0.2	0.4	0.4	-	-	-	1	1,010,505,000	8,787,000	202,101	404,202	404,202	-	-	-	1,010,505	0.0	0.0	0.0	COMP_2_1	CREDIT_DA	PKSF (100%)
3. PO line of credit for microloan to extremely poor persons: POs' loan to extremely poor beneficiaries	Lumpsum	0.2	0.4	0.4	-	-	-	1	575,000,000	5,000,000	115,000	230,000	230,000	-	-	-	575,000	0.0	0.0	0.0	COMP_2_1	CREDIT_DA	PO (100%)
Subtotal											519,202	1,038,404	1,038,404	-	-	-	2,596,010						
B. Seasonal credit for farm and non-farm businesses																							
1. IFAD Line of credit for microloan for seasonal credit: IFAD loan to PKSF	Lumpsum	0.2	0.4	0.4	-	-	-	1	2,525,802,500	21,963,500	505,161	1,010,321	1,010,321	-	-	-	2,525,803	0.0	0.0	0.0	COMP_2_2	CREDIT_DA	IFAD (83.741207%), FINANCING_GAP (16.258793%)
2. PKSF Line of credit for microloan for seasonal credit: PKSF loans to POs	Lumpsum	0.2	0.4	0.4	-	-	-	1	1,725,000,000	15,000,000	345,000	690,000	690,000	-	-	-	1,725,000	0.0	0.0	0.0	COMP_2_2	CREDIT_DA	PKSF (100%)
3. POs Line of credit for microloan for seasonal credit: POs to beneficiaries	Lumpsum	0.2	0.4	0.4	-	-	-	1	1,150,000,000	10,000,000	230,000	460,000	460,000	-	-	-	1,150,000	0.0	0.0	0.0	COMP_2_2	CREDIT_DA	PO (100%)
Subtotal											1,080,161	2,160,321	2,160,321	-	-	-	5,400,803						
C. Access to regular microcredit for farm and non-farm businesses																							
1. IFAD Line of credit for microloan for 'regular microcredit': IFAD loan to PKSF	Lumpsum	0.2	0.4	0.4	-	-	-	1	2,020,665,000	17,571,000	404,133	808,266	808,266	-	-	-	2,020,665	0.0	0.0	0.0	COMP_2_3	CREDIT_DA	IFAD (83.7402538%), FINANCING_GAP (16.2597462%)
2. PKSF Line of credit for microloan for 'regular microcredit': PKSF loans to POs	Lumpsum	0.2	0.4	0.4	-	-	-	1	1,725,000,000	15,000,000	345,000	690,000	690,000	-	-	-	1,725,000	0.0	0.0	0.0	COMP_2_3	CREDIT_DA	PKSF (100%)
3. POs Line of credit for microloan for 'regular microcredit': POs to beneficiaries	Lumpsum	0.2	0.4	0.4	-	-	-	1	4,025,000,000	35,000,000	805,000	1,610,000	1,610,000	-	-	-	4,025,000	0.0	0.0	0.0	COMP_2_3	CREDIT_DA	PO (100%)
Subtotal											1,554,133	3,108,266	3,108,266	-	-	-	7,770,665						
D. Microenterprise loans for business incubation and growth																							
1. IFAD Line of credit for microloan for microenterprise loan: IFAD loan to PKSF	Lumpsum	0.2	0.4	0.4	-	-	-	1	1,515,527,500	13,178,500	303,106	606,211	606,211	-	-	-	1,515,528	0.0	0.0	0.0	COMP_2_4	CREDIT_DA	IFAD (83.7386653%), FINANCING_GAP (16.2613347%)
2. PKSF Line of credit for microloan for microenterprise loan: PKSF loans to POs	Lumpsum	0.2	0.4	0.4	-	-	-	1	1,725,000,000	15,000,000	345,000	690,000	690,000	-	-	-	1,725,000	0.0	0.0	0.0	COMP_2_4	CREDIT_DA	PKSF (100%)
3. POs Line of credit for microloan for microenterprise loan: POs to beneficiaries	Lumpsum	0.2	0.4	0.4	-	-	-	1	2,300,000,000	20,000,000	460,000	920,000	920,000	-	-	-	2,300,000	0.0	0.0	0.0	COMP_2_4	CREDIT_DA	PO (100%)
Subtotal											1,108,106	2,216,211	2,216,211	-	-	-	5,540,528						
Total											4,261,601	8,523,202	8,523,202	-	-	-	21,308,005						

Growth For Climate Resilient and Environment Friendly Entrepreneurship and Nutrition (GRE

Table 3. Institutional Capacity Building of Implementing Partners

Detailed Costs	Unit	Quantities 2026	2027	2028	2029	2030	2031	Total	Unit Cost (Taka)	Unit Cost (US$)	Base Cost (Taka '000) 2026	2027	2028	2029	2030	2031	Total	Parameters (in %) Phy. Cont. Rate	For. Exch.	Summary Divisions Gross Tax Rate	Other Accounts Component	Disb. Acct.	Fin. Rule
I. Investment Costs /a																							
A. Capacity building of Implementing Partners in Food System Development																							
1. Basic training on global warming and climate science /b	Number	20	60	100	20	-	-	200	50,000	435	1,000	3,000	5,000	1,000	-	-	10,000	0.0	0.0	10.0	COMP_3_1	TRAINING_DA	PKSF (100%)
2. Nutrition-sensitive Value chain development project design	Number	5	15	25	5	-	-	50	100,000	870	500	1,500	2,500	500	-	-	5,000	0.0	0.0	10.0	COMP_3_1	TRAINING_DA	PKSF (100%)
3. Value chain development project management	Number	5	15	25	5	-	-	50	50,000	435	250	750	1,250	250	-	-	2,500	0.0	0.0	10.0	COMP_3_1	TRAINING_DA	PKSF (100%)
4. Climate smart agriculture /c	Number	10	30	50	10	-	-	100	75,000	652	750	2,250	3,750	750	-	-	7,500	0.0	0.0	10.0	COMP_3_1	TRAINING_DA	PKSF (100%)
5. Ecological farming	Number	10	30	50	10	-	-	100	75,000	652	750	2,250	3,750	750	-	-	7,500	0.0	0.0	10.0	COMP_3_1	TRAINING_DA	PKSF (100%)
6. Environmental issues in farm and non-farm businesses	Number	10	30	50	10	-	-	100	75,000	652	750	2,250	3,750	750	-	-	7,500	0.0	0.0	10.0	COMP_3_1	TRAINING_DA	PKSF (100%)
7. Climate resilient food system development	Number	10	30	50	10	-	-	100	75,000	652	750	2,250	3,750	750	-	-	7,500	0.0	0.0	10.0	COMP_3_1	TRAINING_DA	PKSF (100%)
8. Financial product development	Number	7	21	35	7	-	-	70	75,000	652	525	1,575	2,625	525	-	-	5,250	0.0	0.0	10.0	COMP_3_1	TRAINING_DA	PKSF (100%)
9. Enterprise management	Number	7	21	35	7	-	-	70	75,000	652	525	1,575	2,625	525	-	-	5,250	0.0	0.0	10.0	COMP_3_1	TRAINING_DA	PKSF (100%)
10. Financing gap (policy and capacity building)	Lumpsum										28,750	28,750	28,750	28,750	28,750	28,750	172,500	0.0	0.0	0.0	COMP_3_1	TRAINING_DA	FINANCING_GAP (100%)
Subtotal											34,550	46,150	57,750	34,550	28,750	28,750	230,500						
B. Capacity building of POs on inclusive financial and non-financial service																							
1. Basic training on global warming and climate science /d	Number	40	120	200	40	-	-	400	50,000	435	2,000	6,000	10,000	2,000	-	-	20,000	0.0	0.0	10.0	COMP_3_2	TRAINING_DA	PKSF (50%), PO (50%)
2. Nutrition-sensitive Value chain development project design	Number	10	30	50	10	-	-	100	100,000	870	1,000	3,000	5,000	1,000	-	-	10,000	0.0	0.0	10.0	COMP_3_2	TRAINING_DA	PKSF (50%), PO (50%)
3. Value chain development project management	Number	10	30	50	10	-	-	100	50,000	435	500	1,500	2,500	500	-	-	5,000	0.0	0.0	10.0	COMP_3_2	TRAINING_DA	PKSF (50%), PO (50%)
4. Climate smart agriculture /e	Number	20	60	100	20	-	-	200	75,000	652	1,500	4,500	7,500	1,500	-	-	15,000	0.0	0.0	10.0	COMP_3_2	TRAINING_DA	PKSF (50%), PO (50%)
5. Ecological farming	Number	20	60	100	20	-	-	200	75,000	652	1,500	4,500	7,500	1,500	-	-	15,000	0.0	0.0	10.0	COMP_3_2	TRAINING_DA	PKSF (50%), PO (50%)
6. Environmental issues in farm and non-farm businesses	Number	20	60	100	20	-	-	200	75,000	652	1,500	4,500	7,500	1,500	-	-	15,000	0.0	0.0	10.0	COMP_3_2	TRAINING_DA	PKSF (50%), PO (50%)
7. Climate resilient food system development	Number	20	60	100	20	-	-	200	75,000	652	1,500	4,500	7,500	1,500	-	-	15,000	0.0	0.0	10.0	COMP_3_2	TRAINING_DA	PKSF (50%), PO (50%)
8. Financial product development	Number	14	42	70	14	-	-	140	75,000	652	1,050	3,150	5,250	1,050	-	-	10,500	0.0	0.0	10.0	COMP_3_2	TRAINING_DA	PKSF (50%), PO (50%)
9. Enterprise management	Number	14	42	70	14	-	-	140	75,000	652	1,050	3,150	5,250	1,050	-	-	10,500	0.0	0.0	10.0	COMP_3_2	TRAINING_DA	PKSF (50%), PO (50%)
10. Financing gap (policy and capacity building)	Lumpsum										-	11,500	11,500	11,500	11,500	11,500	57,500	0.0	0.0	0.0	COMP_3_2	TRAINING_DA	FINANCING_GAP (100%)
Subtotal											11,600	46,300	69,500	23,100	11,500	11,500	173,500						
Total											46,150	92,450	127,250	57,650	40,250	40,250	404,000						

\a Single sourcing

\b The output of this training is the updated Targeted Adaptation Assessment (TAA)

\c The output of this training is the updated Targeted Adaptation Assessment (TAA)

\d The Targeted Adaptation Assessment (TAA) updated by PKSF will form the background material, so POs can prepare their own list of adaptation action priorities with mitigation co-benefits

\e The output of this training is PO-level updated Targeted Adaptation Assessment (TAA)

Growth For Climate Resilient and Environment Friendly Entrepreneurship and Nutrition

Table 4. Project Management

Detailed Costs	Unit	Quantities 2026	2027	2028	2029	2030	2031	Total	Unit Cost (Taka)	Unit Cost (US$)	Base Cost (Taka '000) 2026	2027	2028	2029	2030	2031	Total	Parameters (in %) Phy. Cont. Rate	For. Exch.	Gross Tax Rate	Summary Divisions Component	Other Accounts Disb. Acct.	Fin. Rule
I. Investment Costs																							
A. Studies and surveys																							
1. Baseline survey /a	Lumpsum	1	-	-	-	-	-	1	5,000,000	43,478	5,000	-	-	-	-	-	5,000	0.0	0.0	0.0	COMP_4	STUDIES_DA	PKSF (100%)
2. Mid-Term survey /b	Lumpsum	-	-	1	-	-	-	1	5,000,000	43,478	-	-	5,000	-	-	-	5,000	0.0	0.0	0.0	COMP_4	STUDIES_DA	PKSF (100%)
3. Edline survey /c	Lumpsum	-	-	-	-	-	1	1	4,356,210	37,880	-	-	-	-	-	4,356	4,356	0.0	0.0	0.0	COMP_4	STUDIES_DA	PKSF (100%)
4. Annual Outcome surveys	Number	-	1	1	1	1	1	5	100,000	870	-	100	100	100	100	100	500	0.0	0.0	0.0	COMP_4	STUDIES_DA	PKSF (100%)
5. Case studies on sub-components	Lumpsum	-	5	5	5	5	5	25	10,000	87	-	50	50	50	50	50	250	0.0	0.0	0.0	COMP_4	STUDIES_DA	PKSF (100%)
6. Knowledge management products, website design & hosting, Facebook etc.	Lumpsum	1	-	-	-	-	-	1	200,000	1,739	200	-	-	-	-	-	200	0.0	0.0	0.0	COMP_4	STUDIES_DA	PKSF (100%)
7. Project completion activities	Lumpsum	-	-	-	-	-	1	1	500,000	4,348	-	-	-	-	-	500	500	0.0	0.0	0.0	COMP_4	STUDIES_DA	PKSF (100%)
8. Project success dissemination national seminar	Lumpsum	-	-	-	1	-	1	2	500,000	4,348	-	-	-	500	-	500	1,000	0.0	0.0	0.0	COMP_4	STUDIES_DA	PKSF (100%)
Total Investment Costs											5,200	150	5,150	650	150	5,506	16,806						
II. Recurrent Costs																							
A. Operating cost of Microfinance division (prorata basis - PKSF)	Lumpsum	12	12	12	12	12	12	72	7,100,000	61,739	85,200	85,200	85,200	85,200	85,200	85,200	511,200	0.0	0.0	0.0	COMP_4	OPERATING_COST_DA	PKSF (100%)
B. PMU: Salary & office operating costs - Core officers																							
1. Project Coordinator	Person-Months	12	12	12	12	12	12	72	690,000	6,000	8,280	8,280	8,280	8,280	8,280	8,280	49,680	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
2. Deputy Project Coordinator (Food Systems)	Person-Months	12	12	12	12	12	12	72	460,000	4,000	5,520	5,520	5,520	5,520	5,520	5,520	33,120	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
3. Microfinance Specialist	Person-Months	12	12	12	12	12	12	72	340,000	2,957	4,080	4,080	4,080	4,080	4,080	4,080	24,480	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
4. Food System Sector Manager (livestock)	Person-Months	12	12	12	12	12	12	72	340,000	2,957	4,080	4,080	4,080	4,080	4,080	4,080	24,480	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
5. Food System Sector Manager (Fisheries)	Person-Months	12	12	12	12	12	12	72	340,000	2,957	4,080	4,080	4,080	4,080	4,080	4,080	24,480	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
6. Food System Sector Manager (Horticulture)	Person-Months	12	12	12	12	12	12	72	340,000	2,957	4,080	4,080	4,080	4,080	4,080	4,080	24,480	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
7. Food System Sector Manager (Non-farm sector)	Person-Months	12	12	12	12	12	12	72	340,000	2,957	4,080	4,080	4,080	4,080	4,080	4,080	24,480	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
8. Senior Programme Manager (Nutrition, Gender and Inclusion, SECAP)	Person-Months	12	12	12	12	12	12	72	340,000	2,957	4,080	4,080	4,080	4,080	4,080	4,080	24,480	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
9. Senior Programme Manager (Climate Change, Environment and SECAP Lea	Person-Months	12	12	12	12	12	12	72	340,000	2,957	4,080	4,080	4,080	4,080	4,080	4,080	24,480	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
10. Programme Manager (Training and Capacity Building)	Person-Months	12	12	12	12	12	12	72	260,000	2,261	3,120	3,120	3,120	3,120	3,120	3,120	18,720	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
Subtotal											45,480	45,480	45,480	45,480	45,480	45,480	272,880						
C. PMU: Salary- Contractual staff members																							
1. Senior Programme Manager /d	Person-Months	12	12	12	12	12	12	72	280,000	2,435	3,360	3,360	3,360	3,360	3,360	3,360	20,160	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
2. Programme Manager (ICT) - Contractual	Person-Months	12	12	12	12	12	12	72	200,000	1,739	2,400	2,400	2,400	2,400	2,400	2,400	14,400	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
3. Senior Programme Manager (Finance & Accounts) /e	Person-Months	12	12	12	12	12	12	72	280,000	2,435	3,360	3,360	3,360	3,360	3,360	3,360	20,160	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
4. Asst Manager (Accounts) - Contractual	Person-Months	12	12	12	12	12	12	72	170,000	1,478	2,040	2,040	2,040	2,040	2,040	2,040	12,240	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
Subtotal											11,160	11,160	11,160	11,160	11,160	11,160	66,960						
D. Annual increment for contractual staff members (5%)	Lumpsum										558	558	558	558	558	558	3,348	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
E. Severance pay - contractual staff members (@one month's pay per year of servic	Lumpsum										-	-	-	-	-	5,580	5,580	0.0	0.0	0.0	COMP_4	SALARIES_DA	PKSF (100%)
F. Overhead expenses (20%)	Lumpsum										28,480	28,480	28,480	28,480	28,480	29,596	171,994	0.0	0.0	0.0	COMP_4	OPERATING_COST_DA	PKSF (100%)
Total Recurrent Costs											170,878	170,878	170,878	170,878	170,878	177,574	1,031,962						
Total											176,078	171,028	176,028	171,528	171,028	183,080	1,048,768						

\a Competitive bidding
\b Competitive bidding
\c Competitive bidding
\d Senior Programme Manager (M&E, MIS, Knowledge Management) - (M&E Specialist) Contractual
\e Senior Programme Manager (Finance & Accounts) (FM Specialist) - Contractual

IFAD
Investing in rural people

Bangladesh

Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition

Project Design Report

Annex 4: Economic and Financial Analysis

Mission Dates:	22/06/2024 15/09/2024
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Asia and the Pacific Division
Programme Management Department

ANNEX 4

ECONOMIC AND FINANCIAL ANALYSIS

Growth For Climate Resilient and Ecological Entrepreneurship and Nutrition (GREEN)

1. INTRODUCTION AND METHODOLOGY

1. The Palli Karma-Sahayak Foundation (PKSF), which reports to the Financial Institutions Division (FID) of the Ministry of Finance (MoF) will implement the Food Systems and Sustainable Development (GREEN) project. The design mission of GREEN carried out the Economic and Financial Analysis (EFA) to assess the financial and economic viabilities of the investments GREEN. The GREEN project targets to reach 258,333 households within 6-year period as direct beneficiaries. The project aims to enhance the income and employment of targeted households in rural areas, especially in climate-vulnerable districts, through a combination of appropriate financial and non-financial services in selected farm and non-farm value chains suitable for respective areas.

2. **Methodology and Approach of EFA:** The benefit attribution of the project is based on the following principle assumption: access to credit and technical assistance provided by GREEN project for farm and non-farm entrepreneurial poor and microenterprises can incentivize them to invest in their business and farming with improved technologies. The combination of credit and technical assistance can therefore improve farm and non-farm production, nutrition and local employment. GREEN will offer financial services to the poor, marginal and small farmers, and non-farm microenterprises, including artisans, traders, small processers, transporters, etc. Value chain participants will be marginal and small farmers, non-farm producers, traders, support service providers, small processors etc.

3. Based on experience from other IFAD projects in Bangladesh, particularly in the GREEN project areas, typical groups of farm and non-farm activities requiring financial and non-financial services, include (i) fruits and vegetables, spices, legumes, oil seeds, and nuts; (ii) poultry, duck, and livestock farming; (iii) pond fisheries; (iv) small-scale processing of agricultural commodities; and (v) cottage level enterprises such as wood and bamboo products, mini-garments and tailoring, village-level eco-tourism etc. In addition to providing technical training to adopt technologies in these activities, the GREEN's financial services include credit for the extremely poor; seasonal credit (Sufolon) for average poor; and microenterprise loans for entrepreneurs.

4. The broad product categories listed above were used as the basis to formulate farm and non-farm enterprise models for the EFA. The representative models were developed based on the following information: (i) the design mission and the staff of the PKSF and its Partner Organizations (POs) collected all input and out prices for all the models; (ii) Final Impact Study of Promoting Agricultural Commercialization and Enterprises (PACE) project of PKSF (March 2024)[1]; (iii) Project Completion Report (PCR) of PACE project (March 2024); (iv) information extracted from various publications of the POs.[2] Other sources of information include Bangladesh Bank, World Bank Commodity Forecast, IFAD[3] and Bangladesh Bureau of Statistics. The main types of data that were used for the FEA include (i) market prices of all inputs and outputs of all models; (ii) crop and enterprise budgets for farm models; (iii) capital and working capital expenditure of processing facilities; (iv) cost of machineries; (v) international prices for computing parity prices of exportable commodities; and (vi) cost of application of GGAP and HACCP standards collected from PCR of PACE project.

5. A total of 21 enterprises (crops, livestock, cottage level income generating activities and non-agriculture small enterprises), representing the broad commodity types listed above, were analysed using the budgeting approach to assess their financial viability, long term sustainability and the demand for credit.

[1] Final Impact Study of Promoting Agricultural Commercialization and Enterprises (PACE) project of PKSF, Development Technical Consultant Pvt Ltd, Niketon, Gulshan – 1, Dhaka-1212, March 2024

[2] The references include: (i) Society for Social Service (2017), "Dairy Value Chain - Income Augmentation and Employment Generation Through Dairy Cattle Rearing in the Char Areas", PACE Project. (ii) Ghorakanda Safe Vegetable Production Association, Winter Vegetable Production – Tomato, Cabbage, Cauliflower, Bottle Gourd production data. (iii) Mohila Bohumukhi Shikkha Kendra (MBSK), Annual Report, 2017-2018, Balubari, Dinajpur-5200.

[3] Arslan, A. and Higgins, D. (2019) [Draft]. Impact assessment report: Coastal Climate Resilience Infrastructure Project (CCRIP), People's Republic of Bangladesh. IFAD: Rome, Italy

Incremental benefits were estimated based on expected physical outputs during the 6-year implementation period of the project and potential incremental benefits that would realise during the balance 14-year period of post-implementation project life. The farm and non-farm enterprises that were analysed include three types of rice (Aman, Boro and aromatic rice), vegetables (6 type of vegetable), potatoes, bananas, mung beans, fish, dairy milk, beef fattening, poultry eggs and broiler, food processing (tomato processing), handloom and basket weaving representing women income generating activities, and eco-tourism (Kayaking and home-stay).

6. **Attribution**: The EFA methodology needs to identify a clear linkage between the beneficiaries and one or more project interventions to elicit benefits and corresponding costs. GREEN mainly has a value chain focus. The beneficiaries' investments are assisted by different types of collateral free loans. In order to create an appetite to credit financing and making investment in the agriculture sector, the project will facilitate a number of activities. The EFA recognises these as the contributory factors to create incremental costs and benefits of the enterprises that were selected for the analysis. Table 1 presents a list of these activities and the lead provider of the activities. The cost of the activities has been included in the GREEN project budget. In order to facilitate these activities and to improve the focus, the project will undertake several areas-vise VC studies to identify appropriate and competitive products to be linked with in-bound and out-bound markets and provide required credit+ assistance. Also, the project will assist in preparing or updating all required training material as demanded. These assistances would be available to any beneficiary and along with this package and determined by the capital cost demand, micro-credit will be provided with IFAD and counterpart funds.

Table 1: Technical training and other non-credit activities provided to the GREEN beneficiaries with project financing

Type of Technical training and other interventions	Provider
Poultry and livestock	PKSF
Pond fisheries and aquaculture	PKSF
Crops including pulses, nuts, and oil seeds and high value horticulture	PKSF
Non-farm sectors including service sectors	PKSF
Basic training on poultry farming including vaccination and curative services	Private sector
Basic training on animal husbandry including dairy and beef fattening	Private sector
Vaccination and animal services for large animals	Private sector
Basic training on pond fisheries	Private sector
Basic training on selected fruits farming	Private sector
Basic training on vegetable production, Integrated Pest Management etc	Private sector

7. With the intension of improving the capacity of the staff of PKSF and POs to assist the project beneficiaries in particular and the their cliental in general in undertaking investments, GREEN also provide special training on the following subjects: basic training on global warming and climate science; value chain development project design; value chain development and project management; climate smart agriculture; ecological farming; environmental issues in farm and non-farm businesses; climate resilient food system development; financial product development; and enterprise management.

2. PROJECT COST, BENEFICIARIES AND ASSUMPTIONS

8. **Cost:** The estimated cost of the GREEN, generated from COSTAB, was used as the project cost. An allowance for the continues overhead cost of PKSF, which is assumed to be 50% of the project management cost of the 6th year of the project has been included from year 7 (2031) onwards. The other changes made to the project cost include the following:

(a) The total credit fund provided by the project will be USD 70 million from the IFAD loan; USD 55 million from PKSF funds; and USD 70 million from POs with a total of USD 195 million. These funds will be provided to finance the capital costs of all 21 farm and non-farm models listed above and short-term credit. Since these are already in the model budget, these funds were netted out from the total project cost.

(b) The beneficiaries who are receiving collateral free loans will repay the capital with interest rate. The interest rates for very poor beneficiaries will be 20% per year and all other loans

will have 24% annual interest rate. The repayment of interest at these rates were estimated based on the capital cost of the models. The interest rate payment is a cost to the beneficiaries as for the financial analysis (not for the economic analysis as described under economic analysis). Therefore, the total cost of interest payment was added to the total cost flow of the EFA (see the EFA excel sheet for details).

9. In addition to the project cost, including the changes listed above, the cost of all farm and non-farm models were included in the EFA cost flow.

10. **Beneficiaries**: The total number of project beneficiaries will be 258,333. This was estimated based on the availability of the credit funds to be provided for initial one round. The total beneficiaries were categorised into four enterprise sectors and further into the type of credit funds that the beneficiaries will be requesting once the project commences (see Table 2). Performance of previous projects of PKSF and regular lending of POs were used to estimate the beneficiary categorization into sectors as well as type of credit demanded. As a total, 239,080 beneficiary households will receive both value chain related assistance and credit, whereas 258,333 households will receive credit for their enterprises. Accordingly, the EFA considered latter as the total number of beneficiaries to populate the cash flows of farm and non-farm models to estimate the project level financial and economic benefits.

Table 2: Total number of beneficiary households categorized into value chain product groups who are receiving VC and lending benefits

Component	Title	Livestock	Pond fisheries	Crop and horticulture	Non-farm sector	Total
1	**Ecology and Environment Friendly Food System Development**					
1.1	Ecology and environment friendly food system development in vulnerable areas	91,954	27,586	45,977	18,391	183,908
1.2	Ecology and environment friendly food system development in other districts.	27,586	8,276	13,793	5,517	55,172
	TOTAL	119,540	35,862	59,770	23,908	239,080
2	**Financial services for value chain participants** (HH includes those in Comp 1.1 & 1.2)					
2.1	Financial services for the extremely poor	31,250	9,375	15,625	6,250	62,500
2.2	Seasonal credit for farm and non-farm businesses	41,667	12,500	20,833	8,333	83,333
2.3	Regular microfinance (farm and non-farm)	43,750	13,125	21,875	8,750	87,500
2.4	Microenterprise loan for farm and non-farm businesses	12,500	3,750	6,250	2,500	25,000
	TOTAL	**129,167**	**38,750**	**64,583**	**25,833**	**258,333**

11. The estimated number of beneficiaries shown above have been further divided into farm and non-farm operators who will be producing a variety of crops, livestock and non-farm enterprise outputs. Table 3 shows the list of the farm and non-enterprises that were identified in each category presented in Table 2. Three sources of information were used to help identify typical farm and non-farm enterprises listed in Table 3: (i) loan portfolio of POs in terms of number and type of enterprises; (ii) information on type of crops and livestock production presented in the Final Impact Study of the PACE project; and (iii) information about the enterprises and their distribution presented in the PCR of the PACE project. The details of this categorization into farm and non-farm enterprises / cultivations are presented in the EFA excel sheets.

12. The number of beneficiaries who are receiving project benefits and credit will be mostly determined by the annual distribution of the project budget. As shown in the Cost Tables of GREEN, distribution of the

budget is presented in Table 3. The budget allocated for the last three years (2028, 2029 and 2030) is 1% of the total in each year. By including this 3% to the 3rd year (2027) the EFA used the budget distribution as shown in Table 3 to assume the yearly distribution of beneficiary outreach. Accordingly, for example, GREEN project will reach to about 2,558 households who are growing Aman rice and start providing required intervention such as training and make inquiries about their credit demand. For populating the cash flow of these beneficiaries, the EFA assumed one year-lag, i.e. cash flow will be accounted for 2026. This is with the assumption that both the project and the beneficiaries will take about 6-12 months to organise the production and receiving credit.

Table 3: Distribution of project beneficiaries by enterprises and project implementation years

Enterprises representing the VCs	Number of beneficiaries involved	Distribution of the Beneficiaries as per Project Budget		
Distribution of the Project Budget ...>		**20%**	**39%**	**42%**
	Total Number of Beneficiaries	**2026**	**2027**	**2028**
Aman Rice - Poor	12,917	2,558	4,976	5,383
Aman Rice - Avg Poor	12,917	2,558	4,976	5,383
Boro Rice - Poor	6,458	1,279	2,488	2,691
Boro Rice - Avg Poor	6,458	1,279	2,488	2,691
Aromatic Rice	3,229	640	1,244	1,346
Potato	3,229	640	1,244	1,346
Banana	6,458	1,279	2,488	2,691
Vegetables (6 veg)	6,458	1,279	2,488	2,691
Mung Beans - Poor	6,458	1,279	2,488	2,691
Poultry - Eggs	25,833	5,117	9,951	10,765
Poultry - Broiler: Poor	64,583	12,792	24,878	26,913
Broiler: Avg Poor	12,917	2,558	4,976	5,383
Beef fattening: bull	19,375	3,838	7,463	8,074
Fish Ponds	38,750	7,675	14,927	16,148
Dairy Milk [1]	6,458	1,279	2,488	2,691
Micro-Enterprises:				
Tomato Processing	7,750	1,535	2,985	3,230
Kayaking_ Eco-tourism	1,292	256	498	538
Ecotourism_ Home Stay	1,808	358	697	754
Milk Collection Centre	775	154	299	323
Hand Loom ME	9,042	1,791	3,483	3,768
Basket weaving	5,167	1,023	1,990	2,153
Total	258,333	51,170	99,513	107,651

13. **The adoption rate of technologies**: The rate varies with the enterprise. The Final Impact Study of the PACE project provided adoption rates for similar beneficiaries[4]. On the basis these findings the rates used varied from 50% in the 2nd year (1st year of the production cycle), meaning only 50% of the beneficiaries reached by the project in this year would apply all production technologies; 3nd year – 60%; 4th year – 70%; 5th year onwards – 90%. The other assumptions are listed below.

14. The EFA was based on the following **general assumptions**:

(a) All benefits were estimated using 2024 prices. The incremental costs and benefits of the project supported enterprises will continue for a 20-year period which include the 6-year project implementation period.

(b) The existing technologies which were based on the information sources listed above and the prevailing prices of inputs and outputs provided by a market survey conducted by the

[4] In the final assessment, primary new technology adaptation rates by males, females, and youth were 30.35 percent, 69.65 percent, and 21.64 percent, respectively (Impact Assessment Study, 2024).

staff of the PKSF were used to derive the WOP and the WP enterprise budgets. The respective WP situations were constructed using conservative estimates of potential changes to the costs and benefits of the models.

(c) For all activities which used labour, a financial rural daily wage rate of BDT 600 per person-day for unskilled labour, and BDT 700 per person-day for skill labour who work in technology demanded enterprises were used. These are the prevailing rates in the project area. The same wage rate was used to value household family labour too because of the availability of wage labour opportunities in the project areas.

(d) Full production of the crops, livestock, and fisheries models have been valued. It is possible that a part of the production is domestically consumed, and it is in fact encouraged by the project to do so to provide enhanced nutrition to the family members. This portion is also however valued at the same farm-gate price to reflect the full financial and economic value of the production models.

(e) The capital cost and 50% of the working capital of the 1st year of each enterprise model is provided as collateral free credit using the project-funded credit lines. The annual interest rate of the POs existing financial products, which is 24% on average, is used as the interest rate (20% for the very poor beneficiaries). The credit taken for annual crops such as all types of paddy, pulses, potato etc will be paid within the same year that the credit is taken as expected by the POs. The repayment will be done with 46 instalments as explained in Table 2A of the PDR. It is assumed that the repayment is over 2-3 years with 6-months grace period for credit taken for enterprises such as basket weaving, eco-tourism etc.

(f) It is also assumed that the project beneficiaries have appetite for credit and application of new technologies, which would be enhanced through the awareness programmes and training interventions of the project.

(g) Productivity and income of WP scenario of all enterprises were derived sing conservative estimates provided by the reference sources listed above.

(h) All gross margin models have been modeled to generate cash flows from the 2nd year of the project. The training activities, procurement, arranging on-lending etc will take place in the 1st year of the project. Those who starts models in the 2nd year of the project too will spend one year getting training and submitting applications for credit etc and start cultivating in the subsequent year. As such cash inflows and outflows of all models have a one-year lag.

3. FINANCIAL ANALYSIS

Enterprise Budgets

15. **The enterprise budgets** that were used for the EFA analysis are summarised in were estimated for one hectare of land. The project beneficiaries' farmlands are less than 1 ha. The average land size of the farms was obtained from the Impact Study of the PACE project. Using the same reference, the summary of each farm and non-farm model used for the EFA are provided below.

(a) Typical size of a paddy plot is about 0.2-0.3 hectares and potato, banana, and vegetable are cultivated using lands of about 0.2 ha. Mostly family labour is used.

(b) All type of rice (Aman and Boro mainly), potato and vegetable use Global Good Agricultural Practices (GGAP), i.e. low chemical-based inputs and more of organic based inputs, no insecticides and pesticides, and mechanized (hired machinery) land preparation and harvesting of paddy in "WP" production scenario. Better feed formulae and management practices represent WP scenario for livestock. There would be a more productive family labour (women) re-arrangement in the model. Wage labour that was practiced in the WOP case, has been used for cottage level income generating activities such as basket weaving. This shift is more domestic-friendlier since women remain at home with some income generating work instead of venturing into wage labour.

16. Table 4. The net benefits and return on investment (ROI: net return divided by total cost) of all the models have increased in the WP case. In addition, the discounted cash flow of each model was used to estimate the long-term perspective of the benefits for 20-year period with 13% financial discount rate (FDR), which was the rate of borrowing capital that POs bear for their capitalization. The financial internal rate of return (FIRR) and the benefit-cost ratio of all the models yielded positive results. The ROI for dairy cattle, milk collection centers, handloom, basket weaving, and tourism models was estimated using discounted cash flows. It should be noted that the increased income from all farm models are obtained not with substantial increase in labour use which is beneficial for the farmers.

17. The financial profitability indicators of farm models in Table 4 were estimated for one hectare of land. The project beneficiaries' farmlands are less than 1 ha. The average land size of the farms was obtained from the Impact Study of the PACE project. Using the same reference, the summary of each farm and non-farm model used for the EFA are provided below.

(a) Typical size of a paddy plot is about 0.2-0.3 hectares and potato, banana, and vegetable are cultivated using lands of about 0.2 ha. Mostly family labour is used.

(b) All type of rice (Aman and Boro mainly), potato and vegetable use Global Good Agricultural Practices (GGAP), i.e. low chemical-based inputs and more of organic based inputs, no insecticides and pesticides, and mechanized (hired machinery) land preparation and harvesting of paddy in "WP" production scenario. Better feed formulae and management practices represent WP scenario for livestock. There would be a more productive family labour (women) re-arrangement in the model. Wage labour that was practiced in the WOP case, has been used for cottage level income generating activities such as basket weaving. This shift is more domestic-friendlier since women remain at home with some income generating work instead of venturing into wage labour.

Table 4: Budgets of all enterprise models representing the VCs used for the EFA of GREEN

Enterprises representing the VCs	Model Type	Unit of Production	Without Project (WOP)				With Project (WP)				Incremental Analysis - using discounted cash flows (13% DR, 20-Yrs)		
			Production (kg)	Total labour use (md)	Net benefits (USD)	ROI	Production (kg)	Total labour use (md)	Net benef.(USD)	ROI	NPV	Financial IRR	BC Ratio
Aman Rice - Poor	GAP, No P-price	1 ha	3,850	127	50	4%	4,235	36	214	19%	993	>50%	-3.7
Aman Rice - Avg Poor	GAP, VC-price	1 ha	3,850	127	50	4%	5,005	44	413	35%	2,187	>50%	36.2
Boro Rice - Poor	GAP, No P-price	1 ha	3,900	127	-170	-12%	5,070	34	59	4%	1,377	>50%	2.7
Boro Rice - Avg Poor	GAP, VC-price	1 ha	3,900	127	-170	-12%	5,460	34	309	20%	2,884	>50%	4.0
Aromatic Rice	From Boro To	1 ha	5,750	142	203	13%	6,900	142	519	33%	1,905	>50%	21.4
Potato	GAP, No P-price	1 ha	16,500	190	526	26%	21,600	125	1,168	55%	3,733	>50%	5.7
Banana	GAP, No P-price	1 ha	19,400	130	759	30%	25,220	93	1,646	63%	5,067	>50%	9.8
Vegetables (6 veg)	GAP, With P-price	1 ha	8,264	365	1,556	176%	9,085	387	1,582	177%	151	>50%	1.1
Mung Beans - Poor	GAP, No P-price	1 ha	280	17	191	108%	448	18	328	133%	828	>50%	3.0
Poultry - Eggs	Better feeds	300 birds	19,200	100	808	35%	30,240	150	1,463	42%	3,634	>50%	1.5
Poultry - Broiler: Poor	Better feeds	100 birds	120	20	20	5%	270	20	210	32%	1,149	>50%	1.7
Broiler: Avg Poor	Better feeds	150 birds	180	20	78	16%	270	25	282	38%	1,226	>50%	1.8
Beef fattening: bull	Faster fattening	1 per Yr	175	20	86	14%	245	20	280	41%	1,168	>50%	3.6
Fish Ponds	Better feeds	1 Pond	210	10	243	52%	420	40	686	63%	6,562	>50%	1.7
Dairy Milk [1]	Better Feeds/Breed	1 Cow	1,440	15	-539	-7%	3,120	60	248	2%	248	15%	1.0
Micro-Enterprises: (WOP is equal to opportunity cost of labour)													
Tomato Processing	NEW (at full development)						17,243	1,828	7,782	132%	24,291	49%	1.3
Kayaking_Ecotourism	NEW (at full development)								1,724	132%	7,047	54%	1.3
Ecotourism_HomeStay	NEW (at full development)								1,086	143%	5,049	82%	1.4
Milk Collection Centre	GAP Standard	500 kg/day					182,500	300	8,449	23%	8,449	23%	1.0
Hand Loom ME	Women ME	300 Lungy					300	150	1,382	54%	1,382	54%	1.1
Basket weaving	Women ME	200 Basket					200	200	107	14%	107	14%	1.0

GGAP: Global Good Agricultural Practices; P-Price: Premium price with Value chain linkages; ROI: Return on Investment; [1] Dairy milk: long-term net benefit were estimated which is in NPV (13% DR); Milk collection: building with GGAP standards; All ME s are new and the WOP benefits is assumed as the opportunity cost of labour involved. Net benefits are in NPV (13% DR) and IRR for 20 years. [2] Incremental (Wp-WOP) NPV /ha is presented for the cash flows started in 2nd Yr. The rest is in EFA excel sheets.

Note 1: The financial viability assessment of Aman rice model has a negative Benefit/Cost ratio of -3.7. This is not to indicate that Aman rice cultivation is financially unviable. The negative B/C ratio, in this instance, is because the Present Value (PV) of incremental cost is negative. The total cost of the WOP scenario of this model was higher than that of the WP scenario because of the higher labour use in the former scenario. Since the cost is negative, which is the denominator of the B/C ratio formula, the results become negative. However, the other financial viability indicators namely ROI, incremental net present value and the IRR are positive, and as such the model is financially visible. Further Table 5 present the positive incremental results for this model at the farm level.

Note 2: All annual crops have IRR that is excessively high (the formula which is available in the EFA excel file for all models). This is the nature of the formula when the 1st year cash flow has a positive number. Without presenting the excessively high number such as 3000% in the Aman Rice model, >50% is used to indicate the high value.

(c) Livestock forms an important element in the farming system. Poultry farming has widely been practiced with improved feeding, vaccination and better housing. About 50% increase in egg production is expected under WP scenario, and part of it will be domestically consumed. Dairy cattle farming will have improved feeding with both improved varieties of grasses, concentrates, mineral, and adequate water. Artificial Insemination (AI) would be practiced to get better cross breeds. The milk yield would be increased from 9 liters per day to 12 liters per day with the improved practices and management. With VC linkages, there would be assured market for milk, but a premium price cannot be expected for milk since there is no fat-rate based selling at the farm-gate. Similar to eggs, it is anticipated that the domestic milk consumption will slightly increase. However, the volume consumed has also been valued in the EFA.

(d) Fishponds has been included in the EFA to represent widely practised fishing activities. With the training provided, fish management will improve with better feed and good stocking. It is expected that the yield will increase by about 70% with slightly increase pond size to 115 decimals. Better prises are also expected with value chain linkages.

(e) Fruits and vegetable processing at small scale is taking place in the project areas as reported by the Impact Study of PACE project. A Tomato processing model was designed to represent the sector. Credit funds will be provided to finance capital expenditure. The PCR of the PACE project provided an investment model based on actual cost and return of a small-scale tomato sauce processing enterprise with a processing capacity of 12,800 kg per year. Similar models will be expected under WP scenario of GREEN and thus included in the EFA.

(f) Eco-tourism is becoming popular and with the availability of credit facilities both young men and women are setting up home-based tourist units. Mostly family labour is used. Two models were developed to represent this enterprise.

(g) Since there is a considerable volume of dairy milk available in the project areas, both from project assisted dairy and non-beneficiary dairy farming, there is a demand for dairy collection centers with cooling facilities. Both male and female youth are willing to invest as per the information of the PCR of PACE project. An investment models was design for this EFA to represent this model. The capital investment will be financed by the project supported credit.

18. Table 5 provides a comparison of farm level profitability of all crop models that were used for the EFA. The average size of cultivation of all crops were used for the estimation. According to the crop budget estimation, which were conservative, table shows that there will be a significant increase in income as well as return to labour (at full development in perennial enterprises) with the adoption of technologies that the project is providing with credit funds to meet the investment cost.

Table 5: Farm level profitability and return to labour of farming models used for the EFA

				Without Project (WOP)				With Project (WP)				
Enterprises representing the VCs	Number of beneficiaries involved	Unit	Size of enterprise	Production (kg)	Total labour use (md)	Net benefits (USD)	Return to Labour (USD/md)	Production (kg)	Total labour use (md)	Net benef.(USD)	Return to Labour (USD/md)	% increase in net benefits
Aman Rice - Poor	12,917	ha	0.216	832	27	11	5.5	915	8	46	19.0	331%
Aman Rice - Avg Poor	12,917	ha	0.2	770	25	10	49.7	1,001	9	83	412.7	730%
Boro Rice - Poor??	6,458	ha	0.26	1,014	33	-44	9.0	1,318	9	15	16.4	65%
Boro Rice - Avg Poor	6,458	ha	0.2	780	25	-34	9.0	1,092	7	62	16.4	82%
Aromatic Rice	3,229	ha	0.2	1,150	28	41	0.6	1,380	28	104	9.2	156%
Potato	3,229	ha	0.2	3,300	38	105	8.0	4,320	25	234	16.0	122%
Banana	6,458	ha	0.2	3,880	26	152	11.1	5,044	19	329	24.8	117%
Vegetables (6 veg)	6,458	ha	0.132	1,091	48	205	11.4	1,199	51	209	12.5	2%
Mung Beans - Poor	6,458	ha	0.132	37	2	25	16.3	59	2	43	23.3	72%
Poultry - Eggs	25,833	Units	300 birds	19,200	100	808	13.2	30,240	150	1463	14.8	81%
Poultry - Broiler: Poor	64,583	Units	100 birds	120	20	20	6.1	270	20	210	15.6	972%
Broiler: Avg Poor	12,917	Units	150 birds	180	20	78	9.0	270	25	282	16.4	260%
Beef fattening: bull	19,375	Units	1 per Yr	175	20	86	9.4	245	20	280	19.1	224%
Fish Ponds	38,750	Units	1 Pond	210	10	243	29.4	420	40	686	22.2	183%
Dairy Milk	6,458	Units	1 Cow	1,440	15	-539	27.2	3,120	60	248	38.5	54%

Credit demand and delivery:

19. There are four types of loans among the financial products of PKSF: (i) *Buriad*, targeting at very poor with land plots less than 50 decimal (250 decimal = 1 ha) for seasonal crops and rice cultivation; (ii) *Sufolon*, targeting at enterprising poor having larger land plots and livestock; (iii) *Jagaron* is a larger loan targeted at beneficiaries with several enterprises including livestock; and (iv) *Agressor* loan is targeting at micro-entrepreneurs who also have few agricultural activities. There will be demand for all four types of loans. The farm model analysis shows potential demand for each type of loans.

20. The amount of credit demanded was based on (i) total requirement of capital expenditure and working capital of the enterprise models; and (ii) 50% of the cost of labour. It is assumed that the balance 50% of labour comes from the family labour pool. Table 6 summarises the average amount of loan that is demanded by beneficiaries who are cultivating different crops, raising livestock, operating cottage level income generating activities, processing plants and other enterprises. The total demand was estimated to be USD 197 million and this amount is slightly higher than the available credit funds of GREEN, which will be USD 195 provided by IFAD (USD 70 million) and PKSF and POs. In addition, the reflows will also be available to meet the full credit demand. With one round of reflows, the project will be able to meet the estimated total credit demand during the project period.

Table 6: Net income of beneficiaries and their demand for project supported credit

Enterprises representing the VCs	Number of beneficiaries involved	Unit	Size of enterprise	WP: Net Income per beneficiary (USD/season)	Loan demanded by a beneficiary (USD)	Total Loan demanded by all beneficiaries (USD)
Aman Rice - Poor	12,917	ha	0.216	46	166	2,139,923
Aman Rice - Avg Poor	12,917	ha	0.2	83	158	2,043,134
Boro Rice - Poor	6,458	ha	0.3	15	245	1,581,103
Boro Rice - Avg Poor	6,458	ha	0.2	62	194	1,251,273
Aromatic Rice	3,229	ha	0.2	104	229	738,615
Potato	3,229	ha	0.2	124	324	1,045,587
Banana	6,458	ha	0.2	264	441	2,850,705
Vegetables (6 veg)	6,458	ha	0.132	209	198	1,277,019
Mung Beans - Poor	6,458	ha	0.132	36	31	197,995
Poultry - Eggs	25,833	Unit	1	1,463	1,561	40,320,706
Poultry - Broiler: Poor	64,583	Unit	1	210	609	39,330,647
Broiler: Avg Poor	12,917	Unit	1	282	609	7,866,129
Beef fattening: bull	19,375	Unit	1	280	625	12,113,073
Fish Ponds	38,750	Unit	1	508	625	24,222,858
Dairy Milk [1]	6,458	Unit	1	248	1,427	9,214,218
Micro-Enterprises:						
Tomato Processing	7,750	Unit	1	5,448	5,427	42,056,404
Kayaking_Ecotourism	1,292	Unit	1	1,724	1,832	2,366,412
Ecotourism_HomeStay	1,808	Unit	1	1,086	1,207	2,182,960
Milk Collection Centre	775	Unit	1	7,503	4,837	3,748,956
Hand Loom ME	9,042	Unit	1	1,382	87	789,900
Basket weaving	5,167	Unit	1	107	74	380,379
Total Credit Demand	258,333					197,717,996

Credit demand by VC Sectors

21. The 21 enterprises listed in Table 6 were aggregated into 6 VCs as shown in Livestock VCs and the processing enterprises will have the highest demand for credit.

22. Table 7 to present the total demand for credit by the value chain. Same Tables shows the land extent that would be developed under each VC. The analysis estimated the credit demand for each enterprise and aggregated for each VC listed in Livestock VCs and the processing enterprises will have the highest demand for credit.

23. Table 7. Livestock VCs and the processing enterprises will have the highest demand for credit.

Table 7: Group of enterprises, beneficiary households engaged in VC and estimated demand for credit

Type of VC	Crops / Enterprise represented the VC	HH	Land (ha)	Production Units	Loans (USD 1000)
Cereal	All Rice including aromatic rice	41,979	8,990	41,979	7,754
Horticulture	Vegetables, potatoes and banana	16,146	2,790	16,146	5,173
Pulses	Mung Beans	6,458	853	6,458	198
Livestock & Fish	Dairy, Beef fattening, poultry (eggs & broiler), fish	167,917		167,917	133,068
Food processing	Tomato Processing	7,750		7,750	42,056
Small & Medium Enterprises	Hand looms, Basket weaving, Tourism, Milk Collection	18,083		18,083	9,469
Total		258,333	12,633	258,333	197,718

Sustainability analyses

24. The credit demand analyses indicated that all the farm and non-enterprises will demand and access credit. Poorer beneficiaries (mainly paddy growers) will repay the loan with 20% annual interest rate and others with 24% annual interest rates. The EFA estimated the net income that is available to the entrepreneurs (farm and non-farm) after repaying the interest and the capital of the loan that will be obtained. Table 4 presented the size of the unit of production used for this analysis. The terms of the loans are 20% or 24% annual interest rate depending on the type of beneficiary (20% for poorest), one year repayment period (for some enterprises, working capital loans will also be taken and that amount is included in this analysis – see EFA excel sheet for details), and all loans are collateral free. Table 8 presents the amount of interest and capital payment and the net return to the beneficiaries after making the full payment. All enterprises have a positive net return after the repayment indicating a sustainable cash flow positive cash flow for the beneficiaries.

Table 8: Loan repayment and net income after repayment for each enterprise

Enterprises	Interest payment (USD)	Payment of principal (USD)	Total payment (USD)	Net return to HH after Loan Repay (USD)	Net return to HH after Loan Repay (Taka)
Aman Rice - Poor	-153	-767	-920	61	7,199
Aman Rice - Avg Poor	-190	-791	-981	223	26,283
Boro Rice - Poor	-188	-942	-1,130	129	15,242
Boro Rice - Avg Poor	-232	-969	-1,201	77	9,029
Aromatic Rice	-274	-1,144	-1,418	245	28,875
Potato	-389	-1,619	-2,008	234	27,566
Banana	-353	-2,207	-2,560	966	113,903
Vegetables (6 veg)	-360	-1,498	-1,857	1,223	144,136
Mung Beans - Poor	-46	-232	-279	225	26,509
Poultry - Eggs	-375	-1,561	-1,935	1,088	128,315
Poultry - Broiler: Poor	-122	-609	-731	89	10,440
Broiler: Avg Poor	-164	-685	-850	117	13,839
Beef fattening: bull	-150	-625	-775	130	15,350
Fish Ponds	-75	-6	-81	184	21,732
Dairy Milk [1]	-342	-378	-720	1,371	161,655
Tomato Processing	-5,463	-575	-6,039	5,292	623,930
Kayaking_Ecotourism	-1,291	-136	-1,427	1,466	172,895
Ecotourism_HomeStay	-851	-90	-940	826	97,397

Milk Collection Centre	-2,487	-4,837	-7,325	4,037	475,919
Hand Loom ME	-62	-6	-68	357	42,070
Basket weaving	-52	-5	-57	72	8,532

NB: Negative values indicate cash outflows (interest and capital payment)

Production increase in enterprises

25. The project direct beneficiaries would be expected to have increased production in their farm and non-farm enterprises which are already in operation with technical and financial assistance as credit. As the project is addressing nutritional improvement, production increase in crops and livestock is important. The EFA estimated the annual production levels of VC commodities at full development and summarised in Table 9. The increase is substantial and will provide nutritional benefits to the beneficiaries.

Table 9: Increase in production of commodities at full development

VC Commodity	Total Production at Full Development (WP) (Mt/Yr)	Total Production: WOP (Mt/Yr)	% increase WP
Cereal	44,767	35,987	24%
Horticulture	54,271	42,759	27%
Pulses	382	239	60%
Poultry - Eggs (nb eggs)	781,200	496,000	58%
Poultry - Broiler	20,925	10,075	108%
Beef fattening: bull	4,747	3,391	40%
Fish Ponds	16,275	8,138	100%
Dairy Milk (Lt)	20,150	9,300	117%

Overall Financial Analysis

26. The cashflows of all the enterprise models populated with appropriate targets over the project period were aggregated to compute the total gross benefit flow of the project. The total cost is comprised of (i) the GREEN project cost, based on 2024 prices, net of the provision for loans; (ii) interest payment of all models; and (iii) the incremental cost of all enterprise. The incremental benefits of all enterprise models provided the benefit flow. The EFA excel sheets presents the details. The net benefit flow was discounted at 13%, which is the current average interest rate for the POs for capitalization of their funds available for lending. The Financial Internal Rate of Return (FIRR) is 30% with a 1.21 benefit cost ratio. The project will earn a sum of USD 756 million for a 20-year period. At the 8th year (2032), the project will be able to breakeven the total project investment and the beneficiaries' investment during the project period and start generating a positive net benefit flow.

4. ECONOMIC ANALYSIS

27. The economic analysis was carried out by adjusting the cost and benefits flows that were used in the financial analysis of the project to reflect economic values. In addition to the assumptions made in the financial analysis, the following assumptions were used in the economic analysis.

(a) The economic investment cost is based on the project cost net of financing for loans during the 6-year implementation period generated by COSTAB programme, which deducts the amounts payable for taxes and provisions for price contingencies from the financial costs and applies the shadow exchange rate to convert the cost portion in foreign exchange into local currency. The funds provided to PKSF and POs under the micro-financing and the interest payment by the beneficiaries have not been included. Both taxes and credit funds including interest payments are transfer payments which are excluded from the economic analysis.

(b) The following procedure was used to convert all prices of farm, livestock production and enterprises to economic prices:

(i) using border prices, import parity prices were estimated to value tradable goods (all paddy and all fertilisers), the computation is presented in the EFA excel sheets;

(ii) for all non-tradable goods, standard conversion factor (SCF) of 0.923 was used to adjust the prices – the market distortion includes some degree of protection and over-valuation of BTK in terms of the dollar – the SCF was computed taking the ratio between Exchange Rate (ER)[5] and Estimated Shadow Exchange Rate (SER)[6] [SCF=ER/SER]; EFA excel sheets presents details; and

(iii) overhead cost of PKSF, which is 50% of that of the final year of the project, and it is needed to continue to provide some VC focused service to the enterprises and managing the repayment.

(c) Shadow wage rate factor is assumed at 0.84 to account some out-migration, seasonal labour shortages, and peri-urban labour demand. Labour is idle during some period of the year indicating full employment point has not reached.

(d) The economic discount rate of 8.9%, which is the Opportunity Cost of Capital representing the Average Annual Deposit Rate (Bangladesh Bank, June 2024).

28. After making the required adjustments to the cash flows of the financial analysis based on the above assumptions, the economic analysis for the GREEN was carried out. The Economic Internal Rate of Return (EIRR) for the 20-years period is 41% with benefit cost ratio of 1.26 (Table 10). The project earns a Net Present Value (NPV) of USD 843 million for the 20-year period with 8.9% discount rate.

29. **Sensitivity analyses** were carried out to assess whether the project is economically viable to face possible risks of increasing the cost of production of enterprise, decreasing their benefits, and one-year delay in realising project benefits. These risk factors represent most of the potential adverse climatic conditions (heavy rains, floods and cyclones etc) and market failures. The results of the sensitivity analyses are presented in

30. Table 10. Both cost increase by 10% and 20% and benefit decrease by 10% and 20% yield EIRR that are higher than the opportunity cost of capital and therefore indicate that the enterprise models are quite stable to face risky scenarios. However, the production models show the highest drop of EIRR in the scenario of 20% benefits decrease, simultaneous drop in benefits (10%) and cost increase (10%), and one-year delay in getting benefits. As such the PKSF will have to closely monitor any changes to the facilitative factors and continue to provide services to maintain the productivity levels that are currently being achieved without incurring any delays for the benefits to be realised.

Table 10: Results of the Economic Analysis with the sensitivity analyses

Sensitivity Analyses	EIRR	B/C Ratio	NPV (USD mn)	NPV (BDT mn)
Base Case	41%	1.26	843	70,845
All cost increase by 10%	26%	1.15	525	44,088
All cost increase by 20%	11%	1.05	206	17,330
All benefits decrease by 10%	25%	1.14	440	37,003
All benefits decrease by 20%	3%	1.01	38	3,161
Cost increase by 10% and benefits decrease by 10%	8%	1.03	122	10,246
1 year delay in getting benefits	16%	1.22	713	59,918

31. **Qualitative benefits** These include enhanced financial and social service delivery capacities of the Partner Organizations of PKSF to their members; food safety and enhanced nutritional benefits in the project area; improved animal health (dairy, beef cattle, poultry and fisheries); and value chain (VC)

[5] Exchange Rate (ER) June 2024 [Bangladesh Bank, https:// www.bangladeshbank. org.bd/econdata/exchangerate.php]

[6] Source: Bangladesh Bank Quarterly, https://www.bangladeshbank.org.bd/econdata/exchangerate.php

development through improved market access, and development and expansion of rural businesses. GREEN will also generate employment opportunities for women and men, particularly the youth through their involvement of the value chain activities and related backward and forward linkages.

32. The EFA excel sheets, both for financial and economic values, provide the detail tables listed below.

List of tables	Description
Tradable!A1	Analysis of parity prices
Prices!A1	Prices of all inputs and outputs
EFAStructure_FAST!A1	Foundation for the EFA modeling and distribution of beneficiaries: Design Formulation
Beneficiaries!A1	Distribution of project beneficiaries
Fin+EcoAnanlysis'!A1	Economic and financial analyses
FmModels!A1	Farm Models and summary analyses
AmanVC!A1	Crop Budgets - Aman rice - Poor
AmanVC_AvgPoor!A1	Crop Budgets - Aman rice - Average Poor
BoroVC!A1	Crop Budgets - Boro rice - Poor
BoroVC-AvgPoor'!A1	Crop Budgets - Boro rice - Average Poor
AromaticRiceVC!A1	Crop Budgets - Aromatic rice, production increase with adopting technologies (WP)
MungbeanVC!A1	Crop Budgets - Mungbean, production increase with adopting technologies (WP)
PotatoVC!A1	Crop Budgets - Potato, production increase
BananaVC!A1	Crop Budgets - Banana, production increase with adopting technologies (WP)
FishPond!A1	Enterprise Budgets - Fish Ponds
Egg!A1	Enterprise Budgets - Eggs
BroilersVC!A1	Enterprise Budgets - Broiler
Broilers_AvgPoor!A1	Enterprise Budgets - Broiler for average poor
Beef!A1	Enterprise Budgets - Beef
CowMilk!A1	Enterprise Budgets - Dairy Cow
MilkCollect!A1	Enterprise Budgets - Milk Collection
Tomato processing_AF'!A1	Enterprise Budgets - Tomato processing
Kayaking_Ecotourism!A1	Enterprise Budgets - Tourism
Ecotourism_HomeStay!A1	Enterprise Budgets - Home-stay Tourism
HandLoom!A1	Enterprise Budgets - Handloom
Basket!A1	Enterprise Budgets - Basket
VegWOP!A1	Crop Budgets - Vegetable production increase with adopting technologies (WP), no premium price
VegWPGGAP!A1	Crop Budgets - Vegetable production increase with adopting technologies (WP) and premium price
COMYRT_Fin!A1	Project cost
COMYRT_Eco!A1	Project cost

Investing in rural people

Bangladesh

Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition

Project Design Report

Annex 5: SECAP Review Note

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Asia and the Pacific Division
Programme Management Department

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

1. Introduction

1. The proposed GREEN project aims to enhance the income and employment of poor households in rural areas, especially in climate vulnerable districts, through financial and non-financial services for micro entrepreneurs in selected farm and non-farm value chains. GREEN also aims to improve the ecological and environmental conditions within value chains and human health & nutrition through promoting the supply and consumption of healthy, diverse and nutritious foods. The Palli Karma-Sahayak Foundation (PKSF), which reports to the Financial Institutions Division (FID) of the Ministry of Finance (MoF), will implement the project. Major activities include:

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  - Climate resilient and environment friendly food system development.
  - Value chain analysis including assessment of environmental and human health/nutrition aspects.
  - Campaign for healthy foods and WASH.
  - Financial services for the extreme poor, seasonal credit, and micro enterprise loans.
  - Capacity development of PKSF and its Partner Organizations (POs) based on assessment of existing skills, tools and approaches.

2. The purpose of SECAP Review Note (SRN) at Project Design Report (PDR) stage is to identify: 1) social, environmental and climate risks inherent to target geographies and stakeholders, and risks from GREEN activities, and 2) propose measures to avoid, minimize, mitigate, and compensate for any residual impacts. The SRN was initially prepared as a part of the CN development hybrid mission over April and May 2024, updated after the PDR mission in June 2024, and later in June 2025. PKSF has a long history in implementing IFAD projects, including the on-going Rural Micro enterprise Transformation Project (RMTP), as well as World Bank and Green Climate Fund (GCF) projects. Therefore, this assessment describes SECAP mitigation measures that are already in place and can or will be replicated and scaled during GREEN.

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

3. The potential Social, Environmental and Climate risks and impacts of the project are mentioned below:

2.1 Biodiversity conservation

4. **2.1 Biodiversity conservation**

5. i. The biodiversity risk rating is Moderate. The project is nationwide, but prioritizes four regions in Bangladesh (River Char, Haor, Barind, and Coastal) which include forests and wetlands. Bangladesh has 51 Protected Areas, of which 17 are National Parks[1]. In the Coastal region, the Sundarbans Delta—mangrove forests formed by the confluence of three rivers—is a critical ecosystem and wildlife habitat with endangered species (Gangetic dolphin, Royal Bengal Tiger); the Nijhum NP is a part of the Sundarbans. Tangail Haor's Madhupur NP and Kaptai NP in Chittagong Hill Tracts are among the largest PAs in Bangladesh. In general, Bangladesh's ecosystems are threatened by upstream riverine developments (within and outside Bangladesh), urbanization, infrastructure, and industrial development; river erosion is a common issue in multiple regions. While the Coastal mangroves provide important cyclone and storm protection benefits, these are under similar stressors, and high-intensity cyclones such as Aila and Sidr in recent times have severely damaged vegetation. During implementation, (i) the identification and selection of priority value chains and interventions, and (ii) the screening and evaluation of PKSF POs' proposals to access GREEN credit lines will assess if biodiversity relevant safeguards (e.g., selecting areas with reduced risk of disturbance) are in place when working in vulnerable areas or value chains.

6. ii. Soil and water quality as well as biodiversity underpins agricultural production throughout Bangladesh. Rural households who engage in fisheries and aquaculture depend on the health of coastal estuaries, mangroves, and inland ponds, *beels* (low-lying depressions) and swamps; in both the Coastal and Hill regions, the collection of wild foods (bamboo, mushroom, honey, edible fruits) and other non-timber forest produce is an important source of livelihood and food security[2],[3].

7. iii. There may be inadvertent Moderate impacts of increased economic activity on biodiversity and key ecosystems. In general, the project will prioritize value chains for not just climate resilience but their ecology and environment friendliness. GREEN will promote improved crop varieties, particularly for their tolerance to climatic stressors and higher yields; this could have longer term adverse impacts on agrobiodiversity. However, PKSF's Integrated Agriculture Unit (IAU) also has substantive experience in encouraging and supporting the conservation of indigenous / native crop varieties and breeds: for e.g., native chickens, Black Bengal Goat, Red Chittagong Cattle, local rice varieties, etc. PKSF (and GREEN does not finance plantation forestry since there is a mismatch in loan tenure and its target households have low land ownership. Using exclusion criteria, GREEN will avoid activities in buffer and core zones of protected areas, and mitigate risks associated with introduction or utilization of invasive alien flora / fauna species. While GOB has allowed cultivation of genetically modified brinjal (eggplant) and cotton, cotton is not a value chain of focus and GMO brinjal is not promoted by PKSF.

8. iv. There are Moderate risks that crop diversification (legumes, fruits, etc.) will increase the chance of human-wildlife encounter, specifically with monkeys, wild boars and jackals. However, PKSF (through its POs) has experience in helping communities increase vigilance against crop raiding, introducing fencing (where legal and feasible), and in linking households to government compensation mechanisms when the loss is high to reduce the risk of retaliation. In the case of fisheries, PKSF raises awareness of critical fish reproduction season—particularly for endangered species—to discourage harvest, and reports that it worked with the GOB to enforce a fish sanctuary in one of the northern *beels*.

9. v. GREEN will not involve rural infrastructure construction or rehabilitation that may pose transient or permanent risks to ecosystems or biodiversity. Individual households may choose to utilize microloans (USD 60-500 loan size) to upgrade their homesteads against climate risks, but the use of materials (gravel, sand, wood) is expected to be minor. Similarly, micro-enterprises may choose to improve their infrastructure (USD 500-8,500 loan size); this may result in cumulative Moderate impacts on soil, water, and riverine systems owing to use of materials.

10. [1] National Biodiversity Strategy and Action Plan of Bangladesh (NBSAP), 2016-2021. https://www.cbd.int/doc/world/bd/bd-nbsap-v2-en.pdf

11. [2] Siddiqui, N.A. Ethnobotany of Non-timber Forest Products of the Chittagong Hill Tracts. Bangladesh Forest Research Institute (BFRI), Bangladesh.

12. [3] Zohora, F.T. Non-timber Forest Products and Livelihoods in the Sundarbans. Divisional Forest Officer, Management Plan Division, Bangladesh. https://www.eastwestcenter.org/sites/default/files/filemanager/pubs/pdfs/RuralLivelihoods2011/FoxRuralLivelihoods008-ch07.pdf

2.2 Resource efficiency and pollution prevention

13. i. The risks associated with resource use and pollution is Moderate. Project will support farm, off-farm, and non-farm activities of ultra poor, smallholder folders, and micro-enterprises; such agricultural activities are Low risk in terms of expansion or unsustainable intensification. GREEN's water and sanitation activities are awareness and behavioral change related (do not involve construction / installation of toilets, tubewells). There is, however, some risk associated with use of arsenic contaminated water for irrigation or other purposes, which could result in its accumulation along the food chain[1]. This is due to arsenic contamination of groundwater resources in Deltaic environments such as Bangladesh. While Bangladesh completed significant testing of tubewells to mark safe and unsafe wells (green and red labels, respectively) in 1990s and 2000s, there are newer tubewells that are privately owned and never been tested despite being shallow[2] (shallow tubewells have increased risk of arsenic exposure and poisoning). Hence, the project will incorporate awareness raising, in close coordination with government agencies where needed and feasible.

14. ii. Where farmers and micro-enterprises engage in farming, produce procurement or food processing, this may involve agrochemicals use (autonomous purchase only), solid waste and wastewater release; the cumulative risks are Moderate in nature. GREEN will not directly procure mineral fertilizers, pesticides, or insecticides. PKSF's IFAD and non-IFAD projects have a strong track record in systematically promoting alternatives to pest control[3] (biopesticides, pheromone traps) and fertilizer use (vermicompost, organic fertilizer, Trichoderma leachate). To mitigate excessive mineral fertilizer or pesticide use in specific value chains by farmers, integrated fertilizer and pest management approaches and certified Global Good Agricultural Practices (GGAP) will be built into technical support for agriculture. PKSF has developed environmental management guidelines for sixteen (16) different types of micro-enterprises; this was expected to increase to thirty (30) by the end of 2024. IFAD and World Bank projects have also extended support to micro-enterprises to receive DOE (Department of Environment), BSTI (Bangladesh Standard and Testing Institute) and ISO certifications as needed.

15. iii. The risks associated with use of plastic packaging in off-farm and non-farm enterprises is moderate; GREEN will promote measures at micro-enterprise level to reduce plastic use or promote alternatives (e.g., small discounts for bringing own bags); plastic sheets used for mulching (a practice that is particularly suited to waterlogged or salinity prone areas) is reported to be compostable. Generally, best practices, aligned with GOB and IFAD, will be recommended for waste management.

16. iv. PKSF POs' members do expand or setup livestock activities using loans. In this process, they receive technical support for biosecurity, hygienic management of housing structures, selecting breeds/species with reduced morbidity and mortality rates, and so on. Technical expertise and implementation experience for repurposing livestock / poultry manure and droppings (together with household kitchen waste) to produce organic fertilizer, vermicompost, etc. is in place, and this will be replicated and scaled through GREEN. Where PKSF supports micro-enterprises offering animal health services (vaccinations, rapid diagnostics, laboratory), training on proper handling of bio-medical waste will be promoted. Borrowers also engage in marine and freshwater fisheries at small (<1/10th of an acre) and semi-commercial (up to 10 acres) scale, and in inland (brackish) aquaculture. Like crop cultivation, PKSF promotes (and GREEN will promote) sustainable input and resource use in fisheries and aquaculture; it acknowledged that while the GOB Department of Fisheries is interested in shrimp culture, they have not promoted this owing to the associated issues in Bangladesh[4].

17. v. Significant consumption of water, raw materials such as sand or gravel, or other resources is not expected since there are no infrastructure-related components. While loanees may purchase pumps and expand production, this will be addressed through technical support on sustainable water use and promoting rainwater harvesting where required; that is, project does not involve significant water abstraction, irrigation works, dams and reservoirs, rural roads, or construction of large market facilities for processing, warehousing, or storage.

18. [1] Rahaman, Md.S., Mise, N., and Ichihara, S. (2022). Arsenic Contamination in food chain in Bangladesh: A review on health

hazards, socioeconomic impacts and implications. Hygiene and Environmental Health Advances. 2(2022): 100004. https://doi.org/10.1016/j.heha.2022.100004

19. [2] Maertens, R., Tarozzi, A., Ahmed, K.M., and Van Geen, A. (2018). *Arsenic in tubewell water, a public health emergency in Bangladesh*. https://voxdev.org/topic/health/arsenic-tubewell-water-public-health-emergency-bangladesh

20. [3] Islam, M.A. (2012). Pheromone Use for Insect Control: Present Status and Prospect in Bangladesh. Intl. J. Agril. Res. Innov. & Tech. 2(1):47-55.

21. [4] For example, shrimp industry is identified as a reason for salinity intrusion when embankments are broken to allow saline water flow.

2.3 Cultural heritage

22. i. The risk rating is Low. Given the nature of the project and the lack of infrastructure components, risk of unintended negative impact on sites of cultural values is not envisaged. With regard to intangible cultural heritage such as production of handicrafts or traditional food processing practices, which might have a cultural value, no specific risks have been identified. However, it is important to consider the cultural heritage associated with traditional varieties of crops and livestock. For instance, certain varieties of rice may be important for cultural or ethnic minorities' social ceremonies, and promoting improved species and varieties could result in their loss. Measures are in place at PKSF to address these concerns (as referenced in para 5 on biodiversity) to ensure the preservation of traditional varieties that hold cultural significance.

23. ii. Additionally, the project will engage with local communities, especially ethnic minorities, to understand the importance of these varieties / species in their cultural, social, and economic activities, and involve them in decision-making processes regarding choice of agricultural adaptation actions and post-harvest activities.

2.4 Indigenous peoples

24. i. The risk rating for Indigenous Peoples is Low. The Bangladesh constitution states that “tribes, minor races, sects and ethnic communities”, have their unique local culture and traditions, which must be recognized and protected. Bangladesh has around 30 small ethnic minorities. The Meitei live in in the Sylhet district. Other minority ethnic groups include Khasi, Santhal, Garo, Oraon, Munda, and Rohingya.

25. ii. “Jumma” is used as a collective identity for the twelve major ethnic groups who inhabit the Chittagong division, including the three districts of Chittagong Hill Tracts. It is derived from the traditional jhum (swidden) cultivation practiced in this area. The most important groups among Ethnic Minorities in Chittagong division are Chakma and the Marma. Ethnic minority groups in this area are more geographically concentrated than in the plains and have a greater level of autonomy and access to land. Yet, economic marginalization and poverty are severe in this area and further amplified by climate change.

26. Since all 64 districts in the country are included in the project, with priority given to climatically vulnerable districts, Free, Prior and Informed Consent (FPIC) will be applied and integrated into project procedures and processes, so as to ensure that ethnic minority groups will be included and that their cultural specificities will be valued. Considering the nature of the interventions, it is unlikely that the activities implemented will jeopardize access to resources for ethnic minorities. There is generally a low risk of adverse impacts on access to resources or land tenure arrangements, as the project does not involve any land acquisition (see section 2.7). During design stage when targeting criteria is finalized and project locations are identified, characterization of Ethnic Minorities (which groups, population in target region, nature of risks from project activities, etc.) will be completed and risk screening questions will be updated. Free, Prior and Informed Consent (FPIC) principles are to be appropriately integrated into procedures (design and implementation, including subprojects) if the presence of Ethnic Minorities is confirmed.

2.5 Labour and working conditions

27. i. The risk rating is Moderate. Potential barriers to the participation of vulnerable groups such as People with Disability (PWD), women and/or ethnic minorities in value-chain development activities as well as underlying discriminatory practices (e.g., gender gap in wages etc.) in labour conditions will be addressed through the formulation of a rigorous GESI strategy to be implemented by POs.

28. ii. With regard to the risk of forced labour, this is very unlikely under GREEN considering that infrastructure development is not envisaged under the programme and that the scale of the activities supported is very small. Agricultural intensification and commercialization are unlikely to utilize forced labour in the project’s areas and activity context.

29. iii. Risk of child labour is minor. Yet the involvement of children in agricultural work is widespread in Bangladesh. Specific measures to be adopted include awareness of the impact of labour on children during trainings the inclusion of terms prohibiting child labour in all procurement contracts and monitoring the execution of activities to ensure compliance. Any instances of child labor will be reported to the project management and relevant government stakeholders for immediate action.

30. iv. With regard to Occupational Health and Safety (OSH) issues, GREEN will replicate the experience of IFAD projects (PACE – Promoting Agricultural Commercialization and Enterprises), which promoted decent work environment in micro-enterprises, covering aspects such as ventilation, cleanliness, electricity, and women friendliness. A strategy to promote safe labour practices, through awareness-raising and sensitization will also be put in place. This will include addressing potential health risks to laborers involved in micro-enterprise activities (e.g., meat processing, packaging, horticulture, etc.) through training on biosecurity and safe food (“safe meat”, “safe vegetables”) and the use of protective wear / gear. PKSF and its POs will also promote the availability of and access to first-aid boxes in micro-enterprises and provide minimal level of training on its use.

31. v. There may be Moderate OSH risks for microenterprise employees or farmers, and value chain specific measures will be identified during implementation. In case of farmers, the risk of exposure to pesticides, insecticides and other chemicals from autonomous purchase will be mitigated and avoided through integrated pest and agro-chemicals management as a part of CSA/agroecology training which will contribute to safety and health of rural producers and workers (as stated in para 9, no procurement of agro-chemicals is planned). For animal production systems at household and community level, training on biosecurity and WASH will be in place to reduce disease transmission risks.

2.6 Community health and safety

32. i. The risk rating is Moderate. The project does not involve construction or upgrade of dams and rural roads, or other forms of significant water abstraction activities. Additionally, there are no plans for rural infrastructure that may involve transport, storage, use or disposal of hazardous or dangerous chemicals.

33. ii. Market-led production might undermine farm diversification and negatively impact food security and nutrition. However, the project has a strong focus on promoting nutrition and health. This will be done by selecting nutrition-sensitive value-chains and production practices that enhance the availability and accessibility of diverse, safe, and nutritious food through home gardens (vegetables, fruits) and increased access to animal-source foods (chickens, ducks, fish, small ruminants, cows). Rural households do keep animals in backyard-type systems, and project support to animal production may inadvertently increase the risk of zoonosis or vector-borne diseases; this is exacerbated under climate change where new diseases and pests have emerged. PKSF PO's members receive 2-day spot training on WASH, and more intensive training on animal husbandry (biosecurity, shelter hygiene, access to nutritious feed and fodder, vaccinations, etc.), and this will be improved through GREEN. In recognition of the critical linkage between household livestock and child nutrition based on evidence from Bangladesh, Component 1 project activities will include awareness building activities on optimal WASH behaviors. The project will also implement well-targeted nutrition education and awareness raising campaign, also targeting nutrition-vulnerable groups such as women, youth and children.

34. iii. There is some health risks associated with food processing micro-enterprises. Support for BSTI, ISO and Halal certifications has been extended by PKSF POs to loanee micro-enterprises with products including cheese, ghee, yoghurt, meat, pickles, vegetable oils, fish and spices. PKSF, through RMTP, has also developed experience in promoting "Safe Meat" processing and sale through slaughterhouses and retail shops, which will be replicated in GREEN .

35. iv. PKSF POs also have systems in place to support food security (through rations) in the aftermath of disasters, such as cyclones and floods. PKSF will further work with POs to include local and nutritious food items and basic hygiene supplies in the ration kits. Moreover, the project will promote the adoption of sustainable and climate-smart practices and technologies (e.g. Integrated Pest Management-IPMs etc.) which will minimize pesticides and chemicals exposure and contribute to safety and health of rural producers and workers. Therefore, the project is unlikely to have negative impacts on nutrition and health.

36. v. There are some inherent health risks to populations in climate hotspots since it is also contributing factor in increasing the risk of vector-borne and water-borne diseases. For e.g., women in Southwest coastal region report increased prevalence of reproductive health issues (miscarriage, irregular menstrual cycles, infertility) and skin allergies due to salinity. Similarly, high temperature and humidity affects farmers and other workers who work outdoors or in poorly ventilated spaces, and access to safe water for domestic use is limited during floods and cyclones. Women might also be forced to skip meals to cope with food shortage during climate disasters. While GREEN is not designed to comprehensively address all climate risks and impacts, these risks will be indirectly supported through nutrition and climate information services as well as alignment with projects such as EU's PPEPP (Pathways to Prosperity for Extremely Poor People) that offer nutrition and health care services.

37. vi. Microfinance activities targeting women and women's empowerment processes might generate intra-household tensions, which could escalate into gender-based violence (GBV). PKSF adopts family-based approaches to microfinance in order to address intra-household inequalities and promote a more gender equitable decision-making over the use of loans within the HHs. Couple training will be streamlined in project's activities and will also include a specific module on household planning and budgeting to ensure rural families can maximize equitable investments in their income generation activities (IGAs) and farming activities. A Grievance Redress Mechanism (GRM) system will be in place to report cases of GBV, making use of existing GRM within PKSF.

2.7 Physical and economic resettlement

38. No risk is envisaged in terms of physical or economic displacement or need for resettlement; the risk of physical displacement and resettlement will be avoided through exclusion criteria.

2.8 Financial intermediaries and direct investments

39. i. The risk rating is determined to be Low. IFAD will lend to the GOB from whom PKSF borrows; PKSF is the Tier-II financial intermediary (FI) for IFAD. Under GREEN, PKSF's POs (NGOs that are microfinance institutions) will be encouraged to submit competitive proposals for credit lines, and these POs comprise Tier-III FI for IFAD. The Project Coordinator from each PO will function as the SECAP Focal Point and will be the target for SECAP trainings. By the end of 2025, PKSF expects to see a dedicated unit within each PO that focuses on environment, climate change and agriculture (including "Safe Food").

40. ii. PKSF, the borrower, is implementing the RMTP project (2019-2025) which adheres to SECAP 2017 standards. In the Jan 2023 supervision mission for RMTP[1], PKSF was encouraged to use screening checklists it had established under World Bank projects to RMTP and develop its exclusion list. This indicates that PKSF does have exclusion criteria and systems in place for implementation, but these have to be updated to be consistent and align with SECAP 2021 standards during GREEN implementation. For another organizational benchmark, PKSF is accredited to the Green Climate Fund (GCF) as a Direct Access

Entity and has been assessed as having the capacity to implement projects up to Category B / I-2 (Intermediation-2)[2] environmental and social risk – the same as many UN agencies.

41. iii. The 2021 ESMS policy describing PKSF commitment to sustainable development, environmental protection and social responsibility is available online[3]. PKSF has also issued an environmental and social procedure which sets out management approved mandatory environmental and social procedures which apply to projects supported by projects/sub-project financing. The E&S Procedure describes how PKSF conducts due diligence of a project proposed by Partner Organizations PKSF's support. As stated (para 9), PKSF has developed environmental management guidelines (which also cover climate and social aspects such as occupational risk, community health risks, climate resilience) for 16 types of micro-enterprises and will cover 30 types by end 2025.

42. iv. During GREEN design, an assessment of ESMS has conducted to ensure adherence to IFAD's SECAP 2021 requirements in relation to on-lending activities. This assessment is captured in the Environmental and Social Action Plan (ESAP), which also recommends actions for implementation.

43. [1]https://www.ifad.org/documents/38711624/40089498/Bangladesh+2000002356+RMTP+PKSF+Supervision+Report+January+2023.pdf/0f06da69-5cd0-c1ea-97eb-dbcec3e95b32?t=1673971528647

44. [2] GCF defines Category B as "Activities with potential mild adverse environmental and/or social risks and/or impacts that are few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures." Intermediation 2 is "When an intermediary's existing or proposed portfolio includes, or is expected to include, substantial financial exposure to activities with potential limited adverse environmental or social risks and/or impacts that are few in number, generally-site specific, largely reversible, and readily addressed through mitigation measures; or includes a very limited number of activities with potential significant adverse environmental and/or social risks and/or impacts that are diverse, irreversible, or unprecedented"

45. [3] PKSF 2021 ESMS https://pksf.org.bd/wp-content/uploads/2021/02/RAISE-PKSF-ESMS-03.02.2021_Last.pdf

2.9 Climate change

46. i. Climate risk is assessed as Substantial with a score of 5.36 (also see Section 4). High poverty incidence, high population density, poor infrastructure, agriculture-dependent livelihoods, loss of productive land (to sea-level rise, extended flooding, waterlogging, salinity) and fisheries, and inadequate public budget contribute to climate vulnerability of Bangladesh's rural poor. In 2015-16, 24 million rural households were estimated[1] to have spent a total of US$ 1.9 billion to respond to climate disasters and recover from them. Per household, this was roughly US$ 9 on house repairs/purchases and US$ 70 on other emergency preparedness, far outspending the government (by two times) and multilateral donors (over 12 times). Compared to male-headed households, female-headed households contributed three time their total income to precautionary savings for repairs and emergency preparedness.

47. ii. Developing adaptive capacities of rural poor and their livelihoods is hence critical for climate resilience. Bangladesh Delta Plan 2100 (BDP2100), the National Adaptation Plan, and the Mujib Climate Prosperity Plan all outline priority adaptation actions by sector and vulnerable region. These actions include diversification of agricultural production and off-farm livelihoods, introducing climate-smart technologies in crop, fish and livestock production (post-harvest facilities, stress-tolerant seeds and breeds, GGAP), and promoting food system resilience in general. While Bangladesh has strong disaster management plans for cyclones —including warnings, shelters, and evacuation procedures, it is still working on improving flash floods, droughts, and landslide warnings as well as general advisories for farmers[2].

48. iii. As regards greenhouse gas emissions (GHG), in its updated Nationally Determined Contributions[3] in 2021, Bangladesh has proposed to target the energy, agriculture, forestry and other land use (AFOLU) and waste sectors for conditional and unconditional GHG mitigation; at baseline, AFOLU contributed 27.35% and the waste sector contributed 14.26% of total emissions. While GREEN-related activities are not expected to contribute substantially to increased GHG emissions, capacity development and advisory services will prioritize methane / GHG emission reduction in livestock production as well as rice (where feasible).

49. [1]https://bdp2100kp.gov.bd

50. [2] World Bank. (2024). Climate Risk Profile – Bangladesh. The World Bank Group, Washington, DC.

51. [3] The anomaly for average mean surface air temperature is 1.52 ºC under SSP-8.5 (multi-model ensemble, 1995-2014 baseline). https://climateknowledgeportal.worldbank.org/country/bangladesh/climate-data-projections

52. [4] 220-250 days in a year with extremely high temperatures, i.e., sea surface temperature (SSTs) exceeding the seasonally-varying 90th percentile threshold based on the 1970–1999 reference period or hotter than 90% of the typical temperatures for each season. Roxy, M.K., Saranya, J.S., Modi, A., Anusree, A., Cai, W., Resplandy, L., Vialard, J., and Frölicher, T.L. (2024). Chapter 20: Future projections for the tropical Indian Ocean. In C. C. Ummenhofer, & R. R. Hood (Eds.), The Indian Ocean and its role in the global climate system (pp. 469–482). Elsevier. https://doi.org/10.1016/B978-0- 12-822698-8.00004-4.

53. [5] It also affects cyclogenesis, and how rapidly cyclones are born and intensify.

54. [6] In 2018, agriculture contributed about 38.21% of annual household income (averaging about Taka 16,894 or US$ 144). But 24.39 million individuals or 51.88% of total employed (aged 15 and above) were in the agricultural sector.

https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/b343a8b4_956b_45ca_872f_4cf9b2f1a6e0/2020-02-02-10-36-84ecf771aa4c2e480f245fb79538ce14.pdf

55. [7] Ahmed et al. (2022) found that while dietary diversity improved across sex and age groups between 2011-2018, diets are >70% reliant on carbohydrates for energy and excessive intake of carbohydrates was found to be more prevalent among the poor together with insufficient energy, protein and fat intake. Ahmed, A.U., Mehrab Bakhtiar, M., Ali, M., Ghostlaw, J., Nguyen, P.H. (2022). Trends and Inequities in Food, Energy, Protein, Fat, and Carbohydrate Intakes in Rural Bangladesh. The Journal of Nutrition, 152 (11): 2591-2603. https://doi.org/10.1093/jn/nxac198

56. [8]https://www.anticipation-hub.org/experience/anticipatory-action-in-the-world/bangladesh

57. [9]BAMIS implementation status and results report, Nov 2023.

58. [1] Eskander, S. and Steele, P. (2019). Bearing the climate burden: how households in Bangladesh are spending too much. IIED, London. https://www.iied.org/16643iied

59. [2]https://www.bamis.gov.bd/en/page/introduction/ & https://wmo.int/sites/default/files/2023-11/EW4All-In-Focus_Results-Pillar-2-Rapid-Assessment_en.pdf

60. [3] MOEFCC. (2021). Nationally Determined Contributions (NDCs) 2021 – Bangladesh (Updated). https://unfccc.int/sites/default/files/NDC/2022-06/NDC_submission_20210826revised.pdf

3. Regulatory framework and institutional capacities

61. The regulatory framework and institutional capacities are provided below:

3.1 National policies and regulatory framework relevant to SECAP

- **Environment, Pollution, and Natural Resources:** The Bangladesh Environment Conservation Act 1995 and its 2010 amendment, implemented through (a) Environment Conservation Rules, (b) Ecologically Critical Areas Management Rules, and (c) Environment Conservation Rules, is the overarching framework for protecting the environment from pollution and degradation through screening, assessment, and monitoring. Environmental Clearance Certificates are required for any commercial or industrial activity. Microenterprises are subject to these national regulations on environment; however, compliance is low, and enforcement is inadequate[1]. Bangladesh has also acceded to, ratified or signed several major international conventions including the Rio Declaration, Convention on Biological Diversity, Ramsar Convention, and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

- **Climate Change:** Climate-relevant policies are described in Section 2.9. In 2023, the Sector Action Plan on Environment and Climate Change was published[2] to facilitate the implementation of the Eighth Five Year Plan (8th FYP) and address climate change impacts on agriculture, fisheries, and livestock. Given Bangladesh is prone to natural disasters, the Standing Orders on Disasters 2019 describes the roles and responsibilities of Ministries, Divisions, Departments and Agencies at all stages of disaster risk management.

- **Youth:** Bangladesh has adopted the primary legal framework for youth in Bangladesh is the National Youth Policy (NYP). Formulated in 2003, revised in 2016, and enacted in 2017, the NYP focuses on two pillars: empowerment and development. More specifically, the policy envisages a series of measures to empower the youth population in sustainable development. It ensures special support is provided to rural female and male youth, to enhance their employability, through training, leasing of government land, decent work promotion, etc. The policy also addresses the important role youth play in civic and social engagement.

- **Decent work and harmful child labour**: The Decent Work Country Program 2022- 2026 is promoted by the government in collaboration with key industries to promote the rights of workers. In the country legal landscape there is also a comprehensive legislative structure to regulate child labour. Under the Labour Act (2006) child labour is prohibited. The National Child Labour Welfare Council has adopted the National Plan to Eliminate Child Labour (2020-2025).

- **Gender:** Bangladesh ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1984. A National Women Development Policy was adopted in 2011. Bangladesh is among the 193 United Nations Member States working to achieve the Sustainable Development Goals (SDGs) with the commitment to 'leave no one behind'. Gender equality features as a standalone strategic priority of the United Nations Sustainable Development Cooperation Framework 2022–2026 with Bangladesh, denoting the importance of this development area for both the Government and the United Nations system. At the SDG Summit in 2023, the Government' pledged to achieve the SDGs by 2030, including specific commitments on women's economic empowerment, eliminating gender-based violence, ensuring women's leadership and participation, increased resilience from crisis and shocks, strengthening gender-responsive budgeting and implementing the women, peace and security agenda. In 2023, Bangladesh committed at the UN General Assembly to ensure 50 per cent participation of women in all sectors by 2030.

- **Persons with Disabilities:** The government of Bangladesh enacted the Rights and Protection of Persons with Disability Act of 2013 (the Act) in line with the United Nations Convention on the Rights of Persons with Disabilities. On employment support, the Government has established the Physical Disability Protection Trust "Maitri Shilpa", which aimed to emancipate persons with physical disabilities from unemployment. Many persons with disabilities had been employed in different institutes, aided by National Disabled Development Foundation job fairs. A vocational training centre had been established for persons with disabilities.

- **Nutrition:** The goal of the National Nutrition Policy (2015) is to improve the nutritional status of the people, especially disadvantaged groups, including mothers, adolescent girls and children; to prevent and control malnutrition; and to accelerate national development through raising the standard of living. Following the National Nutrition Policy 2015, National Plan of Action for Nutrition-2 (NPAN-2) has taken a lifecycle approach in ensuring adequate nutrition for every Bangladeshi citizen. One of the key objectives under NPAN-2 is to ensure availability of adequate, diversified and quality safe food and promote healthy feeding practices. NPAN-2 also has set up a monitoring framework and has adopted most of the SDG targets on nutrition including Minimum Dietary Diversity for women and children. Bangladesh has also been a part of a global advocacy campaign with other countries (Brazil, Malawi and Switzerland) and UN agencies (FAO, WHO, IFAD) for adoption of Minimum Dietary Diversity indicator as a target under SDG 2. The same has been approved at the recent session of the UN Statistical Commission.

[1] RMTP, SECAP Review Note. https://www.ifad.org/documents/38711624/40089492/Bangladesh%202000002356%20RMTP%20PKSF%20Project%20Design%20Report%20July%202019/48688117-c56a-0c07-6ab1-03d911738356

[2] By the Division of Planning Commission on Agriculture, Water Resources, and Rural Institutions.

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

62. Since the borrower is a financial intermediary, their capacity to comply with SECAP requirements and manage / monitor SECAP implementation is also described in Section 2.8. PKSF has established various units for cross-cutting aspects including environment and climate change; it has well-developed policies and strategies[1] in place on gender-based discrimination, abuse, and harassment[2]; labour management, occupational health and safety, and grievance redress mechanisms; and other SECAP-relevant topics as outlined in its ESMS[3]. POs are selected based on stringent criteria and compliance to ESMS policies and guidelines. They are supported to improve their environmental and social sustainability performance, including compliance with national legislation and international standards. There is variation in maturity level of the POs when reporting on environmental and social issues, with those that have implemented projects in collaboration with foreign entities having more experience in such requirements. Previous experience with PKSF during implementation of, most-recently, RMTP and PACE has shown that PKSF has achieved a high level of SECAP compliance.

63. [1] PKSF policies webpage: https://pksf.org.bd/about-us-3/policies/

64. [2]https://pksf.org.bd/gender-equality/

65. [3]https://pksf.org.bd/wp-content/uploads/2021/02/RAISE-PKSF-ESMS-03.02.2021_Last.pdf

4. Environmental and social category

66. The environmental and social risk is determined to Moderate owing to impacts being small and value-chain specific from the farm and non-farm activities involving extreme poor, entrepreneurial poor and microenterprises.

5. Climate risk category

67. **Climate risk category**

68. The climate risk is determined to be Substantial, and a Targeted Adaptation Assessment has been developed. In addition to the World Bank Climate Change Knowledge Portal and the ThinkHazard tool, evidence from secondary literature—on the target sector, project activities, and potential target beneficiaries—informed responses.

69. **Climate hazards:** All four prioritized geographic regions were identified as climate hotspots in BDP2100[1]. The Coastal region is particularly prone to cyclones, sea-level rise, tidal surges, waterlogging and salinity; the two coastal districts (Cox's Bazaar, Chattogram) adjacent the Hill region are also prone to landslides, seasonal droughts and flash floods; the Barind region to droughts; and the River Char and Hoar region to flash floods as well as riverbank erosion.

70. **Future climate:** Between 1971-2020, Bangladesh's annual mean temperatures increased by 0.16 ºC per decade with a significant increase in number of hot and humid days[2]. By 2040-2059, annual mean temperature is projected to increase by 1.04 ºC (0.59-1.67 ºC, range) under SSP-4.5 compared to 1995-2014[3]. Bangladesh will also experience higher minimum and

maximum temperatures by mid-century, with the Coastal region experiencing the highest increase in number of days with Heat Index exceeding 35 ºC. While the modelled change in precipitation percentage is from -1.07% in Barishal division to 3.7% in Rajshahi division under SSP-8.5 by 2040-2059, South Asian precipitation projections are subject to higher levels of uncertainty. The Indian Ocean is also warming much faster than other basins, and one recent study finds that it is moving towards near-permanent marine heat waves[4]. This is particularly pronounced in the north Bay of Bengal and affects cyclone intensity[5] and marine biodiversity, with impacts on Bangladesh's blue economy.

71. **Exposure and sensitivity:** Agricultural land, livestock and fisheries is potentially affected by floods, waterlogging, sea-level rise and salinity, and extreme heat in the four regions. Lives and livelihoods in Coastal region are particularly exposed to cyclones and tidal surges due to low-lying topography; Hill region's steep landscape increases exposure to landslides during periods of heavy rainfall; homesteads and crop land next to riverbanks in River Char and Hoar is exposed to floods. The agri-food sector is also exposed to indirect climate risks, such as new or increased frequency of pest and disease outbreaks. While the dependence on agriculture as a source of livelihood[6] and its percentage contribution to household income has declined over time, the rural poor still derive their sustenance and income from the sector. Also, the rural poor's diets depend on staple crops such as rice[7] that are not stress-tolerant; for example, in rain-fed, low-input settings and in the absence of irrigation, rice is particularly sensitive to variability in temperature and rainfall. Livestock and poultry value chains are particularly exposed to heat stress, while high value fruits and vegetables are impacted by floods, droughts and salinity. While urban floods do not directly impact target beneficiaries, they disrupt market access and may impact operations of the POs.

72. **Adaptive capacity:** As stated before, Bangladesh has well-developed disaster management plans for cyclones. Recently, with the support of World Bank, IFAD, World Food Programme (WFP), and International Federation of Red Cross and Red Crescent Societies (IFRC) has started to improve climate information services and non-cyclone related early warnings. In the Hoar regions, for instance, IFAD has been working on flash flood warning through HILIP-CALIP; similarly, WFP and IRFC are working with the government in River Char and Hoar to disburse forecast-based finance and encourage anticipatory action[8] for floods and flash floods; and the GOB and World Bank are implementing a project that is strengthening weather, water, and climate information services[9]. PKSF's IAU, ahead of each agricultural season, creates agricultural calendars to provide support to its PO and borrowers. While there are several investments targeting climate hotspots, people engage in locally led adaptation actions, and microcredit is available, these fall short of the climate finance needs. PKSF's POs draw on their own funds (from profits) to distribute food rations in the aftermath of disasters; they also extend a moratorium period on principal and interest payments in such instances.

6. Recommendations for project design and implementation

73. **Mainstreaming Climate Change and Environment:** The project aims to ensure activities are ecology and environment friendly as well as climate resilient; RMTP found that screening and exclusion checklist hadn't been immediately developed at the start of implementation. Therefore, IFAD and PKSF should agree well ahead of time on the screening checklist and exclusion criteria for activities that will not be promoted or supported under the project and develop the capacity of POs to implement such checklists. **GREEN** will also be informed by the prioritization of activities in the Targeted Adaptation Assessment.

74. **Considerations for SECAP-relevant Capacity Development:** PKSF and its POs should receive support in (a) strengthening capacities of POs units dedicated to climate change, environment and agriculture, (b) promoting and implementing environment management guidelines for micro-enterprises, (c) assessing value chains for climate risks and entry points for mainstreaming targets (gender, youth, Ethnic Minorities, adaptive capacity, etc.), and (d) ensuring that value chain development plans are responsive to broader strategy for better nutrition and food system transformation. Finally, since PKSF and its POs are not yet familiar with updated SECAP standards, SECAP 2021 training should be scheduled early in the implementation phase. POs and GREEN should develop ESCMPs (value chain specific or alternately, site or PO-specific ESCMP), drawing on PKSF guidelines as appropriate, and implement the recommended actions identified in the ESAP.

75. **Additional finance sources:** To support increased scope and depth of climate resilience or plausibly include GHG mitigation activities, the project will assess opportunity to draw on climate and environment finance, such as Global Environment Facility's STAR (System of Transparent Allocation of Resources) and Least Developed Countries Fund (LDCF).

76. **Targeting and Social Inclusion:** PKSF and its network of partner organizations have a strong and consolidated capacity in supporting the evolving credit market and aligning to the needs of the ultra-poor and the moderate poor. The institution provides ad-hoc flexible financial services to the poorest, along with technical support for IGAs, nutrition education, WASH, and gender training. PKSF also has a comprehensive gender and youth inclusion strategy, with women and youth being their main target groups.

77. Recommendations related to implementation of SI measures are:

- To better define the criteria for geographic targeting, also including presence of IPs and complementarity with PPEPP project in addition to climate vulnerability and incidence/intensity of poverty.
- To further identify partnership opportunities to strengthen the nutrition, WASH and social inclusion components of the project, with a particular focus on youth, as well as to further define activities to be targeted to specific nutrition-vulnerable groups (e.g. pregnant and lactating women, adolescent girls etc.).
- To ensure that the framework for presenting project proposals by POs includes the GESI matrix so that POs can integrate GESI measures into their project proposals.

- To ensure that PKSF's criteria for assessing project proposals include considerations for GESI.
- To ensure that field staff is trained on gender and social inclusion facilitation skills.

7. Further studies needed

78. Currently, the project is classified as Moderate for environmental and social risks, and Substantial for climate risks. The following studies and documents will be reviewed and updated during implementation:

- SECAP risk screening, SECAP Review Note, and ESCMP – to be updated.
- Adaptation measures in the Targeted Adaptation Assessment – to be updated as training material for capacity development of PKSF and PO officials and to inform subproject proposals submitted by POs.
- Exclusion list for accessing GREEN credit lines (i.e., particularly for sub-projects in proposals from POs to PKSF) – to be drafted and finalized.
- Stakeholder Engagement Plan (SEP), including Free, Prior and Informed Consent (FPIC) and Grievance Redress Mechanism – to be updated.
- Gender and Social Inclusion (GESI) Strategy – to be updated.
- Targeting and Social Inclusion Strategy – to be updated.
- Ethnic Minority Plan, if the project areas includes or project targets Ethnic Minorities – to be developed using the Ethnic Minority Planning Framework.
- Recommended actions identified in the Environment and Social Action Plan (ESAP) – to be reviewed and implemented.

