







Bangladesh – IFAD Partnership

Rural Microenterprise Transformation Project (RMTP) Annual Progress Report

January 2022 to December 2022

Report prepared by Palli Karma-Sahayak Foundation (PKSF)

Progress Report Report No. 06 March 2023

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Acronyms

AWPB BGAP BDS BDT BSTI COM/KM CoP COVID DLS EoI EUR FB GEF GGAP GGAqP GOB GYAP HACCP ICT IFAD IFR IT KM LSP M&E ME/SMES MFIS MFIS MFIS MFIS MFIS MFIS PACE PKSF PMU PO RMTP SLGA SWOT USD	Annual Workplan and Budget Bangladesh Good Agricultural Practices Business Development Services Bangladesh Taka Bangladesh Standard Testing Institution Communication and Knowledge Management Community of Practice Corona Virus Infectious Disease Department of Livestock Services Expressions of Interest EURO Facebook Global Environment Facility Global Good Agricultural Practices Government of Bangladesh Gender and Youth Action Plan Hazard Analysis Critical Control Point Information Communication Technology International Fund for Agricultural Development Information Technology Knowledge Management Local Service Provider Monitoring and Evaluation Micro, small, and medium enterprise Micro Finance Institutions Management Information System Ministry of Expatriates' Welfare and Overseas Employment non-banking financial institutions Promoting Agricultural Commercialization and Enterprises Palli Karma-Sahayak Foundation Project Management Unit Partner Organization Rural Microenterprise Transformation Project Subsidiary Loan and Grant Agreement Strengths, Weaknesses, Opportunities, and Threats US Dollar
SLGA	Subsidiary Loan and Grant Agreement
VC	Value Chain
VCD	Value Chain Development
ToR	Terms of Reference
ТоТ	Training of Trainers

1 Project at a glance

General Information

IFAD Division:	Asia and The Pacific Division	
Project Implementing Agency:	Palli Karma-Sahayak Foundation (PKSF)	
Country:	Bangladesh	
Starting Date:	3 December 2019 (Date of signing financing agreement)	
Expected Closing Date:	31 December 2025	
Contact person (e-mail address): arafiq66@gmail.com		

Table 1: Administrative and Financial Information

Activity number: Amount approved: Amount spent: Amount to be refunded:	20000 EUR EUR N/A	02356 178,714,000 144,799,000		
Co-financing (source/amount/rate):	Internat	tional Co-Financing		
	IFAD		EUR	72,750,000
	Denmar	k	EUR	6,690,000
	Domes	tic Co-Financing		
	Palli Ka	rma-Sahayak Foundation	EUR	11,626,000
	Private	Sector, MFIs, Beneficiaries	EUR	13,921,000
	Partner	Organizations (POs)	EUR	73,727,000
	Total		EUR	178,714,000

2 Brief Description and Project Objectives

2.1 Rational

International Fund for Agricultural Development (IFAD) experiences in Bangladesh have demonstrated that supporting small farmers to increase agricultural productivity and output positively affects house-hold income growth, poverty reduction, and food security. Similarly, keeping microentrepreneurs to start and/or expand microenterprises generates income growth, improves food security, and reduces poverty. However, it has become clear that fragmented investment in primary production and microenterprises, without meaningful integration in profitable value chains connected with expanding markets, does not generate growth of the scale necessary to transform the rural economy and sustainably eliminate poverty.

Experiences in Bangladesh and globally indicate that successful small farmer and microentrepreneur integration within commodity value chains with comparative advantage, market demand, and growth potential can sustainably reduce poverty and food insecurity, improve the competitiveness of the agricultural sector, generate employment opportunities in the rural economy, and create broad economic multiplier effects that transform the rural sector. Such value chain integration requires the development of mutually beneficial commercial linkages between small farmers/microentrepreneurs and larger-scale consolidators such as private sector agribusiness. Participation of agribusinesses is fundamental to generating demand and creating markets that reliably absorb output from small farms and microenterprises; agribusinesses serve as engines of rural transformation.

2.2 Project Description

The Rural Microenterprise Transformation Project (RMTP), jointly financed by IFAD, the Government of Bangladesh (GoB), the Danish International Development Agency (DANIDA), and microfinance institutes, was launched in December 2019. Palli Karma-Sahayak Foundation (PKSF), an apex development organization, implements and manages RMTP. The six-year project aims to sustainably increase the income, food security, and nutrition of marginal and small farmers and microentrepreneurs across selected value chains.

The development objective is the sustainable growth of selected rural commodity value chains with comparative advantage, market demand, growth potential, and backward linkages to small and marginal farmers and microentrepreneurs across Bangladesh. Multiple output- and outcome-related data will be developed to measure RMTP's progress toward attaining the goal and objective.

The project has three complementary components as follows:

Component 1 - Value Chain Enhancement: This component will enable microenterprises to sustainably expand their activities through adopting efficient production methods, compliance with internationally recognized food safety and traceability standards, and strong market linkages. It will contribute to creating an enabling environment that promotes the growth of micro and small enterprises and strengthens their linkages with agribusinesses and other value chain actors. It has five sub-components: (i) organization of producers; (ii) provision of technical and business services (including Global Good Agricultural Practices (GGAP) compliance to producers through private advisory services; (iii) integration of actors across selected value chains; (iv) strengthening of downstream agribusinesses (including GGAP and Hazard Analysis Critical Control Point (HACCP) compliance as required); and (v) policy dialogue with Government.

Component 2 - Financial Services: This component will provide sustainable financial services to microenterprises and growing/larger enterprises and agribusinesses.

It has three sub-components: (i) provision of financial services to microenterprises through partner organizations (microfinance institutions); (ii) provision of commercial finance to larger microenterprises as well as small/medium agribusiness companies through Micro Finance Institutions (MFIs); and (iii) optimal utilization of remittances through training to the family members of overseas workers. It can be noted that the subcomponent (iii) optimal utilization of remittances through training to the family members of overseas workers is being implemented by the Ministry of Expatriates' Welfare and Overseas Employment (MoEWOE) independently, and PKSF does not have any responsibility for this sub-component.

Component 3 - Institutional Strengthening and Project Management: This component aims to strengthen PKSF and PO capability as development organizations by leveraging trends in Information Communication Technology (ICT), financial services, commercial platforms, and new technologies to ensure that the project is managed satisfactorily. It has three sub-components: (i) PKSF capacity building, (ii) POs capacity building, and (iii) project management.

2.3 Expected Outputs/Outcome

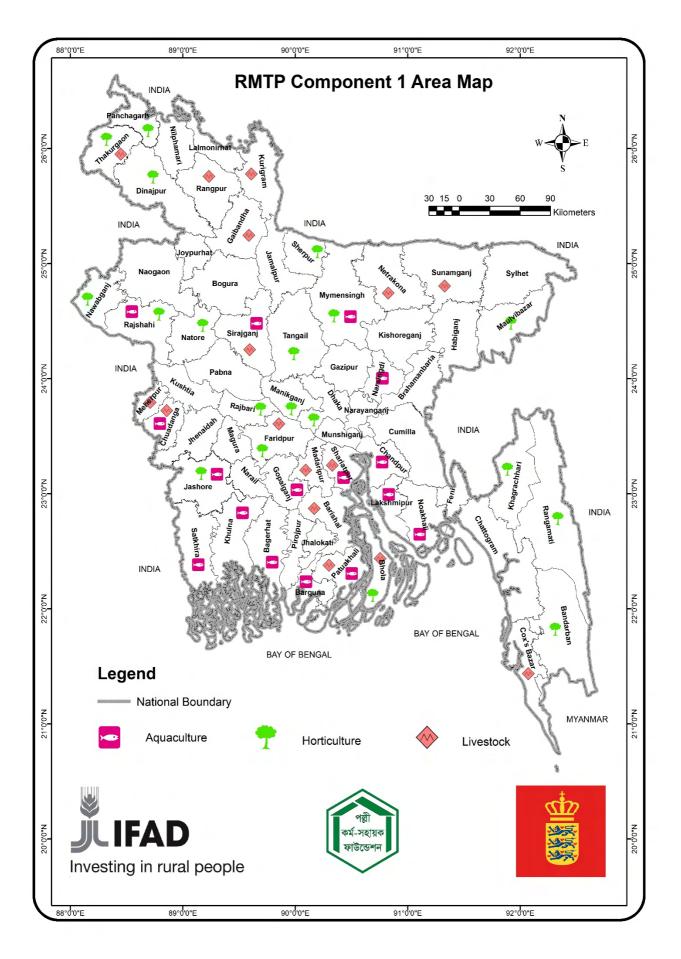
The project's target groups are marginal and small farmers and microentrepreneurs. It indirectly supports all value chain actors (input suppliers, traders, processors, and advisory services). In terms of poverty, the project targets the (i) poor, (ii) transitional poor, and (iii) enterprising poor. An estimated 445,000 households will directly benefit from the project, of which 100,000 microenterprise borrowers and 345,000 will benefit from value chain development activities. Benefits include enhanced financial and social service delivery; improved technical capacities of livestock para professionals and para extension service providers; food safety in the project area and beyond; better awareness of food safety and nutrition intake among beneficiaries; improved animal health; and value chain development through improved market access, and development and expansion of rural businesses.

2.4 Project Management/Implementing Arrangements

PKSF works through around 200 licensed microfinance institutions (known as partner organizations or POs) with 9,500 branches nationwide. PKSF provides inclusive finance and other services to more than 14 million poor households through this network. PKSF's aggregate assets amount to approximately USD 815 million, including its active loan portfolio, which currently stands at USD 271 million, with a recovery rate exceeding 99%. PKSF is supervised by the Financial Institutions Division of the Ministry of Finance.

To implement and manage the RMTP, PKSF has established a Project Management Unit (PMU) integrated within its structure for overall project management. Currently, the PMU consists of 24 staff members, which is complete in number.

RMTP's PMU is working with PKSF's Loan Operations Division in implementing the financial service program through POs as per established processes and norms. In addition, the division assists with selecting qualified large MFIs for financing larger enterprises and agribusinesses and works with POs and selected service providers to implement the value chain component. Besides, PKSF's support divisions, including Audit, Administration, Agriculture, Human Resources, Accounts and Finance, Livestock, Research, Training, M&E, MIS, and IT, provide relevant services to the project.



3 Status of Implementation Progress

Overall, RMTP has accelerated implementation, especially Component 1 - Value Chain Enhancement. Excellent progress has also been observed under Component 2 - Financial Services and Component 3 - Institutional Strengthening. This after, the implementation of the project's activities was severely disrupted by COVID-19 in the past two years. The component-wise progress is further elaborated below. See Annex for detailed information on the case stories (*Annex 1*), the targeted outreach (*Annex 2*), progress against the RMTP logframe (*Annex 3*), the DANIDA Indicators Report (Annex 4), the interim financial report (Annex 5), the physical and financial progress against Annual Workplan and Budget (AWPB) FY 2022-2023 (*Annex 6*), progress on the agreed actions (*Annex 7*) upon the 3rd supervision mission from 30 October to 21 November 2022, and integrated project risk management (annex 8).

3.1 Component-wise Project Progress

Component 1: Value Chain Enhancement

61 value chain sub-projects have been implemented under the three sectors, i) livestock and poultry, ii) horticulture, and iii) fisheries and aquaculture, by the following three sectoral strategy/policy papers. The distribution of different sub-projects is given below.

Sector	No of Sub-Projects	Target HHs	Planned HHs	Remarks
Livestock	16	126,000	291,480	Male – 96,010
	8 – safe meat and dairy products			Female – 195,470
	8 – safe poultry and poultry related products			Young – 34,740
Horticulture	25	120,000	126,328	Male – 98,048
	8 – safe vegetables			Female – 28,280
	10 – high value fruits			Young – 20,986
	2 – high value flowers			
	4 – mustard oil			
	1 – integrate agriculture in Lama.			
Aquaculture	20	120,000	123,000	Male – 89,605
and Fisher-				Female – 33,395
ies				Young – 15,245
Total		366,000	540,808	

There are another three sub-projects in the pipeline under the horticulture sector. All 61 value chain sub-projects were budgeted for EUR 15,012,470.00. As of December 2022, the PKSF has disbursed EUR 4,114,913.85 to the respective POs as advance, EUR 2,425,990.98 from the IFAD loan, and EUR 1,688,922.88 from the DANIDA grant. Moreover, EUR 334,138.25 has been disbursed as a replenishment of expenditure.

Sub-component 1.1. Organization

Up to December 2022, the following progress has been made under the three sectors.

In addition, three (3) sub-projects have been finalized for safe crop production and marketing under the horticulture sector, with implementation to be started in the first quarter of 2023. The VC sub-project information is listed as annex -2.

Interventions	Quantity	
No of VC sub-project		61
No of POs Implementing		45
No of Districts Covered		47
Target	Total	540,808
	Male	283,663
	Female	257,145
	Young	70,971
Reached	Total	230,853
	Male	80,973
	Female	149,880
	Young	80,089

Table 3: Cumulative achievements against cumulative targets

RMTP has adopted three training modules from PKSF, i) financial literacy, ii) business management, and iii) environment, climate change, nutrition, and social issue. The following training was provided to project participants and relevant service providers:

Table 4: Types of training provided to the farmers during this reporting period

Training Name	# of Batch	Participants	Number
		Total	1,090
Training of trainers (ToT) on financial literacy	45	Male	411
Training of trainers (ToT) on financial literacy	45	Female	679
		Young	81
		Total	29,883
Financial literacy for MC Members	1490	Male	10,857
	1490	Female	19,026
		Young	1,090 411 679 81 29,883 10,857 19,026 11,139 375 194 181 60 59 11 201,176 66,499 134,677 61,510 71,474 29,079 42,395 9,189 1,015 565 450 152 558 468
		Total	375
Business management for ME and PA members	16	Male	194
	10	Female	181
		Young	164
		Total	60
ToT on Nutrition-Sensitive Value Chains	3	Male	59
	5	Female	1
		Young	
		Total	
Nutrition, climate, environment, and social issues training	10050	Male	
Nutrition, climate, environment, and social issues training		Female	134,677
		Young	
		Total	
Training on generic technological transfer	3573	Male	
	5575	Female	
		Total	
Training on advanced technological training	50	Male	565
	50	Female	450
		Young	
		Total	
Training on contract farming	27	Male	Total 71,474 29,079 42,395 9,189 9,189 Total 1,015 565 450 152 558
	21	Female	
		Young	224

Moreover, 135 Producer Association (PA) members participated in exchange visits for adopting technologies. The PMU developed two training modules on livestock to conduct this relevant training at the PO level. PMU prepared nine information sheets and discussion notes on financial literacy for group meetings (participants) by POs. To strengthen nutrition education and facilitate the information campaign, the PMU has developed a script for a video documentary. Currently, the PMU is preparing a video shoot on nutrition awareness raising.

The progress during the reporting period on output 1.1 of the DANIDA system indicator is given below:

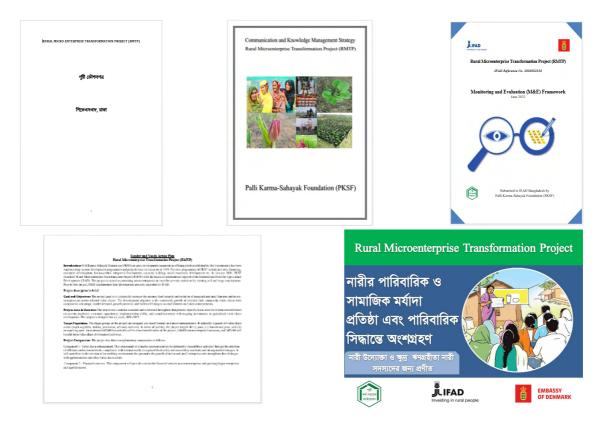
Table 5: Progress on output	1.1 of the DANIDA indicators
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Indicator Title	Target	Achievement
Number of supported rural producers that are members of a rural producers' organization	80,000 HHs	230,853 HHs
Number of households provided with targeted support to im- prove their nutrition	30,000 HHs	201,176 HHs

The participants who received the training on "nutrition, climate, environmental and social issues for organizations" will also receive nutrition messages through video documentation, leaflet, etc., from the project.

Sub-component 1.2. Technical and business services

PKSF has prepared a nutrition strategy, communication strategy, M&E framework, gender, youth action plan (GYAP), and Intra-Household Decision Making flipchart for the project. In addition, PMU has also adopted some sub-sector-wise booklets from the PACE project, which are used as training modules for most value chains.



The livestock sector has printed 120,000 copies of handbooks on "Generic technological and management training on livestock (fattening and dairy)" and distributed them to the farmers during the session conduction. The different training provided to the participants is listed below:

Training Name	# of Batch	Participants	Number		
		Total	45,810		
Generic technological and management training on livestock	2,290	Male	11,498		
(fattening and dairy)		Female	34,312		
		Young	26,152		
		Total	7,900		
Advanced technological and management training on live-	395	Male	2,765		
stock	395	Female	5,135		
		Young	1,890		
		Total	95,490		
Livesteel reging technology and management training	4771	Male	29,540		
Livestock rearing technology and management training	4//1	Female	65,950		
		Young	53,104		
		Total	15,000		
Generic technological and management training on	751	Male	13,000		
horticulture	751	Female	2,000		
		Young	1,800		
	4	Total	81		
Training of Trainer (ToT) for registered veterinary practition-		Male	71		
ers		Female	10		
		Young	24		
		Total	11,416		
GAP Training for Farmers	570	Male	5,009		
GAP Training for Familiers	570	Female	6,407		
		Young	6,204		
		Total	2,633		
Piloted different technologies over all three sectors	3	Male	792		
Filoted different technologies over all three sectors	sub-sectors	Female	1,841		
		Young	553		

Table 6: Technical and business services provided

They adopted 69 types of technologies (Annex 9), including different types of mobile applications. During the reporting period, the progress on output 1.2 of the DANIDA system indicator is given below:

Table 7: Progress on output 1.2 of the DANIDA indicators

Indicator Title	Target	Achievement	Remarks
Number of training days provided to farmers on GLOBAL GAP and HACCP	100 days	841 days	This training was organized for livestock sector beneficiaries. The other sectors will organize the same very soon, and the achievement will be increased.
Number of persons trained in income-generating activi- ties or business manage- ment	2,200 Per- sons	1,135 Persons (Male – 954, Female – 181, Young – 744).	This achievement is a bit lower than the target. This training was organized for livestock sector beneficiaries, and the achievement will be in- creased when the other sectors will start the same. Both the sectors have to conduct this training in the next year.

Sub-component 1.3. Value Chain Integration

RMTP's PMU has identified products from three major sectors: horticulture, livestock, fisheries, and poultry, based on market demand and growth potential. For information on the status of VC sub-projects, *see Sub-component 1.1. Organization.* The PMU has analyzed the value chain for livestock and poultry sub-sectors and developed the sub-project accordingly. In the reporting period, the livestock sector has identified the meat sub-sector to adopt global gap practices at the farm level. The POs and Producer Associations (PAs) have collaborated with the private sectors such as **Bio-Tech** to provide ToT on GAP & HACCP protocols, **Trade Global Limited** for farm and processing sector mechanization, Green Agro and Bengal meat for sub-contracting agreements and provide training to the contract farmers as well. **Trade Global Ltd.** will establish 36 sales and services centers for mechanizing farms and firms (processing). The livestock sub-project has made agreements with **Solop Ghol Ghor** to sell milk, Bengal meat, **Green Agro & Maya Agro** for selling live animals; **Nourish Poultry and Hatchery Ltd** for cattle feed and silage; **Iocal service providers** for medicine and vaccine; and community-level **vaccine hub** for ease vaccination. The project plans to collaborate, among others, with **Renata, One Pharma, Paromida, EJAB group, ACI, Ispahani**, vegetable testing lab, and machinery suppliers to get different services for the project participants. During the reporting period, the progress on output 1.3 of the DANIDA system indicator is given below:

Table 8: Progress on output 1.3 of the DANIDA indicators

Indicator Title	Target	Achievement	Remarks
Persons trained on production prac-	50,000	71,474	This training was organized by 1,487
tices and/or technologies			batches. The rest of the participants will
			be received training on this issue within
			the time frame.

Sub-component 1.4. Enterprise Strengthening

The project intends to engage GGAP/HACCP assurer firms/individuals to assist in introducing BGAPrelated protocols and training master trainers in GGAP. Currently, there is an acute shortage of Bangladeshi assurers. Therefore, the project will explore opportunities to support the training of qualified Bangladeshi in-country and abroad to serve the initial purpose. Yet, in a longer-term perspective, the GGAP organization is to be approached to set up Global GAP training facilities in collaboration with, for example, Bangladeshi universities.

The PMU has collaborated with **Bio-Tech Mushroom** to organize ToT on GAP & HACCP protocols. Bio-Tech Mushroom organized two batches of ToT for 60 participants, which SGS-Bangladesh conducted. The master trainers then cascaded the training to 16,826 participants (Male – 6,899, Female – 9,927, Young Male – 5,705, and Young Female – 4,286). Besides training BGAP/HACCP assurers for downstream agribusinesses, other sector-specific trained persons will assist producer groups in achieving national quality and safety standards.

Sector: Livestock and Poultry

The ongoing 16 sub-projects in the poultry/livestock sector focus on the following areas: organized vaccination and curative health services; improved production and access to feed/fodder through commercial sources; access to the farm and farm mechanization services; improvement in farm man-

agement; production and marketing of processed meat and dairy products. Moreover, implementing ICT will be encouraged in farm and animal health service management.

In the livestock sector, vaccination and curative services are half-done job. Yet, due to the limited capacity of the Department of Livestock Services (DLS), only a small percentage of cattle receive such services. Against this background, an alternative private sector-led service is emerging. In this regard, the project targets to bring all large animals under a systemic service, where the 'vaccination hubs' develop a system of selling such services to all farms. Overall, the project plans to set up 185 vaccination hubs, where 87 hubs have been established until now.



To support the set-up of the hubs, the project contributed BDT 10,000 –approximately 20% of the total costs - per local service provider (LSP) that operates the hub. The LSP shares the refrigerator and remaining costs.

The hubs are linked with different vaccine companies and the DLS to keep up stock of different vaccines and ensure easy access for farmers. 1,834 LSPs (Male – 1,808, Female – 26, and Young – 928) received training on "Institutional Development of Livestock Services in the private sector." These LSPs have offered the following services: 102,184 animals deworming, 97,635 animals vaccinated with FMD, Anthrax, and BQ, and 117,094 animals vaccinated with tetra valent FMD. The quarterly performance award-giving ceremony is continued to encourage the LSP initiative at the field level. As of December 2022, 51 LSPs received performance awards. In collaboration with DLS and Renata Ltd., the PMU supported the development of the regional veterinary laboratory and service centers, where a registered veterinary surgeon provided animal treatment and required tests.

Sub-projects: Dairy and meat

All eight sub-project agreements with the POs were completed in December 2021. The staff recruitment, staff orientation, and required training have been conducted. 201,480 participants' profile data collection and computerization have been completed by October 2022. The project provided ToT on financial literacy to 255 master trainers who later cascaded the same training to the participants. The list of the training delivered to the farmers is given below:



Figure 1: MoU on Firm Mechanization with Trade Global Ltd.

Training Name	# of Batch	Participants	Number
	451	Total	9,035
Training on financial literacy		Male	687
	401	Female	8,348
		Young	4,496
	2290	Total	45,810
Generic training on technology and management of live-		Male	11,498
stock		Female	34,312
		Young	26,152
		Total	86,189
Training on nutrition, climate, environmental and social issues		Male	20,686
		Female	65,503
		Young	30,166

Table 9: Training provided under the meat and dairy sub-project

A total of 100 members from the microentrepreneur and producer association received training on business management. Further, advanced training on technology and management of livestock was also provided to 340 lead farmers. The training on contract farming development was provided to 308 farmers. The technical staff of POs provided 82 batches of training on farm mechanization to 1,645 participants (Male - 926, Female -719, Young – 862). The animal rearing technology and management-related training Figure 2: GGAP/HACCP training of trainers (ToT) were provided to 95,490 farmers (Male -



29,540, Female – 65,950, Young – 53,160). 11,416 lead dairy farmers (Male – 5,009, Female – 6,407, Young - 6,207) received training on Global GAP.

The training titled "Ready feed and calf starter supply chain strengthening" was provided to 265 subdealers. The project provided fodder production and fodder market development training to 251 fodder traders, of which 209 established fodder demonstration plots. 1,834 LSPs (Male – 1,808, Female - 26, Young - 928) received institutional training to provide services to poor farmers. A total of 182 participants received cool boxes for delivering quality services. To improve private advisory service development, 5,399 private service providers (Male – 728, Female – 4,671, Young – 3,753) received training on the business model and plan development, contract farming improvement, safe production, etc.

The POs partially subsidized 185 fodder cutting machines, one fodder rolling machine, 57 fodder dealer point development, 13 feed grain crushing machines, 26 single milking machines, seven double milking machines, nine compost plants, five tanker vans, two double layer trucks, two double layer boats, and 106 milk cans.



Figure 3: Two layers truck for livestock transportation

Besides this, the purchase of six mini milk chilling plants, one pasteurization plant, five automated liquid milk packaging plants, 46 automatic cream-separated machines, one automatic ghee-making machine, and four yogurt incubators was supported. In addition, 52 entrepreneurs established biogas plants, and 84 vermicompost production plants were established. These plants produce 1,639 MT of compost every month. Per month BDT 16,390,000 (USD 159,560) equivalent revenue from those plants also contributes to the rural economy.

The sub-project subsidized 182 LSPs to purchase cool boxes for preserving raw and fresh milk and 87 refrigerators purchased by LSP to develop cool chains. Two awareness-raising demonstrations on garol rearing were conducted in Bogura district from which the entrepreneurs learned about the variety, species, rearing, and benefits of garol.

13 young sales promoters were recruited to increase the sales of safe meat (3), fodder (4), and milk products (6). To raise awareness and disseminate the technologies, the project partially subsidized to establish two demonstrations on seaweed production, use, and marketing, 94 on UMS and UTS technology use, 52 on cow comforters' development, 155 on calf starter and ready feed effectiveness test, one goat milk and cheese production, 30 on silage production, and 148 on the effectiveness of juicy green grass and silage feeding to milch cows.

As of December 2022, 48,350 handbooks on dairy and meat-rearing technology and management were distributed to the same number of farmers. A total of 25,120 booklets on nutrition, climate, environment, and social issues were distributed for group meetings. A total of 281 packages of books were distributed to the LSPs. A number of "Farmers Field Days" were organized jointly among DLS, farmers, feed companies and dealers, fodder seed companies, and dealers with approximately 1,212 participants (Male – 412, Female – 800, Young – 600). In addition, 87 joint campaigns were organized to promote ready feed and calf starters, where 2,008 farmers (Male – 727, Female – 1,281, Young – 1,71) participated. Besides this, 118 joint campaigns were organized to promote fodder seed, fodder, and silage, where 2,913 fodder traders (Male – 1,062, Female – 1,851, Young – 1,635) participated. A total of 268 marginal farmers attended the multi-stakeholder workshop on policy development and implementation of existing policy. A cross-learning visit was conducted with 110 participants from meat and dairy producers.

An innovative initiative, "Cattle Hotel," established by Master Shahidul Islam of Kamarkhand upazila, located adjacent to the Baradhul haat in Baradhul village of Kamarkhand upazila, is accommodating ten traders and 150 cattle on average every day. A trader has to pay BDT 150 for himself and BDT 50 for each cattle for a night's stay. On



Figure 4: Cattle Hotel under NDP at Sirajganj

an average day, he earns about BDT 9,000 from the hotel. In addition, approximately 100 poor farmers are getting support from this initiative. The poor farmers even sell their animals easily and at a comfortable price.

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Figure 5: Halal and BSTI certification

A total of 50 entrepreneurs applied to Bangladesh Standard Testing Institution (BSTI) to certify their products under livestock and dairy value chain sub-projects. Already two entrepreneurs, one from Bogura and one from Sirajganj, got the certification to use BSTI standard trademark on their products label, and the others are in the process of getting approval.

Besides this, one entrepreneur from Bogura obtained the "Halal" certificate on meat and egg production from Islamic Foundation. These prestigious certifications will expedite the product quality, sales of the product, trustworthiness to the consumers, and ultimately the increase of income of those entrepreneurs.

POs have signed 11 MoU with ready feed and fodder seed companies to establish local supply chains. PMU provided training on TallyKhata/S-Manager apps to 698 entrepreneurs. The project established 15 union veterinary telemedicine centers. In addition, the project provided training on record keeping/Sudokkho apps to 870 LSPs and 27 fodder online market developers to open their Facebook page and boost fodder selling. As of December 2022, PKSF has disbursed EUR 1,324,724 to the eight POs as advance to implement the VC sub-projects, of which EUR 491,559 from the IFAD loan and EUR 833,165 from the DANIDA grant. Moreover, EUR 324,373.31 has been disbursed as a replenishment of expenditure.

Sub-projects: Poultry

Overall, the poultry sub-sector is considered to have a high potential in local and national markets. Short business cycles, profitability for small operations, and increased demand make poultry a subsector with direct benefits to poor and small producers. Therefore, the PMU focused on "Safe Poultry and Poultry Products Market Development" has been undertaken by RMTP. All the agreements will focus project activities on the i) production of dressed chicken for the Upazila/district market, ii) production and supply of desi/semi-desi chickens as well as iii) Commercialization of poultry waste to produce vermicompost. Yet, there is the challenge of increasing feed prices.

The stagnation of the meat price, thus, makes poultry farming only marginally profitable. Accordingly, the price fluctuation needs to be addressed by the production or marketing of dressed chicken and other chicken meat products in collaboration with supermarkets and restaurants. Moreover, attention is required for the i) improvement of hygiene in the farms, ii) reduction of mortality; iii) use of manure for compost production; iv) availability of curative services, and v) underweight of poultry birds compared to age/feed.

There are seven VC sub-projects titled "Safe Poultry and Poultry Products Market Development" under the poultry sector, covering 90,000 participants. The VC sub-projects are being implemented through the 12 districts from five divisions. All the sub-project agreements had been signed between PKSF and the respective seven POs. The staff recruitment is done. The participant's profile data collection KoBo tool is developed, and the training for the staff of POs has been completed. The data collection is in progress. Besides, ten young people received basic hands-on training on hen rearing to develop local service providers, and they cascaded that training to 60 hen rearers (Male - 0, Female – 60, and Young – 31). The project provided subsidies for purchasing refrigerators to 24 LSPs (Male -24, Female -0, and Young -8) to develop vaccine hubs, ten egg sellers (Male -10, Female – 0, Young – 3) received subsidies to develop egg shops and market linkage at the local level, seven LSPs (Male – 7, Female – 0, and Youth – 1) received support to develop organic compost making plant, 4 participants received support to improve poultry feed sub-dealer services, 16 farmers received partial grant support for farm commercialization (hen: multi-color variety -3, hen: local variety - 13), one duck hatchery development, 35 demonstrations on poultry model shade construction, 65 farmers (Male – 41, Female – 24, Young – 46) received subsidies for purchasing pure pigeon variety supply.

462 farmers (Male – 281, Female – 181, Young – 216) attended issue-based meetings for sorting problems and solutions of backward and forward markets. At the union level, 125 poultry vaccination and deworming campaigns were organized. In addition, 24 seminars were jointly organized by farmers, markers, vaccine/medicine, and ready feed companies on organic safety in farms, where 360 farmers (Male – 275, Female – 85, Young – 141) participated. Moreover, a knowledge-sharing workshop was conducted, in which 29 farmers participated. Two value chain committees for poultry subprojects were formed, consisting of 35 participants, including one female. The sub-project plans to incorporate ICT services, and initially, 37 commercial farmers and service providers (Male – 33, Female – 4, Young – 28) received partial grants to purchase S-Manager or similar apps. The first installment of EUR 609,463 has already been disbursed from PKSF to POs under the IFAD loan.

Sector: Horticulture

The RMTP has been rolling out 25 VC sub-projects (Vegetables-8, Fruits and Crops-10, Flower (Tulip) - 2, Oil Seed – 4, Integrated Agriculture at Lama - 1) through 19 POs of PKSF in 25 districts of Bangladesh. As of December 2022, the project selected 126,328 participants. However, the project plans to develop additional VC sub-projects under this sector. As of December 2022, EUR 1,039,050.89 has been disbursed from PKSF to the respective POs as advance, of which EUR 919,457.19 from the IFAD loan and EUR 119,593.69 from the DANIDA grant. The sub-project wise progress is given below:

Sub-Projects: Vegetables

Under the horticulture sector, eight sub-projects have been implemented titled "Ecology friendly safe vegetable production and marketing" to sustainably increase the income, food security, and nutrition of marginal and small farmers in ten districts of Bangladesh. These sub-projects focus on i) increasing income through technology-based farming and processed goods production, ii) increasing the number of entrepreneurs for processed product production and marketing, iii) local embedded service market development, iv) production and market system development considering the environment, safety, nutrition, and climate change issues, and v) increase women's participation in business.

During this reporting period, all 76,649 (Male-60,468, Female- 16,181, and Young- 20,319) participants' profile information was collected using the KoBo data collection application. The baseline study of all eight sub-projects was completed. A total of 17,340 (Male - 8,635, Female -8,705, and Young - 5,551) participants received training on "Nutrition, climate, environmental and social issues for organizations leaders." 250 microentrepreneurs and vegetable producers (Male-94, Female-156, and Young-107) participated in the training on "Business Management."



Figure 6: Safe vegetable produced by farmer under JAKAS foundation at Joypurhat

The PO staff organized the "Contract Farming" training, where 250 contract farmers (Male-214, Female-36, and Young-71) participated. 5,564 farmers (Male-3,453, Female-2,111, and Young-1744) received training on "New technology and management of horticulture farming." In addition, 625 farmers (Male-355, Female-270, and Young-252) received advanced training on "New technology and management of horticulture farming." 12,557 ME borrowers and producer association members (Male-6,493, Female-6,064, and Young-3,651) received orientation on financial literacy. Five meetings were held on the market linkage between input suppliers and 113 lead farmers. The same market linkage meetings were held between big vegetable buyers and 40 farmers. RMTP has incentivized 416 entrepreneurs (Male-296, Female-120, and Young-126) to set up demonstration plots for safe common vegetable production. Similarly, 176 entrepreneurs (Male-144, Female-32, and Young-31) received incentives to establish demo plots for safe, high-value vegetable production. The project established 127 vermicompost demo plots and 32 commercial vermicompost demo plots. 521 entrepreneurs (Male-481, Female-40, and Young-307) tested the soil of their farms with partial support from the project. As of December 2022, EUR 382,162.16 has been disbursed from PKSF to POs as an advance under the IFAD loan.

Sub-Projects: Fruits and Crops

The project is implementing ten VC sub-projects on different varieties of high-value fruits and crops in 14 districts of Bangladesh, which will reach 51,000 participants. These sub-projects focus on i) ecology-friendly farming systems for high-value fruits and crops, ii) linkage between nursery owners and farmers for sapling sales promotion and boosting, iii) technical support at tissue culture lab for mother stock development, iv) farm mechanization, v) small scale local processing, and vi) product packaging and marketing.



Figure 7: Sapling distribution to the farmers by OPCA

Figure 8: Demo plot by Mr. Arfan under YPSA

As of December 2022, the agreements, staff recruitment, and staff orientation have already been completed. The project staff was trained on the participant's data collection KoBo tool and collected 51,000 participants' profiles. All VC sub-projects started the baseline study, and four are completed. Ten value chain committees were formed under ten POs, with 75 members (Male – 72, Female – 3, and Young – 30) enrolled.

The sub-project provided training on "Nutrition, climate, environmental and social issues for organizations leaders" to 23,705 farmers (Male – 9,173, Female – 14,532, and Young – 9,481). Besides this, the sub-project provided ToT on financial literacy to 166 facilitators (Male – 146, Female – 20, and Young – 89) who further cascaded that training to 5,954 ME borrowers and Producer Association members (Male – 1,879, Female – 4,075, and Young – 1,972). In addition, 2,835 producers (Male – 1,297, Female – 1,538, Young – 1,036) received fruit and crop production training using organic processes. In addition, 60 nursery owners received skill development training on sapling production and mother stock management. Advanced horticulture-related technology and management training have been provided to 50 lead farmers, input sellers, and nursery owners.

The sub-project has established 630 demonstrations of high-value fruits and crops (Coffee-80, Cashew nut-50, Black Peeper- 78, Pomelo- 162, Malta- 140), with 47,224 saplings distributed among the farmers.

In addition, the sub-project has provided subsidies to 28 nursery/tissue culture labs for mother stock development, technical assistance to 35 tissue culture labs, and ten collection center development.

A total of 30 MoUs were signed by POs at the regional level with Bio Pesticide, Bio-Fertilizer, Agro Machineries, Nurseries, and Agro Processors for getting downstream technical services, training, and agronomic suggestions at the farmers' doorsteps. In addition, the sub-project conducted several workshops, such as the market linkage between farmers and nursery owners, collaboration between farmers, farm materials sellers, and related companies, and sensitization of product certification between entrepreneurs and certification authorities was conducted where 30 farmers attended.

The sub-project has collected 631 GPS locations from the demonstration plots to apply online visualization in google maps. The same is planned for demonstrations set up under the fishery sub-sector. As of December 2022, a total of EUR 485,686.22 has been disbursed from PKSF to the respective POs as an advance under the IFAD loan. Moreover, EUR 9764.94 has been disbursed as a replenishment of one PO.



Figure 9: Springler crop field at Natore and fruits collection point at Khagrachri

Sub-Projects: Oil seeds and pulses

Given the high national demand for edible oil and the crisis around soyabean oil, the project has taken four VC sub-projects titled "Increasing Income of Entrepreneurs through Production and Marketing of Safe Edible Mustard Oil" with four POs in four districts. The agreements between PKSF and the POs have been signed. The staff recruitment, orientation, and training on the data collection tool are completed. The staff collected participants' profile data from 200 farmers (Male – 170, Female – 30, Young – 45) through the KOBO toolbox. The project has set 120 demonstrations for high-yielding varieties of mustard oil production and six commercial vermicompost production demo. The project has also provided subsidized support to 60 farmers for testing the soil quality, two entrepreneurs for supplying shallow machines/irrigation, seven entrepreneurs for improving oil processing, and one farmer for testing the product quality.

As of December 2022, a total of EUR 102,841.12 has been disbursed from PKSF to the respective POs under the DANIDA grant.

Sub-project: Tulip flower

Under the horticulture sector, the project has achieved remarkable success in piloting "High-Value Flowers (Tulip) Cultivation and Marketing" in Tentulia Upazila, which introduced the cultivation of tulips in the Northern part of Bangladesh. The subproject started with 40,000 tulip bulbs of six varieties provided to eight women farmers.

All bulbs have grown and bloomed successfully. The news of tulip cultivation published in national print and electronic media has attracted thousands of people to the sites. The achievement of this subproject piloting opened a new area in the floriculture subsector of Bangladesh. The mission recommended further expansion of tulips production and systemic marketing. The RMTP will expand the tulip subproject this year. The process is ongoing and will hopefully be completed by the next month. Besides this, another VC



Figure 10: Women empowered by cultivating Tulip flower

sub-project has been implemented with 20 farmers who have already sawed 70,000 tulip bulbs this year. As of December 2022, a total of EUR 51,608.82 has been disbursed from PKSF to the respective POs under the IFAD loan.

Sector: Aquaculture and Fisheries

With the new sub-project under aquaculture and fisheries, the project will support i) capacity building of producers, processors, and traders on GAP and HACCP, ii) production and productivity-enhancing technologies, iii) processing of fish products (ready-to-eat/cook fish products), iv) supply of good quality inputs (including feed, fry/fingerlings, PL probiotics), v) service market development with LSP, vi) enhancement of hygiene and sanitation of local fish market/arot/depot, vii) branding, certification, and traceability of fish products, viii) alternative income generation of fishermen.

As of December 2022, 20 VC sub-projects (seven in the first round and 13 in the second round) agreements have been signed between PKSF and POs to implement "Safe Fish Products Production and Marketing" in eight districts of Bangladesh. These aim to reach 123,000 participants (Male 89,605, Female 33,395, and Young – 15,245).

The staff recruitment, orientation, and training on participants' data collection tools have been completed. The profile data collection (46,000 from round-1) was done for the first round, and 28,000 profile data was collected from the second round, and it is going on. The sub-projects provided training on "Nutrition, climate, environmental and social issues for organizations leaders" to 2,377 producers (Male – 1,807, Female – 570, and Young – 1,043). Besides this, the sub-projects also provided ToT to 122 trainers of POs on financial literacy who cascaded this training to 2,337 ME borrowers (Male – 1,798, Female – 539, and Young – 1,020) later on. A total of 3,118 farmers (Male – 2,313, Female – 805, and Young – 1,309) received training on "Good Aquaculture Practice (GAqP)." Training on business management for entrepreneurs and producer association members has started recently, and 25 participants received that training. Similarly, training on fish protection during flooding and natural disasters and the adverse effect of excessive feed, chemical fertilizer, and use of obsolete chemical particles in the fish farm has been conducted with 25 participants.

As of the reporting period, seven value chain committees have been formed where 79 entrepreneurs (Male -74, Female -5, and Young -27) are enlisted as members. The PMU of RMTP organized a cross-learning visit where 25 farmers participated in the event.

The VC sub-projects established several demonstration plots, e.g., two for fish culture using bio-floc process and high-value Betta fish culture, one for technology dissemination on safe fish and prawn farming following improved traditional/semi-intensive procedure, two on probiotic use related technology dissemination for safe fish production, and three for black soldier fly production as a supplementary feed for commercial fish culture. Two local fish markets and arot have been improved through the project. As of December 2022, a total of EUR 1,141,676.12 has been disbursed from PKSF to the respective POs as advance, of which EUR 736,164.17 from the DANIDA grant and EUR 405,511.95 from the IFAD loan.

There was a target of 20,000 rural enterprises accessing business development services (BDS) under output 1.4 of the DANIDA system indicator. The project collaborated with 26,260 rural enterprises to access BDS. The BDSs are mainly access to finance, access to feed and fodder, access to ICT, access to the premium market, livestock services, and mechanization (dairy and meat). The other sectors will collaborate for BDS, and the achievement will increase. Therefore, it seems the project will achieve a higher target in this indicator.

Sub-component 1.5. Policy/practices dialogue

The VC sub-project proposals prepared for the meat and dairy products have identified areas for policy intervention, including (i) introduction and extension of insemination services for goat, sheep, and buffalo in Bangladesh and (ii) introduce meat-type livestock breed and BGAP and ban on importing meat in Bangladesh. Regarding the first issue, BRAC, as first ever in Bangladesh, has received the government's approval to extend artificial insemination (AI) services for goats, sheep, and buffalo in Bangladesh. PKSF signed an MoU with BRAC on 15 June 2022 to introduce AI services. Regarding the second issue, the Department of Agricultural Extension (DAE) already took the initiative to introduce BGAP in the agriculture sector first ever in Bangladesh. PKSF is trying to introduce GGAP in the livestock sector by negotiating with DLS. In this regard, PKSF is preparing a policy paper to create a national demand, and accordingly, PKSF, along with DLS, is trying to introduce GGAP in the livestock sector.

The POs organized eight policy workshops with the stakeholders under the three sectors at the district level, where government officials, NGO and private companies' representatives, Local Service Providers, and Lead Farmers were present. For example, the output under the livestock sector was sorted out by the need to establish the slater house and found the barriers. As a next step of action, the participants came to a consensus that they needed to advocate for it with the local administration (Deputy Commissioner, DC) and the law enforcement force (Superintendent of Police, SP). The project plans to organize a national-level workshop with the relevant authorities to review or revise the policy.

Component 2: Financial Services

The outcome of this component is to provide 'sustainable financial services for microenterprises and growing/larger enterprises and agribusinesses.' There are several ME loan components in PKSF, where RMTP is one of the contributors. In June 2020, the ME loan portfolio of PKSF was USD 263,493,223, with the target to reach USD 550,804,599 by the end of the project. As of the reporting period, the ME loan portfolio is increased to USD 464,216,010 (76.2% increase), which is already crossed the mid-term target of 407,148,911. There are two outputs with this component; 2.1: Microfinance through POs; and 2.2: Commercial finance through large MFIs. The progress according to the sub-components is given below:

Subcomponent 2.1: Microfinance through POs

PKSF continues to provide ME loans using project resources and RMTP's line of credit. As of December 2022, under RMTP, the cumulative disbursement from PKSF to POs for the ME program (Agrosor) was BDT 24,402.9 million (USD 284.25 million), and the cumulative recovery was BDT 18,412.4 million (USD 214.47 million). Since June 2020, the increase in ME loans outstanding under RMTP was BDT 5,990.49 million (USD 69.78 million). Using this ME loan outstanding, the project covered the number of borrowers 69,705 (Male – 14,755, Female – 54,950, and Young – 11,453), which is around 70% of the total target (100,000). The average loan size to the borrowers increased from USD 1,501.0 to USD 1,862.7 (24.1% increase).