8. Monitoring and evaluation

1. SECAP monitoring will be implemented in line with the ESCMP; implementation of the SECAP 2021 procedures will be led by the Project Management Unit (PMU) and the Project Coordinator with strong support from Senior Programme Manager for Climate Change, Environment and SECAP who will function as the lead on SECAP, and the Senior Programme Manager for Nutrition, Gender, Inclusion and SECAP who will support the SECAP lead.

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

1. The project will also adopt GRM and feedback mechanisms based on current PKSF practices and guidelines. The programme will follow IFAD's Complaints Procedure which ensures that appropriate mechanisms are in place to allow individuals and communities to file a complaint if they believe they are or might be adversely affected by an IFAD-funded project/programme not complying with IFAD's Social and Environmental Policies and mandatory aspects of SECAP. The GRM will serve the purpose to be responsive to the needs of beneficiaries and to address and resolve their grievances as well as to deter fraud and corruption and mitigate project risks.

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

9. References

79. National Policy for Youth (2017) Decent Work Country Program 2022- 2026.

80. National Plan to Eliminate Child Labour (2020-2025).

81. National Food and Nutrition Security Policy (2020).

82. National Women Development Policy (2011).

83. Other literature references included in footnotes

10. SECAP Matrix

84. **ANNEX 1 ESCMP MATRIX**

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
Biodiversity						
Degradation of biodiversity may adversely affect productivity of on-farm activities and limit project benefits. For example, soil or land degradation (exacerbating water or soil salinity), poor soil fertility or moisture (River Char, Barind, Coastal regions), water pollution affecting fisheries. Promoting specific varieties / breeds for stress tolerance and high yields may have adverse effects on agrobiodiversity.	- While the inherent risks from biodiversity degradation (due to wider factors and drivers) in Bangladesh will remain, designing project activities that minimize further worsening (owing to farm or non-farm activities) and promoting ecology- and environment-friendly management such as GGAP, Integrated Fertilizer Management (IFM) / Integrated Pest Management (IPM), etc. - Promoting biodiversity friendly approaches to reducing the risk of crop raids by wild animals. - Promoting water use efficiency and water harvesting approaches (pond recharge, rainwater harvesting) in areas stressed by droughts or salinity. - If non-timber forest produce (NTFP) value chains are selected and prioritized for GREEN, ensuring awareness of and promoting sustainable harvest. - Ensuring Protected Areas and Critical Wildlife Habitats are excluded for farm, off-farm or non-farm activities, and regularly assessing potential direct or indirect impacts (during implementation) of value chain activities. - Creating awareness of and promoting the conservation of indigenous species (landraces, native breeds of livestock) in agricultural activities.	Local communities Other stakeholders of relevance, such as MOEFCCC	Project Management Unit & executing partners	- M&E - Progress and supervision report - MTR and PCR	Annually	Project budget
Resource Efficiency and Pollution Prevention						

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
Fisheries and aquaculture activities of the borrowers of PKSF POs may exacerbate risks to aquaculture biodiversity or introduce new sources of water pollution.	- Based on PO's work geography, identifying harmful drivers of fish habitat degradation or species decline, and ensuring that group members are aware of risks of unsustainable harvest. - Working with the Department of Fisheries to introduce harvest season moratoriums, ensuring equitable access to permits (for the poorest and marginalized households), and creating awareness of species that must not be harvested (based on 'endangered' or 'critically endangered' classification). - Promoting the use of environmentally friendly practices and inputs, particularly in aquaculture.	POs and their staff Borrowers / group members	Project Management Unit & executing partners	- M&E - Progress and supervision report - MTR and PCR	Annually	Project budget
Autonomous use and purchase of pesticides, insecticides, fertilizers or other inputs may result in pollution and other environmental impacts. Waste (droppings, manure) generated due to animal husbandry could pollute soil and water if not managed.	- GGAP and promoting use of organic fertilizers / pesticides, vermicompost, biological control; the production of vermicompost, Trichoderma leachate and other organic fertilizers supports reclamation and reuse of livestock/poultry waste in a safe manner. - Assessing trade-offs in use of practices like plastic mulch film, and improving agricultural waste management through circular economy approaches, promoting safe handling and disposal, etc. as needed.	Local communities Local authorities responsible for monitoring pollution and waste management	Project Management Unit & executing partners	- M&E - Progress and supervision report	Annually	Project budget

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
Micro-enterprises supported by the project may exacerbate or introduce new pollution risks through their waste streams.	- Supporting the implementation of PKSF's micro-enterprise environment management guidelines developed for 16 enterprise types (and expanded to 30, by end of 2024) by POs and micro-enterprise borrowers. - Promoting certification mechanisms via DOE, BSTI, ISO etc. for micro-enterprises – in the process strengthening their environmental management and creating awareness of how it could increase their comparative advantage. - Targeting issues such as plastic waste and promoting use of alternative materials (including through incubation of sustainable packaging material micro-enterprises). - Identifying and promoting best practices for solid and liquid waste management, based on value chains of focus. For e.g., bio-medical waste handling for those enterprises focused on animal health interventions (diagnostics, vaccinations, etc.).	POs and their staff Borrowers / group members	Project Management Unit & executing partners	- M&E - Progress and supervision report - MTR and PCR - Micro-enterprise environment management guidelines	Annually	Project budget
Financial intermediaries						
Environmental and social management systems of the implementing partners do not cover all dimensions of SECAP 2021.	- Gap filling measures identified at design or during early implementation phase. - Due diligence mechanisms. - Annual training for the GREEN Project Coordinators and other potential staff from PKSF POs on SECAP 2021. - Developing and implementing the Environmental and Social Action Plan (ESAP).	PKSF and POs	IFAD Project Management Unit & executing partners	- Environmental and Social Action Plan (ESAP) - SECAP documents - Progress and supervision report	Regular intervals	Project budget
Climate Change						

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
Adverse effects of extreme climate events when combined with lack of appropriate storage, transport, poor access to quality inputs (including stress-tolerant seeds) and marketing facilities may limit project benefits and/or cause losses—including post-production/harvest.	- Identifying and assessing both production and post-production/harvest challenges during selection and prioritization of GREEN value chains. - Promoting adequate access to climate information and early warnings for beneficiary smallholders leveraging ICT4D tools and other projects (CRALEP for drought and flash flood warning, BAMIS products of DAE, etc.). - Ensuring adequate market linkages through engagement with the local private sector, particularly project-supported microenterprises for high quality seeds, bio-inputs, balanced animal feed, etc. - Replicating RMTP interventions such as “safe vegetable” collection centers and enhancing their access to thermal-control solutions. - Promoting stress-tolerant crop, livestock, and fish species (seeds, breeds), and other climate-smart technologies and practices. - Promoting household financial management and financial literacy which identify and offer actions for coping with or recovering from climate risks (e.g., maintaining a savings or fixed deposit account with commercial banks, in addition to PO savings accounts).	Local communities Micro-enterprises, including input suppliers and off-takers Specialized institutions such as BARI and SRDI for climate data and value chain adaptation analysis	Project Management Unit & executing partners	- Targeted Adaptation Assessment - Value chain selection criteria - M&E reports - Progress and supervision report - MTR and PCR	Annually	Project budget
Inadequate understanding by PKSF POs of climate change and its impacts on the agricultural sector may result in inappropriate microcredit product design or subsequently affect uptake or repayment rates.	- Capacity development for PKSF POs to ensure they understand agricultural sub-sectors of priority and can undertake value chain assessments that incorporate climate risk assessment and adaptation actions. - Supporting the functioning of the new and dedicated climate, environment and agriculture units within POs (see para 26). - Bringing together POs to regularly to share experience and lessons, in order to facilitate faster learning curves.	POs and their staff Borrowers / group members	Project Management Unit & executing partners	- M&E - Progress and supervision report - MTR and PCR	Annually	Project budget

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
Some climate-resilient value chains (e.g., dragon fruit) may have high entry costs limiting entry for the poorest smallholders or current financial product may not be size adequate.	- Aligning credit product including size, lending terms and repayment periods and amounts to ensure credit is supportive of investment viability.	PKSF, POs and farmers group	Project Management Unit & executing partners	- M&E - Progress and supervision report	Annually	Project budget
Community Health and Safety						
Poultry and livestock may be susceptible to diseases, and veterinary services may be limited – contributing to increased risk of zoonosis and vector-borne diseases.	- Introducing WASH interventions under Component 1 and ensuring refresher training (emphasizing 5-7 key hygiene behaviors) by loan officers to maintain the hygiene issues at the HH level. - Training farmers, especially the livestock facilitator on early signs of diseases and their management. - Promoting clean and hygienic animal shelters, biosecurity measures, vaccinations, and other improved husbandry measures. - Promoting and enabling access to safe and environmentally friendly insect, parasite and pest control inputs, where needed. - Where feasible, promoting the construction or upgrade of animal shelters away from homesteads. - Establishing linkages to adequate veterinary services and animal health products (nutrition, preventative, therapeutic) for livestock and poultry value chains. - Ensuring adequate awareness of risks and mitigation measures through Technical Assistance. For e.g., to reduce both health and environmental risks, appropriate manure management practices can be promoted (e.g., vermicomposting pits, Trichoderma leachate pits).	Local communities/ Farmers	Project Management Unit & executing partners	- M&E - Progress and supervision report	Annually	Project budget
	- The project has a strong focus on promoting nutrition and health. This will be done by selecting nutrition-sensitive value-chains and production practices that enhance the availability and accessibility of diverse, safe, and nutritious food. GREEN will further build on the experience gained from PACE/RMTP programme w.r.t.					

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
	integrating nutrition at every step of the value chain. This would ensure that the right varieties of crops are prioritized for support that have potential for both increased incomes and better nutrition.					
Commercial production might jeopardize nutrition and health if adequate measures are not in place. Risk that certain varieties of improved crops / livestock / fish varieties may be less nutritious, necessitating careful advice to farmers on choice of seeds and seedlings. Households may be vulnerable to food and nutrition insecurity in the aftermath of extreme climate events.	- Ultra-poor families that are targeted for microfinance activities will receive seeds and poultry for backyard production so that they can meet their food needs. - PKSF encourages diversification to ensure that families have access to diverse and nutritious diets. For instance, in the case of fish, WorldFish's work in Bangladesh shows that production and consumption of farmed exotic fish species resulted in an increase in fish consumption but a decline in intake of essential nutrients. This is explained by the fact that exotic fish species are less nutritious compared to non-farmed indigenous fish species. The IAU (Integrated Agriculture Unit) will assess and promote those fish (as well as livestock and crop varieties) species that can achieve climate adaptation, nutrition / food security, and livelihood goals – minimizing trade-offs thereof. - Complementarities with existing PKSF projects (such as Pathways to Prosperity for Extremely Poor People of the EU) focused on nutrition and mother's / child's health will be sought, where feasible - The project will also implement a WASH component and a well-targeted nutrition education and awareness raising campaign on healthy diets, targeting nutrition-vulnerable groups such as women and children. - The project will promote the adoption of sustainable and climate-smart practices and technologies to minimize pesticides and chemicals exposure and contribute to safety and health of rural producers and farm / micro-enterprise workers. - In areas with arsenic contamination, awareness of arsenic pollution and how it works through the food chain will be incorporated into nutrition and health modules with recommended mitigation and remedial measures. This will need to be in close coordination with the local government because arsenic pollution requires a comprehensive approach, some of which are beyond scope of GREEN (alternative sources of safe drinking water or low-cost remediation technologies such as arsenic removal filter, modification of rice cooking procedure, effective medications and treatments for arsenicosis as well as supplementation with vitamins). GREEN's nutrition activities will indirectly	Awareness raising and education especially on the nutritious crop and fish varieties for their own intake. Targeting nutrition vulnerable groups	PKSF and partner organizations	- Baseline, Midline and endline impact studies	Baseline/mid term/final impact surveys; research reports	Mainstreamed in project

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
	support risk reduction by supporting higher consumption of micronutrient and antioxidant rich foods. - Ensure and improve PO support – rations – in the aftermath of climate disasters. GREEN will ensure that the rations are adequate and well-balanced in terms of nutrients and comprise local, safe foods rather than packaged products. Gender equality and anti-stigma messages will also be conveyed during food distribution to avoid the risk that women and other vulnerable people in the family (e.g. persons with disabilities) will skip meals as a strategy to cope with food shortage.					
Gender-based violence might increase as a result of intra-household tensions over the use of credit and income	- PKSF adopts family-based approaches to microfinance, through the implementation of couple training to address intra-household inequalities and promote a more gender equitable decision-making over the use of loans within the HHs. Couple training has been piloted under PPEPP project and will be streamlined into PKSF regular programme. A module on household planning and budgeting will also be added to strengthen the capacity of rural households to manage their finance in a more efficient and equitable way and maximize investments in their productive activities. - A GRM system will be put in place to report cases of GBV.	Training and awareness raising with both women and men of the same family	PKSF and partner organizations	- Baseline, Midline and endline impact studies. GRM	Baseline/mid term/final impact surveys; research reports	Mainstreamed in project
Risks associated with Occupational Safety and Health - OSH risks. For e.g., exposure to chemicals from application of pesticides (autonomous purchase) by MSMEs involved in handling grains, vegetables, fruits, fodder and feed and seeds, lack of protective equipment in processing etc.	- GREEN will also build on the lessons from PACE (Promoting Agricultural Commercialization and Enterprises) to promote decent work environment in micro-enterprises covering aspects such as ventilation, cleanliness, electricity, and women friendliness. - Risk of exposure to chemicals from application of pesticides will be minimized by promoting climate-smart and agroecological practices at the farm level, including the use of organic fertilizers, bio-pesticides and biological control mechanisms and by promoting integrated pesticide management. - PKSF will strengthen the already existing mitigation measures, including training and sensitization on potential health risks to laborers involved in micro-, small- and medium- enterprises, training on safety, and recommendations on protective gear.	Awareness raising, training	PKSF and partner organizations	- Baseline, Midline and endline impact studies	Baseline/mid term/final impact surveys; research reports	Mainstreamed in project
Labour and Working Conditions						

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
Risk of child-labour is minimal given the small-scale nature of the activities supported but present, as this is widespread in Bangladesh. Rural families might engage children in agriculture in times of harvesting, particularly for certain crops. Expansion of agricultural production might also increase labour demand.	- Specific measures to be adopted include: awareness on the impact of labour on children during trainings to microfinance borrowers, the inclusion of terms prohibiting child labour in all procurement contracts and monitoring the execution of activities and reporting any cases to the project and relevant government stakeholders. - Include labour saving technologies that reduce labor demand during peak season. - GRM system to provide safe channels to report child labour concerns within target communities.	Awareness raising activities during training	PKSF and partner organizations	- Baseline, Midline and endline impact studies	Baseline/mid term/final impact surveys; research reports	Mainstreamed in project
Indigenous Peoples						
Potential barriers to the participation of vulnerable groups such as People with Disability (PWD), women and/or ethnic minorities in IGAs and value-chain development activities as well as underlying discriminatory practices (e.g., gender gap in wages etc.) in labour conditions will be addressed through the formulation of a rigorous GESI strategy to be implemented by POs.	- A Gender and Social Inclusion (GESI) strategy to remove barriers to participation for vulnerable groups will be implemented by PKSF and its Partner Organizations as a condition for project's approval. - A robust Ethnic Minority Planning Framework and FPIC Implementation Plan is in place and will be implemented by PKSF and the POs.	Awareness raising, training, GESI planning and implementation and ethnic minority plan	PKSF and partner organizations	- Baseline, Midline and endline impact studies	Baseline/mid term/final impact surveys; research reports	Mainstreamed in project

Environmental and Social Safeguards Classification: Moderate

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

Environmental and Social Safeguards				
1.8 Will the project involve or lead to procurement through primary suppliers of natural resource materials (wood, gravel, sand, etc.)?	Yes		Minor Project will require procurement of natural resources through primary suppliers, and resource extraction is tightly regulated. Alternatives to procurement of natural resources through primary suppliers exists.	Low
Resource Efficiency and Pollution Prevention	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
2.1 Could the project involve or lead to the release of pollutants to the environment (on and off farm) due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Yes	Possible	Moderate Pollutants may be released, either routinely or by accident, but treatment systems are proven, verified and affordable. Receiving environment is highly sensitive.	Moderate
2.2 Could the project be located in an area which is being, or has been, polluted by an external source (e.g. a mine, smelter, industry)?	Yes	Possible	Moderate The project may be located in an area of previous pollution, but only partial decontamination has been undertaken. Impacts from previous pollution can be managed with existing affordable technology.	Moderate
2.3 Will the project involve or lead to significant consumption of raw materials and energy?	No			Low
2.4 Will the project develop or rehabilitate irrigation schemes and/or involve or lead to significant extraction, diversion or containment of surface or ground water? (For example, construction of dams, reservoirs, river basin developments, groundwater extraction)	No			Low

Environmental and Social Safeguards				
2.5 Will the project involve the use of agrochemicals (pesticides, fertilizers, and other modifying agents) which have potential to pollute soils and water bodies or cause other negative impacts?	Yes		Moderate The project will require use of fertilizers, pesticides and/or other modifying agents, but options are available to replace polluting fertilizers and/or pesticides with alternatives. The adaptive capacity of the environment is high, which should ameliorate most potential pollution problems.	Moderate
2.6 Will the project involve or lead to primary production of living natural resources through cultivation or rearing of plants, annual and perennial crop farming, etc.?	Yes		Minor Project will only be partly dependent on production of living natural resources, it does not require serious environmental or social controls.	Low
2.7 Will the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?	No			Low
2.8 Will the project involve livestock and production of animal products (dairy, skins, meat, etc.)?	Yes		Moderate The project will involve extensive and/or intensive livestock systems. Pollution control, waste management and/or regenerative grazing management systems are in place.	Moderate

Environmental and Social Safeguards				
2.9 Will the project involve marine or freshwater fisheries, at industrial or artisanal scale?	Yes		Moderate The project will involve marine or inland fisheries activities at small-scale, where there is inadequate information about fish stock and capacity and systems for monitoring and management (including environmental and social effects); there is low probability of occurrence of; overfishing, by-catch and discards, pollution, habitat destruction, ecological disruption; there is national legislation related to fishing method/gear in place but are they are not fully enforced; Includes some artisanal fish processing activities with pollution controls.	Moderate
2.10 Will the project involve inland or marine aquaculture?	Yes		Moderate The project will involve aquaculture activities at small-scale on land or water bodies; there is low probability of land-use/ water-use conflicts, introduction of non-native species, escapes of aquaculture species to the wild, habitat destruction, wastes release and use of seed extracted from the wild; Will include some artisanal fish processing activities with pollution controls.	Moderate
Cultural Heritage	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
3.1 Could the project involve or lead to adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No			Low

Environmental and Social Safeguards				
3.2 Could the project involve or lead to excavations, demolitions, movement of earth, flooding or other environmental changes in an area that is considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or intangible forms of culture (e.g. knowledge, innovations, practices) or contains features considered as critical cultural heritage? (See Annex 1 of the Cultural Heritage Guidance Note for further information)	No			Low
3.3 Could the project involve or lead to alterations to landscapes and natural features with cultural significance?	No			Low
3.4 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	Yes	Possible	Minor The project could be located in an area that is considered to be of cultural heritage value, but the project does not use tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial purpose.	Low
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Indigenous peoples	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
4.1. Is the project sited in areas where indigenous Peoples are present? (Indigenous peoples' traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources).	Yes			Low
4.2 Could the project adversely affect indigenous people's rights to traditionally owned or otherwise occupied and used lands, territories, waters, coastal seas and other resources and/or livelihood systems?	Yes	Possible	Minor Minor adverse impact to indigenous peoples' rights to land, assets, territories and resources is expected.	Low
4.3 Could the project result in the utilization and/or commercial development of natural resources on lands and territories inhabited by indigenous peoples?	No			Low
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Labour and Working Conditions	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**

Environmental and Social Safeguards				
5.1 Could the project operate in sectors or value chains where there have been reports of discriminatory practices and the lack of equal opportunity (for disadvantaged and vulnerable workers, including women, children of working age, migrants and persons with disabilities), denial of freedom of association and collective bargaining, labour migrants?	Yes	Likely	Moderate The project will operate in sectors or value chains that have, in the past, not met national labour laws, or international commitments, but is now adequately nationally regulated. International value chains are occasionally audited for environmental or social performance.	Moderate
5.2 Could the project operate in a value chain where there have been reports of forced labour? Note: Risks of forced labour may be increased for projects located in remote places or where the status of migrant workers is uncertain.	No			Low
5.3 Could the project involve children (a) below the nationally-defined minimum employment age (usually 15 years old) or (b) above the nationally-defined minimum employment age but below the age of 18 in supported activities or in value chains?	Yes	Possible	Minor The project will not operate in sectors or value chains where child labour was evident in the past. The status of child labour regulation is clear.	Low
5.4 Could the project: (a) operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks, and/or (b) promote or use technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general? (Note: "OSH risks in agriculture might include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects. Psychosocial hazards might include violence and harassment.")	Yes	Possible	Moderate The project will operate in a sector, area, or value chain where workers are occasionally exposed to OSH risks, and where regulation is known to be weak or non-existent. However, there is no evidence of illness or death.	Moderate
Community Health, Safety and Security	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**

Environmental and Social Safeguards				
6.1 Could the project lead to and or be at risk from water-borne, zoonotic or vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable diseases?	Yes	Possible	Moderate The project will be situated in an area where there is past evidence of negative impacts from water-borne, zoonotic or vector-borne diseases, or communicable/non-communicable diseases, but where regulation or containment of these impacts has been shown to be effective. Project activities could lead to moderate risks of water-borne, zoonotic or vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable diseases.	Moderate
6.2 Could the project have unintended negative impacts on nutrition?	Yes	Possible	Minor Minor negative impact on customary or traditional diet, resulting in occasional individual health problems.	Low
6.3 Will the project involve the construction or rehabilitation of dams?	No			Low
6.4 Could the project involve or lead to transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No			Low
6.5 Could the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labour influx, land redistribution, or other actions that alter community dynamics?	Yes	Possible	Moderate The project may lead to moderate changes to community dynamics may result in increased potential for gender-based violence or sexual exploitation. Gender-based violence protocols in place.	Moderate
6.6 Will the project construct, rehabilitate or upgrade rural roads and/or lead to increases in traffic or alteration in traffic flow?	No			Low
6.7 Could the project lead to an influx of project workers?	No			Low
6.8 Could the project involve or lead to the engagement of security personnel to protect facilities and property or to support project activities?	No			Low
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Environmental and Social Safeguards				
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Physical and economic resettlement	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
7.1 Will the project result in temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?	No			Low
7.2 Will the project result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	No			Low
7.3 Could the project increase the risk of forced evictions? (The project cannot proceed unless forced evictions are avoided)	No			Low
7.4 Could the project result in adverse impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?	No			Low
Financial intermediaries and direct investments	**Yes/No**	**Likelihood**	**Consequence**	**Risk Rating**
8.1 Could the investment be granted to an institution that does not have an environmental and social policy and an associated environmental and social management system (ESMS) in place (transparent, publicly available)?	No			Low
8.2 Could the investment be granted to an institution with insufficient capacities (i.e. unqualified personnel e.g. ES Officer) to implement the ESMS?	No			Low
8.3 Could the investment be granted to an institution that does not have an Exclusion List?	No			Low
8.4 According to the institution's portfolio classification: Could the institution have potential high-risk projects in their portfolio?	No			Low
8.5 Could the institution not be providing a stable communication channel with stakeholders and local communities (e.g. a Grievance Redress Mechanism)?	No			Low
8.6 Could the institution not be providing auxiliary or capacity building support services?	No			Low
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Climate Risk Classification: Substantial

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

3.2 Is population displacement being exacerbated by climate change impacts?	Yes
3.3 Are diseases (e.g. COVID-19, malaria, cholera) increasing the population´s vulnerability and affecting their capacity to address potential weather-related hazards?	No
3.4 Are social inequalities (e.g. based on gender, youth, indigenous persons and other marginalized groups) being exacerbated by climate change?	Yes
3.5 Human Development Index (HDI)	No
3.6 Multidimensional Poverty Index (MPI)	Yes
3.7 Is the Multidimensional Poverty Index (MPI) equal to or above 0.1?	
Step 4: Adaptive capacity	
What are key adaptive capacities in the areas of project intervention?	**No, Yes, TBD**
4.1 Is the country well ranked in the Disaster risk reduction progress score?	Yes
4.2 Are climate and weather information services (real-time weather data, seasonal forecasts etc.) effectively being delivered (through radio, TV, SMS, extension services etc.) to farmers, rural dwellers, and end users?	Yes
4.3 Does the project country have an early action plan (preparedness and emergency response) to mitigate the impacts of weather-related hazards once the shock occurs?	Yes
4.4 Does the government or other institutions support the target population/communities with the necessary social and economic resources to prepare for or respond to climate-related events?	Yes
4.5 Is the target community carrying out (using their own means) agricultural adaptation?	Yes
4.6 Does the target population have the economic means or support to adjust or adapt their activities in response to weather related shocks?	No
4.7 Do policies/mechanisms exist that make financial credit, loans, and agricultural insurance available?	Yes
4.8 Are rural infrastructures effectively delivering services to farmers and rural dwellers?	No

Investing in rural people

Bangladesh

Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition

Project Design Report

Environmental, Social and Climate Management Plan (ESCMP)

Mission Dates:	22/06/2024 15/09/2024
Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

Asia and the Pacific Division
Programme Management Department

Growth for Climate Resilient and Ecological Entrepreneurship and Nutrition (GREEN)

Environmental, Social and Climate Management Plan (ESCMP)

VERSION	DATE	NOTES
1.0	23 July 2025	Version drafted during project design
1.1	27 August 2025	Version updated after Design Review Meeting

TABLE OF CONTENTS

Section title	Page numbers
ESCMP 1. Introduction 2. Project description 3. Institutional and legal framework: National institutional, legal and regulatory requirements 4. Institutional and legal framework: IFAD's Social, Environment and Climate Assessment Procedure 2021 5. Procedure for ESC screening and management for subprojects 6. Environmental, social and climate management plan 7. Summary of project impacts and proposed mitigation and enhancement measures 8. Monitoring 9. Roles and responsibilities 10. Capacity building 11. Costs and budgetary considerations	4-35
Annex 1. ESCMP Matrix	36-48
Annex 2. Targeted Adaptation Assessment (TAA) A. Overview B. Climate baseline and hazard assessment C. Assessment of subproject exposure, vulnerability and adaptive capacity D. Adaptation Assessment E. Draft list of Adaptation Options	49-74
Annex 3. Stakeholder Engagement Plan (SEP) and Grievance Redress Mechanism (GRM) 1. Introduction to SEP 2. Main project stakeholders 3. Stakeholder Engagement Plan – Project implementers and other partners 4. Stakeholder Engagement Plan – Targeted project participants 5. Stakeholder Engagement Plan – Other stakeholders 6. Monitoring and evaluation of stakeholder engagement activities 7. Performance criteria to be used in stakeholder engagement monitoring 8. Participation and provision of feedback from the target group of the project 9. Introduction to GRM	75-85

10. IFAD GRM framework 11. Project grievance redress mechanism 12. Structure and process of the GRM 13. Grievance redress institutional mechanisms 14. GRM at PMU level 15. GRM at PKSF level 16. GRM at PO level	
Annex 4. Ethnic Minority Planning Framework and FPIC Implementation Plan A. Executive summary B. Description of Ethnic Minorities C. Summary of substantive rights and legal framework D. Summary of social and environmental risks related to Ethnic Minorities and mitigation measures E. Socioeconomic situation and climate vulnerabilities of Ethnic Minorities in Bangladesh F. Gender issues among Ethnic Minorities G. Participation, consultation and FPIC processes H. FPIC-IP	86-98
Annex 5. Exclusion criteria and screening questionnaire	99-103
Annex 6. ESG Action Plan (ESAP)	104 -128

1) INTRODUCTION

1. The Growth for climate Resilient and Ecological Entrepreneurship and Nutrition (GREEN) project aims to enhance the income and employment of poor households in rural areas, especially in climate-vulnerable districts, through a combination of appropriate financial and non-financial services for microentrepreneurs of all segments in selected farm and non-farm value chains suitable for respective regions. In addition to enhancing the profitability of farm and non-farm enterprises, the project will undertake a comprehensive assessment of ecological and environmental conditions and issues related to human nutrition within value chains.

2. GREEN will be implemented over six years by Palli Karma Sahayak Foundation (PKSF), which reports to the Financial Institutions Division (FID) of the Ministry of Finance (MoF). The total project cost is US$ 212.86 million, of which IFAD-13 loan is US$ 51 million. It will draw on successful experiences from Rural Microenterprise Transformation Project (RMTP, ongoing) and Promoting Agricultural Commercialization and Enterprises Project (PACE, closed) also implemented by PKSF.

3. GREEN will target a total of 258,333 microfinance and business development recipients—comprising the very poor, transitional poor, and enterprising poor—spread across districts of Bangladesh, with a focus on climate vulnerable and poverty-stricken districts in Haor, Coastal (including Chattogram and Cox's Bazaar districts), Barind, and River Char regions. The target population includes agricultural labourers, artisans, marginal and smallholder farmers, households engaged in pond fisheries, other small-scale producers, non-farm households, poor young men and women. The characteristics of GREEN's target regions is provided below.

4. Haor region: The economy is dependent on one season rice production and open water fisheries that is affected by pre-monsoon flash floods, monsoon floods due to excessive rains, and excessive drying of rivers due to inadequate rainfall. Rural roads, homesteads, livestock and crop harvests are often washed away due to wave action, locally known as *Afal*. Haor is characterized by freshwater wetlands, including one of Bangladesh's most important Ramsar sites (Tanguar Hoar).

5. Coastal region: The region also has a complex system of estuaries, mangroves and wetlands, coral reefs, and salt marshes hosting a diversity of species. The Sundarbans, the world's largest mangrove forests spanning Bangladesh and India, provide several regulating, provisioning (food, livelihoods based on marine and coastal fisheries), cultural and support services. However, these ecosystems and biodiversity are at threat from economic activities that have resulted in coastal erosion, mangrove degradation, saltwater intrusion and pollution. The coastal region also faces severe climate change-induced challenges, with rising sea levels, tropical storms, and storm surges exacerbating waterlogging and salinity intrusion. These climate and environmental pressures have led to the widespread loss of soil fertility, reducing agricultural productivity and threatening food security. Limited access to fresh drinking water further compounds the hardship faced by coastal communities, particularly during prolonged dry spells. The decline of traditional crops and fish species, coupled with the limited

availability of saline-tolerant cultivars, has disrupted livelihoods and increased vulnerability.

6. Barind (arid) region: The region is prone to drought, erratic rainfall (reduced intensity, duration and frequency) and poor soils; it also has a lower average annual rainfall than the rest of Bangladesh. As a result, there is low agricultural productivity limited to one or two agricultural seasons. Excessive extraction of groundwater for continuous flooded rice, monocropping and agricultural intensification, and use of mineral fertilizer has resulted in soil degradation – soils with poor water retention and soil organic carbon. The region hosts dryland forests that reduce erosion, provide freshwater and mitigate climate risks; it was originally densely forested (with Shorea robusta or Sal forests) but have dramatically reduced in area due to population growth and conversion to agricultural land. Under climate change, this has resulted in increasing temperature stress, unavailability of surface water, and gradual drop of ground water aquifer for irrigation.

7. River Char region: The region is highly vulnerable to climate change, experiencing frequent and severe flooding that leads to significant loss of agricultural production, infrastructure, and livelihoods. Intense monsoon floods and riverbank erosion result in the loss of fertile land, often leaving once-productive agricultural areas covered in sand, making them unsuitable for cultivation. Water scarcity during the dry season, coupled with increased temperatures and extreme weather events such as thunderstorms and heatwaves, further compound the challenges faced by communities.

8. Specific objectives of this ESCMP are to:
   i. Assess the potential environmental, social, and climate-related risks and impacts of the project, both positive and negative, and propose mitigation measures which will effectively address these risks and impacts;
   ii. Establish clear procedures for the E&S planning, review, approval, and implementation of subprojects and other activities to be financed under the project;
   iii. Specify appropriate roles and responsibilities and outline the necessary reporting procedures for managing and monitoring E&S issues/concerns related to subprojects and activities;
   iv. Determine the training, capacity building, and technical assistance needed to successfully implement the provisions of this ESCMP;
   v. Outline and propose mechanisms for public consultation and disclosure of project documents, as well as redress of possible grievances; and
   vi. Establish the budget requirements for implementation of this ESCMP.

9. Project-related and inherent social, environmental and climate risks were determined by screening the proposed project activities against IFAD's SECAP 2021 requirements. The ESCMP draws on the SECAP Review Note, which was prepared in April-May 2024 using secondary data (desk research) and online consultations with PKSF. Field missions and in-person consultations with stakeholders i.e., PKSF, PKSF Partner Organizations (POs) and beneficiaries—including those associated with other projects—in June 2024 further informed the findings.

10. Because subprojects will be based on proposals submitted by PKSF's Partner Organizations (POs), based on the inability to confirm specific subprojects and site locations prior to project approval, GREEN has prepared this Environmental, Social and Climate Management Plan (ESCMP) under a framework approach. The purpose of the ESCMP is to ensure that the project has concrete plans and processes in place to avoid, minimize, and/or mitigate the risks and potentially adverse project-related environmental and social (E&S) impacts, including climate risks, once the GREEN activities and/or subprojects are identified, planned, and implemented.

11. The definition of subproject is included in the section on "Procedure for ESC Screening and Management for Subprojects" for PMU reference. This living document: (i) assesses and summarizes project-related risks and impacts; and (ii) sets out the principles, rules, guidelines, and procedures to assess any potential risks and impacts of future subproject and activities identified at a later time. It provides measures to reduce, mitigate, and/or offset those adverse risks and impacts from the project. This ESCMP will be applied to all subprojects and activities to be financed by GREEN.

12. The ESCMP provides information on.
    a. Summary of project and subproject activities under GREEN and at the time of design.
    b. Criteria to identify ineligible activities for Project financing.
    c. E&S screening procedures in line with national regulatory frameworks and IFAD SECAP 2021 standards.
    d. Description of risks to and from the project, impact classifications, and mitigation measures.
    e. Identification of various E&S documents to be prepared (both prior to and after project approval) and the process to be followed for their preparation (including the clearance process).
    f. Implementation arrangements.
    g. Training and capacity building plans, and estimated costs and budget requirements.
    h. Guidelines and specific forms for preparation of the identified E&S documents required.

13. In connection to the ESCMP, the following documents are also included:
    a. ESCMP matrix.
    b. Targeted Adaptation Assessment.
    c. Stakeholder Engagement Plan (SEP) and Grievance Redress Mechanism (GRM).
    d. Ethnic Minority Planning Framework (to be used in the development of an Ethnic Minority Plan at implementation stage).
    e. FPIC Implementation Plan (FPIC-IP).
    f. Environmental and Social Action Plan (ESAP).
    g. Exclusion Criteria and Screening Questions.

2) PROJECT DESCRIPTION

14. The Growth for Climate Resilient and Ecological Entrepreneurship and Nutrition (GREEN) project aims to enhance the income and employment of poor households in rural areas. It is targeted, especially in climate-vulnerable districts, through developing food systems that strengthen profitable production systems,

support human health/nutrition and protect environment and natural resource base. GREEN will facilitate the uptake of profitable, climate-resilient and environment-friendly technologies and best practices by rural households and microentrepreneurs through training and enterprise development support, private sector service linkages, and customized finance. To effectively deliver this, POs and government partners will be trained on value chain development and food systems approach in farm and non-farm sectors. In addition to enhancing profitability, resilience, and environment-friendliness of rural value chains, the project will undertake a comprehensive assessment of human nutrition issues to identify context-specific entry points. GREEN will be implemented during a period of six years (2026-2031).

15. **Component 1: Climate-resilient and Environment-friendly Food System Development.** Through sub-component 1.1, the project aims to establish the foundation for environment-friendly and climate-resilient food systems that are both inclusive and economically viable, and will target all three categories of beneficiaries. The sub-component will operationalize PKSF's well-established cost-effective value chain diagnostic framework to identify high-potential value chains suitable for the target geographies. This analytical process encompasses a comprehensive assessment of agroecological zones, market dynamics, profitability, climate risk exposure, and inclusion potential (for women, youth, and extremely poor households). The objective is to identify strategic entry points and recommend targeted interventions that optimize resource use, build adaptive capacities, and maximize co-benefits for nutrition and gender equality. Given the acute vulnerability of the areas targeted under Sub-component 1.1, the intensity of project interventions will be significantly higher compared to other regions. This includes a higher concentration of technical and financial support, more rigorous capacity-building activities, and deeper integration of climate resilience and environmental (particularly, natural resource) considerations. Priority will be placed on engaging high-performing POs with demonstrated outreach and operational capacity in climate hotspots.

16. Sub-component 1.2 extends the project's value chain development model to other project districts that, while less exposed to acute climate risks, face chronic vulnerabilities such as low input use, lack of market access, and underutilization of environmental technologies. These areas also represent significant untapped potential for climate-resilient and sustainable intensification, including diversification of production base. While the methodological framework remains consistent with Sub-component 1.1, the level of support and intervention intensity will be calibrated to reflect the relatively lower climate risk profile and the existing capacities of implementing partners. Emphasis will be placed on replicating proven models, mainstreaming gender and youth inclusion, and scaling up the adoption of environment-friendly and nutrition-sensitive innovations with lighter-touch facilitation.

17. Sub-component 1.3 is designed to improve dietary quality and nutrition behaviours among rural households, particularly women and adolescent girls, by embedding Social and Behaviour Change Communication (SBCC) into the project's value chain interventions. Recognizing that availability of nutritious food alone does not guarantee improved consumption, GREEN will deploy evidence-based nutrition messaging and community-based outreach strategies to influence food choices, feeding practices, and hygiene behaviour

18. **Component 2: Inclusive Financial Services for Value Chain Participants.** This component expands access to credit to all four categories of beneficiaries to finance their businesses, including beneficiaries of Component 1, to facilitate expansion of production, offer emergency financial solutions, leading to increased and resilient profits and household income.

19. Sub-component 2.1 targets the financial exclusion of the extremely poor households typically bypassed by conventional microcredit due to their limited repayment capacity, lack of collateral, and high perceived risk. These groups often live in the most climate-vulnerable areas and experience multiple deprivations, making access to capital a critical enabler for stepping into income-generating activities. Building on PKSF's experience with its Buniad loan product (10,000-50,000 Taka[1]), GREEN will expand and refine the delivery of extremely poor credit. The approach will emphasize low-ticket, high-flexibility financial instruments accompanied by intensive client mentoring and financial literacy training. These loans are not just capital injections but instruments for empowerment—allowing the poorest to build assets, manage shocks, and gradually enter higher rungs of the rural enterprise ladder

20. Sub-component 2.2 addresses the critical liquidity gap faced by producers and small businesses during seasonal investment cycles. With irregular income flows and lump-sum production costs, many smallholders are forced to borrow informally at exorbitant rates or cut back on key inputs. Seasonal credit under the Sufolon product line (60,000 Taka, maximum 100,000 Taka for 2 loans) aims to break this cycle by offering structured, short-term loans aligned with agricultural calendars and enterprise cycles.

21. While specialized loan products address niche needs, regular microcredit remains the backbone of rural finance and enterprise continuity. Under Sub-component 2.3, GREEN will scale up Jagoron loans (30,000-60,000 Taka) for rural entrepreneurs engaged in both farm and non-farm businesses. The focus is on enabling consistent access to working capital that can stabilize enterprise operations, expand market presence, and buffer small producers against moderate shocks.

22. To support the emergence of a dynamic rural enterprise sector, particularly among youth and women, GREEN will enhance and expand the Agrosor microenterprise loan product (60,000-1,000,000 Taka) under Sub-component 2.4. These larger-ticket loans are designed to finance business start-up, expansion, and formalization. The sub-component bridges the gap between microcredit and SME finance, targeting rural entrepreneurs with scalable models and solid business acumen. By integrating additional non-financial support—including market linkages, business plan development, and targeted mentoring—this sub-component will transform credit into catalytic capital, fostering job creation, value addition, and local economic multipliers.

23. **Component 3: Institutional Capacity Building of Implementing Partners.** This component will strengthen human and institutional capacities of PKSF and

[1] 10,000 Taka is USD 83. 60,000 Taka is USD 493.

POs as well as government partners in areas of financial product design and customization, climate-resilient project design and implementation, environmental protection, nutritional aspects of farm and non-farm development, leading to the development of sustainable food systems. Emphasis will be placed on mainstreaming climate, youth and nutrition lenses into day-to-day PO operations, improving client interface, and upgrading digital capabilities. The long-term goal is to professionalize the rural service delivery ecosystem so that POs can sustain and scale GREEN's innovations well beyond the project lifecycle.

24. **Target Groups:** The project's direct beneficiaries are estimated at 258,333 microfinance and business development recipients (Table 7), comprising the extremely poor, transitional poor and enterprising poor. GREEN aims to directly benefit 258,333 households, translating to approximately 1.11 million individuals. The target population includes agricultural laborers, artisans, marginal and smallholder farmers, pond fisheries farming and backyard livestock-keeping households, non-agricultural producers, and poor young men and women.

25. The project targeting strategies are: a) Geographical targeting: a combination of poverty and climate vulnerability considerations (*see the first table below*); b) Poverty targeting (*see the second table below*): extremely poor (30%), transitional poor (50%), and enterprising poor (20%); c) Gender and youth targeting: Women will be the majority (70%), youth will be about 50%, and poor women-headed HHs about 15%. The project will ensure producers of all sizes are included in the value chain activities. The proportion of the three poverty groups is based on experience of similar projects implemented by PKSF. The actual proportion will be regularly monitored during implementation, and the PMU and POs will encourage poorer households to join the project and microfinance program to ensure the project is inclusive and all beneficiaries will be able to access services as needed.

26. Although national, the project will prioritize poverty-stricken and climate-vulnerable districts. Within the priority GREEN regions, some parts are more vulnerable than others such as subdistricts adjacent to the coast, those in flood plains, a majority of flash flood prone Haor subdistricts, and drought-prone Barind subdistricts. During the initial stage of implementation, based on subproject criteria and guidelines, targeting within these districts will be refined utilizing the POs' intimate knowledge of the context.

High priority climate-vulnerable and poverty-stricken districts for GREEN

Climate Hotspots in BDP2100	Districts
Haor region	Kishoreganj, Netrakona, Sunamganj, Habiganj, and Brahmanbaria
Coastal region	Khulna, Bagerhat, Satkhira, Barguna, Patuakhali, Bhola, Lakshmipur, Noakhali, Feni, Chattogram, and Cox's Bazaar
High Barind region	Rajshahi, Naogaon, Chapai Nawabganj, Dinajpur, Joypurhat, Thakurgaon and Panchagar
River Char region	Sirajganj, Gaibandha, Jamalpur, Kurigram, Rangpur, Lalmonirhat, Nilphamari, Tangail and Manikganj

Poverty classification definitions

Beneficiary groups by poverty category	**Operational definitions**
Extremely poor (People living below the lower poverty line)	An extremely poor family may not have any agricultural land except a homestead, and sometimes live on *khas* (public land) land or donated land; poor women headed HHs are overrepresented in this category; they may lack regular daily or monthly income and mostly rely on agricultural labour. They may be food insecure in some months of the year.
Transitional poor (People living below the upper poverty line)	Mostly marginal farming families who own between 0.5 to 1 acre of land; these HHs may have other sources of income.
Enterprising poor (People living slightly above the upper poverty line but vulnerable to fall back into poverty)	Mostly small farmers who own between 1 to 2.5 acres of land; owners of farm and non-farm visible enterprises; families who have regular income from various sources such as business, wage/salary, agriculture, etc.

27. **Project Implementation Arrangements:** The Financial Institutions Division (FID) of MoF and PKSF will be the Executing Agency (EA) and the Implementing Agency (IA), respectively. A Project Steering Committee (PSC) chaired by Secretary, FID/MOF, will monitor and guide the project. Other members of the PSC will be representatives from Financial Institutions Division (FID), Finance Division (FD), and Economic Relations Division (ERD) of MoF and PKSF.

28. The project will be under the Environment and Climate Change Unit headed by a Deputy Managing Director (DMD). PKSF will establish a Project Management Unit (PMU), integrated into PKSF structure. The project will be managed by ten PKSF officers and four contracted officials. The terms of reference, qualification, and experience for each position are in the Project Implementation Manual (PIM). The PMU will be headed by a Project Coordinator appointed from PKSF's pool of senior officials. The PMU will work with PKSF's Loan Operations Division to implement the financial services programme through POs as per established processes and norms. PKSF will work with POs and selected service providers for the implementation of the value chain component. PKSF's support divisions including Audit, Administration, Agriculture, Human Resources, Accounts and Finance, Research, Training, M&E, MIS and IT will provide relevant services to the project.

29. PMU will directly manage Component 1 and 3 while Component 2 will be managed in coordination with the PKSF Loan Operations Division (LOD). Component 1 will be implemented through POs and capacity building under Component 3 will be managed by PMU in collaboration with other Government Institutions and POs.

30. The PMU will be based in Dhaka, and will plan, execute, monitor and report progress to PSKF management, FID and IFAD. The PMU is responsible for fund management and progress reporting. The PMU may bring in temporary skills as needed.

31. SECAP related functions will be led by the Project Management Unit (PMU) and the Project Coordinator with strong support from Senior Programme Manager for Climate Change, Environment and SECAP who will function as the lead on SECAP, and the Senior Programme Manager for Nutrition, Gender, Inclusion and SECAP who will support the SECAP lead.

3) INSTITUTIONAL AND LEGAL FRAMEWORK

i. NATIONAL INSTITUTIONAL, LEGAL AND REGULATORY REQUIREMENTS

32. PKSF is an apex body, registered as a not-for-profit company, implementing their programme of work through a network of more than 223 Partner Organizations (POs) and collectively benefitting around 20 million people. PKSF POs are registered microfinance institutions (MFIs) and/or NGOs with extensive footprint in GREEN target geographies across Bangladesh and tend to have specialized areas of interest in microenterprise and value chain development.

33. Since PKSF is a government mandated entity, it reports to the Financial Institutions Division (FID) of the Bangladesh Ministry of Finance (MoF). PKSF has its own SECAP-relevant procedures and policies, which are described in the ESG Action Plan (ESAP, Annex 6). Some policies and procedures are effective across its entire portfolio of work, and some others are project specific. Many of PKSF's POs also work with other funding institutions and donors—hence, have policies and procedures in place; in general, PKSF project-specific requirements cascade onto POs.

34. The project will be required to follow the national procedures related to environmental and social impact assessment, as outlined in the Environmental Conservation Act - ECA (1995) and Rules (1997). In line with the identified risks, the project will follow the existing guidelines for environmental impact assessment and management as used within PKSF, within Bangladesh more generally, and by IFAD. This includes screening, assessing and reporting on the impact of individual subprojects, and updating / implementing the Stakeholder Engagement Plan, Ethnic Minority Plan, FPIC, Targeted Adaptation Assessment, and ESCMP (including exclusion criteria). Throughout GREEN implementation, PKSF will ensure due diligence to the related government regulations (acts, ordinances, rules etc.) to ensure compliance, highlight gaps in relation to SECAP 2021, and identify gap-filling measures, as needed.

35. In addition, the following sectoral laws are applicable (this is not an exhaustive list) and all project activities will be implemented in line with the current requirements of the Government of Bangladesh and in line with IFAD's SECAP 2021.

36. The main national institution for environmental and social risk management / safeguards is the Ministry of Environment, Forest and Climate Change (MOEFCC). The Department of Environment under MOEFCC is the main enforcement agency, and under provisions of the ECA 1995 is responsible for awarding clearance to development projects, monitoring compliance, enforcing environmental standards, and preventing activities that are likely to cause environmental harm or degradation. The Bangladesh Planning Commission is the central planning organization and plays a key role in setting policies, sectoral plans, project planning and evaluation. Other relevant ministries include (but are not limited to) the Ministry of Food, Ministry of Agriculture, Ministry of Livestock and Fisheries,

Ministry of Health and Family Welfare, Ministry of Social Welfare, Ministry of Land, Ministry of Women and Children Affairs, Ministry of Youth and Sports, Ministry of Water Resources, and Ministry of Labour and Employment.

37. **Environment and Pollution:**

a. The National Environmental Policy (1992) identifies and regulates activities that may degrade the environment and ensures the sustainable and environmentally sound use of natural resources.

b. The National Environmental Management Plan (1995) is a broad set of programs aimed to implement this policy.

c. The Environmental Conservation Act (1995) and Rules (1997) set the standards and procedures to prevent pollution of the environment, including standards for ambient air, various types of water, emission, noise, vehicular exhaust and so on. They guide the execution of project screening, assessment and monitoring by defining requirements for and procedures to obtain environmental clearance and requirements for initial environmental examination (IEE) / environmental impact assessment (EIA) to categories of industrial and other development interventions.

d. Environmental Conservation Rules (2023 amendment) classify development projects and industrial units into four categories for the purpose of issuing an Environmental Clearance Certificate (ECC): green, yellow, orange and red.

i. Green Category projects are considered relatively pollution-free and hence do not require initial environmental examination (IEE) and Environmental Impact Assessment (EIA). An Environment Clearance Certificate (ECC) from the Department of Environment (DoE) is adequate. *This project (GREEN) falls under the Green Category and is eligible to obtain a certificate from the Director, DOE without additional reports and assessments. However, in line with SECAP 2021 and ECR, PMU and PKSF will screen all the subproject proposals and further carry out IEE/EIA (if required) and undertake appropriate mitigation measures. It should be noted that proposals with significant environmental impact (Red Category) would not be funded through GREEN.*

ii. Yellow and orange projects are those with moderate impact on environmental and human health, and therefore required to submit general information, a feasibility report, a process flow diagram and schematic diagrams of waste treatment facilities along with their application for obtaining DoE environmental clearance. ECC issued for yellow category is valid for two years, and orange category is valid for one year.

iii. Red Category projects are those which may cause 'significant adverse' environmental impacts and are, therefore, required to submit an EIA report. It should be noted that they might obtain an initial site clearance based on an IEE report and subsequently submit an EIA report for obtaining environmental clearance along with other necessary papers, such as feasibility study reports and no objections from local authorities. ECC issued is valid for one year.

e. National Agriculture Policy (2010) has the objective to make Bangladesh self-sufficient in food through increased production of all crops and ensure food security for all. One of the specific objectives of NAP 2010 is to take necessary steps to ensure environmental protection as well as 'environment-friendly sustainable agriculture' through increased use of organic manure and strengthening of the integrated pest management.

f. In 2021, Bangladesh adopted the Solid Waste Management Rules (SWMR) under the 1995 Bangladesh Environment Conservation Act (BECA), providing the legal foundation for implementing Extended Producer Responsibility (EPR) guidelines. The Rules also includes provision for the treatment of solid waste such as composting and recovery.

38. **Biodiversity and Land:**

a. National Land Use Policy 2021 which aims to ensure that land use is in harmony with the environment, prevent gradual and consistent decrease of arable land for food production, protect natural forest areas and prevent river erosion, and prevent land pollution.
b. Biodiversity Act 2017 has provisions to create the National Committee and the Biodiversity Management and Surveillance Committees at local levels (i.e., Districts, Upazilas, Unions).
c. Bangladesh Wildlife (Protection and Preservation) Act of 1992 identifies species of plants, animals, amphibians, reptiles, mammals, fish, and insects under Schedule 1 and Schedule 2.

39. **Water Resources:**

a. The National Water Policy (1999) focuses on protection, restoration and enhancement of water resources; protection of water quality; provision of sanitation and potable water; and the participation of local communities in water development projects.
b. The Bangladesh Delta Plan 2100 (2018) defines the strategy to ensure long-term water and food security, economic growth and environmental sustainability while reducing vulnerability to natural disasters and building resilience to climate change.
c. National Fisheries Policy 1999, together with Protection and Conservation of Fish (Amendment) Ordinance 1982 and Protection and Conservation of Fish Amendment Act 1995, provide provisions for the protection and conservation of fish breeding grounds and habitats.
d. Groundwater Management Ordinance 1985 sets the requirements for management of groundwater resources and licensing of tubewells.
e. National Safe Drinking Water Supply and Sanitation Policy (NSDWSSP, 1998) was adopted in 1998 and sets out the basic framework for the improvement of public health, promote proper conservation, management and use of surface water, control water pollution in the light of freshwater scarcity, and improve sustainable water supply and sanitation.

40. **Climate Change and Disaster Risk Management:**

a. The Mujib Climate Prosperity Plan (2022-2041) is focused on climate resilience building, analyzing the economic considerations and identifying the appropriate financing instruments.
b. The National Adaptation Plan (2023-2050) identifies six goals including Goal 1 (ensure protection against climate variability and induced natural disasters).
c. Bangladesh's latest NDC (2021) proposes a 5% unconditional reduction in GHG emissions from the Business As Usual scenario by 2030, with an additional 10% reduction conditional on international support.
d. The National Plan for Disaster Risk Management (2021-2025) outlines key actions to save lives and reduce economic losses from disasters, including Disaster Risk Reduction, Humanitarian Response and Emergency Recovery

Management. It builds on the Sendai Framework for Disaster Risk Reduction and the Disaster Management Policy (2015).

41. **Gender:**
a. The Constitution of Bangladesh lays down the general principles regarding the protection of women from all forms of discrimination and the promotion of their equal participation.
b. Bangladesh ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1984. The country has also enacted laws like Prevention of Oppression against Women and Children Act (2000) and Domestic Violence (Prevention and Protection) Act (2010) to address gender based violence.
c. The GoB adopted a National Women Development Policy in 2011 with an accompanying Action Plan to guide implementation thereof. This policy sets out comprehensive goals for women's empowerment, while various other sectoral policies integrate gender considerations into health, education and agricultural programmes.

42. **Youth:**
a. The largest share of the population of Bangladesh belongs to 15-to-19-year-olds and the lowest belongs to 95 years old and above. The youth population (age 15–24) has increased from 18.16% in 2011 to 19.11% in 20222.
b. The National Policy for Youth (2017) aims to ensure special support is provided to rural youth with opportunities to boost the rural economy (including with lease of government owned Khaas farmland, ponds and 'Jolmohal). The youth policy focused on youth employment, skills development, entrepreneurship and civic engagement. The Youth Development Department Act (2015) institutionalises youth development efforts by ensuring coordination across ministries to empower young people as agents of change.

43. **Ethnic Minorities:**
a. The Bangladesh constitution recognizes “tribes, minor races, sects and ethnic communities”, and obliges the State to protect and develop their unique local culture and traditions. Bangladesh has around 30 small ethnic minorities. Chittagong Hill Tracts (CHT) Peace Accord (1997) remains the key policy framework addressing ethnic minority rights, land issues, and self-governance in the CHT region. The Small Ethnic Groups Cultural Institutions Act (2010) also aims to preserve and promote the cultural heritage of small ethnic communities.

44. **Cultural Heritage:**
a. Bangladesh’s legal and policy framework for cultural heritage protection is anchored in the Antiquities Act (1968), which regulates the preservation of archaeological sites and artefacts. The Bangladesh National Museum Ordinance (1983) governs the management of national museums and heritage collections. Additionally, the Department of Archaeology under the Ministry of Cultural Affairs implements heritage conservation activities, while the Cultural Policy (2006) promotes preservation of diverse cultural traditions, languages, and arts. Bangladesh is also a signatory to UNESCO’s World Heritage Convention (1972)

2 Population and Housing Census 2022

and the Convention for the Safeguarding of Intangible Cultural Heritage (2003), reflecting its commitment to protecting both tangible and intangible cultural heritage.

45. **Decent Work and Harmful Child Labour:**

a. The Decent Work Country Program 2022- 2026 is a collaboration between government and industries to improve the rights of workers. The Ministry of Labour and Employment is responsible this program.
b. The National Plan to Eliminate Child Labour (2020-2025) was prepared by the National Child Labour Welfare Council.
c. The Bangladesh Labour Act (2006) and its amendment in 2013 has separate sections on restrictions / prohibitions related to child labour in any occupation or establishment, contract requirements related to young people and pregnant women, and to ensure the decent working environment in the working place. For instance, Chapter VI of this Act specifies safety precautions regarding use of lifting machinery, and Chapter VII specifies safety measures such as first aid kit, maintenance of safety record books, housing facility and children room.

46. **Land Acquisition and Displacement:**

a. The Acquisition and Requisition of Immovable Property Act (ARIPA, 2017) is the principal legislation governing land acquisition and requisition in Bangladesh. The law states that in cases of land acquisition, compensation is to be paid, to be determined by the Deputy Commissioner.

47. **FPIC and GRM:**

a. The Right to Information Act 2009 makes provisions for free flow of information. Right to Information means the right to obtain information from any authority, and on demand from a citizen, the authority shall be bound to provide him/her with the information. It guarantees right to information as an inalienable part of freedom of thought, conscience and speech, including transparency and accountability of all public, autonomous and statutory organizations and of other private institutions constituted or run by the government or foreign financing. Here "information" includes any memo, book, design, map, contract, data, log book, order, notification, document, sample, letter, report, accounts, project proposal, photograph, audio, video, drawing, painting, film, any instrument done through electronic process, machine readable record, and any other documentary material regardless of its physical form or characteristics, and any copy thereof in relation to the constitution, structure and official activities of any authority.

ii. IFAD'S SOCIAL, ENVIRONMENT AND CLIMATE ASSESSMENT PROCEDURE 2021

48. IFAD's Environmental and Social Standards comprise key requirements for the environmental and social sustainability of projects. The Standards are aimed to be implemented in the context of IFAD financed projects during project design and implementation; and borrowers/ recipients/partners, which are ultimately responsible for project implementation. The requirements related to each standard will be applied in line with the unique nature of the project, its specific activities, the associated social and environmental risks and impacts as outlined in the ESCMP. Applicable SECAP Standards for GREEN and Scope of Application follows.

49. **Standard 1. Biodiversity Conservation.** This Standard and its associated requirements apply to all IFAD-supported projects that are:
    a. Located in modified, natural or critical habitats.
    b. Located in areas providing ecosystem services upon which project stakeholders depend for survival, sustenance, livelihoods or primary income, or that are used for sustaining the project.
    c. Located in areas where project activities could result in increased human-wildlife encounters or conflicts, including endangered wildlife or migratory species.
    d. Extracting renewable natural resources, i.e. projects that include the generation of living natural resources (e.g. plantation forestry, commercial harvesting, agriculture, livestock, fisheries, aquaculture). or
    e. Using and commercializing an indigenous knowledge system.
    f. This Standard also applies to situations where the livelihoods of affected communities— including those of Indigenous Peoples—whose access to or use of biodiversity, ecosystem services or living natural resources may be affected by project activities.

50. The objective of Standard 1 is to conserve / maintain biodiversity (including agrobiodiversity), promote sustainable use of biodiversity, and ensure the fair and equitable sharing of benefits from genetic resources. SECAP applies a precautionary approach to natural resource management and environmentally sustainable development. Project activities should respect, preserve, maintain and encourage the knowledge, innovations and customary practices of Indigenous Peoples and local communities.

51. **Standard 2: Resource Efficiency and Pollution Prevention.** This Standard applies to any IFAD-supported projects that:
    a. Significantly consume or cause consumption of water, energy or other resources, including irrigation schemes.
    b. Aim to improve existing waste-management practices.
    c. Generate or cause generation of solid, liquid or gaseous waste or emissions. or
    d. Use, cause the use of, or manage the use, storage or disposal of hazardous materials and chemicals, including pesticides and fertilizers.

52. The objectives of Standard 2 are to avoid, minimize and manage the risks and impacts associated with toxic or hazardous substances and materials, including pesticides and fertilizers; promote more sustainable use of resources, including soil, land, water and energy; avoid or minimize project-related emissions of short- and long-lived climate pollutants; identify opportunities for improving resource efficiency and promote appropriate management of project's waste streams.

53. **Standard 3: Cultural Heritage.** The Standard applies to projects that may create risks and/or result in adverse impacts on cultural heritage, including those that may be located in—or in the vicinity of—a cultural heritage site, or that propose to utilize tangible or intangible forms of cultural heritage for commercial or other purposes.

54. The objective of Standard 3 is to preserve and safeguard cultural heritage. It also aims to ensure that active efforts are made to prevent IFAD-supported projects

from altering, damaging, or removing tangible or intangible cultural heritage, promote the equitable sharing of benefits derived from use of cultural heritage, and ensure meaningful consultation on matters related to it.

55. **Standard 4: Indigenous Peoples** (Ethnic Minorities in Bangladesh context)**.** This Standard applies to all projects that may affect the human rights, lands, natural resources, territories, cultural heritage or traditional livelihoods of Indigenous Peoples, regardless of whether: (i) the project is located within or outside of the lands and territories inhabited by Indigenous Peoples; (ii) a title to the lands and territories in question is possessed by the Indigenous Peoples; or (iii) the Indigenous Peoples are recognized as indigenous in the country.

56. The objective of Standard 4 is to support Indigenous Peoples to determine priorities and strategies for exercising their right to development. Additionally, it aims to ensure that (1) each subproject is designed in partnership with Indigenous Peoples and with their full, effective and meaningful consultation, leading to FPIC; (2) Indigenous Peoples play a role in decision making, and obtain fair and equitable benefits from project-supported activities in a manner that is culturally appropriate and inclusive; and (3) project activities recognize and respect the rights of Indigenous Peoples to the lands, territories, waters and other resources that they have traditionally owned, used or relied upon.

57. **Standard 5: Labour and Working Conditions.** The requirements of this standard apply to all project workers directly engaged by borrowers / recipients / partners to work on a project or perform work essential to the project, and to people employed or engaged through third parties (e.g., contractors, subcontractors, brokers, agents and intermediaries) to perform work essential to a project. When a project engages community workers, relevant provisions of the requirements will be applied in a proportionate manner, recognizing the potential risks and impacts. Paragraphs 23 and 24 in SECAP 2021 Edition Volume 1 apply to primary supplier workers. The full requirements apply to full-time, part-time, temporary, seasonal and migrant workers.

58. The objectives of Standard 5 includes promoting direct action to foster decent rural employment; promoting, respecting and realizing fundamental principles and rights—including through compliance with national employment and labour laws as well as international commitments—by (a) preventing discrimination and promoting equal opportunities, (b) supporting freedom of association and the right to collective bargaining, and (c) preventing the use of child labour and forced labour; protecting and promoting the safety and health of workers; and leave no one behind and ensuring inclusive opportunities by protecting and supporting workers in marginalized, disadvantaged and vulnerable situations (women, young workers, migrant workers, workers in the informal economy, and workers with disabilities).

59. **Standard 6: Community Health and Safety.** This Standard applies to projects that may pose significant risks to and adverse impacts on human health, nutrition and safety. The applicability of this Standard will be determined during the environmental, social and climate risk screening and assessment phase, as outlined in the next section. Measures to ensure occupational health and safety are covered in Standard 5: Labour and working conditions. Further requirements to avoid or minimize impacts on human health and the environment from

pollution are included in Standard 2: Resource efficiency and pollution prevention.

60. The objectives of Standard 6 are to ensure quality and safety in the design and construction of project-related infrastructure, preventing and minimizing potential safety risks and accidents; avoid or minimize community exposure to disaster risks, diseases and hazardous materials associated with project activities; ensure that the safeguarding of personnel and property minimizes risks to communities and is carried out in accordance with international human rights standards and principles; and have in place effective measures to address emergency events, whether human-made or natural hazards.

61. **Standard 7: Physical and Economic Resettlement.** This Standard applies to all IFAD-supported projects that involve any displacement or need for resettlement. The displacement may be full or partial, permanent or temporary, and could result from a variety of project activities. This Standard also applies to any physical or economic displacement caused by a borrower / recipient / partner for purposes relevant to the project before IFAD's involvement.

62. The objectives of Standard 7 are to avoid involuntary resettlement or, when unavoidable, minimize involuntary resettlement by exploring alternative project designs and sites; avoid forced evictions; ensure that resettlement activities are planned and implemented collaboratively with the informed consent and meaningful participation of affected people; enhance and restore the livelihoods of all affected people and groups; and provide explicit guidance to borrowers / recipients / partners on the conditions that need to be met regarding involuntary resettlement, including compensation and rehabilitation requirements.

63. **Standard 8: Financial Intermediaries (FIs).** This standard applies to FIs and direct investees that receive financial support from IFAD, guided by its Rural Finance Policy and NSO Framework. When an FI receiving support from IFAD provides financing or de-risking instruments to other financial intermediaries, the primary financial intermediary should apply this Standard, guided by IFAD’s Rural Finance Policy and NSO Framework, and should ensure that each FI also applies this Standard In the event that a direct investee implements other projects, subprojects or sub-activities concurrently, the investee should ensure that this Standard is applied

64. The objectives of Standard 8 are to promote sound environmental, social and climate practices, and sound human resource management with FIs and direct investees; ensure that FIs and direct investees assess and manage any environmental and social risks and impacts of subprojects; and promote good environmental and social management practices by direct investees and in the subprojects financed by FIs.

65. **Standard 9: Climate change.** The requirements of this Standard apply to all IFAD-supported projects that:
    a. Have development outcomes that may be threatened by climate change or related disaster risks.
    b. May contribute to increased exposure or vulnerability to climate change and related disaster risks.
    c. May produce significant GHG emissions.

66. The objectives of Standard 9 are to align IFAD-supported projects with Nationally Determined Contributions (NDCs), goals of the Paris Agreement and other international frameworks. It aims to ensure that project and subproject activities screen and assess proposed activities for climate change and disaster risks and impacts (both impacts of projects and impacts on projects); apply the mitigation hierarchy in project design; strengthen the resilience of communities to address climate risks and climate-related disasters; and enhance adaptation / adaptive capacity to the adverse impacts of climate change and foster climate-resilient, low carbon development projects that safeguard food production.

4) PROCEDURE FOR ESC SCREENING AND MANAGEMENT FOR SUBPROJECTS

67. During design phase, and at the moment of preparation of this document, the GREEN Project Design Team (PDT) had defined the priority target regions of intervention and potential value chains. However, exact project sites and value chains will be defined during early implementation when PKSF POs submit subproject proposals. Owing to this context, the team has developed the current Environmental, Social and Climate Management Plan (ESCMP) under a framework approach.

68. The sections above have described the anticipated environmental, social and climate risks anticipated for the project activities in the context of the applicable policy frameworks. This section describes the procedures to identify specific environmental and social (E&S) impacts, including climate risks, once the GREEN activities and/or subprojects are identified and selected, and implement the relevant management and monitoring plan to implement measures that avoid, minimize, and/or mitigate the risks and potentially adverse impacts.

i. STEP 1: PROJECT INTRODUCTION, FPIC PROCEDURE, SUBPROJECTS IDENTIFICATION

69. This first step is for the project and PKSF POs to agree on a possible collaboration between GREEN and the target upazilas / villages and beneficiaries. The potential agreement will result from three initial activities namely: project introduction / information dissemination, subproject pre-identification and FPIC procedures. The FPIC agreement is a prerequisite for further steps. In case an agreement between the project and the pre-selected beneficiaries from the upazila / village is not reached, the project is to select another target upazila / village and repeat the process in step 1.

70. Subproject is defined as a set of interrelated activities that undergo steps to ensure consistent identification of risks, and implementation of SECAP related requirements and instruments developed for the project. Depending on the project, a subproject may be based on a determined geographical area and encompass all activities or some within that area, or based on activities under a component (e.g., financial services), or implementation arrangements in place for the project (e.g., each Partner Organization’s proposal may constitute a subproject).

71. The overall objective is to ensure that all activities implemented in the context of the project consistently assess and manage environmental and social risks and implement the steps 1-5 as described in this section. This process will also

ensure that risk assessment and management process is transparent and tailored.

ii. STEP 2: SUBPROJECT SCREENING FOR SOCIAL, ENVIRONMENTAL AND CLIMATE RISKS

72. Once collaboration between target community and the project has been agreed upon and formalised in an FPIC document (when relevant) the pre-identified subprojects are to be screened using the screening checklist (available in Annex 5). This screening checklist is indicative and is to be updated to include questions that may be useful to identify additional risks or the need for additional requirements by national legislation, as relevant. PMU will have the overall responsibility of reviewing and updating the screening checklist as early as possible.

73. Screening will include screening of environmental, social, and climate risks and impacts (with a particular attention to IFAD and national thresholds as per environmental impact assessment regulation) and determining applicable standards and the appropriate types of assessment needed to address identified impacts; and, preparing action plans for avoiding, reducing, mitigating and managing adverse impacts, including development of specific management plans. Management plans should be designed so that they can adapt to changes in both project design, and environmental/social/climate variability.

74. Only eligible activities will be considered at this stage. The screening forms that will be used identify ineligible activities as described in the exclusion list (available in Annex 5) and should be used in conjunction with IFAD's exclusion list (reference available in Annex 5).

75. The screening process will result in identification of environmental and social risks that will require management measures to be implemented and monitored specifically at subproject level.

76. For any subproject including an activity present in the relevant exclusion lists described above, the approach is to reconsider the concerned activity or subproject and seek alternative design or location. If not possible, the high-risk subprojects should be excluded and made ineligible to funding by GREEN.

77. For eligible subprojects, specific ESCMPs will be prepared and implemented in line with the measures described in sections above, and relevant national requirements. Specific roles and responsibilities for implementing, monitoring and reporting on progress against the ESCMP will be identified at PO and PKSF levels.

iii. STEP 3: SUBPROJECT ESCMP DESIGN

78. Once subprojects are determined and confirmed, and subproject specific screening conducted, the responsible specialist for SECAP related activities at PMU coordinates the establishment of subproject specific ESCMP, based on the results of the screening conducted in step 2.

79. Annex 1 of this document includes a ESCMP Matrix developed during design based on the project screening, which can guide in the development of

subproject ESCMPs. Once relevant measures are included, mandatory activities related to stakeholder engagement (Annex 3), FPIC (Annex 4) and GRM (Annex 3) are also reflected to facilitate monitoring of one instrument.

80. The subproject specific ESCMP defines roles and responsibilities for each activity. Based on this, a rapid capacity needs assessment is conducted to identify capacity building activities to be conducted early during project implementation to ensure adequate capacity is in place.

81. The SECAP specialist also defines monitoring indicators to include in the M&E system of the project and identifies the costs involved in the implementation of the subproject ESCMP, including capacity building needs to be integrated in the project budget.

iv. STEP 4: CONSULTATIONS AT LOCAL LEVEL

82. The consultations at local level involve the local authorities at village level, the community members, including women, youth, and the district line agencies. Consultations are facilitated by the POs with regulatory, technical and capacity building assistance from the PMU and relevant specialists based on the activities.

83. If stakeholders, incl. IPs, women, youth, and vulnerable groups, broadly agree on the design and the adverse environmental and social risks anticipated, as well as the management measures proposed, the subproject can proceed. If major design is necessary, PKSF PO and PMU addresses relevant changes.

v. STEP 5: IMPLEMENTATION AND MONITORING OF SUBPROJECTS.

84. Subprojects and mitigation measures are to be implemented and ESCMP implementation and monitoring takes place.

85. The PMU is responsible for documenting and ensuring regular reporting is compiled and documented to ensure environmental and social performance of the subprojects against the applicable policy frameworks described in section 2 of this document.

vi. MONITORING OF PROJECT IMPLEMENTATION AND SPOT CHECKS

86. Monitoring and supervision of project implementation through PKSF's POs will be critical to the proper management of both social and environmental risks.

87. While the project will need to ensure a pro-active, constructive approach to reducing these risks (including through the mandatory acceptance of a Code of Conduct and awareness raising), a strong monitoring and compliance system is equally critical. Such a system should be implemented at two levels:

- Regular monitoring and supervision by GREEN's PMU. These will be the regular, announced interactions between PKSF and POs. During such interactions, the project staff should note any discrepancies between the agreed actions, and the behaviour or actions observed in the field.
- Spot checks (unannounced). In addition to the regular interactions, the project will need to add unannounced spot checks on a risk basis, conducted by another project staff who is not the directly responsible for SECAP. Risk factors include the size of the PO subproject, number of PO staff involved, and the presence of

vulnerable groups or occurrence of extreme climate event (natural disaster) in the project area. It may also be instigated through the GRM.

88. The exact arrangements for the implementation of spot checks will need to be defined during project start-up. The target should be to conduct a spot check in at least 50% of the subprojects that have a higher risk category.

89. For any issue identified, the PO should be required to respond to the issues raised in writing and propose corrective actions. The responsible project staff should approve of the proposed corrective actions, and monitoring if they are indeed implemented. To do so, the project staff can involve specialist knowledge within the PMU or PKSF. If a PO fails to propose adequate corrective actions, or fails to implement them, the PO should receive a formal warning and eventually be excluded from future subprojects.

5) ENVIRONMENTAL, SOCIAL AND CLIMATE MANAGEMENT PLAN

90. As summarized in the ESAP (Annex 6), by nature of its sustainable development objectives and microfinance activities, PKSF does not lend to or provide grants to activities that would be considered "High" E&S (environmental and social) risk for commercial banks and other NSOs (non-sovereign entities) that for-profit in nature. For example, activities funded through microcredit loans will not involve riverbed or sand mining, plantation forestry, water abstraction through dams / reservoirs, construction of embankments or roads, significant greenhouse gas emissions, land acquisition, or critical habitats or forested areas.

91. The potential negative impacts of GREEN are linked to smallholder agriculture and micro-enterprises (farm and non-farm), which are small and site specific. If subprojects support MSMEs in a cluster approach, this may result in relatively higher cumulative and aggregated impacts on resource use and pollution. Careful reassessment of the pollution and waste generated by the associated value chain will occur, and suitable and accessible mitigation measures proposed. GREEN does not anticipate significant or irreversible environmental risks; the expected risks can be mitigated through subproject exclusion criteria, measures identified in the ESCMP matrix, and implementation of the ESAP recommendations.

92. The project is expected to positively impact beneficiaries and their farm / non-farm businesses in several ways:
    a. Increase income, food security and climate resilience of smallholder farmers and microentrepreneurs.
    b. Increase nutritional status of targeted households (farmers, microenterprises) through nutrition education and integrating nutrition considerations in subproject value chains (e.g., home gardens).
    c. Enhance resource use efficiency in agriculture and reduce adverse impacts on biodiversity by promoting uptake of better land, water and soil management practices (drip irrigation, micro-irrigation, organic fertiliser, mulching and compositing, balanced fertiliser use, multi-trophic aquaculture, biological pest control and pheromone traps, biosafety measures in livestock farming, nutritious supplementary feed, and stall feeding).
    d. Reduce livestock and rice emissions / emissions intensity through practices that improve livestock and rice productivity—including, system of rice

intensification, alternate wetting and drying of rice, access to para-vets for routine vaccinations and healthcare.

e. Reduce climate vulnerability of agricultural livelihoods through introduction of stress-tolerant seeds and livestock / fish breeds.
f. Reduce environmental degradation and pollution from microenterprises through increased awareness and support for actions (e.g., use of solar-powered vending carts, support for 'Safe Meat and Dairy' microenterprises, light processing and storage facilities to reduce post-harvest horticulture waste).
g. Improved inclusion of youth and women in microenterprise and value chain activities.

i. SUMMARY OF PROJECT IMPACTS AND PROPOSED MITIGATION AND ENHANCEMENT MEASURES

93. **Standard 1. Biodiversity Conservation. The risk is assessed as Moderate.** The project is nationwide, but prioritizes four regions in Bangladesh (River Char, Hoar, Barind, and Coastal) which include forests and wetlands. Bangladesh hosts areas of significant biodiversity value, including 51 Protected Areas—of which 17 are National Parks[3]—with terrestrial fauna, birds, fish and amphibians. Only around six (6) of the 17 National Parks are larger than 20 sq kms (2000 hectares) in size: Tangail Haor's Madhupur NP and Kaptai NP in Chittagong Hill Tracts are among the largest PAs in Bangladesh.

94. In the Coastal region, the Sundarbans Delta—mangrove forests formed by the confluence of three rivers—is a critical ecosystem and wildlife habitat for several endangered species (Gangetic and Irrawaddy dolphins, Royal Bengal Tiger, Dalmatian pelican, Chinese pangolin); the Nijhum Dweep NP is a part of the Sundarbans. The Hoar region contains critical ecosystems for fish production, with ~154 native fish species inhabiting the lower Haor wetlands. Tanguar Hoar (Sunamganj district) is a National Park and Ramsar site. Some NPs, like Baroiyadhala NP (Chittagong district) serve as important wildlife corridors for species such as Assamese macaque, barking deer, and mainland serow.

95. Bangladesh's critical habitats and ecosystems face threats from upstream riverine developments (domestic and transboundary), urbanization, infrastructure development, industries, and unsustainable agricultural (e.g., monoculture, overuse of agro-chemicals). Coastal mangroves provide important cyclone and tidal surge protection benefits, but these are under stress from sea-level rise and climate change: high-intensity cyclones such as Aila (2009) and Sidr (2007) severely damaged mangrove vegetation. River and water erosion is a common issue in multiple regions, affecting a combined 3.4 million hectares of land (24% of land area)[4]. The rate of deforestation in Bangladesh is double that of global average, and the country's forest cover is 15.8% of land (FAO estimate).

96. The primary risk to biodiversity stems from GREEN's financial and non-financial support for crop, livestock, fisheries and MSME activities. There may be inadvertent, localized risks to biodiversity associated with increase in economic

3 National Biodiversity Strategy and Action Plan of Bangladesh (NBSAP), 2016-2021. https://www.cbd.int/doc/world/bd/bd-nbsap-v2-en.pdf
4 NBSAP, 2016-2021.

activity: release of pollutants and waste into water and soil by smallholder farmers or MSMEs (discussed in Standard 2), adverse effect on local agrobiodiversity from improved seeds and breeds, or crop raiding by local wildlife—specifically, monkeys, wild boars, jackals). While Bangladesh has significant freshwater and estuarine aquaculture, PKSF recognizes that some types of aquaculture farms (owing to poor practices and scale) have had high ecological impacts e.g., shrimp farming. PKSF borrowers typically engage in fisheries at small (<1/10th of an acre) and semi-commercial (up to 10 acres) scale. PKSF emphasizes multi-trophic systems where different fish species are produced in the same ponds, thereby increasing feed efficiency and reducing waste generation.

97. Individual households may choose to utilize microloans (USD 60-500 loan size) to upgrade their homesteads against climate risks, but the use of materials (gravel, sand, wood) is expected to be minor. Similarly, micro-enterprises may choose to improve their infrastructure (USD 500-8,500 loan size); this will occur within already-urbanized areas and not impinge on critical ecosystems and habitats.

98. During implementation, (i) the identification and selection of priority value chains and interventions, and (ii) the screening and evaluation of PKSF POs' proposals to access GREEN credit lines will ascertain if biodiversity relevant safeguards are in place when working in vulnerable areas or value chains (e.g., avoiding disturbance prone areas, identifying and integrating measures to minimize human-wildlife conflict, supporting MSMEs that provide alternatives to plastics or agro-chemicals, discouraging monocultures and promoting agrobiodiversity, excluding activities that involve invasive or alien species of plants and fish).

99. Capacity development activities for POs and micro-credit groups will seek to strengthen understanding of biodiversity / environmental risks and best practices for soil, water and agrobiodiversity management. Examples of past and ongoing efforts that will replicated and scaled:
    a. PKSF's Integrated Agriculture Unit (IAU) has substantive experience in encouraging and supporting the conservation of indigenous / native crop varieties and breeds (e.g., native chickens, Black Bengal Goat, Red Chittagong cattle, and local rice varieties). In parallel, it discourages use of pesticides and promotes biological pest control.
    b. PKSF (through its POs) supports communities in increasing vigilance against crop raiding, introducing fencing (where legal and feasible), and in linking households to government compensation mechanisms when crop loss is high to reduce the risk of retaliation. Revival and improvement of homestead gardens also enhances habitats for local bird, reptile and insect species.
    c. In the fisheries sector, PKSF raises awareness of critical fish reproduction season—particularly for endangered species—to discourage harvest, and reports that it worked with the GOB to enforce a fish sanctuary in one of the northern *beels*.

100. **<u>Standard 2: Resource Efficiency and Pollution Prevention.</u> The risk is assessed as Moderate,** since activities are small- or medium-scale and impacts are expected to be localized, manageable, and reversible. Significant consumption of water, energy, raw materials such as sand or gravel, and other

resources is not anticipated, as GREEN does not involve large-scale value chain investments, including irrigation and infrastructure (e.g., roads, large market facilities for processing, warehousing, or storage). Borrowers may autonomously purchase pumps to irrigate their fields with groundwater, but this will be addressed through technical support on sustainable water use, conservation of catchment areas, and promoting rainwater harvesting or water-savings measures where feasible. Activities that may result in permanent flooding, waterlogging of land, an increase soil or water salinity will be screened using exclusion criteria. While there may be some engagement in non-timber forest products (such as bee keeping for honey) and agroforestry, PKSF and POs will not fund forestry activities (e.g., timber or other plantations, reforestation).

101. Microenterprises involved in horticulture, including collection centres, may use pesticides or chemical ripening agents that pose food safety risks to consumers. These food safety risks will be addressed through nutrition awareness campaigns and support for "Safe Food" handling across the horticulture sector, as well as dairy, fish and meat value chains. Smallholder farmers may also autonomously purchase fertilizers, pesticides and insecticides, which may leach into soil and water. In regions like Barind, soil organic matter and fertility have degraded due to intensive monoculture and imbalanced fertilizer use. PKSF's IFAD and non-IFAD projects have a strong track record of systematically promoting alternatives to pest control (e.g., biopesticides, pheromone traps, biological control) and fertilizers (e.g., farm-level production of vermicompost and Trichoderma leachate and its use, composting, organic fertilizer) as well as safe storage and application of inputs. To further mitigate risk of excessive mineral fertilizer or pesticide use, integrated soil and pest management practices and Global Good Agricultural Practices (GlobalGAP) will be mainstreamed into training modules for POs and micro-credit groups.

102. Owing to arsenic contamination of groundwater resources in the Bangladeshi Delta, there are some risks associated with use of contaminated water for irrigation or other purposes, which could result in its accumulation along the food chain. While Bangladesh completed significant testing of tubewells to mark safe and unsafe wells (green and red labels, respectively) in 1990s and 2000s, there are newer tubewells that are privately owned and never been tested despite being shallow (shallow tubewells have increased risk of arsenic). The use of groundwater for irrigating crops or watering livestock is highly agroecological context specific and also varies by season. Nevertheless, PKSF and POs will collaborate with government institutions to identify areas and populations at risk, and connect beneficiaries to public programmes on safe water provision where needed. In areas with arsenic contamination, awareness of risks will be incorporated into nutrition and health modules.

103. Another potential source of pollution is the solid waste and wastewater generated by farm and non-farm enterprises. Rural areas of Bangladesh lack sufficiently developed public waste collection and management systems. In case of livestock manure, bird droppings, and other waste associated with animal husbandry, PKSF and its POs have demonstrated circular economy approaches (production of organic fertilizers by households), which will be replicated and scaled under GREEN.

104. There are also moderate risks associated with use of plastic packaging and other non-reclaimable waste generated by off-farm and non-farm enterprises. GREEN will promote measures at micro-enterprise level to reduce plastic use or promote alternatives (e.g., small discounts for bringing own bags). The plastic sheets used for mulching, a practice particularly suited to waterlogged or salinity prone areas, are reported to be compostable. Where PKSF POs support micro-enterprises offering animal health services (vaccinations, rapid diagnostics, laboratory), training on proper handling of bio-medical waste will be provided.

105. Some microenterprise value chains pose a higher risk of pollution than others due to nature of inputs and inadequate regulation and compliance, such as leather production and imitation jewellery making. PKSF has developed environmental management guidelines for sixteen (16) different types of micro-enterprises; this will increase to thirty (30) by 2025. These guidelines will serve as training materials for POs and micro-entrepreneurs. IFAD and World Bank projects have also extended support to micro-enterprises to obtain DOE (Department of Environment), BSTI (Bangladesh Standard and Testing Institute), and ISO certifications, as needed.

106. During implementation, (i) the identification and selection of priority value chains and interventions, and (ii) the screening and evaluation of PKSF POs' proposals to access GREEN credit lines, will ascertain and ensure that activities do not result in unsustainable resource use (water, energy, land, soil) or exacerbate pollution in already polluted areas. In conclusion, if training and guidelines are implemented correctly, GREEN should contribute to pollution prevention / reduction and an improvement in resource efficiency.

107. **Standard 3: Cultural Heritage.** Given the nature of the project and the lack of infrastructure components, risk of unintended negative impact on sites of cultural values is not envisaged. With regard to intangible cultural heritage such as production of handicrafts or traditional food processing practices, which might have a cultural value, no specific risks have been identified. However, it is important to consider the cultural heritage associated with traditional varieties of crops and livestock. For instance, certain varieties of rice may be important for cultural or ethnic minorities' social ceremonies, and promoting improved species and varieties could result in their loss. Measures are in place at PKSF to address these concerns to ensure the preservation of traditional varieties that hold cultural significance.

108. Additionally, the project will engage with local communities, especially ethnic minorities, to understand the importance of these varieties / species in their cultural, social, and economic activities, and involve them in decision-making processes regarding choice of agricultural adaptation actions and post-harvest activities.

109. **Standard 4: Indigenous Peoples (Ethnic Minorities).** GREEN has a national coverage and prioritizes selection of climate vulnerable and very poor regions and districts which are likely to be inhabited by ethnic minority groups. Ethnic minorities are present in the regions where the project will be implemented, and may be present in the districts and exact locations where PKSF and its partner organizations operate. Moreover, the CHT which is the area with

the highest number of ethnic minority groups in the country is also likely to be included in the project.

110. Taking into account the characteristics of the project interventions (microfinance) and the small-scale nature of the activities that PKSF will support it is unlikely that the project might unwittingly jeopardize the already precarious livelihoods and resource rights of ethnic minority groups.

111. Conversely, the project is anticipated to have an overall positive impact on people from ethnic groups. They can benefit from PKSF microfinance activities and improve their livelihoods and market access for their crops and traditional produce, also including medicinal plants and handicrafts. With extremely high rates of extreme poverty and malnutrition, they can also benefit from ultra-poor support package, which also includes nutrition education, backyard gardening and WASH.

112. PKSF has a consolidated experience in engaging with and targeting ethnic minorities groups in its progammes and loan operations, PKSF has implemented a proactive social inclusion strategy with ethnic minority groups in previous projects, which included specific activities to value their cultural traditions through the organizations of cultural events as well as awareness raising and sensitization campaigns to promote their cultural specificities and rights.

113. Women, from ethnic minority groups can also greatly benefit from PKSF empowerment interventions. They live at the crossroad of multiple and intersecting inequalities, along gender and ethnicity. They carry a double burden, as woman belonging to a marginalized ethnic group. They face higher rates of discrimination and high levels of sexual and gender-based violence. Moreover, even though they play a critical role in livelihood development, food security and nutrition of their family they have fewer opportunities for income-generating activities than minority men and majority of Bangladeshi[5].

114. People belonging to ethnic minorities will have opportunities to participate in project implementation and an integrated process for seeking Free, Prior and Informed Consent has been developed. A grievance redress mechanism will be established in line with existing structures of the lead implementing agency. A detailed planning framework for the ethnic minorities group has been developed and attached in Annex 4.

115. **Standard 5: Labour and Working Conditions.** Potential barriers to the participation of vulnerable groups such as People with Disability (PWD), women and/or ethnic minorities in value-chain development activities as well as underlying discriminatory practices (e.g., gender gap in wages etc.) in labour conditions will be addressed through the formulation of a rigorous GESI strategy to be implemented by POs.

116. With regard to the risk of forced labour, this is very unlikely under GREEN considering that infrastructure development is not envisaged under the programme and that the scale of the activities supported is very small.

[5] Toufique et al. 2016 in World Bank

Agricultural intensification and commercialization are unlikely to utilize forced labour in the project's areas and activity context.

117. Risk of child labour is minor. Yet the involvement of children in agricultural work is widespread in Bangladesh. Specific measures to be adopted include awareness of the impact of labour on children during trainings~~,~~ the inclusion of terms prohibiting child labour in all procurement contracts and monitoring the execution of activities to ensure compliance. Any instances of child labor will be reported to the project management and relevant government stakeholders for immediate action.

118. With regard to Occupational Health and Safety (OSH) issues, GREEN will replicate the experience of previous IFAD projects (PACE – Promoting Agricultural Commercialization and Enterprises), which promoted decent work environment in micro-enterprises, covering aspects such as ventilation, cleanliness, electricity, and women friendliness. A strategy to promote safe labour practices, through awareness-raising and sensitization will also be put in place. This will include addressing potential health risks to laborers involved in micro-enterprise activities (e.g., meat processing, packaging, horticulture, etc.) through training on biosecurity and safe food ("safe meat", "safe vegetables") and the use of protective wear / gear. PKSF and its POs will also promote the availability of and access to first-aid boxes in micro-enterprises and provide minimal level of training on its use.

119. There may be Moderate OSH risks for microenterprise employees or farmers, and value chain specific measures will be identified during implementation. In case of farmers, the risk of exposure to pesticides, insecticides and other chemicals from autonomous purchase will be mitigated and avoided through integrated pest and agro-chemicals management as a part of CSA/agroecology training which will contribute to safety and health of rural producers and workers (as stated in para 97 in Resource Efficiency and Pollution Prevention sub-section, no procurement of agro-chemicals is planned). For animal production systems at household and community level, training on biosecurity and WASH will be in place to reduce disease transmission risks.

120. **Standard 6: Community Health and Safety**. GREEN project does not involve construction or upgrade of dams and rural roads, or other forms of significant water abstraction activities. Additionally, there are no plans for rural infrastructure that may involve transport, storage, use or disposal of hazardous or dangerous chemicals.

121. Market-led production might undermine farm diversification and negatively impact food security and nutrition. However, the project has a strong focus on promoting nutrition and health. This will be done by selecting nutrition-sensitive value-chains and production practices that enhance the availability and accessibility of diverse, safe, and nutritious food through home gardens (vegetables, fruits) and increased access to animal-source foods (chickens, ducks, fish, small ruminants, cows). Rural households do keep animals in backyard-type systems, and project support to animal production may inadvertently increase the risk of zoonosis or vector-borne diseases; this is exacerbated under climate change where new diseases and pests have emerged. PKSF PO's members receive 2-day spot training on WASH, and more intensive

training on animal husbandry (biosecurity, shelter hygiene, access to nutritious feed and fodder, vaccinations, etc.), and this will be improved through GREEN. In recognition of the critical linkage between household livestock and child nutrition based on evidence from Bangladesh, Component 1 project activities will include awareness building activities on optimal WASH behaviors. The project will also implement well-targeted nutrition education and awareness raising campaign, also targeting nutrition-vulnerable groups such as women, youth and children.

122. There are some health risks associated with food processing micro-enterprises. Support for BSTI, ISO and Halal certifications has been extended by PKSF POs to loanee micro-enterprises with products including cheese, ghee, yoghurt, meat, pickles, vegetable oils, fish and spices. PKSF, through RMTP, has also developed experience in promoting "Safe Meat" processing and sale through slaughterhouses and retail shops, which will be replicated in GREEN.

123. PKSF POs also have systems in place to support food security (through rations) in the aftermath of disasters, such as cyclones and floods. PKSF will further work with POs to include local and nutritious food items and basic hygiene supplies in the ration kits. Moreover, the project will promote the adoption of sustainable and climate-smart practices and technologies (e.g. Integrated Pest Management-IPMs etc.) which will minimize pesticides and chemicals exposure and contribute to safety and health of rural producers and workers. Therefore, the project is unlikely to have negative impacts on nutrition and health.

124. There are some inherent health risks to populations in climate hotspots since it is also contributing factor in increasing the risk of vector-borne and water-borne diseases. For e.g., women in Southwest coastal region report increased prevalence of reproductive health issues (miscarriage, irregular menstrual cycles, infertility) and skin allergies due to salinity. Similarly, high temperature and humidity affects farmers and other workers who work outdoors or in poorly ventilated spaces, and access to safe water for domestic use is limited during floods and cyclones. Women might also be forced to skip meals to cope with food shortage during climate disasters. While GREEN is not designed to comprehensively address all climate risks and impacts, these risks will be indirectly supported through nutrition and climate information services as well as alignment with projects such as EU's PPEPP (Pathways to Prosperity for Extremely Poor People) that offer nutrition and health care services.

125. Microfinance activities targeting women and women's empowerment processes might generate intra-household tensions, which could escalate into gender-based violence (GBV). PKSF adopts family-based approaches to microfinance in order to address intra-household inequalities and promote a more gender equitable decision-making over the use of loans within the HHs. Couple training will be streamlined in project's activities and will also include a specific module on household planning and budgeting to ensure rural families can maximize equitable investments in their income generation activities (IGAs) and farming activities. A Grievance Redress Mechanism (GRM) system will be in place to report cases of GBV, making use of existing GRM within PKSF.

126. **Standard 7: Physical and Economic Resettlement.** No risk is envisaged in terms of physical or economic displacement or need for resettlement; the risk of physical displacement and resettlement will be avoided through exclusion criteria.

127. **Standard 8: Financial Intermediaries. The risk is assessed as Low**. IFAD will lend to GOB from whom PKSF borrows; hence, PKSF is the Tier-II financial intermediary (FI) for IFAD. Under GREEN, PKSF's POs (comprising NGO-MFIs and MFIs) will be encouraged to submit competitive proposals for credit lines, and these POs comprise Tier-III FI for IFAD. PKSF's Programme Management Unit (PMU) will include two Senior Programme Managers—one with expertise on Climate Change / Environment and functioning as the SECAP lead; and another with expertise on Nutrition, Gender and inclusion and supporting 'Social' aspects of SECAP. The Project Coordinator from each PO will function as the SECAP Focal Point and will be the target for SECAP trainings.

128. The 2021 ESMS policy describing PKSF commitment to sustainable development, environmental protection and social responsibility is available online[6]. In its ESMS, PKSF outlines its responsibilities in relation to E&S risk identification, classification and management and those of POs. Overall, PKSF's ESMS can be considered largely consistent with IFAD's SECAP 2021, and an ESG Action Plan (ESAP) has been developed with key recommendations.

129. Projects under PKSF are also required to apply the relevant requirements of the PKSF's Environment Health Safety (EHS) guideline that contains ten (10) chapters and three (3) annexes. These are technical reference documents with general (and some specific) examples of good national and international practices. PKSF has developed exclusion criteria for projects and implements this. Additionally, Environmental Guidelines developed for agriculture and enterprise activities includes information on banned pesticides and "no go" areas for certain activities.

130. Proposals submitted by POs will be reviewed by the PMU for compliance with SECAP 2021, and final selection will include SECAP-relevant review and recommendation. All subprojects will need to develop subproject ESCMPs. The exclusion list present in the PKSF ESMS document (Annex 7 section II) cannot be considered consistent with IFAD's exclusion list. For activities in GREEN, PKSF will ensure that the exclusion list of GREEN and subproject activities is in line with IFAD's SECAP 2021; and a draft Exclusion Criteria and Screening Questionnaire is included in Annex 5.

131. **Standard 9: Climate change. The risk is assessed as Substantial, and a Targeted Adaptation Assessment has been prepared**. GREEN specifically targets areas in Bangladesh that are highly vulnerable to climate risks, including River Char, Haor, Barind and Coastal region. Between 1971-2020, Bangladesh's annual mean temperatures increased by 0.16ºC per decade with a significant increase in number of hot and humid days[7]. The increase in annual average minimum temperature at 0.21ºC per decade outpaced the increase in maximum

[6] PKSF 2021 ESMS https://pksf.org.bd/wp-content/uploads/2021/02/RAISE-PKSF-ESMS-03.02.2021_Last.pdf
[7] World Bank. (2024). Climate Risk Profile – Bangladesh. The World Bank Group, Washington, DC.

temperature (at 0.18ºC per decade) for the same period (1971-2020). Over a 50-year period (1971-2020), annual precipitation per decade varied regionally, seasonally and inter-annually[8]. Eastern divisions of Bangladesh were significantly drier annually, especially in the pre-monsoon (spring) months, and western divisions were significantly wetter annually, especially in the post-monsoon (fall) months.

132. Bangladesh is already experiencing increased frequency and intensity of **severe cyclones** – this reflects the trend of increasing frequency of Super Cyclonic Storms since 1990 in the Bay of Bengal[9]. Cyclones hit the southwest and/or southeast coast every year, and a severe cyclone strikes the country every three years on an average[10]. The magnitude and frequency of **mega floods** also increased in the period 1987-2013 compared to 1960-1986. The 2020 mega flood affected around 5 million people and resulted in the death of 41 individuals[11]. **Droughts** in Bangladesh are more hydrological in nature than meteorological i.e., soil moisture content is severely stressed and affects crop yields[12]. However, Kamruzzaman et al. (2022)[13] show that meteorological drought intensity, based on analysis of monthly precipitation and temperature data over 1980-2018, also increased gradually from the southern to northern regions of Bangladesh—with events predominantly occurring in the northwestern region.

133. The extent of land under **waterlogging** is a severe problem, particularly in the coastal districts of Khulna and Satkhira – targeted by GREEN. Remote sensing-based analysis[14] cited in the Nation-wide Climate Vulnerability Assessment, MoEFCC (2022)[15] indicates that waterlogged areas have increased about eight-fold over the past 45 years. Bangladesh's 19 coastal districts that cover around 32% of the area and accommodate more than 35 million people currently experience varying levels of **salinity**, and the soil salinity boundary shifted further inland between 2000 and 2009[16].

134. By 2040-2059, **annual mean temperature** is projected to increase by 1.04 ºC under SSP-4.5 compared to 1995-2014[17]. Bangladesh will also experience higher minimum and maximum temperatures by mid-century, with the Coastal region experiencing the highest increase in number of days with Heat Index exceeding 35ºC. The number of days with high (> 35ºC) and very high (> 40ºC) is projected to increase from 26 to 93 days and 1 to 8 days, respectively. While the modelled change in precipitation percentage is from 0.1-1.4% in 2030s and

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[8] World Bank. (2024). Climate Risk Profile – Bangladesh. The World Bank Group, Washington, DC.
[9] https://severeweather.wmo.int/TCFW/NewDelhi_Training2022/1_Climatology-of-TC-over-NIO-4th-April2022.pdf
[10] https://bdp2100kp.gov.bd/
[11] MoEFCC (2022). National Adaptation Plan of Bangladesh (2023-2050). Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh. https://unfccc.int/documents/637588
[12] https://bdp2100kp.gov.bd/
[13] Kamruzzaman, M., Almazroui, M., Salam, M.A., Mondol, M.A.H., Rahman, M.M., Deb, L., Kundu, P.K., Uz Zaman, M.A., and Islam, A.R.M.T. (2022). Spatiotemporal drought analysis in Bangladesh using the standardized precipitation index (SPI) and standardized precipitation evapotranspiration index (SPEI). Scientific Reports 12: 20694 (2022). https://doi.org/10.1038/s41598-022-24146-0
[14] Research by Space Research and Remote Sensing Organization (SPARRSO) as summarized MoEFCC (2022).
[15] MoEFCC (2023). Nationwide Climate Vulnerability Assessment in Bangladesh. Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh. https://climateadaptationservices.com/wp-content/uploads/2018/04/NCVA-Final-Published-min.pdf
[16] World Bank. (2024). Climate Risk Profile – Bangladesh. The World Bank Group, Washington, DC.
[17] The anomaly for average mean surface air temperature is 1.52 ºC under SSP-8.5 (multi-model ensemble, 1995-2014 baseline). https://climateknowledgeportal.worldbank.org/country/bangladesh/climate-data-projections

2.4-3.5% in the 2050s under SSP-8.5[18], South Asian precipitation projections are subject to higher levels of uncertainty. NAP (2023-2050) also notes that northeastern and eastern hill regions will receive higher rainfall while western regions will see lower levels.