Subject Level	As of Jun'20	As of Dec'20	As of Jun'21	As of Dec'21	As of Jun'22 [*]	As of Dec'22	Change
PKSF to PO Level							
No. of districts	64	64	64	64	64	64	-
No. of POs	166	166	166	178	178	178	-
Cumulative loan disbursement (USD in million)	501.98	564.97	619.45	686.15	750.06	721.49	35.34
Cumulative recovery (USD in million)	323.64	376.86	424.71	470.43	516.94	493.84	23.41
Cumulative outstanding loans with POs (USD in million)	178.35	188.12	194.74	215.72	233.12	227.65	(5.47)
Cumulative Recovery Rate (CRR) %	99.49%	99.64%	99.56%	99.56%	99.48%	99.58%	0.02%
POs to Field level					As of Jun'22	As of Jun'22	
No. of borrowers Male	353,808	347,953	357,827	368,427	387,614	387,614	19,187
Female	1,232,145	1,225,356	1,285,009	1,406,471	1,697,315	1,697,315	290,844
Total	1,585,953	1,573,309	1,642,836	1,774,898	2,084,929	2,084,929	310,031
Cumulative loan disbursement (USD in million)	11,643.7	12,803.0	14,102.4	15,245.7	14,508.6	14,508.6	(737.1)
Cumulative Recovery (USD in million)	10,104.9	11,270.7	12,446.6	13,336.8	12,490.8	12,490.8	(846)
Outstanding with borrowers (USD in mil- lion)	1,538.8	1,532.2	1,655.8	1,909.0	2,017.8	2,017.8	108.8
Average loan size in USD	1,501.0	1,632.7	1,809.8	1,835.8	1,862.7	1,862.7	26.9
Cumulative Recovery Rate (CRR) %		98.36%	98.54%	98.58	98.88%	98.88%	0.3%

Table 10: Information on microenterprise program financial services¹ at a glance

^{*}There are two projects at PKSF under IFAD funding. The loan disbursement using the IFAD fund during the reporting period (January to May 2022) was booked under the PACE project. So that portion was not included in this report.

Subcomponent 2.2: Commercial finance through Large MFI

The interest rate on large ME loans from MFIs (the current rate is 24% per annum) is considered high by the borrowers and other stakeholders. MEs employ salaried employees and compete with other formal businesses. It is challenging to remain profitable with such a high rate if a ME borrows a relatively large amount compared to the total investment. Moreover, due to higher loans' significantly lower supervision costs, interest rates should be lower than regular microcredit. Under the Microenterprise Development Project of PKSF, POs can charge the MEs a maximum of 18% annually. PKSF may consider a similar rate for other project funds. Commercial finance to comparatively large enterprises will be given through large MFIs. PKSF is now preparing the policy for providing this special financial service with a lower interest rate. These loans will promisingly be distributed to rural microentrepreneurs. These loans will mainly be provided to primary and secondary goods producers, contract farming, processing, agri-machineries, inputs providers, service providers, scale-up enterprises, etc. The strategic decision is being taken for this large financing.

¹ The data source is MIS of PKSF, where the data is updated up to Sep'22 at PKSF level and up to Mar'22 at PO level.

Component 3: Institutional Strengthening and Project Management

This component is designed to strengthen the capability of PKSF and POs as development institutions by leveraging emerging trends in financial services, e-commerce platforms, and new technologies.

Several technologies are considered, such as distributed digital ledger technology (blockchain), e-commerce platforms, crowdfunding (fraternity funding), and microenterprise ICT. The progress for each ICT-based solution is given below:

Sub-component 3.1. PKSF's institutional strengthening through ICT-based solutions

Crowdfunding platform: The PMU conducted background research and analysis on crowdfunding opportunities and the regulatory situation in the country. Based on the findings, the PMU has prepared and circulated the ToR to develop a grant-based crowdfunding platform. PKSF received thirteen (13) expressions of interest (EoIs) from different organizations. The Proposal Evaluation Committee (PEC) shortlisted five (05) firms after evaluating those 13 EoIs following the Fixed Budget Selection (FBS) method and invited them to submit the RFPs (technical and financial). Out of the five (05) firms, three (03) firms submitted their technical and financial proposals by 20 December, 2023. Technical proposal evaluation of 03 firms is in progress.

Accounting Software: In accordance with the Financing Agreement, Letter to the Borrower/Recipient, etc., PKSF needs to submit Financial Reports and Withdrawal Applications in prescribed formats regularly. As per requirement of IFAD, RMTP needs to produce software-based Withdrawal Applications and other reports and statements of the project. PKSF has taken the initiative to develop accounting software to produce Withdrawal Applications (WAs), Financial Statements, etc., in prescribed formats to meet the requirements of IFAD. In this regard, ToR was prepared and circulated to hire consulting firms to develop accounting software. Eight firms submitted their Eols for doing the assignment. Seven of the eight Eols were shortlisted by the Proposal Evaluation Committee (PEC) and invited to submit their technical and financial proposals to PKSF by 04 January 2023.

Blockchain technology: As per the recommendation of the 2022 supervision mission, the project organized orientation sessions on the fundamentals of blockchain technologies and applications worldwide, especially in the financial sector, and potential business cases in MFIs and ME/VCD sectors for PMU officials by two experts. After many deliberations and consultations with experts, the project has decided to pilot the application of blockchain technology in developing a product traceability platform for microentrepreneurs. PKSF has developed a term of reference (ToR) for this piloting. A blockchain expert is verifying the ToR. Using this final ToR, PKSF will go ahead with the procurement process.

Other Technologies: Besides the suggested MIS, managing each sub-project with appropriate technologies such as the Internet of Things (IoT), Artificial Intelligence (AI), and other monitoring software applications will be the key for RMTP. Under Component 1, for example, all livestock (e.g., cattle fattening, dairy farms) projects are to use a software to monitor individual cattle and connect vets, LSPs, input sellers, and buyers with farmers. The project has already introduced software in one livestock project in Sitakunda, Chattogram.

Moreover, this approach is expected to be applied to other sectors, such as aquaculture and highvalue horticulture, where technical assistance to farmers and producers is essential. Accordingly, an IT-based management system at the sub-project design stage, which seems feasible considering the rapid proliferation of smartphones among farmers/MEs/producers, is essential. Under Component 2, RMTP might consider a simple, smartphone-based accounting software for MEs, which can initially be introduced as a pilot to digitalize bookkeeping and support the automatic generation of quarterly/annual financial statements. In this regard, PKSF plans to conduct a pilot program to test the feasibility of such an application with available software in Bangladesh. It aims to formalize MEs and support the presentation of business information to financial institutions (MFIs/banks) – a road map for accessing finances.

Sub-component 3.2. PKSF Human Resources Development

The project organized several training including, i) GGAP and HACCP ToT conducted by SGS-Bangladesh to 40 staff from PKSF, POs, universities, and service providers, ii) an orientation session on blockchain technology (essential for Bangladesh) for 27 PKSF officials, iii) two PMU staff participated in the IFAD-organized COM/KM training, and iv) GYAP and Decent Work Place training by PMU to 40 staff of POs. In addition, the PMU organized a "Project Management and Design" training, and four staff from PKSF attended the training. One Value Chain Project Manager (Livestock) and the Procurement Specialist have received overseas professional courses for getting subject-related higher knowledge. The livestock sector specialist received face-to-face overseas training from Denmark. PMU has developed some documents as part of learning materials and got approval from PKSF. The documents are Nutrition Strategy, Communication and Knowledge Management Strategy, and Gender and Youth Action Plan. Moreover, an M&E framework has been developed and got approval from PKSF and IFAD. More information on the PMU can be found in section 3.4: Project Management.

Sub-component 3.3. PO Institutional Strengthening

A series of online training has been provided to the POs staff while developing the livestock subprojects, including livestock sub-sector analysis, market system value chain analysis, value chain development, business model canvas, and marketing plan. Two batches of virtual training on COM/KM were conducted with 50 staff from 18 POs. Topics covered KM, Communication Process, Product, Writing, Photography, Facebook (FB) page creation, and website development of POs. PMU trained 45 staff of POs on financial management. The M&E unit provided training to 300 staff of POs on the KoBo toolbox to collect participants' profile data. Physical training on gender and social inclusion was conducted by PMU, where 68 staff of 23 POs participated. A training on "Project Management and Design" was organized by the PMU, and 15 staff from POs attended the training. Continuous capacity-building activities are being implemented per the approved AWPB of the current financial year. Most importantly, the PMU regularly visited the field level and provided hands-on training to the POs staff.

3.2 Mainstreaming

Gender

The rural Microenterprise Transformation Project (RMTP) emphasizes the importance of gender equity and youth inclusion in the project implementation area to achieve the project goal. Therefore, the project has taken necessary action to implement gender & social inclusion by recruiting a "Gender & Social Inclusion Officer (GSIO)" to oversee, support, monitor, and implement these activities at RMTP, PKSF, and POs levels. In addition, one core indicator is included in the logical framework, which is women's participation in the project initiatives, and the target is 55.1% (245,000) of the total outreach.

Through value chain sub-projects like Poultry, Livestock, and Horticulture, related value chain sub-projects were highly encouraged and emphasized women and youth participation in income-generating activities. To strengthen this activity, RMTP, the PMU developed the "Gender & Youth Action Plan" (GYAP) with the concern of IFAD, and PKSF approved the GYAP. Moreover, the projects highly emphasized "Intra-Household Decision Making" for women and men at the household level. In addition, to the field execution of GYAP, the PMU of RMTP oriented all POs about it, in this regard in all types of training and technology transfer activities and operations mainly focused on women and youth participation. Its activities were reflected in the AWPB FY22-23. PMU also developed a flip chart and orientation guideline on intra-household decision-making at the household level to increase the awareness and sensitivity of project participants.

The project provided online orientation on GYAP to 68 officers of 23 POs. Till December 2022, the project targeted to support 283,663 (52.5% of the total target) women, where the project supported 204,830 (68.1% of the reached 300,558) through component 1 and 2. The project has prioritized women in its sequencing for training in GGAP/BGAP and HACCP. So far, women outnumber men in those trained, although the end target for women is 40%. Moreover, the project promotes and builds the capacity of farm mechanization among women, which comprises 43%. The project has almost reached its MTR target for FHHs. This number is likely even higher, given the tendency to say that the man is the HHH, and male outmigration leaves women alone for eight months of the year. In Component 2, women comprise 79% of those accessing credit, against an MTR target of 70%. Gender-transformative action on intra-household decision-making is to be rolled out at scale to ensure that women's participation in value chains and access to finance and nutrition is meaningful, i.e., that they are the main protagonists and have decision-making power in which activities to pursue and how profits are used. The progress report and MIS has good gender and youth-disaggregated data. Gender sensitization is rolled out in all training undertaken by the project. The project has expedited the recruitment of the Gender and Social Inclusion Officer (GSIO), and IFAD has provided NO. The project had also appointed a highly competent interim PMU member to oversee gender mainstreaming.

Youth

The VC sub-project design process emphasizes youth within the 18 to 35 age range as part of the youth definition of Bangladesh. Rural youth (both women and men) in Bangladesh today are generally better educated than previous generations. Thus, they are better positioned to adopt new technology, acquire management skills, manage larger enterprises, and cope with business risks. Building on this development, the project proactively seeks to encourage and include rural youth in its activities by (i) providing microenterprise loans based on specific business proposals to young people; (ii) offering customized business management training; (iii) developing youth as master GGAP trainers and/or local service providers (such as paravets, lead farmers, and technology promoters); and (iv) organize the youth to receive advanced technologies in production, basic processing, value addition, and land-based fish farming.

The project encourages youth participation, e.g., as para-vets and MEs, and has engaged a private sector ICT service provider to train youth on e-commence/internet marketing to enable them to become e-agents and engage in e-commerce. Moreover, RMTP has a clear youth strategy, with targets and youth-disaggregated data. Youth comprise almost 13.12% of the 540,808 beneficiaries already profiled, of which females are the majority. The logframe has data disaggregated by youth and sex, e.g., there is a target for young women to comprise 1,000 persons paid partially or fully for training or advisory services in selected value chains.

The detailed individual beneficiary profiles, the early rapid survey to ensure targeting is on track, and disaggregation by sex and age could be shared with other projects in Bangladesh and beyond.

Nutrition

The project has taken adequate measures, including recruiting a nutrition specialist to oversee, support, and implement nutrition activities at PKSF and POs levels. Moreover, two nutrition-sensitive core indicators are included in the logframe.

Most of the selected 61 sub-projects, approved by the project management, ensure the production and supply of nutritious and safe foods to the market. The project aims to promote changes in the dietary behavior of rural households and others through relevant campaigns to improve the nutrition of family members, especially women of reproductive age group. The campaigns are not limited to POs under RMTP but to all POs of PKSF involved in the microfinance program. Therefore, microfinance groups will also disseminate messages on nutrition issues. The PMU is producing campaign and training materials to be delivered to all POs for use during microfinance group meetings and other occasions, such as training courses for staff and group members.

All training courses to be organized by POs will cover the topics of nutrition, environment, and climate change. For this reason, the project will also work with the Microfinance Division (microfinance panel leaders in particular).

Moreover, the project has developed a nutrition strategy (in Bangla and English) and a nutrition action plan. As a next step, the project is mainstreaming the nutrition issues. As part of the nutrition mainstreaming initiative, the project has been developing the cinematoscriptive social behavior change and communication materials for ease and rapid raising of nutrition awareness. The script for 32 teasers has been finalized and approved by PKSF. The cinema script development is ongoing. The project provided nutrition training to 201,176 participants (Male – 66,499, Female – 134,677, and Young – 61,510).

Environment and Climate Change

PKSF has developed an Environmental Management Framework (EMF) under the Sustainable Enterprise Project (SEP) that should serve as an institutional guideline for all projects. This approach aims to strengthen institutional capacity and enable sustainability. Under RMTP's livestock sector, the project has developed a waste management manual and disseminated it to its POs to support microenterprises. Moreover, representatives from POs with value chain projects in the livestock sector have participated in an orientation session on implementing the guideline to support the adaptation of sustainable practices to reduce pollution and environmental degradation. A broadly applied method includes compost production. Under the project, a dewatering machine has been demonstrated at the field level. Commercializing quality compost and earthworm production are established as opportunities to manage waste on the one hand and generate an additional source of income on the other hand. In this regard, negotiations with a Dutch company to establish market linkages are ongoing. Further, the project incorporates composting as mandatory for the relevant value chain projects.

Additionally, linkages with technology providers have been established to set up demonstrations of biogas plants at the farm level to reduce greenhouse gas (GHG) emissions. Regarding food safety, the project has conducted GGAP and HACCP ToT on good livestock practices. Eventually, the master trainers started training the participants on GGAP and HACCP protocol.

The PMU has identified all environmental issues by Value Chain Managers and Specialists and implemented corrective measures in each sub-project. Examples of such interventions are bio-fertilizer production using poultry and dairy farm wastes and promoting IPM practices instead of chemical pesticides in horticulture production. Moreover, PKSF developed and introduced a simple checklist for value chain actors to guide environmental and social considerations in the design and implementation of sub-projects.

Besides, PKSF has established a Climate Change Unit that guides and informs the selection and prioritization of value chains adaptable to climate change and variability and favorable to the microclimate where the microenterprises are located. The selection and prioritization of crops are based on climate risk and vulnerability assessments undertaken by PKSF. Moreover, PKSF has expressed interest in accessing a grant fund to reduce the negative environmental impact on the project's success. So far, 35 vermicompost plants have been developed with minimum monthly production of 30 tons. Compost production at each plant is increasing daily, increasing local waste utilization and reducing the environmental pollution. Such initiatives will be increased to 185 by next year. Local communities in the concerned areas benefit from selling dung/poultry waste and reducing environmental pollution. In the areas where no plant is available, the household produces manure using the household's dung/poultry waste.

3.3 Financial Progress

As of Dec 2022, IFAD has disbursed EUR 60.859 million, or 84.7% of the total IFAD loan (including an outstanding advance to the Designated Account of EUR 37.251 million), EUR 2.485 million grant from DANIDA has been disbursed to the project designated account, and EUR 0.13 million has been disbursed from IFAD Grant. As of 31 Dec 2022, the project reported that EUR 46.873 million had been incurred, including EUR 14.556 million for Component 2 pre-financed by PKSF. Out of which another EUR 4.745 million has been paid to PKSF. Detailed expenditure by the financier is given in table – 3.

Financier	Appraisal (EUR '000)	Disbursements (EUR '000)	Disbursements (%)
IFAD loan	71 850	46 870	65.2%
IFAD grant	900	-	0%
Danish grant	6 690	1 653	24.7%
PKSF All	11 626	9 298	80%
Private Sector, Large MFIs & Beneficiary	13 921	239	2%
POs	73 727	88,058	119%
Total	178 714	146 118	82%

Table 11: Disbursement by Financier

The audit process for the project financial statement for the fiscal period ending 30 June 2022 has been completed, and the signed audited report has been submitted to IFAD in time by 31 December 2022.

Counterpart financing equivalent to EUR 97.597 million, mainly from POs, has been contributed to the project as of 31 Dec 2022. The actual disbursement as of 31 Dec 2022 for PKSF counterpart funds was EUR 9.298 million, or 80% of the total EUR 11.625 million commitment. POs have contributed EUR 88.06 million. Other counterpart financings, such as the private sector, MFIs, and beneficiaries, contributed EUR 0.239 million.

3.4 Project Management

PKSF has duly formed the RMTP PMU and deputed Dr. Akond Md. Rafiqul Islam, Senior General Manager, as Project Coordinator. The PMU consists of 24 staff members, of whom five are from PKSFs' mainstreaming staff members, and 19 have been recruited through a competitive process. Regarding planning, the PMU prepared the AWBP FY22-23 and the Procurement Plan FY22-23 and got approval from IFAD. Furthermore, during this reporting period, the Project Coordinator (PC) and concerned PMU staff visited different VC sub-projects at the field level.



Figure 11: PC was visiting fodder cultivation demonstration at Bakerganj, Barishal

The PC of RMTP visited Grameen Jano Unnayan Sangstha (GJUS) in Barishal District during 25-28 May 2022. During their visit, they visited the high-value fodder cultivation points. They discussed with the civil society members and Upazila Livestock Officer on production, use of technologies, market expansion process, etc. In addition, PC emphasized safe and nutritious foods for the cattle.

During his visit, he also added that the name and mobile number of the concerned officials of the Upazila Livestock Office should be available to the beneficiaries so that the beneficiaries can contact them. The information about newly established fodder markets should be circulated to the farmers so that the farmers can collect the fodder from the market easily. He and seven PMU staff visited Shariatpur, Faridpur, and Barisal districts from 26-30 September 2022. During this visit, the team visited safe vegetable production, high-value edible mastered oil, safe



Figure 12: PC is visiting vegetable cultivation in North Channel Island at Faridpur

fish production, poultry, etc., in different POs like SDS, SDC, BDS, and GJUS. He met with the farmers, input service providers, fish dealers, government officials, and the management of POs. He found the feasibility of taking the VC sub-project in those areas. He attended the workshop on "Progress and next year planning," He emphasized fish culture in the Gopalganj area and tried to expand the local varieties production.

During the reporting period, the PMU conducted two Project Coordination Committee (PCC) meetings and two Monthly Coordination (MC) meetings and attended four Project Steering Committee (PSC) meetings, one IFAD regional meeting, and three Community of Practice (CoP) meetings. Besides this, the PMU regularly met for better coordination and cooperation among different sectors and cross-cutting units. The RMTP has also successfully faced two IFAD missions (an Implementation Support Mission (ISM) and a Supervision Mission (SM)). The SM showed their satisfaction with the project implementation and documentation and rated "Satisfaction" (Rating – 5) on the project performance.



Figure 13: SM is interviewing commercial silage producer Mr. Rubel (25) under NDP, and BSTI certified "Shoshurbari Mistanno Vandar at Sirajganj

3.5 Procurement

The project follows effective governance and internal control mechanisms of PKSF for procurement and contract management. Since July 2018, PKSF has been conducting all procurement activities by preparing procurement guidelines per the Government of Bangladesh's Public Procurement Rules (PPR) 2008. The procurement activities of this project have been carried out by IFAD's Procurement Guidelines and Procurement Handbook and PPR 2008 of the Government of Bangladesh. A simple procurement manual has been prepared for implementing the procurement of POs. PMU of RMTP will assist POs in upgrading the procurement activities and processes as required.

In this reporting period, the project has submitted the Annual Procurement Plan for FY 2022-23 to IFAD through the proper channel and obtained No Objection from IFAD. PMU updated the contract register in the IFAD Client Portal (ICP) platform quarterly, following IFAD instructions.

PKSF completed the recruitment of a Deputy Project Coordinator (Financial Services), Procurement Specialist, and Gender and Social Inclusion Officer. The consulting firm hiring process for the baseline study was completed. The procurement process of laptops, printers, and photocopy machines was completed. The other goods procurement is working in progress.

3.6 Monitoring and Evaluation

With the recruitment of the M&E Specialist and M&E Officer positions, the project has advanced well in preparing the M&E framework by developing KoBo apps for collecting project participants' profile data, constructing project MIS for smooth record keeping and reporting, finalizing third-party vendor for conducting the baseline study.

The offsite monitoring for Component 2 is integrated into the PKSF/PO's central MIS systems because the loan operation is part of PKSF's core business. POs collect information under Component 1 in a prescribed format designed by the RMTP PMU. The data is monitored and validated by the value chain project managers and sent to the M&E specialist for preparing quarterly, bi-annual, and annual progress reports. The M&E framework is developed, including a detailed M&E action plan. The M&E framework and action plan are approved by IFAD and PKSF Management and shared the final version with IFAD. The M&E unit has also developed the necessary tools according to the indicators.

In the future, the M&E system will proactively capture emerging real-time results, automated reporting, and online dynamic dashboard visualization (particularly by adopting a Real-Time Monitoring and Evaluation (R-TiME) system focusing on achieving clearly defined and verifiable results of the project. In this regard, the M&E unit developed the draft ToR for the "Real Time Monitoring and Evaluation (R-TiME) system development that includes real-time M&E and program data, including a feedback system from the project participants. The draft ToR is shared with the management and other similar systems of PKSF. The PKSF management suggested collaborating with the developing RBM system under Sustainable Enterprise Project (SEP) funded by World Bank. The RBM system of SEP is still under development. RMTP will check the effectiveness of that system and then will comply with that system if required. The M&E activities have been appropriately included in the RMTP AWPB. Moreover, RMTP M&E Unit has attended an IFAD online training on the mandatory core indicator guidelines and other IFAD compliances. However, challenges such as disaggregated data collection, including baseline, M&E unit inhouse, and POs data collection, must be addressed by more vital collaboration between the PMU and the M&E unit. The project developed a format and then converted that format into a realtime data collection application, including GPS coordinates using the KoBo collect platform, an open data collection platform, and capturing beneficiary profiles. The M&E team has also trained around 311 staff of 45 POs on this data collection tool. As of December 2022, around 314,378 participants' profiles have been collected, where around 155,305 profile data have been punched through KoBo. The M&E unit analyzes the data, provides feedback to the VC Project Managers, and continuously updates it with new participant profiles.



Figure 14: Locations of demonstrations

Moreover, the project is yet to complete the baseline survey. PKSF planned to sign a contract on 09 January 2023 with Development Technical Consultants Pvt. Ltd. (DTCL) for conducting the RMTP baseline study. The PMU already communicated with DTCL to advance preparatory work for the baseline study. According to ToR, the consulting firm will get 120 days after signing the contract to complete the study. Hopefully, the baseline study will be completed by the second week of May 2023.

Regarding reporting, the RMTP M&E unit has produced the required M&E documents/reports, including regular progress reports, AWPBs, and logframe updates. Moreover, periodic update meetings are being held with IFAD to report on the progress made. In addition, Bi-annual Project Coordination Committee (PCC) and Project Steering Committee (PSC) meetings are being held with ERD, PKSF, IFAD, DANIDA, and MoEWOE. The PCC meetings, PSC meetings, and the mission conduction information are as follows:

SL	Item Detail	Date/Duration	Remarks
1.	1 st PCC Meeting	09 November 2021	Done
2.	2 nd PCC Meeting	05 April 2022	Done
3.	3 rd PCC Meeting	25 August 2022	Done
4.	1 st PSC Meeting	28 September 2021	Done
5.	2 nd PSC Meeting	08 February 2022	Done
6.	3 rd PSC Meeting	02 June 2022	Done
7.	4 th PSC Meeting	25 September 2022	Done
8.	5 th PSC Meeting	04 December 2022	Done
9.	1 st Supervision Mission	16 to 29 November 2020	Done
10.	1 st Technical Support Mission	01 to 18 April 2021	Done
11.	2 nd Supervision Mission	04 to 15 December 2021	Done
12.	2 nd Implementation Support Mission	29 May to 07 June 2022 ²	Done
13.	3 rd Supervision Mission	30 October to 21 November 2022	Done
14.	3 rd Implementation Support Mission	08 to 17 May 2023	Planned

Table 12: Meeting and Mission Tracker

 $^{^{\}rm 2}$ 21 May to 7 June 2022 for both PACE and RMTP projects

3.7 Communication and Knowledge Management

With the support of the PMU, the Knowledge Management and Communication Specialist has finalized a Knowledge Management & Communication (KMC) strategy and action plan. The plan includes information on activities, products, timing, and budget for capturing, documenting, and disseminating knowledge accrued through project implementation. Furthermore, the project has started producing respective COM/KM products, including video documentaries and print and electronic media presentations on the tulip story, using the plan as a reference. Additionally, the project has started sharing its success and activities through various dissemination channels.

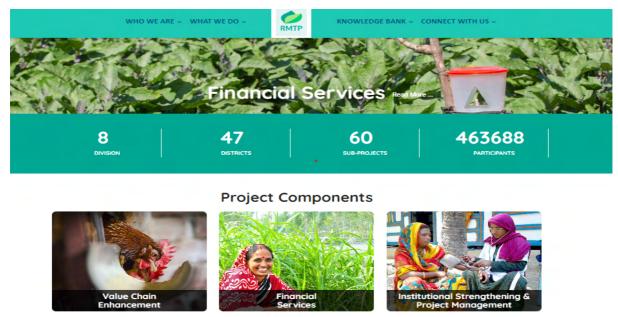


Figure 15: RMTP website view

In consultation with the PMU, the POs are publicizing news of project events and activities in local/national newspapers and electronic media. To date, the project has published 65 news products in international/national/local daily newspapers and TV channels on various activities of component 1. The project has also established a website (<u>https://rmtp.pksf.org.bd/</u>), Facebook page, YouTube channel, and WhatsApp group. Furthermore, the project has successfully shared its success stories on the IFAD Asia page, PKSF Facebook Page, PKSF website, and PKSF regular newsletter.

The project has prepared four video training modules (<u>https://youtu.be/kZBnBujZxwA</u>, <u>https://youtu.be/ IKaezOKdSA</u>, and <u>https://youtu.be/X9Q338uTw4o</u>) on environment, nutrition, and social issues, as well as training modules on livestock, horticulture, and ecological farming. In addition, the project has drafted dynamic case studies on silage production, vaccination campaigns, commercial tulip cultivation, and commercial vermicompost production (see *Annex 1*). The project also shared and published the case studies on PKSF and RMTP websites.

4 Challenges/Risks

The Covid-19 pandemic has seriously impacted the project's ability to implement its activities, particularly under Component 1. With the normalization of the situation, efforts are now focused on expediting the implementation of the selected 61 VC sub-projects and the development of additional sub-projects.

Moreover, although PKSF and POs are well advanced in implementing diversified development projects, emphasis is needed to incorporate IT-based solutions to implement the project activities efficiently. This requires, on the one hand, the enhancement of the capacities of PKSF and POs in using information technologies, including blockchain, e-commerce, and crowd-funding. On the other hand, the project needs to find an appropriate IT expert/consultant to support implementing IT-related activities. Considering this challenge, now the POs are using their own ICT platform/system separately. The PMU provides technical support to the POs to align the existing ICT system. Moreover, the PMU is advancing the procurement of ICT-based solutions to implement project activities efficiently.

Another challenge identified entails the limited availability of renowned registered GGAP trainers that provide GAP and HACCP training to the registered private veterinarian and/or veterinary practitioner. The PMU addressed this challenge by communicating with a registered national trainer and suggested conducting training by incorporating a registered global trainer. Finally, the firm, Bio-Tech (Mushroom), organized two batches of ToT on this issue facilitated by the local trainer Mr. Md. Arif Mahmud (Ph.D.), along with the global trainer, Ms. Basetsana Thabane, Lesotho. All the training participants were selected from the project.

A comprehensive overview of the project's risk assessment is provided in Annex 8.

5 Lessons Learned

The countrywide network of POs is a significant strength for project implementation. PKSF and its POs have long experience implementing microfinance and other development programs. 45 POs are successfully implementing value chain sub-projects under RMTP. PKSF and POs are well-equipped with trained and experienced staff.

The development of appropriate software or an online application using the open-source KoBo platform aims to facilitate data collection and make it faster and more cost-effective.

At the same time, e-commerce has been identified as an effective platform for marketing ME products and keeping value chains operational.

Moreover, there are significant opportunities to expand microenterprise activities. Currently, the ME program of PKSF is growing at 54% per year in terms of loan outstanding and borrowers' coverage. PKSF identified a large number of potential business clusters under three major agriculture sectors. Intervening in the value chains of these business clusters will significantly support the expansion of these clusters.

Annex – 1: Case Stories

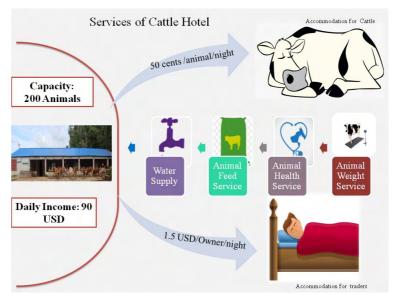
Case – 1: Cattle hotel in Sirajganj makes a mark

There are 148 livestock markets across the country. These markets (locally called haat) sit twice weekly for trading but remain open almost daily as traders turn up with their unsold cattle. These cattle are kept in temporary sheds near the markets or tied up under the open sky. The traders stay around them or in nearby houses for one or two days due to the unavailability of hotels in those areas.

An innovative initiative by Master Shahidul Islam of Kamarkhand upazila of Sirajganj district is changing all this. Shahidul has been dealing with cattle for 20 years. He buys cattle from different parts of the country and supplies them to other areas, mainly Sylhet and Chittagong. At one point, he discovered that traders faced a number of challenges when they brought in their cattle to markets, as there was barely any room for safekeeping the cattle and stocking their feed.



This prompted Shahidul, a cattle trader from Sirajganj's Kamarkhand Upazila, to devise an innovative solution: safe accommodation for traders and cattle. He established the country's first 'Cattle Hotel' in his neighborhood in 2020. Initially, the initiative did not gain much traction as the hotel lacked some basic amenities. But things started to turn around when PKSF stepped in. The hotel was refurbished with financial and technical support from Rural Microenterprise Transformation Project, a project jointly funded by PKSF and International Fund for Agricultural Development. The re-



furbishment included treatment facilities for animals, installation of weight machines, improved drainage systems, lighting and ventilation management, and heat reduction management. PKSF's partner organization National Development Program-NDP is implementing the project in Kamarkhand. At present, cattle and traders are getting various services under the same roof.

Now the hotel, located adjacent to the Baradhul haat in Baradhul village of Kamarkhand upazila, accommodates ten traders and 150 cattle daily. A trader has to pay BDT 150 for himself and BDT 50 for each cattle for a night's stay.

While this 'cattle hotel' has solved the area's age-old problem of accommodation of livestock animals and traders, it has also enhanced Shahidul's income. On an average day, he earns about BDT 9,000 from the hotel. Shahidul is currently looking for more land to expand his business. Meanwhile, having seen its

potential for fast growth, a number of locals have already replicated his model and set up their own 'cattle hotel.'

Rural Micro Enterprise Transformation Project (RMTP) is working to extend the financial services of microenterprises as well as to improve the income, food security, and nutrition status of small and marginal farmers, entrepreneurs, and other market actors involved in the value chains of selected high-value agricultural products. In addition, the project is implementing value chain development activities across the country to expand the markets for comparative advantage, market demand, and growth of agro-based products.

Case – 2: Garol Sheep Farming: A Resurgence in Rural Livestock Sector

Ashraf Ali of Kalitala, Sariakandi Upazila, Bogra, retired from his construction company job at 60. After retirement, he tried his hand at numerous businesses but eventually lost his capital. He was left disheartened, but with the help of his son, he came across a lucrative possibility of raising Garol Sheep on YouTube. The prospect of a career in Garol farming soon reinvigorated him.

He stated, "I began my farm a year ago with 25 Garols; 8 months later, the number of Garols had increased.

Unfortunately, I lacked the knowledge of proper management and disease prevention, leading to continual setbacks."

He identified himself as an entrepreneur within the Value Chain Development sub-project under the RMTP project. PKSF implements this IFAD-funded project through its partner organization, Gram Unnayan Karma (GUK). Through this project, he began modernizing his Garol farming, and, with proper farm management and support from the service providers, he was able to increase the number of Garols on his farm.



At present, a total of 92 Garols and three employees are employed on his farm. He stated, "There is a huge demand for Garol meat in the market due to its delicious taste. Currently, Garol meat is selling at BDT 900 per kilogram. This has caused a surge of interest in Garol farming from prospective buyers." To inspire others to pursue Garol farming, he participated in the Livestock Exhibition-2022 organized by the District Livestock Office in Bogra's Sariakandi Upazila. As a result, his Garols became the fair's main attraction, and he was awarded first place.

Ashraf Ali commented, "Female Garol start giving birth when they are six months old. After that, they eat most foods in line with other goats and sheep." After deducting his monthly expenses for running the farm, he can earn an estimated 25000 BDT.

Numerous people have been eager to witness his Garol farm and have since set up their own in the vicinity. Mia, a student from Dhap village in Sariakandi Upazila, remarked, "I am rearing Garols at my home in addition to my studies. This has allowed me to provide additional income for my family and fund my education."

Ashraf Ali plans to expand his Garol farm in the future to meet the needs of interested Garol farmers. Osman Gani, a field worker at the Sariakandi Livestock Office, noted an immense potential for raising Garols in Sariakandi; with the proper support, rearing of Garols could become increasingly widespread. Through this project, 70 Garol demonstration farms have already been established by seven Partner Organizations (POs) across the nation, and, owing to its success, 70 more farmers have started Garol farming.

Case – 3: Technology empowers women in Bangladesh

In the northernmost part of Bangladesh, on the foothills of the Himalayas, a group of women in brightlycolored headscarves walk along rows of equally vibrant tulips.

Supported by IFAD's Rural Microenterprise Transformation Project and co-financed by DANIDA, and PKSF, these women are part of a group of farmers provided with tulip bulbs and training on how to grow

the flowers and then market them online. After grading, cutting, and packaging the flowers, they are sent to Dhaka for sale. In less than a year, the farmers have made nearly 1 million BDT (just over US\$ 9,000).

As the tulips bloomed, so did the local economy. Having spotted the tulip fields on social media, tourists began flocking to the picturesque place, generating business for local restaurants and accommodations.

Within a few months, tourist numbers grew from 50 to 600 daily. One of these is Awal Hossain, a tourist from Rangpur. "I heard about the tulip garden through social media and several news sources and came to see it with my family and friends. It is outstanding."

Both the entrance fee to the tulip garden and flower orders can be paid using mobile money transfer and mobile banking, with many customers placing orders on WhatsApp and Messenger.

As her phone pings with a new order, flower grower Shumi Akter tells us how "the marketing and cashless money transfer system have boosted our confidence."

But today's success did not come easy—it required sacrifice and determination. "Many of our neighbors criticized us for cultivating tulips," says flower farmer Sajeda Begum. Nevertheless, women's success is shifting attitudes around gender norms and inspiring others to invest in this profitable venture. "Now, they are asking us for advice on growing tulips."

https://www.ifad.org/en/web/latest/-/from-tulips-to-tomatoes-technology-empowers-women-inasia?p_l_back_url=%2Fen%2Fweb%2Flatest%2Fstories_

Case – 4: Technology changed a life

Recollections of childhood fun keep the smile of a 50-year-old marginal farmer Mithun from Arjinaogaon Dakkin Para of Naogaon Sadar Upazila, alive.

It is admirable that Mithun did not give up despite the age and difficulties he faced. It is inspiring to see that he found joy in each task he did and that he never complained about his situation but worked hard for a brighter future. Mithun and his wife worked together to cultivate grass in a small area and raise goats. Their son was also instrumental in helping them to achieve their goals.



He has been selected as a participant in the RMTP project of PKSF, implemented by Dabi Moulik Unnayan Sangstha, with support from IFAD. In addition, he has gained valuable knowledge in high-value fodder cultivation and marketing through the "Market Expansion of Safe Meat and Dairy Products" value chain sub-project.

With the help of the project, Mithun took all the necessary recommendations and leased 100 decimals of land. He then initiated his production process by cutting his own grass and purchasing the remaining fertilizer. After a month and a half of planting grass, he began selling it at various farms in the nearby area. Additionally, he bought two auto-charger vans due to the high demand and profitability of the grass business. Furthermore, Mithun connected with the meat and dairy farmers of the Naogaon and Bogura districts.

Besides this, Mithun now earns 3600 BDT daily from selling fodder cultivated on the 100 decimals of land he leased. To transport the grass, he has purchased two electric tricycles to accommodate the needs of the 60 dairy farmers. Now, Mithun is well-known as a fodder cultivator in his locality. Like him, 209 other project participants have already started their fodder businesses with the technical and technological support of the RMTP project.

Case – 5: Success in commercial production of silage

Md Rubel Hossain is a 25-year-old youth of Betua village at Ullapara upazila in Sirajganj district. Born and raised in a family ruled by, above anything else, excruciating poverty, Rubel could not afford to continue

his studies after the Higher Secondary School Certificate (HSC) examinations. Now driven by a dire need to support his family, he was feeling even worse as he could not find a sustainable source of income.

Rubel, already having access to the internet, would watch videos on Facebook and YouTube on various micro and small enterprises. These videos inspired him to pursue an agricultural initiative, but he would not see success. Rubel underwent training in fodder crop cultivation through the Rural Microenterprise Transformation Project (RMTP), which is implemented by the National Development Program (NDP) - a local Partner Organization of PKSF, in collaboration with the International Fund for Agricultural Development (IFAD).



He learned about modern ways of producing and marketing silage (green fodder compacted and stored in airtight conditions). "After the training, I cultivated five types of grass on two acres of land. Also, I received a grant of BDT 15,000 from the project. I used the money to buy a vacuum machine and started producing silage," said Rubel, adding that his business was immediately off to a promising start.

Subsequently, Rubel obtained a trade license to start a company called 'RP Agro Silage.' He also opened a Facebook page to promote his product, resulting in a tremendously well response from buyers, even from distant places like Pabna, Barisal, and Dhaka. Currently, he produces and sells over 15 tons of silage per month to earn a net profit of around BDT 100000. Now, Rubel is training local farmers on growing fodder in fallow land.

Following Rubel's success, the Sirajganj district Livestock Officer visited the fodder cultivation plot and silage plant, which was then subsequently visited by farmers from other areas to learn about silage production.

Rubel expressed his ambition to expand the business, including establishing a contract farming system with fodder farmers to supply fodder to his silage plant, testing silage quality at a government lab, and obtaining BSTI certification from the Bangladesh government, as well as printing sacks bearing his company's brand name, trademark, and details.

Case – 6: Reshma's journey towards prosperity

'Everyone knows the name 'Reshma.' No need to mention the name of the father or husband. In my area, where is Reshma's house or who is making Vermi Compost Fertilizer, everyone shows my house.' This is how Suraiya Farhana Reshma of Shahajanpur in Bogra was speaking. She is a woman entrepreneur.

Reshma contracted marriage at 14 while she was in grade eight. Regrettably, she encountered numerous ironies even after entering into wedlock. Her husband was addicted to drugs and gambling. Having endured this situation for four years, she returned to her mother. The inquiries of the public regarding her father and spouse had a significant impact on her life. She stated, "In this society, apart from the identity of one's father or husband, girls are not given any other recognition. I can establish my unique identity through my determination."

She commenced agricultural ventures on the land inherited from her mother and



grandmother. Following completing her training in 2014, she took a loan from the Department of Youth Development. Subsequently, she started working with earthworm manure. Over time, the scope of the initiative experienced a gradual expansion. Reshma stated, "I used to work messily and had difficulty keeping track of my work. However, the officials from the Youth Development and Gono Unnoyan Karma NGO provided me guidance on bookkeeping."

Currently, there exist 200 earthworm fertilizer rings on her farm. Furthermore, she is producing earthworm fertilizer in 200 fruit carets. In addition, 65 rectangular pits produce manure via the bed or pit method. She has been awarded a grant from the RMTP project, which PKSF and IFAD fund through the partner organization GUK. With the donated fund, she has initiated the production of Trico compost. Also, she has purchased an Earthworm-Vermicompost rolling separator machine.

Currently, she is producing approximately 30 tons of vermicompost every month. The vermicompost is sold at a wholesale price of Tk 10 per kilogram from her residence and at Tk 15 per kilogram online. Reshma's farm comprises 25 cows, out of which six cows produce 35 kilograms of milk per day. The milk is sold at a rate of Tk 50 per kilogram. In addition to the cows, Reshma also has 15 goats, 120 ducks, more than 200 native chickens, and various other animals, such as pigeons and fish in the pond. Safe vegetables are also grown on her land, along with paddy cultivation. The total land area, including the house, is two acres. Reshma's Facebook page, named Reshma Krishi Uddog, is also in operation.



Excluding all costs associated with Reshma's farm, her annual net profit amounts to Tk 40 lakhs. Reshma currently possesses capital amounting to one crore two lakh taka. Her farm project has also employed a total of 16 women. Additionally, after observing Reshma's successful work, 20 individuals have become self-employed. Furthermore, in recognition of Reshma's outstanding work, she has been awarded the 'National Youth Award-2022' by the Department of Youth Development, Ministry of Youth and Sports.

The people of the village now recognize that Reshma has accomplished what many males were unable to achieve. Her notable achievements have set her apart and made her a remarkable role model for others to follow. Reshma's aspirations go beyond her current accomplishments, and she envisions a future where she can create a platform for other women to become successful entrepreneurs like herself.

Annex – 2: Location and PO-wise outreach target distribution

Table 13: Location and PO-wise target distribution of Livestock sector

SI. No.	POs Name	Sub project Location	Tentative Proj	ect Participants	Budget (BDT	Major activities
51. NO.	POSINAIIIe	Sub-project Location	Male	Female	million)	iviajor activities
Meat an	d Dairy (Market sys	tem development of safe	e meat and dairy p	products)		
						 Training on livestock rearing technology and management.
						 Develop efficient local livestock service providers (LSP) through training.
						 Arrange vaccination and de-worming camp.
	Dabi Moulik Un-					Develop local meat and milk market.
1.	nayan Sangstha	Naogaon, Bogura	3,865	21,135	62.5	 Development and Exhibition on the effectiveness of feeding succulent raw grass and silage to cows.
	nayan sangstina	DoBara				 Training of Sub-Dealers on Supply Chain Strengthening of Ready Meat and Cuff Starter
						Establish linkages of targeted beneficiaries input suppliers, market stakeholders and other related service pro-
						vider.
					Meat and Milk Processing Plant development.	
						 Training on livestock rearing technology and management.
		Thakurgaon				Develop efficient local LSP through training.
						Cool chain development through LSP.
	ESDO			23,130		 Arrange vaccination and de-worming camp.
						Develop local meat and milk market.
2.			1,870		60.0	 Exhibition on the effectiveness of feeding succulent raw grass and silage to cows.
						 Training of Sub-Dealers on Supply Chain Strengthening of Ready Meat and Cuff Starter
						Establish linkages of targeted beneficiaries input suppliers, market stakeholders and other related service pro-
						vider.
						 Meat and Milk Processing Plant development.
						 Development of buffalo, cow, goat, sheep, and garol collection points.
						 Training on livestock rearing technology and management.
						Develop efficient local LSP through training.
						 Arrange vaccination and de-worming camp.
						Develop local meat and milk market.
3.	FDA	Bhola	4,993	20,007	60.0	 Exhibition on the effectiveness of feeding succulent raw grass and silage to cows.
						 Training of Sub-Dealers on Supply Chain Strengthening of Ready Meat and Cuff Starter
						Establish linkages of targeted beneficiaries input suppliers, market stakeholders and other related service pro-
						vider.
						Meat and milk processing plant development.
4.	GJUS	Bhola,	16,992	8,008	62.5	 Training on livestock rearing technology and management.
т.	5.55	Patuakhali, Barisal	10,552	5,008	02.5	Develop efficient local LSP through training.

SI. No.	POs Name	Sub-project Location	Tentative Proje	ect Participants	Budget (BDT	Major activities
5111101	- oo nume		Male	Female	million)	
						 Arrange vaccination and de-worming camp.
						 Develop local meat and milk market.
						 Exhibition on the effectiveness of feeding succulent raw grass and silage to cows.
						 Training of Sub-Dealers on Supply Chain Strengthening of Ready Meat and Cuff Starter
						 Establish linkages of targeted beneficiaries input suppliers, market stakeholders and other related service pro- vider.
						Meat and Milk Processing Plant development.
						National level workshop on development of char land use policy for buffalo breeders.
						Training on livestock rearing technology and management.
						 Develop efficient local livestock service providers (LSP) through training.
						 Arrange vaccination and de-worming camp.
						Develop local meat and milk market.
						 Exhibition on the effectiveness of feeding succulent raw grass and silage to cows.
5.	GUK	Bogura	10,660	14,340	62.5	Training of Sub-Dealers on Supply Chain Strengthening of Ready Meat and Cuff Starter
						• Establish linkages of targeted beneficiaries input suppliers, market stakeholders and other related service pro-
						vider.
						Meat and Milk Processing Plant development.
						National Level Workshop on 'Introduction of Meat Breeding Varieties in Bangladesh, Stopping Meat Imports,
						Opening Bangla GAP and Obtaining OIE Certificate'.
						 Training on livestock rearing technology and management.
			ganj, Pabna 6,590	18,410	62.5	 Develop efficient local livestock service providers (LSP) through training.
						 Arrange vaccination and de-worming camp.
						Develop local meat and milk market.
6.	NDP	Sirajganj, Pabna				 Exhibition on the effectiveness of feeding succulent raw grass and silage to cows.
						 Training of Sub-Dealers on Supply Chain Strengthening of Ready Meat and Cuff Starter
						Establish linkages of targeted beneficiaries input suppliers, market stakeholders and other related service pro-
						vider.
						Meat and Milk Processing Plant development.
						 Training on livestock rearing technology and management.
						 Develop efficient local livestock service providers (LSP) through training.
						 Arrange vaccination and de-worming camp.
	Wave Founda-	Meherpur;				Develop local meat and milk market.
7.	Wave Founda- tion	Chuadanga, Jhenai-	981	25,499	60.0	• Exhibition on the effectiveness of feeding succulent raw grass and silage to cows.
		dah				 Training of Sub-Dealers on Supply Chain Strengthening of Ready Meat and Cuff Starter
						Establish linkages of targeted beneficiaries input suppliers, market stakeholders and other related service pro-
						vider.
						Meat and Milk Processing Plant development.