135. Agricultural land, livestock and fisheries is potentially affected by floods, waterlogging, sea-level rise and salinity, and extreme heat. The agri-food sector is also exposed to indirect climate risks, such as new or increased frequency of pest and disease outbreaks. While the dependence on agriculture as a source of livelihood[19] and its percentage contribution to household income has declined over time, the rural poor still derive their sustenance and income from the sector. Livestock and poultry value chains are particularly exposed to heat stress, while high value fruits and vegetables are impacted by floods, droughts and salinity.

136. Developing adaptive capacities of rural poor and their livelihoods is hence critical for climate resilience. Bangladesh Delta Plan 2100 (BDP2100), the National Adaptation Plan, and the Mujib Climate Prosperity Plan all outline priority adaptation actions by sector and vulnerable region. These actions include diversification of agricultural production and off-farm livelihoods, introducing climate-smart technologies in crop, fish and livestock production (post-harvest facilities, stress-tolerant seeds and breeds, GGAP), and promoting food system resilience in general. While there are several investments targeting climate hotspots, people engage in locally led adaptation actions, and microcredit is available, these fall short of the climate finance needs. PKSF's POs draw on their own funds (from profits) to distribute food rations in the aftermath of disasters; they also extend a moratorium period on principal and interest payments in such instances.

137. Bangladesh has strong disaster management plans for cyclones—including warnings, shelters, and evacuation procedures. But it is still working on improving flash floods, droughts, and landslide warnings as well as general advisories for farmers[20]. PKSF's IAU, ahead of each agricultural season, creates agricultural calendars to provide support to its PO and borrowers. While there are several other investments targeting climate hotspots, people engage in locally led adaptation actions, and microcredit is available, these fall short of the climate finance needs. PKSF's POs draw on their own funds (from profits) to distribute food rations in the aftermath of disasters; they also extend a moratorium period on principal and interest payments in such instances.

138. The project is not expected to significantly contribute to increased greenhouse gas emissions, and it will integrate key measures—identified with support from RAMP (Reducing Agricultural Methane Programme)—for methane reduction in crop (rice) and livestock sectors where feasible.

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[18] MoEFCC (2022). National Adaptation Plan of Bangladesh (2023-2050). Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh. https://unfccc.int/documents/637588

[19] In 2018, agriculture contributed about 38.21% of annual household income (averaging about Taka 16,894 or US$ 144). But 24.39 million individuals or 51.88% of total employed (aged 15 and above) were in the agricultural sector. https://bbs.portal.gov.bd/sites/default/files/files/bbs.portal.gov.bd/page/b343a8b4_956b_45ca_872f_4cf9b2f1a6e0/2020-02-02-10-36-84ecf771aa4c2e480f245fb79538ce14.pdf

[20] https://www.bamis.gov.bd/en/page/introduction/ & https://wmo.int/sites/default/files/2023-11/EW4All-In-Focus_Results-Pillar-2-Rapid-Assessment_en.pdf

ii. MONITORING

139. SECAP performance monitoring and evaluation will be conducted at both PKSF and PO levels during GREEN's implementation. PKSF will monitor the project performance of PO-level activities through its PMU as well as PKSF's internal monitoring processes and procedures. The M&E system will be integral part of SECAP screening, assessment, monitoring and implementation—GREEN proposes to leverage the RMTP M&E system and identify best practices, and this will extend to SECAP. POs will provide regular reports (monthly, quarterly or half-yearly) to PKSF on SECAP compliance in accordance with conditions and requirements specified in the subproject proposal documents and contracts, and PKSF will collate and submit these reports to IFAD at agreed-to periodic intervals. Requirements for reporting on grievances, incidents and accidents are specified in the GRM annex.

iii. ROLES AND RESPONSIBILITIES

140. PKSF will be responsible for establishing and maintaining the Project Management Unit (PMU) for GREEN, with qualified personnel and resources to support screening, identification and management, and monitoring of social, environmental and climate risks. The PMU Project Coordinator has the overarching responsibility for all social, environmental and climate issues of GREEN. S/he will coordinate with IFAD, will be responsible for regular reporting, and liaise with internal units at PKSF to ensure adequate expertise for SECAP-related capacity development.

141. GREEN's PMU includes budget for two Senior Programme Managers (full-time)—one with expertise on Climate Change and Environment as well as SECAP aspects of the same, who will function as the SECAP lead; and another with expertise on Nutrition, Gender and Inclusion, who will implement 'Social' aspects of SECAP. The two Senior Programme Managers (SECAP) will liaise with and capacitate each PO's Project Coordinator, who will function as the SECAP focal point at the PO level.

142. Within the GREEN PMU, these two Senior Programme Managers will work closely with M&E and other core staff (Capacity Development, Microfinance, Food Systems) to mainstream SECAP-related aspects. All TORs will clearly define the roles and responsibilities of each staff as regards SECAP-relevant actions, since SECAP implementation is not the sole responsibility of the two SECAP-related personnel.

iv. CAPACITY BUILDING

143. Bangladesh faces complex environmental, social, and climate challenges with direct impacts on the sustainability of rural livelihoods and agricultural systems. There is significant experience of IFAD-funded projects in Bangladesh implementing SECAP-related requirements, including within the lead agency of the proposed project (PKSF). PKSF is accredited to the Green Climate Fund to implement 'Category B' E&S risk projects and has extensive experience in working with a broad range of development partners, including the World Bank and EU. Dedicated budget lines and the inherent design of bilateral / multilateral project activities has allowed for steady improvement in the capacity of PKSF and

its POs to implement various ESMS/SECAP mitigation measures and learn from experience.

144. However, since the extent of SECAP / ESMS policy implementation varies by PKSF projects and POs do not currently have dedicated staff or systems in place, further capacity development is planned along the following lines. This will allow for intensified focus on continuous assessment, monitoring and evaluation of SECAP-related compliance efforts.

SL NO	ACTIVITY DESCRIPTION IN COSTAB, PKSF & PO LEVELS	RELEVANCE TO SECAP 2021 COMPLIANCE	ESTIMATED BUDGET (US$)
1	Basic training on global warming and climate science (PKSF, PO levels)	Climate risks	283,000
2	Nutrition-sensitive Value chain development project design	Nutrition – Standard 6	141,000
3	Value chain development project management	All SECAP (ensure no adverse environment and biodiversity impacts, promote social inclusion, strengthen resilience)	71,000
4	Climate smart agriculture	Climate risks, with special attention to marginalized and disadvantaged groups. Targeted Adaptation Assessment will be updated at the end of this training.	212,000
5	Ecological farming	Standard 1, Standard 2, and to an extent Standard 5/6 (health and nutrition, social inclusion)	212,000
6	Environmental issues in farm and non-farm businesses	Standard 1, Standard 2, and to an extent Standard 5/6 (labour rights, health and nutrition, occupational and safety, social inclusion)	212,000
7	Climate resilient food system development	All SECAP (ensure no adverse environment and biodiversity impacts, promote social inclusion, strengthen resilience)	212,000
8	Financial product development	Climate risks, Social Inclusion (youth, women and other disadvantaged populations)	149,000
9	Enterprise management	All SECAP (ensure no adverse environment and biodiversity impacts, promote social inclusion, strengthen resilience)	149,000
TOTAL			**1,641,000**

v. COSTS AND BUDGETARY CONSIDERATIONS

145. GREEN's design includes several capacity development activities related to SECAP performance under Component 1 and Component 3. These capacity development activities will particularly target PO capacity to implement the project, including mitigation measures, in compliance with IFAD SECAP 2021, GOB, and PKSF ESMS policies as well as ensure that POs are able to identify and propose interventions to enhance climate, environment and social performance.

146. The costs of capacity development, embedded Component 3, are identified in the table below together with costs of dedicated human resource expertise. Please note that several activities under Component 1 are also relevant for SECAP. For e.g., guidelines for food system subproject development will need to consider SECAP 2021, including exclusion criteria.

147. During early implementation, GREEN's PMU and POs will update costs of developing and implementing ESCMP at the subproject level, including staff time and capacity building activities, to ensure budget provisions are included and reflected (or provided for) in the AWPB.

SL NO	SECAP-RELATED STAFF & ACTIVITIES	RELEVANCE TO SECAP 2021 COMPLIANCE	ESTIMATED BUDGET (US$)
1	Training on ecology and environment friendly food system subproject implementation for POs staff members /g	SECAP 2021 introduction for Project Start-up	4,347
2	Staffing (full-time)		
2a	Senior Programme Manager (Climate, Change, Environment and SECAP)	Primary lead for SECAP	213,000
2b	Senior Programme Manager (Nutrition, Gender, Inclusion and SECAP)	Co-leads for Social aspects of SECAP	213,000
3	Capacity development for PKSF and POs	Identified in table above	1,641,000
TOTAL			**1,858,347**

6) ESCMP Matrix

148. See next page.

ANNEX 1 ENVIRONMENT, SOCIAL AND CLIMATE MANAGEMENT PLAN MATRIX

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
Biodiversity						
Degradation of biodiversity may adversely affect productivity of on-farm activities and limit project benefits. For example, soil or land degradation (exacerbating water or soil salinity), poor soil fertility or moisture (River Char, Barind, Coastal regions), water pollution affecting fisheries. Promoting specific varieties / breeds for stress tolerance and high yields may have adverse effects on agrobiodiversity.	- While the inherent risks from biodiversity degradation (due to wider factors and drivers) in Bangladesh will remain, designing project activities that minimize further worsening (owing to farm or non-farm activities) and promoting ecology- and environment-friendly management such as GGAP, Integrated Fertilizer Management (IFM) / Integrated Pest Management (IPM), etc. - Promoting biodiversity friendly approaches to reducing the risk of crop raids by wild animals. - Promoting water use efficiency and water harvesting approaches (pond recharge, rainwater harvesting) in areas stressed by droughts or salinity. - If non-timber forest produce (NTFP) value chains are selected and prioritized for GREEN, ensuring awareness of and promoting sustainable harvest. - Ensuring Protected Areas and Critical Wildlife Habitats are excluded for farm, off-farm or non-farm activities, and regularly assessing potential	Local communities Other stakeholders of relevance, such as MOEFCCC	Project Management Unit & executing partners	- M&E - Progress and supervision report - MTR and PCR	Annually	Project budget

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
	direct or indirect impacts (during implementation) of value chain activities. - Creating awareness of and promoting the conservation of indigenous species (landraces, native breeds of livestock) in agricultural activities.					
Resource Efficiency and Pollution Prevention						
Fisheries and aquaculture activities of the borrowers of PKSF POs may exacerbate risks to aquaculture biodiversity or introduce new sources of water pollution.	- Based on PO's work geography, identifying harmful drivers of fish habitat degradation or species decline, and ensuring that group members are aware of risks of unsustainable harvest. - Working with the Department of Fisheries to introduce harvest season moratoriums, ensuring equitable access to permits (for the poorest and marginalized households), and creating awareness of species that must not be harvested (based on 'endangered' or 'critically endangered' classification). - Promoting the use of environmentally friendly practices and inputs, particularly in aquaculture.	POs and their staff Borrowers / group members	Project Management Unit & executing partners	- M&E - Progress and supervision report - MTR and PCR	Annually	Project budget
Autonomous use and purchase of pesticides, insecticides, fertilizers or other	- GGAP and promoting use of organic fertilizers / pesticides, vermicompost, biological control; the production of vermicompost, Trichoderma leachate and other organic fertilizers supports	Local communities Local authorities	Project Management Unit & executing partners	- M&E - Progress and supervis	Annually	Project budget

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
inputs may result in pollution and other environmental impacts. Waste (droppings, manure) generated due to animal husbandry could pollute soil and water if not managed.	reclamation and reuse of livestock/poultry waste in a safe manner. - Assessing trade-offs in use of practices like plastic mulch film, and improving agricultural waste management through circular economy approaches, promoting safe handling and disposal, etc. as needed.	responsible for monitoring pollution and waste management		ion report		
Micro-enterprises supported by the project may exacerbate or introduce new pollution risks through their waste streams.	- Supporting the implementation of PKSF's micro-enterprise environment management guidelines developed for 16 enterprise types (and expanded to 30, by end of 2024) by POs and micro-enterprise borrowers. - Promoting certification mechanisms via DOE, BSTI, ISO etc. for micro-enterprises – in the process strengthening their environmental management and creating awareness of how it could increase their comparative advantage. - Targeting issues such as plastic waste and promoting use of alternative materials (including through incubation of sustainable packaging material micro-enterprises).	POs and their staff Borrowers / group members	Project Management Unit & executing partners	- M&E - Progress and supervision report - MTR and PCR - Micro-enterprise environment management guidelines	Annually	Project budget

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
	- Identifying and promoting best practices for solid and liquid waste management, based on value chains of focus. For e.g., bio-medical waste handling for those enterprises focused on animal health interventions (diagnostics, vaccinations, etc.).					
Financial intermediaries						
Environmental and social management systems of the implementing partners do not cover all dimensions of SECAP 2021.	- Gap filling measures identified at design or during early implementation phase. - Due diligence mechanisms. - Annual training for the GREEN Project Coordinators and other potential staff from PKSF POs on SECAP 2021. - Developing and implementing the Environmental and Social Action Plan (ESAP).	PKSF and POs	IFAD Project Management Unit & executing partners	- Environmental and Social Action Plan (ESAP) - SECAP documents - Progress and supervision report	Regular intervals	Project budget
Climate Change						
Adverse effects of extreme climate events when combined with lack of appropriate storage, transport,	- Identifying and assessing both production and post-production/harvest challenges during selection and prioritization of GREEN value chains.	Local communities Micro-enterprises, including input	Project Management Unit & executing partners	- Targeted Adaptation Assessment	Annually	Project budget

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
poor access to quality inputs (including stress-tolerant seeds) and marketing facilities may limit project benefits and/or cause losses—including post-production/harvest.	- Promoting adequate access to climate information and early warnings for beneficiary smallholders leveraging ICT4D tools and other projects (CRALEP for drought and flash flood warning, BAMIS products of DAE, etc.). - Ensuring adequate market linkages through engagement with the local private sector, particularly project-supported microenterprises for high quality seeds, bio-inputs, balanced animal feed, etc. - Replicating RMTP interventions such as "safe vegetable" collection centers and enhancing their access to thermal-control solutions. - Promoting stress-tolerant crop, livestock, and fish species (seeds, breeds), and other climate-smart technologies and practices. - Promoting household financial management and financial literacy which identify and offer actions for coping with or recovering from climate risks (e.g., maintaining a savings or fixed deposit account with commercial banks, in addition to PO savings accounts).	suppliers and off-takers Specialized institutions such as BARI and SRDI for climate data and value chain adaptation analysis		- Value chain selection criteria - M&E reports - Progress and supervision report - MTR and PCR		
Inadequate understanding by PKSF POs of climate	- Capacity development for PKSF POs to ensure they understand agricultural sub-sectors of priority	POs and their staff	Project Management Unit &	- M&E - Progress and	Annually	Project budget

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
change and its impacts on the agricultural sector may result in inappropriate microcredit product design or subsequently affect uptake or repayment rates.	and can undertake value chain assessments that incorporate climate risk assessment and adaptation actions. - Supporting the functioning of the new and dedicated climate, environment and agriculture units within POs (see para 26). - Bringing together POs to regularly to share experience and lessons, in order to facilitate faster learning curves.	Borrowers / group members	executing partners	supervision report - MTR and PCR		
Some climate-resilient value chains (e.g., dragon fruit) may have high entry costs limiting entry for the poorest smallholders or current financial product may not be size adequate.	- Aligning credit product including size, lending terms and repayment periods and amounts to ensure credit is supportive of investment viability.	PKSF, POs and farmers group	Project Management Unit & executing partners	- M&E - Progress and supervision report	Annually	Project budget
Community Health and Safety						
Poultry and livestock may be susceptible to diseases, and veterinary services may be limited – contributing to increased risk of zoonosis and vector-borne diseases.	- Introducing WASH interventions under Component 1 and ensuring refresher training (emphasizing 5-7 key hygiene behaviors) by loan officers to maintain the hygiene issues at the HH level. - Training farmers, especially the livestock facilitator on early signs of diseases and their management.	Local communities/ Farmers	Project Management Unit & executing partners	- M&E - Progress and supervision report	Annually	Project budget

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
	- Promoting clean and hygienic animal shelters, biosecurity measures, vaccinations, and other improved husbandry measures. - Promoting and enabling access to safe and environmentally friendly insect, parasite and pest control inputs, where needed. - Where feasible, promoting the construction or upgrade of animal shelters away from homesteads. - Establishing linkages to adequate veterinary services and animal health products (nutrition, preventative, therapeutic) for livestock and poultry value chains. - Ensuring adequate awareness of risks and mitigation measures through Technical Assistance. For e.g., to reduce both health and environmental risks, appropriate manure management practices can be promoted (e.g., vermicomposting pits, Trichoderma leachate pits).					
Commercial production might jeopardize nutrition and health if adequate measures are not in place.	- The project has a strong focus on promoting nutrition and health. This will be done by selecting nutrition-sensitive value-chains and production practices that enhance the availability and accessibility of diverse, safe, and nutritious food. GREEN will further build on the	Awareness raising and education especially on the nutritious crop and fish varieties for	PKSF and partner organizations	- Baseline, Midline and endline impact studies	Baseline/midterm/final impact surveys; research reports	Mainstreamed in project

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
Risk that certain varieties of improved crops / livestock / fish varieties may be less nutritious, necessitating careful advice to farmers on choice of seeds and seedlings. Households may be vulnerable to food and nutrition insecurity in the aftermath of extreme climate events.	experience gained from PACE/RMTP programme w.r.t. integrating nutrition at every step of the value chain. This would ensure that the right varieties of crops are prioritized for support that have potential for both increased incomes and better nutrition. - Ultra-poor families that are targeted for microfinance activities will receive seeds and poultry for backyard production so that they can meet their food needs. - PKSF encourages diversification to ensure that families have access to diverse and nutritious diets. For instance, in the case of fish, WorldFish's work in Bangladesh shows that production and consumption of farmed exotic fish species resulted in an increase in fish consumption but a decline in intake of essential nutrients. This is explained by the fact that exotic fish species are less nutritious compared to non-farmed indigenous fish species. The IAU (Integrated Agriculture Unit) will assess and promote those fish (as well as livestock and crop varieties) species that can achieve climate adaptation, nutrition / food security, and	their own intake. Targeting nutrition vulnerable groups				

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
	livelihood goals – minimizing trade-offs thereof. - Complementarities with existing PKSF projects (such as Pathways to Prosperity for Extremely Poor People of the EU) focused on nutrition and mother's / child's health will be sought, where feasible - The project will also implement a WASH component and a well-targeted nutrition education and awareness raising campaign on healthy diets, targeting nutrition-vulnerable groups such as women and children. - The project will promote the adoption of sustainable and climate-smart practices and technologies to minimize pesticides and chemicals exposure and contribute to safety and health of rural producers and farm / micro-enterprise workers. - In areas with arsenic contamination, awareness of arsenic pollution and how it works through the food chain will be incorporated into nutrition and health modules with recommended mitigation and remedial measures. This will need to be in close coordination with the local government because arsenic pollution requires a comprehensive					

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
	approach, some of which are beyond scope of GREEN (alternative sources of safe drinking water or low-cost remediation technologies such as arsenic removal filter, modification of rice cooking procedure, effective medications and treatments for arsenicosis as well as supplementation with vitamins). GREEN's nutrition activities will indirectly support risk reduction by supporting higher consumption of micronutrient and antioxidant rich foods. - Ensure and improve PO support – rations – in the aftermath of climate disasters. GREEN will ensure that the rations are adequate and well-balanced in terms of nutrients and comprise local, safe foods rather than packaged products. Gender equality and anti-stigma messages will also be conveyed during food distribution to avoid the risk that women and other vulnerable people in the family (e.g. persons with disabilities) will skip meals as a strategy to cope with food shortage.					
Gender-based violence might increase as a result of intra-household	- PKSF adopts family-based approaches to microfinance, through the implementation of couple training to address intra-household	Training and awareness raising with both women	PKSF and partner organizations	- Baseline, Midline and endline	Baseline/midterm/final impact surveys;	Mainstreamed in project

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
tensions over the use of credit and income	inequalities and promote a more gender equitable decision-making over the use of loans within the HHs. Couple training has been piloted under PPEPP project and will be streamlined into PKSF regular programme. A module on household planning and budgeting will also be added to strengthen the capacity of rural households to manage their finance in a more efficient and equitable way and maximize investments in their productive activities. - A GRM system will be put in place to report cases of GBV.	and men of the same family		impact studies. GRM	research reports	
Risks associated with Occupational Safety and Health - OSH risks. For e.g., exposure to chemicals from application of pesticides (autonomous purchase) by MSMEs involved in handling grains, vegetables, fruits, fodder and feed and seeds, lack of protective	- GREEN will also build on the lessons from PACE (Promoting Agricultural Commercialization and Enterprises) to promote decent work environment in micro-enterprises covering aspects such as ventilation, cleanliness, electricity, and women friendliness. - Risk of exposure to chemicals from application of pesticides will be minimized by promoting climate-smart and agroecological practices at the farm level, including the use of organic fertilizers, bio-pesticides and biological control mechanisms and by promoting integrated pesticide management.	Awareness raising, training	PKSF and partner organizations	- Baseline, Midline and endline impact studies	Baseline/midterm/final impact surveys; research reports	Mainstreamed in project

Environmental/Social and Climate Impacts	Recommended Mitigation/Enhancement measures	Public Consultation Activities	Responsible Institution in Implementation Phase	Means of Verification	Frequency of Verification	Cost Estimate
equipment in processing etc.	- PKSF will strengthen the already existing mitigation measures, including training and sensitization on potential health risks to laborers involved in micro-, small- and medium- enterprises, training on safety, and recommendations on protective gear.					
Labour and Working Conditions						
Risk of child-labour is minimal given the small-scale nature of the activities supported but present, as this is widespread in Bangladesh. Rural families might engage children in agriculture in times of harvesting, particularly for certain crops. Expansion of agricultural production might also increase labour demand.	- Specific measures to be adopted include: awareness on the impact of labour on children during trainings to microfinance borrowers, the inclusion of terms prohibiting child labour in all procurement contracts and monitoring the execution of activities and reporting any cases to the project and relevant government stakeholders. - Include labour saving technologies that reduce labor demand during peak season. - GRM system to provide safe channels to report child labour concerns within target communities.	Awareness raising activities during training	PKSF and partner organizations	- Baseline, Midline and endline impact studies	Baseline/midterm/final impact surveys; research reports	Mainstreamed in project
Indigenous Peoples						

Environmental/Social and Climate Impacts	**Recommended Mitigation/Enhancement measures**	**Public Consultation Activities**	**Responsible Institution in Implementation Phase**	**Means of Verification**	**Frequency of Verification**	**Cost Estimate**
Potential barriers to the participation of vulnerable groups such as People with Disability (PWD), women and/or ethnic minorities in IGAs and value-chain development activities as well as underlying discriminatory practices (e.g., gender gap in wages etc.) in labour conditions will be addressed through the formulation of a rigorous GESI strategy to be implemented by POs.	- A Gender and Social Inclusion (GESI) strategy to remove barriers to participation for vulnerable groups will be implemented by PKSF and its Partner Organizations as a condition for project's approval. - A robust Ethnic Minority Planning Framework and FPIC Implementation Plan is in place and will be implemented by PKSF and the POs.	Awareness raising, training, GESI planning and implementation and ethnic minority plan	PKSF and partner organizations	- Baseline, Midline and endline impact studies	Baseline/midterm/final impact surveys; research reports	Mainstreamed in project

ANNEX 2 TARGETED ADAPTATION ASSESSMENT

A. OVERVIEW

1. **Title of the Program:** Growth for Climate Resilient and Ecological Entrepreneurship and Nutrition (GREEN) project

2. **Area:** National, but with a focus on four of the six climate hotspots identified in the Bangladesh Delta Plan 2100. Namely, Barind, Coastal—including districts adjoining the Chittagong Hill Tracts, Haor, and River Char (**Figure 1 and Figure 2**).

3. **Executing Entity:** Palli Karma Sahayak Foundation (PKSF), which reports to the Financial Institutions Division (FID) of the Bangladesh Ministry of Finance (MoF).

4. **Summary of the Programme:** The project aims to enhance the income and employment of poor households in rural areas, especially in climate-vulnerable districts, through a combination of financial and non-financial services in selected farm and non-farm value chains suited to the geography. In addition to enhancing the profitability of enterprises within value chains, the project will undertake assessments to better understand and improve ecological and environmental conditions within value chains and issues related to human nutrition, building on the assessments, knowledge and experience already existing within PKSF and the POs.

Figure 1. Administrative map of Bangladesh

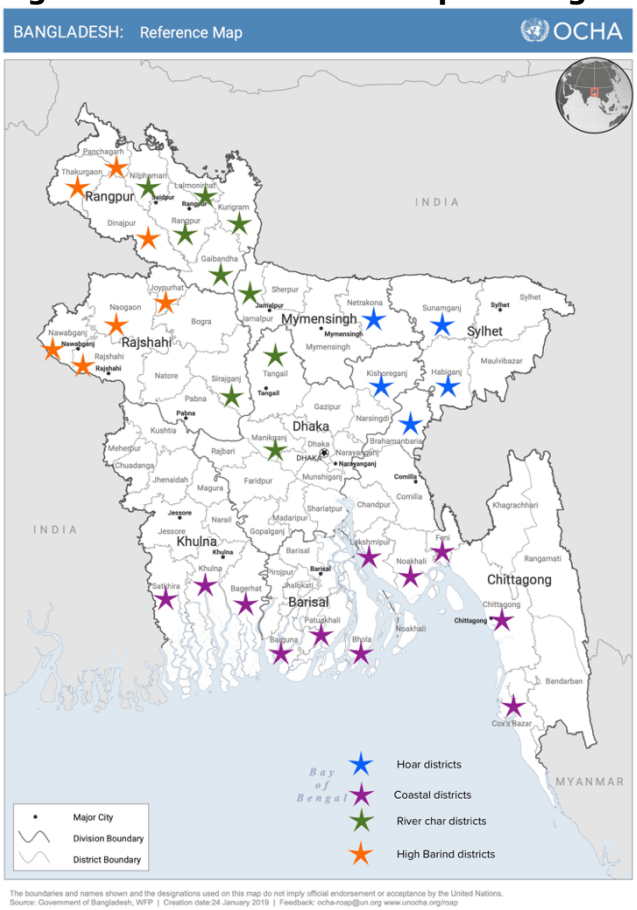


Figure 2. High priority target districts under GREEN

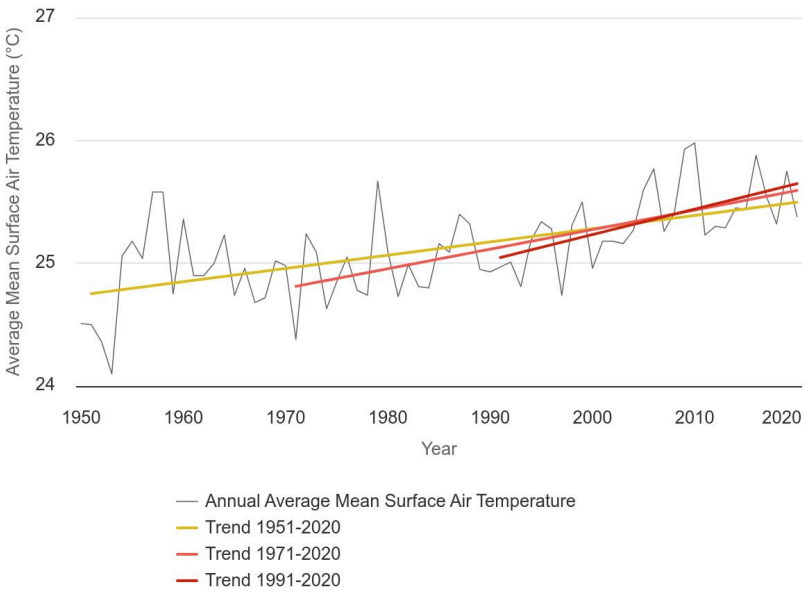
Climate Vulnerable Regions	Districts
Haor region	Kishoreganj, Netrakona, Sunamganj, Habiganj, and Brahmanbaria
Coastal region	Khulna, Bagerhat, Satkhira, Barguna, Patuakhali, Bhola, Lakshmipur, Noakhali, Feni, Chattogram, and Cox's Bazaar
High Barind region	Rajshahi, Naogaon, Chapai Nawabganj, Dinajpur, Joypurhat, Thakurgaon and Panchagar
River char region	Sirajganj, Gaibandha, Jamalpur, Kurigram, Rangpur, Lalmonirhat, Nilphamari, Tangail and Manikganj

B. CLIMATE BASELINE AND HAZARD ASSESSMENT

a. Bangladesh climate baseline

5. Bangladesh is one of the most densely populated deltaic countries in the world with a total area of 147,570 km^2, with about 23,170 km2 of this as river and water bodies (*beels*[21], boars and ponds). Except the hilly regions in the northeast and in the southeast (CHT), and the highland areas in the north and north-west (Barind), the country consists of low, flat and fertile land. Bangladesh has a sub-tropical monsoon climate with three prominent seasons in a year: winter (November-February), summer (March-June) and monsoon (July-October). The mean annual temperature is about 25ºC. The maximum temperature in the summer is often more than 40ºC. Winter temperatures range from 7ºC to 31ºC. The average annual rainfall is 2,200 mm a year, and the monsoon accounts for 80% of the total rainfall[22]. In general, the northwest Barind region has lower annual rainfall (791-2,241 mm a year) and northeast region has a higher annual rainfall (2,586-5,944 mm a year)[23].

Figure 3. Average mean surface air temperature annual trends with significance of trend per decade, 1951-2020[24]



[21] Beels and boars are local names for static water bodies.
[22] MoEFCC (2023). Nationwide Climate Vulnerability Assessment in Bangladesh. Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh. https://climateadaptationservices.com/wp-content/uploads/2018/04/NCVA-Final-Published-min.pdf
[23] MoEFCC (2022). National Adaptation Plan of Bangladesh (2023-2050). Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh. https://unfccc.int/documents/637588
[24] World Bank. (2024). Climate Risk Profile – Bangladesh. The World Bank Group, Washington, DC.

6. **Observed temperature trends:** Between 1971-2020, Bangladesh's annual mean temperatures increased by 0.16ºC per decade (**Figure 3**) with a significant increase in number of hot and humid days[25]. The annual average maximum temperature increased by 0.18ºC per decade between 1971-2020. The trend is even higher in the recent decade (1991-2020) with average maximum temperature increasing by 0.29ºC per decade. The increase in annual average minimum temperature at 0.21ºC per decade outpaced the increase in maximum temperature for the same period (1971-2020). Eastern divisions (Sylhet, Chittagong) of Bangladesh experienced the greatest increase in summer and post-monsoon (fall) mean temperature. Whereas the western regions (coastal Khulna and Barishal, Rajshahi in the northwest) experienced the lowest increases. Finally, the number of days with maximum temperature >35ºC has increased by 14.04 days per decade between 1971-2020[26].

7. **Observed precipitation trends:** Over a 50-year period (1971-2020), annual precipitation per decade varied regionally, seasonally and inter-annually[27]. Eastern divisions of Bangladesh were significantly drier annually, especially in the pre-monsoon (spring) months, and western divisions were significantly wetter annually, especially in the post-monsoon (fall) months. Seasonal changes in average annual rainfall have been observed: average rainfall has declined during winter (December-February) and pre-monsoon (March-May), and increased during post-monsoon (October-November) and monsoon (June-September) seasons[28]. Bangladesh has also experienced several extreme rainfall events i.e., magnitude and frequency of intense spells has increased, and an increase in consecutive dry days.

8. ENSO (El Niño Southern Oscillation) and Indian Ocean Dipole (IOD) play a significant role in influencing monsoons (as well as summer temperatures), with major droughts occurring in the Ganges and Brahmaputra basins during ENSO or co-occurrences of ENSO and positive IOD in the 110 years between 1901-2010[29]. Historically, major flooding events have happened during co-occurrences of La Niña and negative IOD in the same basin.

9. Observed trends in extreme events: Bangladesh is already experiencing increased frequency and intensity of **severe cyclones** – this reflects the trend of increasing frequency of Super Cyclonic Storms since 1990 in the Bay of Bengal[30]. Cyclones hit the southwest and/or southeast coast every year, and a severe cyclone strikes the country every three years on an average[31]; twenty-one severe cyclones (winds between 87-117 km/hour) and severe cyclonic storms with hurricane intensity (winds >117 km/hour) struck Bangladesh between 1960 and 2010[32]. Two-thirds of these severe cyclones occurred in the post-monsoon season (October-December) and one-third in the pre-monsoon season (March-May). Besides heavy winds, cyclones also damage homes, homesteads, agricultural land and infrastructure through storm surges. The last Super

[25] World Bank. (2024). Climate Risk Profile – Bangladesh. The World Bank Group, Washington, DC.
[26] World Bank. (2024). Climate Risk Profile – Bangladesh. The World Bank Group, Washington, DC.
[27] World Bank. (2024). Climate Risk Profile – Bangladesh. The World Bank Group, Washington, DC.
[28] MoEFCC (2022). National Adaptation Plan of Bangladesh (2023-2050). Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh. https://unfccc.int/documents/637588
[29] Pervez, M. S., and Henebry, G. M. (2015). Spatial and seasonal responses of precipitation in the Ganges and Brahmaputra river basins to ENSO and Indian Ocean dipole modes: implications for flooding and drought. *Natural Hazards and Earth System Sciences*, 15(1): 147162. https://doi.org/10.5194/nhess-15–147–2015
[30] https://severeweather.wmo.int/TCFW/NewDelhi_Training2022/1_Climatology-of-TC-over-NIO-4th-April2022.pdf
[31] https://bdp2100kp.gov.bd/
[32] MoEFCC (2022). National Adaptation Plan of Bangladesh (2023-2050). Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh. https://unfccc.int/documents/637588

Cyclonic Storm to hit Bangladesh was Amphan in 2020; it affected more than 2.6 million people across 19 districts; destroyed 55,667 houses; and damaged 205,368 houses, 32,037 hectares of crops and vegetables, 18,707 hectares of fish cultivation area, 76 kms of embankments, and more than 440 kms of roads[33].

10. The magnitude and frequency of **mega floods** has increased in the period 1987-2013 compared to 1960-1986 (**Figure 4**). Floods are exacerbated by hydropower development in upper riparian countries, and unplanned urbanization and encroachment in the floodplains within Bangladesh. The 2020 mega flood affected around 5 million people and resulted in the death of 41 individuals[34]. Severe flash floods, during the Boro rice season in Haor, occur every 3-4 years but an increased frequency of flash flood occurrence is observed for the recent decade[35].

11. Every year[36], a significant portion of agricultural lands and homesteads are lost due to riverbank erosion. The major rivers form islands or chars between their braiding channels. Many of these chars are inhabited and are extremely sensitive to changes in the river conditions and move with the flow of water. While accretion compensates for erosion, this is highly unpredictable. According to CEGIS, between 1973 and 2021, erosion along the Jamuna River was 93,965 hectares and accretion was 14,545 hectares. In the erosion prone area along the Jamuna River, the districts of Bogra, Gaibandha, Jamalpur, Kurigram, Manikganj, Pabna, Sirajganj, and Tangail are more vulnerable.

12. **Droughts** in Bangladesh are more hydrological in nature than meteorological i.e., soil moisture content is severely stressed and affects crop yields[37]. But Kamruzzaman et al. (2022)[38] also show that meteorological drought intensity, based on analysis of monthly precipitation and temperature data over 1980-2018, increased gradually from the southern to northern regions of Bangladesh – with events predominantly occurring in the northwestern region (**Figure 5**). Barind, in the northwest, has particularly become more drought prone owing to (a) increased occurrence of extreme summer temperature, (b) increasing number of dry days, and (c) presence of soils with low moisture holding capacity. Mondol et al. (2021)[39] in their analysis of meteorological drought trends, between 1979-2018, in drought-prone Teesta and Barind basins also found that seasonal and annual droughts have become more frequent in all seasons except the pre-monsoon; drought frequency has increased by at least 10% in North Bengal of Bangladesh. Since 2000s, monsoon and post-monsoon drought spells

[33] IFRC (2021). Bangladesh: Cyclone Amphan - Final Report (n° MDRBD024). International Federation of Red Cross and Red Crescent Societies: Dhaka, Bangladesh. https://reliefweb.int/report/bangladesh/bangladesh-cyclone-amphan-final-report-n-mdrbd024

[34] MoEFCC (2022). National Adaptation Plan of Bangladesh (2023-2050). Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh. https://unfccc.int/documents/637588

[35] Chakraborty, D., Mondal, K.P., Islam, S.T., Roy, J. (2021). Chapter 26 - 2017 flash flood in Bangladesh: Lessons learnt, https://doi.org/10.1016/B978-0-323-85195-4.00007-X

[36] Agriculture, Water Resources and Rural Institutions Division (2023). Sector Action Plan – Environment and Climate Change. Bangladesh Planning Commission, Ministry of Planning (MoP): Dhaka, Bangladesh.

[37] https://bdp2100kp.gov.bd/

[38] Kamruzzaman, M., Almazroui, M., Salam, M.A., Mondol, M.A.H., Rahman, M.M., Deb, L., Kundu, P.K., Uz Zaman, M.A., and Islam, A.R.M.T. (2022). Spatiotemporal drought analysis in Bangladesh using the standardized precipitation index (SPI) and standardized precipitation evapotranspiration index (SPEI). Scientific Reports 12: 20694 (2022). https://doi.org/10.1038/s41598-022-24146-0

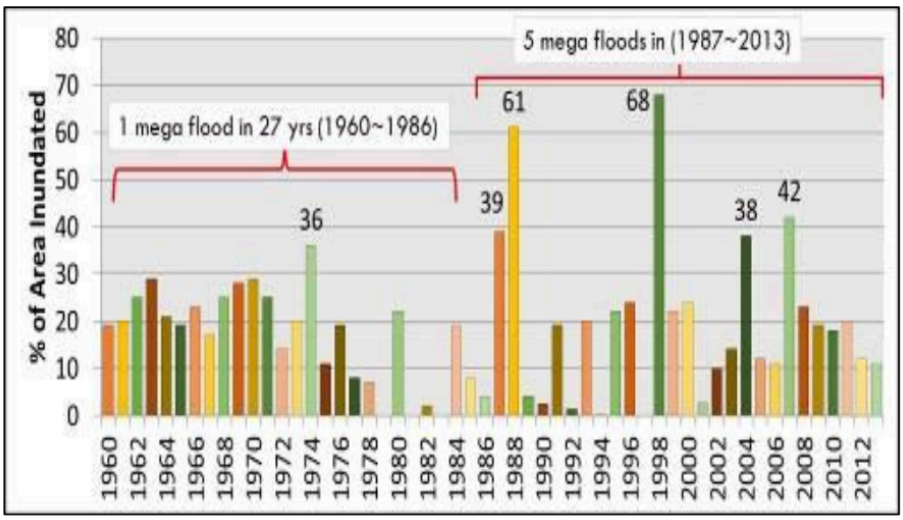
[39] Mondol, M.A.H., Zhu, X., Dunkerley, D., and Henley, B.J. (2021). Observed meteorological drought trends in Bangladesh identified with the Effective Drought Index (EDI). *Agricultural Water Management*, 255 (2021): 107001, https://doi.org/10.1016/j.agwat.2021.107001

have increased in Barind, and the peak intensity of droughts are higher in Barind compared to the Teesta floodplains.

13. The extent of area under **waterlogging** is a severe problem, particularly in the coastal districts of Khulna and Satkhira – targeted by GREEN, and Jessore. Remote sensing-based analysis[40] cited in the Nation-wide Climate Vulnerability Assessment, MoEFCC (2022)[41] indicates that waterlogged areas have increased about eight-fold over the past 45 years. Besides reduced river flows that results in sedimentation and poor drainage, the primary cause of waterlogging in the southwest is decades of infrastructure development – mainly in the form of shrimp farming. Poorly planned roads and embankments which block drainage, and lack of water infrastructure maintenance are also contributing factors. Though waterlogging cannot be directly attributed to climate change, projections of increased frequency and intensity of heavy rainfall spells, tropical cyclones and storm surges, and rising sea levels indicate that waterlogging will worsen in the future, and that crops must be able to withstand prolonged periods of waterlogging.

14. Bangladesh's 19 coastal districts that cover around 32% of the area and accommodate more than 35 million people currently experience varying levels of **salinity**. As **Figure 6** illustrates, the soil salinity boundary shifted further inland between 2000 and 2009[42], and salinity increased in around 35,440 hectares of new land between 2000 and 2009 alone[43]. Harmful soil and water salinity is mainly attributed to rising sea levels through multiple pathways (i) tidal flooding of arable land during monsoons or cyclones, (ii) direct inundation by saline water – aggravated by reduced river flows, and (iii) upward and lateral movement of saline groundwater during the dry season.

Figure 4. Increased frequency of mega floods attributed to climate change[44]



[40] Research by Space Research and Remote Sensing Organization (SPARRSO) as summarized MoEFCC (2022).
[41] MoEFCC (2023). Nationwide Climate Vulnerability Assessment in Bangladesh. Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh. https://climateadaptationservices.com/wp-content/uploads/2018/04/NCVA-Final-Published-min.pdf
[42] World Bank. (2024). Climate Risk Profile – Bangladesh. The World Bank Group, Washington, DC.
[43] MoEFCC (2022). National Adaptation Plan of Bangladesh (2023-2050). Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh. https://unfccc.int/documents/637588
[44] https://bdp2100kp.gov.bd/

Figure 5. Drought frequency during individual decades between 1980-2018 in Bangladesh, based on 3-month SPEI (standardized precipitation evapotranspiration index)[45]

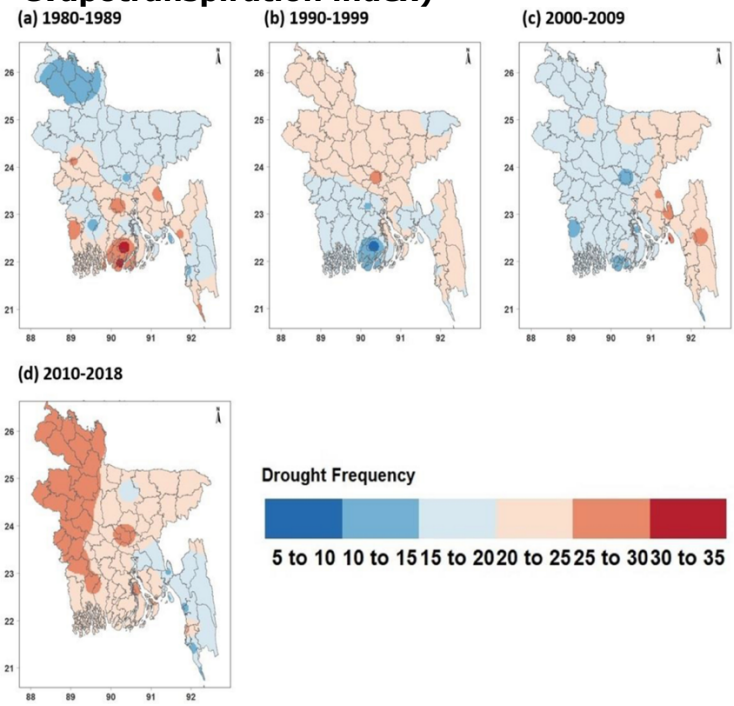
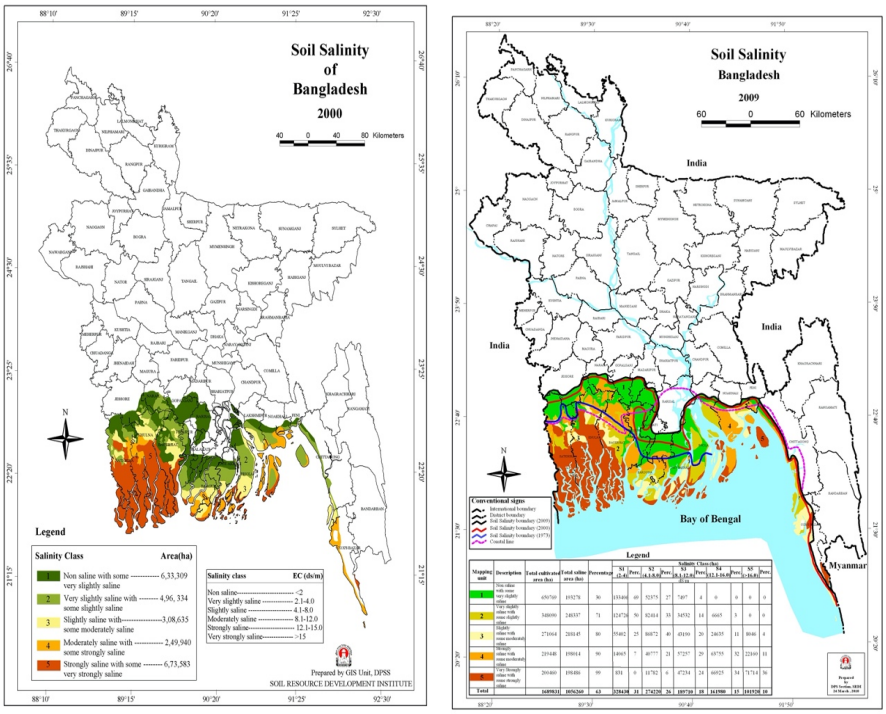


Figure 6. Soil salinity map for Southern Bangladesh between 2000 and 2009[46]. Note: Map scale varies slightly between left and right figures



[45] Kamruzzaman, M., Almazroui, M., Salam, M.A., Mondol, M.A.H., Rahman, M.M., Deb, L., Kundu, P.K., Uz Zaman, M.A., and Islam, A.R.M.T. (2022). Spatiotemporal drought analysis in Bangladesh using the standardized precipitation index (SPI) and standardized precipitation evapotranspiration index (SPEI). Scientific Reports 12: 20694 (2022). https://doi.org/10.1038/s41598-022-24146-0

[46] Soil Resources Development Institute (SRDI)

b. **Climate projections (future)**

15. **Temperature projections:** By 2040-2059, annual mean temperature is projected to increase by 1.04 ºC (0.59-1.67 ºC, range) under SSP-4.5 compared to 1995-2014[47]. Bangladesh will also experience higher minimum and maximum temperatures by mid-century, with the Coastal region experiencing the highest increase in number of days with Heat Index exceeding 35ºC. The number of days with high (> 35ºC) and very high (> 40ºC) is projected to increase from 26 to 93 days and 1 to 8 days, respectively.

16. **Precipitation projections:** While the modelled change in precipitation percentage is from 0.1-1.4% in 2030s and 2.4-3.5% in the 2050s under SSP-8.5[48], South Asian precipitation projections are subject to higher levels of uncertainty. NAP (2023-2050) also notes that northeastern and eastern hill regions will receive higher rainfall while western regions will see lower levels.

17. **Heat waves and cyclones:** The Indian Ocean is also warming much faster than other basins, and one recent study finds that it is moving towards near-permanent marine heat waves[49]. This is particularly pronounced in the north Bay of Bengal and affects cyclone intensity[50] and marine biodiversity, with impacts on Bangladesh's blue economy. Sea level is projected to rise by 0.2m, 0.5m, and 1m by 2020, 2050, and 2100 respectively, and in 2100, about 17.5% of the country's land area will be under water[51].

18. **Floods:** The mean annual flow of Ganges, Brahmaputra and Meghna rivers is projected to increase by 17-28%, 2-5%, and 1-4% respectively under SSP5.0-SSP8.5 scenarios in the 2050s[52]. The distribution of seasonal flow in 2050s is also projected to increase substantially in the pre-monsoon season in all three basins, with the highest increase in the Ganges basin plausibly attributed to increased summer melt in the eastern Himalayan glaciers. At the same time, dry season (winter) flows are expected to decrease in Brahmaputra and Meghna basins under SSP8.5.

C. ASSESSMENT OF SUB-SECTOR EXPOSURE, VULNERABILITY AND ADAPTIVE CAPACITY

19. **Table 1** summarizes the key climate hazards in GREEN focus regions. In 2023, the Climate Vulnerability Index[53]—developed by Local Government Division (LGD) with support from the European Union, Government of Sweden, UNCDF and UNDP—ranked all unions by vulnerability. The index assessed exposure, sensitivity and adaptive capacity using a wide range of secondary data sources and focused on the 1991-2020 period. As **Table 2** shows, most priority districts

[47] The anomaly for average mean surface air temperature is 1.52 ºC under SSP-8.5 (multi-model ensemble, 1995-2014 baseline). https://climateknowledgeportal.worldbank.org/country/bangladesh/climate-data-projections
[48] MoEFCC (2022). National Adaptation Plan of Bangladesh (2023-2050). Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh. https://unfccc.int/documents/637588
[49] 220-250 days in a year with extremely high temperatures, i.e., sea surface temperature (SSTs) exceeding the seasonally-varying 90th percentile threshold based on the 1970–1999 reference period or hotter than 90% of the typical temperatures for each season. Roxy, M.K., Saranya, J.S., Modi, A., Anusree, A., Cai, W., Resplandy, L., Vialard, J., and Frölicher, T.L. (2024). Chapter 20: Future projections for the tropical Indian Ocean. In C. C. Ummenhofer, & R. R. Hood (Eds.), The Indian Ocean and its role in the global climate system (pp. 469–482). Elsevier. https://doi.org/10.1016/B978-0- 12-822698-8.00004-4.
[50] It also affects cyclogenesis, and how rapidly cyclones are born and intensify.
[51] GED (2018). *Bangladesh Delta Plan 2100.* General Economics Division, Bangladesh Planning Commission, Ministry of Planning: Dhaka, Bangladesh.
[52] MoEFCC (2022). National Adaptation Plan of Bangladesh (2023-2050). Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh. https://unfccc.int/documents/637588
[53] LGD (2023). Climate Vulnerability Index. Local Government Division: Dhaka, Bangladesh. https://www.undp.org/sites/g/files/zskgke326/files/2023-03/Climate%20Vulnerability%20Index%20Book.pdf

for GREEN rank above the median score (0.48) for climate vulnerability in the 1991-2020 period, and only eight (8) out of thirty-two (32) GREEN districts are not ranked in the top 50% (32 districts with the highest CVI scores) out of all 64 Bangladesh districts. There are, however, variations in upazila and union level vulnerabilities: for e.g., Rajshahi is ranked 38 out of 64 highly vulnerable districts, but one of its upazilas (Godagari) falls in the top 1/3rd (one third) vulnerable upazilas, ranking 147 out of 463 highly vulnerable upazilas.

Table 1. Summary of climate and environmental risks in GREEN focus regions that are climate hotspots

Climate hotspot	Barind	Chittagong Hill Tracts (CHT)	Coastal	Haor	River Char
Key climate issue	- Droughts, especially in the dry season - Dry spells / consecutive dry days in the monsoon season	- Landslides, particularly during monsoon - Low rainfall, particularly in the dry season - Cyclones and storm surges along the coast	- Increased intensity and frequency of cyclones and storms - Tidal surges - Salinity intrusion (southwest) - Waterlogging (southeast)	- Higher frequency and intensity of flash floods, particularly in pre-monsoon season - Flooding during the monsoon - Excessive river drying due to inadequate rainfall	- River floods - Riverbank erosion due to high peak flows and discharge - Excessive sand / silt deposition during floods
Other climate issues	- Increased rainfall intensity in pre-monsoon and monsoon season - Heat waves - High humidity - Lighting - Cold spells (winter)	- Sea-level rise - Increased rainfall intensity in pre-monsoon and monsoon season - Heat waves - High humidity - Lighting	- Sea-level rise - River floods - Increased rainfall intensity in pre-monsoon and monsoon season - Heat waves - High humidity - Lighting	- Increased rainfall intensity in pre-monsoon and monsoon season - Heat waves - High humidity - Lighting	- Increased rainfall intensity in pre-monsoon and monsoon season - Heat waves - High humidity - Lighting - Tornadoes in pre-monsoon
Natural resource & environmental challenges[54]	- Excessive withdrawal of water for rice and other staples-groundwater decline - Reduced number and area of wetlands	- Land degradation and soil erosion - Loss of biodiversity - Loss of soil fertility - Drying up of freshwater springs - Groundwater	- Riverbank and coastal erosion - Groundwater decline - Increase in soil salinity	- Riverbank erosion - Freshwater scarcity - Poor drainage and river sedimentation - Shrinkage in wetlands (area and volume) due	- Deterioration of water quality - Poor drainage and river sedimentation - Reduced riverine flows due to upstream riparian

[54] DoE (2012). Bangladesh Environment and Climate Outlook. Department of Environment, Ministry of Environment and Forest (MoEF): Dhaka, Bangladesh.

	- Decline in soil quality due to excessive use of mineral fertilizer and pesticides; Monocropping - Very low river and stream flows - Decline in original forest cover (Shorea robusta)	degradation due to iron and salinity along the coast		to land use change (land filling, encroachment) - Excessive harvest and illegal fishing in wetlands results in fisheries resource decline and localized species extinction	developments
Overview of adverse impacts on rural livelihoods and agriculture	- Low agricultural productivity (1-2 seasons) - Poor soil organic carbon and poor soil water retention / percolation - Increased temperature stress on livestock and human health - Unavailability of surface water for irrigation and drinking	- Loss of homesteads and productive land to landslides and to topsoil degradation - Constrained access to water for drinking and irrigation during dry season - Food insecurity	- Salinity and waterlogging in arable land - Limited access to freshwater for drinking (salinity has severe impacts on women's reproductive health) - Frequent exposure of lives and livelihoods to severe climate and environment hazards - Food insecurity	- Rice production limited to one season - Flash floods / floods / drying of rivers affect open water fisheries - Rural roads, homesteads, harvests, small ruminants, poultry, and assets washed away due to wave action (locally known as *Afal*) - Food insecurity	- Floods and riverbank erosion result in loss of arable land - Significant loss of infrastructure, crop harvests, and livelihood assets due to frequent and severe floods - High rates of internal migration for alternative livelihoods - Food insecurity

Table 2. Climate Vulnerability Index and Scores, averaged over 1991-2020, for GREEN districts (LGD, 2023)

Haor districts	**CVI rank / score**	**Coastal districts**	**CVI rank / score**	**High Barind districts**	**CVI rank / score**	**River Char districts**	**CVI rank / score**	**CHT districts**	**CVI rank / score**
Netrakona	10 (0.52)	Patuakhali	1 (0.57)	Dinajpur	19 (0.51)	Gaibanda	6 (0.53)	Cox's Bazaar	8 (0.52)
Sunamganj	16 (0.51)	Bhola	3 (0.53)	Thakurgaon	21 (0.50)	Nilphamari	12 (0.52)	Chattogram	49 (0.46)
Kishoreganj	30 (0.49)	Khulna	7 (0.52)	Naogaon	24 (0.50)	Rangpur	13 (0.51)		

Habiganj	37 (0.47)	Bagerghat	9 (0.52)	Panchagar	26 (0.49)	Kurigram	15 (0.51)		
Brahmanbaria	62 (0.43)	Barguna	17 (0.51)	Chapai Nawabganj	35 (0.48)	Jamalpur	20 (0.51)		
		Satkhira	18 (0.51)	Rajshahi	38 (0.47)	Tangail	22 (0.50)		
		Noakhali	28 (0.49)	Joypurhat	54 (0.45)	Sirajganj	27 (0.49)		
		Lakshmipur	32 (0.48)			Manikganj	44 (0.47)		
		Feni	55 (0.44)			Lalmonirhat	47 (0.46)		

20. In 2018, the first draft of the Nationwide Climate Vulnerability Assessment in Bangladesh[55]—developed by GIZ and MOEFCC (Ministry of Environment, Forest and Climate Change)—identified climate vulnerable areas and populations and ranked all upazilas by constructing a vulnerability index for multiple impact areas (population affected by natural disasters, heat stress, crop yield vulnerability, change in fish capture, etc.). Both RCP4.5 and RCP8.5 emission scenarios (corresponding to IPCC Assessment Report 4 – AR4) were used to understand vulnerabilities in the medium term (2036-2065) and long term (2070-2099).

21. Exposure and sensitivity of agriculture to climate change: Crops, livestock, fisheries and non-timber forest produce is highly exposed to cyclones, floods, droughts, waterlogging, salinity, extreme heat, and landslides across the GREEN focus regions. Early pre-monsoon flash floods in 2017 damaged 90% of crops and fish production in Sunamganj district of Haor[56]. Sea-level rise and coastal erosion are projected to result in 30% loss in food production by 2050[57]. Since Bangladeshi agriculture is predominantly rainfed (*Aus* rice depends on pre-monsoon showers) or dependent on monsoons (*Aman* rice)[58], any variation in monsoon onset and withdrawal is highly consequential to agricultural productivity. The agri-food sector is also exposed to indirect climate risks such as new or increased frequency of crop pest and disease outbreaks, changes in pollination and crop phenology, deoxygenation and pH imbalances in freshwater / brackish water fisheries (owing to low rainfall, salinity intrusion, low river discharge, etc.), and new livestock pests and vector-borne diseases (linked to rainfall patterns and humidity).

22. Crop production is particularly susceptible to climate change: e.g., high water stress during flowering and maturing stage of rice can result in yield losses as high as 70%. Similarly, whilst increased carbon dioxide concentration may

[55] MoEFCC (2023). Nationwide Climate Vulnerability Assessment in Bangladesh. Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh. https://climateadaptationservices.com/wp-content/uploads/2018/04/NCVA-Final-Published-min.pdf
[56] Chakraborty, D., Mondal, K.P., Islam, S.T., Roy, J. (2021). Chapter 26 - 2017 flash flood in Bangladesh: Lessons learnt, https://doi.org/10.1016/B978-0-323-85195-4.00007-X
[57] The Mujib Climate Prosperity Plan (MCPP, 2022-2041).
[58] 72.5% (102,790 ha) of cultivated area is rainfed in hills, and 52.4% (7.8 mha) is rainfed in the plains. Scott, C.A., et al., (2019).

benefit irrigated winter Boro rice, rising temperatures in flowering season and decreased sunlight for winter crops will negatively impact rice yield[59].

23. A study by International Institute of Applied Systems Analysis (IIASA)[60] assessed twenty-six (26) crops, both perennial and long-cycle annual crops, under RCP8.5 (Representative Concentration Pathways from IPCC AR5) for South Asia. Even under high inputs and advanced management (but qualified as "rain-fed"), the analysis for the Ganges-Brahmaputra-Meghna basin in Bangladesh found a decline in production as well as suitable area by 2050 and 2080. Suitable area for rice production changes by less than 5% compared to the baseline (1981-2010), but production is projected to decline between 5-25% by 2050 and 25-50% by 2080. Similarly, the suitable area and production for high value crops such as banana and coffee are projected to decline by over 25% even by 2050. By 2080, all perennial crops[61] are projected to contract in both suitable area and production.

24. Exposure and sensitivity of poor households, women, and climate-vulnerable people: High poverty incidence, high population density, poor infrastructure, agriculture-dependent livelihoods, loss of productive land and fisheries (to sea-level rise, extended flooding, waterlogging, salinity), and inadequate public budget contribute to climate vulnerability of Bangladesh's rural poor. In 2015-16, 24 million rural households were estimated[62] to have spent a total of US$ 1.9 billion to respond to climate disasters and recover from it. Per household, this was roughly US$ 9 on house repairs/purchases and US$ 70 on other emergency preparedness, far outspending the government (by two times) and multilateral donors (over 12 times). Compared to male-headed households, female-headed households contributed three time their total income to precautionary savings for repairs and emergency preparedness.

25. The agri-food sector is a critical source of livelihoods; it is also critical to food and nutrition security. About 87% of rural households depend on agriculture for at least part of their income. Homestead production is a dominant feature of the rural landscape in Bangladesh[63]. Therefore, the exposure and sensitivity of agricultural production exacerbates food insecurity and livelihood vulnerabilities, particularly for ultra poor and poor households, ethnic minorities and women. Additionally, by 2050, climate change could make an additional 14% of population "extremely vulnerable" to floods and displace some 35 million people from the coastal districts[64]. Davis et al. (2018)[65] projected that direct inundation and increased salinity might displace 0.9 million people by 2050 and 2.1 million people by 2100.

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[59] World Bank (2019). Bangladesh Climate Smart Agriculture Investment Plan (CSAIP). World Bank: Washington, D.C., USA. https://documents1.worldbank.org/curated/en/936881574884000754/pdf/Bangladesh-Climate-Smart-Investment-Plan-Investment-opportunities-in-the-agriculture-sector-s-transition-to-a-climate-resilient-growth-path.pdf

[60] IIASA (2018). Climate Change Impacts on Suitability of Main Crops in the DECCMA study area in Ghana and in South Asia. International Institute of Applied Systems Analysis: Laxenburg, Austria.

[61] Namely, banana, cashew, cassava, coffee, coconut, jatropha, mango, oil palm, rubber, sugarcane, tea, and yam.

[62] Eskander, S. and Steele, P. (2019). Bearing the climate burden: how households in Bangladesh are spending too much. IIED, London. https://www.iied.org/16643iied

[63] World Bank (2019). Bangladesh Climate Smart Agriculture Investment Plan (CSAIP). World Bank: Washington, D.C., USA. https://documents1.worldbank.org/curated/en/936881574884000754/pdf/Bangladesh-Climate-Smart-Investment-Plan-Investment-opportunities-in-the-agriculture-sector-s-transition-to-a-climate-resilient-growth-path.pdf

[64] The Mujib Climate Prosperity Plan (MCPP, 2022-2041).

[65] Davis, K.F., Bhattachan, A., D'Odorico, P., and Suweis, S. (2018). A Universal Model for Predicting Human Migration Under Climate Change: Examining Future Sea Level Rise in Bangladesh. *Environmental Research Letters*, 13(6): 064030.

26. The inherent health impacts of Haor flash floods in and of itself is wide-ranging, as documented in a 2022 survey[66]: waterborne diseases, scarcity of drinking and bath water, mental health impacts, and other related morbidity / mortality (drowning, injury, lightning deaths, snake bites). Waterlogging due to floods or flash floods can exacerbate intra-household inequalities in food access[67], and prolonged exposure to unsanitary water causes skin diseases and gynecological issues. Islam et al. (2022)[68] in their cross-sectional survey of two Haors in Sunamganj district found that enhanced sedimentation due to climate change and other anthropogenic factors results in loss and damage to homes and livelihoods, which then triggers outmigration of men to nearby districts. Women and girls in such households reported feelings of insecurity – needing to finish chores before sundown or owing to instances of sexual harassment in quarries where they separate sand and stone for wage income.

27. Freshwater scarcity[69], owing to droughts, is associated with increased disease risks associated with hampered sanitary hygiene. While morbidity (diarrhea, typhoid, dysentery, etc.) during droughts is not gender-disaggregated in Dey et al. (2011), there's evidence of increased vulnerability of women from other studies[70,71,72,73]. In Barind, seasonal droughts and falling groundwater tables (owing to irrigated agriculture since 1960s) implies that people, particularly women and girls since it is seen as a feminized task (Sultana, 2009[74]), have to collect water for basic purposes from long distances. This also applies to care of livestock, including fodder and watering[75].

28. Azad et al. (2013[76]) documented that 87% of women respondents in Sirajganj district forgo food during and after floods. Thirty-five percent of women respondents in the same study reported being harassed by a male (relations, neighbors, unacquainted) during the disruption caused by flooding in Sirajganj district over a 5-year period; loss of assets such as clothing can increase social vulnerability and cause health issues (if women and girls choose to remain in wet

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[66] Chakraborty, D., Mondal, K.P., Al Jubaer, Islam, S.T., and Talukder, B. (2022). Health impacts of rapid-onset event: 2022 flash flood in Bangladesh. Editor(s): Trevor M. Letcher, Living with Climate Change, Elsevier, 2024, Pages 199-212, ISBN 9780443185151, https://doi.org/10.1016/B978-0-443-18515-1.00004-6

[67] CCC (2009). Climate Change, Gender and Vulnerable Groups in Bangladesh. Climate Change Cell, Department of Environment (DoE), Ministry of Environment and Forests (MoEF), Dhaka. https://core.ac.uk/download/pdf/48024281.pdf

[68] Islam, M. N., Atiqul Haq, S. M., Ahmed, K. J., & Best, J. (2022). How do vulnerable people in Bangladesh experience environmental stress from sedimentation in the haor wetlands? An exploratory study. *Water Resources Research*, 58, e2021WR030241. https://doi.org/10.1029/2021WR030241

[69] When tubewells cannot supply adequate quantity of water, and other surface water bodies dry up or have poor quality / unhygienic water.

[70] CCC (2009). Climate Change, Gender and Vulnerable Groups in Bangladesh. Climate Change Cell, Department of Environment (DoE), Ministry of Environment and Forests (MoEF), Dhaka. https://core.ac.uk/download/pdf/48024281.pdf

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[73] Hossen, M.A., Benson, D., Hossain, S.Z., Sultana, Z., Rahman, M.M. (2021). Gendered Perspectives on Climate Change Adaptation: A Quest for Social Sustainability in Badlagaree Village, Bangladesh. Water, 13(14):1922. https://doi.org/10.3390/w13141922

[74] Sultana, F. (2009). Fluid lives: subjectivities, gender and water in rural Bangladesh. *Gender, Place & Culture*, 16(4): 427–444. https://doi.org/10.1080/09663690903003942

[75] CCC (2009). Climate Change, Gender and Vulnerable Groups in Bangladesh. Climate Change Cell, Department of Environment (DoE), Ministry of Environment and Forests (MoEF), Dhaka. https://core.ac.uk/download/pdf/48024281.pdf

[76] Azad, A.K., Hossain, K.M. and Nasreen, M. (2013). Flood-induced vulnerabilities and problems encountered by women in northern Bangladesh. *Int J Disaster Risk Sci*, 4 (2013): 190–199. https://doi.org/10.1007/s13753-013-0020-z

clothes). A survey of 2022 flash flood affected households in Haor (Sylhet and Sunamganj) found that shelters were overcrowded and lacked gender-sensitive or disability-inclusive design.

29. Across districts, one recent study (Hussain and Bari, 2025[77]), found that between 2015-2020 around 21.1% of all Bangladeshi households experienced at least one of the following climate events: flood, cyclone, hailstorm, thunderstorm/lighting, river/coastal erosion, waterlogging, drought, and salinity. Of the affected households, 64.3% experienced crop loss – the annual value of which is estimated at USD 747 million per year. Major flooding events, for instance, result in nearly five times the average annual crop loss compared to regular flooding in the Deltaic region.

30. Adaptive capacity: Household engage in several strategies to avoid, cope, and recover from climate change and natural disasters. For example, Barind farmers have observed that rice yields have decreased from 800 kg to 500 kg because of insufficient water for irrigation, and have begun to plan mustard and wheat which demand less water[78]. Azad et al. (2013[79]) showed how flood-affected women adapt by engaging in food processing and selling in local markets, rearing cattle and poultry, engaging in small business such as weaving and embroidery. However, extreme climate events disrupt food consumption, savings, and livelihoods. Since women are more dependent on natural resources for livelihoods and are responsible for their household's food and nutrition security, in situations of freshwater paucity, they may find it challenging to maintain their homestead gardens, find fish for household consumption in ponds and other water bodies, or ensure that their livestock are well-fed and watered[80,81].

31. Access to finance for poor households can allow them to smooth income or consumption after climate shocks, undertake strategic ex ante investments to adapt (e.g., shift to stress-tolerant cropping patterns or crop varieties, mechanization, diversify into non-farm MSMEs), and recover faster from climate shocks. However, Bangladesh has only about 8.6 bank branches per 100,000 people, which constrains financial access[82], and about 92.5% of Bangladeshi households have no bank account[83]. Therefore, access to microfinance institutions could address some of the liquidity gaps.

32. Nuruzzaman et al. (2024)[84], in their study of four disaster-prone villages in southwest coastal region, find that households that engaged with at least one

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[77] Hussain, A.M.T and Bari, E. (2024) Economic Valuation of Loss and Damage in the Crop Sector of Bangladesh. http://dx.doi.org/10.2139/ssrn.5274407

[78] MoEFCC (2023). Nationwide Climate Vulnerability Assessment in Bangladesh. Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh. https://climateadaptationservices.com/wp-content/uploads/2018/04/NCVA-Final-Published-min.pdf

[79] Azad, A.K., Hossain, K.M. and Nasreen, M. (2013). Flood-induced vulnerabilities and problems encountered by women in northern Bangladesh. *Int J Disaster Risk Sci*, 4 (2013): 190–199. https://doi.org/10.1007/s13753-013-0020-z

[80] CCC (2009). Climate Change, Gender and Vulnerable Groups in Bangladesh. Climate Change Cell, Department of Environment (DoE), Ministry of Environment and Forests (MoEF), Dhaka. https://core.ac.uk/download/pdf/48024281.pdf

[81] Hossen, M.A., Benson, D., Hossain, S.Z., Sultana, Z., Rahman, M.M. (2021). Gendered Perspectives on Climate Change Adaptation: A Quest for Social Sustainability in Badlagaree Village, Bangladesh. *Water*, 13(14):1922. https://doi.org/10.3390/w13141922

[82] Smallholders' Access to Finance Through Bank, USAID Agricultural Extension Support Activity (AESA) project.

[83] Another study reported a much higher penetration, and that only 70% of population have no bank account. BFB-B (2018). *Feasibility Study on Transformation of MFIs into Specialized Banks/Finance Companies: Bangladesh Perspective*. Business Finance for the Poor-Bangladesh: Dhaka, Bangladesh.

[84] Nuruzzaman, A.K.M., Graham, S., and Barnett, J. (2024). Reducing social vulnerability to climate change: the role of microfinance organisations. *Climate Policy*, 25(1): 44-58. https://doi.org/10.1080/14693062.2024.2305762

MFI have less social vulnerability to climate change than those that have not. The primary pathways for these positive outcomes were a regular savings habit, vocational training, and participation in diverse social groups. Lane (2024)[85], collaborated with a Bangladesh MFI to offer emergency loans after a specific climate shock (flood), and found that farmers with access to access to such loans make less costly adaptation choices and are less severely affected when floods occur. At the same time, emergency loans are profitable for MFIs because borrowers exhibit higher repayment rates after the flood shock and higher repayment rates overall. By designing a product that assessed credit worthiness before the shock occurred (in April, several months before flooding season), the possibility of MFI unwillingness to lend was averted; targeting based on credit score did not preference richer over poorer households. Finally, in Haor, households that had access to microcredit and social safety net programs (typically allowances, conditional cash transfers and/or stipend programs for primary and secondary education) were less likely to be poor in 2021 (compared to 2019) than households without access to either, but factors such as gender and education moderated the benefits for poverty impacts on households with access to microcredit[86].

33. However, even with access to micro-credit, women may be forced to engage in costly coping strategies like selling productive assets or liquidating savings during or after extreme climate events. Women borrowers who set up small agri-business or non-farm MSMEs may face asset loss or be forced to prematurely sell their assets to cope with extreme climate events. Hossen et al. (2021)[87] described a female borrower who had invested in two goats to sell during Eid-ul-Adha (a period of high demand for goats and cows). When one goat died due to heatwave-linked diarrhea, another was sold off at a low price to keep up with micro-credit repayments; this resulted in her pursuing a different source of livelihood (paid housework) to service the loan. Careful household budgeting and financial planning could further reduce risks: for instance, only 15.09% of households report depositing money in a bank or a microfinance institution. While 18.03% of household loans is for agricultural purposes and another 22.13% for business, only 8.31% of total loans borrowed are from private or public commercial banks, cooperative banks, or Krishi (farmer) banks. Increasing the amount saved, increasing diversity of savings instruments, and graduating to cooperative, Krishi and commercial banks for loans could further reduce vulnerabilities. Finally, while Nuruzzaman et al. (2024) found positive impacts of MFI participation, households with chronic health issues or very low levels of education are oft excluded and require additional outreach efforts by MFIs.

D. ADAPTATION ASSESSMENT

34. Identifying adaptation options: Bangladesh has a rich climate change policy environment, with several policies, investment plans, and strategies developed over the years that identify adaptation and mitigation priorities. This section first synthesis adaptation priorities identified in the Bangladesh Delta Plan 2100, Nationally Determined Contributions (NDCs) and National Adaptation Plan (NAP),

[85] Lane, G. (2024). Adapting to Climate Risk with Guaranteed Credit: Evidence from Bangladesh. *Econometrica*, 92: 355-386. https://doi.org/10.3982/ECTA19127

[86] Hossain, M.Z., and Majumder, R.R. (2025). Graduation from poverty condition of HAOR (seasonal wetland) people of Bangladesh: simultaneous effects of microcredits, SSNPs, flood and COVID-19. Discov Soc Sci Health, 5:37(2025). https://doi.org/10.1007/s44155-025-00188-3

[87] Hossen, M.A., Benson, D., Hossain, S.Z., Sultana, Z., Rahman, M.M. (2021). Gendered Perspectives on Climate Change Adaptation: A Quest for Social Sustainability in Badlagaree Village, Bangladesh. *Water*, 13(14):1922. https://doi.org/10.3390/w13141922

the Mujib Climate Prosperity Plan (MCPP), the Bangladesh Climate Change Strategy and Action Plan (BCCSAP), and the Sector Action Plan – Environment and Climate Change. This recognizes that GREEN should be responsive to the national-level policy frameworks and align—where feasible—with associated investment plans and priority actions. It then summarizes the adaptation actions, which are already being implemented by PKSF and its POs as well as autonomously by member households, identified during GREEN design mission (**Table 3**).

35. The Bangladesh Delta Plan (BDP) 2100[88] is a 100-year strategic plan aimed at comprehensive and sustainable development of the country through economic growth, climate resilience, long term water and food security, and environmental conservation. It identified climate change as a significant future challenge, and reaffirmed Bangladesh's commitment to reducing greenhouse gas (GHG) emissions. A total of 80 projects were identified for implementation requiring US$ 37 billion in investment. BDP 2100's 52 climate change adaptation projects link directly with 23 NAP 2030-2050 interventions and will contribute to achieving NDCs and NAP. One of the critical outputs of BDP2100 was the identification of climate hotspots – defined as a broad grouping of districts and areas facing similar risks evolved by hydrology, climate change and natural hazards, and developing diverse strategies based on hotspots. Strategies were also developed for cross-cutting issues such as Agriculture, Food Security and Livelihood such as: diversification in agriculture output and livelihoods, production of climate resilient livestock, and maintaining biodiversity to ensure long term fish availability.

36. The Nationally Determined Contributions (NDCs)[89] were first proposed in 2015 and updated in 2021. NDC 2015 outlined a two-fold strategy for climate action: increasing resilience to the impacts of climate change and working to achieve lower-carbon as well as more resilient development. In the base year (2012), agriculture and livestock contributed 45.87 million tonnes (Mt) of CO2eq or 27.35% of the total emissions, and an additional 2.73 Mt CO2eq through energy use (pumps, tractors, harvesters).

37. In 2015 intended NDCs, AFOLU (Agriculture, Forestry and Other Land Use) was not a sector of target for unconditional GHG emissions reduction, which was focused on power, transport and industry. The 2021 NDCs proposes that 2.2% of the total unconditional emissions reduction (27.56 Mt Co2eq) will come from AFOLU sector. These AFOLU emission reductions will occur through efforts like increasing organic fertilizer share, land management (leaf colour charts, soil test-based fertilizer management), upscaling alternate and wetting drying in rice cultivation, rice varietal improvement, increasing cropping area under pulses, manure management, replacement of low productive animals with high productivity animals and species, feed improvement, and use of solar energy for irrigation.

38. NDCs identified agriculture, along with water and health, as a priority adaptation sector. Among the priority interventions for agricultural adaptation are: stress tolerant variety improvement and cultivation; adaptation to climate change

[88] https://bdp2100kp.gov.bd/
[89] MoEFCC (2021). Nationally Determined Contributions (NDCs) 2021. Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh https://unfccc.int/sites/default/files/NDC/2022-06/NDC_submission_20210826revised.pdf

impacts on health; and improved early warning system for tropical cyclone, flood, flash flood, and drought.

39. The National Adaptation Plan of Bangladesh (NAP, 2030-2050)[90] aims to streamline and reinforce adaptation efforts, building on BCCSAP and NAPA. NAP (2030-2050) envisions building a climate resilient nation through effective adaptation strategies that foster a robust society and ecosystems and stimulate sustainable economic growth. It focuses on eight (8) distinct sectors, of which *disaster, social safety and security; agriculture; fisheries, aquaculture and livestock; capacity development, research and innovation;* and *policies and institutions* are the most relevant to GREEN. A total of 113 interventions, spanning 23 adaptation strategies, have been prioritized under eight sectors. Of the 113 interventions [associated sectors in brackets], the following are highly relevant to GREEN
    - Private sector finance in leading the implementation of climate change adaptation [Sector: Policies and institutions]
    - Innovative, appropriate and enhanced financial instruments for supporting climate change adaptation [Policies and institutions]
    - Extension of climate-smart technologies for increasing irrigation water use efficiency [Sector: Agriculture]
    - Extension of stress-tolerant, pest- and disease- resistant rice and non-rice crops [Agriculture]
    - Introduction and scaling up of innovative and indigenous agriculture [Agriculture]
    - Crop diversification/intensification for natural resources optimization and reduction of climate stress [Agriculture]
    - Farm modernization/mechanization to reduce climate vulnerability [Agriculture]
    - Increased fertilizer use efficiency for enhancing production [Agriculture]
    - Extension of good agriculture practices (GAP), modern agriculture technology (math) and sloping agricultural land technology (SALT) [Agriculture]
    - Improvement of storage or post-harvest facilities, transport, communications and e- commerce-based market facilities for agricultural products [Agriculture]
    - Development of agro-food processing industries based on climate-sensitive crop zoning [Agriculture]
    - Development of e-commerce and engagement of women, people with disabilities and youth for e-commerce-based entrepreneurship [Agriculture]
    - Extension of climate-resilient technology for combating climate-related stresses in aquaculture [Sector: Fisheries, aquaculture and livestock]
    - Development of climate-ready open water fisheries management [Fisheries, aquaculture and livestock]
    - Validation and extension of indigenous knowledge-based adaptation techniques to combat climatic effects on fisheries [Fisheries, aquaculture and livestock]
    - Improvement of post-harvest facilities and e- commerce-based market facilities for fisheries and aquaculture [Fisheries, aquaculture and livestock]
    - Extension of climate-stress-tolerant livestock and poultry breeds, farm, feed and fodder [Fisheries, aquaculture and livestock]
    - Extension of indigenous and advanced livestock and poultry farming practices [Fisheries, aquaculture and livestock]

[90] MoEFCC (2022). National Adaptation Plan of Bangladesh (2023-2050). Ministry of Environment, Forest and Climate Change: Dhaka, Bangladesh. https://unfccc.int/documents/637588

- Development of livestock product processing industries and transportation systems [Fisheries, aquaculture and livestock]
- Awareness-raising, training on skills for enhanced adaptive capacities and improved diversified livelihoods at the community level [Sector: Capacity development, research and innovation]
- Action research and field demonstrations on climate-smart agriculture [Capacity development, research and innovation]
- Increase the resilience of vulnerable poor communities by introducing gender-, age- and disability-responsive diversified livelihoods, effective insurance mechanisms and climate resilience funds [Sector: Disaster, social safety and security]
- Behavioral change and development of awareness among vulnerable communities for emergency responses and livelihood protection from climate-induced disasters [Disaster, social safety and security]
- Community-based rainwater harvesting through indigenous techniques [Sector: Water resources]
- Drought management measures for enhanced groundwater recharge and increased soil moisture in water-stressed areas [Water resources]

40. Relatedly, the Technology Needs Assessment and Technology Action Plans for Climate Change Adaptation in 2012[91] identified a strong agricultural sector as fundamental to poverty reduction and food security but also proposed diversification from agro-based economy to manufacturing and services. It developed a short list of potential agricultural adaptation technologies that are of highest priority: salinity-tolerant rice varieties, drought-tolerant rice varieties, and short-maturing rice varieties; dissemination of the rice varieties; and training on improved farming practices for crops, irrigation and water management, soil fertility management (conservation and restoration of soil quality), etc. It recognized that infrastructure-scale actions might be needed in some instances (e.g., reservoir water management) whereas other climate risks cannot be addressed even through infrastructure measures—and this will require more local adaptive actions (e.g., salinity intrusion cannot be protected by physical barriers on rivers). Based on key barriers, measures to promote technology adoption in agriculture were proposed such as: seed marketing, demonstration of the new technology, training and capacity building, and provision of soft loans to farmers.

41. The Mujib Climate Prosperity Plan (MCPP, 2022-2041) proposes a shift in Bangladesh's trajectory from one of vulnerability to resilience to prosperity; MCPP 2022-2041 aligns with long-term plans outlined in BDP 2100. The Plan's principal aims are to secure Bangladesh's prosperity by 2041, launching an economic transformation with proposed actions under six (6) key priority areas. Of these, *Accelerated Adaptation*, which identifies resilience measures for sectors such as food and agriculture, health, water and forestry, *Just Transition of Labour and Future-Proofing Industry with Technology Transfer*, with a focus on training and skills development for labour markets of the future, and *Comprehensive Climate and Disaster Risk Financing and Management*, which focus on MSME financial protection and productivity enhancement, and the development of climate-resilient and nature-based agricultural and fisheries

[91] MoEF (2012). Bangladesh Technology Needs Assessment and Technology Action Plans for Climate Change Adaptation. Ministry of Environment and Forest (MoEF): Dhaka, Bangladesh. https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/TNR_CRE/e9067c6e3b97459989b2196f12155ad5/5583180f345e40c79bd3005fd18850c0.pdf

supply and value chains to safeguard food, nutrition and water security is of most relevance to GREEN.

42. The Sector Action Plan on Environment and Climate Change (SAP-ECC)[92] has been published in June 2023 by the Agriculture, Water Resources, and Rural Institutions Division of the Planning Commission to facilitate the implementation of Eighth Five Year Plan 2020-2025 (8thFYP) through the Annual Development Programme (ADP). It sets a vision to tackle "environment and climate change risk and vulnerabilities in Agriculture, Fisheries and Livestock managing land, water, environment and ecosystems in an integrated way for achieving food and nutrition security". Within three thematic areas (*1. Addressing Climate Change Consequences; 2. Environment and Forest; 3. Cross-cutting Issues*), 10 specific sub-themes and 53 strategies have been identified. Further, 95 specific actions are proposed for a cost of US$ 4.95 billion (BDT 58,240 crores) over 8thFYP (2020-2025) and 9thFYP (2025-2030). The key gaps identified by SAP-ECC and of relevance to GREEN are:
    - Stress tolerant varieties and extension services need to be enhanced
    - Application of climate smart technologies should be intensified
    - Fisheries and aquaculture management can be improved
    - Livestock and manure management can be improved
    - Gender inclusion in agriculture practices should be enhanced
    - Integrated land and water management should be of more focus
    - Agro-chemicals use should be reduced, fertilizer management can be improved
    - Farm energy efficiency
    - Crop productivity could be improved
    - Integrated pest management needs to be enhanced
    - Development of alternative livelihood options, particularly for south-east, Barind, Haor, and hard to reach areas

43. GREEN will primarily contribute to the following SAP-ECC sub-themes: (a) Climate Smart Agriculture and (b) Sustainable Land and Water Management under thematic area 1, and (c) Pollution Control, Pest and Diseases Management under thematic area 2. Through its mainstreaming actions (e.g., gender inclusive development), promotion of alternative income generating activities, and ensuring development of climate resilient market system and value chain, it will also contribute to the sub-theme Enhancing Local Level Climate Change Adaptation and Resilience under thematic area 1.

44. The Bangladesh Climate Change Strategy and Action Plan (BCCSAP)[93] in 2009 outlined the country's strategy and set the direction for its climate policy for 2008-2018; it built on the National Adaptation Programme of Action (NAPA) 2005. BCCSAP was then updated in 2018-2019 to reflect updated climate risk assessments and global, regional and national trends in the target sectors. While short-to-medium term actions proposed in BCCSAP (2009) such as a national climate vulnerability assessment [see MoEFCC (2023) NCVA and LGD (2023) CVI] and the identification of areas vulnerable to drought, flood and salinity have occurred, other critical actions such as "develop climate resilient cropping patterns suited to different regions of the country", "develop organized seed

[92] AWRRID (2023). Sector Action Plan – Environment and Climate Change. Agriculture, Water Resources and Rural Institutions Division (AWRRID), Bangladesh Planning Commission, Ministry of Planning (MoP): Dhaka, Bangladesh.
[93] MoEF (2009). Bangladesh Climate Change Strategy and Action Plan 2009. Ministry of Environment and Forest (MoEF): Dhaka, Bangladesh. https://lpr.adb.org/sites/default/files/resource/969/bangladesh-climate-change-strategy-and-action-plan.pdf.pdf

production and supply system; and extension mechanism" "identify/develop production technologies for crop production in vulnerable areas", and "assess threats to" fisheries and livestock to "develop adaptive measures and disseminate to farmers" are still areas requiring attention and improvement.

45. Out of the six thematic areas of BCCSAP, GREEN is well aligned with *TA1: Food Security, Social Protection and Health* through activities that will "increase the resilience of vulnerable groups, including women and children, through development of community-level adaptation, livelihood diversification, better access to basic services and social protection and scaling up" and "develop climate resilient cropping systems, fisheries and livestock systems to ensure local and national food security". BCCSAP 2009 proposed nine programs under TA1 and GREEN will contribute to "P2: Development of climate resilient cropping systems", "P3: Adaptation against drought", "P4: Adaptation in fisheries sector', "P5: Adaptation in livestock sector", "P8: Livelihood protection in ecologically fragile areas", and "P9: Livelihood protection of vulnerable socio-economic groups". Under *TA2: Comprehensive Disaster Management*, GREEN will also contribute to "P3: Awareness raising and public education towards climate resilience" through household and financial planning modules.

Table 3. Adaptation options that are currently implemented

Summary of adaptation options from stakeholder consultations, including prior IFAD-PKSF projects
1. Drought-tolerant and/or water-efficient crops in Barind
2. Zero or minimum tillage for flood-prone areas
3. Sarjan method for salinity-prone areas
4. Floating gardens for flood-prone and waterlogging-prone areas
5. Hanging vegetable / fruit gardens in flood, salinity or waterlogging prone areas
6. Integrated fish-rice farming, crop-livestock farming systems
7. Improved husbandry / management of livestock, fish, aquaculture
8. Micro-irrigation to address freshwater scarcity, particularly for drought, flood or salinity prone areas
9. Improved use of groundwater for irrigation
10. Agri-business micro enterprises (milk collection centers, safe vegetable collection center, feed and fodder shops, grain collection centers, vegetable sale carts – electric, etc.)
11. Agri-business small enterprises (livestock health and diagnostics, safe meat processing and sale, etc.)
12. Distribution of food rations to micro-credit borrowers after extreme events
13. Improving local availability and access to bio-fertilizer, bio-pesticide, biological pest control for crops, etc.
14. Develop crop calendars and provide information to farmers on agro-climatic conditions
15. Enabling access to high quality and wider variety of seeds
16. Establishing local breeding units / hatcheries for poultry and duck

17. Establishing plant nurseries (for horticulture)
18. Training to reduce excessive harvesting of fish
19. Promoting farm mechanization
20. Assistance for e-commerce and organizing farmers to connect with traders and wholesalers

46. Identification of target value chains in GREEN: GREEN will focus on farm, off-farm, and non-farm livelihoods by providing a combination of technical support and training, in-kind grant, and access to microcredit (Ultra poor – i.e., Buniad and Transitional poor -i.e., Jagoron loans range between US$ 60-500 per member household; Agrosor – i.e., micro-enterprise loans range between US$ 500-8,500 per member household). Non-farm and off-farm value chain activities of MSMEs are likely to span trade in and processing of agricultural commodities, shoes and leather works, metal works, wood and bamboo products, tailoring, village-level eco-tourism, restaurants and catering services, various repair and maintenance services, and transportation services.

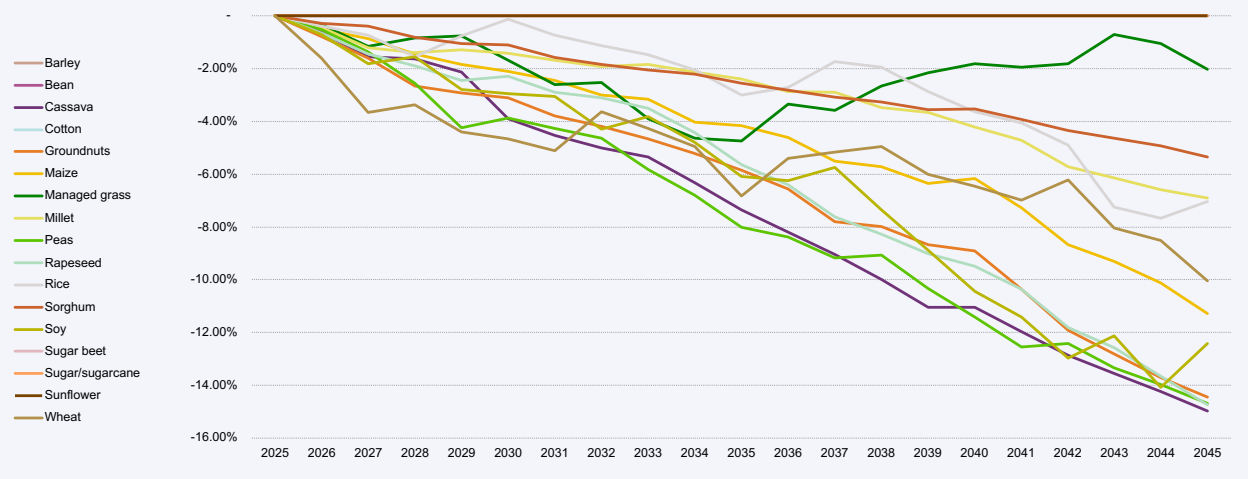
47. In its support to ultra poor and poor farmers, GREEN will support increase in productivity and/or diversification into horticulture (fruits, vegetables), spices (e.g., ginger, garlic), legumes and pulses, poultry, duck and livestock farming, pond fisheries, and oilseeds and nuts based on the market demand, agroecological suitability, and climate risks. GREEN will offer advisory services on farm management ranging from integrated pest management and use of organic manure to biosecurity for livestock, fish and poultry (see **Table 3** for examples of adaptation actions already being implemented). All crops that farmers grow or could choose to grow with project support are exposed to climate risks, with rice, wheat and potatoes particularly vulnerable.

48. As results from IFAD's CARD tool (**Figure 7**) shows, without irrigation, crops of relevance to ultra poor and poor farmers (groundnuts, beans, maize, rice, wheat, peas) in Bangladesh will experience a decline in yields. However, with access to irrigation, the rate of yield decline falls. With no irrigation, rice and wheat yields may decline by 3.55% and 3.54% respectively averaged over 2025-2030, maize by 1.35%, and groundnuts by 2.22%. If fully irrigated, while crops such as wheat, maize and groundnuts still experience a decline in yields of 2.21%, 1.71%, and 0.98% averaged over 2025-2030, this is lower than the "no irrigation" scenario. In the short term, rice yields could increase very slightly under full irrigation by 2030 but is projected to steadily decline after 2030 (up to 2045).

49. Assessing and prioritizing adaptation options: A database of climate change adaptation (CCA) options and a system for the assessment and prioritization of CCA options have been developed as part of IFAD's Targeted Adaptation Framework. The prioritization process consists of two main elements. First, adaptation options are filtered based on the project components and climate risks identified during the climate screening process. A Multi-Criteria Analysis (MCA) is then carried out on the shortlisted adaptation options to help select measures to integrate into the project using the following criteria:
    - Technical feasibility
    - How relevant and effective is the option at addressing climate risks in the project context
    - Accessibility to smallholder farmers

- Flexibility i.e., avoiding lock-ins
- Mitigation co-benefits potential
- Transformation potential
- Complementarity to IFAD mainstreaming themes
- Cost-benefit ratio.

Figure 7. Changes in yield for major crops in Bangladesh between 2025 and 2045 under "no irrigation"



50. The prioritizing adaptation options system uses a simple scoring approach **(Table 4)** based on the eight criteria listed above. The following criteria require a minimum score of 2: technical feasibility, addresses climate risks, accessibility for smallholder farmers, and cost benefit analysis. Options that score lower than 2 on any of these criteria are considered unsuitable for the GREEN. Adaptation options with the highest scores are most suitable for a project. The results from the Adaptation Options prioritization are shown on the next page **(Table 5).** Nearly all the options scored above average and are deemed suitable to varying degrees.

51. Adaptation options that are effective at targeting PKSF's beneficiary groups (ultra poor, transition poor, micro-enterprises), complementary to IFAD mainstreaming themes, and offer multiple benefits such as mitigation, biodiversity conservation and environmental protection should be favored owing to (a) strong linkages between climate, environment and biodiversity; (b) the uncertainties associated with and wide range of potential future climate change impacts; and (c) the vulnerability of IFAD's target groups. **These adaptation options should be validated, and final selection made during the early implementation phase through value chain analysis and stakeholder engagement. Partner Organizations should also indicate their broad focus adaptation areas or priority actions—in relation to the climate risks identified in their areas of operation—in their proposal to PKSF PMU to access GREEN credit lines.**

52. Monitoring adaptation: Climate change adaptation has been designed into GREEN's components and activities. Final selection and implementation of specific adaptation options will be done by PKSF's Project Management Unit (PMU) in consultation with its Partner Organizations (POs). Oversight to the implementation and monitoring of the Targeted Adaptation Assessment will be provided by the Senior Programme Manager (Environment, Climate Change and SECAP) in coordination with the Food System Sector Managers (four experts –

spanning Livestock, Fisheries, Horticulture, Non-farm), Senior Programme Manager (Nutrition, Gender and Social Inclusion), and the Microfinance Specialist. Since a significant proportion of actions are agriculture related, PKSF's Integrated Agriculture Unit (IAU) is likely to play a leading role in providing expert advice and guidance. IFAD country office and regional team will also provide guidance support throughout the duration of the project.

53. Monitoring is critical in ensuring the long-term success of climate adaptation initiatives, plans and actions. It plays an important role in the following aspects of adaptation. M&E can be conducted on quarterly and annual basis.
    - It tracks performance of activities undertaken during the development of an adaptation plan (e.g. stakeholder engagement activities).
    - It tracks pre-identified risk thresholds/trigger levels which identify when new adaptation actions should be undertaken.
    - It determines whether planned outputs and outcomes from adaptation actions have been achieved.
    - It determines whether changes should be made in terms of adding/removing the action(s) or adjusting in line with the prevailing environment.
    - Monitoring will also assist the project to determine whether the actions are incurring any unanticipated side effects.

54. Costs and budgetary considerations: The cost of implementing CCA actions have been integrated into GREEN.

Table 4. Scoring criteria used to prioritize potential adaptation options

No.	**Theme**	**1**	**2**	**3**
1	Technical Feasibility	No experience in implementing solution	Consultants available with suitable skills	Previous IFAD experience with solution
2	Addresses Climate Risk	Adaptation option is not relevant or may not be effective for the risks identified	Adaptation option effectively addresses at least one of the identified risks	Adaptation option is relevant for all of the major climate risks identified
3	Accessibility for farmers	Adaptation option is inaccessible for the main project beneficiaries (e.g. unaffordable, requiring regular complex maintenance), or exacerbates existing inequalities.	Adaptation option is accessible for the majority of the project's target beneficiaries.	Adaptation option is accessible to project beneficiaries and specifically benefits women or other marginalized groups.
4	Flexibility (avoids lock-in)	The adaptation option has a long lifetime (>10 years), and its design does not allow for any adjustment.	The adaptation option being considered has a short lifetime (less than 10 years).	The adaptation option is low or no regrets or is part of an adaptive management approach.
5	Mitigation Co-benefits	No mitigation co-benefits or adaptation significantly increases greenhouse gas emissions.	Adaptation option leads to emissions reductions, either at present or in the future.	Adaptation option involves reforestation, restoration of carbon sinks, or the substitution of fossil fuels for renewable energy sources.
6	Transformative potential	Adaptation option is limited to small increases in the resilience of target group but does not involve changes in wider systems.	Adaptation option operates at scale or enables wider implementation of the option, for instance with a declining marginal cost.	Adaptation option enables change in the system in question which significantly increases opportunities for target beneficiaries to adapt to climate change.

7	Complementarity to IFAD themes	No complementarity.	Complements at least one other cross-cutting theme that is directly relevant to adaptation outcomes.	Complements more than one other cross-cutting theme to support systemic resilience.

Table 5. Draft List of Adaptation Options, to be refined and updated during implementation

No.	Adaptation Option	Technical Feasibility	Addresses Climate Risk	Accessibility for farmers	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	CBA [94]	Total Score
1	Value chain assessment to understand climate risks and identify climate adaptation entry points / priorities	3	3	3	3	2	3	3	3	23
2	Strengthen and/or organize smallscale producers through producer organizations and cooperatives	3	3	3	3	2	3	3	3	23
3	Technical and financial assistance[95] for climate smart agriculture – cropping system diversification (changing crops grown) to better suit agro-ecological and climatic context & higher farm earnings	3	3	3	3	2	3	3	3	23
4	Technical and financial assistance for soil fertility management – shift to organic fertilizer and integrated fertilizer management	3	3	3	3	2	3	3	3	23
5	Technical and financial assistance for climate smart agriculture – selecting crop varieties for stress-tolerance, resilience and higher yields	3	3	3	3	2	2	3	3	22
6	Promote agrobiodiversity conservation – landraces, neglected and underutilized species, indigenous livestock / poultry breeds	3	3	3	3	1	3	3	3	22
7	Technical and financial assistance for climate smart agriculture – introducing new crop management practices (micro-irrigation, drip irrigation, hanging gardens, mulching, zero or reduced tillage, residue retention, buried pipe, etc.)	3	3	3	3	2	2	3	3	22
8	Promote biological pest control (pheromone traps, yellow sticky trap) and bio-pesticides	3	3	3	3	1	2	3	3	21
9	Promote integrated fertilizer management – recycle livestock / poultry manure to produce vermicompost, organic manure, Trichoderma leachate, etc.	3	3	2	3	2	2	3	3	21
10	Technical and financial assistance for climate smart agriculture	3	3	2	3	2	2	3	3	21

[94] A detailed cost-benefit analysis has not been conducted. This is a preliminary assessment based on priorities in Bangladesh's climate change and agriculture policies, and evidence from secondary literature.