SI. No.	POs Name	Sub-project Location	Tentative Proje	ect Participants	Budget (BDT	Major activities				
51. 100.	1 OS Nume	Sub project Location	Male	Female	million)	major activities				
						 Training on livestock rearing technology and management. 				
						 Develop efficient local livestock service providers (LSP) through training. 				
						Arrange vaccination and de-worming camp.				
						Develop local meat and milk market.				
8.	YPSA	Chattogram	5,059	19,941	60.0	 Exhibition on the effectiveness of feeding succulent raw grass and silage to cows. 				
						Training of Sub-Dealers on Supply Chain Strengthening of Ready Meat and Cuff Starter				
						• Establish linkages of targeted beneficiaries input suppliers, market stakeholders and other related service pro-				
						vider.				
						Meat and Milk Processing Plant development.				
	Sub-To	tal	51,010	150,470	490.0					
Poultry					•					
9.	COAST	Cox's Bazar	1500	8500		Issue based meeting				
10.	DSK	Netrokona, Sunam-	1500	8500		Staff skill development training				
11	GHASFUL	ganj	1500	8500		Global GAP's Master Trainer Development				
11. 12.	GUK	Naogaon Bogura	3000	17000		Training on Global GAP				
13.	JAKAS	Joypurhat	1500	8500		 Delivery of day-old purebred golden chicks among farmers: Demonstration 				
		Rangpur, Gaibandha,				Hands-on training in livestock service provider development				
14.	RDRS	Kurigram	1500	8500		Development of Vaccine Clinics/Hubs: Donation for purchase of refrigerators				
15.	SDC	Faridpur	1500	8500		Day-old chicks of fast-growing breed of native chicken				
						Vaccination and deworming campaign				
						 Boosting awareness video documentaries online to reach/outreach among farmers 				
						Grant for establishment of Peltree Diagnostic Lab				
						Subsidy on diagnosis/testing to farmers				
						Dealer Point Development by Private Vet Practitioners: Demonstration				
						Grants for introduction of ICT services in farms				
16.	SDS	Shariatpur, Mada-	1500	8500		Training of farmers on Global Gap				
10.	303	ripur	1500	8500		 Joint seminar with pharmaceutical and vaccine companies on improving farm biosecurity 				
						Grants for setting up meat processing plants				
						• Egg-Shop (Whole sales and Retail) development and market linkage at Union/Municipal level (design wise, shop				
						renovation, logistics, f-commerce development, advertising and boosting grants)				
						Small Scale Egg Washing Hub Development				
						Development of contract farming				
						Development of organic fertilizer manufacturing plant				
	Sub-To	tal	13500	76500	144.5					
	Sub-Sector	r Total	64,510	226,970	634.5					
L	544 5566		0.,020	,						

No.PUS NameLocationMaleFemalemillionMajor activitiesHigh Value Fruits1.OPCAChattogram, Khagra- chari3,3711,62924.16• Training on high value fruit and crop cultivation at entrepreneurial level • provide training GGAP among Master Training and Parmers2.YAPSAChattogram, Khagra- chari3,3711,62924.66• Training and Parmers3.110FRangamati, Bandarban4,6201,38030.66• Organize meeting on Production, sales and planning (PSP)4.DABNaggaon3,3711,62924.66• Organize meeting on Production, sales and planning (PSP)5.Pidim Founda- tionSherpur3,3711,62924.66• Organize meeting on Production, sales and planning (PSP)6.UddiponRajshahi, Natore3,3711,62924.66• Organize meeting on Production, sales and planning (PSP)7.ESDOPanchgarh3,3711,62924.169.Asshore, Jhenaidah3,3711,62924.169.SSSMymensingh, Tangal4,36563526.1611.TMSSBegura8,3001,50027.9512.SDCFardigur, Rajbari8,5001,50027.9513.GBKDinajpur8,5001,50027.6514.JAKOS Founda- totalJoygurhat8,5001,50027.6515.ESDOThaturgaon8,5001,50027.6516.FDA <th>SI.</th> <th></th> <th>Sub-project</th> <th>Project Pa</th> <th>rticipants</th> <th>Budget (BDT</th> <th></th>	SI.		Sub-project	Project Pa	rticipants	Budget (BDT	
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3. IDF Rangamati, Bandarban 4,620 1,380 30.66 4. DABI Naogaon 3,371 1,629 24.66 5. Pidim Founda- tion Sierpur 3,371 1,629 24.66 6. Uddipon Rajshah, Natore 3,371 1,629 24.66 8. SNF Jashore, Jhenaidah 3,371 1,629 24.66 9. SSS Mymensingh, Tangail 4,365 633 26.16 10. GBK Dinajpur 3,371 1,629 24.16 Value vegetables Time vegetables Ecology Farming Introduction Vegetable roduction 11. TMSS Bogura 8,500 1,500 24.35 13. GBK Dinajpur 8,500 1,500 24.35 13. GBK Dinajpur 8,500 1,500 24.35 14. JAKOS Founda- tion Mankganj 8,500 1,500 26.55 15. ESDO Thakurgaon 8,5					,		
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5. tion Sherpur 3,371 1,629 24.66 6. Uddipon Rajshahi, Natore 3,371 1,629 24.16 7. ESDO Panchgarh 3,371 1,629 24.16 9. SSS Mymensingh, Tangail 4,365 6.35 26.16 10. GBK Dinajpur 3,371 1,629 24.16 Sub total 3.371 1,629 24.16 Sub total 35,953 15,047 252.05 High value vegetables	4.		Naogaon	3,371	1,629	24.66	
7. ESDO Panchgarh 3,371 1,629 24.66 8. SNF Jashore, Jhenaidah 3,371 1,629 24.16 9. SSS Mymensingh, Tangail 4,365 635 26.16 10. GBK Dinajpur 3,371 1,629 24.16 10. GBK Dinajpur 3,371 1,629 24.16 Sub total 35,953 15,047 252.05 High value vegetables	5.		Sherpur	3,371	1,629	24.66	
8. SNF Jashore, Jhenaidah 3,371 1,629 24.16 9. SSS Mymensingh, Tangail 4,365 635 26.16 10. GBK Dinajpur 3,371 1,629 24.16 Sub total 3,371 1,629 24.16 Sub total 3,953 15,047 252.05 High value vegetables	6.	Uddipon	Rajshahi, Natore	3,371	1,629	24.16	
9. SSS Mymensingh, Tangail 4,365 635 26.16 10. GBK Dinajpur 3,371 1,629 24.16 Sub total 35,953 15,047 252.05 High value vegetables	7.	ESDO	Panchgarh	3,371	1,629	24.66	
10. GBK Dinajpur 3,371 1,629 24.16 Sub total 35,953 15,047 252.05 High value vegetables	8.	SNF	Jashore, Jhenaidah	3,371	1,629	24.16	
Sub total 35,953 15,047 252.05 High value vegetables	9.	SSS	Mymensingh, Tangail	4,365	635	26.16	
High value vegetables11.TMSSBogura8,3001,70024.5512.SDCFaridpur, Rajbari8,5001,50027.9513.GBKDinajpur8,5001,50024.3514.JAKOS Founda- tionJoypurhat8,5001,50024.5515.ESDOThakurgaon8,5001,50024.5516.FDABhola4,59041015.3217.SUSManikganj8,5001,50027.0518.Patakuri SocietyMoulvibazar8,5001,50025.65Sub total63,89011,110196.3319.ESDOPanchagarh083.9520.ESDOO144.5920.ESDO0144.5921.It ip farmers and WholesalersTraining on Tuilp Flower Exhibition Plot20.ESDO0144.59	10.	GBK	Dinajpur	3,371	1,629	24.16	
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12.SDCFaridpur, Rajbari8,5001,50027.9513.GBKDinajpur8,5001,50024.3514.JAKOS Founda- tionJoypurhat8,5001,50024.5515.ESDOThakurgaon8,5001,50026.9516.FDABhola4,59041015.3217.SUSManikganj8,5001,50027.0518.Patakuri SocietyMoulvibazar8,5001,50025.65Sub total63,89011,110196.33High Value Floriculture-Tulip19.ESDOPanchagarh083.9520.ESDO0144.594.594.5920.ESDO0144.59Training on Tulip Flower Exhibition Plot20.ESDO0144.59Training on Tulip Flower Cultivation20.Training on Tulip Flower Exhibition Plot0144.59	High	value vegetables					
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14.JAKOS Founda- tionJoypurhat8,5001,50024.5515.ESDOThakurgaon8,5001,50026.9516.FDABhola4,59041015.3217.SUSManikganj8,5001,50027.0518.Patakuri SocietyMoulvibazar8,5001,50025.65Sub total63,89011,110196.3319.ESDOPanchagarh083.9520.ESDO0144.5920.ESDO0144.59	12.	SDC	Faridpur, Rajbari	8,500	1,500	27.95	Vegetable Production
14.Joypurnat8,5001,50024.5515.ESDOThakurgaon8,5001,50026.9516.FDABhola4,59041015.3217.SUSManikganj8,5001,50027.0518.Patakuri SocietyMoulvibazar8,5001,50025.65Sub total63,89011,110196.3319.ESDOPanchagarh083.9520.ESDOPanchagarh0144.5920.ESDO0144.5920.ESDO0144.5920.Farmer selection (enthusiastic and risk taker) • Training on Tulip Flower Cultivation • Tulip Bulb Distribution	13.	GBK	Dinajpur	8,500	1,500	24.35	Vegetable Export Production
15.ESDOThakurgaon8,5001,50026.9516.FDABhola4,59041015.3217.SUSManikganj8,5001,50027.0518.Patakuri SocietyMoulvibazar8,5001,50025.65Sub total63,89011,110196.33High Value Floriculture-Tulip19.ESDOPanchagarh083.95•20.ESDO0144.59•Farmer selection (enthusiastic and risk taker)•Training on Tulip Flower Cultivation•Training on Tulip Flower Cultivation20.ESDO0144.59•20.Farmer selection (enthusiastic and risk taker)•••Training on Tulip Flower Cultivation•Training on Tulip Flower Cultivation	14.		Joypurhat	8,500	1,500	24.55	
16.FDABhola4,59041015.3217.SUSManikganj8,5001,50027.0518.Patakuri SocietyMoulvibazar8,5001,50025.65Sub total63,89011,110196.33High Value Floriculture-Tulip19.ESDOPanchagarh083.9520.ESDO0144.5920.ESDO0144.5920.Training on Tulip Flower Cultivation20.Training on Tulip Flower Cultivation	15.	ESDO	Thakurgaon	8,500	1,500	26.95	
18.Patakuri SocietyMoulvibazar8,5001,50025.65Sub total63,89011,110196.33High Value Floriculture-Tulip19.ESDOPanchagarh083.95• Farmer selection (enthusiastic and risk taker)20.ESDOPanchagarh0144.59• Farmer selection (enthusiastic and risk taker)20.ESDO0144.59• Training on Tulip Flower Cultivation19.ESDO0144.5920.ESDO0144.59	16.	FDA	e e e e e e e e e e e e e e e e e e e	4,590	410	15.32	
Sub total 63,890 11,110 196.33 High Value Floriculture-Tulip	17.	SUS	Manikganj	8,500	1,500	27.05	
High Value Floriculture-Tulip 19. ESDO Panchagarh 0 8 3.95 • Farmer selection (enthusiastic and risk taker) 20. Panchagarh 0 14 4.59 • Prepare Tulip Flower Exhibition Plot 20. ESDO 0 14 4.59 • Training on Tulip Flower Cultivation	18.	Patakuri Society	Moulvibazar	8,500	1,500	25.65	
19.ESDOPanchagarh083.95•Farmer selection (enthusiastic and risk taker)19.PanchagarhPanchagarh•Prepare Tulip Flower Exhibition Plot20.ESDO0144.59•Marketing Workshop with Tulip Farmers and Wholesalers20.ESDO0144.59•Training on Tulip Flower Cultivation20.Training on Tulip Flower Cultivation•••20.For the second	Sub t	otal		63,890	11,110	196.33	
20.ESDOPanchagarh•Prepare Tulip Flower Exhibition Plot20.ESDO0144.59•Prepare Tulip Flower Cultivation10.11.11.11.11.11.11.10.11.11.11.11.11.11.10.11.	High	Value Floriculture-T	ulip				
20.ESDO0144.59• Marketing Workshop with Tulip Farmers and Wholesalers • Training on Tulip Flower Cultivation • Tulip Bulb Distribution	19.	ESDO	Panchagarh	0	8	3.95	Farmer selection (enthusiastic and risk taker)
20. ESDO 0 14 ^{4.59} • Training on Tulip Flower Cultivation • Tulip Bulb Distribution			Panchagarh				Prepare Tulip Flower Exhibition Plot
20. ESDO 0 14 • Training on Tulip Flower Cultivation • Tulip Bulb Distribution • Tulip Bulb Distribution						4 50	Marketing Workshop with Tulip Farmers and Wholesalers
	20.	ESDO		0	14	4.59	Training on Tulip Flower Cultivation
							Tulip Bulb Distribution
Organize Tulip Flower Field Day							Organize Tulip Flower Field Day
Sub total 0 22 8.54	Sub t	otal		0	22	8.54	
Oil Seeds: Increasing income of entrepreneurs through production and marketing of safe edible mustard oil	Oil Se	eeds: Increasing inco	me of entrepreneurs throug	h production and n	narketing of safe ed		
21. PCD Pabna 1 49 4.5 Participants Selection	21.	PCD	Pabna	1	49	4.5	Participants Selection
22. PROYAS Chapainawabganj 10 40 4.5 • Setting up demonstration plots for production of high yielding varieties of mustard	22.	PROYAS	Chapainawabganj	10	40	4.5	Setting up demonstration plots for production of high yielding varieties of mustard
23. SDC Faridpur 6 44 4.5 Establishment of demonstration plots for commercial vermicompost production	23.	SDC	Faridpur	6	44	4.5	
Unnayan Proch- Cathlebirg Providing incentives to entrepreneurs in soil quality testing	24	Unnayan Proch-	Cathkhira				Providing incentives to entrepreneurs in soil quality testing
24. Sathkhira 1 49 4.5 Providing incentives to entrepreneurs in shallow machine/water supply	24.	esta	Satrikhira	1	49	4.5	Providing incentives to entrepreneurs in shallow machine/water supply

Table 14: Location and PO-wise target distribution of Horticulture sector

						 Organizing field day Market linkage meeting Providing incentives to entrepreneurs on oil processing Product quality testing
						 Incentives for entrepreneurs to adopt quality certificates Organize product launching programs
Sub t	otal		18	182	18.00	
					Lama: Increasing t	he income of very poor ethnic groups of Lama Upazila of Bandarban district through integrated agriculture system
25.	IDF	Bandarban	55	45	3.9	 Participants Selection Providing training on vegetables and crop production to farmers under the project through good agricultural practices. Providing training on poultry and livestock through good agricultural practices to the project farmers. Providing training to 2 members for making LSP. Setting up of 3 pits for making organic manure. Establishment of demonstration plots on vegetables, fish and poultry and sheep. Establishment of vegetable and spice nurseries. Organizing field days to spread knowledge of the project among the external members of the project. Preparation of baseline report of sub-projects. Publication of Project Impact Assessment booklet
Sub t	otal	1	55	45	3.90	
Sub-	Sector Total		99916	26406	478.82	

Table 15: Location and PO-wise target distribution of Fisheries and Aquaculture sector

SI.	Respective POs	Sub-project Location	Tentative Proj	ect Participants	Budget (BDT	Major activities		
No.	Respective 1 05		Male	Female	million)	ingoi additico		
Fishe	ries and Aquaculture	e (Production and Marketin	ng of Safe Fish and	Fish Products)				
1.	Grameen Mano- bic Unnayan Sangstha (GRA- MAUS)	Mymensingh	8,785	3,215	30.0	 Capacity building of producers for safe fish production through Good Aquaculture Practices (GAqP) Capacity building of producers & inputs suppliers on restricted & unrestricted inputs for aquaculture, proper dosages, withdrawal period etc. Establish demonstration plots for fish & shrimp production technology dissemination following GAqP 		
2.	Padakhep Mana- bik Unnayan Kendra (Pa- dakhep)	Gopalganj	5,755	2,245	20.0	 Demonstration for Farm mechanization & smart aquaculture solutions (IOT, AI, water & soil quality test kits etc.) usages Support entrepreneurs for small scale 'Ready to Cook' fish products production & marketing (packaging, branding, sale centre etc.) on piloting basis 		
3.	Bangladesh De- velopment Soci- ety (BDS)	Barishal	2,160	840	10.0			
4.	Atmabiswas	Chuadanga and Jhenai- dah	3,645	1,355	12.5			
5.	Community De- velopment Cen- tre (CODEC)	Patuakhali and Barguna	5,755	2,245	20.0			

SI.	Respective POs	Sub-project Location	Tentative Proj	ect Participants	Budget (BDT	Major activities					
No.	nespective i os		Male	Female	million)						
6.	Nowabenki Gonomukhi Foundation (NGF)	Satkhira	4,270	1,730	15.0						
7.	Nabolok Pari- shad (Nabolok)	Bagerhat	2,855	1,145	12.5						
8.	Society for Pro- ject Implemen- tation Research Evaluation & Training (SO- PIRET)	Noakhali, Chandpur, Laxmipur	2800	1200	17.5	 Capacity building of producers for safe fish production through Good Aquaculture Practices (GAqP) Capacity building of producers & inputs suppliers on restricted & unrestricted inputs for aquaculture, proper dosages, withdrawal period etc. Establish demonstration plots for fish & shrimp production technology dissemination following GAqP Demonstration for Farm mechanization & smart aquaculture solutions (IOT, AI, water & soil quality test kits etc.) usages Support entrepreneurs for small scale 'Ready to Cook' fish products production & marketing (packaging, branding, sale centre etc.) on piloting basis Fishing gear mechanization and improve the fish harvesting system from sea 					
9.	Shataphool Bangladesh	Rajshahi	5640	2360	15.0	 Capacity building of producers for safe fish production through Good Aquaculture Practices (GAqP) Capacity building of producers & inputs suppliers on restricted & unrestricted inputs for aquaculture 					
10.	Joypurhat Rural Development Movement (JRDM)	Joypurhat	3495	1505	20.0	 dosages, withdrawal period etc. Establish demonstration plots for fish & shrimp production technology dissemination following GAqP Demonstration for Farm mechanization & smart aquaculture solutions (IOT, AI, water & soil quality test kits etc.) usages Support entrepreneurs for small scale 'Ready to Cook' fish products production & marketing (packaging, branding, sale centre etc.) on piloting basis Promote the use of probiotic for safe fish production Dissemination of pearls (imaging pearls) production technology from fresh water mussel Develop collection point (s) for strengthening the marketing of safe fish 					
11.	Satkhira Unna- yan Sangstha (SUS)	Satkhira, Khulna (Paikgacha & Koyra)	4900	2100	15.0	 Capacity building of producers for safe fish production through Good Aquaculture Practices (GAqP) Capacity building of producers & inputs suppliers on restricted & unrestricted inputs for aquaculture, proper dosages, withdrawal period etc. Establish demonstration plots for fish & shrimp production technology dissemination following GAqP Demonstration for Farm mechanization & smart aquaculture solutions (IOT, AI, water & soil quality test kits etc.) usages Support entrepreneurs for small scale 'Ready to Cook' fish products production & marketing (packaging, branding, sale centre etc.) on piloting basis Promote the use of probiotic for safe fish production Support to establish/ operate hatchery for fry production of coastal fishes Support to nurseries for nursing SPF PL, crab let, fry of coastal fishes 					
12.	UNNAYAN	Khulna (Terokhada & Dumuria)	4170	1830	12.5	 Capacity building of producers for safe fish production through Good Aquaculture Practices (GAqP) Capacity building of producers & inputs suppliers on restricted & unrestricted inputs for aquaculture, proper dosages, withdrawal period etc. Establish demonstration plots for fish & shrimp production technology dissemination following GAqP Demonstration for Farm mechanization & smart aquaculture solutions (IOT, AI, water & soil quality test kits etc.) usages 					

SI.	Respective POs	Sub-project Location	Tentative Proj	ect Participants	Budget (BDT	Major activities
No.	Respective ros		Male	Female	million)	
						 Support entrepreneurs for small scale 'Ready to Cook' fish products production & marketing (packaging, branding, sale centre etc.) on piloting basis Promote the use of probiotic for safe fish production Developed 'Fisheries-based Echo-tourism' in 'Padma Beel'
13.	Manab Mukti Sangstha (MMS)	Sirajganj	4215	1785	12.5	 Capacity building of producers for safe fish production through Good Aquaculture Practices (GAqP) Capacity building of producers & inputs suppliers on restricted & unrestricted inputs for aquaculture, proper dosages, withdrawal period etc. Establish demonstration plots for fish & shrimp production technology dissemination following GAqP Demonstration for Farm mechanization & smart aquaculture solutions (IOT, AI, water & soil quality test kits etc.) usages Support entrepreneurs for small scale 'Ready to Cook' fish products production & marketing (packaging, branding, sale centre etc.) on piloting basis Support entrepreneurs for production of dry fish using improved technology and branding & marketing of produced Developed 'Fisheries-based Echo-tourism' in 'Chalan Beel'
14.	MOUSUMI	Naogaon, Bogura	4900	2100	12.5	 Capacity building of producers for safe fish production through Good Aquaculture Practices (GAqP) Capacity building of producers & inputs suppliers on restricted & unrestricted inputs for aquaculture, proper dosages, withdrawal period etc. Establish demonstration plots for fish & shrimp production technology dissemination following GAqP Demonstration for Farm mechanization & smart aquaculture solutions (IOT, AI, water & soil quality test kits etc.) usages Support entrepreneurs for small scale 'Ready to Cook' fish products production & marketing (packaging, branding, sale centre etc.) on piloting basis Promote the use of probiotic for safe fish production Dissemination of pearls (imaging pearls) production technology from fresh water mussel Develop collection point (s) for strengthening the marketing of safe fish
15.	Programme for Community De- velopment (PCD)	Pabna	3495	1505	12.5	 Capacity building of producers for safe fish production through Good Aquaculture Practices (GAqP) Capacity building of producers & inputs suppliers on restricted & unrestricted inputs for aquaculture, proper dosages, withdrawal period etc. Establish demonstration plots for fish & shrimp production technology dissemination following GAqP Demonstration for Farm mechanization & smart aquaculture solutions (IOT, AI, water & soil quality test kits etc.) usages Support entrepreneurs for small scale 'Ready to Cook' fish products production & marketing (packaging, branding, sale centre etc.) on piloting basis Capacity building of entrepreneurs' mussel & pearls processing Dissemination of pearls (imaging pearls) production technology from fresh water mussel Create market of pearls at local/ national and foreign market
16.	Integrated De- velopment Foundation (IDF)	Chattogram	3500	1500	15.0	 Capacity building of producers for safe fish production through Good Aquaculture Practices (GAqP) Capacity building of producers & inputs suppliers on restricted & unrestricted inputs for aquaculture, proper dosages, withdrawal period etc. Establish demonstration plots for fish & shrimp production technology dissemination following GAqP Demonstration for Farm mechanization & smart aquaculture solutions (IOT, AI, water & soil quality test kits etc.) usages