[95] In the context of GREEN, this is timely access to micro-credit products of PKSF and its POs by smallscale producers and MSMEs, and ensure loan sizes, repayment terms and tenure are appropriate to agriculture.

No.	Adaptation Option	Technical Feasibility	Addresses Climate Risk	Accessibility for farmers	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	CBA[94]	Total Score
	– better animal husbandry to increase productivity of livestock (chickens, ducks, goats, cattle) through improved access to / improved quality of feed, fodder, vaccinations, deworming, therapeutics, biosecurity measures, etc.									
11	Household planning and financial literacy training, leveraging ICT4D, to include key financial actions for climate resilience (e.g., savings with both POs and commercial banks, diversity in types of savings instruments used)	2	3	3	3	1	3	3	3	21
12	Financial and technical assistance for farm mechanization	3	2	2	3	2	3	3	2	20
13	Technical and financial assistance for climate smart agriculture – backyard or semi-commercial livestock with new species or stress-tolerant breeds	3	2	2	3	2	2	3	3	20
14	Technical and financial assistance for climate smart agriculture – fisheries that is climate-smart and sustainable (rice-fish farming, conservation and harvesting of indigenous fish species, etc.)	3	3	2	3	1	2	3	3	20
15	Technical and financial assistance for alternative income generation activities (IGA) – non-farm IGA (wood works, metal works, electrical or electronic service shops, etc.)	3	2	3	3	1	3	3	2	20
16	Technical and financial assistance for alternative income generation activities (IGA) – off-farm IGA (post-harvest collection, sorting, grading, and packaging facilities, milk collection centers, safe meat MSMEs, safe vegetable marketing hubs, etc.)	3	2	3	3	1	2	3	3	20
17	ntroducing e-commerce solutions for post-harvest collection, storage, and marketing	3	2	3	3	1	3	3	2	20
18	Develop crop calendars ahead of each cultivation season	3	3	3	3	1	1	3	3	20
19	Improving dissemination of early warning for extreme events (cyclones, flash floods, floods, heavy rainfall, heat waves)	3	3	3	3	1	1	3	3	20
20	Customize agriculture / farm mechanization equipment to needs of smallholder farmers	3	2	3	2	2	2	3	3	20
21	Climate information services for farmers with crop-specific, livestock-specific and fisheries-specific advisories	2	3	2	3	1	2	3	3	19
22	PKSF and Partner Organizations providing loan (principal, interest) moratorium after extreme climate events and disasters	3	3	3	3	1	1	2	2	18
23	Biogas or solar power for poultry farms to reduce electricity (fossil fuel) costs	2	2	2	2	3	2	3	2	18

No.	Adaptation Option	Technical Feasibility	Addresses Climate Risk	Accessibility for farmers	Flexibility	Mitigation Co-benefits	Transformative potential	Complementarity to IFAD themes	CBA[94]	Total Score
24	PKSF and Partner Organizations providing short-term in-kind support (food rations) after extreme climate events and disasters	3	2	3	3	1	1	2	2	17
25	Advisory for balanced and integrated fertilizer application / management through apps	2	1	2	3	2	2	3	2	17
26	ntroducing solar irrigation systems (with metering) to save on diesel generator costs or electricity costs (fossil fuel)	2	1	2	2	3	2	3	2	17
27	Agroecological zone or production cluster specific GIS mapping of crop diseases and pests	2	3	1	3	1	1	3	2	16
28	Financial support for construction or excavation of mini ponds / ponds by households or communities	2	3	2	2	1	2	2	2	16
29	Technical advisory and grant support for community plantation of green barriers and vegetation covers (protection against cyclones, storms, tidal surges)	2	2	1	2	2	3	2	2	16
30	Financial support for construction of other rainwater harvesting systems	2	2	2	2	1	2	3	2	16
31	Soil testing-based recommendations for arable soil management	2	1	2	2	2	2	3	2	16
32	Loan products to invest in homestead protection measures (replacement of roof, bolstering walls, increasing height of floor) against floods, storms, tidal surges	2	2	2	1	1	1	3	3	15
33	Collecting information to monitor changes in crop phenology and pollination cycles	2	2	2	2	1	2	2	2	15
34	Measures targeting reduction in internal distress migration and displacement (which are coping strategies for extreme or slow onset climate events)	2	2	2	1	1	2	3	2	15
35	Measures to support productive out-migration to more urbanized regions	2	3	2	1	1	3	3	2	15
36	Designing farm-level feedback and monitoring mechanisms that can provide early warning to Department of Agriculture and other stakeholders on pest or disease outbreaks	2	1	2	2	1	2	2	2	14
37	Forecast-based finance and anticipatory action for cyclones, flash floods and floods	2	2	2	3	1	1	2	1	14
Further options to be identified and ranked during implementation										

ANNEX 3 STAKEHOLDER ENGAGEMENT PLAN AND GRIEVANCE REDRESS MECHANISM (GRM)

Introduction

1. This Stakeholder Engagement Plan details the stakeholder consultations during the project design phase. It also establishes a process to ensure stakeholder engagement while implementing the GREEN project.

2. The objective of this Stakeholder Engagement Plan (SEP) is to enhance the effective participation of key project stakeholders, including both men and women, youth, ethnic minorities groups and persons with disabilities. The SEP also includes description of the mechanism (Grievance Redress Mechanism-GRM) by which people can raise concerns, provide feedback, or make complaints about activities related to the project.

3. The SEP is a tool to ensure that IFAD, the Project Lead Agency PKSF, and its implementing partners (POs) provide timely, relevant, understandable and accessible information and consult with all relevant stakeholders in a culturally sensitive and gender/socially inclusive manner. It identifies the main stakeholder groups; evaluates topics of engagements concerning their needs, priorities and ideas; and determines the appropriate to monitor the effectiveness of stakeholder engagement. During implementation, PKSF and its POs will use the SEP (in combination with the ESCMP matrix) to ensure that marginalized and vulnerable groups are not adversely affected or disproportionally affected during project implementation. The SEP also provides the framework to receive feedback from local stakeholders, particularly the project's target groups. Feedback from local stakeholders is expected to be regularly used to monitor the delivery of project interventions, and promptly inform adaptation and improvement thereof.

4. This document is informed by IFAD's SECAP, and IFAD's Framework for Operational Feedback from Stakeholders[96]. This document should be read in consonance with Gender and Social Inclusion (GESI) strategy and the Ethnic Minority Planning Framework (EMPF), both of which describe the characteristics, climate vulnerabilities, and unique needs of women, youth, and Ethnic Minorities.

Consultations during project design

5. During project design mission in June 2024, consultations were conducted with approximately 120 people, including micro-credit borrowers and POs leaders, officers and members. More specifically, focus group discussions and in-depth interviews were conducted with the following stakeholders:
   - Young and adult women who are engaged in climate-resilient livestock activities (chicken, Peking duck), through the adoption of improved breeds.
   - Adolescent girls who are participants in the Social Development Centre.
   - Mother-and-child groups participating in the Mother-Child Forum and Prosperity Village Committee – all supported under the PPEPP-EU project (European Union funded Pathways to Prosperity for Extremely Poor People).
   - Ultra-poor households who are beneficiary of the "Buniad" loan and are engaged in livestock production and backyard gardening.
   - Micro-entrepreneurs, engaged in a range of agri-food activities and value-chain functions, including safe vegetable collection center, milk collectors,

[96] See https://webapps.ifad.org/members/eb/128/docs/EB-2019-128-R-13.pdf

livestock feed shops, and veterinary health and diagnostic lab, slaughterhouse and safe meat shop.
- Micro-entrepreneurs providing climate-smart inputs to local producers, by engaging in vermicomposting, Trichoderma composting and production of bio-pesticides.
- POs officers and field staff with different roles and functions (e.g., loan officers, area managers, village-based volunteers etc.)

6. In addition to consulting potential beneficiary households at the village level, consultations were held with other donors and experts. This included representatives of the European Union Delegation to Bangladesh and implementing partners of seven EU funded projects focusing on climate resilience and nutrition that overlaps with GREEN focus geographies. The mission team also interacted with the PMUs of IFAD-supported SACP and RAINS programme to understand the nutrition-sensitive value chain work being undertaken under these projects. With support of the European Union Delegation to Bangladesh, a meeting was organised with experts supporting the Bangladesh National Nutrition Council (BBNC) to get insights on the current multi-sectoral coordination platform for nutrition and the Second National Plan of Action for Nutrition (NAPN-2) 2016-2025

7. All these stakeholder consultations aimed to gather contributions related to the Project, which could be incorporated into its design or implementation phase. They have provided critical inputs into defining measures for targeting, social inclusion, nutrition, and climate-related interventions. Additionally, they were key to better understanding the climate-gender-nutrition nexus and addressing these critical intersections in the GREEN project proposal.

8. The team recognized the effectiveness of PKSF-POs targeting system in identifying and engaging with various categories of the rural poor. They also noted the capacity of local partner organizations to implement eligibility criteria and monitor targeting performance effectively. Activities and measures to reach and empower women and girls were also appreciated, and the design team was able to clearly identify successful approaches that can be improved and brought to scale as well as existing gaps and areas that need strengthening. The project GESI strategy has been developed in close consultation with local stakeholders and incorporate lessons and good practices from PKSF-IFAD field-level interventions.

9. The consultations and field visits were also vital in gaining a deeper understanding of existing strategies, approaches and practices to promote climate-resilient agriculture (see the Targeted Adaptation Assessment). Discussions were held on ongoing efforts to scale-up organic agriculture and IPM approach with farmers and borrowers as well as the dissemination of improved, climate-resilient livestock breeds among women producers. Discussions also touched upon climatic stressors and impacts, agro-biodiversity, health and safety issues and environmental pollution.

10. Finally, local stakeholders' inputs were solicited on measures to strengthen nutrition-focused interventions particularly for nutrition-vulnerable groups and how to develop nutrition-sensitive value-chains.

11. Overall, the design mission considers that PKSF and its partner POs have the capacity to engage with local stakeholders and solicit inputs and feedback into project's activities. They regularly interact with local borrowers as part of

programme implementation and organize target groups in thematic platforms to facilitate interaction and broader service delivery. While continuous and focused engagement with more vulnerable intersectional groups (e.g. persons with disabilities, women and girls etc.) is an integral component of the PPEPP programme, this aspect is not well articulated in the regular programme. Therefore, PKSF is expected to integrate mechanisms for engaging with vulnerable segments of the population into GREEN.

Main project stakeholders

12. The main project stakeholders for CRALEP can be categorized as follows:

Stakeholder group	Includes
Direct project implementers	PKSF staff and its partner organizations
Targeted project participants	Rural households, including different target groups across socio-economic, gender, age and ethnicity groups.
Other project partners	IFAD and non-IFAD projects implemented by PKSF and other institutions that GREEN should align and coordinate with for best practices, lessons, and leveraging outputs (e.g., on-going RMTP, under preparation CRALEP, PPEPP-EU)
Non-targeted people in project areas	People living in project areas but not participating in project activities and/or not directly benefitting from project activities

Stakeholder Engagement Plan – project implementers and other partners

13. The following table outlines the engagement with main project implementers and other partners:

Stakeholder	Topic of engagement	Responsible party	Form and frequency of engagement
PKSF	Lead implementing agency, they have the primary responsibility for project implementation, including sub-project approval and overseeing microfinance operations and related training activities.	PMU	Continuous
PKSF Partner Organizations (POs)	Responsible for targeting beneficiaries; managing village-level and loan officers / staff; implementing microfinance operations with target groups; delivery of	PMU/PKSF	Meetings, regular reporting on implementation of activities

	training, awareness building, and GRM system at the local level.		and M&E reports
Value-chain/livelihood development platforms.	Main platforms to engage with the target group at the project/village level and delivery project's support.	PMU/PKSF	Meetings, regular activities and field-missions, including supervision and implementation support.
Other PKSF projects, funded by IFAD or other development partners	Identify lessons and best practices on climate-resilient and nutrition-sensitive value chain development and SECAP issues (e.g., GRM, implementing environmental and social standards for micro-enterprises, promoting decent work).	PMU/PKSF	Inception workshop Continuous engagement
Other non-PKSF projects, funded by IFAD or other development partners	Leveraging outputs related to Early Warning (Flash Flood Early Warning System in Haor and Drought Early Warning in Barind from HILIP-CALIP and CRALEP) and Climate Information Services for farmers (World Bank-DAE's BAMIS)	PMU/PKSF	Inception workshop Continuous engagement

Stakeholder Engagement Plan - Targeted project participants

14. The engagement of target project participants will be conducted through established procedures for social mobilisation activities, including the selection of participants based on GREEN-PKSF targeting criteria and system and group formation. The GESI plan and the FPIC process will be used to identify and target specific intersectional groups (e.g. persons with disabilities, nutrition vulnerable women and girls, ethnic minorities, youth etc.) for engagement activities during implementation. This will be key to monitor implementation and assessing the level of satisfaction with the programme GESI approach.

Stakeholder Engagement Plan – Other stakeholders

15. The engagement of other stakeholders, including the general public, will primarily be facilitated through the project's overall communication function. This includes the development of a project website that, at a minimum, outlines the project's objectives, key activities and geographical focus areas as well as providing ways for people to engage with the project. The project website should regularly updated with project progress reports, and any outdated information

will be promptly revised or removed. Additionally, the project may utilize other mediums to communicate with the general public, including social media, traditional tv or radio, or newspapers.

Monitoring and evaluation of stakeholder engagement activities

16. The stakeholder engagement process will be monitored through the regular reporting and supervision cycle with IFAD, allowing the project to take corrective measures if needed. Progress reports should include a section on stakeholder engagement, serving as a basis to discuss the effectiveness and efficiency of the partnerships established under the project.

Performance criteria to be used in stakeholder engagement monitoring

17. The following success criteria and performance indicators should be used when reviewing the effectiveness of stakeholder engagement:

Objective	Success Criteria / Performance Indicators
Provision of information in a timely, accurate and culturally appropriate manner	• Use of appropriate means to inform stakeholders about the meetings making sure that all relevant target groups are reached and informed and that the meeting venue and time is suitable to the participation of women and persons with disabilities. • Advance notice (time) and agenda given to stakeholders • Information provided is understood by participants. This means that use of local language should also be prioritized when engaging with ethnic minority groups.
Stakeholder comments, concerns and feedback are received and incorporated into project activities as appropriate	• Number of grievances received over a specified period • Percentage of grievances handled and closed within provided timeframe. • Percentage of people raising grievance who report satisfaction from resolution. • Free Prior and Informed Consents received including minutes of meetings over a specified period.
Informed participation by vulnerable groups	• Consultation/GRM reports include disaggregated information on the participation of vulnerable groups (by poverty, gender, age, ethnicity and disability) • Monitoring of access to and use of GRM system by vulnerable groups (e.g. ultra-poor, women, ethnic minority, persons with disabilities)
Stakeholder engagement is transparent, inclusive and appropriate	• Program information disclosed to all stakeholders as requested and according to disclosure mechanism. • Representation and percent of loans allocated to vulnerable groups in project activities including ultra-poor, women, youth, ethnic minorities and persons with disabilities.

Participation and provision of feedback from the target group of the project

18. Feedback mechanisms will be solicited to provide inputs and suggestions on the different activities and services provided by the project. This is key to inform adaptive management.

19. Mechanisms for feedback collection and analysis are and will be systematically embedded in all stages of the programme cycle, as it follows:

a. **Target groups' needs and priorities are solicited and heeded in the formulation of project interventions** through consultations and relevant SECAP processes conducted during the design stage. Early in the implementation phase, a preliminary assessment will be conducted to map and identify potential participants, and IGAs/value-chain development opportunities, and implement the FPIC process. This will provide an opportunity to gather meaningful insights from the target groups, which will be used to inform planning and service delivery. Consultations will be carried out with the rural poor, ensuring that all different target groups are informed and consulted. A report summarising the results of these consultation activities, including the FPIC process and findings, with different stakeholders will be produced.
b. **Target group feedback is regularly used to monitor the delivery of project interventions** ensure adaptive management and improvement thereof. During implementation, the target group will have access to different formal and informal mechanisms to provide their feedback. These include:
   - One-to-one interaction;
   - Dedicated moments for feedback during project meetings with relevant stakeholder groups and local platforms (i.e. opening the floor at the end of a meeting and actively facilitating feedback from attendees, within a safe space);
   - Interviews with the target group during project supervision missions;
   - Feedback provided via social media;
   - Suggestion boxes;
   - Topics raised via the Grievance Redress Mechanism.

c. **Target group feedback is integrated in the assessment of outcomes and the responses to be taken** including their satisfaction with the interventions delivered and the process changes that need to be pursued to increase relevance and effectiveness of the intervention.
d. **Closing the feedback loop.** Community-based meetings will be the preferred platform to inform the target group about the feedback received and the actions that the project will take in response to their claims and suggestions. POs offices might also prepare posters that includes information on the actions taken to close feedback loops.
e. **Project reporting includes a section on SEP and feedback from target groups.** It is essential that stakeholder engagement activities and feedback mechanisms are monitored and documented as part of programme and SECAP reporting. Supervision missions will further assess quality of engagement and effectiveness of consultations and feedback mechanisms.

GREEN GRIEVANCE REDRESS MECHANISMS (GRM)
Introduction

1. A **grievance redress mechanism** (GRM) provides communities an avenue for reporting complaints about projects and achieving remedies efficiently and effectively is a process for receiving, evaluating and addressing project related concerns of, and complaints by, project affected communities or persons. IFAD's

Grievance Redress Mechanism allows affected complainants to have their concerns resolved in a fair and timely manner through an independent process. IFAD's GRM requires i) working proactively with the affected parties to resolve complaints; ii) ensuring that the complaints procedure is responsive and operates effectively; and iii) maintaining records of all complaints and their resolutions.

2. Under GREEN, potential adverse physical, environmental, social, cultural or economic impacts, also including potential negative impact on women and ethnic minorities have already been identified as part of the risk analysis and will be addressed through the GRM system. Existing GRM mechanisms, at PKSF and POs levels will also be leveraged by the programme

IFAD GRM framework

3. The programme will follow IFAD's Complaints Procedure which ensures that appropriate mechanisms are in place to allow individuals and communities to file a complaint if they believe they are or might be adversely affected by an IFAD-funded project/programme not complying with IFAD's Social and Environmental Policies and mandatory aspects of SECAP.
4. IFAD requires all borrowers/recipients/partners/vendors/contractors to establish an easily accessible project-level grievance redress mechanism to receive and resolve concerns and complaints of people who believe they have been, or are likely to be, harmed by IFAD-financed projects/programmes. PKSF has established GRM for ensuring its accountability to the people who might be affected by projects or programmes financed by PKSF. The GRM ensures participation of the relevant stakeholders including aggrieved person and will be leveraged by GREEN GRM system. If the lead agency PKSF is not responsive to stakeholders' concerns, or if they fear retaliation, stakeholders may also raise their concerns directly to IFAD.
5. IFAD also has a policy to preventing and responding to sexual harassment, sexual exploitation and abuse[97]. The policy applies to IFAD staff, and also applies to borrowers and recipients of IFAD funding, as well as third parties contracted using IFAD's funding such as consultants, contractors and vendors. To support implementing partners, the IFAD Ethics Office has published a Guide for Borrowers and Recipients of IFAD funding for preventing and responding to sexual harassment, sexual exploitation, and abuse[98].
6. IFAD's anticorruption policy establishes zero-tolerance towards prohibited practices, such as fraud and corruption, in IFAD-funded or managed operations and activities. IFAD's legal framework requires IFAD staff, consultants and project parties to promptly notify IFAD of any allegations of fraud and/or corruption in relation to project activities. IFAD's Office of Audit and Oversight (AUO) is to be contacted for reporting at Tel: +39 06 54592888 or by email: anticorruption@ifad.org. These are secure and confidential channels managed by the Investigation Section of IFAD.

Project grievance redress mechanism

7. GREEN will feature three-tier GRM, which also incorporates PKSF mechanisms at central and POs levels. However, complainants may also use IFAD's complaint procedure at https://www.ifad.org/en/accountability-and-complaints-procedures.

[97] See https://www.ifad.org/documents/38711624/42415556/SEA_e_web.pdf
[98] See https://www.ifad.org/documents/38711624/42415576/sea_guidelines_e.pdf

Complaints related to sexual harassment, exploitation and abuse can be directed at the IFAD Ethics Office via https://www.ifad.org/en/ethics.

Structure and process of the GRM

8. The following key steps must be followed for all complaints received by GREEN staff:

The requirements for each of these steps are detailed below.

i) Receive, classify & log

9. All potential issues must be captured and classified for escalation, review and action as required. The access points should be as close to the target group as possible. GRM focal points should be appointed among POs and all of them will be trained on how to handle complaints.
10. Uptake channels should be diverse to ensure accessibility by different target groups. These include:
    - phone hotline,
    - email,
    - SMS,
    - webpage,
    - suggestion boxes placed in POs offices.
    - or face-to-face.
11. The uptake channels will be publicized and advertised via local media, POs field-level activities and other local partners during the initial information campaign. It is important that verbal complaints are recorded by local staff for them to be considered. Many complaints may be resolved 'on the spot' and informally by GREEN-PKSF staff but should also be logged in order to encourage responsiveness; The GRM should also have the ability to handle anonymous complaints. Suggestion boxes might be one of the preferential tools to ensure anonymity.

ii) Logging and classifying:

12. Any complaint, issue or negative stakeholder interaction (whether this is formally logged by the complainant or not), must be logged and classified for action (Grievance Log).
13. The following types of grievance may be distinguished:

Type 1: Queries, comments, and suggestions – This type is non-contentious and merely requests for information/updates, seeks clarification or a response and suggestions to enhance the project design, improve operations and facilitate administrative/logistical support to the project.

Type 2: Compliance with project policies, processes and implementation – This type of grievance results from the non-observance of project policies or non-performance of obligation of any of the parties involved in project activities, processes and documents.

Type 3: Serious grievances or complaints – These may include grievances or offenses pertaining to misuse of funds, allegations of corruption, falsification of public documents, sexual harassment and sexual abuse, etc.

14. During implementation, a GRM document that clarifies procedures involved for each type of grievance (Type 1, Type 2, Type 3) and associated time-limit should be developed. This should cover all steps from acceptance of complaint and notification to complainant to communication of resolution decision. However, it is important that a complaint will be solved within 30 working days of receiving it. All Priority 1 complaints must be escalated immediately to the GREEN Project Coordinator.

iii) Acknowledge

- Ensure that every complaint receives a formal written acknowledgement, containing an expectation of when they will receive a response, and the person dealing with it.

iv) Assess &Investigate

- Follow up all aspects of the complaint, both internal and external, to ensure that the key facts are identified and clarified.
- The priority of the complaint will drive the timescale for completion to be defined during implementation.
- All areas of interaction and communication should be established (who, what, where, when, why etc.) and documented where possible.

v) Resolve & Confirm

- Ensure that the final resolution is clear and fair.
- Ensure that the proposed resolution meets corporate guidelines and does not prejudice the project in any unnecessary legal or financial manner.
- Discuss and review the solution from both the corporate and complainant viewpoint to ensure fairness and clarity.
- The review should include recognition and documentation of any underlying issues that have contributed to the complaint and recommendations for actions to prevent further occurrence.

vi) Respond to Complainant

- Provide the Complainant with the resolution within the timescales promised.
- The details of the findings and proposed resolution should be clearly explained (in written or verbal form as appropriate) to the complainant- within the agreed timescales.
- If this cannot be done on time the Complainant should be contacted by telephone to request further time.

vii) Appeal & Follow

- Ensure that complaints are followed up to confirm that the complainants are satisfied with the response given. If not satisfied the Complainant is advised on the route for Appealing to the Courts of Law, if he is not satisfied.

vii) QA & Close

- Ensure that the project staff is aware of the complaints and any underlying issues. Plan actions to remove these and prevent future recurrence.

Grievance redress institutional mechanisms

15. During implementation, the institutional arrangements for GRM at PKSF and PO level should be mapped (in the form of a diagram) for clarity and for ease of understanding by all project staff and consultants.

GRM at PMU level

16. The SECAP Expert / Officer at PMU level is assigned as the focal point to oversee the implementation of the GRM in collaboration with the Project Coordinator, when her/his involvement is deemed to be relevant. Local GRM focal points will also be appointed by leveraging the existing PKSF-POs GRM system (see below)
17. The SECAP Officer will operate the GRM system through the following activities/steps:

    STEP 1: Ensure information about GRM is disseminated among PKSF partner organizations, local authorities and field-level staff. During the process of dissemination (about GRM), the roles and responsibilities of GRM-related project staff, steps and timeframes involved, how decision is made, who the decision makers are, mediation options, etc. should be clearly communicated

    STEP 2: Collect, classify and collate grievance records that are received from GRM focal points or directly from the affected person through email, website, currier or post offices.

    STEP 3: Communicate and flag: Type 2 and Type 3 grievances, when needed, to the Project Director for discussion and remedial action. Type 1 grievances will be escalated directly to the Project Coordinator.

    STEP 4: Display grievance numbers and resolutions in the PMU office on a public notice board and make this information available for disclosure.

18. The SECAP officer will also be responsible for assessing and documenting periodically overall GRM effectiveness in preventing and addressing grievances. GRM summaries will be developed for inclusion in the reporting to IFAD.
19. IFAD's Grievance and Redress Mechanism shall be fully explained to stakeholders during the programme's start-up workshop and to beneficiaries during the programme's activities. POs will be responsible for sensitizing communities about the GRM system, making sure all target groups are reached and properly informed.

GRM at PKSF level

20. This system is complementary to PMU-level GRM. The key steps of the GRM system at PKSF level are the following:

STEP 1: A designated PKSF officer receives complaints through email, website, currier or post offices.

STEP 2: S/he registers the complaint and prepare a case file.

STEP 3: The appointed GRM focal person is given responsibilities to classifying and communicating the issue with the SECAP Officer. A complain should be solved with 30 working days of receiving it.

GRM at PO level

21. At the PO level, a PO officer will be nominated representative as the GRM focal point. The process will be the following:

STEP 1: The aggrieved persons or entities will submit the complaints/grievances to the selected POs officer duly entered in the Grievance Register (GR). The GRM focal point will be informed about receipt of complaints and schedule hearings as per his/her advice.

STEP 2: In open meetings, the PO will facilitate the GRM focal Point to hear and discuss the complaints and resolve them. The aggrieved person, if female, will be assisted by a female representative in hearing, and if from a tribal community, by a tribal representative.

STEP 3. The GRM focal Point with the help of POs will ensure sending a copy of the complaint by postal mail, email or other means to the central level PKSF-GRM focal point.

STEP 4. Unresolved cases will be sent with all proceedings to the GRM focal point within 7 days of taking decision..

22. It is important to notice that the aggrieved person can lodge the complaint directly to PKSF or to IFAD and that a decision agreed by the complainants at any level of hearing will be binding on the concerned POs and PKSF. The GRM will, however, not pre-empt an aggrieved person's right to seek redress in the courts of law.

ANNEX 4 ETHNIC MINORITY PLANNING FRAMEWORK AND FPIC IMPLEMENTATION PLAN

A. Executive Summary

1. This Ethnic Minorities Planning Framework describes the relevance of ethnic minorities in relation to the proposed GREEN project. GREEN has a national coverage and prioritizes selection of climate vulnerable and very poor regions and districts (see preliminary prioritization below) which are likely to be inhabited by ethnic minority groups. Ethnic minorities are present in the regions where the project will be implemented, and may be present in the districts and exact locations where PKSF and its partner organizations operate. Moreover, the CHT which is the area with the highest number of ethnic minorities groups in the country is also likely to be included in the project.

Climate Vulnerable Regions	Districts
Haor region	Kishoreganj, Netrakona, Sunamganj, Habiganj, Brahmanbaria
Coastal region	Khulna, Bagerhat, Sathkhira, Barguna, Patuakhali, Bhola, Laxmipur, Noakhali, Feni, Chattogram, Cox's Bazaar
Hill region	Banderban, Rangamati, Khagrachari
High Barind region	Rajshahi, Naogaon, Chapai Nawabganj, Dinajpur
River char region	Sirajganj, Gaibandha, Jamalpur, Kurigram, Rangpur, Lalmonirhat and Nilphamari

2. Taking into account the characteristics of the project interventions (microfinance) and the small-scale nature of the activities that PKSF will support it is unlikely that the project might unwittingly jeopardize the already precarious livelihoods and resource rights of ethnic minority groups.
3. Conversely, the project is anticipated to have an overall positive impact on people from ethnic groups. They can benefit from PKSF microfinance activities and improve their livelihoods and market access for their crops and traditional produce, also including medicinal plants and handicrafts. With extremely high rates of extreme poverty and malnutrition, they can also benefit from ultra-poor support package, which also includes nutrition education, backyard gardening and WASH.
4. PKSF has a consolidated experience in engaging with and targeting ethnic minorities groups in its progammes and loan operations. Under the EU-funded PPEPP programme, PKSF has implemented a proactive social inclusion strategy with ethnic minority groups, which included specific activities to value their cultural traditions through the organizations of cultural events as well as awareness raising and sensitization campaigns to promote their cultural specificities and rights.
5. Women, from ethnic minority groups can also greatly benefit from PKSF empowerment interventions. They live at the crossroad of multiple and intersecting inequalities, along gender and ethnicity. They carry a double burden, as woman belonging to a marginalized ethnic group. They face higher rates of discrimination and high levels of sexual and gender-based violence. Moreover, even though they play a critical role in livelihood development, food security and nutrition of their family they have fewer

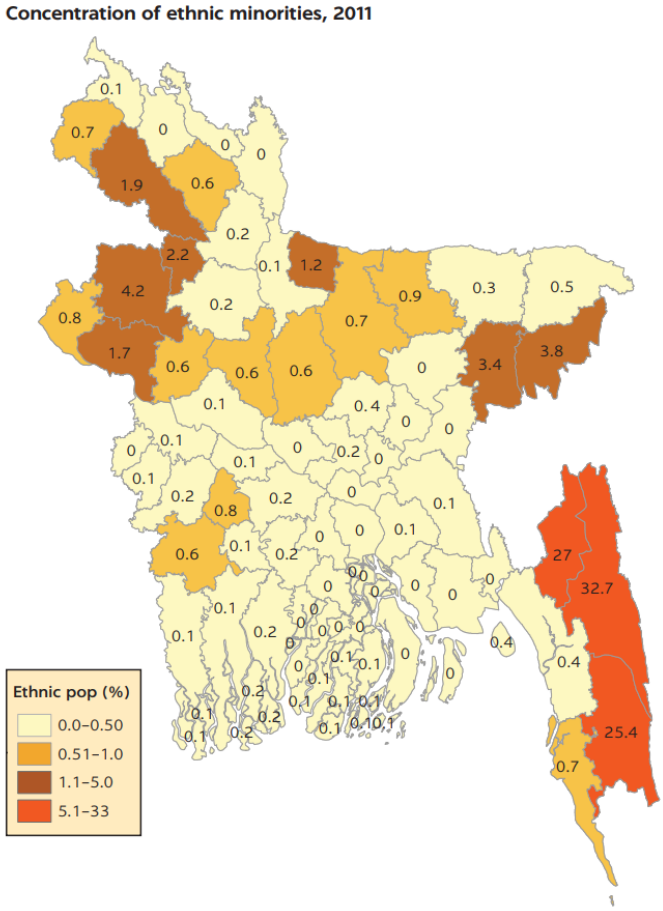
opportunities for income-generating activities than minority men and majority of Bangladeshi[99].

6. People belonging to ethnic minorities will have opportunities to participate in project implementation and an integrated process for seeking Free, Prior and Informed Consent has been developed. A grievance redress mechanism will be established in line with existing structures of the lead implementing agency.

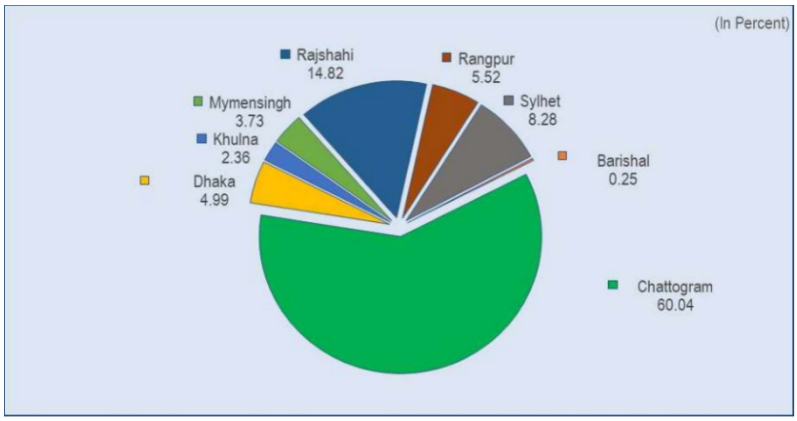
B. Description of ethnic minorities

7. The 2022 Bangladesh census officially registered a total of 1,6 million people belonging to ethnic minorities, representing 1% of the total population of 165 million. As noted in Country Technical Note[100], there are various challenges when it comes to defining the number of different groups of ethnic minorities, their organizations and the total number of people belonging to ethnic minorities, which may cause under-reporting of the total number. the Bangladesh Indigenous Peoples Forum (BIPF) estimates that Indigenous Peoples number more than 4 million people in the country, about one third of whom are in the partially autonomous frontier region of Chittagong Hill Tracts (CHT) in the southeast bordering Myanmar and India.
8. It is believed that the actual figure for the ethnic minority population is not accurate in the national census due to the negligence of government field workers given that most ethnic minority groups live in remote places, and field workers do not want to go there and collect data. As a result, the actual data remains undisclosed. On a positive note, the 2022 census was the first census in which data on Indigenous Peoples (Ethnic Minorities) was disaggregated by ethnicity. This happened for the first time due to the continued lobbying and advocacy of Indigenous Peoples Organizations with policymakers and the go
9. In terms of geographical concentration, the map below shows that the areas with the largest concentration of ethnic minorities are the Plains of the north and southeast, as well as the Chittagong Hill Tracts, where they are also referred to as Jumma.
10. According to the 2022 census, more than half (60.04%) of the total ethnic population of the country resides in the Chattogram division. This is followed by Rajshahi (14,84%) and Sylhet (9,82%).
11. Government data suggest that the largest concentration of ethnic population in Bangladesh is in **Rangmati district, in the Hill region** where 356,153 ethnic minorities reside, accounting for 32.7 percent of total population. Two other districts with high ethnic populations are **Khagrachhari and Bandarban**, both in CHT, which is likely to be included in project's activities.

[99] Toufique et al. 2016 in World Bank
[100] See https://www.ifad.org/en/web/knowledge/-/publication/bangladesh-country-technical-note-on-indigenous-peoples-issues



Source: Illustration based on Bangladesh Bureau of Statistics 2014.
Note: Concentration of ethnic minorities is presented by the ratio of ethnic minority individuals to total population; the ratios (in percentages) are displayed in the map for each district.



Number of ethnic minority population and percentage of total population by division

Division	Ethnic minority population	Percentage of total population
Barishal	4,181	0,05%
Chattogram	990,860	2,99%
Dhaka	82,311	0,19%

Khulna	38,992	0,22%
Mymensingh	61,559	0,50%
Rajshahi	244,592	1,20%
Rangpur	91,070	0,52%
Sylhet	136,594	1,24%
National total	*1,650,159*	1,00%

12. The census identifies a total of 49 different ethnic minority groups, plus a population of 68,538 people described as "other" ethnic minorities. The following table lists the largest ethnic minority groups:

Largest ethnic minority groups in the country

Ethnic minority	Total population	Percentage of total ethnic minority population
Chakma	483,299	29,29%
Marma	224,261	13,59%
Tripura	156,578	9,49%
Santal	129,049	7,82%
Oraon	85,846	5,20%
Others	68,538	4,15%
Mro	52,455	3,18%
Tonchonga	45,972	2,79%
Barman	44,657	2,71%

13. Some of the most important ethnic minority groups for the project areas include:

- **Chakma** are an ethnic group from the eastern-most regions of the Indian subcontinent and Western Myanmar. They are the largest ethnic group of the Chittagong Hill Tracts region of southeastern Bangladesh.
- **Marma** are known as the second-largest ethnic community in Bangladesh's Chittagong Hill Tracts, primarily residing in the Bandarban, Khagrachari and Rangamati Hill Districts. Many Marmas live in Bangladesh's coastal districts of Cox's Bazar and Patuakhali.
- **Tripura** are a small Animistic and Hindu ethnic group. They are a Tibeto-Burman - speaking ethnic group of Northeast Indian state of Tripura. They are the descendants of the inhabitants of the Twipra/Tripura Kingdom in North-East India and Bangladesh. The Tripura live from slash-and-burn farming in the remote Chittagong Hills, in the far East of Bangladesh. They live in small towns both high on the hills, as well as in some isolated valleys.

- **Santal.** The Santal community is a large ethnic group with population in Bangladesh, India and Nepal, with a total group size of around 7.5 million people. They are widely acknowledged as being some of the first settlers of the subcontinent. In India, an area of Jharkhand state is allocated to the Santal group as a separate division, which many now consider to be the heartland of the group.
- **Oraon,** also known as Kurukh. The Oraon also form a large group of approximately 3.8 million people, with the majority located in India. Originally forest dwellers, this group is now mostly focused on agriculture and agricultural labour. They are the dominant group in the western part of Rajshahi and Rangpur.
- **Garo.** Originally from Tibet, the Garo group now comprises in total around 1,1 million people across India and Bangladesh. They are a matrilineal society. Garo people are frequently engaged in the cultivation of rice but have now diversified economic affiliations.

14. The Technical Note also explains that one reason for varying numbers, is that there are multiple names or spelling by which the same group is known by different peoples as well as the categorization of a subgroup as a separate group itself. The term Adibashi/Adivasi was and is generally used by Bengali-speakers (the major ethnolinguistic group in Bangladesh), to refer to the ethnic minorities living in the areas outside of the Chittagong Hills Tract (CHT). That area outside of CHT is typically referred to as the "plains". In the Chittagong Hill Tracts "Jumma" is used as collective name for the twelve different ethnic groups. "Jumma" refers to the traditional jhum (swidden) cultivation practiced in the hills (Arens and Chakma, 2002).

15. The Technical Note also highlights that ethnic minorities in the plains are more dispersed than those living in the CHT, and that they have lower levels of autonomy. In the plains, the region's traditional leaders remain without state recognition and their population strength is too low to enable direct representation in the elected local government structures.

C. Summary of Substantive Rights and Legal Framework

16. The Constitution of Bangladesh guarantees equal rights and equality of its citizens. Article 27 guarantees equality of citizens before the law and Article 28 prohibits discrimination on grounds of religion, sex, caste, race, and place of birth. The same article also stipulates measures of 'affirmative actions' by the State in favour of the backward section of the citizens[4].

17. Besides the Constitution, there is a broad range of legal, institutional and policy documents for the safeguards of the rights of ethnic minorities in Bangladesh. Much of it is focused on the Chittagong Hill Tracts (CHT), an area in which GREEN is likely to operate. There are also specific laws for the tribal peoples in the plains.

18. The Constitution of Bangladesh identifies "tribes, minor races, ethnic sects and communities" in Article 23A, and obliges the State to protect and develop their unique local culture and traditions. The Constitution also identifies particularly disadvantaged sections of the population for special provisions, that include protection from all forms of exploitation (Article 14); outlawing of discrimination on grounds of religion, race, caste, sex or place of birth (Article 28); and equality of opportunity in public employment, while enabling the State to make special provisions to ensure adequate representation of these sections of the population (Article 29).

19. Several national laws relevant to ethnic minorities are explicitly geographically defined in their application. In the case of the plains, one of the most important laws is the East Bengal State Acquisition and Tenancy Act (1950), which restricts the transfer of land of "aboriginal castes and tribes" to non-aboriginals. Other relevant laws include the Vested and Non-resident Property (Administration) Act, 1974; the Forest Act of 1927; and the Social Forestry Rules of 2004. Furthermore, the Vested Property (Return) Act (2011) enables the return of land and property seized from both the Hindu

minority and tribes, minor races, ethnic sects, and communities over the last four decades.

20. At the international level, Bangladesh is signatory to most of the major international human rights instruments, with a notable abstention from voting on the UN Declaration on the Rights of the Indigenous Peoples (UNDRIP) in 2007. Bangladesh is signatory to the ILO Convention 107 on Tribal Populations although it is yet to ratify the other important ILO convention on tribal peoples, Convention No. 169 of 1989.

21. The Five-Year Plan 2021-2025 states that "The government is committed to ensuring socio-economic and political rights, fundamental human rights, and social security, while enabling ethnic people to retain their social, cultural, and traditional identities." In this plan, explicit priorities related to inclusion of ethnic minorities are mostly geared towards the CHT.

22. Yet, despite these advancements and efforts, the current national and international provisions to protect minority populations are not well enforced in Bangladesh[101]; the government has multiple agencies overseeing different ethnic minority populations, which may present challenges to coordinated approaches. Although a constitutional reform process initiated in 2010 encouraged public recognition of ethnic minority rights, minority issues continue to have limited visibility in Bangladesh.

D. Summary of Social and Environmental Risks Related to Ethnic Minorities and Mitigation Measures

23. The project is anticipated to have an overall positive impact on people from ethnic groups. Through free, prior and informed consultation, people belonging to ethnic minorities will have opportunities to participate in project planning, implementation, monitoring and evaluation. They can influence the development of they will have the opportunity to benefit from microfinance, livelihood development, IGAs, and nutrition support also including backyard gardening and WASH. Livelihood diversification and development of IGAs are vital for ethnic minority people, whose dependence on agricultural labour and an increasingly degraded natural resource base, jeopardize their resilience (see the analysis below).

24. GREEN will also be proactive in supporting some of the traditional livelihoods of ethnic minority people, also including handicraft and medicinal plants preparation, so as to value their cultural heritage and indigenous knowledge. Moreover, nutrition education will include attention to the specificity of local diets and consumption of wild foods. GREEN and PKSF will also focus on empowering minority women, through an income and nutrition pathway.

25. The overall risk rating of GREEN, with regards to ethnic communities, is Low. Ethnic minorities are present in the regions where the project operates and may be present in the exact district and locations where interventions will be implemented (to be determined during project implementation). Taking into account the focus of the project's interventions (microfinance) and the relatively small-scale nature of the livelihood and entrepreneurial activities supported by the project it is very unlikely that the project could lead to potential negative impact on ethnic minorities in terms of access to land and common property resources.

26. GREEN's environmental and social management system arrangement includes the provision to exclude from financing any activities or measures, that could: threaten cultural or traditional way of life of ethnic minority communities; may severely restrict access to common property resources (forests, water bodies, etc.) and livelihood activities; may affect places or objects of cultural and religious significance.

[101] See Solotaroff, J., L. Kotikula, A., Lonnberg, T., et. Al. Voices to Choices Bangladesh's Journey in Women's Economic Empowerment. World Bank.

27. The key instrument for the project to ensure inclusion of, and positive outcomes for, ethnic minorities, are the participatory processes and the application of Free, Prior and Informed Consent (FPIC). These processes are described in detail below.

E. Socioeconomic situation and climate vulnerabilities of ethnic minorities in Bangladesh.

28. Poverty and malnutrition are prevalent among Ethnic minorities in Bangladesh. A significant portion of the population live below the poverty and extreme poverty lines. Overall, low economic opportunities, specific geographic locations, exclusion, deprivation, and dispossession of lands are the main drivers of poverty among the ethnic minorities in Bangladesh. Non-income poverty is also widespread in the CHT, particularly education and health indicators, due to geographic conditions (Chakma et al. 2016)[102].

29. Many of these groups rely on agriculture and traditional forest-based subsistence practices. Lack of registration of their land coupled with natural resource degradation and land scarcity, which are driven by both land encroachment and climate change, jeopardize their resilience and hamper their ability to gain permanent and sustainable livelihoods. Education and healthcare opportunities are also very limited. Among the Chakma tribes, the remoteness of their settlements, uneven terrain and land problems, and inadequate infrastructure often prevent access to quality education and health care facilities. As a result, illiteracy rates are high, and many of them suffer from preventable illnesses and lack access to adequate health care.

30. In general, Ethnic Minority people in Bangladesh put wild, forested and foraged resources to variety of uses (food, medicine, housing, crafts etc.). Several studies (Rahmatullah er al. 2009[103]. Islam et al. 2014[104]) have documented the use of wild medicinal plants among tribal communities for various medical uses. Hunting is also common among the Barind's Santal and Oraon, with birds, rabbits, and turtles being an important source of animal proteins (Barkat et al. 2021)[105]

31. However, Halim et al. (2015)[106] reported that customary resources rights of ethnic minorities in the plains have been restricted owing to declaration of forests as reserved forests, private forests or for social forestry. Likewise, Sarker et al. (2016)[107] have documented that Barind-Santal relies on the use of common pool resources as a source of wild foods, medicinal remedies, grazing grounds and non-timber forest products. They also use bamboo and other plants to make mats, baskets and musical instruments. However, the study found that deforestation as a result of access restriction and degradation is threatening their livelihoods and food security. Also, Toppo (2016)[108] shows how climate change has led to a substantive loss of wild food

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[102] Chakma, Nikhil, and Mathilde Maitrot. 2016. "how ethnic Minorities Became Poor and stay Poor in Bangladesh: A Qualitative enquiry." Working Paper 34, eeP/shiree, Dhaka.

[103] Rahmatullah, M., Mukti, I.J., Haque, A.K.M., Mollik, M.A.H., Parvin, K., Jahan, R., Chowdhury, M.H., and Rahman, T. (2009). An Ethnobotanical Survey and Pharmacological Evaluation of Medicinal Plants used by the Garo Tribal Community living in Netrakona district, Bangladesh. *Advances in Natural and Applied Sciences*, 3(3): 402-418.

[104] Islam, M.K., Saha, S., Mahmud, I., Mohamad, K., Awang, K., Uddin, S.J., Rahman, M.M., and Shilpi, J.A. (2014). An ethnobotanical study of medicinal plants used by tribal and native people of Madhupur forest area, Bangladesh. *Journal of Ethnopharmacology*, 151 (2): 921-930. https://doi.org/10.1016/j.jep.2013.11.056

[105] Barkat, A.I., Liza, F.T., Akter, S., Shome, A.R., and Rabbe, F.R. (2021). Wildlife hunting practices of the Santal and Oraon communities in Rajshahi, Bangladesh. *Journal of Threatened Taxa*, 13 (11): 19484-19491. https://doi.org/10.11609/jott.7260.13.11.19484-19491

[106] Halim, S., Roy, B.D., Chakma, S., and Tanchangya, S.B. (2015). Natural resource management country studies: Bangladesh. *Regional Indigenous Peoples' Programme*. UNDP. https://www.undp.org/asia-pacific/publications/natural-resource-management-country-studies-bangladesh

[107] Sarker, M.A.R., Khan, N.A., and Musarrat, K.M. (2016). Livelihood and vulnerability of the Santals community in Bangladesh. *The Malaysian Journal of Social Administration*, 12: 38-55. http://dx.doi.org/10.22452/mjsa.vol12no1.2

[108] Toppo, Arook. (2016). Impact of Environmental Change on Natural Resource-based Food System of Tribal Communities of North-Western Region in Bangladesh. Dissertation submitted to the Institute of Environmental Science (IES), University of Rajshahi in partial fulfillment of the requirement for the Degree of Doctor of Philosophy in Environmental Science.

and fish varieties, with negative spillover effects on household food security and nutrition.

32. Land grabbing, compounded by climate change impact, is a major challenge to minorities in the plains. Violence – including rape – has been documented to be used by land grabbers as a tactic to scare minorities out of their ancestral lands (Chowdhury and Chakma 2018). According to Amnesty International (2013), land grabbing and resulting displacement are currently the main threat to ethnic minorities living in the CHT (Chakma and Maitrot 2016)[109].

33. With regard to climate impacts, ICCCAD (2022)[110] found that the primary climate impacts among the GARO were severe heat and erratic rainfall, resulting in drought-like conditions and groundwater depletion (not floods and flash floods typical of CRALEP's Haor regions). Similar to the wider population, this has affected crop and livestock production, disrupted water and sanitation facilities, affected women and girls' menstrual hygiene management, and reduced fishery yield. Responses to climate change include ethnomedicine, developing indigenous early warning techniques, crop rotation, and to some extent, home gardening.

34. As a result of land scarcity and natural resource degradation, wage labour is agriculture is the primary source of income for many ethnic minority people. Islam (2023)[111] found that the majority of Munda people (also known as Buno) earned their livelihoods through agricultural labour, and while all respondents had some livestock holding (cows, goats, chickens etc.) land ownership was very law, and nearly all families had to lease land for food cultivation. Sharmeen (2014)[112] also found that the commercialization of agriculture through the introduction of triple cropping has enabled a renegotiation of relations between Munda and landowners, as there is more labour demand in the area. Yet, wage and income continue to be extremely low, and people's dependence on agricultural labour contributes to keep them in the poverty trap.

35. A survey conducted by Toufique et al. (2016) shows that less than half of the population own land in CHT. However, this percentage is much lower in the Plains (26.3%) and in other ethnic areas (26.62%). Use of khas and jhum land is more common in CHT, where it is found that more than 40% of the population make use of these traditional systems.

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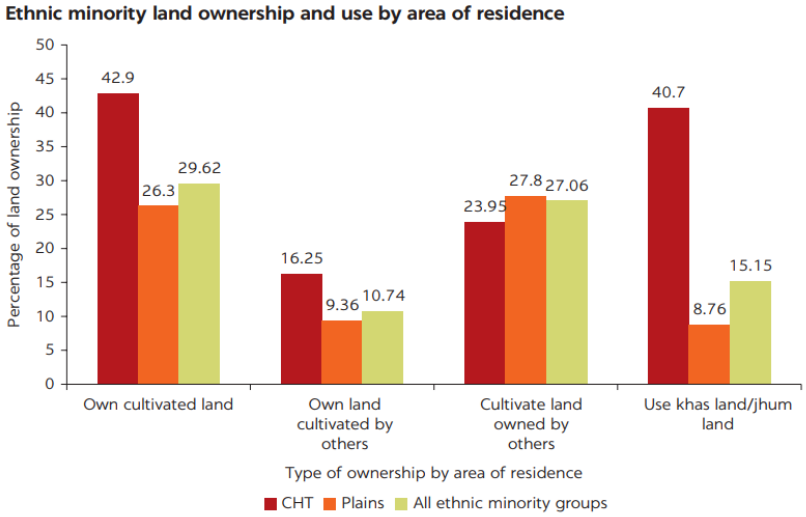
[109] Chakma, Nikhil, and Mathilde Maitrot. 2016. "how ethnic Minorities Became Poor and stay Poor in Bangladesh: A Qualitative enquiry." Working Paper 34, eeP/shiree, Dhaka.

[110] ICCCAD (2022). https://www.gci.cam.ac.uk/news/new-blog-impacts-human-induced-climate-change-are-exacerbating-social-and-economic-inequalities.

[111] Islam, M.F. (2023). Cultural change and adaptation of Munda tribe of Bangladesh: A socio-anthropological analysis. *Indian Journal of Anthropological Research*, 2 (2): 139-156.

[112] Sharmeen, S. (2014). The Politics of Irrigation: Technology, Institution and Discourse among the Munda in Barind, Bangladesh. *Journal of South Asian Development*, 9 (1): 49-70. https://doi.org/10.1177/0973174113520584



Source: Toufique et al. 2016.

36. According to Toufique et al. (2016)[113] the majority of ethnic minority people (48.25%) are employed as agricultural day labourers with 54.99% in Plains and 16.46% in Hills. Self-employment in agriculture is 21.42% with 46.43% in Hills and 16.12% in the Plains reflecting greater employment fragility of Ethnic Minority people living in the Hills. Agricultural self-employment is most predominant among Chakmas followed by Murong.

37. Bayes et al. (2019)[114] documented that two-thirds of the people from the Santal communities derived more than four-fifths of their income from agriculture, combining subsistence farming with wage labour. Most of them leased land from non-Santal landlords and locally influential people. Similar findings are also reported by Rahman et al (2015)[115], who found out that almost 60% of the Santal population own no land, while the other farm less than 1 bigha (less than 1/3rd of an acre).

38. Migration, either temporary for youth or seasonal for adults, is also an important livelihood strategy for ethnic minority people. Seasonal migration happens during dry periods and return for winter harvest or monsoon cultivation.

F. Gender issues among ethnic minorities.

39. Women from ethnic minority groups experience severe forms of disempowerment and marginalisation. They tend to be more vulnerable than men to climate change as they typically have a narrow range of adaptation options. Assaduzzaman et al. (2023)[116] found that ethnic minority women face similar problems as other women (non-ethnic) do in rural Bangladesh, especially in terms of limited access to information and services, restricted mobility and limited opportunities for income-generation including migration, which tend to be more common among men. Yet, Toufique et al. (2016)[117] found that many ethnic minority women engage in agricultural wage labour and other income generation activities outside of the domestic domain. Survey results indicate that approximately 55% of ethnic minority women engage in agricultural wage labour. Yet, wage differentials among women and men are notable.

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[113] Toufique, Kazi Ali, Abdul Hye Mondal, Mohammad Yunus, Sinora Chakma, and Sami Farook. 2016. "Baseline Assessment of Skills and Employment of Indigenous and Tribal Peoples in Bangladesh." BIDS.
[114] Rahman, M.A., Afridi, S., Hossain, M.B., Rana, M., Al Masum, A., Rahman, M.M., and Al-Maruf, A. (2024). Nexus between heat wave, food security and human health (HFH): Developing a framework for livelihood resilience in Bangladesh. Environmental Challenges, 14 (2024): 100802. https://doi.org/10.1016/j.envc.2023.100802
[115] Solotaroff, J., L. Kotikula, A., Lonnberg, T., et. Al. Voices to Choices Bangladesh's Journey in Women's Economic Empowerment. World Bank
[116] Assaduzzaman, M., et al. (2023) Gender-Ethnicity Intersectionality in Climate Change Adaptation in the Coastal Areas of Bangladesh. Sustainability 2023, 15(4), 3744; https://doi.org/10.3390/su15043744
[117] Toufique, Kazi Ali, Abdul Hye Mondal, Mohammad Yunus, Sinora Chakma, and Sami Farook. 2016. "Baseline Assessment of Skills and Employment of Indigenous and Tribal Peoples in Bangladesh." BIDS.

40. Ethnic minority women tend to be excluded from participating in decision-making, despite the fact that they are important income earners (Toufique et al. 2016[118] Solotoroff et al. 2019[119]). Women's financial control is extremely limited. They have some control over their earnings, which they usually spend on household needs, including children's education. However customary rules dictate that they have to discuss with their husbands how to spend their income, which means that financial decision-making is mostly a male domain. Some minority women report not being allowed to support their parents with their earnings without husbands' and often in-laws' approval, or to own or increase their assets with their own money. Minority women's control over savings and owned land is also rare. Solotaroff et al. 2019[120] show that improvements in their control over income in the past decade were not very significant.

41. Unlike the Muslim Bengali majority as well as most minority groups, which are heavily patriarchal, Garo and Khasi in Bangladesh as well as some subgroups of the Marma are matrilineal. In these communities, women have higher levels of ownership and control over assets, including land and houses. Yet, it is reported that in situations of land scarcity, some matrilineal communities, such as the Koch, are increasingly assimilating to patriarchal Bengali customs and laws (Gain 2015 [121]in Salotoroff et al., 2019).

42. However, there is also evidence that compared to non-ethnic women, ethnic women tend to have more power to participate in family-level decision-making. For instance, a study by Assaduzzaman et al. (2023)[122] document that in the ethnic minority group of Munda, in coastal areas, a lot of ethnic households tend to adopt a female-led system where women eventually dominate family decision making due to a very passive role of male, who sometimes have fewer chances to find jobs and are prone to alcoholism. Moreover, the decision-making power in ethnic households in general is complicated by the absence of any land and the predetermined lower social status of these communities.

43. PKSF officers reported that alcohol consumption among the Santal is extremely high. In these communities, women are the principal income earners, despite the fact that they have very limited control over assets and finance and experience high rates of gender-based violence. They reported that male-targeted sensitization activities and nutrition interventions, through education and backyard gardening were critical entry point to kick start microfinance activities with minority women.

G. Participation, consultation and FPIC processes

44. This section describes the application of Free, Prior and Informed Consent within the CRALEP project, against the background of IFAD SECAP requirements and the Bangladesh national context. It concerns the application of FPIC with a special focus on ethnic minorities. Further details on the dimensions of ethnic minorities in CRALEP can be found in the Ethnic Minorities Planning Framework.

45. The Free Prior Informed Consent (FPIC) plan follows the IFAD How-To-Do-Note on Seeking free, prior and informed consent in IFAD investment projects[123].

ABOUT FREE, PRIOR AND INFORMED CONSENT (FPIC)

[118] Toufique, Kazi Ali, Abdul Hye Mondal, Mohammad Yunus, Sinora Chakma, and Sami Farook. 2016. "Baseline Assessment of Skills and Employment of Indigenous and Tribal Peoples in Bangladesh." BIDS.
[119] Solotaroff, J., L. Kotikula, A., Lonnberg, T., et. Al. Voices to Choices Bangladesh's Journey in Women's Economic Empowerment. World Bank.
[120] Solotaroff, J., L. Kotikula, A., Lonnberg, T., et. Al. Voices to Choices Bangladesh's Journey in Women's Economic Empowerment. World Bank.
[121] Gain, Philip. 2015. "Excluded Groups and Democratization." SEHD
[122] Assaduzzaman, M., et al. (2023) Gender-Ethnicity Intersectionality in Climate Change Adaptation in the Coastal Areas of Bangladesh. *Sustainability* 2023, *15*(4), 3744; https://doi.org/10.3390/su15043744
[123] See https://www.ifad.org/documents/38714170/40197975/htdn_fpic.pdf

46. FPIC is an important instrument for IFAD to ensure mutual respect and full and effective participation in decision-making on proposed investment and development programmes. FPIC is based on the following key elements (adapted from IFAD guidance):

- **Free** implies no coercion, intimidation, or manipulation.
- **Prior** implies that consent has been sought sufficiently in advance of any decision point or commencement of activities; and respect is shown to time requirements of consultation/consensus processes with the ethnic minorities' communities.
- **Informed** implies that information provided covers (at least) the following aspects:
    - The nature, size, pace, duration, reversibility and scope of the proposed project/activity;
    - The rationale or purpose of the project/activity;
    - The geographical areas that will be affected;
    - A preliminary assessment of the likely economic, social, cultural and environmental impact, including potential risks and fair and equitable benefit-sharing;
    - Personnel likely to be involved in the execution of the proposed project/activity;
    - Procedures that the project or activity may entail.
- **Consent** is the expected outcome of the consultation, participation and collective decision-making process by the local communities. It is the mutual agreement reached, documented and recognized by all parties.
- **Consultation** and **participation** are crucial components of a consent process and require time and an effective system for communicating among interest-holders. Consultation should be undertaken in good faith, and local communities must be able to participate through their own freely chosen representatives and customary or other institutions. It should be noted that consultation is the process that should lead to consent, but that consent does not require unanimity across a stakeholder group.

FPIC within the context of GREEN

47. FPIC is solicited through consultation and the participation of communities and local institutions at specific stages of the project cycle. The PMU will be responsible for seeking FPIC.

48. FPIC should be sought sufficiently in advance of commencement of activities, taking into account ethnic minorities' own decision-making processes, in phases of assessment, planning, implementation, monitoring, evaluation and closure of a project.

49. In this process, first the presence of ethnic minorities should be established. These communities would first consent to discuss the idea of the project that will affect their communities, resources, and livelihoods. They would further participate in the consultation process leading to consent by contributing to the definition of the activities to be implemented in their territories.

50. This participatory consultation will help PKSF and their partners POs agree with local communities on what are the main strategies and activities to value their cultural specificities, foster the sustainable use of their already degraded natural resource base, select crops and livelihood activities that are suitable to the local population and address the most critical intersections of climate, nutrition, gender and livelihoods in their communities. In so doing, the project will be better equipped to promote sustainable, resilient and culturally located food systems within the context of ethnic minorities communities.

In more detail, the process for seeking FPIC will be as follows:

1. **Preliminary assessment of local stakeholders during the preparation of project's proposals by POs**

During the initial phase a review will need to be made of the community stakeholders, landowners and users of the area, including ethnic minorities, who may be affected and who have the right to give or withhold consent. In discussion with the local community, this includes establishing the local customary laws, informal rules as well as claims on land ownership, occupation and use. It also includes the identification of decision-making institutions and representatives of ethnic minorities in the area.

Should there be affected ethnic minorities in the area, the following steps will apply:

2. **Consultations leading to FPIC**

Consultations will be held with the target ethnic minorities, before the planning of project activities. The project staff will reach out to the identified institutions and representatives, making sure both women and men and other relevant intersectional groups are included in consultation activities, and inform them of the project and the intended microfinance, livelihood support and training activities. In doing so, the project staff will clearly communicate the general context of the project, including loan conditions and characteristics. They will share clear and transparent information on the benefits and risks of the project, as well as the results of the initial assessment of local stakeholders. They will confirm, and if need be, update the critical information on local stakeholders, ownership and (formal / informal) access rights, and make records of these consultations. They will also clearly communicate the project Grievance Redress Mechanism.

3. **Participation in further steps of participatory design**

The ethnic communities, or their chosen representative, will participate in the further participatory design of a project proposal, which will be formulated by POs to be submitted to PKSF. POs will include a dedicated section on Ethnic Minority to be included in the GESI framework of the proposal.

4. **Formalizing consent agreement**

Prior to the finalization of subproject design and commencement of construction activities, the consent of ethnic minorities should be formalized in written form. This document should detail the activities on which consent is provided, the expected results, participation of the ethnic minority group in monitoring progress, a reference to the GRM, and the terms for withdrawal of consent.

5. **Appropriate benefits**

51. The project targeting strategy combines geographical targeting with poverty targeting (poor and ultra-poor), as well as by targeting of groups including agricultural labourers, artisans and marginal and small farmers. The project will therefore first validate the presence of ethnic minorities in a specific location and ensure the project and its benefits are clearly communicated to those people. Participation of ethnic minorities in project activities will also be tracked (disaggregated in the overall M&E system for selected indicators). If participation is found to be low, corrective actions may be taken during the project's lifetime to improve this.

6. **Capacity support**

52. As described above, the project's capacity building activities will pro-actively target ethnic minorities in a given location. In line with the overall project goal, capacity building activities of indigenous peoples will focus on the technical and economic capacities of individuals.

7. Grievance redress

53. See Annex 3.

8. Monitoring, reporting and evaluation

54. The project will monitor the effectiveness of measures geared towards inclusion of ethnic minorities, through data collected on participatory processes, participation in project-funded activities, and impact evaluations. The data collected will be made available in aggregated form, allowing for meaningful discussions with representatives of ethnic minorities on the topic.

55. Through the regular IFAD support and supervision, a periodic review and revision of this document will take place, depending on the need identified.

9. Institutional Arrangements

56. The primary responsibility for executing the measures contained in this document are with the project lead agency, PKSF. Project partners such as POs will also be required to implement and monitor part of the actions, which are equally included in the project's ESCMP. Given the low-risk rating of the project and the low likelihood of negative impact, no independent audits are foreseen.

10. Budget and financing

57. The main costs associated with implementation of the actions are included in the personnel costs relating to participatory processes and monitoring and evaluation. Further details on cost will become available during early project implementation and will be included in this document as it gets updated into an Ethnic Minorities Plan.

ANNEX 5 EXCLUSION CRITERIA AND SCREENING QUESTIONNAIRE

1. All GREEN project activities to be financed in the context of this project will be in line with IFAD's Environmental and Social Exclusion list. Please refer to Annex 5 in Volume I of SECAP 2021[124].

2. The following activities are ineligible under the GREEN project (prohibited as part of the "exclusion list" and will not be approved for financing under the project) in order to avoid adverse irreversible social and environmental impacts.

3. Scope of Work: Exclusion Criteria

- Project activities in protected areas and critical wildlife habitats.
- Construction or upgrade in natural forests and other sensitive habitats, including seasonal wetlands.
- Production or trade in wood or other forestry products other than from sustainably managed forests.
- Commercial logging operations or the purchase of logging equipment for use in primary tropical moist forests or old-growth forests.Construction or upgrade that entails conversion and loss of physical cultural resources.
- New construction or upgrade of roads with Average Annual Daily Traffic (AADT) higher than 400.
- Roads that disrupt connectivity in natural forests and other sensitive habitats, including seasonal wetlands.
- Entails or involves groundwater extraction in areas already experiencing soil subsidence due to over-abstraction and/or increasing groundwater depth and/or withdrawal of groundwater close to recharge rate.
- Large-scale agro-processing facilities.
- Bridges. The exception is adequate drainage infrastructure, in the form of small bridges and culverts, which will be constructed to facilitate climate- or weather-induced increase in runoffs and fish passage in floodplains.
- Dams, reservoirs and irrigation schemes.
- Significant water abstraction.
- Activities that involve aquaculture (or mariculture) greater than 25 hectares on one site.
- Marine and coastal fishing practices such as blast fishing, large-scale pelagic drift net fishing using nets in excess of 2.5 km in length or fine mesh net fishing harmful to vulnerable and protected species in large numbers and damaging to marine biodiversity and habitats.Any activity involving the introduction of non-native species, unless these are already present in the vicinity or known from similar settings to be non-invasive.
- Activities that involve eviction or physical resettlement or relocation of any type of businesses, including those businesses that do not have legal ownership or permission.
- Activities that require relocation and/or demolition of any permanent houses or businesses.
- Land appropriation.
- Land acquisition.
- Activities that may physically displace any households or require permanent acquisition of the land under traditional or customary use by Ethnic Minorities.

[124] https://www.ifad.org/documents/38711624/44600056/secap2021_01.pdf/31edfeff-f70c-67b0-994a-d0ec4630dd81?t=1644422496395

- Use of the project as an incentive and/or a tool to support and/or implement involuntary resettlement of local people and village consolidation is not allowed.
- Use of the project as an incentive and/or a tool to displace or replace community's cultivated land (individual or communal) with plantations is not allowed.
- Activities that result in new settlements or expansion of existing settlements.
- Activities that result in conversion or cause damage or loss to tangible cultural property, including sites having archaeological, paleontological, historical, religious, cultural and unique natural values. This includes places of worship (e.g., mosques, madrasas, churches, temples), as well as sites with socio-cultural value (e.g., graveyards, monuments, traditional meeting places).
- Activities that would likely create adverse impacts on Ethnic Minorities within the village and/or in neighboring villages, or activities that are unacceptable to the affected Ethnic Minorities living in a homogenous village or a village of mixed Ethnic Minorities.
- Activities that result in resources access restriction (e.g. restricted access to farming land, fishing grounds, community forests or areas conserved by local communities or ethnic groups) that could not be mitigated and will result in adverse impacts on the livelihoods of Ethnic Minorities and disadvantage peoples.
- Activities that involve production or trade in any product or activity deemed illegal under Bangladesh's laws or regulations or international conventions and agreements, or subject to international bans.
- All mining, mineral processing and extraction activities.
- Purchase of banned pesticides, insecticides, herbicides and other unbanned pesticides, unbanned insecticides and unbanned herbicides and dangerous chemicals is disallowed. However, if pest invasion, the use of small amounts of eligible and registered pesticides in Bangladesh will be allowed if supplemented by additional training of households, communities or contractors to ensure pesticide safe uses in line with GOB and IFAD policies and procedures. Highly Hazardous Pesticides (HHP) will not be used by the project.
- Any subprojects that will use or induce the use of hazardous materials (including asbestos) or any banned chemicals.
- Labor and working conditions involving harmful, exploitative, involuntary or compulsory forms of labor, forced labor[125], child labor[126] or practices that which prevent employees from lawfully exercising their rights of association and collective bargaining.
- Labour and working conditions involving significant occupational health and safety issue are disallowed.
- Trade in any products with businesses engaged in exploitative environmental or social behavior.

Environmental and Social Safeguards	**No, Yes, N/A**	**Requirements**

[125] Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

[126] Harmful child labor means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development.

Biodiversity		
1.1 Could the project involve or lead to conversion or degradation of biodiversity, habitats (including modified habitat, natural habitat and critical natural habitat) and/or ecosystems and ecosystem services?		
1.2 Could the project involve or lead to activities negatively impacting habitats that are legally protected, officially proposed for protection, or recognized as protected by traditional local communities and/or authoritative sources (e.g. National Park, Nature Conservancy, Indigenous Community Conserved Area, (ICCA), etc.)?		
1.3 Could the project involve or lead to an increase in the chance of human-wildlife encounters/conflict?		
1.4 Could the project involve or lead to risks to endangered species (e.g. reduction, encroachment on habitat)?		
1.5 Could the project involve or lead to negative impacts/risks to migratory wildlife?		
1.6 Could the project involve or lead to introduction or utilization of any invasive alien species of flora and fauna, whether accidental or intentional?		
1.7 Could the project involve or lead to the handling or utilization of genetically modified organisms?		
1.8 Will the project involve or lead to procurement through primary suppliers of natural resource materials (wood, gravel, sand, etc.)?		
Resource Efficiency and Pollution Prevention		
2.1 Could the project involve or lead to the release of pollutants to the environment (on and off farm) due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?		
2.2 Could the project be located in an area which is being, or has been, polluted by an external source (e.g. a mine, smelter, industry)?		
2.3 Will the project involve or lead to significant consumption of raw materials and energy?		
2.4 Will the project develop or rehabilitate irrigation schemes and/or involve or lead to significant extraction, diversion or containment of surface or ground water? (For example, construction of dams, reservoirs, river basin developments, groundwater extraction)		
2.5 Will the project involve the use of agrochemicals (pesticides, fertilizers, and other modifying agents) which have potential to pollute soils and water bodies or cause other negative impacts?		
2.6 Will the project involve or lead to primary production of living natural resources through cultivation or rearing of plants, annual and perennial crop farming, etc.?		
2.7 Will the project involve or lead to engagement in areas of forestry, including the harvesting of natural forests, plantation development, and/or reforestation?		
2.8 Will the project involve livestock and production of animal products (dairy, skins, meat, etc.)?		
2.9 Will the project involve marine or freshwater fisheries, at industrial or artisanal scale?		
2.10 Will the project involve inland or marine aquaculture?		
Cultural Heritage		
3.1 Could the project involve or lead to adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)		

3.2 Could the project involve or lead to excavations, demolitions, movement of earth, flooding or other environmental changes in an area that is considered to have archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values or intangible forms of culture (e.g. knowledge, innovations, practices) or contains features considered as critical cultural heritage? (See Annex 1 of the Cultural Heritage Guidance Note for further information)		
3.3 Could the project involve or lead to alterations to landscapes and natural features with cultural significance?		
3.4 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?		
Indigenous Peoples (Ethnic Minorities)		
4.1. Is the project sited in areas where Indigenous Peoples are present? (Indigenous Peoples' traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources).		
4.2 Could the project adversely affect Indigenous People's rights to traditionally owned or otherwise occupied and used lands, territories, waters, coastal seas and other resources and/or livelihood systems?		
4.3 Could the project result in the utilization and/or commercial development of natural resources on lands and territories inhabited by Indigenous Peoples?		
Labour and Working Conditions		
5.1 Could the project operate in sectors or value chains where there have been reports of discriminatory practices and the lack of equal opportunity (for disadvantaged and vulnerable workers, including women, children of working age, migrants and persons with disabilities), denial of freedom of association and collective bargaining, labour migrants?		
5.2 Could the project operate in a value chain where there have been reports of forced labour? Note: Risks of forced labour may be increased for projects located in remote places or where the status of migrant workers is uncertain		
5.3 Could the project involve children (a) below the nationally-defined minimum employment age (usually 15 years old) or (b) above the nationally-defined minimum employment age but below the age of 18 in supported activities or in value chains?		
5.4 Could the project: (a) operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks, and/or (b) promote or use technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general? (Note: OSH risks in agriculture might include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects. Psychosocial hazards might include violence and harassment.)		
Community Health and Safety		
6.1 Could the project lead to and or be at risk from water-borne, zoonotic or vector-borne diseases (e.g. temporary breeding habitats), and/or communicable and non-communicable diseases?		
6.2 Could the project have unintended negative impacts on nutrition?		
6.3 Will the project involve the construction or rehabilitation of dams?		

6.4 Could the project involve or lead to transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?		
6.5 Could the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labour influx, land redistribution, or other actions that alter community dynamics?		
6.6 Will the project construct, rehabilitate or upgrade rural roads and/or lead to increases in traffic or alteration in traffic flow?		
6.7 Could the project lead to an influx of project workers?		
6.8 Could the project involve or lead to the engagement of security personnel to protect facilities and property or to support project activities?		
Physical and Economic Resettlement		
7.1 Will the project result in temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?		
7.2 Will the project result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?		
7.3 Could the project increase the risk of forced evictions?		
7.4 Could the project result in adverse impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources?		

ANNEX 6 ESG ACTION PLAN (ESAP)
ENVIRONMENTAL AND SOCIAL MANAGEMENT OF RISKS AND IMPACTS

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
1.	**ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEM**				
1.0	Establish and maintain environmental and social management system	Is ESMS in place, under development or non-existent?	**BASELINE** **Policies and implementation experience:** ○ PKSF is accredited to the Green Climate Fund (GCF) as a Direct Access Entity and has been assessed as having the capacity to implement projects up to Category B / I-2 (Intermediation-2)[127] environmental and social risk. ○ A January 2021 ESMS policy describing PKSF commitment to sustainable development, environmental protection and social responsibility is available online: https://pksf.org.bd/wp-content/uploads/2021/02/RAISE-PKSF-ESMS-03.02.2021_Last.pdf ○ Projects under PKSF are also required to apply the relevant requirements of the PKSF's Environment Health Safety (EHS) guideline that contains ten (10) chapters and three (3) annexes. These are technical reference documents with general (and some specific) examples of good national and international practices. ○ The PKSF ESMS policy provides guidelines on integrating gender and social inclusion issues into sustainable development and climate adaptation interventions. It offers guidance on gender-specific analysis of climate impact and adaptation options, and establishes requirements for	PKSF PMU	Early implementation and continuous engagement

[127] GCF defines Category B as "Activities with potential mild adverse environmental and/or social risks and/or impacts that are few in number, generally site-specific, largely reversible, and readily addressed through mitigation measures." Intermediation 2 is "When an intermediary's existing or proposed portfolio includes, or is expected to include, substantial financial exposure to activities with potential limited adverse environmental or social risks and/or impacts that are few in number, generally-site specific, largely reversible, and readily addressed through mitigation measures; or includes a very limited number of activities with potential significant adverse environmental and/or social risks and/or impacts that are diverse, irreversible, or unprecedented"

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			meaningful engagement with women and ethnic minority/tribal peoples, including mainstreaming gender and tribal issues in the program cycle (also by seeking FPIC). ○ The Gender Policy and the Policy and Procedures for Protection of Female Employees[128] from Possible Sexual Harassment (to Create a Favourable Workplace Environment) are complementary elements of the ESMS. ○ Given its dedicated credit lines (Agrosor) and technical support to agricultural production and Micro- and Small-enterprises, PKSF has also developed 16 (sixteen) enterprise specific environmental guidelines (**see Annex 1**). These will increase to 30 (thirty) by 2025. ○ Since the ESMS policy was developed as a part of World Bank projects and the Green Climate Fund (GCF) accreditation process, it is fully implemented in PKSF's World Bank and GCF projects. The extent of mainstreaming in other projects varies (as stated by PKSF during June 2024 design mission), and PKSF is attempting to improve the same. ○ At the same time, dedicated budget lines and the inherent design of project activities has allowed for steady improvement in the capacity of PKSF and its POs to implement various ESMS/SECAP mitigation measures and learn from experience. For example, the World Bank funded Recovery and Advancement of Informal Sector Employment (RAISE) is offering support to MSMEs and capacity development on decent work standards and BSTI certifications. IFAD-funded Rural Microenterprise Transformation Project (RMTP) has activities focused on "Safe Food", including		

[128] Employees, under the policy, are defined as regular and temporary (project / contractual / casual) officers and employees of PKSF.

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			(a) biosecurity and safe handling of meat at household and MSME levels, respectively and (b) organic production of vegetables and fruits. ○ PKSF has developed exclusion criteria for projects and implements this. Additionally, Environmental Guidelines developed for agriculture and enterprise activities includes information on banned pesticides and "no go" areas for certain activities. The exclusion list present in the ESMS document (Annex 7 section II) cannot be considered consistent with IFAD's exclusion list. For activities in GREEN, PKSF will ensure that the exclusion list of activities is in line with IFAD's SECAP 2021. ○ Overall, PKSF's ESMS can be considered largely consistent with IFAD's SECAP 2021. ○ Please note: Assessment of staff capacities and training needs is described in response to Question 1.3. **RECOMMENDED ACTIONS** 1. Translate ESMS policy into Bangla. Prepare one-page summary of ESMS that is signed and endorsed by PKSF Chairman. Ensure ESMS policy is shared with POs. 2. Develop Exclusion Criteria specific to GREEN and consistent with IFAD's SECAP 2021 and translate into Bangla. 3. During implementation, IFAD to review Environmental Guidelines developed for enterprises, and identify areas for improvement. 4. Actions related to staff capacities and training needs is described in response to Question 1.3.		
1.1	E&S policy	Has an E&S risk policy been prepared and approved ? Under review?	- A comprehensive ESMS policy is developed in line with international standards, and is available on PKSF website.	PKSF PMU	

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
		Generally, an E&S Policy is one page long, in rare cases 2 pages. Is the policy available to the public or only an internal document? Are key criteria for E&S policy are mentioned in the policy: for example, Labour and working conditions, resource efficiency and pollution prevention, community health safety and security, land acquisition, biodiversity, indigenous people, cultural heritage, climate change, water), complying with national laws and international best practice, commitment to continual improvement.	- The ESMS policy standards are consistent with IFAD's SECAP 2021 standards and all key areas are covered by the policy.		
1.2	Governance policies	Have these been developed or are being developed? What do they cover?	- The ESMS Policy has been approved by PKSF management in 2021. - PKSF's service rules, gender policy, policy on complaint redress system, project appraisal guideline, procedures for risk mitigation, statement of non-discriminatory practices, environment & social management framework, and policy and strategy for women employees from possible sexual harassment are all complementary elements of this Policy.		

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
1.3	Internal organizational capacity and competency	Who is responsible for all E&S issues? Are they appropriately trained/qualified? What are the linkages between different departments responsible for risks?	**BASELINE** **Staff capacities:** 1. PKSF has a separate Environment and Climate Change Unit (ECCU). The unit has a special role in environment and climate focused projects and programmes. The unit also provides technical support to all PKSF projects for inclusion of E&S issues. GREEN's PMU will be under the ECCU. In the ESMS, PKSF outlines its responsibilities in relation to E&S risk identification, classification and management and those of POs. However, it does not count with dedicated focal point or an institutional Safeguards Specialist for identifying and managing E&S risks. 2. PKSF has recently (June 2024) sent a letter to all Partner Organizations (POs) recommending setting up of an environment, climate change and agriculture unit at each PO. At present, PKSF has not finalized or approved any specific programme of work for these potential units. 3. Gender and Social Inclusion (GESI) and Environment and Climate Change (ECC) functions are taken on by PKSF specialists recruited for the project. For example, the Nutrition Officers acts as the Gender focal point in the European Union funded Pathways to Prosperity for Extreme Poor Project (PPEPP-EU). Similarly, health, safety, and environment / climate risk mitigation measures are implemented by various specialists of the Integrated Agriculture Unit (IAU) for their respective value chains. 4. The main issue is that POs are currently male dominated institutions and PKSF does not have an effective gender architecture in place, for example through the appointment of a network of gender/GESI focal points. However, capacity development of staff on gender is carried out	PKSF PMU, specifically the two Senior Programme Managers responsible for Nutrition & GESI, and for ECC Project Coordinators of POs With support from Programme Manager (Training and Capacity Building)	

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			regularly, and gender and social inclusion issues are integrated in training curriculum of field staff. 5. GESI-related and ECC-related mitigation measures are mainstreamed into project activities, and therefore addressed as a part of capacity development (trainings)—of PKSF and PO staff / project consultants—during project implementation. 6. Improve GESI training among PKSF/POs staff. The establishment of a network of gender/GESI focal points would also contribute to strengthen institutional capacity to deliver on GESI. The IFAD-funded RMTP project prepared a Gender and Youth Action Plan (GYAP). A World Bank project financed SMART project also prepared a Gender Action Plan (GAP). These will function as reference documents for GREEN. 7. GREEN has proposed that the Senior Programme Manager for Climate Change and Environment in the PMU act as the SECAP expert. At the PO level, Project Coordinators will act as SECAP focal point. 8. Depending on the potential significance of environmental and social risks and impacts, PKSF will determine if independent third-party specialists will be assigned to assist in the assessment of environmental and social impacts. **RECOMMENDED ACTIONS** 1. Environmental and social focal persons (Senior Programme Managers for Climate Change, Environment and SECAP & for Nutrition, Gender and Inclusion) along with project head (Project Coordinator) will receive necessary training for conduct of environmental assessment and monitoring of the interventions. PKSF will organize the training sessions for the capacity building of the PO regarding the environmental issues and assessment.		

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			2. In order to strengthen the implementation of the ESMS procedures, it is recommended to include a SECAP / Safeguards Specialist in GREEN PMU to support with the implementation of PKSF's ESMS in the context of project activities, and support capacity building activities. This recognizes that the PKSF ESMS policy and IFAD SECAP 2021 will need to be mainstreamed at multiple POs, which currently do not have dedicated staff or systems in place. 3. Since GREEN has multiple value chains and targets a vast geographic area, the demand on the Senior Programme Manager's (Climate Change and Environment) time is anticipated to be high. 4. Include budget for SECAP trainings in GREEN, at least 1 training per year for PO Project Coordinators.		
1.4	E&S due diligence processes	Has an E&S screening procedure been prepared? Is it used? How is it aligned with IFAD's SECAP standards? Are these taken into consideration in the screening tool.	- PKSF will conduct environmental and social due diligence of all PO proposals for support through GREEN Project financing by screening using eligibility and exclusion criteria. The purpose of the environmental and social due diligence is to assist PKSF in deciding whether to provide support for the proposed project and, if so, the way in which environmental and social risks and impacts will be addressed in the assessment, development and implementation of the project. - PKSF's environmental and social due diligence will be appropriate to the nature and scale of the project, and proportionate to the level of environmental and social risks and impacts, with due regard to the mitigation hierarchy. The due diligence will assess whether the project is capable of being developed and implemented in accordance with the E&S Requirements of PKSF and SECAP.		

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			- PKSF has developed procedures that ensure consistent identification of E&S risks that is consistent with IFAD's SECAP 2021. An E&S screening is required for all project financing through PKSF. It is conducted by POs and validated by PKSF staff. - PKSF's due diligence responsibilities will include, as appropriate: (a) reviewing the information provided by the POs relating to the environmental and social risks and impacts of the project, and requesting and requesting additional information for completing its due diligence; and (b) providing guidance to assist the POs in developing appropriate measures consistent with the mitigation hierarchy to address environmental and social risks and impacts in accordance with the ESSs. The POs are responsible for ensuring that all relevant information is provided to PKSF so that PKSF can fulfill its responsibility to undertake environmental and social due diligence in accordance with this Policy. - PKSF recognizes that POs may have different levels of information regarding the environmental and social risks and impacts available at the time PKSF carries out its due diligence. In such circumstances, PKSF will assess the risks and impacts of the proposed project based on the information that is available to PKSF, together with an assessment of: (a) the risks and impacts inherent to the type of project and the specific context in which the proposed project will be developed and implemented; and (b) the capacity and commitment of the POs to develop and implement the project in accordance with the ESSs. PKSF will assess the significance of the gaps in information, and the potential risk this may present to achieving the objectives of the E&S standards. PKSF will reflect this assessment		

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			in the relevant project documents at the time the proposed financing is submitted for Board approval. - Where PKSF is approached to provide support for a project that is under construction, or where the project has already received national permits, including the approval of local environmental and social impact assessments, PKSF's due diligence will include a gap analysis against the E& standards to identify whether any additional studies and/ or mitigation measures are required to meet PKSF's requirements.		
1.5	Categorization of risk for portfolio projects	How is this done? What are the risk categories?	**BASELINE** - PKSF is a microfinance institution focused on poverty alleviation through employment generation. It provides financial and non-financial services to underserved people. By nature of its goal and activities, PKSF does not lend to or provide grants to activities that would be considered "High" E&S risk for commercial banks and other NSOs (non-sovereign entities) that for-profit in nature. For example, PKSF MSMEs do not engage in riverbed or sand mining, plantation forestry, water abstraction through dams / reservoirs, construction of embankments or roads, and so on. - PKSF ESMS includes a risk categorization with 4 risk classifications: low, moderate, substantial and high. In determining the appropriate risk classification, PKSF will take into account relevant issues, such as the type, location, sensitivity, and scale of the project; the nature and magnitude of the potential environmental and social risks and impacts; and the capacity and commitment of the PO to manage the environmental and social risks and impacts in a manner consistent with the ESSs. Other areas of risk may also be relevant to	PKSF PMU With support from Microfinance Specialist, Programme Manager (ICT) and Senior Programme Manager (Finance and Accounts)	

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			the delivery of environmental and social mitigation measures and outcomes, depending on the specific project and the context in which it is being developed. These could include legal and institutional considerations; the nature of the mitigation and technology being proposed; governance structures and legislation; and considerations relating to stability, conflict or security. PKSF will disclose the project's classification and the basis for that classification on the PKSF's website and in project documents. **RECOMMENDED ACTIONS** - Review project MIS systems to include additional columns (if necessary) that can capture sector, sub-sector, and type of micro-enterprise and household activities. Combined with loan size, this may allow for ex-post classification of portfolio risk.		
1.6	Compliance with the national ESHS laws and regulations, IFAD's SECAP as well as with international conventions and treaties.	Have these been documented? Is a legal register in place? Is there a log of licensing and permitting requirements, indicating types of permits, when they need to be obtained and/or renewed?	- The PKSF Environmental and Social (ES) Policy states its commitment to ensure compliance with national legislation and international environmental, social, health and safety (ESHS) standards for all its projects. - The ESMS includes specific reference for hazardous waste, where PKSF and the POs will comply with existing requirements for management of hazardous wastes including national legislation and applicable international conventions – including those relating to trans-boundary movement. When hazardous waste management is conducted by third parties, PKSF and the POs will use contractors that are reputable and legitimate enterprises licensed by the relevant government regulatory agencies and, with respect to transportation and disposal,		

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			obtain chain of custody documentation to the final destination. - PKSF's ESMS includes a list of banned pesticides in Bangladesh in Annex 16, and mitigation measures and environmental code of practice in Annex 11.		
1.7	Compliance with the Exclusion list	Do all activities comply with the Exclusion list?	- Currently. PKSF's Exclusion List is included in the screening checklist, Section II. However, this is not consistent with IFAD's SECAP 2021 and an Exclusion List aligned with SECAP 2021 will be required.		
1.8	High and substantial risk projects	Describe all high and substantial risk activities	- Please see response to Question 1.5.	N/A	
1.9	Safeguards documentation: ESIA, ESMP, RAP, FPIC	Are specific safeguards documents required? If so, have they been prepared?	- Yes, the following have been prepared ○ Stakeholder Engagement Plan (SEP) and Grievance Redress Mechanism (GRM) ○ Ethnic Minority Implementation Plan and FPIC. The Ethnic Minority Plan will need to be developed during implementation. ○ GESI Strategy ○ Environmental, Social and Climate Management Procedures (ESCMP). ESCMP should be reviewed and updated during implementation, and site or sector specific ESCMP prepared. ○ ESIA is typically not required for PKSF projects since project risks are low or moderate owing to the nature of activities. Similarly, there is no requirement for RAP since land acquisition is not required.	PKSF PMU, specifically the two Senior Programme Managers responsible for Nutrition & GESI, and for ECC Project Coordinators of POs	
1.10	Carbon balance analysis	Has a carbon balance been undertaken to establish carbon footprint?	- No, carbon balance analysis is not applicable to the project.	N/A	

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
1.11	Monitoring and review of performance of portfolio investments	Who is responsible for monitoring and reviewing investments? How is this done, how frequently and how is follow up done?	- PKSF monitors the environmental and social performance of the project in accordance with the requirements of the legal agreement, including the ESAP, and will review any revision of the ESAP including changes resulting from changes in the design of a project or Page 11 project circumstances. - While SECAP-relevant specialists will report to the Project Director, the oversight of the E&S process from project design to completion is provided by the Environment and Climate Change Unit. - The extent and mode of PKSF monitoring with respect to environmental and social performance will be proportionate to the potential environmental and social risks and impacts of the project. - A project will not be considered complete until the measures and actions set out in the legal agreement (including the ESAP) have been implemented. - To the extent that PKSF evaluation at the time of project completion determines that such measures and actions have not been fully implemented, PKSF will determine whether further measures and actions, including continuing PKSF monitoring and implementation support, will be required. - PKSF will provide implementation support regarding the environmental and social performance of the project, which will include reviewing the POs' monitoring reports on compliance of the project with the requirements of the legal agreement, including the ESAP. - Where appropriate and as set out in the ESAP, PKSF will require the POs to engage stakeholders and third parties, such as independent experts, local communities or nongovernmental organizations (NGOs), to complement or verify project monitoring information. Where other		

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			agencies or third parties are responsible for managing specific risks and impacts and implementing mitigation measures, PKSF will require the POs to collaborate with such agencies and third parties to establish and monitor such mitigation measures		
1.12	Disclosure		- PKSF will apply the right to information act of the government of Bangladesh with regard to all documents provided to it by the POs. - PKSF will require the POs to provide sufficient information about the potential risks and impacts of the project for the POs' consultations with its stakeholders. Such information will be disclosed in a timely manner, in an accessible place, and in a form and language understandable to project affected parties and other interested parties as set out in ESS10, so they can provide meaningful input into project design and mitigation measures. - PKSF has information disclosure policy regarding environmental risks assessment, management and monitoring. Specific information disclosure and reporting will be included in project specific ESAP. The report will be both English and Bangla. - Information on projects, including E&S documentation is available at: https://pksf.org.bd/projects/.		
1.13	Review of ESMS	Is the ESMS reviewed by top management ? How often?	- PKSF's ESMS Policy will be reviewed on an ongoing basis and will be amended or updated as appropriate, subject to approval by the Governing Board.		
1.14	Emergency preparedness and response system	Has an EPR system been set up? Is it tested?	- PKSF and the POs will identify and implement measures to address emergency events. An emergency event is an unanticipated incident, arising from both natural and man-made hazards, typically in the form of fire, explosions, leaks or spills, which may occur for a variety of different		

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			reasons, including failure to implement operating procedures that are designed to prevent their occurrence, extreme weather or lack of early warning. The measures will be designed to address the emergency event in a coordinated and expeditious manner, to prevent it from injuring the health and safety of the community, and to minimize, mitigate and compensate for any impacts that may occur. - PKSF and the POs engaged in projects align its policies and procedures with government directives. Such alignment includes temporary adjustments to loan installment collection schedules to alleviate the financial burden on borrowers (members). Furthermore, PKSF mobilizes its own resources to provide additional support to affected communities, and these resources are distributed through its POs to ensure timely and efficient assistance. - PKSF and the POs will document its emergency preparedness and response activities, resources, and responsibilities, and will disclose appropriate information, as well as any subsequent material changes thereto, to affected communities, relevant government agencies, or other relevant parties. PKSF and the POs will assist and collaborate with affected communities, relevant government agencies and other relevant parties in their preparations to respond effectively to an emergency event, especially where their participation and collaboration will be an important part of an effective response. - PKSF and the POs will support affected communities, relevant government agencies and other relevant parties through training and collaboration, and will conduct such training in conjunction with the training provided to project		

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			workers as part of the OHS requirements under ESS2.		
1.15	Management of working conditions	What are the labour requirements and conditions? (Fair pay, non discrimination, working conditions, etc.)	- PKSF and the POs will develop and implement written labor management procedures applicable to the project. These procedures will set out the way in which project workers will be managed, in accordance with the requirements of national law and this ESS. The procedures will address the way in which this ESS will apply to different categories of project workers including direct workers, and the way in which PKSF and the POs will require third parties to manage their workers in accordance with paragraphs 31–33. - Terms and conditions of employment: Project workers will be provided with information and documentation that is clear and understandable regarding their terms and conditions of employment. The information and documentation will set out their rights under national labor and employment law (which will include any applicable collective agreements), including their rights related to hours of work, wages, overtime, compensation and benefits, as well as those arising from the requirements of this ESS. This information and documentation will be provided at the beginning of the working relationship and when any material changes to the terms or conditions of employment occur. - Project workers will be paid on a regular basis as required by national law and labor management procedures. Deductions from payment of wages will only be made as allowed by national law or the labor management procedures, and project workers will be informed of the conditions under which such deductions will be made. Project workers will be provided with adequate periods of rest per week, annual holiday and sick, maternity		

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			and family leave, as required by national law and labor management procedures. - Where required by national law or the labor management procedures, project workers will receive written notice of termination of employment and details of severance payments in a timely manner. All wages that have been earned, social security benefits, pension contributions and any other entitlements will be paid on or before termination of the working relationship, either directly to the project workers or where appropriate, for the benefit of the project workers. Where payments are made for the benefit of project workers, project workers will be provided with evidence of such payments. Non-discrimination and equal opportunity - Non-discrimination and equal opportunity: Decisions relating to the employment or treatment of project workers will not be made on the basis of personal characteristics unrelated to inherent job requirements. - The employment of project workers will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, or disciplinary practices. The labor management procedures will set out measures to prevent and address harassment, intimidation and/or exploitation. Where national law is inconsistent with this paragraph, the project will seek to carry out project activities in a manner that is consistent with the requirements of this paragraph to the extent possible.		

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			- Special measures of protection and assistance to remedy discrimination or selection for a particular job based on the inherent requirements of the job or the objectives of the project will not be deemed as discrimination, provided they are consistent with national law. - PKSF and the POs will provide appropriate measures of protection and assistance to address the vulnerabilities of project workers, including specific groups of workers, such as women, people with disabilities, migrant workers and children (of working age in accordance with this ESS). Such measures may be necessary only for specific periods of time, depending on the circumstances of the project worker and the nature of the vulnerability. - Workers Organizations: All the projects under PKSF will be implemented in accordance with national law. In such circumstances, the role of legally established workers' organizations and legitimate workers' representatives will be respected, and they will be provided with information needed for meaningful negotiation in a timely manner. PKSF and the POs will not discriminate or retaliate against project workers who participate, or seek to participate, in such workers' organizations and collective bargaining or alternative mechanisms.		
1.16	Record keeping/ maintenance of documentation	Who keeps records of ESMS progress, improvements, challenges, complaints?	- PKSF will require the POs to implement the measures and actions identified in the ESAP diligently, in accordance with the timeframes specified in the ESAP, and to review the status of implementation of the ESAP as part of its monitoring and reporting. PKSF will require the POs to prepare, submit to PKSF for approval and implement a process that allows for adaptive management of proposed project changes or unforeseen circumstances. The agreed adaptive		

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			management process will be set out in the ESAP. The process will specify how such changes or circumstances are to be managed and reported, and how any necessary changes will be made to the ESAP and the management tools used by the POs. - The Project Management Unit will establish a common web-based platform that tracks the project's progress based on the Results Framework. This platform will accommodate baseline studies and additional monitoring, notably monthly reporting and corresponding indicators, and reporting related to grievance redress, stakeholder engagement, compliance with environmental and social standards, subproject monitoring, spot checks and participatory monitoring on project progress, among others. - The Monthly Progress Reports will stock-take the design and implementation of its own subprojects, and their compliance with environmental and social standards. These are compiled into half yearly Progress Reports prepared by PKSF for the development partners which reflects these within the context of updated implementation schedules by components, commitment and disbursement by component and findings, recommendations, agreements reached on key implementation issues. These are complemented by midterm review and impact evaluation undertaken by independent firms to assess project performance and its human capital outcomes. The Project Coordinator will ensure preparing monthly visit plan for all staff of Project PMU in such way that it ensures visiting of all project activities periodically. All visiting officers will submit reports to Project Coordinator soon after the visit and Project Coordinator will submit report to line		

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			Deputy Managing Director of PKSF. The visiting officers will also record their major findings and suggestions in the Monitoring Logbook maintained in the POs.		
1.17	Stakeholder Engagement	Has a stakeholder engagement plan (SEP) and communication plan been prepared? Is it implemented? Who is responsible for this?	**BASELINE** - PKSF and its Partner Organizations engage regularly with the target groups and other relevant stakeholders in the project's area during implementation. Local target group is organized in specific forums and platforms to facilitate engagement, feedback collection as well as broader service-delivery. Good practices were found under the implementation of the PPEPP project, whereby more vulnerable target groups were organized in different thematic platforms, also including the forum for person with disability, the mother and child forum, the forum for adolescent girls and ethnic minority groups etc. These platforms were specifically used to engage with and promote active engagement and citizenship of more vulnerable target groups. **RECOMMENDED ACTIONS** - It is recommended that PKSF and its partner POs strengthen stakeholder engagement by promoting regular engagement and interaction with the different sub-groups identified in the project's target groups and GESI strategy. The expert will share responsibilities for supervising the quality and effectiveness of stakeholder engagement and feedback mechanisms. - As set out in ESS10, PKSF will continue to engage with, and provide sufficient information to stakeholders throughout the life cycle of the project, in a manner appropriate to the nature of their interests and the potential environmental and social risks and impacts of the project.	PKSF PMU, specifically Senior Programme Managers responsible for Nutrition & GESI Project Coordinators of POs	

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			- If there are significant changes to the project that result in additional risks and impacts, particularly where these will impact project-affected parties, PKSF will provide information on such risks and impacts and consult with project-affected parties as to how these risks and impacts will be mitigated. - The consultation process should ensure that women's perspectives are obtained and their interests factored into all aspects of the project Addressing livelihood impacts may require intra-household analysis in cases where women's and men's livelihoods are affected differently. Women's and men's preferences and perspectives should be explored - PKSF will maintain, and disclose as part of the environmental and social assessment, a documented record of stakeholder engagement, including a description of the stakeholders consulted, a summary of the feedback received and a brief explanation of how the feedback was taken into account, or the reasons why it was not.		
1.18	Grievance Redress Mechanisms	Is a GRM in place? Is it functional? How is it implemented?	**BASELINE** - PKSF has adopted a GRM mechanism, which is included in their ESMS policy. This is a two-tier mechanism both at PKSF and POs levels. They have allocated GRM functions to staff at different levels. More specifically at the PO level/Union Parishad (U/P) they have appointed a Local Grievance Redress (LGR) focal point. At the PKSF level, Deputy Managing Director is the Central Grievance Redress (CGR) focal Point. **RECOMMENDED ACTIONS** - GREEN has designed its GRM mechanism by leveraging the existing system and adapting it to the IFAD-PMU institutional arrangements for GRM	PKSF PMU, specifically Senior Programme Managers responsible for Nutrition & GESI Project Coordinators of POs	

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			system. It is important that PKSF and POs staff are trained on the proposed GRM system at project start-up and early implementation. - PKSF's ESMS includes provisions on PKSF's grievance redress and accountability. PKSF supported project will include a number of mechanisms for addressing concerns and grievances arising in connection with a project. - Project affected parties will have access, as appropriate, to project grievance mechanisms, local grievance mechanisms. After bringing their concerns directly to the PKSF's attention and giving PKSF Management a reasonable opportunity to respond, project-affected parties may submit their complaint to the governing body of PKSF which is independent in nature. - The GRM of PKSF adopted GCF's principles to ensure the best practices of the GRM. The principles fully comply with Ruggie's principles: Equitable, Efficient, Legitimate, Effective, Accessible, Independent, Predictable, Transparent and Continuous Learning. - The Citizen's Charter of PKSF established the GRM process. A designated officer receives complaints through email, website, currier or post offices. S/he registers the complaint and prepare a case file. The Deputy Managing Director is given responsibilities to solve the complaints. A complain should be solved with 30 working days of receiving it. - Weblink for complaints: https://pksf.org.bd/complaint-entry/ - GRM at PO to PKSF level: A Grievance Redress Mechanism (GRM) will be established at PO level to deal with any complaints/grievances about environmental and social issues. At the PO level, the Union Parishad (U/P) Chairman or his/her nominated representative from the U/P will be the		

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			Local Grievance Redress (LGR) focal point. At the PKSF level, Deputy Managing Director will be Central Grievance Redress (CGR) focal Point. The aggrieved persons or entities will submit the complaints/grievances in sealed envelopes to the selected POs office duly entered in the Grievance Register (GR) and will collect a receipt with entry reference to the GR. Partners will not open the envelopes, but inform the LGR focal point about receipt of complaints and schedule hearings as per his/her advice. In open meetings, the PO will facilitate the LGR focal Point to hear and discuss the complaints and resolve them in view of the applicable guidelines. The aggrieved person, if female, will be assisted by a female U/P member in hearing, and if from a tribal community, by a tribal representative. LGR focal Point with the help of PO will ensure sending a copy of the complaint by postal mail, email or other means to the Deputy Managing Director at the PKSF headquarters		
1.19	Security	What are the key security concerns (cyber, personnel, etc.). How are these risks managed, by who?	- PKSF includes consistent procedures to identify security issues in relation to conflict, crime or violence. - Standard 4 on Community Health and Safety includes the issue of use of security personnel. This is managed by POs.		
1.20	Pandemic/Disease Response	Is a plan in place to respond to pandemics or disease outbreaks? Has it been tested? Is it effective?	- Standard 4 on Community Health and Safety includes the issue of community exposure to health issues, including vector-borne diseases and communicable diseases (including COVID-19) as result of project activities. **RECOMMENDED ACTIONS:** - Training on this issue to POs is mandatory within 30 days of project effectiveness. This is managed by POs.		

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
1.21	Reporting	How often is progress on the ESMS reported and to who?	**BASELINE AND RECOMMENDED ACTIONS:** - The project-specific ESAPs set out material measures and actions required for the project to meet IFAD SECAP 2021 over a specified timeframe. The ESAP will form part of the legal agreement. The legal agreement will include, as necessary, obligations of the POs to support the implementation of the ESAP. - PKSF will require the POs to implement the measures and actions identified in the ESAP diligently, in accordance with the timeframes specified in the ESAP, and to review the status of implementation of the ESAP as part of its monitoring and reporting. - PKSF will require the POs to prepare, submit to PKSF for approval and implement a process that allows for adaptive management of proposed project changes or unforeseen circumstances. The agreed adaptive management process will be set out in the ESAP. The process will specify how such changes or circumstances are to be managed and reported, and how any necessary changes will be made to the ESAP and the management tools used by the POs. - Monthly reporting and corresponding indicators, and reporting related to grievance redress, stakeholder engagement, compliance with environmental and social standards, subproject monitoring, spot checks and participatory monitoring on project progress, among others. These are compiled into half yearly Progress Reports prepared by PKSF for the development partners which reflects these within the context of updated implementation schedules by components, commitment and disbursement by component and findings, recommendations, agreements reached on key implementation issues. These are complemented by midterm		

	Due Diligence Criteria	Status (guiding questions)	Actions Required	Responsibility	Timeframe
			review and impact evaluation undertaken by independent firms to assess project performance and its human capital outcomes.		
2	**CAPACITY TO MANAGE ENVIRONMENTAL SOCIAL AND CLIMATE RISKS AND IMPACTS**				
2.1	Recruitment of i) environmental, ii) social and iii) climate risk specialists	Is staffing adequate in regard to qualifications and experience in key environmental, social and climate criteria?	- As stated in response to Question 1.3, thematic staff capacities (GESI, ECC, nutrition, etc.) exists at PKSF level but could be enhanced in the GREEN PMU. - Safeguards / SECAP related qualifications of staff at POs (Tier-III organizations that are beneficiaries of PKSF credit lines) is likely insufficient. POs mostly rely on thematic specialists to implement actions.	PKSF PMU, specifically Project Coordinator Project Coordinators of POs	
2.2	Training of onlendees	What is the capacity of onlendees to manage ESC risks? How can they be capacitated and specifically to manage potential risks that may result from activities that they are involved in that are supported through IFAD.	- Addressed throughout the ESAP. -		

ANNEX 1 A SAMPLE OF THE "TABLE OF CONTENTS" FROM ENTERPRISE-SPECIFIC ENVIRONMENTAL GUIDELINES DEVELOPED BY PKSF

In general, guidelines were prepared using various secondary data sources, data collected from field level, and input from stakeholders through a stakeholder workshop. Even though these are termed environmental guidelines, from a review of content, it is clear that aspects such as labour and occupational health and safety, community health and safety, and climate risks are integrated.

1. **Safe vegetable production**
    a. Context
    b. Environmental conservation rules and vegetable production, including Bangladesh's regulatory and rules, and when and what type of environmental clearance is required

c. Status of environmental safety management in vegetable production in Bangladesh
d. Harmful ecological effects of chemical use in vegetable production
e. Harmful effects on human health in the use of chemicals in vegetable production
f. Guidelines for safe vegetable production
g. Appendices on vegetable production methods, environmental monitoring of vegetable production, list of prohibited pesticides (this is a table listing trade name of product, registration number, company name)

2. Imitation jewelry MSMEs

a. Context
b. Environmental conservation rules and Bangladesh's regulatory and rules on imitation manufacturing industry, and when and what type of environmental clearance is required
c. Materials for making imitation jewelry
d. Waste generated in imitation jewelry industry
e. Status of waste management in jewelry industry
f. Health risks to employees and Dos/Don'ts at different stages of making imitation jewelry
g. Waste management guidelines for imitation jewelry industry

3. Dry fish production

a. Context
b. Environmental conservation rules and dry fish production, and when and what type of environmental clearance is required – since dry fish production is Category Orange-B (low to moderate impacts), exclusion criteria for where dry fish production can occur is listed
c. Drying and dry fish preparation system
d. Environmental impact of dry fish production
e. Environmental management of dry fish production
f. Guidelines for production of hygienic dry fish
g. Environmental monitoring of dry production

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Project Design Report

Environmental, Social and Climate Management Framework (ESCMF)

Mission Dates:	22/06/2024 15/09/2024
Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

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Biodiversity Action/Management Plan

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Asia and the Pacific Division
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Pest Management Plan

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Document Date:	19/10/2025
Project No.	2000004922
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Asia and the Pacific Division
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Cultural Heritage Management Plan

Mission Dates:	22/06/2024 15/09/2024
Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

Asia and the Pacific Division
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Chance find procedures

Mission Dates:	22/06/2024 15/09/2024
Document Date:	19/10/2025
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Free Prior and Informed Consent or FPIC implementation plan

Mission Dates:	22/06/2024 15/09/2024
Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

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Indigenous Peoples Plan or Indigenous Peoples Planning Framework

Mission Dates:	22/06/2024 15/09/2024
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Project No.	2000004922
Report No.	7318-BD

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Labour Assessment and Management Procedures

Mission Dates:	22/06/2024 15/09/2024
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Report No.	7318-BD

Asia and the Pacific Division
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Health Impact assessment

Mission Dates:	22/06/2024 15/09/2024
Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

Asia and the Pacific Division
Programme Management Department

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Outline of Traffic Management Plan

Mission Dates:	22/06/2024 15/09/2024
Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

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Resettlement Action Plan (RAP) or Resettlement Action Framework (RAF)

Mission Dates:	22/06/2024 15/09/2024
Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

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Project Design Report

Vulnerability Impact Adaptation Assessment

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Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

Asia and the Pacific Division
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Project Design Report

Targeted Adaptation Assessment

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Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

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Stakeholder Engagement Plan

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Project Design Report

GHG Assessment

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Document Date:	19/10/2025
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Report No.	7318-BD

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Bangladesh

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Project Design Report

Solid/Liquid Waste Management Plan

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Project Design Report

Annex 6: First (Annual) Work Plan and Budgets

Mission Dates:	22/06/2024 15/09/2024
Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

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Annex 6: Annual Work Plan

AWPB Activities	Units	Total Design Estimates: Physical	Total Design Estimate: Base costs financial (US $ 1000)	AWPB 2025 Physical Units Planned	Unit Cost (BTk)	Unit Cost (US$)	Budget planned for 2025 (BTk 1000)
Component 1. Climate-resilient and Environment-friendly Food System Development							
I. Investment Costs							
A. Climate-resilient and Environment-friendly Food System Development in vulnerable areas							
1. Project start-up activities							
Sector value chain analysis by PMU/PKSF for strategy paper development /b	Number	4	3	4	100,000	870	400
Prepare guidelines for food system subproject development by PKSF for POs /c	Number	1	0	1	50,000	435	50
FAST project start-up workshop /d	Number	1	3	1	300,000	2,609	300
Training on sector strategy for PO staff members /e	# batch	8	7	8	100,000	870	800
Training on food system subproject development for POs /f	# batch	5	9	5	200,000	1,739	1,000
Training on ecology and environment friendly food system							
subproject implementation for POs staff members /g	# batch	5	4	5	100,000	870	500
Subtotal			27				3,050
2. Investment costs from PKSF /h							

			AWPB Activities	Units	Total Design Estimates: Physical	Total Design Estimate: Base costs financial (US $ 1000)	AWPB 2025 Physical Units Planned	Unit Cost (BTk)	Unit Cost (US$)	Budget planned for 2025 (BTk 1000)
			Food system (Value chain) subproject costs: Poultry and livestock	Lumpsum	23	2,000	5	10,000,000	86,957	50,000
			Food subproject (Value chain) subproject costs:							
			Pond fisheries and aquaculture	Lumpsum	7	609	1.4	10,000,000	86,957	14,000
			Food system (Value chain) subproject costs:							
			Crops including pulses, nuts, and oil seeds and high value horticulture	Lumpsum	11	957	2.2	10,000,000	86,957	22,000
			Food system subprojects: Non-farm sectors including service sectors	Lumpsum	5	435	1	10,000,000	86,957	10,000
		Subtotal				4,000				96,000
		3. Private sector contribution in food system development /i								
			Basic training on poultry farming including vaccination and curative services /j	# batch	800	35	160	5,000	43	800
			Basic training on animal husbandry /k	# batch	3,200	139	640	5,000	43	3,200
			Vaccination and animal services for large animals /l	# batch	3,200	139	640	5,000	43	3,200
			Basic training on pond fisheries /m	# batch	1,200	52	240	5,000	43	1,200
			Basic training on selected fruits farming	# batch	640	28	128	5,000	43	640
			Basic training on vegetable production, IPM etc /n	# batch	1,360	59	272	5,000	43	1,360
		Subtotal				452				10,400
	Subtotal					4,479				109,450

			AWPB Activities	**Units**	**Total Design Estimates: Physical**	**Total Design Estimate: Base costs financial (US $ 1000)**	**AWPB 2025 Physical Units Planned**	**Unit Cost (BTk)**	**Unit Cost (US$)**	**Budget planned for 2025 (BTk 1000)**
	B. Climate-resilient and Environment-friendly Food System Development in other districts									
		1. Investment costs from PKSF /o								
			Food system (Value chain) subproject costs: Poultry and livestock	Lumpsum	6	522	1.2	10,000,000	86,957	12,000
			Food subproject (Value chain) subproject costs: Pond fisheries and aquaculture	Lumpsum	2	174	0.4	10,000,000	86,957	4,000
			Food system (Value chain) subproject costs: Crops /p	Lumpsum	6	522	1.2	10,000,000	86,957	12,000
			Food system subprojects: Non-farm sectors including service sectors	Lumpsum	3	261	0.6	10,000,000	86,957	6,000
		Subtotal				1,478				34,000
		2. Private sector contribution in food system development /q								
			Basic training on poultry farming including vaccination and curative services /r	# batch	200	9	40	5,000	43	200
			Basic training on animal husbandry /s	# batch	800	35	160	5,000	43	800
			Vaccination and animal services for large animals /t	# batch	800	35	160	5,000	43	800
			Basic training on pond fisheries /u	# batch	300	13	60	5,000	43	300
			Basic training on selected fruits farming	# batch	160	7	32	5,000	43	160
			Basic training on vegetable production, IPM etc /v	# batch	340	15	68	5,000	43	340
		Subtotal				113				2,600
	Subtotal					1,591				36,600

AWPB Activities	Units	Total Design Estimates: Physical	Total Design Estimate: Base costs financial (US $ 1000)	AWPB 2025 Physical Units Planned	Unit Cost (BTk)	Unit Cost (US$)	Budget planned for 2025 (BTk 1000)
C. Campaign for healthy food /w							
1. Development and revising nutrition specific campaign materials by PKSF	Set	1	4	1	500,000	4,348	500
2. Development of training materials on nutrition and nutrition sensitive activity	Set	1	4	1	500,000	4,348	500
3. Orientation on nutrition, climate change, environment,							
ecology for microfinance group members /x	Number of Groups	10,000	174	1,000	2,000	17	2,000
4. Village level healthy food events	Number of events	2,000	348	200	20,000	174	4,000
5. Orientation on homestead fruits							
veg gardens and small scale poultry production	Number	10,000	174	1,000	2,000	17	2,000
6. Village level WASH campaign for 100% sanitation and safe water	Number	2,000	313	200	18,000	157	3,600
Subtotal			1,017				12,600
			7,087				158,650
Component 2. Financial services for value chain participants							
I. Investment Costs							
A. Financial services for the extremely poor							

			AWPB Activities	Units	Total Design Estimates: Physical	Total Design Estimate: Base costs financial (US $ 1000)	AWPB 2025 Physical Units Planned	Unit Cost (BTk)	Unit Cost (US$)	Budget planned for 2025 (BTk 1000)
			1. IFAD Line of credit for microloan to extremely poor persons: IFAD loan to PKSF	Lumpsum	1	10,000	0.2	1,150,000,000	10,000,000	230,000
			2. PKSF line of credit for microloan to extremely poor persons: PKSF loan to POs	Lumpsum	1	10,000	0.2	1,150,000,000	10,000,000	230,000
			3. PO line of credit for microloan to extremely poor persons: POs' loan to extremely poor beneficiaries	Lumpsum	1	5,000	0.2	575,000,000	5,000,000	115,000
	Subtotal					25,000				575,000
	B. Seasonal credit for farm and non-farm businesses									
			1. IFAD Line of credit for microloan for seasonal credit: IFAD loan to PKSF	Lumpsum	1	25,000	0.2	2,875,000,000	25,000,000	575,000
			2. PKSF Line of credit for microloan for seasonal credit: PKSF loans to POs	Lumpsum	1	15,000	0.2	1,725,000,000	15,000,000	345,000
			3. POs Line of credit for microloan for seasonal credit: POs to beneficiaries	Lumpsum	1	10,000	0.2	1,150,000,000	10,000,000	230,000
	Subtotal					50,000				1,150,000
	C. Regular microfinance (farm and non-farm)									
			1. IFAD Line of credit for microloan for 'regular microcredit': IFAD loan to PKSF	Lumpsum	1	20,000	0.2	2,300,000,000	20,000,000	460,000
			2. PKSF Line of credit for microloan for 'regular microcredit': PKSF loans to POs	Lumpsum	1	15,000	0.2	1,725,000,000	15,000,000	345,000
			3. POs Line of credit for microloan for 'regular microcredit': POs to beneficiaries	Lumpsum	1	35,000	0.2	4,025,000,000	35,000,000	805,000
	Subtotal					70,000				1,610,000

AWPB Activities	Units	Total Design Estimates: Physical	Total Design Estimate: Base costs financial (US $ 1000)	AWPB 2025 Physical Units Planned	Unit Cost (BTk)	Unit Cost (US$)	Budget planned for 2025 (BTk 1000)
D. Microenterprise loan for farm and non-farm businesses							
1. IFAD Line of credit for microloan for microenterprise loan: IFAD loan to PKSF	Lumpsum	1	15,000	0.2	1,725,000,000	15,000,000	345,000
2. PKSF Line of credit for microloan for microenterprise loan: PKSF loans to POs	Lumpsum	1	15,000	0.2	1,725,000,000	15,000,000	345,000
3. POs Line of credit for microloan for : POs to beneficiaries	Lumpsum	1	20,000	0.2	2,300,000,000	20,000,000	460,000
Subtotal			50,000				1,150,000
			195,000				4,485,000
Component 3. Capacity building of PKSF and POs							
I. Investment Costs /a							
A. Capacity building of PKSF in Food System Development							
1. Basic training on global warming and climate science	Number	200	87	20	50,000	435	1,000
2. Value chain development project design	Number	50	43	5	100,000	870	500
3. Value chain development project management	Number	50	22	5	50,000	435	250
4. Climate smart agriculture	Number	100	65	10	75,000	652	750
5. Ecological farming	Number	100	65	10	75,000	652	750
6. Environmental issues in farm and non-farm businesses	Number	100	65	10	75,000	652	750

				AWPB Activities	**Units**	**Total Design Estimates: Physical**	**Total Design Estimate: Base costs financial (US $ 1000)**	**AWPB 2025 Physical Units Planned**	**Unit Cost (BTk)**	**Unit Cost (US$)**	**Budget planned for 2025 (BTk 1000)**
			7. Climate resilient food system development		Number	100	65	10	75,000	652	750
			8. Financial product development		Number	70	46	7	75,000	652	525
			9. Enterprise management		Number	70	46	7	75,000	652	525
	Subtotal						504				5,800
	B. Capacity building of POs in Food System Development										
			1. Basic training on global warming and climate science		Number	400	174	40	50,000	435	2,000
			2. Value chain development project design		Number	100	87	10	100,000	870	1,000
			3. Value chain development project management		Number	100	43	10	50,000	435	500
			4. Climate smart agriculture		Number	200	130	20	75,000	652	1,500
			5. Ecological farming		Number	200	130	20	75,000	652	1,500
			6. Environmental issues in farm and non-farm businesses		Number	200	130	20	75,000	652	1,500
			7. Climate resilient food system development		Number	200	130	20	75,000	652	1,500
			8. Financial product development		Number	140	91	14	75,000	652	1,050
			9. Enterprise management		Number	140	91	14	75,000	652	1,050
	Subtotal						1,009				11,600
							1,513				17,400
				Component 4. Project Management							
I. Investment Costs											

AWPB Activities	Units	Total Design Estimates: Physical	Total Design Estimate: Base costs financial (US $ 1000)	AWPB 2025 Physical Units Planned	Unit Cost (BTk)	Unit Cost (US$)	Budget planned for 2025 (BTk 1000)
A. Studies and surveys							
1. Baseline survey /a	Lumpsum	1	43	1	5,000,000	43,478	5,000
2. Mid-Term survey /b	Lumpsum	1	43		5,000,000	43,478	-
3. Edline survey /c	Lumpsum	1	43		4,356,210	37,880	-
4. Annual Outcome surveys	Number	5	4	-	100,000	870	-
5. Case studies on sub-components	Lumpsum	25	2	-	10,000	87	-
6. Knowledge management products, website design & hosting, Facebook etc.	Lumpsum	1	2	1	200,000	1,739	200
7. Project completion activities	Lumpsum	1	4	-	500,000	4,348	-
8. Project success dissemination national seminar	Lumpsum	2	9	-	500,000	4,348	-
Total Investment Costs			152				5,200
II. Recurrent Costs							
A. Operating cost of Microfinance division (prorata basis - PKSF)	Lumpsum	72	4,445	12	7,100,000	61,739	85,200
B. PMU: Salary & office operating costs - Core officers							
1. Project Coordinator	Person-Months	72	432	12	690,000	6,000	8,280
2. Deputy Project Coordinator (Food Systems)	Person-Months	72	288	12	460,000	4,000	5,520
3. Microfinance Specialist	Person-Months	72	213	12	340,000	2,957	4,080

			AWPB Activities	Units	Total Design Estimates: Physical	Total Design Estimate: Base costs financial (US $ 1000)	AWPB 2025 Physical Units Planned	Unit Cost (BTk)	Unit Cost (US$)	Budget planned for 2025 (BTk 1000)
			4. Food System Sector Manager (livestock)	Person-Months	72	213	12	340,000	2,957	4,080
			5. Food System Sector Manager (Fisheries)	Person-Months	72	213	12	340,000	2,957	4,080
			6. Food System Sector Manager (Horticulture)	Person-Months	72	213	12	340,000	2,957	4,080
			7. Food System Sector Manager (Non-farm sector)	Person-Months	72	213	12	340,000	2,957	4,080
			8. Senior Programme Manager (Nutrition, Gender and Inclusion)	Person-Months	72	213	12	340,000	2,957	4,080
			9. Senior Programme Manager (Climate Change, Environment and SECAP)	Person-Months	72	213	12	340,000	2,957	4,080
			10. Programme Manager (Training and Capacity Building)	Person-Months	72	163	12	260,000	2,261	3,120
	Subtotal					2,373				45,480
	C. PMU: Salary- Contractual staff members									
			1. Senior Programme Manager /d	Person-Months	72	175	12	280,000	2,435	3,360
			2. Programme Manager (ICT) - Contractual	Person-Months	72	125	12	200,000	1,739	2,400
			3. Senior Programme Manager (Finance & Accounts) /e	Person-Months	72	175	12	280,000	2,435	3,360
			4. Asst Manager (Accounts) - Contractual	Person-Months	72	106	12	170,000	1,478	2,040

			AWPB Activities	**Units**	**Total Design Estimates: Physical**	**Total Design Estimate: Base costs financial (US $ 1000)**	**AWPB 2025 Physical Units Planned**	**Unit Cost (BTk)**	**Unit Cost (US$)**	**Budget planned for 2025 (BTk 1000)**
	Subtotal					582				11,160
	D. Annual increment for contractual staff members (5%)			Lumpsum		29				558
	E. Severance pay - contractual staff members (@one month's pay per year of service)			Lumpsum		49				-
	F. Overhead expenses (20%)			Lumpsum		1,496				28,480
Total Recurrent Costs						8,974				170,878
						9,125				186,078
										Budget planned for 2025 (BTk 1000)
			Total AWPB							
			Investment Cost							4,666,250
			Recurrent Cost							170,878
			Total							4,837,128
			AWPB by Disbursement Categories							
			STUDIES_DA							5,650
			CREDIT_DA							4,485,000
			TRAINING_DA							175,600

			AWPB Activities	Units	Total Design Estimates: Physical	Total Design Estimate: Base costs financial (US $ 1000)	AWPB 2025 Physical Units Planned	Unit Cost (BTk)	Unit Cost (US$)	Budget planned for 2025 (BTk 1000)
			SALARIES_DA							57,198
			OPERATING_COST_DA							113,680
										4,837,128

IFAD
Investing in rural people

Bangladesh

Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition

Project Design Report

Annex 7: Financial Management Assessment

Mission Dates:	22/06/2024 15/09/2024
Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

Asia and the Pacific Division
Programme Management Department

Detailed FM arrangements in the GREEN Project Design Report (PDR) [Annex 7]

I. Overview of Financial Management arrangements

1. As a member of the project design team (PDT), the Finance Officer has completed the assessment of financial management capacity and risks of the Growth For Climate Resilient And Environmental Entrepreneurship And Nutrition (GREEN) project in accordance with PFM guidelines and templates.
2. As part of this assessment, we conducted a series of reviews and meeting with counterparts of the Palli Karma-Sahayak Foundation (PKSF), European Union (EU) delegation in Bangladesh, Rural Microenterprise Transformation Project (RMTP), Promoting Agricultural Commercialization and Enterprises (PACE), and Pathways to Prosperity for Extremely Poor (PPEPP - EU). We also met and discussed with two Partner Organizations (POs), namely Family Development Association (FDA) in Barisal and Grameen Jano Unnayan Sangstha (GJUS) in Bhola and their beneficiaries.
3. According to the 2023 CPI, Bangladesh scored of 24/100 and is ranked 149th out of 180 countries in terms of relative degree of corruption. Bangladesh declined from a score of 28 in 2017 to 26 in 2018 and maintained this score for four years until another decline by one point to 25 in 2022. According to the 2021 PEFA assessment of Bangladesh, key strengths are the completeness of budget documentation presented to parliament, annual performance plans and reports are prepared to monitor service delivery, e-procurement systems. In addition, independent review boards have been established for complaint management and financial reporting is comparable to IPSAS cash. The independence of Comptroller and Auditor General is constitutionally guaranteed, and the legislature makes recommendations after reviewing external audit reports on budget execution. Main weaknesses in the PEFA report include lack of credibility, transparency, and preparation of the budget, as well as some shortcomings in the monitoring of budget execution and in external control, non-financial assets are not fully tracked, and the disposal of assets is reported for only for a few assets. There were also some weaknesses around internal and external audit and financial reporting.
4. The Financial Institutions Division (FID) of MoF and the Palli Karma-Shayak Foundation (PKSF) will be the Executing Agency (EA) and the Implementing Agency (IA), respectively. The Government of Bangladesh established PKSF on 13 November 1989 as a specialized development organization to focus on poverty alleviation through employment generation. PKSF has implemented about 48 programmes/projects and has a network of 287 Partner Organizations in the Upazilas, regions, districts, and communities. PKSF has vast experience implementing donor financed projects in the past and at present. The financiers include the IFAD, EU, AIIB, World Bank, ADB, JICA, GCF, GIZ, etc. PKSF has also managed the completed IFAD funded MFTSP, MFSMFP, FEDEC and PACE projects and ongoing RMTP project set for completion in 2026. The quality of financial management has been highly satisfactory. The project will benefit from being managed by PKSF which although is established by Government, it is incorporated as a company with the governance, management and oversight expected of a private company.
5. Overall, inherent, and residual risks at design are substantial on aggregation of high country, moderate entity, and moderate project risks weighted across the six FM pillars. Mitigating measures would be enshrined in the loan covenants but are not adequate to reduce the residual risk at this time. We expect that the residual risks would become even lower as soon as we assess the impact of the mitigating actions from the first supervision missions.
6. Actions introduced to mitigate risks and from lessons learnt from previous projects in the country include (1) PKSF will fund 100% of the program management costs and ensure prompt operationalization of the PMU and timely recruitment of staff; (2) complete AWPB and PIM, before disbursement, PIM would include clear guidelines that adapt with the project design and activities; (3) utilize suitably customized accounting software already available to PKSF; (4) implement project within the systems of controls and governance at PKSF including internal and external audit. These actions will be included in the loan covenants and are described in more details in section B of this annex.
7. IFAD shall apply a zero-tolerance policy where it has determined, through an investigation performed by the Fund, the borrower, or another competent entity, that fraudulent, corrupt, collusive, or coercive practices have occurred in projects financed through its loans and grants, and it shall enforce a range of sanctions in accordance with the provisions of the applicable IFAD

rules and regulations and legal instruments. The PIM will include anti-fraud and anti-corruption procedures as a component of the financial procedures manual and will include direct/specific reference to the IFAD Anti-Corruption policies and procedures.

II. Project financial profile

8. Project cost: The total project cost is estimated at USD 211.7 million to be financed through: (i) IFAD loan of USD 51.4 million, (ii) a financing gap of USD 18.6 million potentially to be sourced through subsequent resources cycles (under financing terms to be determined and subject to internal procedures and subsequent Executive Board approval) or by cofinancing identified during implementation.
9. PKSF will contribute USD 69.6 million, (iv) The POs of PKSF will contribute USD 71.5 million, and (iv) the private sector will leverage USD 0.6 million. The project will be implemented over a six-year implementation period. The financing gap of US$18.5 million may be sourced through subsequent resources cycles (under financing terms to be determined and subject to internal procedures and subsequent Executive Board approval) or by cofinancing identified during implementation.
10. IFAD financing on blend terms will be wholly applied to component 2: Financial services for value chain participants, PKSF contribution will finance the project management costs and some portion of the three components, POs will contribute to financing the three components and beneficiary contribution will be wholly in-kind and applied to component 1 for the training activities.
11. Government counterpart financing is not envisaged on this project. The IFAD Loan is fully on-lent to PKSF. Counterpart fundings are from PKSF, Private Sector, Beneficiaries, Partner Organizations covering all components.
12. The project's goal is to sustainably increase the income, food security, and nutritional status of beneficiary households across selected value chains with the objective of transforming the production system into a sustainable, climate-resilient, and environment-friendly system for the producers and general population in the project areas. The project will have three components with corresponding outcomes, as follows:
    a. Component 1: Climate-resilient and Environment-Friendly Food System Development:
       1.1 Climate-resilient and environment-friendly food system developed in highly climate-vulnerable areas.
       1.2 Climate-resilient and environment-friendly food system developed in moderately vulnerable districts.
       1.3 Healthy diet practices promoted through targeted nutrition education.

    This component be funded by PKSF from its resources and in-kind contribution from selected formal private sector firms in the form of training and technical assistance, which are active as sellers of inputs and machineries, buyers of various products and providers of support services and in the selected value chains.

    b. Component 2. Inclusive Financial Services for Value Chain Participants.
       2.1 Financial inclusion of extremely poor improved through tailored credit products.
       2.2 Seasonal credit for farm and non-farm businesses addressed.
       2.3 Access to regular microcredit for farm and non-farm businesses expanded.
       2.4 Microenterprise loans for business incubation and growth enhanced.

    Total cost USD 185.2 million, of which 51.4 million financed by an IFAD loan, USD 53.8 million financed by PKSF, USD 70 million financed by POs and USD 10 million of Financing Gap)

    c. Component 3: Institutional Capacity Building of Implementing Partners.
       3.1 Capacity of Implementing Partners in Food System enhanced

3.2 Capacity of POs on inclusive financial and non-financial service delivery strengthened

The proposed activities are training of officials of PKSF, POs and other stakeholders on food system development, design and implementation of value chain subprojects, enterprise management, application of ICTs in value chains and financial services, climate change, ecology & environment and nutrition, preparation of policy documents, etc., exchange visits, piloting of small activities etc. Subcomponent 3.1 will be fully funded by PKSF, and the cost of Subcomponent 3.2 will be shared between PKSF and POs.

d. Component 4: Project management costs. Refers to PMU salaries and operating costs to be solely financed by PKSF.

III. Implementation arrangements

The GREEN project will be a non-ADP project of the government. The Financial Institutions Division (FID) of MoF and the Palli Karma-Shayak Foundation (PKSF) will be the Executing Agency (EA) and the Implementing Agency (IA), respectively. A Project Steering Committee (PSC) chaired by Secretary, FID/MOF, will monitor and guide the project, as per practice of the IFAD-funded PACE project. Other members of the PSC will be representatives from Financial Institutions Division (FID), Finance Division (FD), and Economic Relations Division (ERD) of MoF and PKSF .

PKSF will establish a Project Management Unit, integrated within its structure, for overall project management purposes. The PMU will be headed by a Project Coordinator appointed from PKSF's pool of senior officials. The PMU will work with PKSF's Loan Operations Division to implement the financial services programme through POs as per established processes and norms. It will work with POs and selected service providers for the implementation of the value chain component. PKSF’s support divisions such as Audit, Administration, Agriculture, Human Resources, Accounts and Finance, Research, Training, M&E, MIS, and IT will provide relevant services to the project.

PKSF has deputized Dr Abdul Malek (General Manager) as the Project Coordinator (PC) who has coordinated with the design mission along with other officials. The project will be under the Environment and Climate Change Unit headed by a Deputy Managing Director (DMD). The project will be managed by ten (10) officers from PKSF and four (4) officials to be contracted by PKSF. The terms of reference, qualification, and experience of professionals for each such position will be spelled out in the Project Implementation Manual (PIM). The recruitment will follow PKSF’s process as well as IFAD’s service procurement rules. Component 2 will be implemented by PKSF’s Loan Operations Division (LOD) as per its normal procedures, rules, and regulations.

The salaries of contractual officials of the PMU, other management costs, and contribution of PKSF to the management costs have been presented in detail in the project COSTAB.

The IFAD loan for GREEN will be passed on by MoF to PKSF in the form of a loan for the financial services component (component 2). The Component 1, 3 and cost of managing the project will be paid PKSF.

The project will be outside the Annual Development Plan (ADP) and therefore does not require any Development Project Pro-forma (DPP). PKSF will sign a Subsidiary Loan Agreement (SLA) with MoF to receive loan as per the project design report (PDR). The resources under the financial services component will be on-lent by PKSF to POs. The FID will review and clear AWPBs before submission to IFAD for concurrence. To monitor performance and progress towards objectives, IFAD will undertake annual supervision missions.

The management of value chain development activities has evolved under PACE, the on-going RMTP and other IFAD-funded projects. The PDR and Project Implementation Manual (PIM) will further elaborate the management system, emphasis and various activities incorporated in the value chain component. The management system will be further strengthened by capacity building of PKSF and POs.

GREEN will continue to invest in PKSF skills development through training on topics such as climate change and environment and agroecology, business management, financial analysis, value chain analysis, project management, M&E system design, & IT project management. This will be supported by technical assistance and exchange visits.

Annex 7: FM Arrangements in the Project Design Report

Please refer to section IV of this template for detailed financial management and disbursement arrangements

Table 2. Summary FMAQ at design

Summary	Brief description of issues	Inherent Risk at design H/S/M/L	Covenants precedent to disbursement	Residual Risk[1] H/S/M/L	Agreed Mitigation Measures
A. Inherent risk assessment pillars					
i. Country level	Bangladesh has a Corruption Perception Index (CPI) score of 24/100 and is ranked 149th out of 180 countries in terms of relative degree of corruption. Bangladesh declined from a score of 28 in 2017 to 26 in 2018 and maintained this score for four years until another decline by one point to 25 in 2022. The further decline in 2023 to a score of 24 is the first time the country has seen two consecutive year-on-year decline. Additionally, the Global Corruption Barometer (GCB) shows that 72% of people think government corruption is a big problem and 24% of public service users paid a bribe in the previous 12 months. According to the 2021 PEFA assessment of Bangladesh, key strengths are the completeness of budget documentation presented to parliament, annual performance plans and reports prepared to monitor service delivery, e-procurement which now	H	Set up of a dedicated PMU and its operationalization will be well detailed in the financing agreement.	N/A	Set up of a dedicated GREEN PMU with adequate financial management and implementation arrangements to minimize the identified FM risks.

[1] The residual risk may take into consideration the effects of mitigating actions included in the FA covenants precedent to disbursement. Therefore, the residual risk may be slightly different from the inherent risk in case we have evidence that the actions included in the FA covenants have shown to be effective in that specific context.

	covers 70% of procurement. In addition, independent review boards have been established for complaint management and financial reporting is comparable to IPSAS cash. The independence of Comptroller and Auditor General is constitutionally guaranteed, and the legislature makes recommendations after reviewing external audit reports on budget execution. Main weaknesses in the PEFA report include: Lack of credibility, transparency, and preparation of the budget, as well as some shortcomings in the monitoring of budget execution and in external control: ○ Budget execution deviates significantly from the initial budget. ○ No extra-budgetary operations are reported in the fiscal reports. ○ The government has made little budget information available to the public. The monitoring of the sub-national governments (SNGs) is lacking. ○ Non-financial assets are not fully tracked, and the disposal of assets is reported for only for a few assets. There are also weaknesses around internal and external audit and financial reporting: ○ There is no formal internal audit at the budget execution level. Only ex-post reviews of				

	financial compliance have been conducted by the MDAs. ○ There are delays in certifying financial reports and weakness in the management of advance accounts. ○ Financial statements are submitted more than 9 months after the end of the period, and there is a significant backlog of audit reports. Although there is a follow-up system in line with one of the external audit's recommendations, it is not always enforced, and parliamentary committee reports are not available to the public.				
ii. Entity level	The Financial Institutions Division (FID) of MoF and the Palli Karma-Shayak Foundation (PKSF) will be the Executing Agency (EA) and the Implementing Agency (IA), respectively. A Project Steering Committee (PSC) chaired by Secretary, FID/MOF, will monitor and guide the project, as per practice of the IFAD-funded PACE project. Other members of the PSC will be representatives from Financial Institutions Division (FID), Finance Division (FD), and Economic Relations Division (ERD) of MoF and PKSF. The Government of Bangladesh established PKSF on 13 November 1989 as a specialized development organization to focus on poverty alleviation through employment generation. The vastly experienced PKSF has implemented about 48 programmes/projects and has a network of 287	M	Set up a dedicated PMU that is staffed with appropriate technical specialists.	N/A	Ensure there are tailored FM procedures and implementation arrangements that minimize the country and entity level risks. Ensure project is subject to the governance, internal controls, and operational processes of PKSF.

	Partner Organizations in the Upazilas, regions, districts, and communities. The project will benefit from being managed by PKSF which although is established by Government, it is incorporated as a company with the governance, management and oversight expected of a private company. There is a Governing Body, under the control and oversight of the General Body, is primarily responsible to pursue and help achieve the goals of Palli Karma-Sahayak Foundation (PKSF). It ensures financial control of the Foundation, including the approval of programs and projects and sanctioning of grants, donations, loans, or other financial assistance to the Partner Organizations (POs). The Governing Body consists of seven members. The Government of Bangladesh (GoB) nominates the Chairman and two other members. The General Body, in its AGM, elects three other members. The Governing Body, in consultation with the Government, appoints the Managing Director (MD) who becomes an ex-officio member of both the Governing Body and the General Body of PKSF. The PKSF General Body oversees all policy decisions of the Foundation. It oversees and advises on measures and initiatives undertaken to establish and ensure the core goals of PKSF are achieved. It approves the Annual Budget along with the audited accounts of the institution. It also reviews the PKSF Annual Report as summarily presented by the				

	Governing Body. The General Body meets twice a year. The General Body may consist of a maximum of 25 members. Out of them, the Government of Bangladesh (GoB) nominates a maximum of 15 members, including the Chairman who must not be in active Government service. The General Body, in the AGM, nominates the remaining 10 members. They are representatives of the PKSF's Partner Organizations (POs) and/or private individuals. It should be mentioned that all members of the Governing Body are the members of the General Body as well. PKSF has vast experience implementing donor financed projects in the past and at present. The financiers include the IFAD, EU, AIIB, World Bank, ADB, JICA, GCF, GIZ, etc. PKSF has also managed the completed IFAD funded MFTSP, MFSMFP, FEDEC and PACE projects and ongoing RMTP project set for completion in 2026. The quality of financial management has been highly satisfactory. PKSF will establish a Project Management Unit (PMU) headed by a senior official from its pool of core officials as the Project Coordinator (PC) to lead implementation of the project. The project will hire the necessary contractual officials including FM Officers through a competitive recruitment. Special consideration should be given to the Officers of the recently concluded PACE subject to history of satisfactory performance.				
iii. Project level	The project aims to enhance the income and employment of poor households in rural areas,	M		N/A	Specific financial risks assessments and mitigation should be conducted by PKSF. The analysis and

	especially in climate-vulnerable districts, through a combination of appropriate financial and non-financial services in selected farm and non-farm value chains suitable for respective areas. Project is funded with IFAD financing, PKSF, MFIs (POs) and beneficiaries. There is a strong interest by the EU/EIB on funding additional needs of the project. However, there is no definitive progress at this point to include in the design. PKSF now has over 280 Partner Organisations (PO). Each PO is registered under the Micro Credit Regulatory Authority (MRA). MRA closely monitors POs activities. POs management comprises of two important bodies as per its Charter/Articles of Association: the General Body and the Governing Body/Executive Committee to ensure the good governance and transparency in its activities. Due to the regular intervention of PKSF in PO activities, particularly in the implementation of project financed through PKSF, it is evident that there are significant improvements in governance at PO level. The POs are still at varying levels of capacity and governance systems; it will be imperative to converge at a minimum acceptable standard to minimize risks at the PO level. For the total project costs, financial services for value chain participants comprising mostly loans and a small portion of grant accounts for 93%, ecology and environment friendly food system				action plan to mitigate financial risks arising from the financial services should be shared with IFAD. Capacity building on the non-financial services should be included in the start-up activities to be funded by PKSF. Modalities for the oversight and supervision of the POs should continue to be maintained considering the current practice on PACE and RMTP. Additionally, PKSF should prescribe and ensure a minimum standard of governance, controls including internal audit, accounting & financial reporting, and audit for the POs.

	development 4%, capacity building 1% and project management costs at 2%. On IFAD Loan, financial services accounts for 100%. IFAD will not contribute to the other components including programme management as this would be mostly financed with PKSF contribution. Although, financial services including credit and grant facilities pose a high level of risks, PKSF is vastly experienced in the management of these financial services with adequate levels of staff and organizational capacity, oversight, supervision, controls, and audit. There are adequate guidelines for the financial services and a strong system of internal audit. These measures minimize the risks arising from the financial services. There are potential implementation risks on the non-financial services components of the project; this arises because PKSF has typically focused on financial services and developed capacity and comparative advantage in this area. There is a separate component focused on capacity building in this regard. The timing of the capacity building (1% of project) could therefore be impactful on the ecology and environment friendly food system development component (4%).				
B. **Control risk assessment pillars**					

1. Organization and Staffing	There may be delays in recruiting and filling vacant positions with suitably experienced and qualified personnel. Staff recruited for the project may not be conversant with the financial reporting requirement of IFIs such as IFAD.	M	Recruitment of key project staff (including finance personnel) would be set as condition precedent to disbursement. Implementation arrangements including relevant institutions are to be specified in the financing agreement.	M	Leverage the organizational structure of the closing PACE project as much as possible, including due consideration for the key staff subject to satisfactory performance and due processes. Recruitment of key project staff is subject to IFAD NO.
2. Budgeting	Program commitments on activities may overlap multiple periods. There is a risk that payments are made for activities covered in another period's AWPB. This is especially so with the lending activities where processes may commence in one financial period while actual disbursements may be made in another period. Budget monitoring at management level is weak when there is no cross-functional review of implementation progress. Qualitative explanations are not provided along with budget variance analysis submitted with quarterly IFRs.	M	IFAD financed category amounts and percentages should be clearly detailed in schedule 2 of the FA. IFAD NO for the first 18-month AWPB would be a condition precedent to disbursement.	M	Due attention should be given to ensure uncompleted activities in a prior year are reflected in the AWPB during the year of implementation. In line with best practice, project should endeavour to submit the AWPB to IFAD 90 days before commencement of the period to ensure approval is received at least 60 days before the commencement of the year. Budget monitoring and encumbrance functionality would be required during the project accounting software installation. Qualitative variance explanations must be provided along with quarterly IFRs.
3. Funds flow and Disbursement Arrangements	The Government authorization to spend from the designated account may be delayed thereby impacting implementation.	S	Key start-up operational activities including the necessary Government approvals	S	Project should be proactive to ensure enough balance is available in the operational accounts to minimize the disruptions to project operations where there are delays in Government authorization.

	Lack of experience of PKSF and its POs on the non-financial services components of the project may impact the achievement of overall project achievements. Weak capacity at lower levels of implementation such as at the community organizations (COs), beneficiary groups and other sub-national partner organizations (POs). Heavy reliance on cash transactions at the community and beneficiary levels raises the risk of misappropriation of cash where additional controls and verifications are not introduced.		and operationalization of the PMU would be set as conditions precedent to disbursement. FA to clearly outline the flow of funds/disbursement arrangements.		There is some non-financial services capacity at PKSF that needs to be cascaded to the POs. Capacity building on the non-financial services should be included in the start-up activities to be funded by PKSF. Modalities for the oversight and supervision of the POs should continue to be maintained considering the current practice on PACE and RMTP. Additionally, PKSF should prescribe and ensure a minimum standard of governance, controls including internal audit, accounting & financial reporting, and audit for the POs.
4. Internal Controls	Contracts and MoUs with implementing partners may be missing key clauses on internal controls and reporting requirements as required by IFAD. Method of cost apportionment among the various projects in PKSF may result in disproportionate charge to some projects. Internal controls weaknesses among some of the POs may result in financial risks to the project funds and the achievement of project objectives.	S	Requirement of IFAD NO for the project PIM (including financial management arrangement) would be a condition precedent to disbursement. Internal audit arrangements would be documented in the FA.	S	The PIM will include anti-fraud and anti-corruption procedures as a component of the financial procedures manual and will include direct/specific reference to the IFAD Anti-Corruption policies and procedures. The project will operate within the robust framework of internal controls and audit already instituted within PKSF. The framework of financial and administrative procedures of PKSF will also apply subject to conformance with IFAD requirements. A few internal control measures will be implemented to mitigate risks of internal controls failure such as (i) monthly bank reconciliation; (ii) budgetary controls over each transaction. (iii) maintenance of Fixed Asset Registers and verification of assets randomly/periodically. (iv) complete documentation of activities especially at the beneficiary level and

					random/periodic inspection to test credibility of reporting by implementing partners. (vi) Documentation of the methodology and calculation of shared/apportioned costs. Details will be provided in the PIM. Supervision missions and audit exercises would specifically examine whether the project is in full compliance with these internal control requirements.
5. Accounting and Financial Reporting	Accounting software not sufficiently customized to meet project needs and IFAD requirement. This may also result in discrepancies between accounting records and the financial reports. Financial reporting at a few POs still rely on manual and paper records. Manual and paper records are subject to higher risks of errors and manipulations. Additionally, important data and information may be permanently lost in the event of physical damage.	M	Installation of appropriate accounting software would be a condition precedent to disbursement.	M	The fully customized Accounting Software already in use at PKSF for RMTP will be utilized and the finance team trained on its use. Financial reports should be auto generated from the accounting software. POs should be fully brought on board the digitization drive of PKSF. All POs shall maintain electronic records and utilise an appropriate financial software. PMU shall submit to IFAD; Quarterly Interim Financial Reports within 30-day of period end, annual unaudited financial statements within 4-month of year end and annual audited Financial Statements within 6-month of year end. Reports shall be compliant with IFRS standards and IFAD requirements.
6. External Audit	External auditors should be selected in compliance with the IFAD Handbook on Auditing and Financial Reporting. PKSF should ensure competitive selection process for the auditors at the end of every four years.	L		L	Ensure annual audit meets the requirements of the IFAD Handbook on Auditing and Financial Reporting: • Audit by an independent Chartered Accountancy firm in accordance with International Standards on Auditing (ISA) • Annual audit TOR should be submitted to IFAD for NO

					• Selection of auditors should be competitive and tendered every four years. • Submit unaudited financial statements within four months of financial year end. • Submit audited financial statement within six months of financial year end. POs will be required to submit audit reports to PKSF.
Overall FM Risk @ design[2]	Overall, inherent FM risk at design is substantial. We have weighed the high-country FM risk against moderate entity and project specific risks weighted across the six FM pillars. Key mitigating measures would be enshrined in the financing agreement and executed at implementation to reduce the residual risk. We expect that the residual risks would become lower as soon as we assess the impact of the mitigating actions from the first supervision mission.	M			

[2] The Final Risk at design should reflect a combined consideration of inherent and control risks for the project.

IV. Financial Management and Disbursement Arrangements

a) Financial management organization and staffing

PMU will have an adequately staffed FM section. Finance Manager and other project officers will be competitively recruited on market-based salary and selection will require a No Objection from IFAD. FM staff from the recently concluded IFAD funded PACE project should be invited to participate in the recruitment process. Finance Manager will be assisted in his functions by two competitively recruited Account Officers with reporting to the Deputy Project Coordinator, Financial Services. Project will have largely centralized FM arrangements fully managed at PMU level. Implementation in the districts and communities are heavily reliant on the Partner Organizations therefore reducing the HR needs of PKSF at those levels. It would imperative that PKSF ensures that the POs have the requisite capacity to manage and implement the activities at those levels.

All finance staff to undertake IFAD Online Finance Management practices and procedures course and IFAD anti-corruption training. In addition to that, finance staff to attend induction sessions on IFAD financial management requirements as conducted by IFAD Finance Officer. Detailed job description and terms of reference as well as organigram for FM Section staff are provided in PIM.

b) Budgeting

PKSF as the Project Implementing Agency shall prepare a draft Annual Work-plan and Budget (AWPB) for each project year. Each draft AWPB shall include, inter alia, detailed description of planned project activities during the coming project year and a procurement plan and the sources and uses of funds. All project activities will be guided by Annual Workplans and Budgets, based on PDR and Financing Agreement and duly approved by PKSF Management and IFAD No Objection. The first 18 months AWPB will be developed as part of the design. Subsequent AWPBs will be subject to clearance within the project governance systems of PKSF and submitted to IFAD NO later than by 2 months before the commencement of the fiscal year.

AWPB will be prepared by PMU following a consultative process with POs. Plan preparation will ensure that PKSF, PO and beneficiaries' contributions are reflected in the budget. For ease of planning and monitoring, AWPB for each component will be further elaborated in quarterly physical and financial targets which shall become the basis for monthly and quarterly planning and progress reviews. PKSF Management will conduct regular reviews to assess progress against annual plan and approve any required adjustments, revisions, and remedial measures. It is expected that the accounting software is sufficiently customized to enable budget encumbrance, monitoring and controls.

c) Disbursement Arrangements and Flow of Funds.

IFAD funds would be disbursed to a designated account with the Bangladesh Bank. Funds would be transferred from the project designated account to the Program BDT operational account from where funds are further transferred to the bank accounts of Partner Organizations for dissemination to end beneficiaries. There will be separate accounts for each financier. The DA

activity reports will show the balances of IFAD and other international co-financiers such as EU. This is reported in the quarterly IFRs and annual financial reports.

Government counterpart financing is not envisaged on this project. The IFAD Loan is fully on-lent to PKSF. Counterpart contribution is envisaged from PKSF, Private Sector, Beneficiaries, Partner Organizations etc. covering all components. Adequate reporting mechanism exists to report and trace counterpart financing. Counterpart financing are also reported in the IFR and annual financial reports.

The Revolving Fund modality under the report-based disbursements system will be the mechanism used for withdrawing funds from IFAD financings. Interim Financial Reports (IFRs) package will be used as a basis of submission of withdrawal applications to IFAD. The IFRs package and requirement will be included in the Financial Management and Financial Control Letter (FMFCL) and the PIM during the implementation period. The first advance should be equal to or less than the forecast amount of IFAD financed expenditures approved in the Annual Work Plan and Budget (AWPB) for the period of six months. Further advances to the Designated Account will be made for the next reporting period based on the AWPB or expenditures forecast. Each quarter the PMU shall submit the IFRs package (using the templates included in the FMFCL and the PIM) to report on the financial performance and to justify the specified percentages of the withdrawn advances as indicated in the FMFCL.

PKSF now has over 280 Partner Organisations (PO). Each PO is registered under the Micro Credit Regulatory Authority (MRA). MRA closely monitors POs activities. POs management comprises of two important bodies as per its Charter/Articles of Association: The General Body and the Governing Body/Executive Committee to ensure the good governance and transparency in its activities. Due to the regular intervention of PKSF in PO activities, particularly in the implementation of project financed through PKSF, it is evident that there are significant improvements in governance at PO level. The POs are still at varying levels of capacity and governance systems; it will be imperative to converge at a minimum acceptable standard to minimize risks at the PO level.

The flow of funds to implementing partners will be further elaborated in PIM and will be reflected in their contracts. Flow of funds will be based on the activities and expenses agreed in the MOUs & contracts signed between PMU and IPs. Based on MOUs and AWPB targets and phasing, PMU may provide initial one quarter advance to IPs. Subsequent releases will be based on submission of account and invoices against the advance, adjustment of any unspent advance, and release of next tranche.

IPs will render quarterly financial statements of expenses and cash balance, to the District Offices and PMU. PMU Finance Manager will cause inspection of implementing partner accounts at least once every six months. Detailed financial management framework for PMU and IPs is provided in PIM.

d) Internal Controls and Internal audit arrangements.

The project will operate within the robust framework of internal controls and audit already instituted within PKSF. The framework of financial and administrative procedures of PKSF will also

apply subject to conformance with IFAD requirements. The internal control arrangements for the project will include: (a) competent personnel with clear responsibilities and adequate segregation of duties; (b) adequate financial records management system with complete and accurate audit trail; (c) physical safeguard including regular verifications and controls for assets and financial documents of the project; (d) independent reviews; (e) clear procedures for timely monitoring and financial reporting from the Partner Organizations of the project.

The Internal Audit Unit of PKSF will cover project activities including at the PMU and PO level. There would be regular field visits and verification of the project activities at all implementation levels. The annual workplan which includes the audit of the POs on a rotational basis would be reviewed and approved by the PKSF MD. There would also a recruitment of Special Auditors from private audit firms – Chartered Accountants to complement the work program of the internal auditors of PKSF. All programs of PKSF including GREEN would be covered in the scope of work of the IAU.

The PIM will include anti-fraud and anti-corruption procedures as a component of the financial procedures manual and will include direct/specific reference to the IFAD Anti-Corruption policies and procedures. The internal controls and funds flow arrangements would ensure there are co-signatories to the project accounts and that the Finance Manager is provided access to ICP and bank account information of the project.

Supervision missions would specifically examine whether the project is in full compliance with these internal control requirements.

e) Accounting Systems and Financial Reporting mechanisms.

Project accounting will be managed in accordance with International Financial Reporting Standards (IFRS). The fully customized Accounting Software already in use at PKSF will be utilized and the finance team trained on its use. Financial reports should be auto generated from the accounting software. POs should be fully brought on board the digitization drive of PKSF. All POs shall maintain electronic records and utilise an appropriate financial software. The accounting system will manage and track funds in accordance with source of funds, component allocations, spending entities and disbursement categories. Financial reports should be auto generated from the accounting software.

PMU will be required to submit three types of financial reports to IFAD. Interim quarterly financial reports within 30 days of close of each quarter, indicating progress under each component and expenditure category, duly reconciled with the bank, and signed by Finance Manager and PD. Detailed unaudited financial reports for each financial year within four months of the close of the financial year. And finally, the audited Financial Statements within 6 months of the close of the financial year (end of December each year).

f) External Audit

PKSF will ensure the GREEN project complies with the requirements of the IFAD Handbook on Auditing and Financial Reporting. PKSF will ensure:

- Conduct of annual audit by an independent Chartered Accountancy firm in accordance with International Standards on Auditing (ISA)

- Conduct of annual audit terms of reference (TOR) to IFAD for NO
- Select auditors through competitive procurement process. A tender for audit services should be issued at least every four years, with the incumbent able to apply.
- Submit unaudited financial statements within four months of financial year end.
- Submit audited financial statement within six months of financial year end.

The Partner Organizations will be required to submit annual audit reports to PKSF.

V. Implementation Readiness.

Table 3: FM Actions to mitigate risks.

S/N	Actions / Covenants[3]	Responsible Party / Person	Target Date /
1	Set up of a dedicated GREEN PMU with adequate financial management and implementation arrangements to minimize the identified FM risks.	PKSF	After project entry into force/disbursement conditions
2	Implementation arrangements including interactions with the relevant Partner Organizations that are implementing partners should be specified in the financing agreement.	IFAD/PKSF	At negotiation and signing of FA
3	Recruitment of key project staff (including finance personnel) would be set as condition precedent to disbursement.	PKSF	After project entry into force
4	IFAD financed category amounts and percentages should be clearly detailed in schedule 2 of the FA.	IFAD/PKSF	At negotiation and signing of FA
5	IFAD NO for the first 18-month AWPB would be a condition precedent to disbursement.	IFAD/PKSF	At negotiation and signing of FA
6	Requirement of IFAD NO for the project PIM (including financial management arrangement) would be a condition precedent to disbursement.	PKSF	After project entry into force/disbursement conditions
7	Utilization of appropriate accounting software would be a condition precedent to disbursement.	PKSF	After project entry into force/disbursement conditions
8	FM staff should be orientated to comply with IFAD's requirements in their work— including those relating to IFAD's Anti-corruption policy.	IFAD/PKSF	After project entry into force/disbursement conditions
9	Financing agreement will include the IFAD anti-fraud and anti-corruption procedures.	IFAD	At negotiation and signing of FA

VI. FM Supervision plan

IFAD will conduct two full supervision missions in the first year of implementation to assess project progress train project staff in key aspects of management, identify any bottlenecks and provide solutions. Frequency of subsequent supervision and implementation support missions will be determined based on project progress and level of needed support identified.

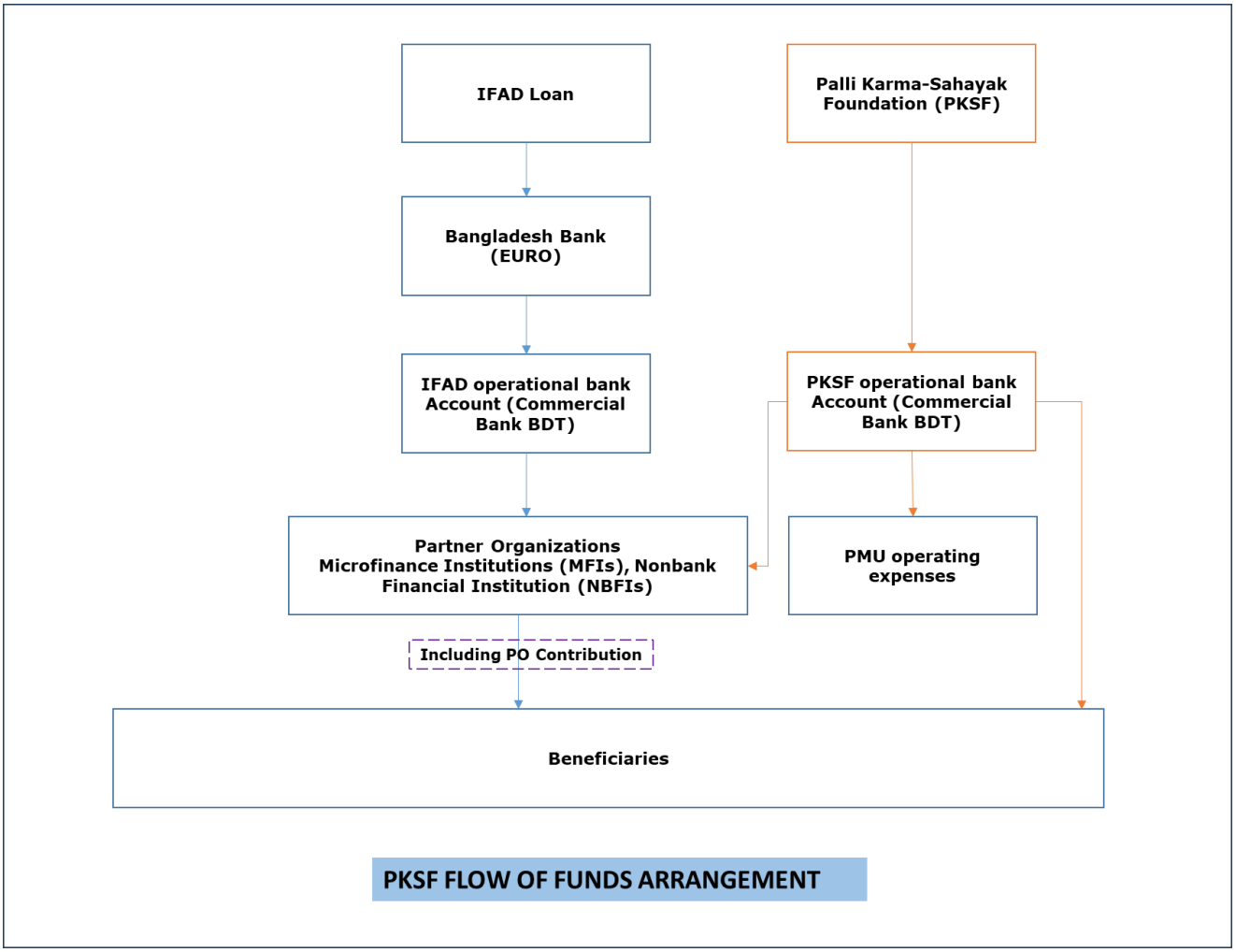
[3] Indicate if covenants are required in the FA for each of these: effectiveness condition or disbursement condition or dated covenant.

The Finance Officer or a delegated Financial Management Specialist (FMS) will participate in the IFAD Supervision mission at least once a year. Additionally, FO or FMS may participate in implementation support or special purpose missions every year as required and depending on the risk levels and project circumstances.

The missions will define financial management ratings and ensure compliance with the IFAD's requirements. IFAD will also assess and monitor the adequacy of the 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 Aide Memoire communicated to the Government and in the published supervision mission reports.

Appendix 1: Flow of funds

Figure 3: Flow of Funds Chart



Appendix 2: FMAQ

FMAQ has been uploaded to FMDB.

Annex to the Project Design Report

The Project Implementation Manual is provided in the PDR with FM inputs.

Investing in rural people

Bangladesh

Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition

Project Design Report

Annex 8: 18-month Procurement Plan

Mission Dates:	22/06/2024 15/09/2024
Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

Asia and the Pacific Division
Programme Management Department

GREEN_ 18 Month Procurement Plan

Country:	Bangladesh
Project Name:	Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition (GREEN)
Project ID:	Loans Number: ..... and .....
Version	1.0
Version Date	11-Jul-24

Procurement Category	Plan	Actual
Goods	2 000.00	-
Works	-	-
Consulting Services	193 925.00	-
USD	**195 925.00**	**-**

Review Thresholds [Procurement Arrangement dated on 09 May 2023]

Review	Thresholds			
	Goods and Goods-related Non-Consulting Services	Works	Firms - Consulting Services	Individuals - Consulting Services
Prior Review	≥ US$ 350,000	Not Envisaged in the Project	≥ US$ 250,000	≥ US$ 50,000
Post Review	< US$ 350,000	Not Envisaged in the Project	< US$ 250,000	< US$ 50,000

All Direct Contracting of an amount of above USD 5,000 and Single-Source Procurements of an amount of USD 5,000 or less are subject to Prior Review. Recruitment of all Individual Consultants USD 50,000 or more are Prior Review. Notably, Recruitment of Project Procurement related Staffs is subject to Prior Review. The project has no works activities. (US$ 1 = BDT 115)

Procurement Method Thresholds

	Shopping	LCB	NCB	ICB
Goods and Goods -related Non-Consulting Services	≤ US$ 45,000	Based on Justification	<US$ 2,000,000	≥ US$ 2,000,000
Works	Not Envisaged through the Project	Not Envisaged through the Project	Not Envisaged through the Project	Not Envisaged through the Project
Consulting Services and related Non-Consulting Services	**ICS**	**CQS**	**FBS/LCS**	**QCBS**
Individuals	Any value			
Firms		US$ 250,000 or less	< US$ 1000,000	US$ 100,000 or more

Procurement Plan - GOODS

Version	1.0	**Bangladesh**
Date	11-Jul-24	**Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition (GREEN)**
		Project ID: Loans Number: ..... and

			Basic Data								Pre-Qualification						Bidding Process				Bid Evaluation					Contract Award & Signature	
AWPB/Component Ref	**No.**	**Description***	**Funding**	**Package/ Lot Number**	**Pre-or Post Qualification**	**Prior or Post Review**	**Plan vs. Actual**	**Procurement Method**	**Amount (USD)**	**Plan vs. Actual**	**Prep of PreQual docs**	**No Objection Date**	**PreQual Invitation Date**	**PreQual Closing Date**	**Submission of PreQual Report**	**No Objection Date**	**Prep of BD**	**No-objection Date**	**Bid Invitation Date**	**Bid Closing-Opening**	**Submission Tech Eval Rpt**	**No-objection Date**	**Submission Combined Eval Rpt***	**No-objection Date**	**Plan vs. Actual**	**Date Contract Award**	**Date Contract Signature**
I.A.1	1	Procurement of Design and Printing of Newsletter, Brochure, and Booklet	IFAD	PKSF/GREEN/GD-01	Post-Qual	Post Review	Plan	**NS**	2 000.00	Plan	N/A	N/A	N/A	N/A	N/A	N/A	12-Jan-26	N/A	15-Jan-26	25-Jan-26	2-Feb-26	N/A	N/A	N/A	Plan	9-Feb-26	16-Feb-26
							Actual			Actual							5-Jul-23		9-Jul-23	18-Jul-23	20-Jul-23				Actual	31-Jul-23	31-Jul-23

2 000.00	Plan
	Actual

Procurement Methods

National Shopping	**NS**
International Shopping	**IS**
National Competitive Bidding	**NCB**
International Competitive Bidding	**ICB**
Limited (International) Bidding	**LIB**
Direct Contracting	**DC**

* Only required when two-envelope system is used

Procurement Plan - WORKS (The Project is not envisaged any works)

Version	1.0
Date	11-Jul-24

Bangladesh
Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition (GREEN)

Project ID: Loans Number: ..... and

			Basic Data								Pre-Qualification						Bidding Process				Bid Evaluation					Contract Award & Signature	
AWPB/Component Ref	№	Description*	Funding	Package/ Lot Number	Pre-or Post Qualification	Prior or Post Review	Plan vs. Actual	Procurement Method	Amount (US$)	Plan vs. Actual	Prep of PreQual docs	No Objection Date	PreQual Invitation Date	PreQual Closing Date	Submission of PreQual Report	No Objection Date	Prep of BD	No-objection Date	Bid Invitation Date	Bid Closing-Opening	Submission Tech Eval Rpt	No-objection Date	Submission Combined Eval Rpt*	No-objection Date	Plan vs. Actual	Date Contract Award	Date Contract Signature
							Plan			Plan															Plan		
							Actual			Actual															Actual		
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							Plan			Plan															Plan		
							Actual			Actual															Actual		
							Plan			Plan															Plan		
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							Plan			Plan															Plan		
							Actual			Actual															Actual		
									0.00	Plan																	
									0.00	Actual																	

No Works Envisaged through the Project

Prepared by: Approved by: No Objected to by:

Procurement Methods

National Shopping	NS
International Shopping	IS
National Competitive Bidding	NCB
International Competitive Bidding	ICB
Limited (International) Bidding	LIB
Direct Contracting	DC

* Only required when two-envelope system is used

Procurement Plan - CONSULTING

Version	1.0	**Bangladesh**
Date	11-Jul-24	**Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition (GREEN)**

Project ID: Loans Number: ..... and .....

			Basic Data							EOI Shortlist Procedure						Proposal Process				Evaluation					Contract Award & Signature			
Component Ref	**№**	**Description***	**Funding**	**Shortlist (Yes|No)**	**Prior or Post Review**	**Plan vs. Actual**	**Procurement Method**	**Amount (USD)**	**Plan vs. Actual**	**Prep of REOI**	**No Objection Date**	**REOI Launch Date**	**EOI Submission Deadline**	**Submission of Shortlist Report**	**No Objection Date**	**Prep of RFP/RCQ**	**No-objection Date**	**RFP/RCQ Launch Date**	**Proposal submission deadline**	**Submission of TER**	**No-objection Date**	**Submission of CER**	**No-objection Date**	**Plan vs. Actual**	**Negotiations completed**	**Submission of Draft Contract and MoN**	**No-objection Date**	**Date Contract Signature**
I.A.1	1	Selection of a Consulting Firm for Conducting " Baseline Study" (Package No:PKSF/GREEN/SD-01)	PKSF	Yes	Post Review	Plan	QCBS	46 000.00	Plan	6-Jan-25	N/A	9-Jan-25	26-Jan-25	9-Feb-25	N/A	12-Feb-25	N/A	16-Feb-25	7-Apr-25	22-Apr-23	N/A	4-May-23	N/A	Plan	26-May-23	1-Jun-25	N/A	13-Jun-25
						Actual			Actual															Actual				
II.C.1	2	Recruitment of Senior Programme Manager (Package No:PKSF/GREEN/SD-02)	PKSF	Yes	Post Review	Plan	ICS	44 225.00	Plan	9-Jan-25	N/A	12-Jan-25	28-Jan-25	12-Feb-25	N/A	N/A	N/A	N/A	N/A	19-Feb-25	N/A	N/A	N/A	Plan	26-Feb-25	2-Mar-25	N/A	6-Mar-24
						Actual			Actual															Actual				
II.C.2	3	Recruitment of Programme Manager (Package No:PKSF/GREEN/SD-03)	IFAD	Yes	Post Review	Plan	ICS	32 025.00	Plan	12-Jan-25	N/A	14-Jan-25	30-Jan-25	16-Feb-25	N/A	N/A	N/A	N/A	N/A	24-Feb-25	N/A	N/A	N/A	Plan	4-Mar-25	9-Mar-25	N/A	12-Mar-24
						Actual			Actual															Actual				
II.C.3	4	Recruitment of Senior Programme Manager-Finance & Accounts (Package No:PKSF/GREEN/SD-04)	PKSF	Yes	Post Review	Plan	ICS	44 225.00	Plan	15-Jan-25	N/A	19-Jan-25	4-Feb-25	18-Feb-25	N/A	N/A	N/A	N/A	N/A	25-Feb-25	N/A	N/A	N/A	Plan	4-Mar-25	10-Mar-25	N/A	16-Mar-24
						Actual			Actual															Actual				
II.C.4	5	Recruitment of Assistant Manager-Accounts (Package No:PKSF/GREEN/SD-05)	PKSF	Yes	Post Review	Plan	ICS	27 450.00	Plan	19-Jan-25	N/A	22-Jan-25	5-Feb-25	19-Feb-25	N/A	N/A	N/A	N/A	N/A	26-Feb-25	N/A	N/A	N/A	Plan	5-Mar-25	10-Mar-25	N/A	16-Mar-24
									Actual																			
																								Plan				
																								Actual				
								193 925.00	Plan																			
									Actual																			

Selection Methods

Quality and Cost-Based Selection	**QCBS**
Quality-Based Selection	**QBS**
Selection by Consultants' Qualifications	**CQS**
Least-Cost Selection	**LCS**
Fixed Budget Selection	**FBS**
Individual Consultants Selection	**ICS**
Sole Source Selection	**SSS**

IFAD
Investing in rural people

Bangladesh

Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition

Project Design Report

Annex 9: Project Implementation Manuals

Mission Dates:	22/06/2024 15/09/2024
Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

Asia and the Pacific Division
Programme Management Department

Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition (GREEN)

Annex 09: Project Implementation Manual

September 2025

Table of Contents

1. INTRODUCTION 4

2. PROJECT OBJECTIVE, COMPONENTS AND LOGFRAME 4

3. PROJECT AREA AND TARGET POPULATION 15

4. PROJECT IMPLEMENTATION APPROACH 16

4.1. COMPONENT 1: CLIMATE-RESILIENT AND ENVIRONMENT FRIENDLY FOOD SYSTEM DEVELOPMENT 17

4.1.1. Value Chain Subcomponent 1.1 and 1.2: Implementation of Subsector Development Subprojects by Partner Organizations 22

4.1.2 . Subcomponent 1.3: Campaign for healthy and nutritious food. 53

4.2. 56

COMPONENT 2: INCLUSIVE FINANCIAL SERVICES FOR VALUE CHAIN PARTICIPANTS 56

4.3. COMPONENT 3: INSTITUTIONAL CAPACITY BUILDING OF IMPLEMENTING PARTNERS 58

5. MONITORING, EVALUATION AND KNOWLEDGE MANAGEMENT 77

6. FINANCIAL MANAGEMENT SECTION OF PIM 81

7. GREEN PROJECT PROCUREMENT STRATEGY (PPS) 182

1. INTRODUCTION

1. This project implementation manual (PIM) has been prepared to guide the project management unit (PMU) to implement all project activities as per project design documents and annual plan. The PIM should be read in conjunction with the project design report (PDR) with associated Appendices and technical background papers produced during the design process. The separate manuals on Financial Management and Procurement Manual are also part of PIM.
2. Project Implementing Agency: The project will be implemented by PKSF and its partner organizations (POs). Besides, during implementation of the project the PMU/PKSF may engage new and different types of organizations or project participant such as research organizations, academic institutions, testing & certification institutions, regulatory agencies and any other government, non-government and private agencies to achieve objective of the project.
3. The PIM is Annex 9 of the PDR. It will be reviewed by the PMU (PKSF team) and approved by IFAD. The PMU will also seek IFAD's approval for future amendments and revisions.
4. **Important Dates**: The following dates are important for the project:
   - *Financing Agreement*: The Financing Agreement (FA) was signed between IFAD and the Government of Bangladesh (GoB) on ---------- 2025.
   - *Financial Management and Financial Control Arrangements Letter (FMFCL):* IFAD issued a FMFCL to Borrower on ---------- 2026 that mentions in accordance with Article IV of the

     General Conditions, the instructions that govern the withdrawal and use of funds granted under the Project Financing Agreement. These include requirements for the designated account(s) and the project BDT operational account (s), authorized user(s), annual financial reporting and annual audit of the project from Financing Agreement enforce date.

   - **Project duration**: The Project Completion Date is ---------- 2030 and the Financing Closing

     Date is ---------- 2031.

2. PROJECT OBJECTIVE, COMPONENTS AND LOGFRAME

5. The **goal** of the project is "To contribute to climate resilient and inclusive rural transformation through sustainable and equitable economic growth".
6. The **project development objective** is 'sustainably increase income, climate resilience, food security and nutritional status of beneficiary households by enabling healthy diets and improved nutrition behaviours, uptake of technologies and best practices, and enhanced access to capital.
7. **Project Components**: The project has three complementary components as follows:
   - **Component 1: Climate-resilient and Environment Friendly Food System Development**. This component will enable 252,000 extremely poor, transitional poor and enterprising poor in selected values to sustainably expand their businesses to increase income. This component will be funded by PKSF from its resources and a small non-cash contribution from selected formal private sector firms in the form of training and technical assistance. The component will adopt a value chain approach for analyzing farm and non-farm sectors and design project activities in each sector. Broadly, selected crop and high value horticulture, poultry and livestock, pond fisheries and aquaculture, and rural non-farm sectors and associated support services will be included in the project as most of the population are involved in these sectors. It is divided into three subcomponents: Subcomponent 1.1: Climate-resilient and environmentally friendly food system development in vulnerable areas; Subcomponent 1.2: Climate-resilient and environmentally friendly food system development in other districts; and Subcomponent 1.3: Campaign for healthy and nutritious food.

- **Component 2: Inclusive Financial services for value chain participants)**. The outcome of this component is 'Outcome 2: All value chain participants have access to credit that matches business needs.' It is divided into three subcomponents: Subcomponent 2.1: Financial inclusion of the extremely poor; Subcomponent 2.2: Seasonal credit for farm and non-farm businesses (Sufolon); Subcomponent 2.3: Access to Regular microcredit for farm and non-farm businesses (Jagoran); and Subcomponent 2.4: Microenterprise loans for business incubation and growth. All value chain participants will have assured access to credit any time of the year. PKSF and POs will manage the loan component as per their credit policies, which are expected to be revised from time to time to reflect borrowers' needs.
- **Component 3: Institutional Capacity building of implementing partners**. The outcome of this component is 'Outcome 3: Capacity of PKSF and POs enhanced in climate change, environment, and food system development mainstreaming'. The component has two subcomponents: Subcomponent 3.1 3.1 Capacity building of implementing partners in Food System Development; and Subcomponent 3.2 Capacity building of POs on inclusive financial and non-financial services.' The proposed activities are training of officials of PKSF, POs and other stakeholders on food system development, design and implementation of value chain subprojects, enterprise management, application of ICTs in value chains and financial services, climate change, ecology & environment and nutrition, preparation of policy documents, etc., exchange visits, piloting of small activities etc. Subcomponent 3.1 will be fully funded by PKSF, and the cost of Subcomponent 3.2 will be shared between PKSF and POs.

8. **Project duration.** The project is designed for a period of six years, 2026-2031.
9. **Logframe.** The Logframe of GREEN is presented below (Table 1)

Table 1. GREEN Logical Framework

Results Hierarchy	Indicators				Means of Verification		
	Name	**Baseline**	**Mid-Term**	**End Target**	**Source**	**Frequency**	**Responsibility**
Outreach Project outreach in terms of beneficiaries receiving project services and corresponding households and HHs members	**1 Persons reached by project-supported activities**				MIS/MES	semester/annual	PMU
	Males - Males	0	76250	76250			
	Females - Females	0	182083	182083			
	Young - Young people	0	129167	129167			
	Total number of persons receiving services - Number of people	0	258333	258333			
	1.a Corresponding number of households reached				MIS/MES	semester/annual	PMU
	Women-headed households - Households	0	38750	38750			
	Non-women-headed households - Households	0	219583	219583			
	Households - Households	0	258333	258333			
	1.b Estimated corresponding total number of households members				MIS/MES	semester/Annual	PMU
	Household members - Number of people	0	1110832	1110832			
Project Goal To sustainably increase income, climate resilience, food security and nutritional status of beneficiary households by enabling healthy diets and improved nutrition behaviours, uptake of technologies and best	**HHs reporting increase in income**				COI HH survey	BL, MT, End	PMU
	Households - Percentage (%)	0	12	40			
	CI 1.2.8 Women reporting minimum dietary diversity (MDDW)				COI HH Survey	BL, MT, End	PMU
	Women - Number	0	16387	54625			
	Women - Percentage (%)	0	9	30			
	Households - Percentage (%)	0	9	30			

Results Hierarchy	**Indicators**				**Means of Verification**		
	Name	**Baseline**	**Mid-Term**	**End Target**	**Source**	**Frequency**	**Responsibility**
practices, and enhanced access to capital	Households - Number	0	16387	54625			
	Households Member - Number	0	70471	236526			
Development Objective To contribute to climate resilient and inclusive rural transformation through sustainable and equitable economic growth	**2.2.1 Persons with new jobs/employment opportunities**				COI HH survey	BL, MT, PCR	PMU
	Males - Males	0	7750	25833			
	Females - Females	0	7750	25833			
	Young - Young people	0	6200	20667			
	Total number of persons with new jobs/employment opportunities - Number of people	0	15500	51666			
	Average Ability to Recover from Shocks (ATR) among targeted households improves over the project period				COI HH Survey	BL, MT, PCR	PMU
	Average ATR increase - Percentage (%)	0	5	15			
	SF.2.1 Households satisfied with project-supported services				COI HH Survey	MT, End	PMU
	Household members - Number of people	0	266600	888666			
	Households - Percentage (%)	0	24	80			
	Households - Households	0	62000	206666			
	SF.2.2 Households reporting they can influence decision-making of local authorities and project-supported service providers				COI HH Survey	MT, End	PMU
	Household members - Number of people	0	49987	166625			
	Households - Percentage (%)	0	12	40			
	Households - Households	0	11625	38750			
Outcome 1: Climate-resilient and	**3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and practices**					BL, MT, End	PMU

Results Hierarchy	**Indicators**				**Means of Verification**		
	Name	**Baseline**	**Mid-Term**	**End Target**	**Source**	**Frequency**	**Responsibility**
environment-friendly food system developed in highly and moderately climate-vulnerable areas	Total number of household members - Number of people	0	113793	379311	COI HH outcome survey		
	Households - Percentage (%)	0	23	75			
	Households - Households	0	56897	189656			
	Households reporting an increase in annual sales				COI HH Survey	BL, MT, End	PMU
	Household - Percentage (%)	0	9	30			
	Household - Number	0	22759	75862			
Output 1.1: Priority value chains identified and guidelines for PO subprojects developed	**1.1.3 Rural producers accessing production inputs and/or technological packages**				MIS/MES	semester/annual	PMU
	Males - Males	0	5690	18966			
	Females - Females	0	13276	44253			
	Young - Young people	0	9483	31609			
	Total rural producers - Number of people	0	18966	63219			
Output 1.2: Capacity of POs and beneficiaries to implement farm and non-farm value chain interventions enhanced	**1.1.4 Persons trained in production practices and/or technologies**				MIS/MES	semester/annual	PMU
	Total number of persons trained by the project - Number of people	0	75863	252874			
	Young people trained in crop - Young people	0	37931	126437			
	Males trained at least once by the project - Males	0	22759	75862			
	Females trained at least once by the project - Females	0	53104	177012			
	Persons provided assistance for marketing including e-commerce				MIS/MES	semester/annual	PMU
	Total - Number of people	0	75863	252874			
	Male - Number of people	0	22759	75862			
	Female - Number of people	0	53104	177012			

Results Hierarchy	Indicators				Means of Verification		
	Name	**Baseline**	**Mid-Term**	**End Target**	**Source**	**Frequency**	**Responsibility**
	Young - Number of people	0	37931	126437			
Output 1.3: Partnerships between POs and private sector for production-related services established, facilitated, or expanded	**3.1.1 Groups supported to sustainably manage natural resources and climate-related risks**				MIS/MES	semester/annual	PMU
	Total size of groups - Number of people	0	56897	189656			
	Groups supported - Groups	0	2267	7586			
	Males - Males	0	17069	56897			
	Females - Females	0	39828	132759			
	Young - Young people	0	28448	94828			
Output 1.4: Healthy diet practices promoted through targeted nutrition education	**1.1.8 Persons provided with targeted support to improve their nutrition**				MES - GIS	semester/annual	NPCU
	Total persons participating - Number of people	0	75862	252874			
	Males - Males	0	64483	214943			
	Females - Females	0	11379	37931			
	Households - Households	0	75862	252874			
	Household members benefitted - Number of people	0	328483	1094944			
	Young - Young people	0	37931	126437			
Outcome 2: Inclusive and tailored financial services are accessed by rural farm and non-farm actors for value chain upgrading and adaptation investments	**1.2.5 Households reporting using rural financial services**				COI HH survey	BL, MT, End	PMU
	Total number of household members - Number of people	0	77500	258333			
	Households - Percentage (%)	0	100	100			
	Women-headed households - Households	0	11625	38750			
	Households - Households	0	77500	258333			
	CI 1.2.5 Households reporting using rural financial services					BL, MT, End	PMU

Results Hierarchy	Indicators				Means of Verification		
	Name	**Baseline**	**Mid-Term**	**End Target**	**Source**	**Frequency**	**Responsibility**
	Non-women-headed households - Number	0	65875	219583	COI HH survey		
Output 2.1: Number of persons in rural areas benefiting from inclusive and tailored financial services facilitated through the project	**1.1.5 Persons in rural areas accessing financial services**				MES	semester/annual	PMU
	Men in rural areas accessing financial services - credit - Males		76250	76250			
	Women in rural areas accessing financial services - credit - Females		182083	182083			
	Young people in rural areas accessing financial services - credit - Young people		129167	129167			
	Total persons accessing financial services - credit - Number of people		258333	258333			
	1.1.5 Persons in rural areas accessing financial services				MES - GIS	semester/annual	PMU
	Cumulative loan disbursement by Pos over the project period (Taka in Billion) - Money (USD' 000)		23	23			
	Increase in loan outstanding from PKSF to POs (Taka in Billion) - Money (USD' 000)		7	15			
	Increase in loan outstanding from POs to beneficiaries (Taka in Billion) - Money (USD' 000)		12	24			
	Extreme poor loan - Bunia				MES - GIS	semester/annual	PMU
	Men in rural areas accesing financial services - credit (Extreme poor loan - Bunia) - Number	0	12500	12500			
	Women in rural areas accesing financial services - credit - Number	0	50000	50000			
	Young people in rural areas accessing financial services - credit - Number	0	31250	31250			
	Total persons accessing financial services - credit - Number	0	62500	62500			

Results Hierarchy	Indicators				Means of Verification		
	Name	**Baseline**	**Mid-Term**	**End Target**	**Source**	**Frequency**	**Responsibility**
	Cumulative loan disbursement by Pos over the project period (Taka in Billion) - Money (USD' 000)	0	2.93	2.93			
	Increase in loan outstanding from PKSF to POs (Taka in Billion) - Money (USD' 000)	0	1.15	2.3			
	Increase in loan outstanding from POs to beneficiaries (Taka in Billion) - Money (USD' 000)	0	1.4	2.8			
	Seasonal credit for farm and non-farm business (Sufolon)				MES - GIS	semester/annual	PMU
	Men in rural areas accessing financial services - credit - Number	0	25000	25000			
	Women in rural areas accessing financial services - credit - Number	0	58333	12500			
	Young people in rural areas accessing financial services - credit - Number	0	41667	41667			
	Total persons accessing financial services - credit - Number	0	83333	83333			
	Cumulative loan disbursement by POs over the project period (Taka in Billion) - Money (USD' 000)	0	5.85	5.85			
	Increase in loan outstanding from PKSF to POs (Taka in Billion) - Money (USD' 000)	0	2.3	4.6			
	Increase in loan outstanding from POs to beneficiaries (Taka in Billion) - Money (USD' 000)	0	3.45	6.9			
	Regular microfinance (farm and non-farm)				MES - GIS	semester/annual	PMU
	Men in rural areas accessing financial services - credit - Number	0	26250	26250			
	Women in rural areas accessing financial services - credit - Number	0	61250	61250			

Results Hierarchy	**Indicators**				**Means of Verification**		
	Name	**Baseline**	**Mid-Term**	**End Target**	**Source**	**Frequency**	**Responsibility**
	Young people in rural areas accessing financial services - credit - Number	0	43750	43750			
	Total persons accessing financial services - credit - Number	0	87500	87500			
	Cumulative loan disbursment by POs over the project period (Taka in Billion) - Money (USD' 000)	0	8.19	8.19			
	Increase in loan outstanding from PKSF to POs (Taka in Billion) - Money (USD' 000)	0	2.3	4.6			
	Increase in loan outstanding from POs to beneficiaries (Taka in Billion) - Money (USD' 000)	0	4.03	8.05			
	Microenterprise loan for farm and non-farm business				MES - GIS	semester/annual	PMU
	Men in rural areas accessing financial services - credit - Number of people	0	12500	12500			
	Women in rural areas accessing financial services - credit - Number	0	12500	12500			
	Young people in rural areas accessing financial services - credit - Number	0	12500	12500			
	Total persons accessing financial services - credit - Number	0	25000	25000			
	Cumulative loan disbursement by POs over the project period (Taka in Billion) - Money (USD' 000)	0	5.85	5.85			
	Increase in loan outstanding from PKSF to POs (Taka in Billion) - Money (USD' 000)	0	1.73	3.45			
	Increase in loan outstanding from POs to beneficiaries (Taka in Billion) - Money (USD' 000)	0	2.88	5.75			
	Increase in average loan size for extreme poor (%)				MES - GIS	semester/annual	PMU

Results Hierarchy	**Indicators**				**Means of Verification**		
	Name	**Baseline**	**Mid-Term**	**End Target**	**Source**	**Frequency**	**Responsibility**
	% of increase in average loan size - Percentage (%)	0	6	20			
	Percentage of value chain participants receiving a loan				MES - GIS	semester/annual	PMU
	% of value chain participants receiving a loan - Percentage (%)	0	30	100			
	Percentage of extreme poor value chain participants receiving a loan after joining value chain groups				MES - GIS	semester/annual	PMU
	% of extreme poor value chain participants receiving a loan - Percentage (%)	0	24	80			
Outcome 3: Capacity of PKSF, POs and other relevant government institutions on financial services, food systems, and climate resilience enhanced	**PKSF and POs staff perceived and increase in their capacities to provide services**				Qualitative assessment	BL, MT, End	PMU
	Total persons - Number	0	100	250			
	Male - Number	0	70	175			
	Female - Number	0	30	75			
Output 3.1: Government of Bangladesh and PKSF staffs trained on financial product development and delivery, climate change, environment, and value chain/enterprise management	**Number of staff trained**				MES	semester/annual	PMU
	Total - Number	0	40	100			
	Males - Number	0	30	75			
	Females - Number	0	10	25			
Output 3.2: PO officials trained on financial product development and delivery, climate change, environment, and value chain/enterprise management	**Number of staffs trained**				MES	semester/annual	PMU
	Total - Number	0	60	150			
	Males - Number	0	40	100			
	Females - Number	0	20	50			

3. PROJECT AREA AND TARGET POPULATION

10. Project area. Although all 64 districts are included as project areas, the project will prioritize poverty-stricken and climate-vulnerable districts (see Table 2 below). Priority will be given to value chain development proposals that include these districts and subdistricts from these districts. The PMU will inform about the priority at the launching of the project. The PMU will prepare a set of guidelines on the preparation and submission of project proposals from POs.
11. The PMU will adopt the following procedure to advise the POs to select districts/sub-districts:
    - First, POs will identify sub-districts that have: (i) already developed production or business clusters of the selected group of products; and, (ii) the potential to develop production clusters of the selected value chains.
    - Second, POs and PKSF will use available information of poverty and climate vulnerability of the sub-districts (for example, use poverty map produced by WFP/IFAD and local knowledge);
12. The PMU will consider two additional factors: (i) avoid investments in the same value chains in the same Unions/sub-districts already covered by other value chain development projects implemented by PKSF; and (ii) focus on areas where Partner Organizations (POs) have microcredit programs and or will expand microcredit program to ensure value chain financing.

Table 2: Climate vulnerable, poverty-stricken districts

Climate Vulnerable Regions	Districts
Haor region	Kishoreganj, Netrakona, Sunamganj, Habiganj, and Brahmanbaria
Coastal region	Khulna, Bagerhat, Satkhira, Barguna, Patuakhali, Bhola, Lakshmipur, Noakhali, Feni, Chattogram, and Cox's Bazaar
High Barind region	Rajshahi, Naogaon, Chapai Nawabganj, Dinajpur, Joypurhat, Thakurgaon and Panchagar
River char region	Sirajganj, Gaibandha, Jamalpur, Kurigram, Rangpur, Lalmonirhat, Nilphamari, Tangail and Manikganj

13. **Target groups.** The target population includes agricultural laborers, artisans, marginal and small farmers, pond fisheries farming households, other small producers, non-agricultural producers, and poor young men and women. Within these groups, the project will focus on the extremely-poor, the transitional poor, and the enterprising poor. These are characterized below:
    - **Extremely poor** (People living below the lower poverty line): An extremely poor family may not have any agricultural land except a homestead, and sometimes may not even have a homestead but lives on *khas* (public land) land or donated land; poor women headed HHs are overrepresented among this category; They may not have a regular daily or monthly income and mostly rely on agricultural labour. The extremely poor are involved in producing commodities such as poultry and small ruminants. This group is directly targeted by PKSF's pro- poor lending programme (*Buniad*). They will get jobs in microenterprises.
    - **Transitional poor** (People living below the upper poverty line): Mostly marginal farming families who own between 0.5 to 1 acre of land; these HHs sometimes may have other sources of income. This group is targeted by PKSF's household income-generating activities lending programme (*Jagoron*) or seasonal agricultural lending programme (*Sufolon*).

- **Enterprising poor** (People living slightly above the upper poverty line but vulnerable to fall back into poverty): Mostly small farmers who own between 1 to 2.5 acres of land; owners of

  farm and non-farm visible enterprises; families who have regular income from various sources such as business, wage/salary, agriculture, etc. This group is targeted through PKSF's *Sufolon*, and *Agrosor* (micro-enterprise) loans.

14. However, in case of loan products PKSF will follow its existing criteria, which may be updated from time to time. Besides, these criteria may vary from PO to PO and geographical location of respective PO's operational area.
15. **Other potential project participants**: In addition, the project will directly target all other value chain actors, such as input suppliers, advisory service providers, traders and processors.
16. **Participants in value chains**: In a particular value chain producers belonging to all three categories of beneficiaries as well as larger producers may also be doing business and consequently may participate in the project activities. But larger and wealthy participants may not receive any subsidized services that might be offered in a particular situation.
17. Microfinance groups will be the main entry point for value chain activities, although participation will also be open to other producers and micro-entrepreneurs outside these groups. As per POs' regular practices, microfinance groups typically consist of borrowers of all four loan products. POs will make efforts to increase participation of *Buniad* borrowers in these groups.
18. **Targeting strategy**. The project's targeting mechanisms are outlined below:
    - *Geographical targeting*: outlined in Para 13 and Table 2.
    - *Procedural targeting:* existing procedures will be applied for targeting under PKSF's four standard loan products. Standard loan packages will correspond to the financial capacities of the extremely poor, transitional poor and enterprising poor respectively. PKSF's lending policies will be followed for selecting members to provide financial services. Besides, PKSF will update/revise lending policy from time to time.
    - *Direct targeting:* POs will identify and directly target microfinance groups that have the potential to upgrade production and develop market linkages, and that have a higher proportion of ultra-poor borrowers.
    - *Self-targeting:* Micro-finance groups engaged in the selected value chains will have the option of forming into producers' groups with project support.
19. **Targeting Youth**: Youth may be the targeted in the following manner: a) borrowers of ME loan and other loan products from POs; b) trainees of GGAP and HACCP training courses; and c) trainees of other specialized training courses for development local service providers.
20. **Targeting Women**: Women will be main recipients of microfinance services (ME loans and other loans) and also participants of value chains as producers, and sometimes as traders and processors.

4. PROJECT IMPLEMENTATION APPROACH

21. Project implementation approach: The PMU will adopt the following core implementation approach while guiding POs to develop value chain subprojects as well as offering financial services:
    - *Work in clusters and new cluster development*: One of the core elements of the project is to offer services or introduce new technologies in an existing cluster of businesses. The PMU must advice POs to identify successful clusters of business to determine constraints as well as services needed to further develop the clusters and or expand the businesses in another locations (new clusters). This critical step is to reach out to a large number of similar businesses, develop commercially viable support and advisory services and disseminate new technologies and information, and collecting produces for buyers.
    - *Combine microfinance and non-financial services in each value chain:* While designing a value chain subproject involving a specific product or a group of similar products (such as vegetables) the PMU

will ensure that participants receive loans as and when demanded complying with the procedure of POs/PKSF. Since producers' groups will have members of various size and capacity loans will be offered from four PKSF/POs lending windows. However, it is understood that not all value chain participants will need loans or ask for loans as many of them may join the groups for technology, training and accessing market;

- *Transform subsistence producers into microenterprises*: The PMU will introduce management practices, technologies, and support services to improve productivity and expand businesses to create broad economic multiplier effects that transform the rural sector and reduce poverty;
- Business solution for environmental and ecological issues: One of the core aspects of food systems development is to identify by environmental and ecological challenges. The POs will promote business solutions to environmental and ecological problems.
- apply a *nutrition-sensitive approach* to the selection of commodities to be promoted, to ensure better nutrition for producers and consumers;
- *specifically target women* through the selection of commodities/value chains in which women are heavily involved (poultry, livestock, homestead production);
- introduce *compliance with food safety and quality standards* at producer and processor levels, to ensure the supply of safe food for producers and consumers;
- strengthen the *capability of PKSF and POs* as development institutions by leveraging trends in financial services, commercial platforms and new technologies.
- **Partnerships:** PKSF's partnership with its Partner Organizations (POs) is the foundation of outreach and delivery of tailored financial services to beneficiaries. Their long-standing collaboration and experience in rural development and the agricultural sector make them indispensable partners for GREEN. In addition, formal private firms engaged in agricultural value chains will be critical for expanding marketing access and ensuring sustainable transactions. The project will therefore promote establishment of regular contract modalities between project beneficiaries and private firms, with priority given to partnerships with service providers, technology suppliers, market facilitators, and problem-solving institutions capable of addressing specific challenges faced by beneficiaries. Strategic partnerships will be selected based on their potential to enhance value chain performance, sustainability, and market integration. Finally, GREEN will engage with other development initiatives to create synergies, harmonize support modalities, and reinforce beneficiary ownership by avoiding conflicting approaches (e.g. loan vs grant, or beneficiary contribution vs free provision).

4.1. COMPONENT 1: CLIMATE-RESILIENT AND ENVIRONMENT FRIENDLY FOOD SYSTEM DEVELOPMENT

22. Food system. A sustainable food system involves three aspects: profitable of businesses in the whole value chain; protection of environment and ecology in the value chains that may be already in danger or may be adversely affected by new interventions; and improvement of human health & nutrition through production, supply, and consumption of safe and nutritious foods. The last element involves a lot of behavioral changes of the final consumers of various food items that will also influence production and supply.
23. Implementation of Subcomponent 1.1 and 1.2: The implementation of the two subcomponents begin with selection of subsectors (one or more products or group of products in a geographical area).
24. Farm and non-farm sector businesses: The experience from previous (PACE) and on-going RMTP projects shows that the project beneficiaries are expected to be involved in the following farm and non-farm sectors:
    - Fruits and vegetables (the exact commodities may vary with geographical areas and seasons), processing of fruits and vegetables for value addition, and related trading.
    - Spices, oil seeds, and nuts, processing of these commodities for value addition, and related trading.

- Poultry, duck, and livestock farming, processing of meat and milk for value addition, and related trading.
- Pond fisheries, production of processed fish products, and related trading.
- Small-scale processing of agricultural commodities, for example, spice processing, oil seeds processing, food processing, production of fish and dairy products, etc.
- Shoes and leather goods, small-scale metal works, wood and bamboo products, min-garments and tailoring, village-level eco-tourism, restaurants and catering services, transportation, various repair and maintenance services, etc.

Analytical framework for VCD

25. ***Generic Strategy for Income Enhancement.*** Before discussing the selection of specific value chain and design of value chain interventions the following sections will provide insights several important underlining issues. The broad strategy for enhancing household income from current and potential businesses are as follows:

- **Improve productivity** of existing products either by increasing sales revenue through market-related interventions or reducing cost and increasing production through production- related interventions or both of agricultural or non-agricultural businesses. **Productivity can be and should be improved for every type of business in the value chain as depicted in Figure 1.** The experiences from current projects show that both types of interventions will be important in selected subsectors; and
- **Diversify income sources** by introducing totally new types of agricultural products (field or homestead crops, fruits, vegetables, herbs etc), processed products, non-farm products and/or expanding presently small subsectors by creating opportunities for new businesses in the existing or new markets. In such situations, interventions need to be more comprehensive encompassing several areas such as marketing, production, human resources, finance, support services and policy environment.