SI.	Respective POs	Sub-project Location	Tentative Proj	ect Participants	Budget (BDT	Major activities
No.	Respective ros		Male	Female	million)	ingjo, detivites
						 Support entrepreneurs for small scale 'Ready to Cook' fish products production & marketing (packaging, branding, sale centre etc.) on piloting basis Develop entrepreneurs for g brood development using Halda River fry/fingerlings and support to hatcheries
17.	SDS (Shariatpur Development Society)	Shariatpur	3500	1500	12.5	 Capacity building of producers for safe fish production through Good Aquaculture Practices (GAqP) Capacity building of producers & inputs suppliers on restricted & unrestricted inputs for aquaculture, proper dosages, withdrawal period etc. Establish demonstration plots for fish & shrimp production technology dissemination following GAqP Demonstration for Farm mechanization & smart aquaculture solutions (IOT, AI, water & soil quality test kits etc.) usages Support entrepreneurs for small scale 'Ready to Cook' fish products production & marketing (packaging, branding, sale centre etc.) on piloting basis Demonstration for producing fry/fingerlings using craps spawn collected from Padma River Developed 'Fisheries-based Echo-tourism' in 'Fish Farm'
18.	Rural Recon- struction Foun- dation (RRF)	Jashore	5640	2360	12.5	 Capacity building of producers for safe fish production through Good Aquaculture Practices (GAqP) Capacity building of producers & inputs suppliers on restricted & unrestricted inputs for aquaculture, proper dosages, withdrawal period etc. Establish demonstration plots for fish & shrimp production technology dissemination following GAqP Demonstration for Farm mechanization & smart aquaculture solutions (IOT, AI, water & soil quality test kits etc.) usages Support entrepreneurs for small scale 'Ready to Cook' fish products production & marketing (packaging, branding, sale centre etc.) on piloting basis Promote the use of probiotic for safe fish production Developed 'Fisheries-based Echo-tourism' in 'Bhabodah Beel/ Fish Farm'
19.	HEED Bangla- desh	Bagerhat, Khulna (Rupsa)	4200	1800	20.0	 Capacity building of producers for safe fish production through Good Aquaculture Practices (GAqP) Capacity building of producers & inputs suppliers on restricted & unrestricted inputs for aquaculture, proper dosages, withdrawal period etc. Establish demonstration plots for fish & shrimp production technology dissemination following GAqP Demonstration for Farm mechanization & smart aquaculture solutions (IOT, AI, water & soil quality test kits etc.) usages Support entrepreneurs for small scale 'Ready to Cook' fish products production & marketing (packaging, branding, sale centre etc.) on piloting basis Promote the use of probiotic for safe fish production Support to establish/ operate hatchery for fry production of coastal fishes Support to nurseries for nursing SPF PL, crab let, fry of coastal fishes
20.	Centre for Com- munity Develop- ment Assistance (CCDA)	Narsingdi	3495	1505	17.5	 Capacity building of producers for safe fish production through Good Aquaculture Practices (GAqP) Capacity building of producers & inputs suppliers on restricted & unrestricted inputs for aquaculture, proper dosages, withdrawal period etc. Establish demonstration plots for fish & shrimp production technology dissemination following GAqP Demonstration for Farm mechanization & smart aquaculture solutions (IOT, AI, water & soil quality test kits etc.) usages Support entrepreneurs for small scale 'Ready to Cook' fish products production & marketing (packaging, branding, sale centre etc.) on piloting basis Support to strengthen the supply chain of Galda PL

SI.	Respective POs	Sub-project Location	Tentative Proj	ect Participants	Budget (BDT	Major activities
No.	hespective i os	eas projest Lotation	Male	Female	million)	
Sub-Sector Total		87175	35825	315.0		
Grand Total		251,601	289,201	1,428.0		

Annex – 3: Logical Framework Progress

Desulta Llievershy	Indicators				Project Yr 4 (Up	to Dec'2022)	
Results Hierarchy	Name	Baseline	Mid-Term	End Target	Year Targets	Year Results	Cumulative
Outreach	1 Persons receiving services promoted or suppo	rted by the project		-			
Direct beneficiaries receiving project services	Males - Number	0	80,000	200,000	95,000	84,349	95,728
	Females - Number	0	100,000	245,000	105,000	164,024	204,830
	Young - Number	0	20,000	50,000	41,000	82,967	91,542
	Total number of persons receiving services - Number of people	0	180,000	445,000	200,000	248,373	300,558
	Young - Percentage (%)	0	11.11	11.24	20.5%	33.4%	30.5%
	1.a Corresponding number of households reache	ed	P				
	Women-headed households - Number	0	10,000	20,000	11,000	12,053	18,647
	Non-women-headed households - Number	0	170,000	425,000	189,000	236,320	281,911
	Households - Number	0	180,000	445,000	200,000	248,373	300,558
	1.b Estimated corresponding total number of hou						
	Household members - Number of people	0	810,000	2,002,500	900,000	1,117,679	1,352,511
Project Goal	70% of project supported households increase ir						
To increase the income, food security and nutrition of farm-	Households Percentage (%)	To be determined during the baseline survey	30	70	-	-	-
ers across selected value chains.	Percentage (%) contribution of the RMTP interven- tions to the household total income - Ratio (%)	To be determined during the baseline survey	10	50	-	-	-
	Beneficiaries reporting improved food quality in	their diet.					
	People Percentage (%)	To be determined during the baseline survey	15	30	-	-	-
	1.2.8 Percentage (%) of women reporting minimu	m dietary diversity (MDD-\	N)	•			
	Females - Percentage (%)	To be determined during the baseline survey	10	30	-	-	-
Development Objective The sustainable growth of se-	1.2.4 Households reporting an increase in produc	ction					
lected rural commodity value chains with comparative ad-	Households - Number	0	75,000	150,000	-	-	-
vantage, market demand,	% increase in sales of microenterprises in the va						
growth potential, and	% increase in sales - Percentage (%)	To be determined during the baseline survey	15	30	-	-	-

Baculto Hierorehy	Indicators				Project Yr 4 (Up						
Results Hierarchy	Name	Baseline	Mid-Term	End Target	Year Targets	Year Results	Cumulative				
backward linkages to small	% increase in profit of microenterprises in the va	due chaine									
farmers and micro-entrepre- neurs.	% increase in.profit Percentage (%)	To be determined during the baseline survey	10	20	-	-	-				
Outcome	1.2.2 Households reporting adoption of new/imp	roved inputs, technologies	or practices								
1. Beneficiaries adopt im- proved productions methods	Households - Number	0	175,000	400,000	-	-	_				
and establish sustainable market linkages.	2.2.3 Rural producers' organizations engaged in private entities	formal partnerships/agree	ments or cont	racts with public or		Year Results					
	Number of POs - Organizations	0	500	1,500	-	-	-				
	3.2.2 Households reporting adoption of environn practices	3.2.2 Households reporting adoption of environmentally sustainable and climate-resilient technologies and									
	Households - Number	0	75,000	200,000	-	-	-				
Output	2.1.4 Supported rural producers that are member	rs of a rural producers' org	anization								
1.1. Organization.	Total number of persons - Number of people	0	145,000	345,000	150,000	230,853	230,853				
	Males - Number	0	80,000	180,000	80,000	80,973	80,973				
	Females - Number	0	65,000	165,000	70,000	149,880	149,880				
	Young - Number	0	5,000	10,000	5,000	80,089	80,089				
	1.1.8 Households provided with targeted support										
	Total persons participating - Number of people	0	203,000	812,000	675,000	905,292	905,292				
	Males - Number	0	81,200	324,800	360,000	299,246	299,246				
	Females - Number	0	121,800	487,200	315,000	606,046	606,046				
	Households - Number	0	50,000	200,000	22,500	201,176	201,176				
	Household members benefitted - Number of peo- ple	0	203,000	812,000	675,000	905,292	905,292				
Output 1.2. Technical and business	Training days provided to farmers on GLOBAL G	AP and HACCP.									
services.	Days - Number	0	400	1,000	400	841	841				
	2.1.2 Persons trained in income-generating activ Males - Number	ities or business managen	nent								
		0	3,000	7,000	3,000	954	954				
	Females - Number	0	1,200	2,000	1,200	181	181				

Results Hierarchy	Indicators		Project Yr 4 (Up to Dec'2022)				
Results meralony	Name	Baseline	Mid-Term	End Target	Year Targets	Year Results	Cumulative
	Young - Number	0	3,200	6,500	3,200	744	744
	Persons trained in IGAs or BM (total) - Number of people	0	4,200	9,000	4,200	1,135	1,135
	Persons trained in Global/Bangla GAP and HACCI	P					
	Males - Number	0	5,600	14,020	5,600	6,899	6,899
	Females - Number	0	2,400	6,008	2,400	9,927	9,927
	Young Males - Number	0	4,600	11,020	4,600	5,705	5,705
	Young Females - Number	0	1,000	3,000	1,000	4,286	4,286
	Not Young - Number	0	2,400	6,008	2,400	6,835	6,835
	Persons trained (total) - Number	0	8,000	20,028	8,000	16,826	16,826
Output	1.1.4 Persons trained in production practices and						
1.3 Value chain integration.	Men trained in crop - Number	0	10,350	41,400	10,350	13,000	13,000
	Women trained in crop - Number	0	10,350	41,400	10,350	2,000	2,000
	Men trained in livestock - Number	0	11,040	57,280	11,040	13,766	13,766
	Women trained in livestock - Number	0	16,560	85,920	16,560	39,590	39,590
	Men trained in fishery - Number	0	12,420	30,000	12,420	2,313	2,313
	Women trained in fishery - Number	0	8,280	20,000	8,280	805	805
	Total persons trained in crop - Number of people	0	20,700	82,800	20,700	15,000	15,000
	Total persons trained in livestock - Number of peo- ple	0	27,600	143,200	24,000	53,356	53,356
	Total persons trained in fishery - Number of people	0	20,700	50,000	20,700	3,118	3,118
	Persons paid partially or fully for training or advis	ory services in selected y	alue chains				
	Males - Number	0	3,000	7,000	-	-	-
	Females - Number	0	1,200	2,000	-	-	-
	Young males - Number	0	2,500	5,500	-	-	-
	Young females - Number	0	700	1,000	-	-	-

Desults Historychy	Indicators				Project Yr 4 (Up	Project Yr 4 (Up to Dec'2022)					
Results Hierarchy	Name	Baseline	Mid-Term	End Target	Year Targets	Year Results	Cumulative				
	Not Young - Number	0	1,000	2,500	-	-	-				
Output	2.1.1 Rural enterprises accessing business development services										
1.4 Enterprise Strengthening.	Rural enterprises - Enterprises	0	2,000	20,000	2,000	30,083	30,083				
Output 1.5 Policy dialogue.	Policy 1: Policy-relevant knowledge products completed										
	Number - Knowledge Products	0	3	5	-	-	-				
Outcome	1.2.5 Households reporting using rural financial se	rvices		•							
2. Enterprises have access to sustainable financial services.	Households - Number	0	50,000	100,000	-	-					
	% increase in average loan size to ME borrowers										
	Increase - Ratio (%)	BDT 128,038	25	50	15%	24.9%	24.9%				
	Increase in PKSF ME loan portfolio										
	Increase in Ioan portfolio - Money (USD)	263,493,223	407,148,911	550,804,599	143,655,688	200,722,787	464,216,010				
Output	1.1.5 Persons in rural areas accessing financial set	rvices									
2.1. Sustainable financial ser- vices offered through Partner Organizations.	Men in rural areas accessing financial services - credit - Number	0	15,000	20,000	5,000	3,376	14,755				
	Women in rural areas accessing financial services - credit - Number	0	35,000	80,000	45,000	14,144	54,950				
	Young people in rural areas accessing financial services - credit - Number	0	20,000	40,000	20,000	2,878	11,453				
	Total persons accessing financial services - credit - Number	0	50,000	100,000	50,000	17,520	69,705				
Output	Enterprises supported by large microfinance instit	utions									
2.2. Commercial finance.	Increase in number of ME borrowers - Number	0	300	550	-	-	-				
	Increase in PKSF ME loan outstanding to large MFIs - Money (USD' 000)	0	500	1,600	-	-	-				
	Increase in large MFIs ME loan outstanding to bor- rowers - Money (USD' 000)	0	500	1,600	-	-	-				
Output	Number families of overseas workers trained on ca	apacity building.		1							
2.3 Utilisation of remittances.	Households - Number	0	2,000	4,500	N/A	N/A	N/A				
	Support to families of expatriate workers										
	Total number of persons trained on vocational and business management training - Number of people	0			N/A	N/A	N/A				

	Indicators				Project Yr 4 (Up			
Results Hierarchy	Name	Baseline	Mid-Term	End Target	Year Targets	Year Results	Cumulative	
Outcome 3. PKSF and POs capacity is	ICT knowledge of PKSF and PO staffs on project	CT knowledge of PKSF and PO staffs on project management including monitoring and evaluation increases (%)						
enhanced in areas of ICT and the project is satisfactorily managed."	Increase - Ratio (%)	0	50	75	-	-	-	
Output 3.1 PKSF's institutional	ICT solutions developed							
strengthening through ICT based solutions	Number of solutions - Number	0	4	4	-	-	-	
Output	People trained in various capacity building cours							
3.2 PKSF's Human Re- sources Development	Males - Number	0	20	165	20	4	27	
	Females - Number	0	5	10	5	2	6	
Output 3.3 Partner organizations in-	1.1.6 Financial service providers supported in de	livering outreach strategie	es, financial p	roducts and services	to rural areas			
stitutional strengthening.	Service providers - Number of POs	0	15	25	25	45	45	

Annex – 4: The DANIDA Indicators Report

Outcome 1 statement:	"Beneficiari	es adopt in	proved production methods and establish sustainable market linkages."
Outcome			rting adoption of new/improved inputs, technologies or practices
Year	Target	Results	Remarks
2020	0	0	Covid-19 restriction.
2021	25,000	0	Due to Covid-19 pandamic situation, the preliminary activities of the project delayed. However, by the end of December PKSF approved 27 value chain sub-projects under RMTP has been approved by December 2021. Out of these approved sub-projects, RMTP started implementation of 8 VC sub-projects in meat and dairy product sub-sector (Livestock). Remaining 19 VC sub-projects were approved to promote different agro-products in horticulture sector. These sub-projects will be initiated in the field soon. VC sub-projects in horticulture include piloting of Tulip cultivation.
2022	151,500		PKSF will collect this information through baseline, mid-term and final evaluation. So, this indicator will be reported after finalization of baseline report. The progress will be monitored through the annual outcome survey.
2023	175,000		
2024	· · · · ·		
2025	400,000		
Outcome	1.2 # of rural	producers'	organizations engaged in formal partnerships/agreements or contracts with public or private entities.
Year	Target	Results	Remarks
2020	0	0	Covid-19 restriction.
2021	100	0	Concern POs are conducting survey to select members/entrepreneurs for value chain sub-projects. After completion of the survey informal producer organizations will be formed.
2022	120	0	PKSF will collect this information through baseline, mid-term and final evaluation. So, this indicator will be reported after finalization of baseline report. The progress will be monitored through the annual outcome survey.
2023	500		
2024	1000		
2025	1,500		
Output 1.1 Statement:	"Rural produ	cers' organis	sation received support"
Output	1.1.1 # of su	pported rura	I producers that are members of a rural producers' organisation
Year	Target	Results	Remarks
2020	0	0	Covid-19 restriction.
2021	25,000	0	Concern POs are conducting survey to select members/entrepreneurs for value chain sub-projects. After completion of the survey informal producer organizations will be formed.
2022	80,000	230,853	
2023	145,000	•	
2024	250,000		
2025	345,000		
Output 1.1 Statement:		cers' organis	sation received support"
Output	1.1.2 # of ho	useholds pro	ovided with targeted support to improve their nutrition
Year	Target	Results	Remarks
2020	0	0	Covid-19 restriction.

Annual Trogre									
2021	5,000	0	Member selection is in progress.						
2022	30,000	201,176							
2023	50,000								
2024	150,000								
2025	200,000								
Output 1.2	"Enhanced k	nowledge a	nd skills on technical and business services"						
Statement:		•							
Output			rovided to farmers on GLOBAL GAP and HACCP						
Year	Target	Results	Remarks						
2020	0	0	Covid-19 restriction.						
2021	0	0							
2022	100	841							
2023	400								
2024	600								
2025	1000								
Output 1.2 Statement:									
Output	1.2.2 # of pe	rsons traine	d in income-generating activities or business management						
Year	Target	Results	Remarks						
2020	0	0	Covid-19 restriction.						
2021	200	0	Training will be started after completion of the member selection.						
2022	2,200	1,135							
2023	4,200								
2024	6,000								
2025	9,000								
Output 1.3 Statement:	"Enhanced k	nowledge a	nd skills on value chain integration."						
Output	1.3.1 # of pe		d in production practices and/or technologies						
Year	Target	Results	Remarks						
2020	0	0	Covid-19 restriction.						
2021	15,000	0	Training will be started after completion of the member selection.						
2022	55,000	71,474							
2023	69,000								
2024	150,000								
2025	276,000								
Output 1.4 Statement:	-		g through accessing business development services."						
Output	1.4.1 # of rural enterprises accessing business development services								
Year	Target	Results	Remarks						
2020	0	0	Covid-19 restriction.						
2021	0	0							
2022	1,200	30,083							
2023	2,000								

2024	12,000									
2025	20,000									
Output 1.5 Statement:	tatement:									
Output	1.5.1 # of Po	5.1 # of Policy-relevant knowledge products completed								
Year	Target	Results	Remarks							
2020	0	0	Covid-19 restriction.							
2021	0	0								
2022	0	0	Two policy paper development is going on.							
2023	3									
2024	0									
2025	5									

Annex – 5: Interim Financial Report (July – December 2022)

		IFAD Loan (2000003099)	IFAD Loan (2000003100)	DANIDA Grant
Description	REF	Inception	Inception	Inception
		DA Denominated Currency (DC)	DA DC	DA DC
Sources of Funds:		、	``	
DA Opening Balances		-	-	-
Operating account opening balance		-	-	-
Petty cash opening balance		-	-	-
Interest received		224,625.71		9,140.47
Received from Other sources		152,917.32		161,082.47
Funds received		38,858,796.52	22,000,747.42	2,485,805.52
Total Cash Available	I	9,236,339.55	22,000,747.42	2,656,028.46
		13,366,943.77		
Uses of Funds by Category:		Actual since inception	Actual since inception	Actual since inception
Category 1: Credit Fund		25,657,087.39	5,760,726.16	-
Category 2: Grants & subsidies		-	-	224,844.18
Category 3: Equipment & materials		184.41	-	-
Category 4: Consultancies & workshops		1,102.30	-	-
Category 5: Training		-	-	85.91
Category 6: Operating costs		898,122.88	-	109,933.05
Category 7		-	-	-
Category 8		-	-	-
Total Funds Used by Categories	Ш	26,556,496.99	5,760,726.16	334,863.14
Uses of Funds by Component:				
Component 1: Value Chain Enhancement		-	-	334,863.14
Component 2: Financial Services		25,657,087.39	5,760,726.16	-
Component 3: Institutional Strengthening and Project Management		899,409.59	-	-
Total Funds Used by Component (must be equal to II)	III	26,556,496.99	5,760,726.16	334,863.14
Category not yet identified/adjustments/advance, if any (Note 1)	IV	2,358,701.87	-	1,486,098.00
Closing Cash Balances:	V=I-II-IV	10,321,140.69	16,240,021.26	835,067.32
Represented by:				
DA Closing Balance		24,507,388.38		
Operating account Closing Balance		2,017,366.29		
Petty cash Closing Balance		-		
Total Closing Balance (must equal V):	VI	26,524,754.67		

Annex – 6: Progress on Annual Workplan and Budget (AWPB) during Jan-Dec 2022

Description of activities	Logframe indicators	Unit	•	ntation tar- ets		Progress		Remarks/
			Project Target	Plan FY: 2022-23	Jul-Dec (2022)	Cumm. Pro- gress	Cumm. Achv (%)	Comments
Outreach: Direct beneficiaries receiving project	Persons receiving services pro-	Male	222500		52485	95728	43.02%	
services	moted or supported by the pro-	Female	222500		102441	204830	92.06%	
	ject	Young (%)	11.5		30			
	Corresponding number of households reached	Households	445000		154926	300558	67.54%	
	Estimated corresponding total number of households members	Households Mem- bers	2002500		697167	1352511	67.54%	
Project Goal: To provide strategic enabling conditions for the sustained growth of rural commodity value	Percentage of project supported households increase income by >30%	By 2025: 70% (3,11,500 HHs)	1		0	0	0%	
chains with comparative advantage, nutritional potential, market demand, growth potential and backward linkages to small farmers and micro- entrepreneurs	Percentage of Beneficiaries re- porting improved food quality in their diet	By 2025: 30% (1,33,500 beneficiar- ies)	0		0	0	0%	
Development objective: Sustainable growth of selected rural commodity	Households reporting an in- crease in production	Households	150000		0	0	0%	
value chains with comparative advantage, mar- ket demand, growth potential, and backward linkages to small farmers and micro-entrepre-	% increase in sales (year to year) of microenterprises in the value chains	%	30		0	0	0%	
neurs. [Project Target: Overall approximately 445,000 households (100,000 Microenterprise borrow- ers, 245,000 will benefit from value chain devel- opment activities]	% increase in profit (year to year) of microenterprises in the value chains	%	20		0	0	0%	
Component 1: Value Chain Enhancement					0	0	0%	
Outcome: Beneficiaries adopt improved pro- ductions methods and establish sustainable market linkage	By 2025: Households reporting adoption of new/improved inputs, technol- ogies or practices	Households	400000	200000	10779	10779	2.69%	
	Rural producers' organizations engaged in formal partner- ships/agreements or contracts with public or private entities	Producers Organi- zation	1500	150	77	77	5.13%	
OUTPUTS:	By 2025:							
1.1 Organization	a) Supported rural producers that are members of a rural pro- ducers' organization	Persons	445000	100000	109817	201176	45.21%	

Description of activities	Logframe indicators	Unit	-	Implementation tar- gets		Progress		
			Project Target	Plan FY: 2022-23	Jul-Dec (2022)	Cumm. Pro- gress	Cumm. Achv (%)	Comments
	 b) Information and orientation meeting on financial literacy for MC & PO members 	Persons	108400	100000	29883	38546	35.56%	
	c) Households provided with tar- geted support to improve their nutrition	Households	445000	40000	109817	201176	45.21%	
	d) Training on Nutrition, climate, environmental and social issues for organizations' leaders	Persons	384000	192000	109817	201176	52.39%	
	e) Prepare information sheet and dicussion notes on financial liter- acy for village meetings for ben- eficiaries by POs	Number	200	75	136	136	68.00%	
	f) TOT on financial literacy for PO trainers by POs	Batch	200	70	98	143	71.50%	
	g) Training on business manage- ment for ME and PA members	Batch (80 batches for women)	332	300	256	267	80.42%	
	h) Developing and revising train- ing module by PKSF	Modules	2	1	0	0	0%	
	Information campaign for nutri- tion education	Number	1	1	0	0	0%	
	Development of training material for nutrition training	Number	1	1	0	0	0%	
	Allocation of funds to undertake special studies at PO level	Number	2		0	0	0.00%	
	TOT on Nutrition Sensitive Value Chain	Batch	15000	10	0	0	0%	
	Training on contract farming and exchange visits for PA members on climate, environmental, nutri- tion and social issues	Batch	50	50	35	49	97.30%	
1.2 Technical and Business services	a) Generic technological and management training on Horti- culture	Batch	4000	1500	742	742	18.55%	
	Generic technological and man- agement training on Fisheries	Batch	4000	2000	0	0	0%	
	Generic technological and man- agement training on Poultry	Batch	4000	1000	0	0	0%	
	Generic technological and man- agement training on livestock (Fattening and Dairy)	Batch	4000	1000	2291	2668	66.69%	
	b) Advanced technological and management training on Horti- culture /h	Persons	2500	1000	625	625	25.00%	

Description of activities	Logframe indicators	Unit		ntation tar- ets	5				
			Project Target	Plan FY: 2022-23	Jul-Dec (2022)	Cumm. Pro- gress	Cumm. Achv (%)	Comments	
	 c) Advanced technological and management training on Fisher- ies 	Persons	2500	1500	3118	3118	124.72%		
	d) Advanced technological and management training on Poultry	Persons	8000	5000	0	0	0.00%		
	 e) Advanced technological and management training on Live- stock 	Persons	4100	4000	340	340	8.29%		
	Training days provided to farm- ers on GLOBAL GAP and HACCP	Persons (6008 Women)		150	22832	22832	0%		
	Contracts with certification au- thorities for developing training modules	Modules	4	2	1	4	100.00%		
	Training of Master Trainer & Pro- tocol Development /j	Batch	26	26	5	6	23.08%		
	Training of PA or Groups /k	Batch	8000	3600	4775	5045	63.06%		
	Audit / certification	Batch	9200	1130	8	8	0.09%		
	Training of farmers on GAP	Batch	1350	1300	571	571	42.28%		
	persons trained in income gener- ating activities and business management	Persons 5500 Males, 500 Fe- males, 3750 young	6000	2000	670	1430	23.83%		
	Generic training material	Number	3	1	0	1	33.33%		
	Generic training	Batch	35	10	0	0	0.00%		
	Specialised training material	Number	25	5	0	0	0.00%		
	Specialised training	Batch	35	10	0	0	0.00%		
	Printing material	Number	20000	3000	48351	60351	301.76%		
	Privatised advisory services	Number			5409	5409	0%		
	Cost Sharing of Advisors /n	Number			0	0	0%		
	Piloting of technologies in horti- culture, livestock, fisheries and others	Number		750	52	62	0%		

Description of activities	Logframe indicators	Unit	Implementation tar- gets			Remarks/		
			Project Target	Plan FY: 2022-23	Jul-Dec (2022)	Cumm. Pro- gress	Cumm. Achv (%)	Comments
1.3 Value Chain Integration	a) Persons trained in production practices and/or technologies	Persons (Trained in crop: Men 80,000 Women 80,000; Trained in livestock: Men 40,000 Women 40,000; Trained in fishery: Men 6,000 Women 6,000)	252000	64000	0	0	0%	
	b) Value chain analysis by PKSF	Number	4		2	4	100.00%	
	c) Value chain packages	Number	100	23	30	64	64.00%	
	d) Investment in innovative new VCs	Number	6		8	8	133.33%	
	Value chain facilitators				38	38	0%	
	Value chain Implementation: IFAD Direct Cost /s				0	0	0%	
	Value chain Implementation: IFAD Indirect Cost /t				0	0	0%	
	Marketing and Enterprise Visibil- ity Fares			1	7	7	0%	
1.4 Enterprise strengthening	a) Rural enterprises accessing business development services	Number	550		217	26477	4814.00%	
	b) Specialized Agribusiness Consultant providing TA to POs & undertaking studies	Number	2		0	0	0.00%	
1.5 Policy dialogues	Policy related knowledge prod- ucts completed	Number	2		0	0	0.00%	
	Policy dialogues organised	Number			1	1	0%	
Inclusion of Youths in VC Sub-projects		Persons (Youths out of them 27,500 will youth women)	50000	10000	0	0	0%	
Component 2: Financial services for micro en					0	0	0%	
Outcome: Enterprise have access to sustainable financial services	Households reporting using rural financial services	Households	100000		15432	69705	69.71%	
OUTPUTS:	+		By 2025:		0	0		
2.1 Sustainable financial services offered through Partner Organizations	a) Persons in rural areas ac- cessing financial services	Male	25000		2946	14755	59.02%	
		Female	75000		12486	54950	73.27%	

Description of activities	Logframe indicators	Unit	•	ntation tar- ets	Progress			Remarks/
			Project Target	Plan FY: 2022-23	Jul-Dec (2022)	Cumm. Pro- gress	Cumm. Achv (%)	Comments
2.2 Commercial finance	Enterprises supported by non- bank financial institutions	Number	550	200	0	0	0.00%	
Component 3: Institutional Strengthening and					0	0	0%	
Outcome:					0	0	0%	
OUTPUTS:	By 2025:				0	0	0%	
3.1 IT innovations at PKSF	a) IT Innovations	Number	4		0	0	0.00%	
	b) Development of block chain platform, e-commerce & crowd funding platform	Batch	1	1	0	0	0.00%	
	Orientation on Blockchain tech- nology essentials for Bangla- desh	Batch	1		0	1	100.00%	1 batch Female=5 Male=22 Total=27
	Orientation on Block chain and it's scopes for microenterprises	Batch	1		0	1	100.00%	1 batch Female=5 Male=22 Total=27
	Business management and fi- nancial analysis	Batch	40	5	1	1	2.50%	
	Value chain analysis and VCD subproject design - training	Persons	10		0	0	0.00%	
	Project design and management	Persons	10	10	0	0	0.00%	
	M and E system design and management	Persons	5	2	0	0	0.00%	
	ICT based platforms: Overview and management	Persons	20	30	0	0	0.00%	
	Development project manage- ment	Persons	20	20	19	19	95.00%	
	Financial services and institu- tions	Persons	20		0	0	0.00%	
	ICT based Realtime MIS	Persons	10		0	0	0.00%	
	Exchange visits (VCD) /a	Persons	40	20	4	4	10.00%	
	Sub-total				0	0	0%	
3.2 Partner organizations institutional strength- ening	a) Financial service providers supported in delivering outreach strategies, financial products and services to rural areas	Number	25		0	0	0.00%	
	b) Value chain integration and contract intermediation	Number	1		0	0	0.00%	

Description of activities	Logframe indicators	Unit		ntation tar- ets		Progress		Remarks/
			Project Target	Plan FY: 2022-23	Jul-Dec (2022)	Cumm. Pro- gress	Cumm. Achv (%)	Comments
	c) Other training - Nutrient Sen- sitive, M&E etc.	Number			0	0	0%	
	d) New financial product devel- opment	Number	2		0	0	0.00%	
	Sub-total				0	0	0%	
C. Project Management					0	0	0%	
1. Office Facilities - Procurement					0	0	0%	
SUV: 4-Wheel Vehicle for Field Visits	no. of equipment	Number	1	1	0	0	0.00%	
Laptops	no. of equipment	Number	18	18	0	0	0.00%	
Printers	no. of equipment	Number	2	2	0	0	0.00%	
Photocopy machine	no. of equipment	Number	1	1	0	0	0.00%	
Office furniture	no. of equipment	Number	17	17	0	0	0.00%	
Cellphones/ telephone	no. of equipment	Number	18	18	0	0	0.00%	
Training and recording equipment	no. of equipment	Number	1	0	0	0	0.00%	
Sub-total					0	0	0%	
2. Operating expenses - Salaries & Allowances					0	0	0%	
Project Co-ordinator	no. of year/person employed	Number	6	1	0	2	37.50%	
Deputy project Co-ordinator (Technical)	no. of year/person employed	Number	6	1	0	2	29.17%	
Deputy project Co-ordinator (Financial Service)	no. of year/person employed	Number	6	1	0	2	25.00%	
Sectoral Specialist (Livestock)	no. of year/person employed	Number	6	1	0	2	37.50%	
Sectoral Specialist (Horticulture)	no. of year/person employed	Number	6	1	0	1	13.83%	
Sectoral Specialist (Fisheries)	no. of year/person employed	Number	6	1	0	1	13.83%	
ICT Specialist	no. of year/person employed	Number	6	1	0	1	13.83%	
Financial Analyst	no. of year/person employed	Number	6	1	0	2	37.50%	
Procurement Specialist	no. of year/person employed	Number	6	1	0	2	37.50%	
Communication, Publication & Knowledge Management Specialist	no. of year/person employed	Number	6	1	0	1	13.83%	
Monitoring and Evaluation Specialist	no. of year/person employed	Number	6	1	0	1	13.83%	
Nutrition Specialist	no. of year/person employed	Number	6	1	0	2	37.50%	
Value Chain Project Manager	no. of year/person(s) employed	Number	36	6	2	12	33.56%	
Monitoring and Evaluation Officer	no. of year/person(s) employed	Number	4	1	0	1	20.75%	

Description of activities	Logframe indicators	Unit		ntation tar- ets	Progress		Remarks/	
			Project Target	Plan FY: 2022-23	Jul-Dec (2022)	Cumm. Pro- gress	Cumm. Achv (%)	Comments
Gender and Social Inclusion Officer	no. of year/person(s) employed	Number	4	1	0	0	2.00%	
Assistant Manager (Accounts)	no. of year/person(s) employed	Number	12	2	1	4	29.83%	
Computer Operator cum MIS Officer	no. of year/person employed	Number	6	1	0	2	37.50%	
Driver	no. of year/person employed	Number	6	1	0	1	20.83%	
Sub-total					0	0	0%	
3. Operating expenses - Other					0	0	0%	
Monitoring and Travel					0	0	0%	
Overhead - Office Rent, electricity /b					0	0	0%	
Start-up workshop					0	0	0%	
Sub-total					0	0	0%	
4. M &E, studies and dissemination					0	0	0%	
Studies (baseline, Mid-term and end-project im- pact studies)		Number	1	1	0	0	0.00%	
Sector impact studies					0	0	0%	
Results sharing (websites, seminars/work- shops, video production etc.) /c		Number	1	1	0	0	0.00%	

Annex – 7: Progress on the agreed actions upon 3rd supervision mission

SL	Actions	Deadline	Update 20.03.2023	Remarks
1	No cost extension of RMTP Provide two-year no-cost extension to recover loss of time due the COVID19 pandemic.	June 2023	Not Ap- proved by GoB	
2	Improve coherence and presentation of project finding and results Use tables for presentations of numbers and ensure that there is coherence be- tween different reports and PP presentations. Ensure that all activities and re- sults are reported rather than underreporting.	Immedi- ately	Done	PKSF and IFAD have been finalized the presentation template which will reflect the coherence of project findings and results.
3	Pesticide residue analysis of safe vegetable Fertilizer and pesticide residue analysis be undertaken of vegetables.	Before har- vested	Done	12 Sample tested, Result is quite satisfactory, do not found any Pesticide resi- due.
4	Improvement of DoC Explore if the Bangladesh Poultry Association will be interested in making a scoring system ranking the hatcheries for DoCs, allowing beneficiaries and farmers in general to choose the best quality according to the ranking.	March 2023	Continue	We are working with DLS to set up local standard.
5	Silage production For silage production introduce Super Napier, test silage quality if inoculated with homofermentative (only lactic acid) or heterofermentative (lactic acid + ace- tic acid) in combination with molasses and small (0,5%) urea. Explore the interest among silage producers if interested I adopting silage press and plastic bagging/wrapping	August 2023	Done	We are already introduced super Napier (Napier Pakchong and Napier Pink in our project areas), and carrying out the experiment, it is hoped that quality will be tested by March'23. Plastic bagging of silage is adopted by the entrepreneurs.
6	Compost making Explore the interest among commercial compost makers if interested in pellet equipment allowing fortification of the compost with synesthetic fertilizer	August 2023	Done	We are working on fortified compost
7	Demonstrations Number of demonstrations increased to a ration 5/7:100 in case of mustered, oil seeds, new crops, and new technologies promoted in horticulture. In other situa-	December 2022	Done	Under livestock and poultry, our demonstration ratio in poultry is 1:100 and Meat & Dairy is 1:500, we need to discuss this issue with the Next mission to way forward as we don't have enough budget.
	tions, such as in Poultry & Livestock and fisheries the demonstration cost could be much higher the PMU should be making appropriate number of demonstra- tions.	December 2022	Done	160 out of 200 participants provided demonstration support for mustered oil seeds sub-projects. Demo and beneficiary ration updated according to suggested plan for new projects
		December 2022	Done	The sub-projects under the Fisheries sector, the average ratio of demonstration plot and beneficiaries is 1:85. For increasing the demonstration plots ratio, we need to- • Discuss the way forward strategy in the next mission and • Need strategic direction to reallocate the approved budget which is reflected in the Agreement with POs for increasing the demonstration activity in the next Fis- cal Year
8	Marketing assistance for POs Provide service of marketing professionals in areas of branding, packaging,	March 2023	Continue	We are working with new entrepreneurs to get such services from marketing pro- fessionals

SL	Actions	Deadline	Update 20.03.2023	Remarks
	adverting, rolling out new products in the market, negation with big buyers, link- age with e-commerce companies etc. Such assistance could be for a short pe- riod of time for one VC/PO or a group VCs of similar products by multiple POs.	March 2023	Continue	PMU already giving support regarding concerned area of branding, packaging, advertising, etc. Project will organize training regarding the issues as part of project activities
		March 2023	Continue	 PMU is working for developing appropriate packaging & branding of processed fish products and promote through entrepreneurs. For this purpose, we are working for- engaging a researcher for diversified fish products development, packaging and self-life enhancement of produced for commercialization Supporting microentrepreneurs for production & marketing of 'Ready to Eat' fish products. In this regard selection of entrepreneurs are ongoing planning for facilitating business management/market development training among the entrepreneurs
9	Modern production technologies The project should consider varieties of available technologies for every stage of value chains, especially at production level to improve productivity, quality of products, shelf-life, packaging, transportation etc. One area of opportunity would be application of modern technology in production of sweets that would reduce	April 2023	Done	The project is working on adoption of mechanization in every stage of the value chain, we already introduced Chopping Machine, TMR, Silage Pressing/Bagging, Milking machine, Cream Separator, Ghee making vat, Curd Incubator, Meat Processing Machines and equipment, compost knitting machine and so on. Right now, we are trying to select the entrepreneurs to adopt sweets making machine.
	production cost and save fuel.	April 2023	Done	Project already promoting ecological farming technology for safe production, cold press oil production, High value fruits sapling, drip/ sprinkler irrigation system/ bio pesticide/ bio-fertilizer, BGAP, GGAP for crop production, identified processed item like coffee, roasted cashew nut, banana chips along with identifying processing item for further product development and marketing
		April 2023	Done	New & available technologies are incorporated in the sub-projects of Fisheries Sector for to improving productivity, quality of products, shelf-life, etc. as well as reduce production cost and increase profitability. Some of the technologies are but not limited to- • practice of improved and/or semi-intensive production technologies of fish & shrimp • use of prebiotics/ probiotics in culture system • farm & vessels mechanization • promote intensive culture technology (tank fish culture/bottom cleaning sys- tem/RAS/ biofloc) • use of IOT & AI in farming system • nursing of galda PL in earthen pond • black soldier fly larvae (BSFL) production • production of fish feed using locally available inputs & BSFL • promote culture of high yielding variety of fish such as high value indigenous fish species, G-3 and/or Suborno Rui • expansion of brood development & fly production technology of Halda river fish species
10	Lease and start up loan RMTP finances lease finance and start-up loan under Subcomponent 2.2.	Continue	Continue	Panel Leaders forum meeting minutes signed recommending 31 large POs to be included in the lease financing. PMU will present the file for management decision recommending 18 POs for the 2022-2023 financial year.
11	Status of Ioan among VC participants Annually collect Ioan status of all VC participants	Continue	Done	We shared a format with respective POs, we have received the report from 18 POs. We hope, we will be able to collect this information by March 2023 or before the next IFAD Mission.

SL	Actions	Deadline	Update 20.03.2023	Remarks
12	Orientation training and coordination meeting	Continue	Done	First round of meetings are completed
	POs organize training on VCD activities all microcredit branch managers and	Continue	Done	POs already organizing VCD activities with concern managers of microcredit
	credit officers in project areas. Organize quarterly coordination meeting between microcredit and VCD activities at each branch.	Continue	Done	PMU and POs has taken following initiatives for capacity building and coordina- tion with microcredit team in project areas:
16	Evaluate commercial software for MEs and project management Evaluate effectiveness of related software for financial and project management available in the market. Recommend either for adoption or needs for modifica- tion.	March- 2023	Done	Detailed report has been completed. Recommendation part is being fine-tuned.
17	MIS system development Prepare a TOR for hiring MIS system development firm and accordingly opera- tionalise the MIS system	June, 2023	Done	Draft ToR for hiring consultancy firm for Real Time Monitoring and Evaluation (R- TiME) system has been prepared. The draft ToR has been shared with the PKSF management. The management has provided feedback and instructed to syn- cronize with other similar project. The RMTP has been collaborating with SEP project for sincronizing the system.
18	Linking KOBO data with project interventions In absence of MIS system, link the KOBO profile information to the project spe- cific interventions e.g. training, cash and in kind supports, market linkage, etc.	Continuous	Done	The RMTP is now using participants profile data collected through KOBO. The MIS for project participants has been developed on that database. Now the MIS on LSP is being developed. Required progress on the project interventions will be reported accordingly through this MIS.
19	Dis-aggregated beneficiary information reporting and presentation Analyse the beneficiary profile information as per the attached dis-aggregated format and accordingly, report and present in the progress report and presenta- tion	Continuous	Done	The first line KOBO data analysis is done. The final analysis will be conducted while all the sub-project participants profile data are available. It might be in the month of February 2023.
20	Baseline Survey Finalise the baseline survey report	Apr-23	Partially done	The baseline study data collection has been started.
21	XL- Based MIS Introduce XL-based MIS currently used in livestock subproject across all sub- projects as an interim solution.	December 2022	Done	M&E unit has primarily developed an excel based MIS database. M&E unit has also provided training on MIS data recording and reporting.
22	Innovative innovations lessons learned documents preparation Produce audio-visual and infographic based case studies on each innovative and successful interventions, e.g. <u>https://www.ifad.org/en/web/latest/-</u> /video/modernizing-of-micro-shoe-industries-in-bangladesh	Continuous	Done	Done - Produce 10 case studies, 6 stories shared with IFAD - RMTP website completed and finetuning work is ongoing - Upload content regularly in Youtube Channel, Facebook, IFAD Asia - 128 News published till to date in different newspaper, electronic media and TV media - 4 video modules developed - 10 videos uploaded in Youtube - Newsletter work is ongoing
23	Organize KM related periodic reflection meetings among the POs and PMU Exchange of lessons learned and identify common reasons of success or failure and cross fertilization among sub-projects	Continuous	Done	Done - 3 batch virtual capacity building work done - Fisheries addition 10 pos capacity building yet not completed - The PMU have visited filed regularly and conducted meeting with POs for pro- ject updates, lesson learn and sharing by the leadership of the PC. Already the PMU Conducted meeting at Bogura, Barishal, and Kuakata with the POs of Live- stock, Fisheries, Poultry and Horticulture.

SL	Actions	Deadline	Update 20.03.2023	Remarks
24	Finalization of Procurement Process Finalize procurement process for financial reporting system, installation and op- erationalization	30-Jun-23	Done	Done (Negotiation with the first ranked consulting firm will be held after financial and combined proposals evaluation within March 2023. Then, contract will be signed with the successfully negotiated consulting firm.)
25	Submission of AWPB and PP 2022/2023 Submit AWPB and PP 2022/2023 through NOTUS for IFAD's No objection	Nov-22	Done	
26	Submission of IUFR Submit the IUFR for the qtr. ended 30th September 2022	Nov-22	Done	
27	To submit the annual external audit report for FY 2021-22 to IFAD	Dec-22	Done	Hardcopy Audit report submitted to IFAD followed by scanned copy submission on 26 Dec'22.
28	Update the counterpart funding on regular basis	November 2022 and continue	Done	Next update in May 2023 and continue
29	Share ESMP template with PKSF staff	17-Nov-22	Done	Finalized and shared to PMU
30	Transfer ESMF and other documentation into management/action plan and ensure active monitoring	30-Dec-22	Done	It is developed and shared to PMU
31	Deploy a focal point for environment and climate related issues for contin- ued interaction with PDT	30-Dec-22	Done	Mr. Md. Rafizul Islam Mondal, SVC Specialist (HC), deployed as a focal point for environment and climate related issues.
32	Training on climate change issues Organize training on climate change issues for PMU/PO officials by selected ex- perts or organization. The broad topics should include basics of causes of cli- mate change, mitigation and adaptive measures, impacts of livelihoods, devel- opment of climate resilient livelihoods.	June 2023	Done	POs already providing training on climate issues under three Sub-sector such as Livestock, Horticulture and fisheries.
33	Gender and Youth Action Plan/ AWPB: update as needed	Continue	Done	 -68 officers under 23 POs already received orientation on GYAP. -Develop oner pager for beneficiary awareness regarding intra-household decision making -As per guidance of PC, PMU have visited field in regular basis & convey necessary counsel of officers of POs.
34	BCC materials: Finalize audio-visual materials, including very short video that can be pushed via mobile social media to beneficiaries and beyond, thus enabling key messages to reach men as well as women. Consider whether the messaging needs to be adjusted by poverty group i.e. ultra-poor/ transitional and enterprising poor.	March 2023	Partially done	Production formalities are done. One short video on nutrition is produced (draft) A meeting on sharing the video to PMU for comments and further improvement will be arranged shortly.
35	Baseline/ Annual Outcome Survey: Integrate questions on empowerment from the IFAD core indicator guidelines.	Baseline/ each AOS	Done	The respective questions are incorporated in the baseline data collection tools.
36	Baseline: Integrate questions on stakeholder feedback from the IFAD core indicator guide- lines.	Baseline	Done	The respective questions are incorporated in the baseline data collection tools.
37	RMTP grievance mechanism: Enhance beneficiary awareness of its availability and what to do.	Ongoing	Partially done	M&E Specialist will prepare a clear guideline on the grievance mechanism by February 2023. The letter will be issued for implementing POs to establish the grievance mechanism. M&E unit will monitor and report on a regular basis.