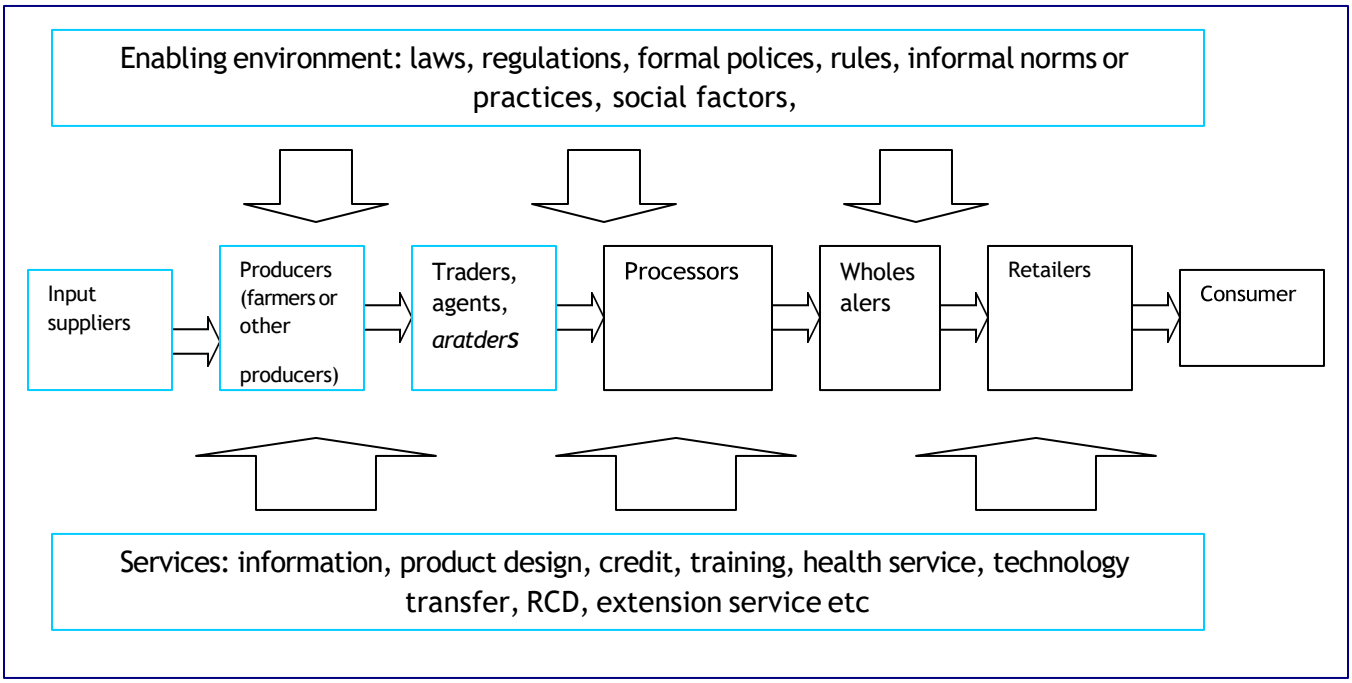


Figure 1: Schematic diagram of a value chain

26. ***Choice of interventions.*** The interventions must have cause-effect relationship so that every intervention leads to changes in one or more stages of the value chains that encourages changes in behavior of producers and other types of businesses and market agents in a sustainable fashion (See Figure 2):

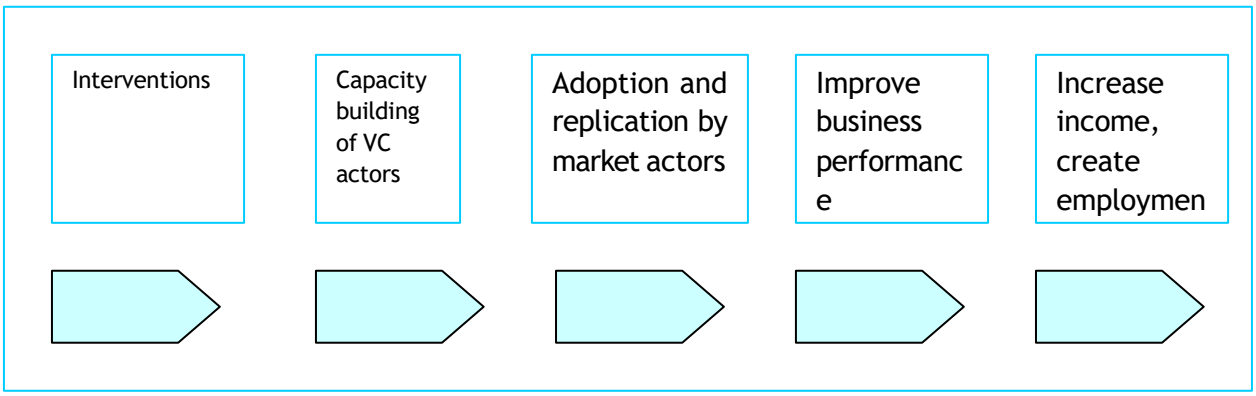


Figure 2: Causal relationship between project (market) interventions and poverty reduction

27. ***Value chain (subsector) development strategy - Three broad intervention types***: The value chain development interventions mentioned above can be categorized many different ways. The GREEN project will design project activities (interventions) that will impact on (in line with Figure 1):
    - Business development interventions: These activities will be related to individualenterprises, consequently that will benefit individual enterprises. For example, training for entrepreneurs, new production technology, new product design, assistance for entering new markets etc.
    - Sector development activities: There will be interventions that would benefit the whole sector not only selected enterprises or farmers. For example, introduction of new polices or revision of existing policies, assistance for development of sector association, development of quality standards and testing facilities, support for action research etc.
    - Service market development: The interventions will be like those of first category but will be directed to development of service market or service sector but support main VC enterprises. Since services are also businesses the implementation will be similar to VC businesses. For example, assistance for training business, development of animal health service, financial services
28. ***Interventions by functional areas***: Experience shows that the interventions fall under the following six functional areas of enterprise/business management (All VCD activities will be structured along the following six areas):
    - Entrepreneurship: Entrepreneurs (in case of GREEN agricultural commodity producers, traders, small processors etc), are at the heart of expanding or starting businesses and all development interventions are in effect directly or indirectly targeted to them. To help expand an existing business or develop new business the owners or prospective owners need assistance to conceptualize, plan and execute individual plans. In many instances it is important to show successful initiatives to encourage new entrepreneurs to start or expand businesses. The VC development intervention in this functional area may be exchange of information, exchange visit, training to potential entrepreneurs on planning and management etc.
    - Product and market: One of the most critical weaknesses in ME sector is poor quality of product or outdated design. Second aspect is limited access to domestic and international market. Information of assured demand encourages entrepreneurs to expand and start

businesses. The project will undertake many interventions in product and market development area, for example, market studies, improving products by improving ingredients, production technologies, packaging, branding, advertising, accessing new markets, developing and introducing new commodities and processed products etc.

- Production and technology: The third area of intervention is improvement in the production process, product management and introduction improved technology, hardware and or software. In case of agriculture this could be in the form of new seed, farming practice or system and often introduction of machineries for planting, harvesting, post-harvest processing etc. For non-farm products the interventions may take the form of improving efficiency of production system, introduction of machineries, improvement in quality, variety and availability of inputs for production etc.
- Human resources development: Work force development in an important aspect of value chain development activity. This could be in the form of supporting work force training, development of service sector, for example, vocational training etc.
- Financial management and access to finance: Improvement of financial management within enterprises or development financial service market would help enterprises gain efficiency, expand or start businesses.
- Enabling environment: Improvement in legal and regulatory environment of overall private sector, or specific sector, changes in policy and practices of national government, local government, business associations etc. fall within the purview of interventions in this area. Besides environmental issues and adverse impacts of climate change will also be addressed.

29. ***Phasing of interventions***: All types of interventions mentioned above are not needed in every value chain and will not be implemented at the same time. The interventions in new subsectors (not those are already under the RMTP project) under the project will be divided into three phases as follows:

- Entry or pilot phase: The project will test a few interventions as entry or pilot activities. Experience shows these interventions are in areas of entrepreneurship development, product and market, and production and technology areas, and are limited to selected number of farmers/MEs. The objective is to demonstrate quick results to show effectiveness of interventions.
- Expansion or replication phase: Usually similar activities involving much larger number of farmers/enterprises are implemented. Along with VC businesses interventions in service market may also be undertaken in this phase as demand for services increase.
- Sector/enabling environment: the final phase usually involve interventions that impact on the whole sector in the form of policy changes etc.

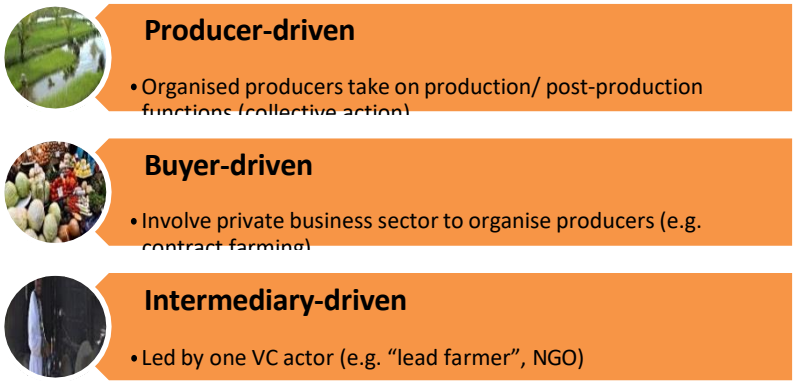
30. **Value operational strategy - Multiple entry points**: While most interventions might still focus on the small producers, analysis should test whether interventions might be more cost-effective or feasible at other nodes of the value chain. Experience in other projects (e.g. crab cultivation) has already highlighted that inputs might often be a major constraint. For non-agricultural subsectors market information, especially regarding quality, taste and timing might be key for producers to successfully up-grade production to higher quality goods. In such a situation, interventions focusing on service providers, or linking with retailers and their market information might be most promising. In general, interventions should aim at overcoming the bottlenecks along the chain. POs might initially lack such sector-wide view and try to fix problems by working exclusively with producers.

31. In general, there can be 3 types of interventions, which are not mutually exclusive:

Process/ product upgrading	Functional upgrading	Coordination and business models upgrading
•"doing things better and/or bigger"	•move target group up the VC	•Improve vertical & horizontal linkages

- **Process/ product upgrading:** Interventions still focus on the producers, and try to improve quality (for example, using BGAP) and/or quantity of products. This can be through additional funding, new techniques or better inputs. Many VC projects originate from this entry point. However, there remains a danger that interventions remain too focused on the production part of the chain only, without addressing issues further down the chain, such as storage, transport, processing, marketing, etc.
- **Functional upgrading**: This refers to interventions that promote the target group along the value chain, e.g. producers start the first processing steps, invest into storage facilities etc. In this case interventions can still be financial or technical in nature. They might also involve re- organization of the producers/ target group, so they can take on further functions along the value chain. Examples could be collective financing of cooled storage facilities for vegetables, chilling plants, etc.
- **Coordination and business model upgrading**: In most agricultural and non-agricultural value chains, coordination along the chain is rather simple and informal. Often the seller and buyer meet on spot markets and transfer goods versus cash. More elaborate business models, such as contract farming arrangements, or even informal agreements of several actors along the chain, can significantly improve the profitability of the whole chair and/or of the target group. Interventions might need thorough analysis of involved businesses' behavior, incentives and capabilities and address them accordingly. Organizational or contractual innovation, while difficult to implement, might have huge potential for an entire chain. The project can act as a facilitator that brings the businesses (actors) together, and broker on behalf of the target group beneficial arrangements[1].
- Any **VC development strategy** should ultimately support the small producers/ small farmers. This can be reached through a number of aspects. The following four are some examples, but others exist, too:
    - Achieve **economies of scale**
    - Access **technology** and support **services**
    - Manage **risks**
    - Consistently meet market **quantitative and qualitative targets**

32. Such strategies can follow several organizational models:



[1] Ideally the project does not negotiate on behalf of the target group, but trains/ empower them to reach more beneficial agreements with contracting partners. These contracts might be informal in nature, so training on negotiation techniques, how to gain information on margins, or simply connecting small producers with another buyer (competition), might significantly improve their share of the profit generated along the chain.

- **Producer-driven:** This model uses the producers as entry point and lets them drive the change in the VC that ultimately will benefit target group (and other actors along the chain). Historically many IFAD projects using a VCD approach evolved as producer-driven interventions. Often collective action among producers (e.g. informal farmer groups) is needed to make this approach successful. It could also be driven by new technology or improved quality at the producer level. The danger is, that such approach cannot overcome bottlenecks further down the value chain. It might also involve substantial time to work with existing organizations and transforming them (e.g. by adding new functions) can also hamper their functionality.
- **Buyer-driven**: This approach departs from the final market of the product and works up the value chain. The entry point is very different, the purpose remains the same – improve the situation of the target group. The set of skills to negotiation better solutions with the final buyer, might differ significantly from those needed for engagement with the producers. The PMU should pay due attention to this aspect, and include capacities, as well as time and budget to engage with final buyers. Often this approach leads to (improved) contractual arrangements, or changes in the organizational model of the chain (vertical integration). The size and characteristics of the buyer can vary significantly. Through improving the capacities of the buyer, e.g. to assist the producers with TA, the intervention shall increase the overall profitability of the chain (also for the buyer, but more so for the producer) and reach a win-win situation.
- **Intermediary-driven**: In this approach another VC actor drives the process. It could be a service provider, a trader, or the financial institutions – as might be the case in some of the POs' cases. It also could be lead farmer, or small local producer who sees benefits in arranging other micro-entrepreneurs around him to reach economies of scale, bulking etc.

33. The above operational models are not mutually exclusive but can complement each other. The PMU should consider model 2 and 3 throughout the implementation, to not focus only on producers, who will be the focus of interventions initially.

4.1.1. Value Chain Subcomponent 1.1 and 1.2: Implementation of Subsector Development Subprojects by Partner Organizations

34. The following section describes step by step the design and implementation of value chain development subproject under GREEN. This process will be adopted by Value Chain Managers/Specialists and with their assistance by officials of POs responsible for implementation of subprojects. The PMU/GREEN will also adopt successful practices and processes from PACE and RMTP in GREEN as well as the two projects are conceptually similar and some of the POs both RMTP and GREEN.

Value Chain Development Concept

35. A value chain is a sequence of activities that businesses (called 'actors') perform in order to produce and deliver a product or groups of products or service to the end users (the consumers). These businesses (actors) fall into three main categories: a) core businesses - input suppliers, producers, traders, wholesalers, processors, storage, retailers; b) support businesses - trainers, advisers, health service providers, packaging, transportation, information, market services, R&D, facilitation/coordination, financial institutions; and c) rules

& regulations/regulators - laws, standards, regulations including environmental regulations, food safety standards and regulators, informal rules and norms etc.

36. Figure 1 schematically presents a simplified value chain structure for understanding the process where all the above three categories of businesses

37. VCD is an approach aimed at effectively and sustainably improving businesses, in the context of GREEN, marginal and small farmers, other small produces, microentrepreneurs and smallholders by understanding and influencing market systems. Applicable to development agencies and governments working in economic and social fields, it is defined by several characteristics:

- An approach that provides guidance on understanding MEs/smallholders in market systems (analysis) and how to bring about effective change (interventions/action).
- A focus on developing market systems, by addressing underlying causes (rather than symptoms) of weak performance.
- An ambition to unleash large-scale and systemic change.
- A commitment to sustainability. This means considering not just the existing alignment of market functions and players but how they can work more effectively in the future, based on the incentives and capacities of players to play different roles.
- A facilitating role for external agencies by seeking to catalyze others in the market system (while not becoming part of it themselves), for example, PKSF and POs.

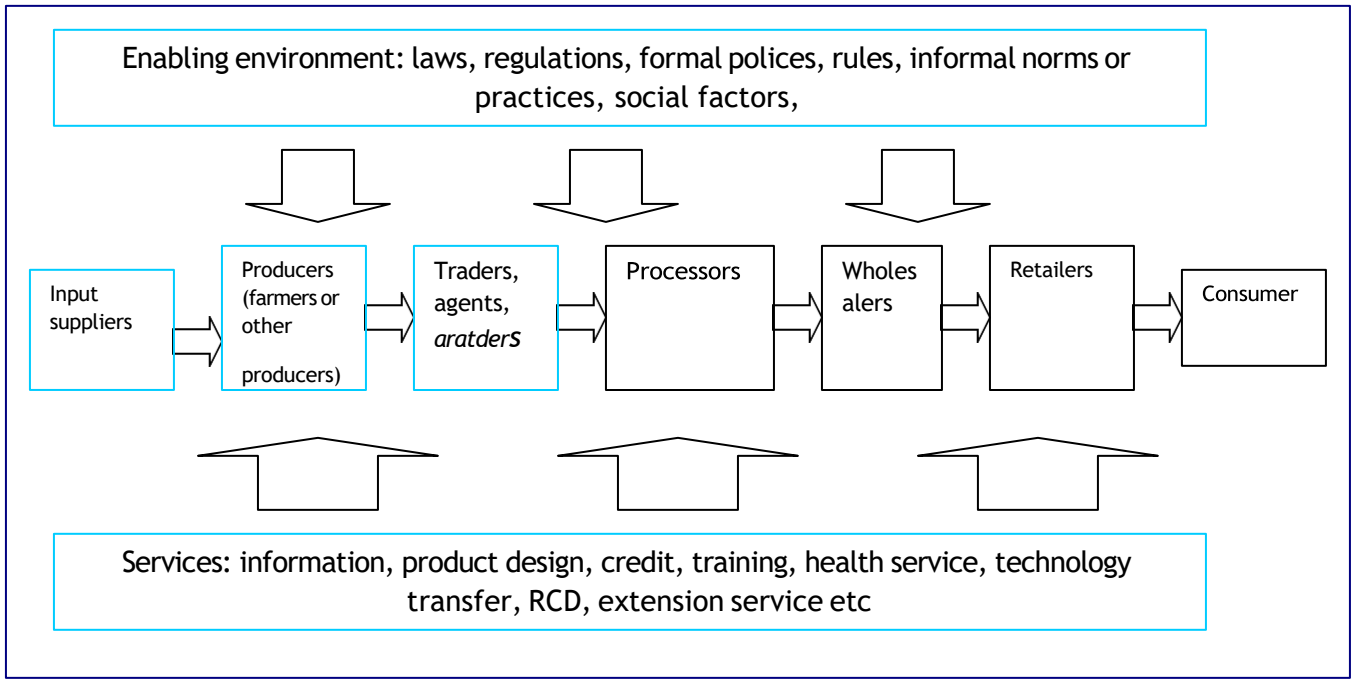


Figure 1: Schematic diagram of a value chain

38. Organizations wanting to design, commission or implement programs which follow an VCD approach need to recognize some basic considerations if they are to be successful:
    - VCD programs need to be capable of dealing with diversity, dynamism and risk; they need to be opportunistic and responsive; and they need to be catalytic.
    - Facilitators (e.g. PKSF and POs) need to be close to markets; they need to possess good knowledge and insight; they need to be able to behave entrepreneurially; and they need to be independent.
39. What are the critical ingredients of a successful VCD programme? Experience shows that VCD programs are context-dependent and therefore, need to be strongly process-oriented. To catalyze sustainable systemic change VCD programmes should be:
    - *Capable of dealing with diversity and dynamism*: a focus on improving market systems requires sufficient flexibility to deal with complex and changing situations.
    - *Opportunistic and responsive*: achieving sustainability means promoting local ownership. Programs must be able to understand the capacity and incentives of diverse market players and respond to them in a way which is consistent with programme strategy
    - *Able to manage risk*: programmes try to promote change in uncertain situations, often working through local players. Some degree of failure is to be expected; therefore programmes need to be able to spread their activities to avoid 'putting all their eggs in one basket'.
    - *Catalytic*: programmes try to leverage wider change through relatively small, focused and finite actions. They must therefore be able to start small and then build on successes to achieve scale and sustainability by crowding-in market functions and players.
40. What does this mean for facilitators? To be effective they should be characterised by:
    - *Closeness to markets*: their relationships with market players should be based on understanding and informed empathy, but they should not be 'captured' by them. Facilitation can be seen as

acting as a bridge between the public objectives of funders and the narrower aims of individual market players.

- *Good knowledge and insight*: sufficiently informed to be able to analyse market systems and assess opportunities to stimulate change.
- *Entrepreneurial instincts*: an orientation that allows facilitators to spot opportunities and rapidly convey an 'offer' to different players in the market that not only responds to their situation but also addresses systemic constraints.
- *Independence*: a status that allows facilitators to be regarded as impartial in the eyes of market players so that the facilitation role is understood and accepted.

41. Is the programme design sufficiently flexible? Achieving change is an unpredictable process, especially in complex, dynamic socio-economic systems. The ability to monitor and periodically adjust the direction of programmes to respond to changes within markets is essential for success. VCD programmes need operational flexibility; therefore mechanisms for feedback and change should be integral to design.

42. ***Value Chain Actors.*** The possible roles of the different categories of businesses (actors) are as follows:

Input suppliers

43. Input supply businesses/companies represent a dynamic face of Bangladeshi agriculture and have shown strong growth and evolution, particularly in the last decade. They are represented by dealers in the district headquarters. Non-exclusive relationships are now the norm - with input companies normally having a number of dealers representing them in any given district headquarters – while individual dealers would, in turn, represent a range of input companies. Dealers would sell to individual farmers at their shop – but would also have their own sub-dealers and sometimes retailers throughout the district.
44. Some input companies provide suppliers' credit to their dealers while the large majority of farmers are required by dealers and sub-dealers to pay in cash – for which they would normally need credit. Concerns have been expressed by the Department of Agricultural Extension that farmers are sold fertilizers with inappropriate formulae for their needs and that dealers and sub-dealers have insufficient technical knowledge to provide the appropriate advice.
45. Input suppliers are well placed to provide farmers with embedded technical advice. Indeed the capacity building of input suppliers is being undertaken by a number of development projects in Bangladesh with the support of major input supply companies (of seed, fertiliser, agrochemicals and equipment). This support includes encouraging the establishment of networks of input dealers, building their capacity to negotiate more successfully with large input processors, encouraging the major dealers to offer extended credit and provide training to the input suppliers and also to assist in financing their demonstration plots. Input suppliers can also be a source of credit for farmers and be active in introducing new technology.

Producers

46. Building up the knowledge, skills and confidence of VC actors so that they gain the maximum benefit from their involvement in VC opportunities is particularly important for producers – both men and women, the main target beneficiaries of the RMTP project.
47. *Clustering of beneficiaries*: About 60 to 100 credit groups have been formed by POs under each of its branches to facilitate contact with its borrowers. The geographical area covered by each credit group is chosen to allow easy access to the meeting group by each borrower. The members of the credit groups include borrowers of all types of credit – including microcredit, ME and Seasonal. It is possible that the number of borrowers in the group that undertake a particular VC – such as Dairy Production – is too small a proportion of the total members to allow for the provision of advice and services through the group. The Credit Group, although useful to facilitate

interaction with the PO regarding credit, does not appear a suitable vehicle for addressing the needs of the participants of a specific value chain. **POs under the GREEN project normally implement subprojects where larger number of producers of same or similar products are located or clustered. This approach reduces cost and help to facilitate services and information sharing. GREEN will focus on existing clusters as well as develop new clusters by replicating experience in new suitable locations.**

48. *Cost-effective approach:* The challenge is to find the most effective and cost-efficient way to undertake the capacity building of producers over the long term. RMTP will utilize as well as develop local service providers such as local vet, local lead farmers, private trainers, BGAP trainers etc as providers. And training will be offered to groups to reduce cost.
49. The PO's VC Facilitator would introduce a local service provider to the group and would pay him to undertake an initial introduction to GREEN and to the ways in which they might benefit from their full involvement with the value chain. He would introduce the group to the participatory approach and then guide them through the process of identifying the constraints that they faced with their value chain and encourage them to identify possible solutions. Some of these solutions might require interaction with other actors and the Local Service Provider (LSP) would plan a meeting between them and other actors. The LSP would also explain what services he could supply to the group and how much it would cost. Such an introduction might take about two visits. Once the group members began to understand the participatory approach and the services that the LSP could provide them, they would decide if they wanted to utilize his support and, if so, negotiate the price. They would also decide whether they wanted just one or both main services that the LSP could supply: ie (a) ensuring the delivery (of most) of the support services, and (b) strengthening the capacities of farmers associations to provide benefits to their members. These on-going services by the LSP would be at the charge of the recipients and not of RMTP.

Buyers: Traders/processors

50. *Produce buyers* will play the most critical role between producers and processors/wholesalers. RMTP has many such experience which will be replicated by GREEN. Traders connect processors/wholesalers by providing market information to producers and aggregating small productions of many small producers.
51. *Large commercial enterprises* - particularly those involved in purchasing farm produce – have been increasingly organising direct marketing channels with farmers – most often those that are part of a formal or informal aggregation group (local traders or agents called beapari/middleman). When this works well, both parties benefit. The producer obtains a relatively reliable market outlet with little effort, often benefits from a fixed price or one that is related to the on-going market rate – often higher than he had previously obtained – and at a lower transaction cost to himself. He may also obtain training in cultivation and primary processing and may have the opportunity to supply new or alternative products through the same marketing chain. The company, on the other hand, is likely to obtain higher quality produce that has been graded at source and is sometimes subject to a tracking system, has lower collection costs because of the aggregation of produce and a more reliable input supply. Some companies operate an integrated system by strengthening links both in the supply of inputs as well as the collection of produces.

Service providers

52. *Government Line Agencies:* Although thin on the ground and lacking resources, government line agencies (particularly the departments of Agricultural Extension, Livestock Services and Fisheries) have often been **willing** and able to play an important role in the provision of technical training for farmers and technical training of trainers (ToT) for local service providers. In fact, they are often very supportive of local service providers and are now including their support of the LSPs. LSPs value this support and tend to refer difficult cases to the line agencies. It is to be hoped that, as value chains scale up, the line agencies will give even more weight to supporting local service providers even at the expense of directly working with producers.

53. *Local service providers (LSPs):* One approach to successfully providing support to producers on a continuing and sustainable basis - and at an affordable cost - is the utilization of local service providers (LSPs). For sustainability of projects and services LSPs will play the most critical role.

54. **Operating principles for GREEN Project.** The GREEN project will have important difference compared to typical supply-driven income enhancement projects:

- GREEN is a market or opportunity driven initiative in selecting subsectors or products for business promotion and employment creation. GREEN takes a system approach of analyzing opportunities and constraints and identifying interventions to remove constraints, if necessary, in all major aspects of enterprise management and sector development including sector policy reforms.
- To avoid market distortion, GREEN will try to provide non-subsidized support in collaboration/contribution with different private actors.
- The investments from GREEN will be as much as possible public good in nature to benefit a large number of beneficiaries in the form of assistance for product and market development, training, technical assistance, information sharing, policy changes etc.
- The implementing agencies e.g. PKSF/POs will act as facilitators of services as opposed to provider of services and will bring in other private actors so that actual business transactions are done between farmers/microenterprises and providers. In absence of any specific service, GREEN will be assisting to create such private service providers.
- Sustainability of services and businesses during and beyond project period will be at the heart of all activities so that GREEN can cease activities or withdraw without reducing project impacts.

Process of Value Chain Analysis and Design of Subprojects under GREEN

55. *Introduction:* The following sections explain step by step an overall process to be followed by GREEN/PKSF/POs to conduct subsector and value chain analysis before funding a subproject. The final outcome of any subsector analysis and design work is to determine the opportunities and constraints and develop corresponding project activities. The subsectors are selected through a consultative process using a number of criteria. In brief, the subproject design document would provide background of the selected products/subsectors, volume of business, supply chain, opportunities, constraints, proposed project activities and locations, implementation institutional arrangements, and costs.

Selection of value chains (subsectors) for implementation

56. The subproject design process starts with selection of subsectors, which in turn will be done using selected criteria mentioned below.

57. **Selection criteria**: Several criteria are used to select subsector for analysis and subsequent selection for designing interventions. Such selection criteria can be divided into three broad categories such as:

- **Impact criteria** measure impact of the development interventions that benefit the beneficiaries directly such as a) income (measured by **profitability** of individual business), b) employment, and c) number of persons or households involved in the subsector and potential for increases of all these indicators due to project interventions. Therefore, priority is given to subsectors that provide **high profitability** or currently engage a large number of people or HHs which would further grow with time due to project interventions. Similarly, the subsectors that offer the potential of creating jobs for a large number of persons to generate family income or profitable for large number of entrepreneurs are given priority.
- **Competitiveness criteria** measure potential for growth in domestic and international market in the value chain in such a way as to compete with others – place or value chains and **current size of market (i.e. annual sales).**
- **Additional criteria** such as potential for creating employment opportunities for women and the very poor, favourable business environment, and integrating nutrition into the value chains etc may also be considered. Development of these subprojects will follow IFAD's guidance note on nutrition-sensitive value chain approaches. As a first step, an analysis of the nutritional situation

will be undertaken to obtain a better understanding of the major nutritional challenges in the project areas, and to outline the nutrition potential of various commodities. Commodities that can address nutritional problems and resilient to climate change, while also having potential for market growth will be prioritized. Context- and commodity-specific studies will then be carried out to identify challenges and opportunities in developing the relevant value chains. These studies may best be commissioned at the PKSF or PO level, to take advantage of a consolidated analysis that can cut across locations or commodities. A session on nutrition will be included in all the value chain trainings that would be conducted, to promote consumption of the produce at the household level. The following resources would be used to integrate nutrition into the value chain development:

a. https://www.ifad.org/en/web/knowledge/-/publication/nutrition-sensitive-value-chains-a-guide-for-project-design
b. https://elearning.fao.org/course/view.php?id=566
c. https://www.ifad.org/nl/web/knowledge/-/publication/supporting-nutrition-sensitive-agriculture-through-neglected-and-underutilized-species

58. **Selection criteria for GREEN**: Often too many criteria may lead to confusion or indecision regarding selection of subsectors. Sometimes one criterion may be proxy for others such as large annual sales inherently mean (in case of Bangladesh) a large number of HHs are involved (since land ownership is small per HH), that also means women/youth are also engaged. It is recommended that the project use one impact criteria (profitability, employment, or number of HHs) and one competitiveness criteria (size of annual market/sales or growth rate) are used to prioritise subsectors for interventions. **That is, the subsectors that have potential for a) high profitability, and b) large market size will be selected. This can be visualized as follows:**

Profitability			
High (> 30%)	High Priority	High Priority	ATTRACTIVE (Highest Priority)
Medium (>15%	Low Priority		High priority
Low (0-	NOT ATTRACTIVE (Lowest Priority)	Low Priority	
	Low (1-50 crore)	Medium (>50 to 200 crore)	High (> 200 crore)
		Market size (annual sales)	

Figure 3: schematic diagram for subsector selection

59. The subsectors that offer medium/high and medium/high potential for both indicators will be selected for interventions. However, the project may select **potential subsectors** where the present market size is small but profitability is high, and if development interventions are applied may become large in terms of market size and create big impacts. That is, the project will have a portfolioof subsectors where a) majority of subsectors will be selected according to impact/growth potential and b) several products which are still at embryonic stage but if successful could create huge impact. Usually new products/technologies would fit into the second category.

60. Subsector selection strategy. The project will follow a 'portfolio' strategy for selecting subsectors for project intervention. The portfolio will look like the following: i) Large (in terms of annual sales, employment) established products/subsectors and emerging high-value products/subsectors with growth potential; ii) subsectors that will achieve project results soon and subprojects that would produce delayed results. In all situations, opportunity for processing and value addition will receive priority.

61. Subsector selection criteria applied by on-going RMTP. The RMTP project has applied the following criteria for selection of subprojects: a) profitability of products (low, medium and high), b) market size by annual sales (low, medium and high); and c) growth potential (low, medium and high). Using such criteria the project has identified the following products/subsectors for initial intervention:

- *Horticulture and cereal crops:* (i) safe vegetables; (ii) spice/processed spice; (iii) pulses/lentils and processed pulse/lentils; (iv) vegetable seeds and other seeds; (v) aromatic rice with emphasis on branding, Bangladesh patent; (vi) high value fruits and processed fruits (emerging subsector); (vii) high-value nuts and citrus fruits (emerging sub-sectors); and (viii) organic horticulture (emerging subsectors). Promotion of small and medium processing of these commodities will take place including: (i) drying, milling, sorting and packaging: (ii) canning;

  (iii) Pickles; and (iv) Fermentation

- *Poultry, livestock and dairy products:* (i) Poultry, beef, buffalo, goat/sheep meat with emphasis on hygienic slaughtering, packaging, freezing, and brand building; (ii) desi-chicken meat and eggs (emerging subsectors); (iii) cow, buffalo and goat milk production; and iv) cow, buffalo and goat milk-based processed products (emerging subsectors). Promotion of small and medium processing facilities of these commodities will take place including: (i) slaughter houses; (ii) meat packing facility; (iii) meat drying; (iv) freezing; (v) salting; and (vi) canning.
- *Aquaculture and fisheries:* (i) soft shell crab with various production methods; (ii) high value fish, especially indigenous fish, and capture fisheries. Promotion of small and medium processing facilities of these commodities will take place including: (i) processing houses; (ii) drying facility;

  (iii) freezing; (iv) salting; (v) canning; (vi) packaging; (vii) washing; (viii) storing; (ix) maintaining cool chain during transportation, harvesting; (x) support to produce aquaculture inputs; (xi) promote dried capture fisheries products.

62. Source of data for analysis presented in Figure 3: a) For profitability analysis, Value chain managers/specialists will conduct sample profitability analysis of respective MEs/smallholders of various size (small, medium, large) from different parts of the country. b) For estimation of overall market size (annual sales) the following sources may be used: i) import data from GoB sources (e.g. customs which records imports by HS code), ii) C& F agents, iii) major importers, wholesalers, v) local traders, vi) exporters, vii) other key informants.

63. The Project Management Unit (PMU) may also collect primary information through POs about various potential agricultural products in different geographical locations of the country. This information will be collected following a format (Table -3) containing basic data like the number of producers, number of poor people engaged, the involvement of male & female, year-round production, profitability, marketing opportunity, and vulnerability to climate hazards. Based on the information collected through POs an area-wise list will be prepared by PMU.

Table - 3: Product Identification matrix

Production area/Cluster:

Products produced in the area	No. of HHs involved	No of poor HHs involved	Involvement of Male/Female (M=%, F= %, Y=)		Year- Round Production (Yes/No)	Profit (High, Medium, Low)	Market size (High, Medium, Low)			Vulnerable to climatic Hazard (High, Medium, Low)
							Local	National	Regional	
Dairy										
Beef										
Goat										
B. Poultry										
Potato										
Chilly										
Onion										
Garlic										
etc.										

M- Male, F-Female, Y-Youth Other

information:

64. *General steps followed:* The following steps are undertaken to design a value chain development sub-project:
    a) Select a subsector using certain criteria **such as potential income opportunity, employment opportunities, number of producers/entrepreneurs involved, potential for growth, poverty level of potential participants,** capacity of participants to implement project interventions, especially technology etc (see below for further discussion on selection criteria and selection process of subsectors);
    b) Analyse the subsector that would involve understanding demand and supply, developing sub-sector map and existing value chains within the sub-sector, various actors and stakeholders, product related issues such as types, price, quality, and distribution, production and technology, human resources and finance etc;
    c) Identify main opportunities in each stage of value chain of a product such as input, production, transportation, wholesale, retail etc, and each function such as marketing, production, human resources, finance and policy and support institutions;
    d) Determine sustainable solutions to remove constraints and steps to grab opportunities;
    e) Select most critical constraints and corresponding sustainable solutions;
    f) Determine project intervention/activities, and implementation procedure and partners; and
    g) Implement and monitor activities.

65. The analysis of a subsector mentioned above involves the following activities:
    i) Developing sub-sector map, that is, identifying all supply chains or value chains for reaching a product from producers to final consumers;
    ii) Determining all actors (numbers as well as volume of product handled) in the value chain;

iii) Determine value added or price at each stage of the value chain; at each stage the quality, price, packaging, consumer preference etc are identified;
iv) Identify constraints at each stage of the value chain;
v) Determine sustainable solutions;
vi) Translate the solutions into activities to be executed; and
vii) Monitor results of the activities and revise activities, if necessary.

Steps and information to be collected for each step

66. **Producers/entrepreneurs, product and market analysis**

- Producers/entrepreneurs: For an existing products irrespective of the sectors describe the profile of typical producers as follows: i) by land size; ii) locations (location of clusters); iii) gender; iv) age category; v) skill level (technical as well as managerial, if possible); vi) typical business size (annual sales); vii) what are the main challenges entrepreneurs face for running the business or starting new business in this sector in terms of management capacity.
- Product(s): i) define the product/products to that will define the sector, for example, dairy products; buffalo meat, fish fillet, safe vegetables etc; ii) define specification and quality demanded by the market; iii) price range at the retail level; iv) package and distribution system; iv) publicity/advertisement at present stage; v) carefully determine the quality of same products produced by potential RMTP beneficiaries versus market demand; and vi) determine opportunities and constraints/challenges in these areas.
- Market analysis: The value chain analysis starts with the market assessment of the potential selected product, this will include the size of the current market, growth trend of recent few years, future opportunities of new markets (wider national market and/or international market), and so on. The initial market-related information will be collected from traders (local and national level), secondary sources of information could be collected from different publications, websites, newspapers, and so on. The detailed value chain analysis will be commenced once it is found that the product has market demand.
- After collecting information from informal and formal buyers, the value chain analyst will try to understand the desired product quality, available substitutes of the product, and international standard of the same product, necessary stand requirements, preservation, and storage, etc. A comparative analysis of the product quality with the global standard is essential to produce safe agro-products to be accepted in the national and/or international market. The information can be collected from the concerned traders about possible technologies and other means of production to upgrade the product quality to an acceptable standard. The market assessment will also include the analysis of the competitive environment.
- The main information to be collected are as follows: i) determine annual sales by interviewing key informants; ii) state market segments (by income, location); iii) potential growth by interviewing key informants; iv) identify opportunities in the market, for example, what percentage of market share the RMTP beneficiaries can capture in the project period; v) constraints against growth. This amount (market share) will be the basis for determining number of beneficiaries, traders etc, locations to be determined for the specific subproject.

67. **Production and technology**. i) briefly describe current production process and technology at every step of the value chain, especially at producers and processors level; ii) current limitations of the production and technologies, and what should be changed to achieve desired quality and quantity; iii) identify constraints and possible solutions at production level.

68. **Analysis at processing enterprise Level.** After gathering detailed information from buyers, the analyst will move to the processors level. The basic information of processing will be collected first, which includes the number of processing plants, number of entrepreneurs, number of wage employment, the volume of production, annual sales, etc. The analyst will assess the available technologies used at the processing level; the diversity of present technologies, machinery, equipment, and finally compare their advantages &

disadvantages and cost of production. The analyst will need to explore foreign technologies and their availability and compare them with the existing technologies. At the same time, s/he will try to find out if any new products could be produced using the same raw materials. The environmental issue should be considered in this regard. The analyst will also know the possible interventions to improve existing processing methods which will in turn increase productivity, income, and employment in the processing sector. The following table (Table-4) could be used as a tool for analysis.

Table-4: Assessing the processing level

Sl. No	Existing technologies/ Machines/equip ment/ Process	Constraints	Potential solutions	available standard machine, equipment, solution, etc.	Remarks
01	The entrepreneurs are using -------- machines that produce ------ units of products.	Low performing equipment leads to low productivity and income	Transferring new technology /high-quality machine from--- -------- sources.	The standard machine available in the local and/or international----- ---------- market, Production capacity------ unit	Entrepreneurs are not able to invest in this machine. The project may provide technological/ financial support to replace the old machine.
02	Marketing	Marketing through agent	Online marketing	Television Commercial (TVC), Internet	the entrepreneurs can share the advertising cost.
03	Certification				
04	Branding				
05	Business skill				
06	Technical skill				
07	Others				

- **Analysis at the Producers level:** The next step is to collect information from producers who are engaged in producing primary agriculture produce for the respective final products. The basic information to be collected are the number of farmers/small producers, the volume of production, production cost, profit made by farmers, etc.
- The value chain analyst will analyse the production technology of the primary produces and the productivity of that particular produces. S/he will compare per unit of production in this sub- sector with other agriculturally developed countries. S/he will identify possible constraints of the production process and the scope of any improvement in the process. The quality of the produces will also be compared with other similar products available in the national and international markets. The analyst will have to collect standard procedure of cultivation/rearing, best practices, and global standard of producing, storing, preserving, other post-harvest management of agricultural produces. The standard procedure as per GAP should be mentioned and deviation should be measured. As per the information collected, the analyst will identify the constraints and suggest possible sustainable solutions to overcome the constraints. The analyst will thoroughly understand and describe the whole cultivation process and will try to identify any constraint such as traditional technologies, proper input utilization, imperfect use of insecticides/chemical fertilizers, mismanagement in post-harvest, and so on. This constraint identification will prompt his/her possible remedies. The following table (Table-5) could be used for analysing at the production level.

Table- 5: Analysis at the production level

Sl. No	Existing technologies/ Machines/equipment/ Process	constraints in the production process	Potential solutions	Available standard machine, equipment/ Process, etc.	Remarks
01	Crops are sowed manually or by using traditional equipment or hand milking	This traditional method of production results in less productivity. Per hector production is --- _ _ _ _ _ _ _	if they use the modern machine then production will be higher------- ----tons or	Transplantation machine/sowing machine/Milking machine	is it cost- effective?
02	Use of fertilizers and chemicals				
03	Harvesting				
04	Post harvesting				
05	Marketing				
06	Environment issues				
07	Policy issues				
08	Food safety issues as per GAP/HACCP				
09	Input supply				
10	Others				

- **Analysis at the Input supplier's level.** At this stage of value chain analysis, the analyst will analyse the sources of inputs of the selected products. This analysis will be done based on the preliminary product mapping. At first, the analyst will have to understand how many types of inputs are required for the products and collect information about the supply and availability of each of the inputs. The quality of available inputs should also be judged by comparing them with the standard inputs recommended by appropriate institutions, local respective govt. office and others, then the analyst should talk to suppliers of different inputs to understand if there are any constraints in the procurement and supply of the respective inputs. The suppliers will inform if there is any solution to their problem. The existing storing and preservation process will also be analysed/assessed in comparison with the standard procedures recommended by the appropriate authority. The producers/distributors and sellers will also be interviewed to identify any inefficiency in the production and supply chain. The following table (Table-6) could help to analyse at the input level.

Table- 6: Analysis at the input level

Sl. No	Available inputs and their quality	Constraints in the production process and supply chain	Potential solutions	Recommended high-quality inputs (Tracing)	Remarks
01	The locally available seeds are not of recommended high yielding variety.	The local suppliers are not linked with the sources of high-quality seeds/producers	Establishing linkages/dealer points of recommended inputs	The variety invented by Govt. and others	This linkage will be sustainable commercially
02	Fertilizer				
03	Insecticide				
04	sapling				
05	seedling				
06	Livestock feed				
07	Medicine				
08	vaccine				
09	Others				

69. Human resources: i) identify present level of skills at each step of the value chain; ii) determine desired level/type of skills needed by the entrepreneurs, managers, workers at each step of the value chain and how to enhance/impart those skills; iii) identify constraints at human resources.
70. Finance. i) determine typical investments at producer and other stage of the value chain; ii) identify finance needs along with terms and conditions; iii) identify potential sources of finance.
71. Analysis of service sector. I) identify present type, level, quality of services provided at each stage of value chain; ii) Identify type, level, quality of services that will be needed to achieve project target for the sector/product; iii) can these services be commercialized.
    - **Analysis at the service market-level/advisory services:** The Demand for different types of advisory services should be identified and assessed the current availability of the services. The analyst should know/collect information regarding what types of services are required for the selected products and what should be the quality/qualification of the service providers. The need for advisory services could be assessed by in-depth interviewing input suppliers, farmers, producers, processors, buyers, private organizations, respective government departments, and others. The following table (Table-7) could be used for analysing the advisory services level.

Table- 7: Analysis at the service market level

Sl. No	Available Services	Constraints	Required services	Potential solutions	Remarks
01	Inadequate extension services of the govt. department	Unavailability of technical services	Technical services required in time from qualified service providers	Develop local service providers	Service providers can be developed through training /short course
02	Livestock services (Currently livestock department extension worker provides some services, but the number of livestock extension worker is low)	Absence of proper animal health care (Mortality rate, productivity per cow, and milk production per cow etc.)	At least ten/… service providers should be there in the locality for providing the technical services for ten thousand/'…… cows etc.	Develop local service providers	Service providers can be developed through training /short course
03	Fisheries				
04	Biopesticide				
05	Biofertilizer				
06	Others				

72. Environmental and regulatory issues: i) identify environmental issues and constraints and solutions; ii) identify regulatory constraints and ways to introduce changes.

- **Assessing at the regulatory level:** The Government institutions and or departments, private organizations and or companies, and trade associations or unions, and so on are created a business-enabling environment for the entrepreneurs of the sub-sector. The value chain analysis will cover a thorough scanning of available services and arrangements relating to the promotion of the selected sub-sector. The local offices of the respective Government extensions department, private institutions, and trade unions should be visited and services provided by these organizations should be reviewed to identify any inadequacy, inefficiency, and other constraints in their service delivery. The list of service providers should be prepared along with their services within or around the selected business cluster. The service providers may provide valuable information regarding policy interventions for the betterment of the products or sub- sector. The farmers' association/Trade association /business association should be communicated for learning their views and suggestions for the promotion of this sector. The information collected from these stakeholders must be recorded properly to design possible policy interventions. The following

table (Table-8) could be used for analysing the delivery of services at the local, regional, and national levels relevant to this sub-sector.

Table-8: Analyzing the local, regional, and national level service delivery

Sl. No	Name of the organizations	Services provided by the organization	Inefficiency identified in the service delivery	Suggestions of the organizations for the sub-sector development	possible interventions
01	Department of Agriculture				
02	Department of livestock				
03	Farmers association				
04	Hat committee				
05	Transport association				
06	Department of Agri marketing.				
07	Others				

- Policy issues. If there is any policy requirement could be identified by discussing with the different stakeholders like the govt department, private organizations, associations, NGO/MFIs, farmers associations, etc. The following areas relating to the policy framework should be reviewed to suggest policy interventions.

Table- 9: Identifying policy issue

Sl. No	Areas	Policy constraints	Possible potential policy reformation	responsible authority	action
1	Financing	i.e. About loan ceiling	Prepare farmers friendly financing policy, increasing loan celling.	MFI/NGO	Policy dialogues and
2	Vat Tax				
3	Electricity				
4	Distribution				
5	Transportation				
6	environment				
7	export and import				

8	Raw material use				
9	Others				

73. **Summary.** The full analysis will boil down to finding opportunities (Table 10) and identifying constraints and solutions and project interventions (Table 11).

Table 10: Opportunity analysis

(Following table can be used for opportunity analysis)

Area	**Opportunities**	**What is needed to be done?**
Improvement of existing products in terms of quality, design, materials etc		
Design of new products but similar products		
Access to new market (new buyers, use, new market segments etc)		
Access to export market		
Changes in production system and technology		
Diversification to new products		
Other aspect		

Table 11: Constraints analysis and proposed interventions

Main Areas	**Constraints and Challenges**	**Proposed Solutions**	**Activities to implement the solutions**
Entrepreneurship or commercial orientation of farming			
Product and markets			
Technology and production			
Input supplies and suppliers			
Human resources			
Support services			

Access to Finance			
Environmental issues			
Policy issues			
Advocacy, association			
Others			

Sub-sector Study Methodology

74. A subsector or value chain study involves information gathering from many sources. The steps recommended in this section are further elaboration of the above-mentioned general process:

- *Review documents and secondary information*: Quick review of existing documents and secondary information is the starting point of any value chain study. The documents could be former studies, reports of earlier projects, import/export data, report of business associations, socio-economic data of entrepreneurs of the potential beneficiaries etc.
- *Rapid review of other value chain projects*: The study should review interventions of projects of other development partners in the subsector, if any. The RMTP project should avoid duplication of interventions in the same subsector in the same geographical areas.
- *Information from GoB agencies*: DAE, DLS, AIS, BARI and DoF are major GoB and Non GoB agencies in agricultural sectors that provide training and technical assistance to producers. Officials of these agencies at district and Upazila level should be consulted to collect information about their on-going activities, present acreage of crop production, production level, productivity, prospects of various commodities, locations, challenges etc.
- *NGOs/MFIs*: PKSF and other donor agencies work with NGOs/MFIs in implementing value chain projects, especially in agricultural sectors. They provide good grass-roots information about beneficiaries, market conditions, implementation challenges etc. Several international NGOs are also active in Bangladesh in value chain development. They may also provide useful information and experience.
- *Private sectors*: Private traders, wholesalers, retailers, buying agents, transporters, packaging-material producers, input suppliers, hatchery owners, manufacturers must be consulted to understand market dynamics, marketing chains, product demand and supply, prospects and challenges of existing products as well potential new demand for present and new products.
- *Support services*: Private and government support services such as training providers, technical service providers, and microfinance institutions should be consulted.
- *Producers*: Most importantly sample farmers/producers of existing products must be consulted where productions are primarily concentrated to determine present farm practices, knowledge, yield, marketing practices, product quality and pricing, product preference, profitability, technical service provisions, financing, challenges, willingness to accept new knowledge, products and techniques etc.
- *Individual experts*: Every subsector is found to have expert persons who may be linked with associations, with universities or research agencies, projects etc should be able to provide important independent views of present situation and prospect of the subsector.
- *Design value chain interventions:* This phase has identified constraints of the sectors in the following five areas: product and marketing, technology and production system, human resources, finance, and policy and support institutions. This determination has led to identification of solutions and project activities to remove the constraints and grabbing opportunities.
- *Setting up targets and implementation methodologies:* The next step is to determine targets for each activity for each sub-sector and corresponding implementation methods.

- *Institutional arrangement.* An important issue is to determine institutional arrangement such as involvement of POs, project staff members, private sector, GoB partners etc.
- *M&E:* Design process has to also include monitoring and evaluation indicators at objective and activity levels, and M &E process for each sub-sector.

75. **Other Important Issues regarding Value Chain Subcomponent 1.1 and 1.2:** The project will invest in value chains commodities that have comparative advantage, market demand, growth potential and cultivated by small farmers and micro-entrepreneurs. The commodities selected should be cultivated in geographical clusters to ensure economies of scale and the possibility of private sector linkages. More than 50% of the selected commodities should also have the potential to improve food and nutrition security for both producers and consumers. Commodities that are not contributing directly to improved nutrition should generate sufficient income, which can contribute to increased purchase of nutritional food. The value chain project supports fall into three broad categories: like 1.*Crops and horticulture*: (i) high value cereal crops (for example, aromatic and fine rice); (ii) high value fruits and vegetables (including dark green leafy vegetables); and (iii) pulses (such as lentils, mung bean, chickpeas etc.), beans, and seeds; related trading and processing; 2. *Aquaculture*: technology-based aquaculture for example, mud crab; carp; tilapia, shrimp and other local species, particularly small fish; related trading and processed fish products; 3. *Livestock*: (i) dairy production; (ii) red meat including cattle; goats; sheep; and buffalo. 4. *Poultry*: Including meat and eggs from chicken; duck; gees; turkey; and quail related trading and processed products.
76. The PMU will undertake countrywide value chain analyses for selecting commodities, by either upgrading existing analyses from RMTP or undertaking new ones. Based on these value chain analyses, PKSF will issue calls of interest for POs to implement value chain support for their project- participants.
77. The PKSF will issue calls of interest for POs to express interest in implementing value chain packages for its project-participants. The call of interest will include the countrywide VC analysis prepared by PKSF as a point of reference. Based on these analyses the POs will prepare proposals for specific commodity VCs. Steps to be undertaken by POs to obtain value chain support packages to strengthen market arrangements.
78. **SAMPLE VCD PROPOSALS.** The following Tables 12A, 12B, and 12C presents activities and budget for three sample value chain subprojects. This does not include activities by private sector. It also does not provide the development process and ICT activities.

Table 12 A: Livestock Sector Sample VCD Budget

Sub Sector : Poultry & Livestock Total Participants : 4000 Working Upazilla: 2 Sub Project Duration: 3 years					
Description	**Activity**	**Total Target (Beneficiary Number)**	**Training Batch Nubmber**	**Unit cost**	**Total cost**
Organizing the project prticipants	# Base line study	1		150,000	150,000
Input Suppliers	# Skill development tarining for animal health worker/local service provider (AHW/LSP)	40	2	50,000	100,000

	# Matching grant distribution for vaccine preseravtion and vaccine carrier (cool box, refrigerator etc.)	20		5,000	100,000
	# Veterinary pharmachy development (vet hub)	10		15,000	150,000
	# Milk collection center development	8		15,000	120,000
	# Artificial insemination center development	6		10,000	60,000
Production and producers	# GGAP/GLPs realted advance training on livestock rearing and management (half day duration)	1,400	70	15,000	1,050,000
	# GGAP/GLPs realated advance training on poultry rearing and management (half day duration)	1,200	60	15,000	900,000
	# Advance training on low cost feed fomuation and fodder processing like silage, heylage etc. (half day duration)	700	35	15,000	525,000
	# Matching grant distribution for BSTI/ISO/HALAL etc. certification	20		10,000	200,000
	# Provide DOC/Duckling/Color Broiler/BAU Chicken ect. to ultra poor beneficiary	500		1,000	500,000
	# Provide matching grand for farm mechanization	25		15,000	375,000
	# Provide matching grand for saline tolerant fooder plot demonstration	10		5,000	50,000
Traders	# Matching grant distribution for feed/fodder/medicine/vaccine sub dealer point development	6		10,000	60,000
	# Matching grant distribution for egg/meat/dairy product collection and selling point development	8		15,000	120,000
	# Matching grant distribution for milk chilling plant development	6		20,000	120,000
Small processors	# Advance training on product diversification/value addition dairy and meat product development/processing, packaging, certification, branding and marketing (half day duration)	200	10	10,000	100,000
	# Matching grant distribution for meat processor development	4		10,000	40,000

	# Matching grant distribution for milk processor development	6		10,000	60,000
Support Services	# Matching grant distribution for private veterinary laboratory establishment	2		50,000	100,000
	# Matching grant distribution for hatchery establishment	5		50,000	250,000
	# Matching grant distribution for mass vaccination and deworming campaign	100		5,000	500,000
	# Arrange tri-monthly linkage workshop with private and public sector	24		2,000	48,000
MIS and M & E	# Good practice note/lesson learn/most significant changes/case study prepararion	10		5,000	50,000
	# Video modumentary on project output	4		40,000	160,000
	# Impact study	1		250,000	250,000
Management cost	Salary				
	(i) PM (1) partial payment	39		15,000	585,000
	(ii) AVCF (2)	78		25,000	1,950,000
	(iii) AO (1)	39		25,000	975,000
	Travel expenses	Lump sum			100,000
	Office expenses (electric bill, photocopy, courier) and others	Lump sum			252,000
Total					**10,000,000**

Table 12B: Sample value chain sub project budget for pond fisheries

Sample Value Chain Budget Sector: Fisheries Total participants: 4000 Duration: 3 Years					
Sl. #	**Description**	**Activity**	**Target**	**Unit cost (Taka)**	**Total Cost (Taka)**
1	Organizing the project participants	Project inception workshop	1	60,000	60,000
		Orientation on Financial Literacy and profitability analysis of fisheries project (25 participant in each batch)	160	750	120,000
		Orientation on cross-cutting issues (nutrition, gender, environment, clim ate adaptation etc.) (25 participant in each batch)	160	750	120,000
		Business management training of the participants (30 participants in each batch)	8	15,000	120,000
	Sub Total				**420,000**
2	Input Suppliers	Orient local inputs supplies on the quality of inputs (25 participants in each batch)	4	15,000	60,000
		Linkages meeting with input suppliers for quality inputs	5	15,000	75,000
		Support entrepreneurs for producing quality inputs (feed, fry, PL)	2	200,000	400,000

		Support Fish Nurser for nursing of fish fry/fingerlings	15	15,000	225,000
		Support entrepreneurs for piloting of black solder fly larvae production nurser for nursing of fish fry/fingerlings	8	15,000	120,000
	Sub Total				**880,000**
3	Production and producers	Arrange advance training of producers on safe fish & shrimp prodyuction (30 participants in each batch)	120	8,000	960,000
		Establishing demonstration plot in seasonal pond	20	20,000	400,000
		Establish demonstration on improved extensive/ semi-intensive fish farming technology	15	35,000	525,000
		Demonstration plot of small indigenous species (SIS), native fish species etc	20	20,000	400,000
		Promote Fish culture in tank	10	15,000	150,000
		Establishing demonstration plot in other aquatic species/ other technology	10	15,000	150,000
		Arrange learning-sharing visit (Lumpsum)	1	100,000	100,000
	Sub Total				**2,685,000**
	Traders	Improve hygiene and sanitation of fish arat/depot	5	30,000	150,000
	Wholesalers	Support for developing aggregation/collection point	5	50,000	250,000
		Support entrepreneurs for producing & marketing of 'Ready to Cook' fish products	1	250,000	250,000

4	Small processors	Support entrepreneurs for producing & marketing of 'Ready to Eat or fried' fish products	10	50,000	500,000
	Support services	Capacity building of Leader farmers/ LPS development (25 participants in each batch)	2	15,000	30,000
		Develop 'Fish Information & service Centre'	8	40,000	320,000
		Development of fry/fingerling transportation system (insulated van)	4	50,000	200,000
		Support producers for E-commerce/online marketing (Lumpsum)	1	200,000	200,000
	Sub Total				**1,900,000**
5	MIS and M&E	Conduct baseline study	1	200,000	200,000
		Conduct endline study	1	250,000	250,000
		Publicity & publication (Lumpsum)	1	150,000	150,000

	Sub Total				**600,000**
6	Management cost:	Capacity building of PO staffs for implementation of sub-project (Lumpsum)	1	60,000	60,000
		Office management cost (photocopy, stationeries, currier etc.)	36	2,500	90,000
		Staff meeting (quaterly)	12	2,500	30,000
		Miscellaneous cost (Lumpsum)	1	41,000	41,000
	Sub Total				**221,000**
7	Salary & allowances	Project Manager (Partial contribution)	36	10,000	360,000
		Assistant value chain facilitator (2 person for 3 years, 3 bonus & Nobo borsho allowance)	79	30,000	2,358,000
		Finance & Admin Officer (Partial)	36	6,000	216,000
	Travel expenses	Trans port cost for staffs (Project Manager, AVCF, Finance Officer)	36	10,000	360,000
	Sub Total				**3,294,000**
	Grand Total				**10,000,000**

Table 12C: Sample Horticulture subproject

Sample Value Chain Budget

Sector: Horticulture sub sector

Duration: 3 Years

Sl. #	**Description**	**Activity**	**Target**	**Unit cost (Taka)**	**Total Cost (Taka)**

1		Orientation on Financial Literacy (25 participant in each batch)	160	750	120,000
		Orientation on cross-cutting issues (nutrition, gender, environment, clim ate adaptation etc.) (25 participant in each batch)	160	750	120,000
	Sub Total				**240,000**
2	Input Suppliers	Orient local inputs supplies on the quality of inputs (25 participants in each batch)	4	15,000	60,000
		Linkages meeting with input suppliers for quality inputs	4	15,000	60,000
		Input supply for safe food production and procesing (Lumpsum)		150,000	150,000
	Sub Total				**270,000**

3	Production and producers	Arrange training of producers on safe fruits and vegetable production (25 participants in each batch)	120	8,000	960,000
		Establishing demonstration safe vegetables production	150	5,000	750,000
		Demonstration on safe fruits production	20	10,000	200,000
		Demonstarion on climate resilient agricultural technology	40	15,000	600,000
		Organize field day	15	10,000	150,000
		Establishing demonstration on pulse, oils and spices crop/other technology	50	5,000	250,000
		Establishment of seed village	50	5,500	275,000
		Arrange learninh-sharing visit (Lumpsum)	2	50,000	100,000
	Sub Total				**3,285,000**
	Traders	Workshop/ consultation meeting with downstream market actors	4	20,000	80,000
	Wholesalers	Business deal meeting with Wholesalers	4	20,000	80,000
		Support for developing agril. Product collection and marketing	4	50,000	200,000
	Small processors	Orientation for entrepreneurs on agro-processing & marketing (20 participants in each batch)	5	15,000	75,000
		Support entrepreneurs for agro-procecing & marketing of agricultural products	4	120,000	480,000
		Equipment/inputs/small infrastructure repair etc. support for entrepreneurs	20	20,000	400,000

4	Support services	Capacity building of Leader farmers (25 participants in each batch)	2	15,000	30,000
		Establishment of 'Agricultural marketing & service Centre'	4	200,000	800,000
		Development of agricultural product transportation and marketing system (improved van)	4	50,000	200,000
		Support to entrepreneurs for product promotion and marketing (Lumpsum)		100,000	100,000
	Sub Total				**2,445,000**
5	MIS and M&E	Coduct baseline study	1	150,000	150,000
		Conduct endline study	1	250,000	250,000
		Publicity & publication (Lumpsum)	1	100,000	100,000
	Sub Total				**500,000**

6	Management cost:	Capacity building of PO staffs for implementation of sub-project (Lumpsum)	1	50,000	50,000
		Office management cost (photocopy, stationeries, currier etc.)	36	2,000	72,000
		Staff meeting (quaterly)	12	2,000	24,000
		Miscelleneous cost (Lumpsum)	1	36,000	36,000
	Sub Total				**182,000**
7	Salary & allownces	Project Manager (Particial contribution)	36	10,000	360,000
		Assistant value chain facilitator (2 person for 3 years, 3 bonus & Nobo borsho allownce)	79	30,000	2,358,000
	Travel expenses	Trans port cost for staffs (Project Manager, AVCF, Finance Officer)	36	10,000	360,000
	Sub Total				**3,078,000**
	Grand Total				**10,000,000**

79. **Evaluation of the PO proposal**. Two steps will be followed for selection of value chain subproject for implementation under GREEN project: a) general criteria for selection of a PO; an b) selection of a value chain proposal from a PO.
80. General criteria for PO selection: The following criteria are considered for selecting the POs regarding implementing a development project of PKSF: a) The PO is official partner of PKSF; b) PO that works in the poverty incidence area in Bangladesh; c) Work in a cluster of economic activity; d) Operate microcredit program and have a good record to PKSF; e) Work special geographic area for enhancing development; f) Having human resources and capacity for development project operation and management; g) Having a good record and relation with local govt., public institutions and other local stakeholders.
81. **VCD proposal evaluation matrix and scoring.** The following scoring system (Table 13) may be used for VCD proposal evaluation. This may be further refined and revised during implementation.

Table 13: Evaluation Matrix for Scoring PO Proposals

Criteria	Score
Technical criteria for VCD	**60**

Number of beneficiaries (higher is better)	
Proper value chain analysis for selection of subsector	
Value chain analysis for identification of constraints and opportunities	
Appropriateness of project activities in all areas (input, production, trade, processing, support services etc.) that corresponds to value chain analysis	
Capacity of the PO	10
Adequacy of human resources, system and credit program	
Additional criteria: Nutrition, environment and Ecology	15
Nutritional sensitivity VC: Integrating nutrition considerations at each step of the value chain[2]; Creative low-cost solution for promoting behavioral changes in health and nutrition; Provisioning support for homestead gardens and backyard poultry for poorest households	
Business solution for environmental problems.	
Business solution for ecological problems.	
Climate risk assessment and adaptive solutions	
Cost and finance	15
Detail budget	
Contribution of the PO	
Cost per beneficiary	
TOTAL SCORE	100

82. *Approval process:* An appropriately staffed PMU to implement the project shall be established. The PMU shall work through officers of the PKSF's Loan Operations Division (the "LOD") to implement the loan Programme under component 2 of GREEN. The LOD shall implement the ME loan programme as per established processes and norms through the POs. The PMU shall take the lead role in organizing, implementing, supervising and monitoring all activities under components 1 and 3. The PMU shall help the POs develop VC development proposals, review and negotiate with POs and obtain approvals for the proposals by the Value Chain Sub-project Approval Committee composed of PKSF senior officials. The process shall serve to ensure transparency, bring additional expertise (if needed), establish linkage with the LOD and support consistency among all projects. The authority on relevant financial approvals will rest with the Managing Director of PKSF. The PMU shall determine the needs for external technical support and technology and product for promotion and shall engage with appropriate external partners (if needed) for implementing activities under component 1 and 3. The PMU shall further take the lead on the organization of all training and studies and other incidental work of the project.

83. Updating of Sector Strategy Papers produced by RMTP. GREEN will take advantage of three sector studies produced and are being used by RMTP: CROP & Horticulture, Poultry & Livestock, and Aquaculture & Fisheries. These studies have been the basis for designing value chain subprojects under each sector. GREEN will primarily focus on its interventions in these three broad sectors. The experience of RMTP will be crucial for

[2] https://www.ifad.org/en/web/knowledge/-/publication/nutrition-sensitive-value-chains-a-guide-for-project- design

GREEN. The future GREEN PMU will quickly update these three documents by a) incorporating lessons from RMTP regarding the interventions that have been found most effective and sustainable, b) conducting additional consultations with sector experts and potential beneficiaries from project districts, and c) receiving updated information from input suppliers, technology providers, important producers/buyers and other service providers of each segment of the value chain. The POs will be important sources of information for this purpose. Besides, impact studies, sector studies conducted by RMTP will be an important source of information. The process is expected to be conducted by sector experts of PMU in collaboration with POs. No external firms will be recruited for this purpose. The PMU will continue to update these papers as new information and experience are gathered during implementation of the project.

84. Matching Grants. In several value chain subprojects, POs may propose promoting new technologies to some selected beneficiaries to demonstrate improvement in productivity as has been the practice of RMTP. If proven correct, other beneficiaries are expected to replicate and invest in such productivity enhancing technologies. To provide some incentives and reduce risks the project may provide some matching grants to the recipients, which may vary between 20-30% of cost of such technologies, the remaining will be provided by the beneficiaries. The provision for such grants will be allocated in the subprojects and will be approved by the PMU on case-to-case basis.

4.1.2 Subcomponent 1.3: Campaign for healthy and nutritious food.

Nutrition sensitive activities in Subcomponent 1.1 and 1.2.

85. Recognizing that improved incomes do not automatically lead to better nutrition outcomes, the project will hire a nutrition specialist to assist the POs with the design, implementation and monitoring of nutrition-sensitive value chain investments and social behaviour change communication. The specialist will work with PO staff to develop appropriate training courses and materials to raise awareness and understanding of nutrition issues, and so ensure that nutrition-sensitive subprojects are designed and implemented well. To take advantage of existing knowledge and expertise on nutrition in the country, GREEN will pursue partnerships with relevant UN organizations, NGOs, PKSF projects like RMTP and PPEP-EU, and the Bangladesh National Nutrition Council.
86. The GREEN project will support PKSF to undertake countrywide value chain analyses for selected commodities to identify entry points for implementation. On this basis, PKSF will issue requests for proposals (RFPs) from POs to develop and implement value chain subprojects. PKSF will also issue a detailed guidance to the POs to develop the proposals along with objective criteria to evaluate the proposals. One of the evaluation criteria would be the nutrition potential of the subproject which would be determined by:
    - Nutrition integration along the value chain
    - Supporting the poorest households with homestead gardening or backyard poultry or ponds
    - Behaviour change communication activities

87. The project will aim to improve the quality of diets of the target population, measured through Minimum Dietary Diversity-Women, an indicator adopted by Bangladesh at the national level. The project logframe has adopted the IFAD CI 1.2.8 Women reporting Minimum Dietary Diversity MDD-W and IFAD CI 1.1.8 Households provided with targeted support to improve their nutrition.
88. Nutrition Integration along the value chain: The following nutrition sensitive activities are envisioned within value chain development activities:
    - *Input supply stage: a)* Increasing the supply of nutrient rich seed varieties, and increasing use of high yielding varieties and seeds/breeds approved by the government; b) increasing application of micronutrient fortified fertilizers, where applicable subject to testing of soil fertility and nutrition; and c) increasing access to improved feed and vaccines etc.
    - *Food Production: a)* Select food value chain development that has market potential, income-growth potential and nutrition-enhancement potential building on the PKSF's experience from the RMTP project; b) diversifying agricultural systems by intercropping, livestock/fish integrated farming with agriculture; c) producing other food as companion crops for family consumption; c) increasing counter-seasonal production to improve year-round availability; d) introduce improved agricultural practices and technologies to improve the capacity of producers so that the food produced is safe and of good quality and increases in quantity.
    - *Harvesting, Storage and Processing Stages: a)* Providing technical assistance for low-cost technologies to reduce food and nutrient waste and to reduce insect and other pollution; b) Undertake measures to preserve the natural nutrients of the foods; c) Not adding any substances harmful to health such as salt, sugar or trans-fat during processing to enhance/reduce flavor or for any other purpose; d) minimize food wastage during processing; and d) create awareness about food safety during processing.
      Food Distribution and Transportation: a) promote transportation that keep nutrients intact (e.g. cold chain method); and b) ensure that food distribution system reaches the rural poor.

89. *Food Marketing: a)* Diversifying the products of microentrepreneurs; b) providing information to reduce transaction costs; c) providing information on current prices and future potential prices of food products; d) improving microentrepreneurs' access to local and informal markets where low-income consumers traditionally purchase food; c) prioritizing the online marketing; e) nutrition labeling on food packaging, i.e. providing information on the main nutrients contained in the food (as provided in the Food Composition Tables for Bangladesh); and f) Promotion of small packaging and labeling for low-income households to increase nutrition awareness. Supporting the poorest households with homestead gardening or backyard poultry or ponds

90. GREEN will support the identified poorest households by providing them with economic means to increase and improve their household consumption of adequate micronutrients and proteins in the diets, with only surplus being sold in markets. This intervention will build on the homestead vegetable gardening in IFAD SACP, that distributed micro-gardening kits to the poor and vulnerable households. The project will improve on this model, as for example where applicable, whereby homestead gardening (vegetables and fruits) will be integrated with backyard livestock (poultry, small stock) and and/or fishponds as applicable. In such integrated model, the fishpond provides water for the garden and nutrient-rich mud, the garden and home waste feeds the animals and fish, and animal manure feeds the garden and small water plants that fish feed on. The homestead garden models will also build on those already developed by BARI. Innovative models such as micro-gardens, vertical gardens, keyhole gardens and floating gardens will be explored. Also, to be considered are factors affecting cropping patterns in different agro-ecological zones. The results should lead to the adoption of available varieties and species, particularly those that are nutrient dense and adapted to the local context.

91. Implementation Modalities:
    a. Based on the proposal guidelines received from PKSF, the PO would conduct a mapping of the households that are poorest and nutritionally vulnerable and are not able to take part in the value chain activities. Along with mapping, the PO will also identify what could be taken up at each household depending on the context (area, water availability etc).
    b. For such households, POs will propose homestead gardening/backyard livestock and/or fishponds as in intervention in their proposal to PKSF.
    c. The Assistant Technical Officer (ATO) and other community level staff/volunteers will be responsible to provide information to the household on how to establish homestead garden/backyard livestock/fishponds and will conduct monthly visits to provide support and essential information regarding consumption of nutritious foods at household level, food safety and optimum WASH behaviours.

92. Behaviour Change Communication Activities: This subcomponent will address the knowledge, attitudes and practices that hinder healthy diets. The nutrition education and SBCC will target all groups to create awareness of diversified diets and good nutritional practices. Specific activities to be conducted under this subcomponent include:
    a) Development and revising nutrition-specific campaign materials by PKSF
    b) Development of training materials on nutrition and nutrition-sensitive activity
    c) Orientation on nutrition, climate change, environment and ecology for members of 10,000 microfinance groups. Under nutrition awareness activities, areas like importance of balanced diet, food groups, food safety, mapping locally available nutritious food items would be covered.
    d) Organize village-level healthy food events
    e) Orientation on homestead fruits and vegetables gardens and small-scale poultry production
    f) Organize village-level WASH campaign for 100% sanitation and safe water.

Sensitisation sessions for microfinance groups

93. It is envisaged that the monthly sensitisation sessions with the microfinance groups will provide an opportunity to enhance knowledge of the members on financial literacy, especially related to household budget

planning, awareness on nutrition, WASH, climate, environment, and social issues. These sessions would be approx. 1 hour duration each, and participation of couples (both men and women) from the households will be encouraged. The place/room for the meeting of microfinance members should be close to the houses of all members where the members can move easily and independently. The group will comprise of 25-30 members; however, participation of other influential persons (e.g., household head and mothers-in-law) from the members' families will be encouraged. For monthly meeting of the members, meeting time will be decided based on availability of most members. The meeting will be held on a definite date, at a definite place and time. If necessary, considering the busy time of the members in the year the meeting time would be prefixed. Audio-visual and pictorial materials on nutrition, climate change and Household financial management will be communicated through these meetings. All such materials should be widely shared through social media. The project would consider developing an App for dissemination purpose and upload all such materials in the project website.

94. **Implementation Modalities:**

a. Audio-visual and pictorial content will be developed at PKSF. Existing material will be reviewed and adapted if possible. The themes that could be covered include importance of nutrition, healthy diets, food safety, optimum WASH behaviours, climate change/environment, and household financial planning to save some income for future use in case of a disaster and spending some income of essential needs like better nutrition, good education and other essential needs.
b. The ATOs and other field staff of the PO would be given a brief training on the objective of these sessions, importance of participation of both men and women, and the material developed.
c. The ATO and other field staff at the PO level will undertake microplanning identifying the date/time and venue of these sessions, considering availability of most members in the village/area.
d. On the day of the session, efforts would be made to mobilise both men and women to the meeting venue, giving due importance to cultural norms.
e. The facilitator (ATO or other field staff of the PO) will show the video and then try to initiate a conversation within the community on what they feel about it and how they could work together to improve the situation.

Community events and campaigns for village-level healthy foods and WASH

95. POs will organize healthy foods and WASH campaigns in selected project areas for awareness building. The campaign will need to be done through audio-visual aids so that the listeners/viewers can absorb it easily. The potential campaign would be designed, considering the following:

a) The campaign should be carried out at the village level ensuring gathering of community members including men, women, elderly people and community influencers like religious leaders etc.
b) This gathering can be done in the courtyard of a house in the village or in the field of a nearby school by hanging a curtain or hanging a banner.
c) Area chairmen, religious leaders, members, officials working on nutrition of GO-NGOs, all can be invited in this campaign.
d) All these officials will start the program with their speech at the beginning of the campaign.
e) Topics to be discussed in the case of healthy food events may be:
   - Why nutrition is important; effects of malnutrition on cognitive abilities and overall development;
   - Is better income enough to improve nutrition?
   - Providing ideas on how to provide daily nutritious food even if the income is low, information about local foods that are nutritious and easily available;
f) Explaining the benefits of eating a variety of foods every day. Topics to be iscussed in the case of WASH campaign may be:

- Importance of optimum WASH behaviours; effects of poor WASH practices on our health and nutrition
- Explaining/demonstrating appropriate way of handwashing;
- Key moments requiring proper handwashing;
- Promotion of safe sanitation practices
- A variety of food products can be showcased in the campaign for healthy food events. Foods should be local, nutritious and beneficial for health.
- Cooking demonstration can also be organised as part of the campaign focusing on correct preparation techniques and food safety norms. Eg: Khichuri cooking
- Rallies can be organised by mobilising the local stakeholders and engaging children. The rally will go around the village with nutrition and WASH related slogans. Few rickshaws/vans with public announcement systems can be hired to disseminate the audio messages to the larger community.

96. **Implementation Modalities:**

a. A detailed microplan to be developed for organizing the community campaigns. The frequency of the campaign is suggested to be on a quarterly basis. For each campaign, an operational plan of activities would be developed and the same could serve as a suggested template.
b. The ATO and other field staff of the PO will ensure that the community is informed about the event. They will also ensure to mobilise the community leaders and the target population to the venue.
c. The campaign would be facilitated by the PO staff with support from other stakeholders like women's groups, school teachers and health officials.

4.2. COMPONENT 2: INCLUSIVE FINANCIAL SERVICES FOR VALUE CHAIN PARTICIPANTS

97. **Component 2: Financial services for value chain participants**. The outcome of this component is 'Outcome 2: All value chain participants have access to credit that matches business needs.' It is divided into three subcomponents: Subcomponent 2.1: Financial services for the extremely poor; Subcomponent 2.2: Seasonal credit (Sufolon); 2.3 Regular microcredit (Jagoran); and 2.4 Microenterprise loans.

98. Component 2 will complement Component 1, as beneficiaries cannot start or expand production/businesses without access to capital. Financial service is the main service and strength of PKSF and POs. All IFAD-funded projects in Bangladesh had a credit line as a key element to ensure that the extremely poor, marginal and small farmers, microentrepreneurs, and other beneficiaries, have access to credit at any time of the year with known terms and conditions. With the widening access to the Internet, the project will promote fintech as well as a higher number of online transactions among beneficiaries and businesses, and financial institutions.

99. The project will provide a line of credit to meet the diverse credit needs of poor households in the project areas:

a. Small credit for the extremely poor: A significant proportion of the poor in the project areas will need smaller credit amounts with flexible repayment systems. To address this, the project will expand the 'Buniad' loan product, offered by PKSF and POs, through a line of credit.
b. Seasonal loans for agriculture and microbusinesses: The project areas rely heavily on field crops, with most regions producing two seasons of field crops and engaging in horticulture, poultry, livestock, fisheries, trading, and small-scale processing. These activities require seasonal loans, which offer repayment options either in monthly installments or at the end of a season or cycle. The project will support the expansion of these loans according to beneficiary demand.
c. Rural microcredit (Jagoran). Aside from seasonal loan, microcredit members require loans

throughout the year, which are met by the so called 'rural microcredit'.

d. Microenterprise loans: Rural Bangladesh is witnessing the growth of farm and non-farm microenterprises, including those in the services sector, which are fostering economic growth and employment. Even in poorer areas, such enterprises are prevalent in horticulture, livestock, fisheries, small-scale manufacturing, and services. The project aims to provide a line of credit for microenterprise loans, subject to fund availability. Otherwise, PKSF and POs will offer these loans through their regular programs.

100. Allocation of IFAD line of credit. Of the total USD 70 million line of credit: a) USD 10 million will be allocated for the extremely poor loan product which has a smaller average loan size; b) USD 25 million will be for seasonal loan as many beneficiaries belong to marginal and small fame rs categories with investments in all three agricultural sectors; c) USD 20 million for rural microcredit that can be accessed by farm and non-farm borrowers as the project will also be investing in non- farm sectors; and d) USD 15 million Microenterprise loan as each value chain has about 20% of participants who need larger loans, many of them employ poor women and men and buy from smaller producers.

101. Credit beneficiaries. A total of 258,333 borrowers will have access to credit. The line of credit will be revolved as credit fund by PKSF and POs and ensure access to credit by value chain participants at any point in time of the year. The IFAD loan will be financing the portfolio of the above mentioned four credit products. Disbursement from IFAD will be linked with an increase in loan outstanding from PKSF to POs of each loan product.

102. Contribution from PKSF and POs. Component-2 will be financed as follows: a) USD 70 million loan from IFAD; b) PKSF's contribution of USD 55 million; and c) POs' contribution of USD 70 million. PKSF and POs will be contributing to increase the total loan portfolio to the beneficiaries. First, this contribution will come from disbursement of loans (primarily larger) booked into the GREEN portfolio to existing borrowers. Second, POs will be giving loans to new borrowers who will be joining the POs for value chain development services. In both cases, the POs will normally disburse larger loans due to expansion of businesses of borrowers as well as inflation. The increased loan will come from POs accumulated surpluses and savings funds. Including the contribution of PKSF and POs, in addition to IFAD's injection of USD 70 million, shows the actual total size of the project to the Government.

103. Microenterprise loan and business plan development. POs have been offering microenterprise loans for more than two decades and developed a robust process of evaluating ME loan proposals. It is expected that POs will follow the same process in GREEN, which may be updated from time to time, Since the majority of ME loans will be between Taka 300,000 to Taka one million, the process involves reviewing the business proposals from beneficiaries by experience credit officers (of POs). Such loans are normally meant for expansion of existing smaller businesses. The concerned credit officer will review market, production techniques, human resources and financing needs of each ME. The credit officer prepares a projected income statement and cash flow statement that shows profitability and loan servicing capacity before recommending each ME loan proposal to the approving authority.

104. Climate adaptation. All credit for production purposes in all value chains may be classified as climate adaptation loans.

105. Current terms and conditions of PKSF's loans to POs. PSKF will apply its existing policies, rules, regulations of microfinance program for the GREEN line of credit.

106. Procedures for loan disbursement to POs

a) Every year before the beginning of the financial year POs apply for approval of new loans for the four types of loans.
b) PKSF will use existing ratings of POs based on size (number of 'members'/borrowers, loan outstanding), portfolio quality and implementation capacity.
c) Based on ratings, the annual loan and interest rate from PKSF to PO will be determined
d) PKSF approves and LOD disburses the loan in installments. The loan installment is normally for 36 months to be repaid in 10 installments with 6 months grace period.
e) PKSF refinances PO portfolio.

f) LOD monitors POs performance through on-site inspection and standardized monitoring reports.

4.3. COMPONENT 3: INSTITUTIONAL CAPACITY BUILDING OF IMPLEMENTING PARTNERS

107. The outcome of this component is 'Outcome 3: Capacity of PKSF and POs enhanced in climate change, environment, and food system development mainstreaming'. The component has two subcomponents: Subcomponent 3.1 3.1 Capacity building of PKSF in Food System Development; and Subcomponent 3.2 Capacity building of POs in Food System Development.' The proposed activities are training of officials of PKSF, POs and other stakeholders on food system development, design and implementation of value chain subprojects, enterprise management, application of ICTs in value chains and financial services, climate change, ecology & environment and nutrition, preparation of policy documents, etc., exchange visits, piloting of small activities etc. Subcomponent 3.1 will be fully funded by PKSF, and the cost of Subcomponent 3.2 will be shared between PKSF and POs.

Project Management

108. PKSF will: (i) continue to review and evaluate value chain subproject proposals through its Value Chain Evaluation Committee; (ii) organize and fund the capacity building of its own staff as wellas that of POs and value chain actors; (iii) identify potential value chains to invest in and outsource commodity/sub-sector/market studies; (iv) provide clear guidance to POs on preparation and management of value chain subprojects; (v) contribute to the preparation of value chain proposals by POs by providing guidance and sharing relevant sector and marketing studies; (vi) share experiences with other value chain development operations and rationalize common activities; (vii) engage in policy advocacy for necessary changes in rules, laws, and standards; and, (viii) identify suitable technical assistance providers or individual experts to provide capacity building to PKSF staff, POs, and value chain actors and associations.
109. POs will: (i) undertake or outsource an initial mapping of key actors in each selected value chain (producers, service providers, input suppliers, traders) as well as marketing channels and relevant associations; (ii) prepare proposals for value chain subprojects; (iii) provide and manage microcredit and other financial products for producers and microentrepreneurs; (iv) guide the upgrading of the selected value chains; (v) ensure the availability and linkages of qualified providers of services to value chain actors; (vi) advise producers on input supply and market access; (vii) ensure that all services to producers are supplied by the private sector (where feasible) on commercial basis; and, (vii) monitor, evaluate and report on progress, and analyze issues and lessons.
110. PKSF will establish a Project Management Unit, integrated within its structure, for overall project management purposes. The PMU will be headed by a Project Coordinator appointed from PKSF's pool of senior officials. PMU staff will consist of some officers seconded from PKSF's core team and others recruited from the market. The PMU will work with PKSF's Loan Operations Division to implement the financial services programme through POs as per established processes and norms. It will work with POs and selected service providers for the implementation of the value chain component. PKSF's support divisions such as Audit, Administration, Agriculture, Human Resources, Accounts and Finance, Fisheries and Livestock, Research, Training, M&E, MIS and IT will provide relevant services to the project.
111. The PKSF has deputized one General Manager as the Project Coordinator (PC) who has coordinated with the design mission along with other officials. The project will be under the Environment and Climate Change Unit headed by a Deputy Managing Director (DMD). The project will be managed by ten (10) officers from PKSF and four (4) officials to be contracted by PKSF. The terms of reference, qualification, and experience of

professionals for each such position has been spelled out later in the document. The recruitment will follow PKSF's process as well as IFAD's service procurement rules. Component 2 will be implemented by PKSF's Loan Operations Division (LOD) as per its normal procedures, rules, and regulations.

112. The following Table 14 presents the designation, number of staff in each rank and type of contract:

Table 14 Composition of PMU

Project TA Team (Hired by the project)	PKSF deputed officials
Senior Program Manager-M&E, MIS, KM	Project Coordinator
Program Manager (ICT) Senior Program Manager (Finance & Accounts)	Deputy Project Coordinator (Food Systems) Microfinance Specialist
Asst Manager (Accounts)	Food System Sector Manager (livestock) Food System Sector Manager (Fisheries) Food System Sector Manager (Horticulture)Food System Sector Manager (Non-farm sector) Senior Program Manager (Nutrition, Gender and Inclusion) Senior Program Manager (Climate Change, Environment and SECAP) Program Manager (Training and Capacity Building)
Total (4)	**Total (10)**

113. **Recruitment of PMU staff members:** PKSF will follow its established recruitment process for recruiting all project staff members.

114. **Qualification and TOR for each position: The following Table 14 provides qualification and brief job description of each PMU official:**

Table 15: TOR of Professional staff members

Position	No. (#)	Work station	Education and Training	Experience and other factors	Major Job description
Project Coordinator	1	Dhaka and spend adequate time in the field as per need to supervise project activities	• Advance degree; at least four year undergraduate degree with good academic standing. • Training on enterprise management • Fluent in oral and written English and Bengali.	Senior PKSF officer Solid experience of private sector, value chain development, planning, and management and supervision of field activities	• Provide overall leadership and guidance for implementation of GREEN. • Accountable to produce results through implementation of the project • Develop work plan and budget and receive approval from PKSF, GoB and IFAD • Supervise PMU staff members and activities of POs. • Organize recruitment and training of project staff members • Prepare RMTP reports • Coordinate with IFAD, GoB and other stakeholders • Coordinate with LOD and other divisions of PKSF • Act as overall chief of administration, accounts and finance of the project
Deputy Project Coordinator (Food Systems, value chain component)	1	Dhaka and spend adequate time in the field as per need to supervise project activities	• Advance degree; at least four-year undergraduate degree with good academic standing. • Training on business management, Value chain development, institutional development; training on enterprise management • Fluent in oral and written English and Bengali	Senior PKSF officer (AGM/DGM) Solid experience of private sector, value chain development, planning, and management and supervision of field activities, Experience of managing similar project	• Supervise all VCD activities of the project

Microfinance Specialist	1	Dhaka and spend adequate time in the field as per need to supervise project activities	• Advance degree; at least four-year undergraduate degree with good academic standing. • Training on financial services management and institutional development; training on enterprise management	Senior PKSF officer (Manager, Asst. General Manager) with experience of managing financial services program of PKSF Experience in Procurement will be an added quality.	• Manage Component 2 of the project; • Financial planning and budgeting of the project • Produce all reports • Coordinate with Finance and a/c person • Supervise M&E, KM, communication activities of the project

			• Fluent in oral and written English and Bengali		• Plan and execute all institutional development (component 3) of the project
Food System Sector Manager of Sector Value chain specialist (Livestock)	1	Dhaka and spend adequate time in the field as per need to supervise project activities	• Advance degree (master's degree) in one of the following subject: animal science, animal husbandry, dairy science (exception can be made in academic subject if a highly experienced person is found to lead the activities in this category). • Training in business management, value chain development and management • Fluent in Bangla and English	• Minimum of 15 years' work experience, preferably in developmental organizations. • Minimum of 10 years' experience, technology transfer and/or value chain development project(s). • Progressively advanced career path and demonstrated capacity in project management • Willingness and ability to undertake regular travel all over the country	• Develop value chain strategy for livestock sector, integrating considerations for nutrition, gender and climate change. • Manage VCD subprojects; oversee GAP and HACCP training • Work with microfinance div, POs and private sector firms to establish market linkage and develop contract farming arrangement • Explore export potential of each subsectors • Identify new opportunities for interventions, transfer of technology, solve problems in value chains • Advise the PC and other managers and supervisors on value chain development • Conduct market research • Help the PC to develop annual plan and implement plans • Visit subprojects to identify opportunities and constraints, monitor progress and observe impacts • Prepare reports, case studies etc. • Do any other work assigned by the PC

Food System Sector Manager of Sector Value chain specialist (Fisheries)	1	Dhaka and spend adequate time in the field as per need to supervise project activities	• 4-year Undergraduate degree from reputed public or selected private universities. • Advance degree (master's degree) in one of the following subjects: fisheries technology, aquaculture, fisheries management, fish genetics and biotechnology, fish processing and quality control • Training in Microenterprise Development/Supply Chain Management/Value Chain	• Minimum 15 years of work experience, of which at least 05 years' experience in managerial positions in the fisheries value chain development project(s) in reputed organizations in fisheries sector • Progressively advanced career path and demonstrated capacity in designing, implementing, monitoring implementation of development project(s) • Experience of working in value-chain activities in projects funded by	• Develop value chain strategy for fisheries sector, integrating considerations for nutrition, gender and climate change. • Manage VCD subprojects; oversee GAP and HACCP training • Work with MEs, POs and private sector firms to establish market linkage and develop contract farming arrangement • Explore export potential of each subsectors • Identify new opportunities for interventions, transfer of technology, solve problems in value chains • Advise the PC and other managers and supervisors on value chain development • Conduct market research

			Management/Market System Development • Fluent in Bangla and English	international development organizations will be preferred • Willingness and ability to undertake regular travel all over the country	• Help the PC to develop annual plan and implement plans • Visit subprojects to identify opportunities and constraints, monitor progress and observe impacts • Prepare reports, case studies etc. • Do any other work assigned by the PC
Food System Sector Manager of Sector Value chain specialist (Horticulture)	1	Dhaka and spend adequate time in the field as per need to supervise project activities	• Advance degree (master's degree) in one of the following subjects: Business administration, development studies, horticulture • 4-year Undergraduate degree from reputed public or selected private universities in agricultural science • Training on Microenterprise Development/Value Chain Management/Supply Chain Management/Market System Development • Fluent in Bangla and English	• Minimum 15 years of work experience in reputed organizations of which at least 05 years' experience in managerial positions in implementing value chain development project(s). • Progressively advanced career path and demonstrated capacity in designing, implementing, monitoring implementation of development project(s) • Experience of working in value-chain activities under the projects funded by international development organizations will be preferred • Willingness and ability to undertake regular travel all over the country	• Develop value chain strategy for horticulture sector, integrating considerations for nutrition, gender and climate change. • Manage VCD subprojects; oversee GAP and HACCP training • Work with MEs, POs and private sector firms to establish market linkage and develop contract farming arrangement • Explore export potential of each subsectors • Identify new opportunities for interventions, transfer of technology, solve problems in value chains • Advise the PC and other managers and supervisors on value chain development • Conduct market research • Help the PC to develop annual plan and implement plans • Visit subprojects to identify opportunities and constraints, monitor progress and observe impacts • Prepare reports, case studies etc. • Do any other work assigned by the PC

Food System Sector Manager (Non-farm sector)	1	Dhaka and spend adequate time in the field as per need to supervise project activities	• Advance degree (master's degree) in one of the following subjects: Business administration, development studies, economics, and related subject such as Marketing, Management etc. • 4-year Undergraduate degree from reputed public or selected private	• Minimum 15 years of work experience in reputed organizations of which at least 05 years' experience in managerial positions in implementing value chain development project(s). • Progressively advanced career path and demonstrated capacity in designing, implementing, monitoring	• Develop value chain strategy for non-farm sector. • Manage VCD subprojects • Work with MEs, POs and private sector firms to establish market linkage and develop contract farming arrangement • Explore export potential of each subsectors • Identify new opportunities for interventions, transfer of technology, solve problems in value chains

			universities in agricultural science • Training on Microenterprise Development/Value Chain Management/Supply Chain Management/Market System Development • Fluent in Bangla and English	implementation of development project(s) • Experience of working in value-chain activities under the projects funded by international development organizations will be preferred • Willingness and ability to undertake regular travel all over the country	• Advise the PC and other managers and supervisors on value chain development • Conduct market research • Help the PC to develop annual plan and implement plans • Visit subprojects to identify opportunities and constraints, monitor progress and observe impacts • Prepare reports, case studies etc. • Do any other work assigned by the PC
ICT Specialist	1	Dhaka and spend adequate time in the field as per need to supervise project activities	4-year Undergraduate degree in Computer Science and Engineering/Information and Communication Technology/Computer Applications/Electronics and electrical engineering/ Electronics and Communication Engineering	• Minimum of 10 years of work experience as a software developer or system implementer or application developer in reputed organizations. • Experience Artificial Intelligence (AI), Internet of Things (IoT) will be preferred • Age limit: Maximum 40 years	• Coordinate all ICT applications of Component 3 • Develop requirements, guide suppliers, supervise installation, monitor system performance • Coordinate online MIS system development and application • Advise PC on ICT related issues

Financial Specialist	1	Dhaka and spend adequate time in the field as per need to monitor financial management affairs of project	Master's degree along with 4- year Undergraduate degree in Finance, accounting, Business administration, and relevant subjects	• At least 20 years' work experience in financial management of which 08 years' experience in IFAD funded project and or other donor agency projects/programs • Extensive knowledge of Government/Foreign aided budgeting process, fund release, financial management and reporting requirements • Experience in development of accounting/financial reporting software • Hands on experiences in using OPEN and or similar online system for funding agency concurrences	• Prepare Annual Work Plan and Budget (AWPB), financial plans and revision thereto. as well as annual and bi-monthly disbursement forecasts • Review, monitor and examine expenditures (Budget vs. Expenditure Statement and Budget Variance Report) • Facilitate classification and analysis of financial information, update Project Coordinator and other Project Team Members • Prepare Quarterly Interim Financial Report (IFR) and other reports; • Review POs' Financial Report (expenditure statement), consolidate reports of partner organizations, analyse the financial situations • Review and analyse Sub-project proposals submitted by Partner Organisations

				• Profound proficiency in written and spoken English and report writing	• Conduct training in the field of budgeting, accounting, compliance and financial management. • Analyse ME loan program • Track project expenditures, ensuring full compliance with project rules and regulations. • Operationalize computerized accounting software for the project for accurate and timely management of financial resources • Work with M&E Specialist to prepare financial analysis of MEs and other businesses • Prepare case analysis of individual subprojects, MEs • Contribute to project physical progress report
Procurement Specialist	1	Dhaka; visit POs and other places if and when necessary	• 4-year Undergraduate degree from reputed public or selected private universities in management, public administration, accountancy, business, economics etc. • Training/degree on procurement and thorough knowledge in procurement rules is required.	Minimum of 15 years' work experience in development services in which at least 5 years in procurement.	• Process all procurements under the project • Ensure IFAD and PKSF procurement rules are compiled by the project and POs. • Help POs develop IFAD compliant procurement rules. • Act as office manager for the project • Coordinate with respective authorities and organizations in case any machineries are imported for value chain development. • Manage all logistics, small procurements etc.

M&E, MIS, Specialist	1	Dhaka and spend adequate time in the field as per need to supervise project activities	• Advance degree (master degree) along with honours degree in Management/Marketing/Agribusiness/Statistics/Economics/Sociology/Social Work/Social Welfare/Anthropology/Political Science/Population Sciences/Development Studies/Women and Gender Studies • Must have training on monitoring and evaluation	• Minimum 15 years of experience along with at least 5 years' experience in managerial position in the field of monitoring and evaluation. • Experience in monitoring and evaluation of value chain development and microenterprise development under the project funded by international development partners will be preferred • Fluent in Bangla and English	• Prepare TORs for various surveys and studies; • Conduct baseline and other impact assessment studies; • Conduct studies planned for the project to be managed by the PMU; write TOR, coordinate with procurement specialist to procure all services; • Assist POs to prepare subproject indicators and subproject log-frame, and prepare project reports. • Prepare impact studies of individual subprojects in collaboration with VC managers.

					• Conduct training on subproject planning, monitoring and evaluation of individual subprojects by POs. • Prepare sector specific report on experience of the project • Prepare KM products • Organize seminar, workshops and other activities to disseminate project results
Communicatio n, Publication & Knowledge Management Specialist	1	Dhaka and spend adequate time in the field as per need to supervise project activities	• Advance Degree (master degree) along with 4-year bachelor degree in any of the following subjects: Sociology, Psychology, Mass communication & journalism, Business Administration, Public Administration, Management, Bangla, English, Economics, Agricultural Economics, Women and Gender Studies • Training on development communication/profession al writing/publication/conten t preparation for various media will be preferred	• Minimum 15 years of experience • Minimum 05 years of experience in communication- related works in any reputed organization preferably in development organization(s). • Experience in publication, research in communication issues will be preferred • Skills in Empathic Communication and Behaviour Analysis, Public Speaking and Performance will also be preferred • Fluent in both Bangla and English	• Develop contents for project website • Maintain project website, facebook page • Organize seminars, workshops, and produce KM products • Coordinate with media/press • Disseminate project KM products among stakeholders • Coordinate with M&E and other officials to produce contents • Produce all video materials of the project.

Training Specialist	1	Dhaka and spend adequate time in the field as per need to supervise project activities	4-year Undergraduate degree from reputed public or private university on nutrition, public health	• Minimum 15 years of experience • Minimum 05 years of experience in training and training management elated works in any reputed organization preferably in development organization(s). • Experience in publication, research in communication issues will be preferred • Skills in Empathic Communication and Behaviour Analysis, Public Speaking and Performance will also be preferred	• Develop training materials • Organize training courses, seminars, workshops, and produce reports • Work with POs on training issues. • Coordinate with M&E and other officials to produce contents •

				• Fluent in both Bangla and English •	

Senior Program Manager (Nutrition, Gender and Inclusion)	1	Dhaka
		
		and spend adequate time in the field as per need to supervise project activities
			4-year Undergraduate degree from reputed public or private university on nutrition, public health, development studies, Health Economics, Sociology, Social Welfare, Women Studies or related fields	Minium 15 years' of overall all work experience
				
				At least 5 year work experience gender, poverty, inclusion areas
					• Liaise closely with Food System Sector Managers responsible for value chain development efforts to integrate nutrition at different steps of value chain.
					• Incorporate a short module on nutrition into all value chain training modules, covering the following key areas:
					  • Household Financial planning: utilizing improved incomes to but healthy, local and nutritious foods.
					  • Giving due importance to self consumption of diverse nutritious foods being grown by farmers
					Develop gender and inclusion and nutrition strategy and action plans for the project in collaboration with PC and DPC and other sector experts
					• Design and roll out campaign nutrition and other related issues under component 1.3 in collaboration with POs and other stakeholders.
					• Ensure compliance with project gender and inclusion plans by the POs.
					• Organize training on GIN issues for PMU, PKSF and PO staff members.
					• Assess impact of nutrition campaigns in collaboration with M&E and Communication specialist
					• Produce reports

Senior Program Manager (Climate Change, Environment and SECAP)	1	Dhaka and spend adequate time in the field as per need to supervise project activities	4-year Undergraduate degree from reputed public or private university on environment, climate science, development studies, Economics, Population science, engineering (hydrology etc), or related fields. If an undergraduate degree holder is not available an MS	Minium 15 years' of overall all work experience At least 5-year work experience in the relevant areas.	• Develop environmental solutions for value chain subprojects in collaboration with PC and DPC and other sector experts • Ensure SECAP compliance of the project • Organize training on GIN issues for PMU, PKSF and PO staff members. • Assess impact of environmental and ecological interventions in collaboration with M&E and Communication specialist

			in the relevant subject will be acceptable.		• Produce reports
Asstt. Manager (Accounts)	1	Dhaka; visit POs and other places if and when necessary	Master's degree in accounting or finance, or cost accounting (part) etc.	• Minimum of 12 years' work experience as accountant in reputed organization of which 06 years' experience in IFAD funded project and or other donor agency projects/programmes • Fully conversant with and have had hands on experience in using computerized accounting system • Proven track record of developing Chart of Accounts befitting in computerized Accounting System and reporting system	• Maintain books of accounts and other records; • Maintain records of bank transactions, preparation of Bank Reconciliation Report, and management of sub-grants to Partner Organizations etc. • Prepare Budget vs Actual Expenditure Report • Process all payments and disbursement, monitor banking activities • Cash flow management, monitoring of fund utilization • Prepare monthly, annual financial reports such as Project Financial Statement & various reports for funding agency and GOB. • Assist Financial Analyst/Project Coordinator in budget preparation, disbursements of project funds to POs, PMU; • Accounting of all fixed assets, payroll activity for staff members • Assist in all functions of Financial Analyst • Coordinate with PKSF accounts department regarding accounts and budget

VC Project Manager	TBD	Dhaka and spend adequate time in the field as per need to supervise project activities	• 4 year Bachelor degree or Master degree in one of the following subjects: Business Administration, Finance, Finance & Banking, Marketing, Agriculture, Agribusiness, Agricultural Economics, Economics, Social Work, Social Welfare • Must have training on Value chain development/ Supply Chain Management • Fluent in both Bangla and English.	• Minimum 05 years of work experience in agricultural value chain activities preferably in the developmental organization(s) • Experience in value chain development activities under the projects supported by international development partners will be preferred • Willingness and ability to undertake regular travel all over the country • Fluent in both Bangla and English • Age limit: Maximum 40 years	• Design value chain project • Assist POs to design VCD subprojects • Supervise and monitor selected subprojects. • Prepare reports, case studies • Conduct market research • Identify business opportunities • Liaison with private sector, public institutions, training providers, TA providers etc. • Prepare reports

5. MONITORING, EVALUATION AND KNOWLEDGE MANAGEMENT

115. The Monitoring, Evaluation and Knowledge Management (MCE-KM) area of the GREEN project is designed to ensure evidence-based decision-making, learning, and accountability. It will support all project actors—PMU, PKSF, POs, IFAD and national stakeholders—in tracking progress toward the project's development objectives, learning from implementation experiences, and scaling up good practices.
116. Knowledge management under GREEN will build on data and evidence generated from project monitoring and evaluation, supplemented by targeted research and learning initiatives. KM
117. products will be developed from multiple sources, including: (a) formal studies such as baseline, midline, and endline surveys; (b) Annual Outcome Surveys (AOS); (c) sector impact studies; (d)
118. assessments of technology adoption; (e) case studies; (f) environmental and ecological studies; (g) performance reviews of value chain subprojects; (h) policy papers; and (i) MIS-generated progress reports. These outputs will support evidence-based decision making, policy dialogue, and
119. dissemination of good practices across PKSF, Partner Organizations, and other stakeholders. The KM system will ensure that lessons from implementation continuously inform project adjustments and contribute to IFAD's broader knowledge and learning agenda.
120. The objectives of the MCE-KM area are to:
    - Monitor progress towards outputs, outcomes, and impact as defined in the Logframe.
    - Track the efficiency and effectiveness of implementation processes.
    - Generate data and evidence to inform project management and policy dialogue.
    - Facilitate learning, knowledge sharing, and communication of results.
    - Comply with IFAD reporting requirements and support performance-based supervision.
121. The system will generate timely and disaggregated data on outputs, outcomes and impacts, aligned with the logframe and the Theory of Change (ToC), and follow IFAD's methodological guidance and Core Indicators (CI) framework.