Annex - 8: Integrated project risk matrix

Overall Summary

Risk Category / Subcategory	Inherent risk	Residual risk
Country Context	Substantial	Moderate
Political Commitment	Substantial	Substantia
Governance	High	Substantia
Macroeconomic	Substantial	Moderate
Fragility and Security	Moderate	Low
Sector Strategies and Policies	Substantial	Moderate
Policy alignment	Substantial	Moderate
Policy Development and Implementation	Moderate	Moderate
Environment and Climate Context	Substantial	Moderate
Project vulnerability to environmental conditions	Substantial	Moderate
Project vulnerability to climate change impacts	Substantial	Moderate
Project Scope	Moderate	Moderate
Project Relevance	Moderate	Moderate
Technical Soundness	Moderate	Moderate
Institutional Capacity for Implementation and Sustainability	Moderate	Moderate
Implementation Arrangements	Moderate	Moderate
Monitoring and Evaluation Arrangements	Moderate	Moderate
Project Financial Management	Moderate	Low
Project Organization and Staffing	Moderate	Low
Project Budgeting	Substantial	Moderate
Project Funds Flow/Disbursement Arrangements	Substantial	Moderate
Project Internal Controls	Moderate	Low
Project Accounting and Financial Reporting	Substantial	Moderate
Project External Audit	Moderate	Lov
Project Procurement	Moderate	Moderate
Legal and Regulatory Framework	Moderate	Low
Accountability and Transparency	Substantial	Moderate
Capability in Public Procurement	Moderate	Low
Public Procurement Processes	Moderate	Moderate
Environment, Social and Climate Impact	Moderate	Moderate
Biodiversity Conservation	Moderate	Moderate
Resource Efficiency and Pollution Prevention	Substantial	Moderate
Cultural Heritage		No risk envisaged not applicable
Indigenous People	Moderate	Low
Labour and Working Conditions	Moderate	Low
Community Health and Safety	Moderate	Moderate
Physical and Economic Resettlement		No risk envisaged not applicable
Greenhouse Gas Emissions	Moderate	Moderate

Risk Category / Subcategory	Inherent risk	Residual risk
Vulnerability of target populations and ecosystems to climate variability and hazards	Low	Low
Stakeholders	Moderate	Moderate
Stakeholder Engagement/Coordination	Moderate	Moderate
Stakeholder Grievances	Moderate	Low
Overall	Moderate	Moderate

Country Context	Substantial	Moderate
Political Commitment	Substantial	Substantial
Risk: The country will have its national election held on January 2024. This might lead to changes made in civil administration and interim government arrangements three months prior to the elections.	Substantial	Substantial
Mitigations:		
 Continuous monitoring and implementation support by the ICO on project performance monitoring and reporting. Even if there is a change in government, the institutional policies and development plans is likely to remain unchanged (National Agricultural Policy, 8th Five Year Plan etc.). 		
Governance	High	Substantial
Risk: Government processes such as the preparation of the DPP, and recruitment of key staff are cumbersome and impact implementation.	High	Substantial
Mitigations:		
The implementing agency is an autonomous authority and does not need the preparation and approval of DPP in order to start the project implementation. However, the country team closely coordinates and follows up the project implementation activities.		
Macroeconomic	Substantial	Moderate
Risk: Real GDP growth is expected to slow to 6.1 percent in FY23 as import suppression measures disrupt economic activity. Higher inflation will dampen private consumption growth, following substantial energy price increases. Export growth is expected to slow, as economic conditions in key export markets deteriorate, while rolling blackouts, gas rationing, and rising input costs weigh on manufacturers. A gradual reduction in poverty is expected, declining from 10.4 percent in FY22 to 10.0 percent in FY23. Over the medium term, the balance of payments is projected to return to surplus as import growth moderates. Bangladesh's economy performed well during the COVID-19 pandemic compared to peer countries. Relatively low debt-to GDP provided a fiscal buffer, and a stimulus program protected manufacturing capacity. A robust recovery continued in FY22 as movement restrictions were lifted. Rising commodity prices and a surge in imports in the second half of FY22 resulted in a substantial Balance of Payments (BoP) deficit and accelerating inflation. A series of policy measures to suppress imports and preserve foreign exchange reserves is expected to dampen growth, including electricity cuts and reduced business hours. Addressing longstanding structural challenges would help sustain GDP growth over the medium term, including increasing domestic revenues, modernizing the tariff regime, resolving financial sector vulnerabilities, and improving the business climate.	Substantial	Moderate

Mitigations:		
(i): Careful selection of value chains in close cooperation with private sector		
entities; selection of diversified value chains.		
(ii): Improved technologies and production techniques are provided to increase productivity.		
(iii): Establish flexible partnerships so producers can also serve alternative markets		
if needed and avoid side selling.		
Fragility and Security	Moderate	Low
Risk:	Moderate	Low
Bangladesh is not in the list of the World bank fragile countries but there is subject to natural hazards which is elaborated in the sections below. In terms of security situation is also stable and no threat is envisaged.		
Mitigations:		
Regular monitoring and supervision by the IFAD and WB country offices in Bangladesh		
Sector Strategies and Policies	Substantial	Moderate
Policy alignment	Substantial	Moderate
Risk:	Substantial	Moderate
Bangladesh has finalized its 8th five year plan in December 2020 that outlines the broad development objectives of the country including transformation of the agriculture sector.		
Mitigations:		
(i): Active participation in the UN coordination team assuring that IFAD mainstreaming themes are included in the UN cooperation development		
framework. (ii): Alignment of project with main policy priorities of the implementing agency.		
Policy Development and Implementation	Moderate	Moderate
Risk:	Moderate	Moderate
Risk pertains to outdated policies which govern the agricultural sector and financial services sector that are not conducive to the objectives of the project.		
Mitigations:		
(i): Policy dialogue sub-component will provide evidence basis for policy reform,		
and capacity building. (ii): The IFAD country office will support the implementing agency with policy dialogue.		
Environment and Climate Context	Substantial	Moderate
Project vulnerability to environmental conditions	Substantial	Moderate
Risk:	Substantial	Moderate
Bangladesh as a whole is highly prone to natural hazards including cyclones, storm surges, floods, landslides, earthquakes, tsunamis, sea-level rise and increasing saltwater intrusion. Therefore the inherent risk for vulnerability to environmental conditions is high.		
Mitigations:		
(i): detailed mitigation actions are articulated in the ESMF designed in joint consultation with the implementing agency.		

Project vulnerability to climate change impacts	Substantial	Moderate
Risk:	Substantial	Moderate
Key climate change impacts for the project area are linked to sea level rise contributing to increasing floods and increasing intrusion of saline seawater in addition to flash flood, riverine floods, cyclone, tidal surge, drought etc. All climate- induced phenomena could have significant effects on agriculture, with increasing salinity and mean temperatures having generally negative effects.		
Mitigations:		
(i): detailed actions are included in the ESMF designed in joint consultation with the implementing agency.		
Project Scope	Moderate	Moderate
Project Relevance	Moderate	Moderate
Risk:	Moderate	Moderate
The risks pertain to that the objectives and interventions of the project are not being well aligned is moderate as (i) poverty declining rapidly in Bangladesh and (ii) nutrition-sensitive interventions support the mainstreaming of improved nutrition		
Mitigations:		
(i): Detailed targeting guidelines have been developed and are included in the SECAP.		
(ii): The nutrition sensitive value chain approach is flexible approach which can be adjusted to a local context.		
Technical Soundness	Moderate	Moderate
Risk:	Moderate	Moderate
The main risk pertains to the fact that the project includes some innovations which are highly technical in nature for implementing entity, such as the development of a mobile suite and block chain.		
Mitigations:		
(i): Provide technical assistance to develop IT innovations and select appropriate partners to implement the components.		
Institutional Capacity for Implementation and Sustainability	Moderate	Moderate
Implementation Arrangements	Moderate	Moderate
Risk:	Moderate	Moderate
This risk related to insufficient capacity in-house (in specific with regards to IT components and Nutrition) might impact the implementation of project activities.		
Mitigations:		
 (i): Utilize capacity already build under PACE and use period when both projects are overlapping for cross-learning and capacity building. (ii): Develop an incentive scheme to attract qualified personnel. (iii): Develop a roadmap for IT interventions by international consultants prior to project design. (iv): Capitalize the multi purpose ICT suite developed under PACE additional financing phase. 		
Monitoring and Evaluation Arrangements	Moderate	Moderate

Risk:	Moderate	Moderate
Risk is concerned to capturing the data from different value chain and sub sectoral activities as the project will be implemented through out Bangladesh and through a number of partner organizations by PKSF.		
Mitigations:		
 Provide training to key M&E staff for the project and focal points of POs Introduce a MIS system Ensure a robust mechanism to capture the results as per the output and outcome indicators of the logical framework Develop M&E action plan 		
Project Financial Management	Moderate	Low
Project Organization and Staffing	Moderate	Low
Risk:	Moderate	Low
One FM & two assistant manager a have been onboard. Finance staff having appropriate knowledge and experience. But now the FM staff of RMTP is also providing support to PACE project team .Most of the project staffs needs awareness on IFAD's anti corruption policy Staff for managing the IFAD Grant in MoEWOE has been appointed, however it is noted that the staff has no experience in managing foreign funded grant.		
Mitigations:		
it should be ensured that FM staff of project team should fully dedicated for the RMTP project. The project should ensured that all staffs are aware about IFAD's anti corruption policy, also periodic trainings are needed to enhance the capacity of the POs and NBFIs FM staff. Additional trainings will be provided to MoEWOE by IFAD and by PKSF FM team.		
Project Budgeting	Substantial	Moderate
Risk:	Substantial	Moderate
AWPB for FY21 was submitted on 29th April 2021. approved on 12th September 2021 after some revision. An appropriate mechanism is established to monitor AWPB execution. The project has been monitoring the budgetary execution through PKSF software and manual records in accounting and reporting system in place. MoEWOE is expecting to submit its first AWPB and procurement plan in the first quarter of 2022. This document is condition for IFAD grant to be disbursed.		
Mitigations:		
The MOEWOE to submit AWPB in quarter 2022 as a condition for the first disbursement		
Project Funds Flow/Disbursement Arrangements	Substantial	Moderate
Risk:	Substantial	Moderate
The funds is controlled by the PMU in a two Designated Account (DA) and in two Project Account (PA). The project is not handle cash except for advance given for local workshops or training. All other payments are made through checks or bank transfer. One Designated Account and one project account have been set up for IFAD Grant and is managed by (MoEWOE)		

Mitigations:		
The PMU will ensure that the fund flow of the project (from PMU to PO) is managed under imprest arrangements. An adequate threshold will be established for POs for a quarterly replenishment to their bank accounts. The reporting line will be established under the premise of no delays in the implementation of activities. The FM staff of the PMU will carry out review of the PO's to guarantee the quality of the financial reporting. In this regard each PMU FM staff will visit to one PO periodically, thus most of the POs will be visited once in a year by PMU FM staff. The project will ensure that all payment is made through banking channel.		
Project Internal Controls	Moderate	Low
Risk:	Moderate	Low
The payments are managed under PKSF finance guideline and recorded in PKSF accounting software. PKSF has an internal audit unit (IAU). The internal audit team doesn't conduct risk based audit, rather takes part in transaction review		
Mitigations:		
To include RMTP in the annual internal audit program of PKSF		
Project Accounting and Financial Reporting	Substantial	Moderate
Risk:	Substantial	Moderate
PKSF has been submitting project IFR and unaudited financial statement FY 2020- 2021 within the deadline. The data for reporting are derived from PKSF accounting software and then modified manually to produce required project So manual system is followed for reporting to IFAD. The project financial reporting software has not yet been procured.		
Mitigations:		
The accounting will be carried out on a comprehensive and standardized FM system at the PMU level, which will consolidate the reports provided by the PO. RTMP will prepare annual financial statements and interim financial statements. The mission recommends the project to adapt PACE reporting system with modification needed for RMTP. The project to submit IFR period of July – December 2021 which include forecast for the next two quarter on 15 February 202. The next IFR will cover quarterly period starting January 2022 and submitted to IFAD within 45 days after end of quarterly period.		
Project External Audit	Moderate	Low
Risk:	Moderate	Low
The first audit report for RMTP will cover the fiscal period of 2020-2021. The first disbursement for the project was in August 2020 which fall within the period. The audit is conducted by MABS & J audit firm. The audit report will cover IFAD loan and DANIDA Grant and submitted to IFAD on 31 December 2021 the latest. The annual financial statement for IFAD Grant will be audited by FAPAD. The first audited financial statements for FY 2021-22 & 22-23 for the PIU MOEWOE will be due on December 31, 2023		
Mitigations:		
To submit audited financial statement for IFAD Loan and DANIDA Grant by 31 December 2021 the latest.		
Project Procurement	Moderate	Moderate

Risk:	Moderate	Low
The risk that the Borrower's regulatory and institutional capacity and practices (including compliance with the laws) are inadequate to conduct the procurement in a manner that optimizes value for money with integrity.		
Mitigations:		
 Adopt PPR provisions and ensure it is updated in the Project Implementation Manual. IFAD to review and clear of procurement plan Work with PKSF so that it adopts e-procurement portal of GOB 		
Accountability and Transparency	Substantial	Moderate
Risk:	Substantial	Moderate
The risk that accountability, transparency and oversight arrangements (including the handling of complaints regarding, for example, SH/SEA and fraud and corruption) are inadequate to safeguard the integrity of project procurement and contract execution, leading to the unintended use of funds, misprocurement, SH/SEA, and/or execution of project procurement outside of the required time, cost and quality requirements.		
Mitigations:		
 IFAD prior review to be established appropriate to risk in LTB Supervision (procurement) to identify risk/red flags Request regular feedback from procurement entity on complains/red flags Strengthen sanctions management system and processes Use IFAD standard bid documents which includes provisions for prohibitive practises and safeguards 		
Capability in Public Procurement	Moderate	Low
Risk:	Moderate	Low
The risk that the implementing agency does not have sound processes, procedures, systems and personnel in place for the administration, supervision and management of contracts resulting in adverse impacts to the development outcomes of the project.		
Mitigations:		
 Project will include recruitment of procurement specialist - supports existing PKSF capacity Periodic training and capacity development 		
Public Procurement Processes	Moderate	Moderate
Risk:	Moderate	Moderate
The risk that procurement processes and market structures (methods, planning, bidding, contract award and contract management) are inefficient and/or anti- competitive, resulting in the misuse of project funds or sub-optimal implementation of the project and achievement of its objectives.		
Mitigations:		
1) Close supervision and review processes in place through IEAD's NOTUS		
 Close supervision and review processes in place through IFAD's NOTUS system Continuous assessments through supervision missions 		
system	Moderate	Moderate

Risk:	Moderate	Moderate
There are moderate risks related to biodiversity conservation as project intervention could create mono cropping and consequently soil degradation.		
Mitigations:		
 (i): Encourage the use of local/indigenous varieties (ii): Promote crop rotation (iii): Protect forests and wetlands that are critical habitats for endangered species (iv): Prohibit introduction of exotic species 		
Resource Efficiency and Pollution Prevention	Substantial	Moderate
Risk:	Substantial	Moderate
Project interventions could potentially lead to increased waste water streams and pollution from small-scale agriculture. The ESMF contains a long list with potential negative impacts and mitigation measures. The value chain enhancement and other project activities may lead to increased waste generation from the micro enterprises. The detailed impact is elaborated in the SECAP analysis document in the PDR.		
Mitigations:		
 An ESMF has been developed that includes specific mitigation measures for identified risks. PKSF has a robust environment, health and safety protocol which will be adhered to during the implementation. The project will also comply with the standards laid out in the PDR. 		
Cultural Heritage		No risk envisaged - not applicable
No risk foreseen.		
Indigenous People	Moderate	Low
Risk:	Moderate	Low
As IPs are a vulnerable population in the country there is a moderate risk that the project may impact the social or economic conditions of IPs. Around 45 indigenous communities are present in Bangladesh most of them living in the Chittagong Hill Tracts, greater Mymensingh, greater Rajshahi, greater Sylhet, Patuakhali and Barguna. RMTP has a country wide mandate and is not specifically targeting areas that have a high incidence of IPs.		
Mitigations:		
 (i): there are no constrains for IPs to participate in project interventions and former projects by the implementing partner have equally targeted IPs. (ii): Project interventions are expected to result in increased incomes, increased food security and improved nutrition for all beneficiaries including IPs. 		
Labour and Working Conditions	Moderate	Low
	<i>Moderate</i> Moderate	<i>Low</i> Low
Labour and Working Conditions		
Labour and Working Conditions Risk: Unsafe and unhealthy working conditions could occur in the semi-formal sector and off farm sector which are either directly or indirectly supported by the project.		
Labour and Working Conditions Risk: Unsafe and unhealthy working conditions could occur in the semi-formal sector and off farm sector which are either directly or indirectly supported by the project. However, this risk is considerate moderate as the risks are small and site specific.		

Risk:	Moderate	Moderate
Community risks are low, mostly related to uptake of good agricultural practises.		
Mitigations:		
(i): the promotion of GGAP/BGAP (ii): adequate roll out of social inclusion mechanisms.		
Physical and Economic Resettlement		No risk envisaged - not applicable
No risk foreseen		
Greenhouse Gas Emissions	Moderate	Moderate
Risk:	Moderate	Moderate
The project will engage in several value chains with significant association with greenhouse gas production, including beef, poultry, dairy, goats and rice.		
Mitigations:		
 (i): value chain specific actions to reduce greenhouse gas emissions are included in the ESMF. (ii) the project design is aimed for the selected value chains to reduce the carbon intensity of each value chain, for instance by increasing the milk production of each cow, thereby lowering the emissions per litre of milk (dairy products) produced rather than reducing absolute emissions from each value chain per se. 		
Vulnerability of target populations and ecosystems to climate variability and hazards	Low	Low
Risk:	Low	Low
Multiple project activities can be impacted by extreme climate events and natural hazards which may result into loss of assets as well as economic catastrophe.		
Mitigations:		
The project will assess options to promote agri-insurance to safeguard the target populations from the climate vulnerability.		
Stakeholders	Moderate	Moderate
Stakeholder Engagement/Coordination	Moderate	Moderate
Risk:	Moderate	Moderate
Lack of proper stakeholder engagement/coordination may result into reduced ownership and underachievement of targets during the project life cycle.		
Mitigations:		
PKSF has a very robust stakeholder engagement protocol with the government counterparts as well in the field (through its POs) and they ensure a high level ownership of the project across different level of the national and local government level.		
Stakeholder Grievances	Moderate	Low
Risk:	Moderate	Low
Although both PKSF as well as POs are familiar with the grievance complaint mechanisms, the risk is moderate as a new mechanism needs to be established for RMTP.		

Mitigations:	
A detailed grievance mechanism has been developed and included in the ESMF.	

Annex – 9: Piloting of major technologies/innovations in all sectors

Sector: Horticulture

- 1. High-value fruit sapling (around 26 new varieties promoted from this project which are individually a technology such as G-9 banana, MD2 pineapple, coffee, cashew nut, avocado, etc.)
- 2. Biopesticide (pheromone trap, yellow trap, sticky trap, fruit bag, etc.)
- 3. Biofertilizer
- 4. Sprinkler irrigation system
- 5. Drip irrigation system
- 6. Banana chips
- 7. Coffee processing
- 8. Jam jelly preparation
- 9. Ecological farming in vegetable production
- 10. Vegetable processing
- 11. Bio-fertilizer production and using
- 12. Bio-pesticide production and using
- 13. Trico-compost production
- 14. Cold-press machine used for oil production

Sector: Livestock

- 1. Livestock diagnostic and testing technologies (input & output)
- 2. Bolus gun
- 3. Artificial insemination for goat
- 4. Heat detector machine
- 5. Slat technology for goat and sheep rearing
- 6. Sheep sharing/clipping/trimming machine
- 7. Commercial Silage production and packaging and baling
- 8. Fodder and straw chopping machine
- 9. Urea molasses straw
- 10. Urea-treated straw
- 11. Animal feed crushing machine
- 12. Cow comfort
- 13. Vermicompost production technology
- 14. Tricho-compost production technology
- 15. Compost crushing and knitting machine
- 16. Animal Identification technology using ear tag
- 17. Milking Machine (single and double)
- 18. Anti-kick bar for milking
- 19. Milk cooling technology
- 20. Yogurt incubator
- 21. Cream separator
- 22. Ghee making machine
- 23. Lactometer
- 24. Livestock weighing machine
- 25. Double-decker truck and boat
- 26. Livestock insurance using muzzle identification technology
- 27. Telemedicine and e-prescriptions (starts soon)
- 28. Ration calculator
- 29. Tally Khata
- 30. S-Manager for maintaining cashbook
- 31. Shudokkho apps for providing livestock services
- 32. Gobadi Prani ehaat/Starts e-commerce platform for selling livestock
- 33. Khamar bondhu apps (Farm management)

Sector: Fisheries and Aquaculture

- 1. Semi-intensive/intensive fish farming technology
- 2. Carp-galda polyculture
- 3. Black soldier fly larvae culture (BSFL)
- 4. Pearl production in freshwater pond
- 5. Use of probiotics in fish/shrimp production

- 6. Promote bottom-cleaning fish farming technology
- 7. Galda post larvae (PL) production in earthen pond
- 8. Water and soil quality (PH, dissolved oxygen, etc.) testing
- 9. Promote the biosecurity system (use of fencing net) around the pond
- 10. Increase the pond/gher depth
- 11. Use of feeding tray
- 12. Promote Ready to Eat' fish products
- 13. Promote Ready to Cook' and diversified fish products
- 14. Farm mechanization (use of aerators)
- 15. Fishing boat mechanization
- 16. Use AI and IoT in fish farming
- 17. Small-scale fish feed production using BSFL and locally available