M&E Structure and Tools

122. The MCE-KM system will be structured around four interlinked instruments:
    - **M&E Plan:** Developed during the first semester of implementation, this operational document defines roles, responsibilities, data flows, tools and quality assurance mechanisms. It includes a calendar of deliverables and clarifies alignment with IFAD's ORMS.
    - **Monitoring and Evaluation System (MES):** A digital platform to monitor performance indicators, incorporating a unique beneficiary code system to avoid duplication, integrated with geospatial tagging, dashboards, and secondary data sources.
    - **Management Information System (MIS):** Tracks implementation progress (physical and financial) against the Annual Work Plan and Budget (AWPB), allowing regular internal monitoring. It is adapted from RMTP and tailored for GREEN.
    - **Annual Work Plan and Budget (AWPB):** Prepared with participation from POs, it includes physical targets and financial allocations aligned with output indicators.

Roles and Responsibilities

123. The MCE responsibilities must be shared between all the institutions involved. The PMU will be responsible for developing and managing the MCE system, under the coordination of the MCE Officer. Responsibilities include:
    - Development and refinement of the MCE Plan and associated tools.
    - Oversight of baseline, midline, endline, and outcome surveys.
    - Data quality assurance and consistency with IFAD guidelines.
    - Coordination with POs to collect data and ensure timely reporting.

124. POs are responsible for data collection at the field level and reporting against indicators included in the AWPB and logframe. All implementing partners should be trained in data collection protocols, reporting formats, and the use of digital tools (e.g., tablets, geospatial tools).
125. Individually, the following roles will be:

- MCE Officer (PMU): Leads the MCE system development, coordinates all studies and reporting, and ensures methodological consistency.
- MCE Focal Points (POs): Responsible for data collection at subproject level, uploading data into the MIS/MES, and participating in capacity building.
- External Support: May be engaged for technical assistance on survey design, evaluation, geospatial analysis, or MIS development.

Data Collection, Surveys and Reviews

126. A robust data collection strategy will be implemented:
    - Baseline Survey (Year 1): Conducted using georeferenced CAPI tools and a statistically representative sample to inform initial values for CI and project-specific indicators. The baseline survey is crucial to define the benchmark for data collection processes and implementation of indicators construction. The baseline study design should be coherent with the MCE plan and all the other tools.
    - Mid-Term Review (MTR): In Year 3, the MTR will use a mixed-methods approach to evaluate progress, validate the Theory of Change, and inform course corrections. The MTR design should follow the one implemented during the baseline process and be adjusted following the implementation changes.
127. Annual Outcome Survey (AOS): Conducted between midline and endline to track progress on outcome indicators and provide timely feedback. The AOS should be focused on outcome and impact indicators, as a previous impact for the endline survey and the PCR mission.
128. Endline and Project Completion Survey: Measures achievements against final outcome and impact indicators, serving as input to the Project Completion Report (PCR).
129. Routine Monitoring: Quarterly data reporting by POs, complemented by field verification visits by PMU and third-party agencies if needed.

Disaggregation and Mainstreaming

130. All indicators will be disaggregated by sex, age (youth), and geography (including highly climate- vulnerable areas). The system will mainstream the four IFAD cross-cutting themes: nutrition, youth, gender and climate.

Reporting and use of M&E

131. Quarterly Progress Reports: Based on PO data, shared with PKSF and PMU, these reports must be focused on feedback and accountability on the AWPB.
132. Progress Reporting: Semi-annual and annual reports will be prepared by the MCE Officer and reviewed by the PMU. They will include analysis of output and outcome indicators, variance analysis, and recommendations.
133. Mid-Term Review (MTR): Will assess the project's progress, validate the ToC, and provide strategic recommendations.
134. Project Completion Report (PCR): Based on the endline survey, the PCR will evaluate project results and capture lessons learned.

Knowledge Management (KM)

135. The MCE area will promote learning and reflection. Reports and dashboards will be shared with PKSF, POs, and IFAD. Feedback loops will be established to ensure that findings are discussed and used for adaptive management. The system will also feed into IFAD's Operational Results Management System (ORMS). Additionally, KM is integral to MCE, focused on converting data into actionable knowledge:
    - KM and Communication Plan: Developed alongside the MCE Plan to guide documentation and dissemination.
    - KM Products: Include case studies, lessons learned, learning briefs, policy notes and digital stories.

- Learning Events: Regular learning workshops, knowledge fairs and exchange visits will be organized to promote internal and external sharing.
- Collaboration with Research Institutions: Co-production of evidence and applied research will be encouraged.
- Policy Engagement: Evidence generated will feed into national dialogue platforms on rural finance, climate resilience and food systems.

Proposed Schedule and MsE-KM products

Design phase (Concept note and Design missions):

- Theory of Change
- Logframe
- AWPB
- PDR and PIM

Before implementation starts:

- Baseline survey and report
- MCE staff recruitment
- MIS adjustment from RMTP

First year:

- MCE-KM plan
- Communication plan
- MES and MIS validated and implemented
- AWPB validated

During implementation (annually):

- AWPB construction
- Quarterly reports
- Annual case studies
- Logframe update and output level feedback
- Learning events

Third year:

- MTR survey and report

Between fourth and fifth year:

- AOS survey and report

Last year:

- Endline survey and report
- PCR mission

Growth for Climate Resilient and Ecological Entrepreneurship and Nutrition (GREEN), Bangladesh

6. FINANCIAL MANAGEMENT SECTION OF PIM

June 2024

Glossary of terms

Term	Description
4P	Public, private, producer partnership(s)
Borrower	Government of Bangladesh
CO	Community Organization
COSOP	Country Strategic Opportunities Programme
DPP	Development project pro forma (of the Government)
DCU	District Coordination Unit
DSA	Daily Subsistence allowance
ERD	Economic Relations Division
FAO	Food and Agriculture Organization of the United Nations

GREEN	Growth for Climate Resilient and Ecological Entrepreneurship and Nutrition
FD	Finance Division (of Ministry of Finance)
FFEWS	Flash Flood Early Warning System (for Haor)
FID	Financial Institutions Division (of Ministry of Finance)
FM	Financial Management
FY	Financial year
GoB	Government of Bangladesh
HH	Household(s)
IA	Partner organizations
ICP	IFAD Client Portal
IFAD	International Fund for Agricultural Development
IFI	International Financial Institution
IFRs	Interim Financial Reports
IP	Implementation Partner
IPSAS Cash Basis	International Public Sector Accounting Standards - Financial Reporting Under the Cash Basis of Accounting
IT	Information Technology
LCS	Labor Contracting Society (of LGED)
LGED	Local Government Engineering Department
LSO	Local Support Organization
M&E	Monitoring and Evaluation
MFI	Microfinance Institution
MIS	Management Information System
MOF	Ministry of Finance
MoU	Memorandum of Understanding
MSME	Micro, small and medium enterprise
NGO	Non–Governmental Organisation
NRSP	National Rural Support Programme
NSER	National Socio-Economic Registry
P.A.	Per Annum
P&D	Planning and Development Board
PD	Project Director
PDO	Project Development Objective
PDR	Project Design Report

PIM	Project Implementation Manual
PKSF	Palli Karma-Sahayak Foundation
PMU	Project Management Unit
PO	Partner Organization (of PKSF)
PROVATi3	Promoting Resilience of Vulnerable through Access to Infrastructure, Improved Skills and Information
PSC	Project Steering Committee
PY	Project Year

SECAP	Social, Environmental and Climate Assessment Procedures
SO	Strategic Objective
SOE	Statement of Expenditure
Upazila	Sub-district
TOR	Terms of reference
UC	Union Council
VC	Value chain
VCD	Value chain development
WA	Withdrawal Application
WFP	United Nations World Food Programme

1. Introduction

The GREEN project will be a non-ADP project of the government. The Financial Institutions Division (FID) of MoF and the Palli Karma-Shayak Foundation (PKSF) will be the Executing Agency (EA) and the Partner organizations (IA), respectively. A Project Steering Committee (PSC) chaired by Secretary, FID/MOF, will monitor and guide the project, as per practice of the IFAD-funded PACE project. Other members of the PSC will be representatives from Financial Institutions Division (FID), Finance Division (FD), and Economic Relations Division (ERD) of MoF and PKSF.

PKSF will establish a Project Management Unit, integrated within its structure, for overall project management purposes. The PMU will be headed by a Project Coordinator appointed from PKSF's pool of senior officials. The PMU will work with PKSF's Loan Operations Division to implement the financial services programme through POs as per established processes and norms. It will work with POs and selected service providers for the implementation of the value chain component. PKSF's support divisions such as Audit, Administration, Agriculture, Human Resources, Accounts and Finance, Research, Training, M&E, MIS and IT will provide relevant services to the project.

The IFAD loan for GREEN will be passed on by MoF to PKSF in the form of a loan for the financial services component (component 2). The Component 1, 3 and cost of managing the project will be paid PKSF. The project will be outside the Annual Development Plan (ADP) and therefore does not require any Development Project Pro-forma (DPP). PKSF will sign a Subsidiary Loan Agreement (SLA) with MoF to receive loan as per the project design report (PDR). The resources under the financial services component will be on-lent by PKSF to POs.

PMU will enter MOUs with these POs which should include an outline of the financial management roles and responsibilities of each party. Refer to 20.11 for proposed MOU terms, and refer to section 4 of the PIM for an overview of the implementation arrangements.

This document should be read together with the:

- ✓ Project financing agreement entered between the Borrower and IFAD
- ✓ Letter to the Borrower
- ✓ IFAD General Conditions for Agricultural Development Financing
- ✓ Project financial management and financial control handbook for Borrowers
- ✓ IFAD Handbook on Financial Reporting and Auditing of IFAD-funded projects Click here for links

to documents.

Updates and changes to financial management arrangements

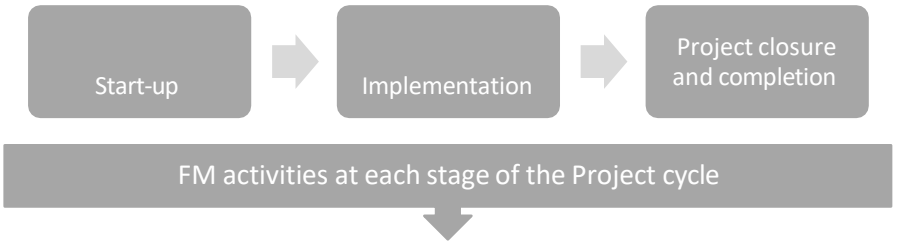
GREEN is an IFAD-funded Project, therefore, in line with IFAD's efforts to capacitate and support projects, this section was developed during the project design process. It is envisaged that ongoing improvements and updates to financial management arrangements be updated in this section of the PIM under supervision of the Financial Manager and subject to IFAD no objection.

Project summary

Project name	Growth for Climate Resilient and Ecological Entrepreneurship and Nutrition (GREEN)
Financiers, contributors, facilities	IFAD LOAN US$70 million PKSF $70.6 million POs $71.5 million
	Beneficiaries $0.6 million
Implementation period	6 years
Project area	All 64 districts in the Coastal, Haor, High Barind and River Char regions of Bangladesh

2. Project cycle and financial management activities

The Financial Managers of GREEN will have final responsibility for the execution of the activities at each stage of the Project cycle as outlined financial management below:



Start-up	Implementation	Project closure and completion
▪ Fill staff vacancies ▪ Implement project module in accounting software	▪ Ongoing improvements to the Financial Manual ▪ Budgeting ▪ Accounting	▪ IFAD Specific completion and closure procedures ▪ Final audit

▪ Identify possible customizations and implement (related to financial reporting) ▪ Preparation of first annual work plan and budget ▪ Opening of bank accounts ▪ Start-up training ▪ Attend anti- corruption workshop hosted by IFAD. ▪ PMU: conclude MOUs and contracts with Partner Organizations	▪ Disbursements and withdrawals ▪ Record keeping ▪ Internal controls ▪ Cashflow forecasting ▪ Auditing ▪ On-going training ▪ Implement performance evaluation[1] <u>The PMU only:</u> ▪ Financial reporting to IFAD	▪ Asset and inventory handover ▪ Budget wrap up ▪ Submit final WA for justification ▪ Refund of unspent balance

NB: The PMU Financial Manager will have the final responsibility to prepare consolidated financial reports for submission to IFAD. Refer to 13. for more detail.

3. Pre-implementation activities

During the start-up of the Project, it is recommended that Project staff undertake the following activities. These activities are recommended to ensure that Project staff are well informed and knowledgeable with regards to the financial management aspects of the Project once implementation commences:

Activity	Overview
Financial management staff appointment	• Fill vacancies to ensure capacity to manage the Project. Refer to 4. for the proposed organogram.
Accounting software	▪ PMU to procure accounting software and ensure that new staff are trained in the use of it. ▪ Incorporate correct chart of accounts (categories and components) in line with the detail in Annex 2 of the Financing agreement with IFAD. ▪ Upload the Cost Table (Annex 2 of the Financing Agreement) to the accounting software for the purposes of budgeting / monitoring.

- [1] ***Develop (in consultation with the Project Coordinator) a performance evaluation process for FM staff within 1 year of project commencement and document process in the PIM. This process should identify skills gaps and assist with identifying appropriate training interventions.***

Open bank accounts	▪ The Financial Managers, with the assistance from PD, will be responsible for the opening of the Project bank accounts. Refer 8.1 for overview of required bank accounts.
Preparation of first annual work plan and budget	▪ PMU Financial Manager will be responsible for the compilation of the first Annual Workplan and Budget, as directed by the Project Director, subject to IFAD no-objection. This budget will be a consolidation of the budgets obtained from PMU and other partner organizationss, following the process as outlined in 6.
Staff training and capacity building	▪ Newly appointed PMUs financial Management staff will be required to complete the IFAD FM e-learning and submit completion certificates to IFAD within 1 month of date of appointment. Refer 20. for link to training. ▪ Existing PMU financial management staff will be required to complete the IFAD FM e-learning within 1 month of project start-up (if not yet completed) and submit the completion certificate to IFAD. ▪ All staff are required to study the project related documents at project start-up.

4. IFAD Anticorruption policy

The management of Project funds shall be sufficiently rigorous to safeguard against Fraud and Corruption. Fraud and corruption include, but are not limited to (as defined in the IFAD anticorruption policy):

- 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 to parties or entities involved 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 primary responsibility for enforcing the Anticorruption Policy lies with the GREEN, and the first defense for controls shall be exercised by Project staff and counterparts Pursuant to this, the GREEN shall have the responsibility to incorporate pertinent provisions of the Anticorruption Policy in its contracts with Project staff, cooperating/partner organizationss, and suppliers/consultants.

It is the Project Director and the Project Financial Manager's responsibility to make sure that all Project staff are aware of IFAD's and the National's anticorruption policies and whistle blowing procedures.

GREEN can contact the IFAD Officer of Audit and Oversight to report events. How to contact the IFAD Office of Audit and Oversight

All communications are treated with the utmost CONFIDENTIALITY. By phone: +39 06 54592888

By fax: +39 06 54597888

By e-mail: anticorruption@ifad.org Through the online complaint form:

www.ifad.org/governance/anticorruption/how.htm In person or by mail to:

IFAD Office of Audit and Oversight, Investigation Section Via Paolo di Dono, 44

00142 Rome, Italy

Refer to annexure 20 for useful links.

5. FM organizational structure, roles and responsibilities

5.1 OVERVIEW OF FM ORGANIZATIONAL STRUCTURE

PMU will have an adequately staffed FM section. Finance Manager and other project officers will be competitively recruited on market-based salary and selection will require a No Objection from IFAD. FM staff from the recently concluded IFAD funded PACE project should be invited to participate in the recruitment process. Finance Manager will be assisted in his functions by two competitively recruited Account Officers with reporting to the Deputy Project Coordinator, Financial Services. Project will have largely centralized FM arrangements fully managed at PMU level. Implementation in the districts and communities are heavily reliant on the Partner Organizations therefore reducing the HR needs of PKSF at those levels. It would imperative that PKSF ensures that the POs have the requisite capacity to manage and implement the activities at those levels.

All finance staff to undertake IFAD Online Finance Management practices and procedures course and IFAD anti- corruption training. In addition to that, finance staff to attend induction sessions on IFAD financial management requirements as conducted by IFAD Finance Officer. Detailed job description and terms of reference as well as organigram for FM Section staff are provided in PIM.

5.2 FM STAFF - KEY ROLES AND RESPONSIBILITIES

Detailed job descriptions for the Financial Management Staff are outlined in 20.3, 20.4, & 20.5.

6. Planning and budgeting

PROJECT FINANCING HAS BEEN APPROVED IN LINE WITH THE FOLLOWING EXPENDITURE COMPONENTS AND CATEGORIES WHICH WILL BE AN IMPORTANT REFERENCE FOR PREPARATION AND MONITORING OF THE AWPB AND PROGRESS IN LINE WITH THE APPROVED FINANCING AGREEMENTS:

Components	Expenditure categories

Component 1: Ecology and Environment Friendly Food System Development	✓ Studies ✓ Training
Component 2: Financial services for value chain participants	✓ Credit
Component 3: Capacity building of PKSF and POs	✓ Studies ✓ Training

Component 4: Project Management	✓ Operating cost ✓ Salaries

[INSERT TABLES FROM ANNEX 2 OF FINANCING AGREEMENT]

The Financial Manager will be responsible for preparing a consolidated AWPB with input from the PMU technical team and by obtaining the individual budgets from both PMUs and other partner organizationss. PMU and the other partner organizationss are required to prepare a budget for the components/subcomponents for which they are responsible. The budget is prepared in Excel using the required format as outlined in 21.1. A bottom-up approach is required, whereby budgets are compiled from the Partner Organization level upwards. The Financial Managers shall start with the AWPB process with sufficient time to seek IFAD no objection as required in terms of the financing agreement.

Once the AWPB has been developed and approved, it must be inserted in the budget module of the accounting system of each of the agencies for the purposes of monitoring actual implementation in line with the budget. Each agency should monitor budget to actual expenditure for their individual components/subcomponents at least once a month. PMU should monitor the consolidated budget to actual performance on a quarterly basis with input from PMU and the smaller partner organizationss.

The Financial Manager needs to ensure that consolidated expenditure per category is in line with the approved totals in the Financing Agreement. If the budget monitoring process indicates and expected over-expenditure on one or more of the cost categories, the Project will have to obtain a no objection from IFAD, allowing a reallocation amongst categories.

For information on how to prepare the AWBP (including the roles and responsibilities of various stakeholders and approval processes) refer to the PIM.

7. Internal controls

7.1 OVERVIEW OF INTERNAL CONTROLS

It is recommended that the Financial Manager of PMU consider the guidance outlined in *Guidelines for internal controls for Public Sector Entities (INTOSAI GOV 9100)* when developing/improving the system of internal control *(also see COSO Integrated Framework – Internal Control).*

IN TERMS OF THE GUIDELINES FOR INTERNAL CONTROL STANDARDS FOR THE PUBLIC SECTOR (INTOSAI GOV 9199):

Internal control is an integral process that is affected by an entity's management and personnel and is designed to address risks and to provide reasonable assurance that in pursuit of the entity's mission, the following general objectives are being achieved:

- ✓ *executing orderly, ethical, economical, efficient, and effective operations.*
- ✓ *fulfilling accountability obligations.*
- ✓ *complying with applicable laws and regulations.*
- ✓ *safeguarding resources against loss, misuse, and damage.*

Internal control is a dynamic integral process that is continuously adapting to the changes an organization is facing. Management and personnel at all levels must be involved in this process to address risks and to provide reasonable assurance of the achievement of the entity's mission and general objectives.

AT PROJECT START-UP IT IS RECOMMENDED THAT THE FINANCIAL MANAGER OF PMU USE THE GENERAL FRAMEWORK FOR CONSIDERING THE INTERNAL CONTROL ENVIRONMENT WITH THE INTENTION OF IMPROVING THE EXISTING CONTROL ENVIRONMENT. IN TERMS OF THE GENERAL FRAMEWORK:

1) *PERFORM A RISK ASSESSMENT*
2) Develop control activities which address identified risks (or improve existing control activities)

3) Implement control activities (by documenting controls, updating the information systems, communicating to relevant parties)
4) Develop a system for monitoring the effectiveness of controls implemented Control activities should

be developed with consideration of the following categories:

Control activities	Description
Authorization and approval procedures	Authorization controls require certification that a transaction or event is acceptable for further processing. The delegated authority of staff should ensure efficient implementation while mitigating related risks. Authorization levels of Project staff should be in line with their underlying roles. For example, only the Project director may be authorized to approve payments.
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. For example, an Accountant might prepare a document, but it would then be reviewed and cleared by the Financial Manager, and then approved by the Project Director. It is the Financial Manager's responsibility to ensure that certain duties are segregated, including authorizing, processing, recording, and reviewing.
Access to resources and records	All data, records and assets should be kept in a physically secure environment. Petty cash should be kept secure. Financial data and other records should also be protected by back up procedures and copy records should be stored securely off site.
Verifications	Transactions and significant events are verified before and after processing, e.g., when goods are delivered, the number of goods supplied is verified with the number of goods ordered. Afterwards, the number of goods invoiced is verified with the number of goods received.
Reconciliations	Reconciliations between independent, corresponding sources of data are a key control for identifying errors and discrepancies in balances. The reconciliations should be done monthly. Any reconciling or balancing amounts should be promptly cleared. Unusually long outstanding reconciling items should be investigated. Physical checks should also be performed on assets and petty cash.
Reviews of operating performance	Operating performance is reviewed against a set of standards on a regular basis, assessing effectiveness and efficiency. If performance reviews determine that actual accomplishments do not meet established objectives or standards, the processes and activities established to achieve the objectives should be reviewed to determine if improvements are needed.
Reviews of operations, processes, and activities;	Operations, processes, and activities should be periodically reviewed to ensure that they follow current regulations, policies, procedures, or other requirements.

FINANCIAL MANUAL SECTION OF GREEN PIM	
Reviews of operations, *processes, and activities;*	Operations, processes, and activities should be periodically reviewed to ensure that they follow current regulations, policies, procedures, or other requirements.
Supervision	Competent supervision helps to ensure that internal control objectives are achieved. This includes assigning, reviewing, and approving an employee's work.

Control activities	Description
Information and technology related controls	Information and technology controls can be both general and related to applications. The major categories of general controls are (1) entity-wide security program planning and management, (2) access controls, (3) controls on the development, maintenance and change of the application software, (4) system software controls, (5) segregation of duties, and (6) service continuity. Application controls are the structure, policies, and procedures that apply to separate, individual application systems, and are directly related to individual computerized applications. These controls are generally designed to prevent, detect, and correct errors and irregularities as information flows through information systems.

Entities should reach an adequate balance between detective and preventive control activities. Corrective actions are a necessary complement to control activities to achieve the objectives.

The Financial Manual incorporates practical guidance on recommended control activities in the sections that follow which can be considered by the Financial Managers of PMUs when developing/improving internal controls. **New/improved controls should be documented in detail in the Financial Manual Controls should be considered at the central offices as applicable.**

7.2 Authorization and approval

- ✓ Each payment to be uploaded to accounting software based on an approved payment request
- ✓ Payments released on on-line banking platform by 2 authorized signatories (by using authorized log-in credentials)

7.3 Segregation of duties

- ✓ Payment requests prepared by Account Officer
- ✓ Payments reviewed/approved by Financial Manager / Project Director
- ✓ Payments recorded in accounting software by Account Assistant
- ✓ Payments released by authorized signatories (Financial Manager/Project Director)

7.4 Access to resources and assets

- ✓ Financial Management Office to be locked after hours and key retained by the Financial Manager
- ✓ Other project offices locked after hours are when not in use

7.5 Verifications

- ✓ Semi-annual fixed asset verifications (register to floor and floor to register)
- ✓ Fixed assets are tagged with unique number or barcode

7.6 Reconciliations, reviews, supervision

The following reconciliations, checks, monitoring and review activities should be prepared monthly (PMU central office level):

Type	Description	Preparer	Reviewer (Signed by)

Designated account bank reconciliation	Reconciliation of the bank balance of the designated accounts to the cash book balance. (IFAD format outlined in Appendix 21.12)	Account Officer	Financial Manager

Operational accounts / Interest accounts / tender accounts reconciliations (local currency)	Reconciliation of the bank balance of the operational accounts to the cash book balance.	Account Officer	Financial Manager
Petty cash reconciliation	Reconciliation of petty cash to relevant cash book. Refer 21.14 for reconciliation form.	Account Assistant	Budget and Finance Officer
Petty cash spot checks	Financial Manager to undertake random sport checks of petty cash (compare cash balance to petty cash book)	Account Officer	Financial Manager
Advance justifications	Clear all outstanding advances within 2 days of each quarter	Account Accountant	Financial Manager

Type	Description	Preparer	Reviewer (Signed by)
	(Received and record approved expenditure) and follow up on long overdue items for which invoices/supporting documentation has not been received.		
Review of monthly reports from NGOs/Implement ing Agencies (as per 21.17)	Obtain monthly reports from partner organizationss and confirm: ✓ Report was approved by IA Management ✓ Bank balances agree to bank statement / bank reconciliation ✓ Petty cash balances agree to petty cash reconciliation ✓ Listed expenses are supported by valid invoices and other supporting documentation (review original documentation) ✓ All advances from PMU are recorded in line with advances recorded in accounting software ✓ Expenses have been incurred in line with the approved AWPB	Partner Organizations Accountant	Finance Manager
Quarterly and Monthly internal report	Prepare internal reports for the purposes of monitoring project progress and identifying issues. Refer section 13.7.	Finance team	Project Director

In all instances, issues identified during the review/reconciliation process should be followed up and resolved in a timely manner.

7.6 Information and technology related controls

- ✓ Password is required to log into accounting software
- ✓ Accounting software to require password change on a regular basis
- ✓ User rights are defined and documented and linked to log-in credentials
- ✓ Daily back-up of accounting data on server
- ✓ Sensitive information (e.g., payroll files) are password protected
- ✓ Regular software updates are undertaken to ensure that software is supported by technical team
- ✓ Offsite backup of data on a weekly basis
- ✓ Financial Management staff are not allowed to share passwords or use login credentials of another
- ✓ Desktop access requires login with a password

- ✓ Operating system software updates are performed regularly
- ✓ Use authorised signatory to have log-in credentials for on-line banking

7.7 Internal control environment – partner organizationss

The Financial Manager will be responsible for the assessment of the internal control environment of Partner Organizations which report to it. In terms of the contracts/MoUs, it will be required that Partner Organizations perform an annual self- assessment of their financial management arrangements are outlined in 20.11.

Additionally, annual audit reports should be provided for the main partner organizationss. It is recommended that the Financial Managers use the information contained in this section to consider the soundness of the internal control environments and provide guidance on improving controls if weaknesses are identified.

8. Flow of funds

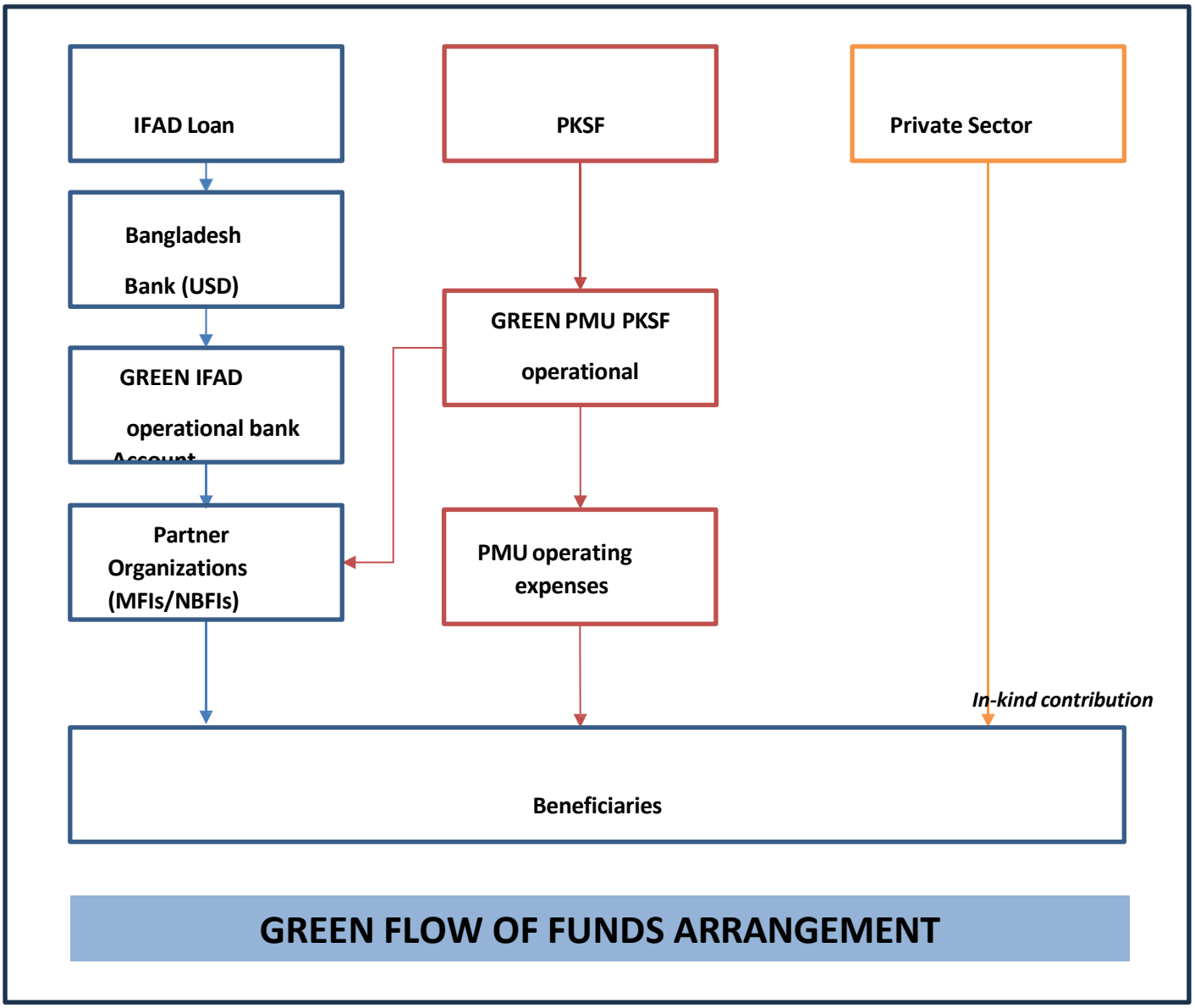
8.1 General flow of funds arrangements:

- ✓ PMU will have the ability to request funds from IFAD (via withdrawal IFAD funds would be disbursed to a designated account with the Bangladesh Bank. Funds would be transferred from the project designated account to the Program BDT operational account from where funds are further transferred to the bank accounts of Partner Organizations for dissemination to end beneficiaries. There will be separate accounts for each financier. This is reported in the quarterly IFRs and annual financial reports.
- ✓ Government counterpart financing is not envisaged on this project. The IFAD Loan is fully on-lent to PKSF. Counterpart contribution is envisaged from PKSF, Private Sector, etc. covering all components. Adequate reporting mechanism would be established to report and trace counterpart financing. Counterpart financing are also reported in the IFR and annual financial reports.
- ✓ The Revolving Fund modality under the report-based disbursements system will be the mechanism used for withdrawing funds from IFAD financings. Interim Financial Reports (IFRs) package will be used as a basis of submission of withdrawal applications to IFAD. The IFRs package and requirement will be included in the Financial Management and Financial Control Letter (FMFCL) and the PIM during the implementation period. The first advance should be equal to or less than the forecast amount of IFAD financed expenditures approved in the Annual Work Plan and Budget (AWPB) for the period of six months. Further advances to the Designated Account will be made for the next reporting period based on the AWPB or expenditures forecast. Each quarter the PMU shall submit the IFRs package (using the templates included in the FMFCL and the PIM) to report on the financial performance and to justify the specified percentages of the withdrawn advances as indicated in the FMFCL.
- ✓ PKSF now has over 280 Partner Organisations (PO). Each PO is registered under the Micro Credit Regulatory Authority (MRA). MRA closely monitors POs activities. POs management comprises of two important bodies as per its Charter/Articles of Association: The General Body and the Governing Body/Executive Committee to ensure the good governance and transparency in its activities. Due to the regular intervention of PKSF in PO activities, particularly in the implementation of project financed through PKSF, it is evident that there are significant improvements in governance at PO level. The POs are still at varying levels of capacity and governance systems; it will be imperative to converge at a minimum acceptable standard to minimize risks at the PO level.
- ✓ The flow of funds to partner organizationss will be further elaborated in PIM and will be reflected in their contracts. Flow of funds will be based on the activities and expenses agreed in the MOUs & contracts signed between PMU and IPs. Based on MOUs and AWPB targets and phasing, PMU may provide initial one quarter advance to IPs. Subsequent releases will be based on submission of account and invoices against the advance, adjustment of any unspent advance, and release of next tranche.
- ✓ IPs will render quarterly financial statements of expenses and cash balance,

to the District Offices and PMU. PMU Finance Manager will cause inspection

of partner organizations accounts at least once every six months. Detailed financial management framework for PMU and IPs is provided in PIM.

THE FLOW OF FUNDS FOR GREEN IS DEPICTED BELOW:



8.2 Petty cash account

In addition to the bank accounts as per above, PMU will operate a petty cash account. The purpose of the petty cash is to allow PMU to make payments for low value items in a quick and efficient manner. Payments through petty cash will only be allowed for amounts up to equivalent of 50 USD.

8.3 Authorised bank signatories

All bank accounts will have 3 authorised signatories. All bank transfers will be required to be released by 2 authorised signatories.

9. Accounting

9.1 Accounting system

Most of the Project activities result in the receipt, commitment, or expenditure of funds. The accounting system records, processes, and organizes this data to produce useful financial information in the form of AWPB, Financial Reports, Withdrawal Applications, Financial Statements etc. needed by the financier and project management. The accounting system should reflect the Project's needs and be designed to provide the

financial information required by all interested parties. It should also fulfil all the legal and regulatory requirements of GREEN. In addition, the accounting system should incorporate the reporting requirement of the chosen accounting standard for GREEN which is IPSAS, Financial Reporting under the Cash Basis of Accounting.

9.2 Centralised accounting at PMU

The accounting function will be centralised at PMU Dhaka and maintained under the supervision of the Finance Manager.

PMU will consolidate the accounting transactions from the various Partner Organizations monthly by receiving each agency's transactions (in monthly report format) as outlined in

21.17. PMU will record the transactions in the accounting software and clear related advances.

(NB: In case of Advances to Partner Organizations, they must be recorded in the accounting software (indicating the relevant Partner Organizations only). Only once advances are cleared, expenses are recorded at the historical exchange rate / within the correct component and expenses category).

The PMU will centrally manage the accounting of transactions.

9.3 Accounting software

Accounting software will be used for GREEN. The PMU will procure and configure a dedicated module in the accounting software. At project start-up the Financial Managers should identify required customization to ensure that accounting software can generate forms/reports in the formats required by IFAD and/or other financiers.

9.4 Chart of accounts

The accounting software should include the appropriate Chart of Accounts. The Chart of Accounts should be developed to cater for:

- All components and sub-components are incorporated in the AWPB (outlined in the financing in agreement)
- All categories as outlined in the financing agreements
- Sources of finance (IFAD, PKSF, POs and private sector)
- Sub categorization to cater for activities at the various levels

The Chart of Accounts should mirror the cost tables (as presented in the Project design report and section 1 of this manual) to enable comparison of actual Project costs during implementation with those estimated during the Project preparation.

9.5 Recording and processing of transactions

Whenever a transaction takes place under the Project, it should be recorded and processed using the accounting software. Transactions are recorded on the cash basis of accounting which requires the recognition of cash flows when they occur (inflows and outflows).

Each transaction should be recorded in the accounting software based on the following:

- Use double entry accounting (debit and credit, with cash always being one of the entries)
- Capture the transaction using the correct account code (as determined by the chart of accounts) – for all transaction, to be confirmed the Financial Manager
- Capture transactions which have the required supporting documentation
- Capture information accurately and completely.

For detailed instructions on how to record the expenditures in the accounting software, please refer to the accounting user manual.

9.9 ACCOUNTING FOR EXCHANGE RATE MATTERS

When claiming expenditures in local currency in Withdrawal Applications (forms 101, 102 and 104) or preparing a financial report, it is important to use the prevailing rate (historical exchange rate) at the time of transfer of funds from the Designated Account (denominated

in USD) to the local currency account. Subsequent expenditures should be recorded on

the First in First Out basis. For

example:

Conversion of local currency expenditures funded from the designated account.

- IFAD transfers funds in USD to the Designated Account as per the approved WA
- The Bank of Bangladesh—which maintains the accounts of foreign aid for Bangladesh, shall receive funds from IFAD in USD, convert it at the prevalent exchange rate into local currency, debit the national account for loan, and credit the project's Operational Account in the commercial bank accordingly.
- The project account shall show debits, credits, and balance in BDT along with USD equivalent.
- When justifying the local currency expenditures to IFAD, these expenditures are converted into the denomination of the designated account, using the prevailing rate

  (Historical exchange rate) of BDT conversions.

9.10 Accounting for advances

The Project may make advances (petty cash, travel related, advances to partner organizationss etc.) either in the form of cash or by bank transfer.

In terms of accounting for advances:

- Advances are recorded in the accounting system at the date that the advance is made, subject to the required approval process.
- The transaction is not recorded as an expenditure (in terms of categories, components) on this date.
- All advances should be cleared in a timely manner by the submission of original invoices.
- All outstanding advances should be cleared by no later than 10 days after the end of the fiscal year-end.
- In terms of the cash basis of accounting advances at the end of the period should be expensed and disclosed in the financial report.

10. Disbursements

10.1 ELIGIBILITY OF EXPENDITURES

In accordance with the IFAD disbursement procedures, between the date of entry into force of the Financing Agreement and the Financing Closing Date, GREEN may request withdrawals from the IFAD Loan for eligible expenditures.

Eligible expenditures are defined in the IFAD General Conditions Section 4.07 as follows:

The Financing shall be used exclusively to finance expenditures meeting each of the following eligibility requirements:

- *The expenditure shall meet the reasonable cost of goods, works and services required for the Project and covered by the relevant AWPB and Procurement Plan and procured in conformity with the Fund's Procurement Guidelines, and the provisions of the Project Procurement Arrangements as further defined in article II, section 2.01.*
- *The expenditure shall be incurred during the Project Implementation Period, except that expenditures to meet the costs of winding up the Project may be incurred after the Project Completion Date and before the Financing Closing Date.*
- *The expenditure shall be incurred by a Project Party.*
- *If the Agreement allocates the amount of the Financing to categories of Eligible Expenditures and specifies the percentages of such Eligible Expenditures to be financed by the Financing, the expenditure*

must relate to a category whose allocation has not been depleted and shall be eligible only up to the percentage applicable to such category.

- *The expenditure shall be otherwise eligible in accordance with the terms of the Financing Agreement.*
- *The Fund may from time to time exclude certain types of expenditure from*

eligibility.

- *Any payment prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, shall not be eligible for financing by the Financing.*
- *Any payments to a person or an entity, or for any goods, works or services, if making or receiving such payment constitutes a Prohibited Practice by any representative of the Borrower/Recipient or any Project Party, shall not be eligible for financing by the Financing.*
- *All expenditures must be supported by sufficient supporting documentation as stated in the FMFCL and the IFAD Project Financial Management and Financial Control Handbook for Borrowers.*
- *The proceeds of the financing shall not be used to pay taxes. However, taxes paid by the ultimate recipient of an expenditure (e.g., withholding tax, income taxes paid by a Project employee or taxes on the profits of a contractor) are not considered to be taxes paid by the Project.*

The IFAD disbursement procedures as outlined below are governed by the Financial Management and Financial Control Letter (FMFCL) and the IFAD Project Financial Management and Financial Control Handbook for Borrowers. The handbook is also available on the IFAD website and GREEN should ensure that they refer to the most recent version as published at the website.

10.2 Disbursement procedures

The following disbursement procedures may be used for withdrawal from the IFAD Loan and Grant:

Type	Description
Advance withdrawal	The advance withdrawal modality for GREEN is based on revolving fund modality for which: ▪ For the first disbursement, the PMU may request IFAD to disburse funds into the designated bank account as an initial deposit/advance to pay for eligible expenditures as they are incurred. The Revolving Fund modality under the report-based disbursements system will be the mechanism used for withdrawing funds from IFAD financings. Interim Financial Reports (IFRs) package will be used as a basis of submission of withdrawal applications to IFAD. The first advance should be equal to or less than the forecast amount of IFAD financed expenditures approved in the Annual Work Plan and Budget (AWPB) for the period of six months. All such advances must be fully accounted for/justified by the Borrower in the manner described in the FMFCL. ▪ Further advances to the Designated Account will be made for the next reporting period based on the AWPB or expenditures forecast. ▪ The PMU should periodically provide satisfactory accounting evidence ("justify" the advance) that previous withdrawals have been properly spent for eligible expenditures. For this purpose, WAs should be submitted quarterly, even if no further advance or replenishments is being requested. The documentation required to justify such advances is the quarterly Interim Financial Progress Report (IFR) in 20. ▪ In some cases, additional reports or statements of expenditures may also be required, as described in the FMFCL.

10.3 Evidence of Authority to sign Withdrawal Applications

IFAD requires Government of Bangladesh 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 Government. This evidence must reach IFAD before the first WA is presented by GREEN and should be the original (photocopies, facsimiles or other means of transmission are not acceptable). 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.

IFAD must also be notified of the designated signatories for operating any designated and/or Project or other accounts, including changes thereto, whether 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 IFAD. GREEN, 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 IFAD.

10.4 The Designated Account

The flow of funds for GREEN starts with the opening of the Project Designated Accounts (DAs) with the Bank of Bangladesh, in accordance with IFAD's requirements identified in the Financing Agreement and the FMFCL (dollar denominated). The Financial Manager is responsible for opening and managing the Designated Account including preparing a monthly reconciliation and statement in line with the IFAD templates as outlined in 21.12.

10.5 Withdrawal of Financing Proceeds using withdrawal applications

The Financial Managers is required to ensure that WAs are prepared and submitted to IFAD with consideration of the following requirements:

Requirement	Guidance
Timeliness	Under the revolving fund modality, withdrawal applications should be prepared and submitted along with the quarterly IFRs.
Completeness and accuracy of supporting documentation	Prepare and submit the required Interim Financial Reports (IFRs) package as requested in the FMFCL, refer to 21.18. Prepare and submit to IFAD expenditures supporting documents upon request. Ensure that information is complete and accurate.
Account reconciliation	GREEN should submit the designated account reconciliation and statement, prepared 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 Project accounts ensuring that the closing bank balances

Requirement	Guidance
	for all these accounts correspond to the balances at the end of the same reporting period as indicated in the WA period.
Duly authorised	Ensure that WAs are duly authorised in terms of GREEN's authorisation procedures and signed by the duly authorised representatives.
Document retention	Submit copies of supporting documentation upon request. Retain original documentation for inspection by IFAD upon request.

10.6 Initial advance

Ensure the disbursement conditions as per the financing agreement and the Financial Management and Financial Control Letter (FMFCL) have been met which includes provision of the following:

- Evidence that a designated account has been opened and the names/titles of the persons authorised to operate this account.
- The project implementation manual has been approved.
- A letter from the GREEN, designating the name(s) of official(s) authorised to sign withdrawal applications including their specimen signature(s).
- Specify other conditions

Complete and submit to IFAD:

- The duly filled forms constituting the project's IFRs, as outlined in the FMFCL (refer to Useful links 47); the main reports to be included in the package:
  1. Designated accounts reconciliation
  2. Summary of Expenditures by Project Categories and by Financiers (to include budget versus actual figures and variances)
  3. Summary of Expenditures by Project Components and by Financiers
  4. Project Cash Forecast
  5. Expenditures transaction list
- The bank statements of the Designated accounts for the reporting period, showing the accounts' opening and closing balance and a summary of the accounts' movements;
- The contracts register

11.9 Foreign exchange conversion in preparing withdrawal applications

When claiming expenditures in local currency in Withdrawal Applications (preparing IFRs), it is important to use the prevailing rate (historical exchange rate) at the time of transfer of funds from the SBP to NBP. This type of conversion is also called the First in First out (FIFO) basis.

The historical exchange rate/FIFO basis of converting is to be used in the following two cases in particular:

- When preparing a designated account reconciliation as part of a WA or a financial report, the closing balance of the local currency account(s), and any expenditures already incurred in local currency but not yet claimed must be converted to the

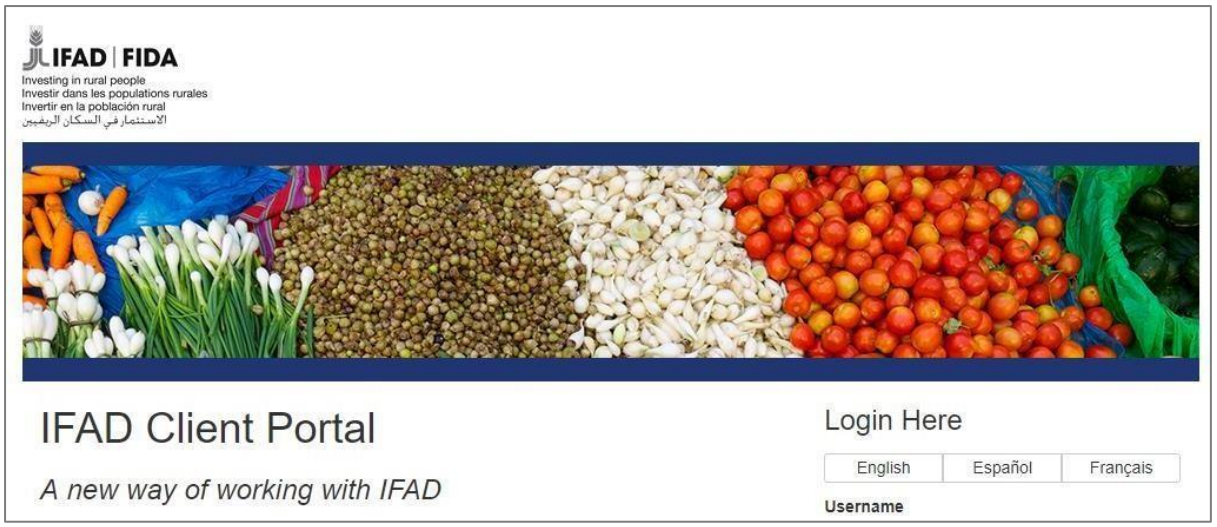
denomination currency of the designated account using the historical exchange rate/FIFO basis of converting.

- When preparing withdrawal applications, the expenditures incurred in local currency (or any other currency than the denomination currency of the designated account) and claimed in the WA, must be converted to the denomination currency of the designated account using the historical exchange rate/FIFO basis of converting.

11.10 Suspension and the designated account

During a full suspension, IFAD will not withdraw advances from the designated account. However, Borrowers may continue, except as otherwise indicated, to use any balance in the designated account to meet eligible expenditures and applications documenting these expenditures should continue to be regularly submitted.

11.11 ICP



The IFAD client portal (ICP) enables PMU to:

- access real-time financing information on country portfolios as well as operational and financial information related to Projects
- submit Withdrawal Applications directly and obtain electronic approvals required both from concerned ministries and IFAD
- manage banking instructions electronically
- create and download relevant reports
- Submit all financial reports of the project including quarterly IFRs, annual unaudited, and audited financial statement

The Project may submit electronic copies of its withdrawal applications and maintain hardcopies for audit purposes.

11.12 Refund of withdrawals

If the IFAD determines that any amount withdrawn from the Loan and/or Grant Accounts was not used for the purposes indicated or will not be needed thereafter to finance Eligible Expenditures, the Borrower shall promptly refund such amount to the IFAD upon instruction by the Fund.

11. Processing of payments

IFAD FUNDS MAY NOT BE USED FOR PAYMENT OF TAXES, CUSTOMS OR DUTIES UNLESS OTHERWISE AGREED.

Procedures for payments is outlined as follows:

1. General payments (12.2)
2. International travel (12.4.1)
3. Local travel (12.4.2)

4. Civil works, equipment (12.5)
5. Consulting services (12.6)
6. Funds transfers to partner organizationss/NGOs (12.7)
7. Other

11.1 Supporting documentation

The processing of all payments are subject to GREEN retaining the following original supporting documentation after processing:

Expenditure type	Supporting documentation
All	▪ Signed contract or confirmed purchase order – showing the specified amount that is due to be paid; ▪ The bank guarantee for: ○ advance payment, as specified in the contract documents; ○ performance, as specified in the contract documents; ▪ Copies of communications sent by the IFAD country Project manager to the GREEN providing the 'no objection' to the contract award; and ▪ Evidence of payment made by GREEN.

Expenditure type	Supporting documentation
	▪ A copy of the contract payment monitoring form signed in original by the certifying officer.
Services (including consultants)	▪ Items listed above under "all" ▪ The supplier's or consultant's claim duly certified for payment by the Project director and showing sufficient detail. ▪ As appropriate, a certificate of delivery of satisfactory services.
For payment of Trips, fuel, stationary and other expenses	▪ Items listed above under "all" ▪ Supplier invoices; ▪ Evidence of payment; ▪ Back to office report; ▪ Training certificate, ▪ Travel authorization; and/or ▪ Expense reports by the traveler (including invoices) ▪ Boarding passes

Pro forma invoices are not acceptable replacements for invoices. In all instances, supporting documentation need to include final invoices.

11.2 General guidelines for processing of payments

For invoice related payments, the following general process is applicable:

Activity	Procedures
Request and approve activity in line with AWPB	Generally, ensure that expenses are in line with the AWPB/Procurement Plan and that IFAD no objection has been obtained if required.
Service delivered, or goods received	Obtain evidence that the goods were delivered / services received to the satisfaction of the Project. Evidence to be retained for the purposes of providing supporting evidence for processing of invoice. (delivery notes, completion reports etc.)

FINANCIAL MANUAL SECTION OF GREEN PIM	
Prepare payment request	▪ Once invoices are received, the disbursement specialist prepares a payment request which includes supporting documentation and indicates accounting codes, category of payment, component of payment and source of finance. ▪ The Financial Manager reviews the payment request for accuracy and validity. ▪ The Financial Manager adds the correct account codes for the purposes of recording the transaction in the accounting software. ▪ The Budget and Finance Officer forwards the payment request with supporting documentation to the relevant Technical Officer /Component Head for review and sign off.
Review of payment request	The Project Director shall review and sign the payment request, checking/confirming: ▪ The expenditure is included in the approved AWPB ▪ IFAD no objection was obtained (if applicable).

Activity	Procedures
	▪ All expenditures are eligible in line with the financing agreement and has been incurred before/completed before Project completion date. ▪ Payment was cleared by the relevant component technical officer/head. ▪ All supporting documentation is attached (refer 12.1)
Approve payment request	The Project director shall review and sign payment request, checking/confirming: ▪ The expenditure is included in the approved AWPB ▪ All expenditures are eligible in line with the financing agreement and has been incurred before/completed before Project completion date ▪ Payment was cleared by the relevant component technical officer/head. ▪ All supporting documentation is attached (refer 12.1) ▪ The payment request was reviewed and approved by the Financial Manager.
Process payment	▪ The approved payment request with related documents shall be sent to the accountant for processing and uploading on the online banking platform. ▪ The accountant shall confirm that the bank details provided by the supplier corresponds to the signed legal agreement / original bank letter provided. ▪ Once loaded on the banking platform, the payment to be released by 2 authorised signatories (using unique digital signatures) **(NB: Cheques are not used for general payments)**
Record payment	▪ Account record the transaction in the accounting software, using the correct codes as captured on the payment request. ▪ File supporting documentation, include proof of payment (bank statement/bank confirmation of payment)

12.4 Travel related payments

The following type of travel may take place by Project staff or Project beneficiaries:

- International travel – 12.4.1
- Local travel – 12.4.2

All types of travel payments follow the general process:

The proses for each type of travel is outlined below:

12.4.1 International travel

International travel	
Type of travel	▪ Training which is conducted for Project staff or beneficiaries at an international location. ▪ Business trips
Overview of entitlement	▪ Individuals are entitled to DSA, paid based on the number of days of travel for training purposes. ▪ The per diem should be used to pay for the cost of accommodation, meals and travel ▪ Taxi trips to/from airport and visa is paid for separately based on actual cost estimates. ▪ Unused per diem is not returned to the Project. ▪ The per diem amount is determined in line Government decree. ▪ The per diem is reduced if meals or accommodations is provided to the individual. ▪ 100% of the DSA is advanced before commencement of the travel. ▪ The number of travel days are calculated from date of departure from home until last day of the training. ▪ Air travel is booked by the project and paid for by the Project directly.
Request for travel	The relevant department will prepare a request for travel which includes: ▪ List of individuals to attend external training ▪ Dates of training ▪ Invitation to training / training registration confirmation ▪ Overview of training (agenda, location noted) – brochure / email correspondence or other suitable evidence ▪ Related AWPB classification (category, component) ▪ Calculation of total per diem due (100%) ▪ Estimated cost of air travel ▪ Estimated cost of visas *(Air travel is paid directly by the Project)*
Approval of travel request	▪ The travel request is reviewed by the accountant for: ○ Accuracy and compliance with the Government decree in terms of the per diem rate applied. ○ Alignment with the approved ABPB ▪ The travel request is submitted to the Project Director for approval. ▪ IFAD and MoF no-objection should be obtained for travel request after approval by the Project Director.

Advance provide	▪ Upon approval of the travel request by the Project Director, the Project accountant will advance 100% of the total per diem to individuals or the team leader as appropriate. (Prepare cheque for signing by the Project Director) ▪ The Project accountant will record the advance in the accounting system, indicating the amount, date of advance, to who advanced and related budget line item. (Advance is not recorded as an expense at this stage)

International travel	
Justification of travel expenses	▪ Within 10 business days after the travel, the team leader / individual is required to prepare a travel expense report which includes: ○ Advance report (refer 21.11) ○ Boarding passes for air travel ○ Attendance register completed at the training event ○ Back to the office report ○ Confirmation of IFAD/Ministry no objection (email correspondence) ▪ The travel expense claim is submitted to the accountant who confirms the accuracy and validity of the travel expense claim. ▪ The Financial Manual reviews the travel expense claim for accuracy and validity and captures the correct account codes on the request (in line with AWPB line items). (sign as evidence of review)
Approval of travel payment	▪ The travel expense is approved by the Project Director by way of signing the travel expense report.
Recording of expense	▪ The total travel expense is recorded as training expenditure/business trip, by clearing the travel advance, in terms of the correct category and component, in line with the account codes which are captured on the travel expense report.

In all instances, unjustified travel advances will need to be reimbursed to the Project by the traveler within one month after the travel date or the amount will be deducted from the payroll.

12.4.2 Local travel

Local travel	
Type	Training / field visits
Overview of entitlement	▪ The number of travel days used for the calculation of per diem is calculated from date of departure from home until last day of the training. ▪ If Project vehicles are used, the driver is responsible for ensuring the vehicle is refueled in terms of the process outlined in 12.9 ▪ If private vehicles are used, staff are reimbursed in line with the allowable rate per kilometer as specified in the staff bylaws, based on actual distance travelled.

FINANCIAL MANUAL SECTION OF GREEN PIM	
Request for travel	The relevant department will prepare a request for travel which includes: Training: ▪ List of individuals to attend training ▪ Dates of training ▪ Overview of training (agenda, location noted) – brochure / email correspondence or other suitable evidence ▪ Related AWPB classification (category, component)

Local travel	
	▪ Confirmation from the Officer Manager that a Project vehicle(s) is available for the travel dates should this be the mode of transportation ▪ Calculation of per diem in line with Government decree. Field visits: ▪ Request for field trip from technical department
Approval of travel request	▪ The travel request is reviewed by the accountant for: ○ Accuracy and compliance with the staff bylaws in terms of the pocket money allowance / estimation for fuel costs ○ Alignment with the approved ABPB ▪ The travel request is submitted to the Project Director for approval. ▪ Once approved, the team leader or individual should submit a request for vehicle use.
Advance provide	▪ No fuel advances are provided in cash (driver will use fuel card to refuel) ▪ Applicable per diem is advanced in cash.
Justification of travel expenses / return of unused fuel advance	▪ Within 5 business days after the travel, the team leader / individual is required to prepare a travel expense report which includes: ○ Attendance register completed at the training event ○ If a private vehicle was used, indication of total distance travelled in kilometers with payment due to vehicle owner, based on the approved rate in the bylaws. ○ If a Project vehicle was used, invoiced for fuel which was paid from fuel advance. ○ Back to the office report (in case of field visits) ▪ The travel expense claim is submitted to the accountant with the fuel advance which was not used. ▪ The accountant confirms the accuracy and validity of the travel expense claim and determines the per diem which is due. ▪ The Project accountant reviews the travel expense claim for accuracy and validity and captures the correct account codes on the request (in line with AWPB line items). (sign as evidence of review)
Approval of travel payment	▪ The travel expense is approved by the Project Director by way of signing the travel expense report.

Recording of expense	▪ The total travel expense is recorded as expenditure in terms of the correct category and component, in line with the account codes which are captured on the travel expense report. (Advance cleared at this stage) ▪ Only fuel expenses may be charged to the training budget code. If other vehicle maintenance was incurred, this expense is recorded as maintenance.

12.5 Civil works, equipment and tools

Activity	Procedures
Request and approve	▪ Civil works, equipment and tools are defined and outlined in both the AWPB and the Procurement Plan.

Activity	Procedures
activity in line with AWPB	▪ Civil works, equipment and tools is contracted via a procurement process as outlined in the Project Operations Manual. ▪ IFAD no objection is required on the bidding document, recommendation of award and contract outline before the final bid award is made. (Refer to Procurement Arrangement Letter)
Prepare payment request	▪ The procurement officer will request payment of invoices, subject to providing the following supporting documentation: - Copy of civils contract with award letter (for civils only) - Contract amendment letter (if applicable) - Bid analysis and evaluation report - Evidence of IFAD no objection related to the contract award - Purchase order / Invoice - Progress report prepared by consulting engineer ▪ The accountant prepares a payment request which includes the supporting documentation. ▪ The disbursement specialist reviews the payment request for accuracy and validity. ▪ The Financial Manager adds the correct account codes for the purposes of recording the transaction in the accounting software. ▪ The accountant forwards the payment request with supporting documentation to the relevant Technical Officer /Component Head for review and sign off.
Review and approval of payment request	The Financial Manager reviews and signs the payment request before submission to the Project Director. The Project Director shall review and sign the payment request, checking/confirming: ▪ The expenditure is included in the approved AWPB ▪ IFAD no objection was obtained related to procurement as applicable ▪ All expenditures are eligible in line with the financing agreement and has been incurred before/completed before Project completion date. ▪ Payment was cleared by the relevant component technical officer/head. ▪ All supporting documentation is attached (refer 12.1). ▪ ***Where stipulated in the contract, the required bank guarantees are valid and is retained in the project's safe.***

Process payment	▪ The approved payment request with related documents shall be sent to the accountant for processing and uploading on the online banking platform. ▪ The accountant shall confirm that the bank details provided by the supplier corresponds to the signed legal agreement / original bank letter provided. ▪ Once loaded on the banking platform, the payment to be released by 2 authorised signatories (using unique digital signatures) **(NB: Cheques are not used for these payments)**
Record payment	▪ Account record the transaction in the accounting software, using the correct codes as captured on the payment request. ▪ File supporting documentation, include proof of payment (bank statement/bank confirmation of payment)

12.6 Payments for consultant services

Activity	Procedures
Request and approve activity in line with AWPB	▪ The process for requesting and approving consultants is outlined in the procurement section of the POM (and LTR) and is dependent on whether the service is recruited internationally, nationally, locally or on a single source basis. ▪ In all instances the procurement of consulting services is subject to IFAD's no objection.
Prepare payment request	▪ The procurement officer will request payment of consulting services subject to providing the following supporting documentation: - Copy of consulting contract and invoice requesting payment (invoice to specify bank details in line with contract) - Copy of output (report / study etc) - Copy of timesheets (if time-based payment is required) - Written recommendation for payment from the relevant technical department which confirms that the consultant(s) have delivered the key outputs as specified in the consulting contract. - Confirmation of IFAD no objection. ▪ The accountant prepares a payment request which includes the supporting documentation. ▪ The disbursement specialist reviews the payment request for accuracy and validity. ▪ The Financial Manager adds the correct account codes for the purposes of recording the transaction in the accounting software. ▪ The accountant forwards the payment request with supporting documentation to the relevant Technical Officer /Component Head for review and sign off.

FINANCIAL MANUAL SECTION OF GREEN PIM	
Review and approval of payment request	The Financial Manager reviews and signs the payment request before submission to the Project Director. The Project Director shall review and sign the payment request, checking/confirming: ▪ The expenditure is included in the approved AWPB ▪ IFAD no objection was obtained related to procurement as applicable ▪ All expenditures are eligible in line with the financing agreement and has been incurred before/completed before Project completion date. ▪ Payment was cleared by the relevant component technical officer/head. ▪ All supporting documentation is attached (refer 12.1). The Financial Manager reviews and signs the payment request before submission to the Project Director. The Project Director shall review and sign the payment request, checking/confirming: ▪ The expenditure is included in the approved AWPB ▪ IFAD no objection was obtained related to procurement as applicable ▪ All expenditures are eligible in line with the financing agreement and has been incurred before/completed before Project completion date. ▪ Payment was cleared by the relevant component technical officer/head.

Activity	Procedures
	▪ All supporting documentation is attached (refer 12.1).
Process payment	▪ The approved payment request with related documents shall be sent to the accountant for processing and uploading on the online banking platform. ▪ The accountant shall confirm that the bank details provided by the supplier corresponds to the signed legal agreement / original bank letter provided. ▪ Once loaded on the banking platform, the payment to be released by 2 authorised signatories (using unique digital signatures) ▪ **(NB: Cheques are not used for these payments)**
Record payment	▪ Account record the transaction in the accounting software, using the correct codes as captured on the payment request. ▪ File supporting documentation, include proof of payment (bank statement/bank confirmation of payment)

12.7 Advances to Partner Organizations

Partner organizations will request funds from PMU for the purposes of implementing activities.

Activity	
Receive payment request	▪ Partner organization submit ad-hoc funds requests in writing, using a request for funds form. ▪ The request for funds form to be duly authorized by the Project Director of the Partner organizations. ▪ The request for funds form to stipulate the individual activities for which funds are requested in line with the approved AWPB.
Prepare payment request	▪ The PMU Accounting Officer to receive and review the request for funds from the partner organizations and confirm that requested funds are for activities approved in the AWPB related to the specific agency. ▪ *The Accounting Officer may reject a request for funds if the partner organization has large advances which have not been justified for previous funds requests.* ▪ The accountant prepares a payment request which indicates the details of the partner organizations and amount to be transferred.
Review and approval of payment request	▪ The Finance Manager submits the payment request and supporting documentation to the Project Director for review and approval. ▪ The Project Director shall review and sign the payment request, checking/confirming that the funds allocation is included in the approved AWPB.

Process payment	▪ The approved payment request will be submitted to the accountant. ▪ The accountant to load the payment on the online banking platform. ▪ Payment released by 2 authorised signatories.

Activity	
Record payment	▪ Accountant to record the advance in the accounting software against the specific partner organizations. ▪ *Do not record the advance as an expense. Once advance is justified (refer procedures in 9.2), account for expenses using the correct expense codes (component, category) at the historical exchange rate.*

12.8 Petty cash payments and replenishments

The advance to petty cash is XXX BDT (at each location – xxx BDT at the PMU and xxx BDT at the districts) and is managed by the Officer Manager (or administrative assistant). The purpose of the petty cash is to make payments for low value items in a quick and efficient manner.

The Petty cash disbursements may be in the form of an advance or a reimbursement. Advances must be justified with proper supporting documentation (receipts etc.) on a timely basis.

- The cash is placed in a locked cash box which is kept in the Officer Manager's custody. The Petty cash disbursements may be in the form of an advance or a reimbursement (when the staff member has personally advanced the funds).
- For advances, the Officer Manager delivers petty cash advances based on the approved request. After the purchase is made, the requestor must return the invoice/receipt along with the change, if any, to the Finance Officer 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 Officer Manager who reimburses the requesting staff member or directly pays the supplier. The form is signed by the individual who receives the money.
- All disbursements from the Petty Cash must be recorded on a Cash Voucher form showing all particulars: the amount, the account being charged, the description of the transaction, authorization (by Office Manager) and the signature of the payee. The necessary documents (invoice, payment tapes, receipts) must be firmly attached. The Office Manager must never disburse from the petty cash to herself without the Finance Manager's authorization.
- The petty cash replenishment point is set to XXX BDT. Once the level of the petty cash on hand falls below this point, the Officer Manager must request replenishment by submitting a completed petty cash replenishment form (21.14). This form will show a listing of all disbursements made, the accounts debited and the total sum replenished. All the necessary petty cash vouchers and their supporting documents will be attached. A payment request will be prepared for the amount to be replenished and the Financial Manager is required to review and confirm all disbursements on the Petty Cash form before signing the check.
- Petty cash is replenished upon presentation of actual receipts to the Financial Manager. All Petty cash replenishments will bring the balance of cash on hand to BDT XXX.
- The Petty Cash Vouchers, Receipts and Electronic Petty Cash Reconciliation Sheet should be updated frequently. At the end of each week, the accountant will reconcile the petty cash journal with the physical cash count. These will be checked, along with a surprise cash count by the Finance Manager, (or Project Director in the absence of the Financial Manager) via unannounced inspections at least once per month.

12.9 Payments for fuel

Vehicles may be refuelled at the local preferred fuel station, based on approved purchase orders issued to drivers by the Project accountant. In such instances the driver does not pay in cash for fuel. On a monthly basis the preferred petrol station will submit a

customer statement for payment to the Project. The customer statement should:

- List all individual invoices separately with supporting purchase orders issued by the Project accountant
- Indicate the date and amount (value and volume)
- Indicate the vehicle registration number

The administrative assistant will compare the customer statement information to the respective Project vehicle logbooks to confirm accuracy of the customer statement. In addition, the administrative assistant with confirm that only approved Project vehicles are listed on the customer statement. Once the administrative assistant is satisfied with the customer statement, a payment request will be prepared in line with the procedures in 13.2

If drivers are not able to refuel at the preferred fuel station, drivers may use fuel advances to procure fuel. In all instanced, travel is approved in line with required procedures as outlined in section 13. The fuel invoices should be attached to the trip expense to be filed upon return to the office.

12. Financial Reporting

The section on financial reporting deals with:

- Financial reports for submission to IFAD and other financiers
- POs reporting to PMU
- Internal reporting within each PO

12.1 Financial reports for submission to IFAD and other financiers

The PMU is responsible for submitting consolidated financial reports to IFAD. *The applicable financial reporting requirements applicable to IFAD-financed Projects are outlined in the IFAD Handbook for Financial Reporting and Auditing for IFAD-financed Projects* which may be updated from time to time. The Financial Manager should ensure adherence to the latest version of the Handbook.

The PMU is required to prepare financial reports and submit to IFAD as outlined in the table below:

Type	Period / Frequency of submission
Annual Financial Statements	▪ Unaudited: Prepare annual reports and submit to IFAD within 4 months of the end of the financial year-end. ▪ Audited: Submit audited financial statements within 6 months of the end of the financial reporting period. The reports should be prepared in line with requirements are outlined in 13.4. The annual financial statement should be authorised by the Project Director for authorisation before submission to the auditor/IFAD.
Interim financial reports	Prepare quarterly reports and submit to IFAD within 30 days of the end of the quarter. The reports should be prepared in line with requirements as outlined in the FMFCL.

12.2 Financial reporting requirements

PMU is required to prepare financial reports in line with IFRS, “International Financial Reporting Standards”. Should GREEN propose to use a different accounting standard, this should be agreed with IFAD. In all instances, IFAD requires projects to use internationally accepted accounting standards.

12.3 General principles for the preparation of financial reports

GREEN shall prepare financial reports with consideration of the following specific principles:

Principal	Guidance
Completeness	▪ The financial reports shall be complete and include the activities of both PMUs and other partner organizations and present the results of a single entity. ▪ The sources and uses of all categories/components shall be included (including sources received in-kind). ▪ The sources and uses from all financiers shall be included, including: ○ IFAD Loan ○ PKSF ○ POs ○ Private Sector
Accuracy	▪ Ensure that the various disclosures as outlined in 13.4 are reconcilable as appropriate
Accountability	▪ The financial reports should promote the concept of accountability.

12.4 Minimum prescribed content for interim and annual financial reports

The PMU is required to prepare financial reports (annual and interim) which includes the following minimum prescribed content (an illustrative interim financial reports is outlined in FMFCL.

The IFRs package and documents mainly include, refer to Useful links 47:

- The duly filled forms constituting the project's IFRs, as outlined in the FMFCL; the main reports to be included in the package:
  A. Designated accounts reconciliation
  B. Summary of Expenditures by Project Categories and by Financiers (to include budget versus actual figures and variances)
  C. Summary of Expenditures by Project Components and by Financiers
  D. Project Cash Forecast
  E. Expenditures transaction list
- The bank statements of the Designated accounts for the reporting period, showing the accounts' opening and closing balance and a summary of the accounts' movements.
- The contracts register, as generated by the projects from the IFAD Client Portal

  –Contract Monitoring Tool (CMT) Module.

For the annual financial statements, detailed guidance on the preparation of the disclosures as prescribed by IFRS can be found in the Standard (https://www.ifrs.org/issued-standards/list-of-standards/ias-1-presentation-of-financial- statements/#standard). The PMU is required to adopt all reporting requirements as outlined.

Content	Source of requirement	Guidance on preparation of content
Designated account reconciliation	Prescribed by the IFAD Handbook for Financial Reporting and Auditing for IFAD-financed Projects	▪ Prepare reconciliation which provide justification for the IFAD advance – disclose for each designated account. ▪ Explain variances.
Designated account Statement	Prescribed by the IFAD Handbook for Financial Reporting and Auditing for IFAD-financed Projects	▪ Prepare for each designated account. ▪ Ensure that opening and closing cash balances presented in this Statement is reconciled with the cash balances used in the Statement of Cash Receipts and Payments. ▪ Disclose the exchange rate gain/loss separately and ensure that this is reconciled with the Statement of Cash Receipts and Payments.
Summary of Withdrawal Applications	Prescribed by the IFAD Handbook for Financial Reporting and Auditing for IFAD-financed Projects	▪ Provide a summary for PMU separately and display combined total. ▪ Ensure that summary information is reconcilable with the IFAD historical transaction statement (to be requested from the IFAD Finance Officer) with regards to the value date of the transaction amount of withdrawal in loan denomination currency. ▪ Cross reference amounts included here per WA to amounts included in the Designated Account Statement / Designated Account Reconciliation.
Fixed asset register	Prescribed by the IFAD Handbook for Financial Reporting and Auditing for IFAD-financed Projects	▪ Include a fixed asset register which lists all Project assets *(including those purchased on behalf of the Community Groups if the Project retains the title and the assets will be returned to the Project at Project closure).* ▪ Indicate the partner organizations which procured the asset and related component. ▪ Ensure that all fields are included – refer illustration included in 21.12.

In addition to the above disclosures, the Project is required to maintain and Action Tracker log which is a log of agreed actions. This document should be maintained on an ongoing basis provide together with the financial report (interim or annual). The Action Tracker format is outlined in 21.12. It is required that the

Action Tracker include actions which have been agreed on with IFAD during missions or the Auditor during the audit (derived from the management letter). The purpose of the Action Tracker is to keep track of progress regarding agreed on actions.

12.5 Other considerations

The following specific issues should be considered in the preparation of the financial reports:

- In-kind contributions from Government and beneficiaries should be reported in the financial statements in line with the process as outlined in section 9.7. Also refer to

  21.12 to see the illustrative accounting policy and explanatory notes.

- Where applicable, disclose information for PMU separately and on a consolidated manner. In all instances the user of the financial statements should be able to identify if the information relates to activities of PMU.

12.6 IPs reporting to PMU

All partner organizations which report to PMUs are required to submit monthly reports to the PMUs. The PMUs will review the reports and verify bank balances/expenses with reference to supporting documentation attached to the report. PMU will proceed to record individual transactions in the accounting software and clear related advances.

The IPs are required to submit monthly reports using the report format as outlined in 21.17.

IPs are responsible for the accuracy and completeness of reports submitted to PMUs and will be required to respond to queries on report content in a timely manner.

12.7 Internal reporting

The following internal reports will be prepared by PMU for the purposes of internal monitoring of project finances and progress:

Type	Period / Frequency of submission
Quarterly project reports	The PMUs Financial Managers to prepare a quarterly project report which includes (but not limited to): ▪ Consolidated budget to actual expenditure comparison with variance explanation. ▪ Individual budget to actual expenditure report per partner organizations with variance explanation. This report assists the PMU project director to monitor overall and partner organizations level performance for the purposes of taking corrective action if needed.
Monthly management accounts	It is required that each partner organizations prepare monthly management accounts for the purposes of monitoring allocated components/sub-components. The content may include (but not limited to): ▪ A financial progress report (sources and uses) ▪ Monthly bank reconciliations ▪ Cashflow forecast ▪ Summary of contract commitments ▪ Overview of budget to actual expenditure analysis with variance explanations ▪ Monthly vehicle maintenance and fuel consumption report ▪ Travel and DSA report.

Type	Period / Frequency of submission
	The monthly management accounts should be prepared within 10 days of the end of the month and submitted to the respective Project Directors for review and discussion during management meetings. The purpose of the monthly management accounts is to provide a monitoring tool for management with the purposes of identifying issues and taking corrective action.

13. Audit matters

13.1 Internal Audit

Internal Audit Unit of PKSF will cover project activities including at the PMU and PO level. There would be regular field visits and verification of the project activities at all implementation levels. The annual workplan which includes the audit of the POs on a rotational basis would be reviewed and approved by the PKSF MD. There would also a recruitment of Special Auditors from private audit firms – Chartered Accountants to complement the work program of the internal auditors of PKSF. All programs of PKSF including GREEN would be covered in the scope of work of the IAU.tailor the already developed internal audit charter and manual to LGED/project requirements,

13.2 External Audit

13.2.1 Auditing standards

IFAD promotes the use of internationally accepted auditing standards and requires that GREEN be audited in terms of the International Standards on Auditing (ISA).

13.2.2 Appointment of the auditor

PKSF will ensure the GREEN project complies with the requirements of the IFAD Handbook on Auditing and Financial Reporting. PKSF will ensure:

- Conduct of annual audit by an independent Chartered Accountancy firm in accordance with International Standards on Auditing (ISA)
- Conduct of annual audit terms of reference (TOR) to IFAD for NO
- Select auditors through competitive procurement process. A tender for audit services should be issued at least every four years, with the incumbent able to apply.
- Submit unaudited financial statements within four months of financial year end.
- Submit audited financial statement within six months of financial year end. The Partner

Organizations will be required to submit annual audit reports to PKSF.

13.2.3 Audit opinion and audit package

The audit report will outline the audit opinion on the audited financial statements. The auditor is required to issue an audit opinion in accordance with ISA 700.

The auditor is expected to submit an audit package that at a minimum includes the audited financial statements and the management letter. The management letter is an integral part of the audit package, which documents internal control issues identified by the auditor. The management letter should:

- Outline the auditor's recommendations to address identified internal control issues, and the responses to them on the part of the Project's management.

- Where applicable, provide follow-up commentary on the issues identified in the previous year's management letter.
- Include any ineligible expenditures identified during the audit be outlined in the management letter.

13.2.4 Audit reporting period

IFAD generally requires an annual audit of Project financial statements. However, the frequency of the audit may be changed by IFAD as a function of the Project's risk profile. In all instances, IFAD will confirm the frequency with which GREEN's financial statements

are to be audited.

The audit reporting period may be amended for the first and/or final audits, in line with the following guidance:

- For the first audit, in cases in which the Project commences during the financial year, the following procedures will generally apply:
  - When the period between the first disbursement and the end of the financial year is less than six months, IFAD may allow the results for the first financial period to be included in the following financial year's audit subject to agreement with IFAD Finance Officer; or
  - When the period between the date of the first disbursement and the financial year- end is greater than six months, audited financial statements for the period are always required subject to agreement with IFAD Finance Officer.
- For the final audit, IFAD may recommend an audit reporting period that is longer or shorter than 12 months, but that in no case may exceed 18 months. This is to ensure that the final audit can be concluded, and the audit report submitted to IFAD by the Project Closing Date subject to agreement with IFAD Finance Officer.

In such instances, IFAD will discuss and agree on its requirements with the borrower well in advance of commencement of the final audit.

13.2.5 IFAD Audit reviews

IFAD will conduct reviews of GREEN audit reports. The main purpose of the reviews is to determine whether the auditor conducted a quality audit resulting in an audit opinion acceptable to IFAD, and to assess the quality of the financial reporting of GREEN.

IFAD will communicate the results of the audit report review process within sixty days following receipt of the audit package. If required, GREEN will be requested to take corrective actions within a specified time frame. These actions should be included and monitored in the Action Tracker (illustrated in 21.12).

13.2.6 Public disclosure of audit reports

IFAD will publicly GREEN Project financial statements and audit reports, subject to processes applicable to their publication. In line with the standards of the International Aid Transparency Initiative, GREEN is encouraged to publish financial information on it's own website, for increased accountability. GREEN must ensure that the audit TORs explicitly mention the right of the GREEN and of IFAD to publish the audit report, with no limitation- of-use clause.

14. Records Management

14.1 MAINTENANCE OF SEPARATE ACCOUNTS AND RECORDS

In terms of IFAD's General Conditions for Agricultural Finance:

"The Project Parties shall maintain separate accounts and records in accordance with consistently maintained appropriate accounting practices adequate to reflect the operations, resources and expenditures related to the Project until the Financing Closing Date…"

In order to comply with the above requirement, The PMU and other partner organizations are required to maintain accounts. Such accounts and records may include:

Type	Example

Electronic information	• Data and information maintained within the accounting software • Other documents and files maintained electronically, either on desktops, laptops, or removable storage devices

Correspondence	• Emails • Hard copy correspondence (letters)
Documents received from external sources	• Bank statements • Supplier documentation
Internally generated information	• Employee files • Withdrawal applications • Forms

All documents and information are the property of GREEN and may not be removed.

14.2 Filing and storage of the financial records

The PMU and other partner organizations are responsible for filing records. To fulfil this responsibility:

- Project parties should maintain files in a chronological order, assigning appropriate codes/sequential numbers.
- Project parties should perform filing activities on a regular basis to prevent the accumulation of papers and to ensure that the financial records are always maintained in an up-to-date manner.
- Project parties 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.
- Project parties should also classify the financial records as "Confidential", or "General".

14.3 Off-site archiving of financial records

The respective Financial Managers should ensure that the financial records are archived at an off-site location on a regularly basis. Once a year, the Financial Managers 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.

14.4 Electronic back-up procedures

Back-up of electronic information is an important function to be undertaken under instruction from the Financial Manager. It is required that:

- Daily: Electronic information at each Project office is backed up on the local server
- Weekly: Electronic information is saved on an external storage device and kept in a locked cabinet

Project staff access to backup files are subject to authorization by the Project director or Financial Manager. The access of external persons is prohibited except for the auditors and IFAD staff.

14.5 Retention period

Project parties are required to retain accounts and records for at least ten (10) years after Financial Close. The Financial Manager should ensure that all documents and records (electronic and paper) are handed over to GoP at financial closure to ensure that records can be maintained for the 10-year period.

15. 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 Financial Managers:

- 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

15.1 Purchase of Equipment

The Accountants should follow the following process for each fixed asset purchased:

- Assign a unique, sequential asset number (excluding minor items such as stationary).
- Tag each item with its unique asset number.
- Record the item of equipment in fixed asset register

15.2 Fixed asset register

The accountants must maintain a fixed asset register in the asset management module of the accounting software. The asset register should record the following information for each individual piece of equipment (refer 21.12 for illustration):

- Asset description
- Asset number
- Individual responsible for asset
- Partner organizations responsible for purchase
- Source of funding of asset (IFAD, government etc),
- Location of the asset
- Date of purchase
- Cost of purchase and invoice number
- Remarks regarding the condition of the asset

The Finance Managers shall ensure that the consolidated fixed asset register is maintained and updated regularly.

Assets purchased for beneficiary use should be included in the fixed asset register if the assets remain under the ownership of the Project (therefore beneficiaries to return to Project at Project closure).

15.3 Asset Verification Review

Under the management of the Financial Manager, GREEN must conduct an annual asset verification process whereby the following checks are performed:

- Verify that all fixed assets are still held in the location recorded on the register;
- Confirm the completeness and accuracy of the information recorded on the fixed asset register;
- Check that equipment and vehicles are still in a reasonable state of repair and that remarks regarding the condition of the assets are correct as recorded in the fixed asset register;

The verification review must be performed by different staff from those who use the equipment, to ensure adequate segregation of duty. 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 Financial Manager and Project Director. Moreover, the Financial Managers will undertake random verification of fixed assets during field visit.

15.4 Vehicle Maintenance and Fuel

Drivers are required to maintain waybills/itinerary lists and vehicle history records (21.15).

No cash shall be advanced to drivers for the purposes of refueling.

- Each vehicle to have dedicated fuel card which indicate the vehicle registration number.
- Each fuel card to have a set daily / monthly limit based on average consumption.

- Changes to the monthly limit is subject to approval by the Financial Managers (which will be approved base on approved trips).
- The waybill shall indicate the reading of odometer at the beginning and end of the

period, i.e., the mileage of the car, as well as fuel consumption. This process shall be checked by an Accountant.

- Fuel stations shall provide a monthly summary report on fueling and invoice which the accountant shall compare to the fuel invoices attached to the waybill. Differences to be followed up/resolved.
- Provision of fuel and lubricants shall be strictly limited per each vehicle per month in accordance with the order signed by the Management.

Vehicle insurance

THE FINANCIAL MANAGERS SHOULD ENSURE THAT ALL PROJECT VEHICLES ARE COMPREHENSIVELY COVERED AND THAT ALL DRIVERS ARE NOTED ON THE INSURANCE POLICY. UNDER NO CIRCUMSTANCES MAY UNINSURED DRIVERS DRIVE THE VEHICLES. THE INSURANCE POLICIES SHOULD BE RENEWED ANNUALLY OR AS STIPULATED IN THE POLICY. THE SAFETY OF CARS IS THE RESPONSIBILITY OF THE DRIVERS ASSIGNED TO THE VEHICLES. CONSEQUENTLY, THEY MUST ENSURE THAT THE VEHICLES ARE PARKED IN A SECURE AREA WHEN NOT IN USE OR OUTSIDE WORKING HOURS.

Maintenance

THE DRIVERS ARE REQUIRED TO MONITOR THE MAINTENANCE OF THEIR ASSIGNED VEHICLES. THE DRIVERS MUST NOTIFY THE XXXX OF MAINTENANCE NEEDS SO THAT THE CARS CAN BE SERVICED ON A TIMELY BASIS. THE XXX IS REQUIRED TO REQUEST THE CAR MAINTENANCE, SUBJECT TO APPROVAL BY THE PROJECT DIRECTOR. THE ASSIGNED CARS MUST ALWAYS BE TAKEN TO THE SELECTED GARAGE FOR REPAIRS AND MAINTENANCE.

16. IFAD financial management support

16.1 Overview of IFAD support

IFAD's Financial Management Division (FMD) will remain involved with GREEN from Project inception (starting at Project design) to Financial Closure to ensure that GREEN fiduciary requirements are met.

FMD's Finance Officer will establish ongoing contact with the Project, by liaising with the Financial Manager of PMU and will be available to provide remote support on financial management matters. In addition, FMD will visit GREEN during missions to the Project (represented by either the Finance Officer or an appointed consultant). Mission types include supervision missions, mid-term reviews and implementation support missions.

During missions, FMD will assess and monitor the adequacy of GREEN financial management arrangements such as accounting, budgeting, internal controls, flow of funds, financial reporting, and the auditing practices.

If financial management arrangements of GREEN 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 GREEN to take the appropriate measures to mitigate those risks.

The key findings and recommendations of missions will be captured in the Aid Memoire which is a document which is shared with the Government and includes an overview of issues identified and proposed actions to be undertaken by the project/IFAD to address issues identified.

16.2 Roles and responsibilities related to IFAD support

GREEN will be required to participate in IFAD missions as follow:

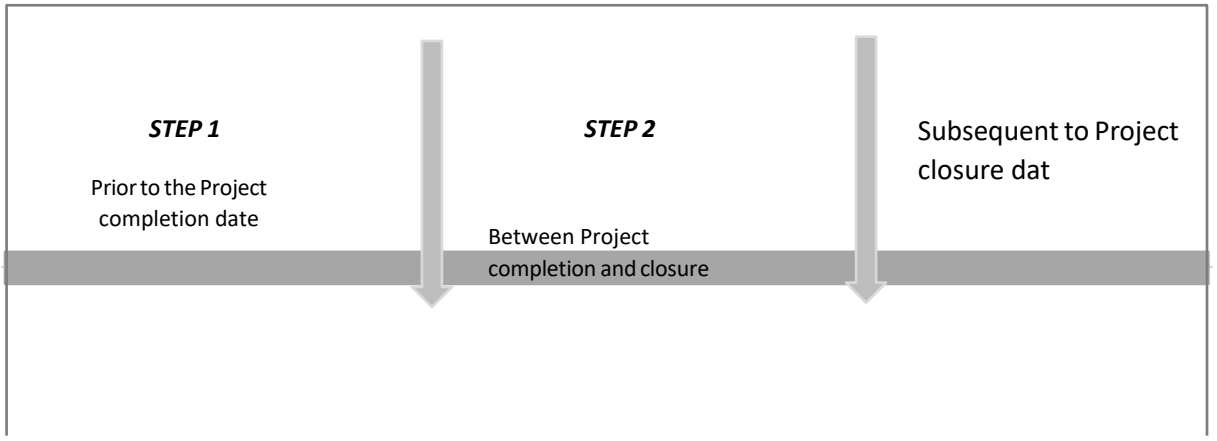
Stage	Project roles and responsibilities
Before IFAD missions	• Prepare Appendix 1 (21.13) and submit to the FO/Consultant in electronic format (Excel Workbook, including formulae) before commencement of the mission – the FO/Consultant will specify the date range to be covered within Appendix 1. • Each project party (PMU and other partner organizationss) to complete the Financial Management Assessment Questionnaire (FMAQ) and submit to the FO/Consultant in electronic format (FO to provide most recent template). • Prepare all other information as requested by FO/Consultant before commencement of the mission (refer 21.2).

During IFAD missions	• Provide the FO/Consultant with all information which was requested before the mission.
	• Arrange meeting with the auditors (internal and external) and any other selected party requested by the mission.
	• Ensure that all FM staff are available to assist the FO/Consultant in performing their duties which may include:
	  ○ Review of financial reports, reconciliations
	  ○ Physical verification of fixed assets and inventory
	  ○ Meeting with the auditor
	  ○ Reviewing and completing the FMAQ
	• Discuss identified FM weaknesses and risks and assist the FO/Consultant with developing appropriate actions for inclusion in the aide memoire.

After IFAD missions	• Respond to any wrap-queries from the FO/Consultant • Commence with implementing all actions which are included in the Aide Memoire • Update the Action Tracker (see illustration in 21.12) with all actions raised during the missions.
Ongoing	• Monitor and update the Action Tracker to ensure all actions are implemented in a timely manner. Liaise with the Financial Manager if required. • Respond to ad-hoc queries received from the Financial Manager or other IFAD staff as it related to FM matters.

17. Project completion and closure

The Project completion date is defined in the financing agreement and the Project closure date is 6 months thereafter. The following is relevant to period before Project completion up to Project closure:



Project completion date ***STEP 3***

Project closure date

STAGE 1	STAGE 2	STEP 3
Up to the Project completion date	Between Project completion and closure	Project closure date
▪ Justification of advances for all expenditures spent by completion date ▪ Agree on the audit scope of work and submit to IFAD for no objection ▪ Incur eligible expenditure up to the Project completion date	▪ Commencement of the final audit ▪ Auditor performs the final audit in line with scope of work approved by IFAD ▪ Incur winding up expenditure only (cost of audit, staff salaries, operating costs, Project completion report) ▪ Submit final withdrawal application for justification ▪ Develop an asset handover and disposal plan (include up to date fixed asset register, indicate condition of all assets and to which entity the assets will be transferred.	▪ Submit final audit report on or before the Project closure date ▪ Submit Project completion report on or before the Financial Closure Date (as required in the financing agreement) ▪ Confirm the final withdrawal application with IFAD ▪ Return outstanding advance if applicable (all unjustified balances) ▪ Closure of the project with IFAD

A NOTICE IS SENT TO THE BORROWER AT LEAST SIX MONTHS PRIOR TO THE PCD TO ADVISE THAT ALL APPLICATIONS MUST BE SUBMITTED BEFORE THE CLOSING DATE, AND TO REMIND THE BORROWER THAT EXPENDITURES INCURRED, AND COMMITMENTS MADE AFTER THE PCD WILL NOT BE HONORED, EXCEPT FOR AUTHORISED EXPENDITURES DURING THE "WINDING UP PERIOD" (FROM PCD TO FINANCING CLOSING DATE). THIS MEANS THAT GOODS ARE DELIVERED, CIVIL WORKS ARE COMPLETED, AND SERVICES ARE RENDERED ON OR BEFORE SUCH DATE.

After the financing closing date, IFAD informs the Borrower of the formal closure of the loan/grant account, provides a history of disbursement transactions, and cancels the unused loan/grant balance. A re-amortisation plan should be sent where relevant.

Asset handover plan

The plan should develop report outlining the following for the purposes of handing over Project assets to the identified beneficiaries:

- The value of all the assets bought under the Project
- Summary of the current condition of the assets,
- To which entity, will the assets be transferred to and on which date and for what purpose.
- List the assets that will be disposed and the reason for being disposed.

18. IFAD Financing agreements – amendments and budget reallocations

If amendments are required to the financing agreement:

- a formal written request should be submitted to IFAD
- outlining the required amendment and motivation thereof. Amendments to the

agreement may be required for (but not limited to):

- Changes to the project completion date and grant closing date,
- Changes to the project budget/budget reallocation (noting that the budget may not be increased above the original total amount)

Budget reallocations

- In some cases, the expenses category amounts as outlined in the financing agreement requires a revision if the project notes that actual expenditure is deviating from the original budget.
- In such instances a reallocation is required, depending on the size of the reallocation per category (expressed as %)
- Reallocation of equal to or less than 10% (of each category) between the various categories if such a reallocation ***does not change the basic purpose of the project.***
- *FOR REALLOCATION GREATER THAN 10% OF ANY EXPENSE CATEGORY, THE BORROWER IS REQUIRED TO FORMALLY REQUEST A REALLOCATION FROM IFAD (SUPPORTED BY A DETAILED MOTIVATION).*

19. Useful links

Document	Link
IFAD financial management e-learning	*Project Financial Management e-learning course*
Revised IFAD policy on preventing fraud and corruption in its activities and operations (December 2018)	https://www.ifad.org/en/document-detail/asset/40189695
Guidelines for internal controls for Public Sector Entities (INTOSAI GOV 9100)	Guidelines for internal controls for Public Sector Entities (INTOSAI GOV 9100).pdf
IFAD General Conditions for Agricultural Development Financing	https://www.ifad.org/documents/38711624/39421024/general_e.pdf/47c5f14b-2903-4285-b0b0-62c67cd650b8
IFAD Handbook for Financial Reporting and Auditing of IFAD *-financed projects (English) includes:* *Illustrative financial statements, audit TOR and audit reports.*	IFAD Handbook for Financial reporting

FINANCIAL MANUAL SECTION OF GREEN PIM	
IFAD FMFC Handbook	IFAD Financial Management and Fi
IPSAS Cash Standard	https://www.ifac.org/publications-resources/revised-cash-basis-ipsas
ICP page	https://icp.ifad.org/

ICP support email	icpsupport@ifad.org
Interim Financial Reports (illustrative templates)	IFR Reviewing tool for Clients_230202_v IFRs Template - Annex 3.zip

20. Annexures

20.1 AWPB Structure and preparation checklist

THE PMU IS RESPONSIBLE FOR THE DEVELOPMENT OF THE ANNUAL WORK PLAN AND BUDGET (AWPB), GENERALLY COVERING A PERIOD OF 12 MONTHS, WHICH SHOULD INCLUDE THE FOLLOWING MANDATORY SECTIONS:

Section	Description
Introduction	▪ Provide a brief background ▪ Include narrative covering the strategic focus, target group, geographical focus (Project sites), outreach (with gender disaggregation), Project components, specific activities to be undertaken and the planned output for each activity.
Risks and mitigation	▪ Outline of major risks that could affect adversely the Project outcomes and mitigating actions taken.
Budget and financing plan	▪ Describe the necessary inputs and outputs for each activity, including the expenditures, financing source and expected completion date. ▪ The expenditures should be classified per activity and should also be linked to a component, expenditure category as per the financing agreement and a financing source. ▪ Each activity should be coupled with tangible outputs or physical targets to facilitate the measurement of Project progress.
Procurement plan	▪ Outline detailed plan outlining procurement activities, include expected cost for each item, procurement method and timeline. ▪ *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.*
Progress and past performance (include in 2nd AWPB onwards)	Outline the following with: ▪ Summary of the key achievements ▪ Problems encountered and how these were resolved ▪ Budget execution, comparing actual expenditure per category/component to prior AWPB with an indication of category overspend

FINANCIAL MANUAL SECTION OF GREEN PIM	
Other	▪ Training and technical assistance schedule ▪ PMU/PIUs staff development plan ▪ Project staff payroll (including the names, titles, salaries, and incentives)

AWPB Check: **The checks listed below are designed to improve the quality of the AWPB during the final preparation stage.**	***Yes***	***No***
Is the AWPB complete and clearly presented? Does it disclose sufficient information?		
Is the AWPB in line with the Project description and rational (schedule 1) as per the financing agreement and the Project log- frame? Are all the activities relevant to the Project?		
Does it contain the necessary summary tables by component and financier and by expenditure category and financier as well as the detailed tables by component?		
Does the implementation schedule seem realistic and does it show appropriate targets and milestones? Are the targets and execution level realistic compared to past years progress?		
Does it contain a separate annex disclosing the details of the Project payroll?		
Does it contain a separate annex containing outlining the planned trainings?		
In the detailed tables are the expenditures structured by activity and linked to a component, expenditure category and financing source?		
Are the cost categories of the AWPB in line with the Schedule 2 of the IFAD financing agreements and are expenditures within the agreed allocations?		
Is any expenditure category going to be overdrawn during the year? Is a reallocation of IFAD funds needed?		
Does the total (and subtotal) costs add up? Are the inputs (unit cost) and outputs (physical targets) adequately quantified? Is there coherence between the inputs and outputs? And does these represent value for money (i.e. what is the unit cots for per output, e.g. cost per trained farmer)?		
Are the unit cost are realistic and do they reflect market prices?		
Is the AWPB accompanied by a procurement plan? Is the procurement plan consistent with the AWPB?		
Is the format of the AWPB compatible with other financial reports and the accounting software to allow input in the budget module and generation of actual vs budget reports and		
If last audit, does it take into account completion date of the Project as well as winding up activities such as Project completion report, final audit as handover/disposal of Project assets (computers, vehicles etc.),		

A.1. Annual Work Plan and Budget

Project Name:
Recipient:
Reporting period: DD.MM.YYYY – DD.MM.YYYY

Detailed Tables per Component, Expenditure Category and Financier - (Separate sheet for each component as applicable).																	
Description		Budget Category	Location		Items (cost in USD)				Physical Outreach/target by activity	Timeline					Financing Source (USD)		
Budget item by Component, Subcomponent and Activity	Methods		Implementing entity	Country/site	Unit	Unit cost	Quantity	Total		Quarter 1	Quarter 2	Quarter 3	Quarter 4	Delivered by	IFAD Grant	Recipient	Co-financier
Component 1 Activity 1.1 Expenditure item Expenditure item																	
Subtotal																	
Activity 1.2 Expenditure item Expenditure item																	
Subtotal																	
Activity 1.3 Expenditure item Expenditure item Expenditure item Expenditure item																	
Subtotal																	
Total (Component 1,2,3 etc)																	

20.2 Information checklist – preparing for IFAD missions

IT IS REQUIRED THAT GREEN PREPARE THE FOLLOWING IN ANTICIPATION OF IFAD MISSIONS:

	Information	Guidance
1.	*Appendix 1*	• Prepare Appendix 1 in Excel Workbook and include formulae as appropriate.
2.	*FMAQ*	• Include comments in the Financial Management Assessment Questionnaire (with exception of the summary section).
3.	*Withdrawal applications/ Transaction listing*	• Make hardcopy files of all recent withdrawal applications/statement of expenditures available (at least covering 12 months prior to the missions). Upon request, provide supporting documentation for a selection of expenditures. • Provide a summary of pending withdrawal applications/IFRs for review.
4.	*Bank and petty cash reconciliations*	• Make hardcopy files of most recent bank and petty cash reconciliations available. Include copies of relevant bank statements. Ensure that IFAD designated account reconciliations are prepared in the correct format as outlined in the IFAD Loan Disbursement Handbook
5.	*Financial reports*	• Provide most recent financial reports (as at end of most recent completed month), which include summary information (including all sources and uses of funds). • Provide most recent interim financial reports (format illustrated in 22.9) • Provide copy of most recent audited financial statement.
6.	*Fixed asset register*	• Provide updated fixed asset register in Excel Workbook format (export from accounting software).
7.	*Manuals and procedures*	• Provide an electronic of the most recent version of the Financial Manual (to which IFAD provide a no objection). • Provide a copy of the accounting software manual.
8.	*Contract register and monitoring forms*	• Make available the update Contract Register and Contract Monitoring Forms (export from accounting software).
9.	*Action tracker*	• Update the action tracker with progress to date.
10.	*AWPB/Procurement Plan*	• Make available electronic copies of the AWPB and Procurement Plan (provide in Excel Workbook format).

11.	*Advances*	• Make available a summary of outstanding advances with supporting documentation.

20.3 Terms of reference: Financial Manager

Post title: Financial Manager of *(The PMU)*

Organisation: *(The PMU)*

Location: Dhaka, Bangladesh

Name of Project: GREEN

Duration: One-year renewable

Type of contract: Fixed term

CLOSING DATE: XXX

1. Objective

The main objective of the assignment is to maintain accounting procedures and manage activities related to the project financial management arrangements. In his/her activity the Finance Manager shall be guided by the Project Implementation Manual and current legislation of the Government of Bangladesh.

2. SCOPE OF SERVICES AND KEY TASKS

The Financial Manager's tasks and responsibilities include, but are not necessarily limited to, the following:

- ensuring proper management of project funds and their disbursement in accordance with the accounting, budgeting, and financial control procedures established for the PMU/ in the light of IFAD and other donors requirements;
- preparing, and securing approval of budgets based on the operating plans of the projects' subcomponents;
- periodically evaluating the financial reporting and internal control arrangements for the projects' subcomponents and preparing proposals for improvements;
- performing a monthly review of the projects' general ledgers with a view to identifying and clarifying any errors and anomalies, and particularly with reference to receivables and payables which have been overdue for more than one month;
- scrutinizing financial reports submitted by project components and subcomponents and agencies or institutions implementing or managing such components and subcomponents to ensure that they follow established procedures, and to take corrective action where necessary;
- monitoring the status of budget utilization by project component and category of expenditure and reporting to the Director on any significant variances, together with recommendations for appropriate actions;
- liaising with officials of the PKSF and other concerned government bodies on financial issues pertaining to the PMU and the projects, for which it is responsible, and particularly on the timely payment of government counterpart funds;
- paying periodic visits to remote project locations to check the operation of the system of internal control and control of reports submitted by the components;
- ensuring the timely preparation of financial, activity and monitoring reports to the management of PKSF and Government representatives, donors, and providing the projects' internal and external auditors with all information, documentation and explanations required for the purposes of audit;
- Review and confirm the final version of the interim financial reports (IFRs) required for withdrawing funds from IFAD as indicated in the FMFCL, refer to 21.18;
- approving and updating the PMU Financial Manual and ensuring adherence to its provisions;
- preparing TORs for the annual external audits; technical and financial assessment of auditors'

proposals; preparing annual financial statements and explanatory notes in accordance with

donor requirements and with IFRS, to the extent applicable; agreeing with the auditors the form of their report;

- organizing and providing training workshops in accounting and financial management topics for finance staff of the PMU and components;
- supervising the operation of the projects' Designated Accounts and project accounts in accordance with IFAD and other donors' procedures;
- standing in for the Financial Unit specialists and performing their routine duties during periods when they are absent;
- Preparation and submission Government required financial reports to relevant Government Agencies;
- Responsible for consolidation of all financial reports for the PMU & coordination with external auditors on audit for all project accounts and submission to IFAD final consolidated report;
- Ensure that procedures for collecting, checking and preparing documentation required for verifying Supplier's invoices are maintained. Supervise record of payment documentation and payments to Suppliers. Ensure that all payments are made on a timely basis and according to contract terms and conditions as well as the IFAD relevant guidelines, regulations, legal agreements and other applicable documents;
- Review and ensure maintenance of appropriate Fixed Assets register to safeguard assets of the project;
- Perform such other duties as may be required by the PMU Director.

3. INSTITUTIONAL ORGANIZATION

The Financial Manager will work closely with the PMU staff, all partners, partner organizations of the project and its components, government agencies and other organizations that have a direct link to the project implementation.

4. REPORTING AND APPROVAL

The Financial Manager will report to the PMU Director who will evaluate performance of his/her responsibilities every year.

5. QUALIFICATION REQUIREMENTS

- MBA or equivalent qualification in accounting and finance for international standard;
- Broad experience of budgeting, accounting and reporting procedures of IFAD and other donors;
- Knowledge of Bangladesh Accounting and Tax regulations;
- Hands-on experience of setting up and running a project financial management and accounting information system in accordance with best international practice;
- Complete, practice-based command of double-entry bookkeeping;
- Ability to present financial information in a clear, concise manner and in formats suitable for non-specialists;
- Fluency in English;

- Experience in training staff of local counterparts and subcontractors in disbursement procedures and in accounting theory and practice;
- Computer literate; familiarity with Windows-based programs such as Word and Excel, PowerPoint, Accounting Program and other MIS.
- Chartered Accounting Certificate will be considered as advantage;

6. DURATION OF APPOINTMENT

THE PERIOD OF ASSIGNMENT IN THE POSITION WILL BE INITIALLY 12 MONTHS AND MAY BE EXTENDED BY MUTUAL AGREEMENT, WITH PROBATION PERIOD OF THREE MONTHS.

20.4 Terms of reference: Account Officer

Post title: Account Officers of *(The PMU)*

Organisation: *(The PMU)*

Location: Dhaka, Bangladesh

Name of Project: GREEN

Duration: One-year renewable

Type of contract: Fixed term

CLOSING DATE: XXX

7. Objective

The main objective of the assignment is to maintain accounting procedures and support the PMU Finance Manager in managing the activities related to the project financial management arrangements. In his/her activity the Finance Specialist shall be guided by the Project Implementation Manual and current legislation of the Government of Bangladesh.

8. SCOPE OF SERVICES AND KEY TASKS

The Financial Specialist's tasks and responsibilities include, but are not necessarily limited to, the following:

- Support the Finance Manager in ensuring proper management of project funds and their disbursement in accordance with the accounting, budgeting, and financial control procedures established for the PMU/ in the light of IFAD and other donor's requirements.
- Assist the Finance Manager in preparing and securing approval of budgets based on the operating plans of the projects' subcomponents.
- Assist in the periodic evaluating of the financial reporting and internal control arrangements for the projects' subcomponents and preparing proposals for improvements.
- performing a monthly first review of the projects' general ledgers with a view to identifying and clarifying any errors and anomalies, and particularly with reference to receivables and payables which have been overdue for more than one month; this is subject to the Finance Manager final review.
- scrutinizing of financial reports submitted by project components and subcomponents and agencies or institutions implementing or managing such components and subcomponents to ensure that they follow established procedures, and to take corrective action where necessary, subject to the Finance Manager final review
- support the Finance Manager in monitoring the status of budget utilization by project component and category of expenditure and reporting to the Director on any significant variances, together with recommendations for appropriate actions.
- paying periodic visits to remote project locations to check the operation of the system of internal control and control of reports submitted by the components.
- follow up on timely preparation of financial, activity and monitoring reports to the Government of Bangladesh, donors, and providing the projects' internal and external auditors with all information, documentation and explanations required for the purposes of audit.
- preparing and submitting the interim financial reports (IFRs) required for withdrawing funds from IFAD as indicated in the FMFCL (refer to 21.18);

- play a key role and be proactive in updating the PMU Financial Manual and ensuring adherence to its provisions.
- preparing drafts of TORs for the annual external audits; technical and financial assessment of auditors' proposals; preparing annual financial statements and explanatory notes in accordance with donor requirements and with IAS, to the extent applicable; agreeing with the auditors the form of their report.
- support the finance manager in organizing and providing training workshops in accounting and financial management topics for finance staff of the PMU and components.
- standing in for the Financial Unit specialists and performing their routine duties during periods when they are absent.
- assist in the preparation and submission of Government required financial reports to relevant Government Agencies.
- assist in maintaining procedures for collecting, checking, and preparing documentation required for verifying Supplier's invoices. Supervise record of payment documentation and payments to Suppliers. Ensure that all payments are made on a timely basis and according to contract terms and conditions as well as the IFAD relevant guidelines, regulations, legal agreements, and other applicable documents.
- prepare, update and monitor Fixed Assets register to safeguard assets of the project.
- Perform such other duties as may be required by the PMU Director and Finance Manager.

9. INSTITUTIONAL ORGANIZATION

The Financial Manager will work closely with the PMU staff, staff, all partners, partner organizationss of the project and its components, government agencies and other organizations that have a direct link to the project implementation.

10. REPORTING AND APPROVAL

The Financial Specialist will report to the PMU Director and Finance Manager who will evaluate performance of his/her responsibilities every year.

11. CLIENT'S CONTRIBUTION

The client will provide a local specialist with relevant information on the Project, the basic documents of the Project, procurement plans and available technical materials on assignments described in the scope of work. The client will provide a specialist with necessary working conditions in the PMU (room, furniture, office telephone, access to Internet, etc.).

12. QUALIFICATION REQUIREMENTS

- Bachelor's degree in accounting and/or finance for international standard.
- MBA or equivalent qualification in accounting and finance for international standard is preferred.
- Experience of budgeting, accounting, and reporting procedures of IFAD and other donors.
- Knowledge of Bangladesh Accounting and Tax regulations.
- Experience in project financial management and accounting information system in accordance with best international practice.
- Complete, practice-based command of double-entry bookkeeping.
- Ability to present financial information in a clear, concise manner and in formats suitable for non-specialists.
- Fluency in English;

- Experience in training staff of local counterparts and subcontractors in disbursement procedures and in accounting theory and practice.
- Computer literate; familiarity with Windows-based programs such as Word and Excel, PowerPoint, Accounting Program, and other MIS.

13. DURATION OF APPOINTMENT

THE PERIOD OF ASSIGNMENT IN THE POSITION WILL BE INITIALLY 12 MONTHS AND MAY BE EXTENDED BY MUTUAL AGREEMENT, WITH PROBATION PERIOD OF THREE MONTHS.

20.5 Terms of reference: Account Assistant

Post title: Account Assistant of *(The PMU)*

Organisation: *(The PMU)*

Location: Dhaka, Bangladesh

Name of Project: GREEN

Duration: One-year renewable

Type of contract: Fixed term

CLOSING DATE: XXX

1. Objective

The main objective of the assignment is supporting the finance unit to maintain accounting procedures and manage activities related to the project financial management arrangements. In his/her activity the Finance Manager shall be guided by the Project Implementation Manual and current legislation of the Government of Bangladesh.

2. SCOPE OF SERVICES AND KEY TASKS

The Account Assistant must responsibly perform the activities detailed in the Terms of Reference and Scope of Services. The Account Assistant's duties include the following:

- Disbursements for advancing the project components' costs according to applications, payment of the PMU costs from the project designated accounts.
- Preparation of monthly cash flow reports for all available project accounts.
- Inventory of fixed assets, assets procured under the projects, monitoring and the like.
- Accounting, ensuring proper control over the project (projects) financial resources, flow of resources and disbursements following the adopted procedures and accounting standards of the Government of Bangladesh complying with the requirements of IFAD and other donors.
- Processing the reports by components and primary documents, keeping the entire entries and daily banking operations in the accounting software according to bank statements.
- Processing the advance reports of both the PMU staff and the components' staff.
- Keeping the electronic cash book and control over bank statements.
- Control over the fuel consumption and keeping the SOE.
- Cash payments and advances from the project (projects) cash for operating and other project (projects) costs.
- Preparation of all supporting documents on the project (projects)costs accompanying the withdrawal application.
- Preparation of monthly cash flow reports for all available project (projects) accounts.
- Participation in preparation of various reports, information materials at the request of the Ministry of Finance, IFAD and other donors or organizations.
- Act as a Disbursement Specialist, Finance Manager, Finance Specialist and perform specific duties during their absence.
- Conduct regular reconciliations of the bank account balances to the project accounts.

- Perform other relevant duties at the request of the PMU management and/or the PMU Finance Manager.

3. REPORTING AND APPROVAL

The accountant will report to the PMU Director, Finance Manager who will assess fulfillment of his/her duties regularly.

4. INSTITUTIONAL ARRANGEMENT

The accountant will work closely with the PMU staff, with all partners, partner organizationss of the project(s) and its(their) components, state institutions and other organizations relative to the project(s) implementation.

5. CLIENT'S CONTRIBUTION

The Client will provide the Consultant with relevant information on the Project(s), the basic documents of the Project(s), work plans and available technical materials on assignments described in the scope of work.

The Client will provide the employee with working place in the PMU as well as all necessary materials and tools needed to carry out this assignment.

6. ASSIGNMENT VENUE

The accountant shall perform main part of works at the PMU office. If necessary, the Consultant shall travel to districts and regions of the country to perform certain project(s) tasks.

7. QUALIFICATION AND EXPERIENCE

The Assistant Accountant shall meet the following criteria and qualifications:

- Higher education in accounting and finance.
- At least 3-year experience in accounting.
- At least 3-year experience in international organizations for a similar position.
- Good knowledge of procedures for financial management, accounting of Bangladesh, tax policy and other legislative regulations on financial management.
- Knowledge of the procedures for financial management in international organizations such as IFAD, other donors etc.
- Good knowledge of English.
- Mandatory knowledge of the accounting software.
- Mandatory knowledge of computer programs based on Microsoft Office.

8. DURATION OF WORK

THE PERIOD OF THIS POSITION ASSIGNMENT INITIALLY WILL BE 12 (TWELVE) MONTHS AND MAY BE EXTENDED BY AGREEMENT OF THE PARTIES, WITH A TRIAL PERIOD OF 3 MONTHS.

20.6 Supporting documentation upon request from IFAD

AS SPECIFIED IN CHAPTER 3 OF THE IFAD LOAN DISBURSEMENT HANDBOOK, THE FOLLOWING SUPPORTING DOCUMENTATION SHOULD BE SUBMITTED UPON REQUEST BY IFAD:

Type of payment	Supporting documentation
All types of payments	▪ The signed contract or confirmed purchase order (Showing the specified amount that is due paid.) ▪ The bank guarantee for advance payment, as specified in the contract documents ▪ The bank guarantee for performance, as specified in the contract documents ▪ Copies of communications sent by the IFAD country Project manager to the lead Project agency (LPA) providing the IFAD's no objection (post or Prior) to the contract award, and ▪ Evidence of payment.
Payment of goods	▪ Supplier's invoice duly certified for payment by the Project director – specifying the goods, their quantities, and prices ▪ Bills of lading or similar documents; and ▪ As appropriate, the certificate of delivery (to include condition of goods to delivery.
Payments for services (including consultants)	▪ The supplier or consultant claim, duly certified for payment by the Project director 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 ▪ As appropriate, a certificate of delivery of satisfactory services
Progress and retention payments of civil works	▪ the claim if the contractor, including a financial progress report, stating the work performed and the amount due. ▪ 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 ▪ A copy of the contract payment monitoring form signed in original by the certifying officer.

20.7 Travel advance report

TO BE INSERTED BY THE PMU

20.8 Illustrative forms

[PROJECT NAME] Appendix 1

Financial: actual financial performance by financier; by component and disbursements by category Table 1: Financial performance by financier (USD '000)

Financier	Appraisal	Disbursements	Percent disbursed
IFAD Grant			
IFAD Loan			
GCF Grant			
GCF Loan			
FAO			
Government			
Beneficiaries			
Total			

Table 2: Financial performance by financier by component (USD '000)

	IFAD Loan			IFAD Grant			GCF Loan			GCF Grant			Government			Beneficiaries		
Component	**Appraisal**	**Actual**	**%**	**Appraisal**	**Actual**	**%**	**Appraisal**	**Actual**	**%**	**Appraisal**	**Actual**	**%**	**Appraisal**	**Actual**	**%**	**Appraisal**	**Actual**	**%**

FAO			Total		
Appraisal	**Actual**	**%**	**Appraisal**	**Actual**	**%**

Table 3: IFAD Loan disbursements (USD, as at [Insert date: dd-m-yy])

Category	Category description	Original Allocation	Revised Allocation	Disbursement	W/A pending	Balance	Per cent disbursed
I							
II							
III							
IV							
	Initial deposit						

	Total						

Present separate table for each IFAD managed finance facility (IFAD Loan, IFAD Grant) and for each GCF financing (Loan, Grant)

20.9 Petty Cash forms

PETTY CASH REQUEST FORM

Date:

Requested by:

Signature of requester:

Mode of payment: (tick selected):

- Reimbursement
- Advance

Description of purchases (goods/services)	Unit price	Quantit y	Total cost**	Activity code	Explanation / Comments
TOTAL AMOUNT					

Approved by Processed by Payment received by

** Attach supporting document (invoice, receipt, etc.)

PETTY CASH RECONCILIATION

Date of reconciliation:

PART 1. 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 2. below _____

Difference (G = E – F)

EXPLANATION OF DIFFERENCE

Part 2 - Cash Count

Description	Quantity	Total amount
Total in CURRENCY		

COUNTED/RECONCILED BY

(ACCOUNTANT): REVIEWED BY

(FINANCIAL MANAGER): DATE:

20.10 Vehicle and fuel documents

Waybill

PMUs to add copy of the used/standard waybills

ITINERARY LIST

Itinerary list for the period:

Driver:

Vehicle type:

Starting Speedometer reading _____as at _____

Date	Time		Name	Trip purpose	Mileage, km		Signature	
	from	to			post	prior	Passenger	Driver

Starting Speedometer reading _____as at _____

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 project vehicle:

Damage to other vehicles:

Injuries (indicate name of victims and describe injuries): Insurance settlement:

20.11 Partner organizationss/NGOs – MOU terms

To be used/amended as applicable.

The PMU/ will enter into MOUs with other partner organizationss/NGOs. The following recommended financial management roles and responsibilities are proposed for inclusion:

PMU SHALL:

- ✓ Provide financial management support to the partner organizations;
- ✓ Ensure that partner organizations performs its duties and enjoys rights indicated in the Memorandum.
- ✓ Provide financial management training at project start-up and annually thereafter in order to strengthen the financial management capacity of the partner organizations.

THE PARTNER ORGANIZATIONS SHALL:

- ✓ Implement sound financial management practices and procedures to the satisfaction of the PMU.
- ✓ Ensure that all financial management staff responsible for dealing with the GREEN attend financial management training (hosted by PMU) at project start-up and annually thereafter.
- ✓ Ensure that a qualified and experienced accountant is responsible for dealing with the financial management aspects of the GREEN for the duration of the MOU.
- ✓ Inform the PMU Financial Manager of any finance staff vacancies.
- ✓ Perform an annual financial management self-assessment (questionnaire template to be provided) and submit the results to the PMU Financial Manager. Cooperate with the PMU Financial Manager to address identified shortcomings within a specified timeframe.
- ✓ Assist the PMU with the annual budgeting process by preparing a budget for the component/sub-component which it is required to implement. For this purpose, the PMU Financial Manager will provide a budget template which should be used. In addition, strictly adhere to deadlines for submission of inputs.
- ✓ Retain all project related document (invoices, bank statements, supporting documentation) for inspection. Documents should be retained in line with the terms and conditions as outlined in the IFAD General Conditions for Agricultural Development Financing.
- ✓ When required, submit written request for funds in line with the template included in the FMFCL & 21.18. Written requests should be signed by the duly authorized representatives. Request letters should clearly indicate the related budget activity as included in the PMU approved AWPB (and related procurement plan).
- ✓ Prepare and submit a monthly report for IFAD in line with the template included in 21.17. Attach original bank statements and original supporting invoices/documents to the monthly report (documents to be returned after review by PMU).
- ✓ Use the monthly report to IFAD for the purposes of internal monitoring of budget to actual performance. Take corrective action as required.
- ✓ Respond to queries / resubmit information as requested by the PMU Budget and Finance Officer or Financial Manager in a timely manner.

21.18 IFRs Package

MONTHLY REPORT - IMPLEMENTING AGENCIES/NGO

Month

Implementing agency/NGO:

Contract date:

Project

					CASP+						
					Tajikistan Somoni						
						IFAD		GCF		Government	
№ category	Component/ Sub-component	№	Items of expenses	Supporting document ref	amount	Grant	Loan	Grant	Loan	Grant	Loan
		I	Balance at the beginning		-	-	-	-	-	-	-
		1	Bank		-						
		2	Petty cash		-		-				
		II	Advance		-	-	-			-	-
		1	Transfer		-						
		2	By cash		-						
		III	Expenses		-	-	-			-	-
		1				-	-			-	-
		2									
		3									
		4									
		5									
		6									
		7					-			-	-
		8									
		9									
		IV	Balance at the end		-	-	-	-	-	-	-
		1	Bank		-						
		2	Petty cash		-						

Director _____ **Checked**

Accountant _____ **Disbursement specialist** _____

stamp **Date:**
Date: _____

21.18 IFRs Package

Submit the report together with copies of bank statements, petty cash reconciliation, invoices, supporting documentation. Cross-reference supporting documentation to report. Forms to be copied from FMFCL once finalized

7. GREEN PROJECT PROCUREMENT STRATEGY (PPS)

Project Overview

Country	Bangladesh
Programme Area (as per design)	
Full Project Name	Growth for Climate Resilient and Ecological Entrepreneurship and Nutrition (GREEN)
Project ID	2000004922
IFAD Loan amount (tentative)	

Potential contracts in the first 18 months

Consulting Services

- Selection of a Consulting Firm for Conducting " Baseline Study" (Package No:PKSF/GREEN/SD-01) ($46,000)
- Recruitment of Senior Programme Manager (Package No:PKSF/GREEN/SD-02) ($44,225)
- Recruitment of Programme Manager (Package No:PKSF/GREEN/SD-03) ($32,025)
- Recruitment of Senior Programme Manager-Finance & Accounts (Package No:PKSF/GREEN/SD-04) ($44,225)
- Recruitment of Assistant Manager-Accounts (Package No:PKSF/GREEN/SD-05) ($27,450).

Goods Procurement

- Procurement of Design and Printing of Newsletter, Brochure, and Booklet ($2,000)

The cost table identifies and budgeted other procurement activities throughout the implementation period. During the implementation, the PMU is required to plan the procurement activities in line with the annual budget planning.

Overview of Country, Borrower and Marketplace

Operational Context

Governance aspects: Bangladesh's public procurement system plays a vital role in the country's governance, economic development, and public service delivery. Governed primarily by the Public Procurement Act, 2006 and its subsequent amendments, the system aims to ensure transparency, fairness, competition, and efficiency in the procurement process.

Key features of Bangladesh's public procurement system include:

Legal Framework: The Public Procurement Act, 2006, provides the legal framework for public procurement in Bangladesh. It establishes the rules, procedures, and responsibilities for procurement activities by government entities.

Central Procurement Authority: Under Act No. 32 of 2023, the Bangladesh Public Procurement Authority Act 2023, established the Bangladesh Public Procurement Authority (BPPA). Bangladesh Public Procurement Authority (BPPA) serves as the central authority responsible for policy formulation, capacity building, and monitoring of procurement activities across government agencies.

Procurement Methods: Bangladesh's procurement system allows for various methods, including open competitive bidding, limited competitive bidding, request for quotations, and direct procurement under certain circumstances. The choice of method depends on factors such as the nature and value of the procurement.

Transparency and Accountability: Transparency and accountability are fundamental principles of Bangladesh's public procurement system. The system mandates the publication of procurement opportunities, bid documents, evaluation criteria, and contract awards to ensure openness and fairness.

Capacity Building: The government recognizes the importance of building procurement capacity among government officials and stakeholders. The Bangladesh Public Procurement Authority (BPPA) provides training, workshops, and technical assistance to enhance the skills and knowledge of procurement professionals.

E-Procurement: In recent years, Bangladesh has made significant strides in digitizing its procurement process through the implementation of e-GP (Electronic Government Procurement). E-GP facilitates online bidding, document submission, and evaluation, improving efficiency and reducing the risk of corruption.

Anti-Corruption Measures: Bangladesh has implemented various measures to combat corruption in public procurement, including the establishment of procurement oversight committees, independent review mechanisms, and anti-corruption task forces.

Despite these efforts, challenges remain, including capacity constraints, bureaucratic delays, and the need for further transparency and accountability enhancements. Continuous reforms and investments in procurement infrastructure and human resources are essential to address these challenges and improve the effectiveness of Bangladesh's public procurement system.

There are standard/model bidding documents for goods, works, services, and consultancy at the National levels. Bangladesh Public Procurement Authority (BPPA) has designed these documents. All the tender documents are available at BPPA website. A large no. of procurements are conducted through electronic tendering.

In line with the procurement risk assessment, procurement under GREEN will follow IFAD Procurement Guidelines and IFAD Procurement Handbook. Government of Bangladesh recognises precedence of international obligations like IFIs Financing Agreements to use IFI procurement guidelines and document templates. Government of Bangladesh has implemented large numbers of externally aided projects in different sectors.

Economic aspects: Palli Karma-Sahayak Foundation (PKSF) will act as the PMU of the project. Government of Bangladesh is committed to provide counterpart funds. Funds utilisation at sub-units and at community level to be monitored with adequate treasury management practices. As the implementation is spread over large geographical area and the national capacity and availability of locally manufactured products, civil contractors, suppliers and consultants, no international bidding requirements are there in the project procurement approach.

Sustainability: The SECAP climate risk rating stands as moderate. The project will solicit and adopt cost-effective, structurally sound structures to address natural disasters situations. A detailed SECAP guidance note for project procurement specialists is included as Annex 1 below.

Technological aspects: Government of Bangladesh mandates that all public procurement for Goods and Works to use e-procurement portal called e-GP for receiving bids/proposals. PMU, GREEN will obtain credentials for e-GP System. The system also has payment options for tender fee and guarantees. The project will also introduce electronic systems for PMU. This would streamline the approvals and enable archiving of documents electronically.

Implementing Agency Capability Assessment

The IFAD-financed project will be implemented through a dedicated Project Management Unit within the Palli Karma- Sahayak Foundation (PKSF), Government of Bangladesh. Palli Karma-Sahayak Foundation (PKSF) has earlier vast experience to execute IFAD projects. PMU exhibits sufficient ability in advance planning, bids evaluation quality and contract management issues. PMU does not have a dedicated experienced Procurement Professional. A Procurement Specialist will be hired to conduct the necessary activities and the required Terms of Reference are included as Annex 2 below. PMU is very familiar to the country procurement system as well as IFAD Procurement Guidelines. PMU has substantial experience to work through the Government e-GP portal. However, the following actions will be undertaken with regard to procurement activities:

i) A dedicated Procurement Specialist will be hired and engaged in procurement co-ordination along with PMU regular staff
ii) A comprehensive training on procurement aspects will be organised.
iii) Though the initial 18-month PP, big ticket items are planned which will speed up the implementation. Many of the critical consultancy service engagement to be completed before entry into force.
iv) Performance evaluation and achievement of identified deliverables is a compulsory provision and any shortfall to be followed up for resolution.
v) Responsibility Matrix designed and included in PIM.
vi) Audit will also review procurement performance at all levels.
vii) Large procurement will be planned in advance.
viii) IFAD End-to-End Procurement system (OPEN) and its subsequent enhancements will be deployed.
ix) Government of Bangladesh e-Gp procurement system will be used for soliciting bids, opening, Evaluation and notification of award.
x) Project website will have dedicated page for tenders and awards.

Procurement trends

Public procurement accounts for a significant level of public expenditure and hence strengthening public procurement systems is central to achieve concrete and sustainable results, build effective institutions, and gain substantial savings in the use of scarce public resources. Public procurement has a strategic function as a mechanism for supporting economic development, conserving and making optimum use of resources through application of sustainable criteria, and increasing job creation and private sector growth including enhanced participation of small and medium enterprises in a country. Government expenditure through public procurement has long been used as a means of stimulating growth at all levels (national, regional, and local), including accomplishing the government's vision and mission.

The Government of Bangladesh (GoB) has progressively undertaken various initiatives in reforming its public procurement system during the past many years, including setting up Central Procurement Technical Unit (CPTU), enacting Procurement Act 2006 and Procurement Rukes 2008 (PPR-2008), preparing procurement category-wise standard tender documents and adopting the electronic government procurement (e-GP) platform.

One of the key initiatives implemented by the government is the e-GP system, which enables suppliers to submit bids electronically and allows for greater transparency and efficiency in the procurement process. The system has been successful in reducing the time and cost of procurement, as well as improving the quality of goods and works procured. The latest initiative by the government of Bangladesh involves converting the CPTU into the Bangladesh Public Procurement Authority.

Market analysis of construction sector

With the booming Bangladesh economy, construction of infrastructure (roads, highways and real estate) was well developed. There are sufficient groups of players (large, medium and small) servicing this sector at the national and local levels. In rural areas, availability of suppliers is limited to 4-5, as this sector employs manual labour along with equipment. It is difficult for a contractor to move beyond his operational area due to labour mobilization etc. Cartelization happens to some extent due to small pool of available suppliers.

Market analysis of supply sector

Bangladesh's economy has been growing steadily over the past decade. and the country has emerged as one of the promising economy in the world. This has led to an increase in consumer spending, which has created opportunities for businesses operating in various sectors. The market for goods and services in Bangladesh is diverse, with opportunities in sectors. Almost for all type of generic goods to be procured are available is local supply market. Hence except a very specific and high end technological products almost all the goods are available in Bangladesh to supply through National Competitive bidding.

Analysis of Consultancy Market

The consultancy market in Bangladesh has been growing steadily in recent years, driven by increasing demand for professional services across various sectors of the economy, including government, private businesses, and non-profit organizations. The Government of Bangladesh has been actively promoting entrepreneurship and private sector development, leading to an increase in demand for consultancy services in areas such as business planning, market research, and investment advisory and many other potential areas. Heavy public

investment in infrastructure has also created opportunities for consultancies to offer services related to project management, feasibility studies, and technical assistance.

Overall, the consultancy market in Bangladesh is expected to continue growing in the coming years, as the country continues to implement its development agenda and attract investment from both domestic and international sources.

Procurement Risk Analysis for abovementioned contract/group of similar contracts

Procurement Type	Risks	Mitigation Measures
Works Contracts	• Lack of qualified supervision • High cost of maintenance • High cost of construction materials	• Strengthened engineering capacity at the PMU. • Solicit prototypes of climate/disaster proof models. • Promote alternative materials
Goods Contracts	• No proper need assessment conducted • Dispersed destination delivery not preferred by the suppliers • Small traders in the rural areas do not have the capacity to supply.	• Conduct detailed needs assessment • Engage in proper advance planning to ensure goods are obtained in time, without delaying implementation • Create Transparency and Reliability on Govt. Contracts.
Consultancy Services Contracts	• Growing but still small market may result in inadequate expertise in various fields • Project has difficulty in estimating/evaluating the price, as no benchmark price available • Oligopolistic market may constrain competition	• Comprehensive TORs to ensure selection of qualified Consultants. • Automatic advertisement of procurement notices in e-GP system. • Engage technical resource persons in evaluating the proposals

Procurement Objective for abovementioned contract/group of similar contracts(related to the 5 Rs)

1. Maximize Value for Money
2. Timely completion of contracts

3. Achieve adequate competition
4. Selection of qualified suppliers with good track record in implementation and SECAP concerns

Recommended Procurement Approach for the Project Procurement Approach Works Contracts:

Attribute	Selected arrangement	Justification Summary/Logic
Specifications (SECAP compliance)	**Conformance**	SECAP compliance requirements to be adhered: i) No child labour to be employed ii) Strict oversight for structural stability iii) Mitigation of OSH risks by following statutory legal requirements iv) Making available rest sheds for

		workers v) Deployment of skilled labour to operate heavy equipment.
Sustainability Requirements	**Yes**	
Contract Type	**A. Traditional**	Most of the works' contracts follow the normal contracting process. These are easy to manage and
Supplier Relationship	**A. Collaborative**	
Price Adjustments	**A. None, fixed price**	Fixed Price applies or Admeasurement price for small variations authorized.
Form of Contract (Terms and Conditions)	**D. State in Particular Conditions of Contract (PCC)**	Include SECAP compliance requirements clearly.
Selection Arrangement	**A. Commercial Practices**	In some instances, the market provides the best option
Market Approach	**A. Type of Competition** **1. Advertised RFQ** **B. Number of Envelopes/Stages** **1. Single Envelope** **C. Negotiations - No**	Open competition places the bids to the entire market to obtain No negotiations are allowed on works contracts
Pre / Post Qualification	**B. Post-Qualification**	Since bids are advertised in the open market, Post qualification is the most ideal method.

Evaluation of Costs	**A. Adjusted Bid Price (corrected fora bidder's minor deviations)**	Adjusted bid price is the most ideal method. Before award, bidder has to accept the corrected price.
Domestic Preference	**No**	All bidders are domestic. No international bidders would be interested due to small packages.
Debriefing	**Preferred**	To be conducted after award to identify the errors/failure to submit documents. This would increase the credibility of the organization to widen the competition.

Goods Contracts:

Attribute	Selected arrangement	Justification Summary/Logic
Specifications (SECAP compliance)	**Conformance**	1. For specialized inputs all the materials should have been authorized by the Government for release. 2. In case of restricted usage of goods, no prohibited goods to be procured.
Sustainability Requirements	**Yes**	Sustainability should always be considered in all procurement activities
Contract Type	**A. Traditional**	The standard traditional contract applies to these procurements of goods.
Supplier Relationship	**A. Collaborative**	Collaborative relationships work well where suppliers agree on the prices and terms to be met.
Price Adjustments	**A. None, fixed price**	Fixed prices will apply to procurement of goods as no negotiations are allowed for procurement of goods.
Form of Contract (Terms and Conditions)	**D. State any special conditions of contract**	

Selection Method	**A. National Competitive Bidding (NCB)** **B. Request for Quotation (RFQ)** **C. International Competitive Bidding (ICB)**	Most of the procurements will go through NCB or ICB to give an opportunity for competition and a wide range of competitors. Need assessment to be done and technical specifications in a range (not exact leading to a particular brand/model). Conduct market survey. RFQ will be used only for very low value consumables for office equipment or for other justified grounds.
Selection Arrangement	**A. Commercial Practices** **B. Framework Agreements/LTA**	Both these methods could be used.

Market Approach	**A. Type of Competition** **1. Open** **2. Advertised RFQ** **3. Direct contracting (for low value)** **B. Number of Envelopes/Stages** **1. Single Envelope** **C. Negotiations (No)**	Most of these tenders are open to encourage competition amongst suppliers in the market Single Envelope will be used for procurement of goods. No negotiations are allowed for procurement of goods.
Pre / Post Qualification	**A. Post-Qualification**	Good supplier pool available as such post- qualification will be the most ideal method to be used.
Evaluation of Costs	**A. Bid Price (exclusive of taxes)** **B. Life-Cycle Costs**	Bid price substantially compliant to the specifications. Life cycle costs to be considered for capital assets like machinery (for agro processing)
• **Domestic Preference**	**YES**	All domestic suppliers (manufactured or already imported prior to supply)

Consultancy Services Contracts:

Attribute	Selected arrangement	Justification Summary/Logic
Specifications (SECAP compliance)	**Conformance**	When used on TA/advisory role, SECAP requirements to be adopted for final report, which has implications for downstream procurement.
Sustainability Requirements	**Yes**	Sustainability will be a mandatory requirement for any procurement carried out in this project.

Contract Type	**A. Traditional**	Most of the consultancy contracts will follow the traditional method
Pricing and costing mechanism	**A. Lump Sum** **B. Time based**	Most of the consultancy contracts will be lump sum. However, any of these methods can be used.
Supplier Relationship	**A. /Collaborative**	Collaborative relationship will apply in all contracts with consultants

Price Adjustments	**A. Yes, beyond 24 months** **B. Negotiated**	Both Fixed Price and negotiated contracts methods will be used. Price adjustments to be done for long term contracts beyond 24 months. The consultant and the Client to agree on the modality of increase.
Form of Contract (Terms and Conditions)	**D. State any special conditions of contract**	Legal recourse to dispute resolution only after exhausting all appellate and arbitration avenues. Replacement of team at contract stage not allowed. Long term contracts, exceeding 12 months, each replacement requires Client approval. Frequent replacements lead to suspension and termination.
Selection Arrangement	**A. Commercial Practices** **B. United Nations (UN) Agencies** **C. Government agencies on single source** **D. Single source**	Selection arrangements will be based on standard commercials practices.
Market Approach	**A. Type of Competition** **1. Open** **2. Limited** **3. National** **5. No Competition - Direct Selection** **B. Number of Envelopes/Stages** **1. Two Envelopes** **3. Single Stage** **4. Multistage** **C. Negotiations (Yes)**	Competition is national. In very isolated cases direct selection could also be used.

Pre / Post Qualification	**A. Pre-Qualification** **B. Post-Qualification** **C. Initial Selection (limited tendering)**	Shortlisting (pre-qualification) applies to majority of the cases. Where the assignment is specific (like audit where there is hesitancy to submit pre-qualification documents, due to ICAB advisory, post qualification could be used.

Consultant Selection & Evaluation Method	**A. Quality Cost Based Selection (QCBS)** **B. Fixed Budget Based Selection (FBS)** **C. Least Cost Based Selection (LCS)** **D. Quality Based Selection (QBS)** **E. Consultant's Qualifications Based Selection (CQS)** **D. Direct Selection**	All these are acceptable
Evaluation of Costs	**A. Adjusted Bid Price (after negotiations)**	Both methods are applicable
• **Domestic Preference**	**No**	No
• **Rated Criteria**	**List the type of criteria to be used** **(mandatory/desired)**	Highest combined score for QCBS. Highest technical score within budget (FBS). Highest technical score with lowest financial cost. Though QBS is allowed, it is not generally used for rural development projects.

Government official (serving/retired/resigned) as part of consultancy team		If the proposed consultant is a government official, IFAD may agree on a case-by-case basis to the hiring of a government official of the Government under consulting contracts in the Borrower/Recipient country, either as an individual or as a member of the team of experts proposed by a consulting firm, only when: a) the services of the government official of the Borrower Government are of a unique and exceptional nature, or his/her participation is critical to project implementation; b) his/her hiring would not create a conflict of interest; c) his/her hiring does not conflict with any laws, regulations, or policies of the Government; and

		d) he/she is on an unpaid leave of absence granted by the current government employer. The contract of the concerned government official (proposed consultant) with its government employer needs to have ended (resigned or retired) or has been halted for the duration of the assignment and an official letter from its current employer to this effect must be submitted.

Engagement of Government agencies

Memorandum of Agreement (MOA) is a form of procurement contract entered between the borrower and a party or parties of special legal status like a ministry, state agency, UN agencies or other international organizations. The MOA specifies the exact service outputs to be delivered, the delivery schedule and stipulates the corresponding service fees and payments over a specified period of time.

Used typically for specialized non-commercially operating providers of a special legal status. The use of MOA with private firms is not permitted.

Justification to ensure the best value for money for the project compared to a competitive procurement process involving the private sector.

Payment of any kind of salary to government staff is prohibited. Their DSA/per diem, travel and related expenditures to deliver the services or activities specified in the MOA are permissible.

The MOA is written in the template (Letterhead) of the originating ministry/state entity.

The MOA cannot be legally enforced in normal courts, therefore the risk of non-compliance needs to be reduced as much as possible.

Clear payment modalities (time-based or output-based) and payment schedule needs to be included with a high last (final) payment subsequent to full delivery and acceptance.

The MOA should automatically terminate after its expiry (maximum 12 months) and without any automatic extension. If needed, the MOA can be extended beyond 12 months but any extension is subject to positive performance evaluation and completion of identified deliverables. Delay in performance should not be a reason for extension beyond 12 months.

Initial engagement and extension is subject to IFAD prior review irrespective of value and must be supported with a strong justification why entering into a MOA with the designated entity represents the best option and best value for money for the project compared to a competitive procurement process.

Contract Management

It is to be understood that procurement actions do not end when the contract or purchase order is signed. The contractual obligations to be followed up systematically till the intended results are achieved as a result of procurement and cessation of all legal obligations as per the provisions of the contract with the parties.

During the course of contract administration, the receipt of goods/works as per the technical specifications agreed to be monitored and any shortfall/shortcomings to be informed to the supplier and made good. For Consultancy services, the contract management acquires importance as any delay in achievement of deliverables as per the timeline agreed, impact the project implementation. As per the Responsibility Matrix of PMU Staff (as included in PIM) the contracts to be closely monitored for satisfactory performance and occurrence of any force majeure conditions. Each payment to the consultancy services should be properly validated against the contract provisions and deviations should be communicated to the party, in writing. If unsatisfactory performance continues, appropriate actions to be initiated with strict adherence to the contract. In consultancy contracts, replacement of team members should not be authorized within 12 months except under extraneous or medical conditions. Frequent change of staff with or without justification should be viewed as non-performance and action to be initiated for reduction in management cost and/or suspension/termination of contracts following due process.

All disputes related to the contract should be resolved through mutual consultation and if unresolved disputes persist, arbitration process, as per the national law, should be initiated. All contractors should sign an undertaking that without exhausting the arbitration procedures, no judicial intervention should be proceeded. The results of arbitration will be subject to judicial review.

The end date of the contracts should be closely monitored and if any amendment/extension is warranted, these should be taken up sufficiently in advance. Amendment or extension of contracts, which lapsed, should be strongly discouraged.

Procurement Audit

Procurement is one of the key driver in project implementation. The procurement management is a process that describes how the public resources should be managed until the closure of the contract, to obtain project objectives. These include preparing the independent estimates, constraints, assumptions, procurement documents, bidding and sourcing of suppliers/technical assistance/consultancy services.

A procurement audit is a project management process that reviews different contracts and contracting processes to determine the completeness, efficiency as well as the accuracy and transparency of the procurement process. It is a structured review that stems from the planning of procurement process through the procurement cycle.

The objective of this particular process is to determine the success and failures that require acknowledgement during the implementation which would inform the Project management to resolve problem areas of internal control.

Procurement audit is basically a method in project management that formally evaluates the performance of the procurement processes being practiced. It is also used to create a record that can be used to shape and streamline the procurement practices of the organization.

It is to be understood that the internal audit team which performs the procurement audit function should deploy qualified persons with procurement skills and experience. The ToR should identify the methodology and sampling checks and tools for compliance. The procurement audit observations and the management

responses to resolve these should be submitted to IFAD and placed before the Project Management Committee or Project Steering Committee.

Procurement Capacity Development

The procurement staff engaged for the project should have benchmark qualifications and skills. No staff should be engaged without the benchmark skills.

The capacity of the procurement staff will be augmented in the following manner:

i) Procurement Specialist and other relevant PMU staff should be nominated for the Training Programme on Public Procurement conducted by BPPA, ESCB or other relevant institutes.
ii) ITC/ILO has a project procurement training programme (Blend of online and offline), BUILDPROC. BUILDPROC is a capacity-building programme in procurement for agricultural and rural development. The cost of the programme would be borne by the project resources. To retain the talent, the PMU may specify minimum number of years of service to be completed, beyond certification.
iii) IFAD Bangladesh Country Office will conduct additional need based training programmes through its staff and accredited procurement consultants.

Procurement Supervision Plan

IFAD will field an annual Supervision Mission to the project and the Procurement Specialist in the mission among other issues will (i) Review the procurement contracting and implementation processes and timeliness and appropriateness of procurement actions; (ii) Assess contract administration and management procedures and review the completeness and updated nature of contract data in the Contract Monitoring Tool; (iii) Determine whether adequate systems are in place for procurement planning, implementation and monitoring, and whether procurement documentation and records (including securities) are maintained as per required standards and can be relied upon.

In addition to the annual Supervision Mission, IFAD Bangladesh Country Office will also organise a Start-up workshop within 2 months from entry into force.

Additional specific ad hoc support missions will also be fielded by IFAD.

Annex - 1

SECAP Risk Associated with Procurement Guidance
Note for Project Procurement Specialists

The ES Specialist, relevant members of the Project Management and the Procurement Team will need to consult together and pool their collective expertise in the various disciplines to arrive at the right mitigation measures to be adopted. The following are some of the measures to be adopted by the Project.

Environmental and Social Safeguards			
Biodiversity conservation	**Risk Rating**	**Consequence**	**Guidance for Project**
1.8 Will the project involve or lead to procurement through primary suppliers of natural resource materials (wood, gravel, sand, etc.)?	Low	**Minor** Project will require procurement of natural resources through primary suppliers, and resource extraction is tightly regulated. Alternatives to procurement of natural resources through primary suppliers exists.	Low risk no mitigation measures envisaged.
Resource Efficiency and Pollution Prevention	**Risk Rating**	**Consequence**	**Guidance for Project**
2.1 Could the project involve or lead to the release of pollutants to the environment (on and off farm) due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Moderate	**Moderate** Pollutants may be released, either routinely or by accident, but treatment systems are proven, verified and affordable. Receiving environment is highly sensitive.	Waste water and pollutant management practises to be introduced to parties involved in the implementation of activities. Refer to ESMP and action plans if contractors should submit plan to manage pollution and waste.

Environmental and Social Safeguards			
2.6 Will the project involve or lead to primary production of living natural resources through cultivation or rearing of plants, annual and perennial crop farming, etc.?	Low	**Minor** Project will only be partly dependent on production of living natural resources, it does not require serious environmental or social controls.	Low risk no mitigation measures envisaged.
Cultural Heritage	**Risk Rating**	**Consequence**	**Guidance for Project**
3.4 Could the project involve or lead to utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	Low	**Minor** The project could be located in an area that is considered to be of cultural heritage value, but the project does not use tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial purpose.	Low risk no mitigation measure is proposed If applicable the project will include a requirement for bidder qualifications previous experience in carrying out works in areas that have cultural heritage. Contract clauses to include safeguards to protect chance finds. Provision to be incorporated in consultation with SPMU/DPMU Involve community or community based organisation in the process and to use knowledge.
Labour and Working Conditions	**Risk Rating**	**Consequence**	**Guidance for Project**
5.1 Could the project operate in sectors or value chains where there have been reports of discriminatory practices and the lack of equal opportunity (for disadvantaged and vulnerable workers, including women, children of working age, migrants and persons with disabilities), denial of freedom of association and collective bargaining, labour migrants?	Moderate	**Moderate** The project will operate in sectors or value chains that have, in the past, not met national labour laws, or international commitments, but is now adequately nationally regulated. International value chains are occasionally audited	Bidder qualifications to include: No previous convictions for infringement of labour laws. Contract conditions to include respect of ILO core labour standards (no child or forced labour; equal opportunity, non-discrimination and

		for environmental or social performance.	freedom of association).

Environmental and Social Safeguards			
5.4 Could the project: (a) operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks, and/or (b) promote or use technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general? (Note: "OSH risks in agriculture might include: dangerous machinery and tools; hazardous chemicals; toxic or allergenic agents; carcinogenic substances or agents; parasitic diseases; transmissible animal diseases; confined spaces; ergonomic hazards; extreme temperatures; and contact with dangerous and poisonous animals, reptiles and insects. Psychosocial hazards might include violence and harassment.")	Moderate	**Moderate** The project will operate in a sector, area, or value chain where workers are occasionally exposed to OSH risks, and where regulation is known to be weak or non- existent. However, there is no evidence of illness or death.	OSH measures to protect project's workers from injury, illness or impacts encountered in the workplace or while working to be included in the technical specifications. Safeguard provisions should be included in qualification and contract conditions in consultation with the implementing agencies and their respective HOPE (Head of Procurement Entity).
Community Health, Safety and Security	**Risk Rating**	**Consequence**	**Guidance for Project**
6.5 Could the project lead to the potential for gender-based violence, including sexual harassment, exploitation and abuse, as a result of labour influx, land redistribution, or other actions that alter community dynamics?	Moderate	**Moderate** The project may lead to moderate changes to community dynamics may result in increased potential for gender-based violence or sexual exploitation. Gender-based violence protocols in place.	Contracts to include clauses referencing IFAD SH and SEA Oilicies as safaguards and in reference to ESMP provide sensitisation and training to community participating in the project where risk of increased potential for gender-based violence or sexual exploitation is identified.

Annex - 2

Terms of Reference for the Procurement Specialist

I. Background

PKSF is the Lead Project Agency (LPA) and will establish a Project Management Unit (PMU) for implementing GREEN in Bangladesh. Project procurement is the responsibility of the PMU. The Procurement Specialist will serve as the focal point for procurement, overseeing updates to the procurement plan, procurement activities and contracts in OPEN, IFAD's End-to-End Procurement System, maintain procurement file records, and facilitating coordination with field Executive Engineers and project management personnel.

II. Job Description

- Process all procurements under the project
- Ensure IFAD and PKSF procurement rules are compiled by the project and POs.
- Help POs develop IFAD compliant procurement rules.
- Act as office manager for the project
- Coordinate with respective authorities and organizations in case any machineries are imported for value chain development.
- Manage all logistics, small procurements etc.

III. Reporting Lines

The Procurement Specialist will report to the Project Coordinator on all project procurement matters.

IV. Duty Station

Dhaka. Visit Pos and other places if necessary.

V. Education and Training

- 4-year Undergraduate degree from reputed public or selected private universities in management, public administration, accountancy, business, economics etc.
- Training/degree on procurement and thorough knowledge in procurement rules is required.

VI. Required qualifications and experience

Minimum of 15 years' work experience in development services in which at least 5 years in

procurement.

VII. Duration and timeline

The position is for the duration of the project. The incumbent will be hired initially for one year, with annual extension based on performance.

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Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition

Project Design Report

Annex 10: Integrated Project Risk Matrix

Mission Dates:	22/06/2024 15/09/2024
Document Date:	19/10/2025
Project No.	2000004922
Report No.	7318-BD

Asia and the Pacific Division
Programme Management Department

Overall Summary

Risk Category / Subcategory	Inherent risk	Residual risk
Country Context	**Moderate**	**Moderate**
Political Commitment	*Moderate*	*Moderate*
Governance	*Low*	*Low*
Macroeconomic	*Low*	*Low*
Fragility and Security	*High*	*High*
Sector Strategies and Policies	**Low**	**Low**
Policy alignment	*Low*	*Low*
Policy Development and Implementation	*Low*	*Low*
Environment and Climate Context	**Substantial**	**Substantial**
Project vulnerability to environmental conditions	*Moderate*	*Moderate*
Project vulnerability to climate change impacts	*Substantial*	*Substantial*
Project Scope	**Moderate**	**Moderate**
Project Relevance	*Low*	*Low*
Technical Soundness	*Moderate*	*Moderate*
Institutional Capacity for Implementation and Sustainability	**Moderate**	**Moderate**
Implementation Arrangements	*Low*	*Low*
Monitoring and Evaluation Arrangements	*Moderate*	*Moderate*
Project Financial Management	**Substantial**	**Substantial**
Project Organization and Staffing	*Moderate*	*Moderate*
Project Budgeting	*Moderate*	*Moderate*
Project Funds Flow/Disbursement Arrangements	*Substantial*	*Substantial*
Project Internal Controls	*Substantial*	*Substantial*
Project Accounting and Financial Reporting	*Moderate*	*Moderate*
Project External Audit	*Low*	*Low*
Project Procurement	**Substantial**	**Substantial**
B.1 Assessment of Project Complexity	*Moderate*	*Moderate*
B.2 Assesment of Implementing Agency Capacity	*Moderate*	*Moderate*
Project Procurement Overall	*Substantial*	*Substantial*
A.1 Legal, Regulatory and Policy Framework	*Moderate*	*Moderate*
A.2 Institutional Framework and Management Capacity	*Substantial*	*Substantial*
A.4 Accountability, Integrity and Transparency of the Public Procurement System	*Substantial*	*Substantial*
A.3 Public Procurement Operations and Market Practices.	*Substantial*	*Substantial*
Environment, Social and Climate Impact	**Substantial**	**Substantial**
Biodiversity Conservation	*Moderate*	*Moderate*
Resource Efficiency and Pollution Prevention	*Moderate*	*Moderate*
Cultural Heritage	*Low*	*Low*
Indigenous People	*Low*	*Low*
Labour and Working Conditions	*Moderate*	*Moderate*
Community health, safety and security	*Moderate*	*Moderate*

Risk Category / Subcategory	Inherent risk	Residual risk
Physical and Economic Resettlement	*Low*	*Low*
Financial intermediaries and direct investments	*Low*	*Low*
Climate change	*Substantial*	*Substantial*
Stakeholders	**Low**	**Low**
Stakeholder Engagement/Coordination	*Low*	*Low*
Stakeholder Grievances	*Low*	*Low*
Overall	**Moderate**	**Moderate**

Country Context	**Moderate**	**Moderate**
Political Commitment	***Moderate***	***Moderate***
Risk: Potential delays in project start-up due to lengthy government administrative processes, including signing and operationalization of required agreements.	Moderate	Moderate
Mitigations: To ensure timely project initiation, PKSF will prepare the Subsidiary Loan Agreement (SLA) following the precedent set by earlier IFAD-supported projects such as PACE and RMTP. The SLA will be signed with the Finance Division (FD) of the Ministry of Finance subsequent to the signing of the Financing Agreement between IFAD and the Government of Bangladesh through the Economic Relations Division (ERD). PKSF has already constituted a dedicated project team to work closely with IFAD, thereby ensuring readiness from the outset. Importantly, as the GREEN project is designed as a non-ADP initiative, it will not require a Development Project Proforma (DPP), further expediting the start-up process.		
Governance	***Low***	***Low***
Risk: Potential governance-related bottlenecks, including delays in agreement approvals or lack of coordination, could undermine timely and effective project implementation. While GREEN is a non-ADP project and thus does not require a Development Project Proforma (DPP) or Planning Commission approval, certain processes such as SLA endorsement still require timely action.	Low	Low
Mitigations: i. The IFAD Country Programme Team will proactively engage with key officials in the Economic Relations Division (ERD) and Finance Division (FD) to facilitate timely review and approval of the Subsidiary Loan and Grant Agreement (SLGA). ii. Close coordination will be maintained with PKSF and relevant government entities throughout the start-up phase to ensure clarity on roles, responsibilities, and sequencing of administrative actions. iii. The non-ADP nature of the project will be leveraged to simplify and streamline governance procedures, minimizing potential delays.		
Macroeconomic	***Low***	***Low***

Risk: High inflation and potential foreign exchange rate fluctuations may impact the overall financial performance of the project. While GREEN does not involve major hardware or civil works procurement, inflationary pressures could affect the cost of value chain subprojects and the real value of microfinance loans in Taka terms. The macroeconomic outlook is expected to stabilize and remain with real GDP growth at 5.4% in 2024 and showing an upward trend of 6.6% in 2025 (IMF staff estimates and projections, 2024). This is mainly due to the import compression which was 31% of GDP in 2022 and dropped to 4% in 2024, and export growth from US $ 36,903 million in 2021 to US$ 55,076 million in 2024. Inflation is projected to remain elevated at approximately 9.4% (year-on-year) in 2024, with a projection of dropping it to 5.8% in 2025, with projected lower global food and commodity prices and improving exports. Both the real GDP growth and slight drop in inflation will provide a low risk macro-economic conditions for project with mobility of credit as the main activity. Medium- and long-term external public debt is showing an increase from US$ 65,482 million in 2022 to US$ 74,007, a 13% increase, but the percentage of debt out of GDP remains at 15% and 17% in the two years respectively. Increase trend of public debt will contribute to a moderate risky situation for GREEN as there is USD 70 million will add to the public debt. The foreign exchange market has experienced significant fluctuations. In response, Bangladesh Bank (BB) has allowed greater exchange rate flexibility resulting the Taka depreciated by 15.2% against the U.S. dollar in 2023 with and 4.5% in real effective terms. The current account deficit has narrowed considerably (0.7% of GDP in 2023 compared to 4.1% of GDP in 2022). Net international reserves however declined to US$20 billion as of October 31, 2023 from US$ 28 billion in 2022. The overall indication of these trends is that there are uncertainties surrounding the economic outlook which could bring about moderate risk levels for borrowing for debt financing project. Although the annual inflation is high in the country there is no major hardware or construction type procurement in GREEN. The expenses that may be affected by inflation is cost of value chain subprojects and amount of microfinance loan in Taka terms.	Low	Low
Mitigations: i. PKSF has established mechanisms to periodically revise subproject budgets, microcredit ceilings, and staff compensation in line with inflation and market conditions. ii. IFAD's financial planning will incorporate built-in provisions for price escalation and physical contingencies within the COSTAB to account for inflationary risks. iii. Foreign exchange projections will be developed based on historical trends and reliable national sources, including those from the Government of Bangladesh (GoB) and other reputable financial institutions. iv. Any significant cost variations due to macroeconomic factors will be addressed through adaptive planning and timely updates to the Annual Work Plan and Budget (AWPB).		
Fragility and Security	***High***	***High***
Risk: Political volatility or civil unrest may adversely impact the functioning of public institutions and disrupt project implementation in some areas. The project area faces high fragility due to its extreme exposure to floods, cyclones, river erosion, and salinity intrusion, combined with high socio-economic sensitivity and climate-dependent livelihoods. Despite notable progress in adaptation, Bangladesh is nearing the limits of its coping capacity, leaving communities highly vulnerable to worsening climate shocks. Extreme climate events in the targeted regions, which are climate hotspots, may disrupt project implementation.	High	High

Mitigations: i. PKSF and its Partner Organizations (POs), primarily microfinance institutions (MFIs), have a strong track record of maintaining operational continuity even during periods of political instability. ii. The decentralized implementation model, which relies on community-level operations through POs, provides resilience against localized disruptions. iii. The project will maintain flexibility in implementation scheduling and resource deployment to adapt to evolving security and extreme weather contexts, minimizing delays and service interruptions. Additionally, through tailoring of financial services, including emergency loans, the project will mitigate risks associated with loan portfolio during and after extreme events—contributing to portfolio health. iv. The project is designed to integrate climate change adaptation into rural growth and food system transformation. Therefore, adaptation orientation will be embedded into value chain development studies, subproject proposal assessment criteria, loanee business proposal evaluations, and capacity development interventions.		
Sector Strategies and Policies	**Low**	**Low**
Policy alignment	***Low***	***Low***
Risk: Potential changes in the Government of Bangladesh's rural finance or microfinance policies could affect the enabling environment for project implementation, particularly the delivery of financial services through PKSF and its Partner Organizations (POs).	Low	Low
Mitigations: i. PKSF and its POs are well-established and recognized actors in the rural finance landscape, with microfinance being an integral part of the broader agricultural and rural development ecosystem. ii. The sector is regulated by the Microcredit Regulatory Authority (MRA), which ensures stability and transparency in operations. iii. IFAD, in collaboration with PKSF, will regularly monitor policy developments and engage in policy dialogue with relevant government agencies to anticipate and respond to any regulatory changes that may impact project operations. iv. The project's flexibility in financial product design and delivery channels will allow it to adapt to potential shifts in the policy framework, ensuring continued alignment with national priorities.		
Policy Development and Implementation	***Low***	***Low***
Risk: There is a potential risk that agricultural development and microenterprise promotion may receive reduced policy attention, which could affect long-term support and investments in these sectors.	Low	Low
Mitigations: i. This is considered a low-probability scenario, as agriculture remains central to Bangladesh's food security agenda and employs over 40% of the national workforce. ii. The Government of Bangladesh consistently demonstrates strong policy and financial support for the sector through agricultural extension services, input subsidies, credit schemes, and rural enterprise development programs. iii. The GREEN project aligns closely with national priorities outlined in the 8th Five-Year Plan, Delta Plan 2100, and other strategic frameworks, which further ensures continued policy backing. iv. IFAD and PKSF will maintain active engagement in policy dialogue to reinforce the relevance of agricultural and rural microenterprise development in national planning and financing decisions.		
Environment and Climate Context	**Substantial**	**Substantial**
Project vulnerability to environmental conditions	***Moderate***	***Moderate***

Risk: 1. Soil erosion, land degradation and poor water quality (pollution, salinity) due to poor baseline conditions (flooding-induced, poor water and sanitation) may affect agricultural production and limit project benefits. 2. Haor and Hill region fall in a more active seismic zone, but other regions have moderate or low seismic risks. 3. In Deltaic settings such as Bangladesh, there is baseline risk of arsenic contamination of groundwater that can travel through the food chain, particularly when water is drawn for irrigating crops / as drinking water for livestock or post-harvest activities from private, shallow tubewells with untested water.	Moderate	Moderate
Mitigations: 1. Increased awareness of environmental issues among project stakeholders (including PKSF POs) and participatory identification of suitable remedial or mitigation measures (including through relevant value chain prioritization criteria). Groundwater use for irrigation is highly context and season specific. In areas with arsenic contamination, awareness of risks will be incorporated into nutrition and health modules. Bangladesh has tested tubewells and marked them as 'green' or 'red' to indicate absence or presence of arsenic, respectively; but there may be new private tubewells that are not deep enough (since shallow tubewells are less costly) and may have untested water. 2. Design project interventions to minimize further worsening (owing to farm or non-farm / off-farm activities) and promoting ecology- and environment-friendly management such as GGAP, Integrated Fertilizer Management (IFM) / Integrated Pest Management (IPM), etc. 3. Currently, no infrastructure activities are planned. Project-supported offices and buildings will take earthquake preparedness into account in line with GOB norms and regulations.		
Project vulnerability to climate change impacts	***Substantial***	***Substantial***
Risk: 1. While the project is national in nature, the targeted regions are all climate hotspots; all regions grapple with extreme temperatures, variations in rainfall intensity, frequency of extreme precipitation events, cold spells in winter, etc., but the key climate hazard in each region is not the same (as described in the SECAP Review Note), and context-specific actions are required. 2. Extreme climate events in the targeted regions may result in loss of lives, destroy agricultural production, and/or damage livelihood assets (including housing). When the intensity or frequency of events increase, it may have multiplier effects on climate resilience / adaptive capacities, and even erode project benefits.	Substantial	Substantial

Mitigations: 1. Promote household financial management and financial literacy to support PKSF PO members in identifying actions for coping with or recovering from climate risks (e.g., maintaining a savings or fixed deposit account with commercial banks, in addition to PO savings accounts). 2. Bangladesh has developed very good disaster reduction strategies over the decades to reduce loss of lives (particularly for cyclones), and project will leverage early warning and climate information systems where feasible. More robust information and additional lead time can support anticipatory action on the part of communities. For instance, under CRALEP, climate information services for drought forecasting and flood warnings will be improved (i.e., quality of data, models and dissemination) and this could be leveraged by GREEN for High Barind and Haor region. 3. Project will support alternate income generation activities to strengthen food security and income resilience of target households. 4. Appropriate choice of climate-resilient technologies and management practices for project value chains. Careful choice of value chain selection criteria at the technical feasibility stage. 5. Capacity development of PKSF POs to ensure they can support their beneficiaries through training / advisory services and product offerings (including customization of tenure and loan size where needed) – since POs have been requested by PKSF to setup a dedicated unit for climate change, environment and agriculture, GREEN will support the operationalization and strengthening of the unit's activities. 6. Bring together POs to regularly to share experience and lessons, in order to facilitate faster learning curves		
Project Scope	**Moderate**	**Moderate**
Project Relevance	***Low***	***Low***
Risk: There is a risk that the project may lose alignment with evolving national priorities, market dynamics, or the needs of targeted communities over the six-year implementation period, potentially reducing its effectiveness, beneficiary uptake, and sustainability.	Low	Low
Mitigations: i. The GREEN project has been designed in close alignment with Bangladesh's strategic development frameworks (e.g., 8th Five-Year Plan, Delta Plan 2100, National Adaptation Plan), ensuring initial relevance to national priorities. ii. Continuous stakeholder engagement—including consultations with government agencies, private sector actors, and beneficiaries—will be maintained throughout implementation to capture changing needs and priorities. iii. The project's adaptive design allows for annual reviews and updates to the Annual Work Plan and Budget (AWPB), enabling timely adjustments to interventions based on emerging trends, challenges, and opportunities. iv. The project's strong emphasis on inclusive value chain development, nutrition, climate resilience, and youth employment positions it to remain responsive to cross-cutting development priorities throughout its lifecycle.		
Technical Soundness	***Moderate***	***Moderate***
Risk: Climate change impacts and environmental degradation may adversely affect agricultural productivity and reduce the income-generating potential of poor households engaged in farm-based value chains.	Moderate	Moderate

Mitigations: i. All value chain analyses under GREEN will incorporate assessments of environmental, ecological, and climate-related vulnerabilities across each segment of the value chains and propose tailored adaptation and mitigation measures. ii. Lessons and tools developed under ongoing IFAD-funded projects with PKSF—such as RMTP—will be leveraged to design technically robust and climate-resilient interventions. iii. The project will be housed within PKSF's dedicated Climate Change and Environment Unit, which will provide specialized technical support to ensure integration of climate-smart and environmentally sustainable practices across all activities. iv. Adaptive technologies, stress-tolerant crop varieties, and sustainable production practices will be promoted to enhance resilience and long-term productivity of the targeted sectors.		
Institutional Capacity for Implementation and Sustainability	**Moderate**	**Moderate**
Implementation Arrangements	***Low***	***Low***
Risk: Delays in the recruitment and deployment of qualified personnel—particularly in key positions—may hinder timely start-up and smooth implementation of project activities.	Low	Low
Mitigations: The Project Coordinator (PC) will be selected from PKSF's pool of senior permanent officials and should ideally be deployed during project design to ensure continuity and ownership. In the worst-case scenario, the PC must be formally deputed immediately following the signing of the Financing Agreement. ii. Recruitment of other core Project Management Unit (PMU) staff—such as the Finance Manager/Finance Specialist and the M&E Specialist—will be completed within two (2) months of the Financing Agreement's effective date. These appointments will also be included as conditions for disbursement of the initial advance from IFAD. iii. To minimize implementation bottlenecks, the project design includes a clear and detailed organigram, flow-of-funds chart, and responsibility and authority matrix, ensuring clarity of roles and smooth operational execution from the outset.		
Monitoring and Evaluation Arrangements	***Moderate***	***Moderate***
Risk: There is a risk that challenges in data collection, analysis, and coordination—particularly between PKSF, Partner Organizations (POs), and other stakeholders at national and sub-national levels—may compromise the quality, consistency, and timeliness of M&E reporting, including logframe indicators. 1. Challenges in data collection and analysis or poor coordination between implementation agencies at national and sub-national levels might affect quality of M&E and logframe reporting. 2. Risk that as the number of activities included in the project increases, increased difficulty in tracking all beneficiaries and the activities in which they participate. This can lead to errors in coverage indicators or cost-benefit estimates due to double-counting of beneficiaries. 3. The various activities conducted in the field and involving many people often require manual recording, which might complicate the systematization of these activities and results. 4. Risk that the project staff have limited or inadequate capacities to assume roles and responsibilities within M&E activities, and to use the collected information to provide feedback and adjust their activities.	Moderate	Moderate

Mitigations: i. The project will deploy a dedicated M&E Specialist within the PMU early in the implementation phase to establish a robust M&E system, with clear data collection protocols, responsibilities, and timelines. ii. Capacity-building activities will be conducted for PKSF and PO staff to ensure accurate and timely data collection, reporting, and use of digital tools for real-time tracking. iii. A centralized MIS platform will be developed or adapted to enable systematic data consolidation, indicator tracking, and integration with IFAD's ORMS. iv. Regular coordination meetings and joint review missions will be held to ensure alignment across implementing entities and facilitate adaptive management based on evidence and feedback. v. M&E system will be embedded in the project management information system (MIS) to allow real-time reporting and coordination between various levels of implementation. The project budget will allocate resources for robust M&E system at the PMU level. The M&E and KM officer will help the specialist to coordinate with implementing partners at these levels. vi. The M&E systems will use unique identifiers for each beneficiary to avoid double-counting. Additionally, the databases leverage PKSF's experience in activity tracking, utilizing current protocols and existing systems for financial services. The on-going RMTP project has very good MIS and M&E system which will be model for GREEN. vii. The project will use Kobo Toolbox for data collection processes and digitalizing activities, including quality control protocols viii. Internal capacity building and assistance to implementing partners will be strengthened to fulfill M&E responsibilities, sharing tools and disseminating the M&E plan.		
Project Financial Management	**Substantial**	**Substantial**
Project Organization and Staffing	***Moderate***	***Moderate***
Risk: Delays may occur in recruiting and appointing qualified personnel with relevant experience. Additionally, new staff may lack familiarity with financial management requirements of international financial institutions (IFIs) such as IFAD.	Moderate	Moderate
Mitigations: 1. Leverage the organisational structure and staff from the closing RMTP project, subject to satisfactory performance and compliance with due process. 2. Ensure that recruitment of key personnel receives IFAD's No Objection (NO).		
Project Budgeting	***Moderate***	***Moderate***
Risk: 1. Activities, particularly lending-related ones, may span multiple financial periods, increasing the risk of payments being charged to the wrong year's AWPB. 2. Budget oversight may be weak if there is no cross-functional review or if qualitative explanations are not provided with budget variance analyses.	Moderate	Moderate
Mitigations: 1. Ensure that uncompleted activities from previous years are appropriately reflected in the current AWPB. 2. Submit the AWPB to IFAD at least 60 days before the fiscal period starts, allowing for approval at least 30 days in advance. 3. Configure the project accounting software to include budget monitoring and encumbrance features. 4. Require submission of qualitative explanations for budget variances in each quarterly IFR.		

Project Funds Flow/Disbursement Arrangements	***Substantial***	***Substantial***
Risk: 1. Delays in government authorization to access designated accounts may hinder project implementation. 2. PKSF and its Partner Organizations (POs) may have limited experience with the project's non-financial service components. 3. Limited capacity at the community level and sub-national entities may pose implementation risks. 4. Cash-based transactions at the grassroots level increase the risk of misuse without strong controls.	Substantial	Substantial
Mitigations: 1. Maintain adequate balances in operational accounts to mitigate delays in government authorization. 2. Cascade PKSF's limited non-financial services capacity to POs through start-up training. 3. Continue applying existing oversight modalities used in RMTP and PACE. 4. PKSF should enforce minimum standards in governance, internal audit, accounting, and reporting across POs.		
Project Internal Controls	***Substantial***	***Substantial***
Risk: 1. Contracts and MoUs may lack clauses specifying internal control and reporting requirements per IFAD standards. 2. PKSF's method of cost apportionment may result in disproportionate charges across projects. 3. Internal control weaknesses at the PO level could jeopardize project funds and outcomes.	Substantial	Substantial
Mitigations: 1. The PIM will include financial procedures referencing IFAD's anti-fraud and anti-corruption policies. 2. PKSF's internal control and audit framework will be applied, with necessary alignment to IFAD standards. 3. Implement key control measures, including: - Monthly bank reconciliations - Budgetary control per transaction - Fixed Asset Register maintenance and periodic verification - Comprehensive documentation of beneficiary-level activities - Periodic inspections to verify partner reporting - Transparent calculation and documentation of shared costs 4. Ensure that supervision missions and audits assess compliance with internal control standards.		
Project Accounting and Financial Reporting	***Moderate***	***Moderate***
Risk: 1. The accounting system may not be fully customized for the project or IFAD's reporting needs. 2. Some POs continue to rely on manual, paper-based records that are prone to error, manipulation, and loss.	Moderate	Moderate

Mitigations: 1. Use the customized accounting software currently deployed for RMTP; ensure staff are adequately trained. 2. Require that financial reports be generated directly from the accounting system. 3. Bring all POs into PKSF's digitization framework, mandating electronic records and financial software use. 4. Submit the following reports to IFAD: - Quarterly IFRs within 30 days of period end - Unaudited annual financial statements within 4 months of year-end - Audited annual financial statements within 6 months of year-end - All reports must comply with IFRS and IFAD requirements		
Project External Audit	***Low***	***Low***
Risk: Auditor selection must adhere to IFAD's standards and be competitively procured every four years.	Low	Low
Mitigations: 1. Ensure compliance with the IFAD Handbook on Auditing and Financial Reporting, including: - Selection of independent chartered accountancy firms - Use of International Standards on Auditing (ISA) - Submission of audit TORs to IFAD for NO - Competitive auditor selection every four years - Timely submission of: - Unaudited financial statements (within 4 months of year-end) - Audited financial statements (within 6 months of year-end) 2. Require all POs to submit their audit reports to PKSF		
Project Procurement	**Substantial**	**Substantial**
B.1 Assessment of Project Complexity	***Moderate***	***Moderate***
Risk: The project is in the design stage but several similar projects have been executed and are being advanced by the IA.	Moderate	Moderate
Mitigations: It is advisable to appoint a dedicated Procurement Specialist to serve as the focal point, overseeing updates of the Procurement Plan and managing contract status in OPEN, maintaining procurement file records, and facilitating coordination with field Executive Engineers and project management personnel.		
B.2 Assesment of Implementing Agency Capacity	***Moderate***	***Moderate***
Risk: IA does not have certified procurement personnel and requires comprehensive procurement capacity training within 3 months of engagement. Current Processes are partially compliant. Performance varies depending on weaknesses in procurement and contract management, as highlighted by audit observations. Foreseen mitigation measures are sufficient to address 3P deficiencies.	Moderate	Moderate

Mitigations: i) A dedicated Procurement Specialist will be hired and engaged in procurement co-ordination along with PMU regular staff; ii) A comprehensive training on procurement aspects will be organised; iii) In the initial 18-month PP, big ticket items are planned which will speed up the implementation. Many of the critical activities related to consultancy services will need to be completed prior to entry into force.		
Project Procurement Overall	***Substantial***	***Substantial***
Risk: Bangladesh's public procurement system plays a vital role in the country's governance, economic development, and public service delivery. Governed primarily by the Public Procurement Act, 2006 and its subsequent amendments, the system aims to ensure transparency, fairness, competition, and efficiency in the procurement process.Bangladesh's procurement system allows for various methods, including open competitive bidding, limited competitive bidding, request for quotations, and direct procurement under certain circumstances. The choice of method depends on factors such as the nature and value of the procurement. In recent years, Bangladesh has made significant strides in digitizing its procurement process through the implementation of e-GP (Electronic Government Procurement). In line with the procurement risk assessment, procurement under GREEN will follow IFAD Procurement Guidelines and IFAD Procurement Handbook. Government of Bangladesh recognises precedence of international obligations like IFIs Financing Agreements to use IFI procurement guidelines and document templates. Government of Bangladesh has implemented large numbers of externally aided projects in different sectors.	Substantial	Substantial
Mitigations: IFAD will field an annual Supervision Mission to the project and the Procurement Specialist in the mission among other issues will (i) review the procurement contracting and implementation processes and timeliness and appropriateness of procurement actions; (ii) assess contract administration and management procedures and review the completeness and updated nature of contract data in the Contract Monitoring Tool; (iii) determine whether adequate systems are in place for procurement planning, implementation and monitoring, and whether procurement documentation and records (including securities) are maintained as per required standards and can be relied upon. In addition to the annual Supervision Mission, IFAD Bangladesh Country Office will also organise a Startup workshop within 2 months from entry into force. Additional specific adhoc support missions will also be fielded by IFAD.		
A.1 Legal, Regulatory and Policy Framework	***Moderate***	***Moderate***

Risk: Public procurement is regulated by the Public Procurement Act 2006 with supplemental Public Procurement Rules 2008, e-GP Guideline and Delegation of Financial Power (DOFP). The PPA 2006 has been amended several times, by the Public Procurement (1st and 2nd Amendment) Act 2009, the Public Procurement (Amendment) Act 2010 and the Public Procurement (Amendment) Act 2016. Overall, there is a well-functioning procurement system across the country but weaknesses have still been observed. For example, the sanction/debarment process lacks independent review (decision by the head of the procuring agencies is final) except by way of appeal to the judiciary and sustainable public procurement has not yet found its way into the public procurement legislation and practices.	Moderate	Moderate
Mitigations: Allow only enterprises that have prescribed characteristics to compete for contracts e.g.,% reserved for women enterprises, SMEs, start-ups; design specifications to suit particular group or address particular issue. e.g., use of gas burnt bricks in construction instead of coal or wood burnt bricks. Also, scale up procurement training for the auditors with appropriate course content.		
A.2 Institutional Framework and Management Capacity	***Substantial***	***Substantial***
Risk: Bangladesh has a nodal procurement policy agency, the Central Procurement Technical Unit (CPTU). CPTU was established in 2002 under the Implementation Monitoring and Evaluation Division (IMED) of the Ministry of Planning (MOP) to carry out procurement reform activities and regulate and monitor the country's public procurement functions. It is planned to be converted into an independent government agency to be known as the 'Bangladesh Public Procurement Authority (BPPA)' to facilitate enhanced autonomy in executing its functions. It will be done through a separate act, Bangladesh Public Procurement Authority Act. CPTU is constrained by its capacity in terms of legal structure, autonomy in decision making, limited staffing, and inadequate analytical and research capability. It largely depends on external experts and outsourced firms which is inadequate to regulate and monitor public procurement for a high number of organizations.	Substantial	Substantial
Mitigations: While waiting for the formation of proposed Bangladesh Public Procurement Authority (BPPA), develop inhouse institutional and technical capacity (with a set of qualified, experienced and adequate number of trained officials).		
A.4 Accountability, Integrity and Transparency of the Public Procurement System	***Substantial***	***Substantial***
Risk: A reasonably transparent process is followed in formulation of procurement legislation with consultation with large procuring agencies. Even if the Public Financial Management (PFM) system is governed by a set of legislative instruments with OCAG as the supreme audit organization, the audit system is mostly external. Financial auditing are carried out regularly. There is presence of ethical standard in audits and public procurement (code of ethics) and national integrity strategy. Instead, the procurement complaint system is lengthy and takes 2-3 months' time to exhaust the entire process.	Substantial	Substantial
Mitigations: Bidders should be included in public consultation for legislation change. Specialized procurement audits/procurement performance audit should be carried out, especially in large agencies based on periodic risk assessment.		
A.3 Public Procurement Operations and Market Practices.	***Substantial***	***Substantial***

Risk: Public procurement in Bangladesh is now well established but remains mostly compliance based. The legal and regulatory framework is in place, there is an established regulator (CPTU) and a well performing e-GP system which is growing rapidly. Moreover, there is an extensive capacity development program. However, the emphasis has been given mainly on building this system and ensuring compliance with the essential requirements of the framework. There is scope to elevate the current system into a performance or output based system based on strategic vision and value for money consideration. Some of the main weaknesses are represented by 70% of contracts not completed on time and absence of strategic procurement planning and analysis resulting in higher procurement cost and lower procurement performance (e.g. too many small procurement packages for recurring items).	Substantial	Substantial
Mitigations: Ensure contracts are completed on time; Introduce strategic procurement planning and analysis and expedite decision making process specially for high value contracts.		
Environment, Social and Climate Impact	**Substantial**	**Substantial**
Biodiversity Conservation	***Moderate***	***Moderate***
Risk: 1. Degradation of ecosystems because of agricultural production or other project activities that may be temporary or permanent in nature, including (a) land, water and soil pollution, and (b) indirect effects of increased local economic activities. Given that farmers and microenterprises are micro and small in nature, any impacts are likely to be cumulative (rather than individual) in nature. 2. Promoting specific varieties / breeds for stress tolerance and high yields may have adverse effects on agrobiodiversity.	Moderate	Moderate
Mitigations: 1. Project will avoid supporting agriculture or non-farm activities in core or buffer zone of Protected Areas and other Critical Wildlife Habitats, particularly in and around the Sundarbans ecosystem of the coastal region. 2. Practices such as organic fertilizer (vermicompost), biological pest control (pheromone traps), integrated fertilizer management, etc. – promoted as a part of environment-friendly and climate-smart approach – will reduce pressure on ecosystems and avoid / mitigate further degradation of natural resources. 3. Value chain selection will explicitly consider potential impacts on biodiversity, including migratory or endangered flora / fauna. 4. Create awareness of and promoting the conservation of indigenous species (landraces, native breeds of livestock) in agricultural activities.		
Resource Efficiency and Pollution Prevention	***Moderate***	***Moderate***
Risk: 1. Cumulative risks associated with smallholder farming and micro-enterprises: increased pollution from autonomous use of pesticide / fertilizers, by-products of livestock and fish production, or small food processing activities of the extreme poor entrepreneurial poor or microenterprises. 2. Fisheries and aquaculture activities of the borrowers of PKSF POs may introduce new sources of water pollution. 3. Micro-enterprises supported by the project may exacerbate or introduce new pollution risks through their waste streams.	Moderate	Moderate

Mitigations: 1. The project will not procure mineral fertilizers, pesticides, or insecticide. The cumulative risks associated with nutrient leaching or wastewater release due to farm or non-farm activities will be mitigated through promoting GlobalGAP, integrated fertilizer / pest management, vermicomposting and organic fertilizer use, and other relevant approaches to agricultural management. The production of vermicompost, Trichoderma leachate and other organic fertilizers is intended to support reclamation and reuse of livestock/poultry waste in a safe manner. 2. Promote the use of environmentally friendly practices and inputs, particularly in aquaculture. 3. GREEN will support the implementation of PKSF's micro-enterprise environment management guidelines developed for 16 enterprise types (and expanded to 30, by end of 2024) by POs and micro-enterprise borrowers. Project will need to identify and promote best practices for solid and liquid waste management, based on value chains of focus. For e.g., bio-medical waste handling for those enterprises focused on animal health interventions (diagnostics, vaccinations, etc.). 4. Promote certification mechanisms via DOE, BSTI, ISO etc. for micro-enterprises – in the process strengthening their environmental management and creating awareness of how it could increase their comparative advantage. Target issues such as plastic waste and promoting use of alternative materials (including through incubation of sustainable packaging material micro-enterprises). 5. Efficient water use, water harvesting infrastructure – particularly drought-prone, salinity-prone areas, and circular economy approaches to managing domestic waste (livestock manure and kitchen waste repurposed as vermicompost, organic fertilizer, etc.) will be promoted where appropriate.		
Cultural Heritage	***Low***	***Low***
Risk: Disturbance of sites of cultural value, or intangible cultural heritage such as handicrafts or traditional practices related to food.	Low	Low
Mitigations: (i) Given the nature of the project and the lack of infrastructure components, risk of unintended negative impact on sites of cultural values is not envisaged. (ii) For intangible cultural heritage such as production of handicrafts or traditional food processing practices, which might have a cultural value, no specific risks have been identified at the moment. However, it is important to consider the cultural heritage associated with traditional varieties of crops and livestock and that promoting improved species and varieties could result in their loss. (iii) The project will ensure that traditional food production and preparation practices that have a cultural and/or religious value will not be disrupted by the introduction of new technologies/production practices. The project will also involve local communities and ethnic minorities in consultation and decision-making processes concerning the introduction of improved varieties/species and post-harvest activities, so as to ensure that the adaptation options are informed by cultural, social and religious values.		
Indigenous People	***Low***	***Low***
Risk: The risk that the project may cause adverse physical, social, or economic impacts on Ethnic Minorities or threats to or loss of resources of historical or cultural importance to them.	Low	Low

Mitigations: (i) There are no constrains for Ethnic Minorities to participate in project interventions, and past projects by the implementing partners have equally targeted Ethnic Minorities when they are present. PKSF has a demonstrated capacity to engage with ethnic minorities and include them in loan operations. However, the GREEN project will further encourage POs to target Ethnic Minorities, through adequate measures and approaches. Free, Prior and Informed Consent (FPIC) principles will be appropriately integrated into procedures (design and implementation, including subprojects) if the presence of Ethnic Minorities is confirmed. Local partners and POs will also be requested to develop a GESI action plan also including specific measures for ethnic minorities targeting. The GREEN M&E include data disaggregated by ethnicity. (ii) Project interventions are expected to result in increased incomes, increased access to market and improved skills for all beneficiaries including Ethnic Minorities. (iii) Based design-stage SECAP risk rating, project may be required to prepare an Ethnic Minorities Planning Framework.		
Labour and Working Conditions	***Moderate***	***Moderate***
Risk: The project will mainly work with poor households engaged in self-employment. They will receive microcredit for such activities. The project will provide training and assistance for marketing of agricultural and non-agricultural products. A very few people will be working in formal businesses. No construction works in the project. The project will work with a small number of microenterprises. There may be some minor OSH risks for microenterprise employees or farmers involved in a range of activities such as meat processing, horticulture, packaging. Most notable risks are related to child labour and exposure to toxic chemicals when applying pesticides.	Moderate	Moderate
Mitigations: 1. Provide training in child labour and other labour and occupational health and safety issues to micro-enterprise owners. IFAD-funded PACE project successfully implemented decent work practices in MEs. Specific measures to be adopted include awareness on the impact of labour on children during trainings, following national laws on child labour in all procurement contracts and monitoring the execution of activities and reporting any cases to the project and relevant government authorities. 2. The risk of exposure to pesticides, insecticides and other chemicals from autonomous purchase will be mitigated and avoided through integrated pest and agro-chemicals management as a part of CSA/agroecology related training which will contribute to safety and health of rural producers and workers. 3. GREEN will replicate the experience of IFAD projects (PACE – Promoting Agricultural Commercialization and Enterprises), which promoted decent work environment in micro-enterprises, covering aspects such as ventilation, cleanliness, electricity, and women friendliness. A strategy to promote safe labour practices will also be put in place. through training on biosecurity and safe food (“safe meat”, “safe vegetables”) and the use of protective wear / gear. PKSF and its POs will also promote the availability of and access to first-aid boxes in micro-enterprises, and provide minimal level of training on its use.		
Community health, safety and security	***Moderate***	***Moderate***
Risk: 1. There is low risk of adverse effects on the physical, mental, or social health and safety of an individual, group, or population. Microfinance Institutions have a long history of working with millions of rural households and communities in a very transparent manner. 2. Market-led production might undermine farm diversification and negatively impact food security and nutrition. 3. Poultry and livestock may be susceptible to diseases and veterinary services may be limited – contributing to increase risk of zoonosis and vector-borne diseases.	Moderate	Moderate

Mitigations: 1. Partner organizations can be further sensitized through training before signing agreements for various project activities. The project will implement nutrition education and awareness raising campaign, including targeting nutrition-vulnerable groups, and will promote adoption of sustainable and climate-smart practices and technologies (e.g. Integrated Pest Management-IPMs etc.) which will minimize pesticides and chemicals exposure and contribute to safety and health of rural producers and workers. 2. The project has a strong focus on promoting nutrition and health. This will be done by selecting nutrition-sensitive value-chains and production practices that enhance the availability and accessibility of diverse, safe, and nutritious food through home gardens (vegetables, fruits) and increased access to animal-source foods (chickens, ducks, fish, small ruminants, cows). 3. POs have established grievance address mechanism. 4. Where group members borrow for animal husbandry, promote clean and hygienic animal shelters, biosecurity measures, vaccinations, and other improved husbandry measures. Introduce awareness building activities on optimum WASH behavior under Component 1 and ensure refresher training (emphasizing say 5-7 key hygiene) by loan officers. Establish linkages to adequate veterinary services and animal health products (nutrition, preventative, therapeutic) for livestock and poultry value chains. 5. A family-based approach to microfinance is adopted to address intra-household inequalities and promote a more gender equitable decision-making over the use of loans within the HHs Microfinance activities mitigating and preventing intra-household tensions and gender-based violence (GBV).		
Physical and Economic Resettlement	***Low***	***Low***
Risk: Given the thematic focus of the project's interventions, the lack of infrastructure components and the small-scale nature of the IGAs and enterprises supported by the project risks associated with physical or economic displacement as well as potential adverse effects on land tenure have not been identified.	Low	Low
Mitigations: No resettlement or land acquisition is anticipated; physical resettlement / displacement will be an exclusion criterion for activities. Outcomes of value chain activities, particularly with commercial orientation, will be carefully monitored for plausible adverse effects on more vulnerable and marginalized groups such as women.		
Financial intermediaries and direct investments	***Low***	***Low***
Risk: The risk that project funds are directed to a financial intermediary (PKSF or its Partner Organizations) that do not have a social and environmental policy or systems in place (including POSH, labour management, occupational health and safety, exclusion criteria, GRM, etc.). The risk that PKSF or its POs have insufficient capacity to implement SECAP 2021 and PKSF's ESMS / GOB standards.	Low	Low
Mitigations: PKSF and its Partner Organizations have been implementing IFAD's RMTP which adheres to SECAP 2021 standards. PKSF has a dedicated ESMS (environmental and social management system) policy in place (updated in 2021), and dedicated ESMS personnel. PKSF works with several other IFIs, successfully implementing safeguards, and is an accredited institution of the Green Climate Fund – with its accreditation standard allowing it to handle projects that are Category B (the same as agencies such as UNDP and FAO, which are international accredited entities). Nevertheless, activities to improve capacities of PKSF and its POs to implement ESMS / SECAP 2021 will be budgeted, and technical training provided, as needed. An assessment of ESMS has been conducted to ensure adherence to IFAD's SECAP 2021 requirements and identify gaps through an ESG Action Plan (ESAP).		

Climate change	***Substantial***	***Substantial***
Risk: Vulnerability of target populations and ecosystems to climate variability and hazards (Substantial, Substantial) Hoar, coastal, river flood plains, and High Barind are identified climate hotspots under the Bangladesh Delta Plan. Droughts, sea-level rise and tidal surges, cyclones, salinity, waterlogging and floods are key climate risks contributing to high levels of poverty / risk of population falling back into poverty, loss of livelihood assets and agricultural production, and food and nutrition insecurity. Greenhouse Gas Emissions (Low, Low) In general, the project activities are not expected to further increase GHG emissions. But HHs are involved in livestock farming and crop farming that produce greenhouse gas.	Substantial	Substantial
Mitigations: Vulnerability of target populations and ecosystems to climate variability and hazards Mitigations: 1. The project explicitly takes climate risks into account and has planned for adaptation activities to diversify agricultural production, promote non-farm sectors of employment through development of comprehensive food systems. It will take into account environment, ecology and human health during design and implementation of project activities. 2. Value chain assessments will identify climate risks and adaptation entry points at each stage of the cycle. 3. PKSF POs will continue to offer a moratorium period on principal and interest payments in the aftermath of extreme climate events. They also draw on their own funds (from profits) to distribute food rations to affected populations. GHG emissions Mitigations: 4. The project will promote feed that could reduce emissions from livestock (indirectly through better productivity). Use of organic fertilizer and vermicomposting practices (particularly in households or communities with excess manure production) will be promoted.		
Stakeholders	**Low**	**Low**
Stakeholder Engagement/Coordination	***Low***	***Low***
Risk: 1. There is a low risk that key stakeholders invited to participate in the project will show little interest in or commitment to the project's objectives and activities. 2. There is risk that PKSF POs may not engage with CRALEP implementation in High Barind or Haor regions, reducing the outreach efficiency and effectiveness of both projects. 3. There is low risk of gender inequality and lack of female participation in the project, and unintended exclusion from project activities. Yet, women's engagement in microfinance activities might unwittingly overburden them and have limited impact on nutrition and empowerment if not accompanied by measures for GEWE. In addition, while participation of women is high in primary production and home-based self-employment, they are virtually absent in processing and marketing activities outside of the household. This means that they might be less visible in activities and platforms that are related to value-chain development.	Low	Low

Mitigations: 1. At the community and household level, the project will implement a participatory process in defining activities that meet the needs and aspirations of the beneficiaries, with attention to more vulnerable social groups, such as women, ultra-poor households, persons with disabilities and ethnic minorities. Engagement with these groups will be included in a GESI plan, to be submitted by POs 2. PKSF and LGED PMUs will be encouraged to engage with one another in High Barind and Haor regions from an early stage. Ensuring that PKSF POs are aware of CRALEP bidding process for entrepreneurial training will increase their confidence in eventually lending to those trainees starting their own enterprises. 3. PKSF and POs (MFIs) have been champions of women empowerment and bringing women into financial services (90% of borrowers) and other IGAs and value chain development activities. However, measures for GEWE will be strengthened to ensure women's meaningful participation and engagement in project-related decision-making, thus leading to empowerment outcomes and nutrition impact. Several measures will be put in place to ensure women are adequately consulted and properly trained (e.g. livelihood development, nutrition education etc.) along with their husbands, to ensure they can participate in decision-making concerning livelihood development and food systems and benefit from project's activities and improved nutrition. POs will be requested to include attention to GEWE measures in their proposals (e.g. couple training, gender sensitization etc.) and to ensure that GRM system is accessible to women. Targeting and monitoring measures include the following: o Approximately 50% of IGAs and value chain development beneficiaries will be women. o IFAD will periodically monitor the progress. Previous IFAD funded projects implemented by PKSF and POs have overwhelmingly included in microfinance and other project activities.		
Stakeholder Grievances	***Low***	***Low***
Risk: Ineffective grievance/complaint redress processes (including on allegations of non-compliance with IFAD's SECAP standards, fraud, corruption, or SEA), can lead to unaddressed stakeholder grievances potentially impacting on achievement of GREEN objectives. Moreover, poorly designed GRM system, might be inaccessible to more vulnerable groups, such as women.	Low	Low
Mitigations: 1. PKSF and POs have well established grievance address mechanism, which will be leveraged and strengthened by GREEN. Still, the project will raise awareness among stakeholders about the complaints and grievance mechanisms available through the establishment of a PMU-led Grievance Redress Mechanism. It will also include this information as part of IFAD missions. Redress Mechanism shall be fully accessible to all target groups and well explained to stakeholders during the programme's start-up workshop and to beneficiaries during the programme's activities. An information campaign will be implemented in partnership with local POs to ensure that all target groups are aware of the GRM system.		

IFAD
Investing in rural people

Bangladesh

Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition

Project Design Report

Annex 11: Country Level Policy Engagement

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Asia and the Pacific Division
Programme Management Department

Annex 11: Country Level Policy Engagement (CLPE)

Growth for Climate Resilient and Environmental Entrepreneurship and Nutrition (GREEN)
The GREEN project has been strategically designed not only to deliver results at the community level but also to contribute to Bangladesh's broader rural development and climate resilience agenda through evidence-based policy engagement. Anchored in the Country Strategic Opportunities Programme (COSOP) 2024–2028, GREEN seeks to influence key national and sub-national policies and planning processes in areas including climate-resilient food systems, rural green finance, and youth-inclusive enterprise development.

1. Policy Priorities Identified through the COSOP and Project Design

The COSOP identifies several policy gaps and opportunities that GREEN addresses:

- **Climate adaptation in food systems**: There is a need to systematically integrate adaptation and environment-friendly practices across agricultural value chains and non-farm enterprises.
- **Nutrition-sensitive agriculture**: Policy support is required to institutionalize nutrition messaging and food safety within agricultural and enterprise programming.
- **Inclusive rural finance**: While PKSF and its POs have made advances in inclusive finance, policy frameworks to support climate-responsive, youth-specific, and innovation-linked rural credit are still evolving.
- **Youth and women's economic empowerment**: Youth unemployment and underemployment remain high, particularly in rural areas, calling for policy innovations in training, access to resources, and entrepreneurial support.

These areas will be advanced through the project's partnerships, capacity building, data systems, and policy feedback loops.

2. Institutional Mechanisms for Policy Engagement

GREEN's Component 3 explicitly focuses on building institutional capacity and creating mechanisms to strengthen the enabling environment for policy development.

Collaboration with academic, research institutions with technical input from PKSF's Research Unit where required will be pursued to co-produce knowledge products and facilitate applied research that strengthens evidence-informed policy engagement. As has been observed in PACE and RMTP, the policy formulation usually begins post MTR, using results and impacts generated by project initiatives. Policy engagement will be pursued through the dissemination of these papers, targeted meetings with relevant stakeholders, and advocacy activities. Experience from previous IFAD-funded projects with PKSF shows that changes in sector specific policies and practices leads to important changes benefitting the beneficiaries. Such changes may not be always from the government or government agencies but can be from business associations, NGO-MFIs and private sector. The project during implementation will identify such sector specific issues, record evidence, produce policy papers and suggest solutions, and conduct advocacy campaign for change.

Key interventions include:

- **Policy Dialogue Platform**: In collaboration with the Ministry of Environment, Forest and Climate Change (MoEFCC), a light-touch dialogue mechanism will be established. This platform will convene stakeholders from government, civil society, research, and the private sector to share lessons from GREEN and discuss policy adjustments related to climate-smart value chains, nutrition integration, and green finance.
- **Evidence based policy formulation:** At the country level, policy dialogues will be implemented using the learning and M&E tools generated by projects. Based on the experience of IFAD projects in the country, policy issues related to GREEN can be

identified relating to: (1) the development and applications of fintech to address the perceived high cost of rural/microfinance; (2) the benefits of non-financial services and policy and structural barriers for agribusiness and small businesses; 3) weakness in service sectors; and 4) innovation to improve climate resilience, with mitigation and environmental co-benefits.

- **Capacity Building for Policy Influence**: PKSF, government counterparts, and Partner Organizations (POs) will be trained in climate adaptation planning, environmental impact assessments, nutrition mainstreaming, and gender- and youth-sensitive programming—enabling them to contribute to and influence sectoral policy discussions.

3. Sector-Level Policy Contributions

GREEN is expected to inform and support national policy directions in several key areas:

- **Climate and Agriculture**: The project's value chain diagnostic framework and promotion of green technologies will contribute to national dialogues on resilient agricultural practices and the implementation of the National Adaptation Plan (NAP) and BCCSAP.
- **Rural Finance Reform**: GREEN's rollout of tailored financial products—seasonal loans, microenterprise finance, youth loans—will provide evidence on risk-sharing mechanisms, product design, and outreach strategies, which can inform broader financial inclusion policies.
- **Youth and Employment**: The project's integrated support for youth enterprises (training, credit, digital marketing, and incubation) aligns with the National Youth Policy and National Action Plan on Youth Employment. Policy briefs and learnings will be shared with the Ministry of Youth and Sports and relevant agencies.
- **Nutrition and Food Safety**: GREEN's work on integrating nutrition into agricultural value chains and community behaviour change will inform the National Food and Nutrition Security Policy implementation, particularly around safe and nutritious food production at household and enterprise levels.

4. Knowledge Sharing and Dissemination

Findings from GREEN will be disseminated to influence national development discourse through:

- Seminars and roundtables with national and local government agencies
- Collaboration with think tanks and academia for evidence-based policy research
- Policy briefs and working papers published through PKSF and IFAD platforms
- Contributions to sector working groups under the UNSDCF and donor coordination mechanisms

Through these efforts, GREEN aims to not only transform livelihoods at the community level but also contribute to Bangladesh's long-term vision of inclusive, climate-resilient, and sustainable rural development.