



# Rural Microenterprise Transformation Project (RMTP)

**Brief Finding**

# Baseline Study Report

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**EMBASSY  
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The Rural Microenterprise Transformation Project (RMTP) is a six-year initiative implemented by the Palli Karma-Sahayak Foundation (PKSF) in Bangladesh, aimed at promoting the microenterprise sector to reduce poverty. RMTP focuses on supporting micro-entrepreneurs engaged in high-value agricultural products within three sectors: crops and horticulture, livestock and poultry, and fisheries and aquaculture. The project targets three categories of participants: the ultra-poor (10%), transitional poor (27%), and enterprising poor (63%). It aims to directly benefit 445,000 households, including 100,000 microenterprise borrowers and 345,000 participants involved in value chain development activities.

The goal of the project is to sustainably increase the income, food security, and nutrition of marginal and small farmers and micro-entrepreneurs across selected value chains. It aims to achieve this by promoting the growth of selected rural commodity value chains that have comparative advantages, market demand, growth potential, and backward linkages to small farmers and micro-entrepreneurs.

To establish a baseline for monitoring and evaluating the project's progress, a baseline study was conducted by Development Technical Consultants Pvt. Limited (DTCL) in collaboration with PKSF. The study collected both qualitative and quantitative data from project participants and similar households not receiving project support. A total of 2,374 beneficiaries and 792 microenterprise borrowers were interviewed as the treatment group, while 1,599 households served as the control group. Additionally, focus group discussions, key informant interviews, and in-depth interviews were conducted to gather qualitative information. Findings of the study is given below:

### **Crops and Horticulture Sub-Component**

#### **Farmer Demographics:**

- ✓ 70% of the interviewed beneficiaries were men, and 30% were women.
- ✓ The majority of male respondents (42.9%) were aged between 36-59 years, followed by 15-35 years (14.1%) and 60 & above years (12.7%).
- ✓ Among female respondents, most were aged between 36-59 years (18.3%), followed by 15-35 years (7.4%) and 60 & above years (4.5%).
- ✓ Among the respondents 9.4% were ultra-poor, 77.0% were transitional poor and rest 9.4% were enterprising poor.

#### **Crop Cultivation:**

- ✓ In the treatment area, more than 50% of farmers cultivated vegetables (51.3%) and rice (51.4%), followed by fruits (20.2%), maize (14.0%), and other crops (11%).
- ✓ The average cropping intensity was 186.10% in the project catchment areas and 194.77% in control areas.
- ✓ Approximately 62% of farmers in the treatment area and 64% in the control area cultivated high-yielding variety (HYV) crops.
- ✓ Around 32% of treatment area farmers and 46% of control area farmers used new technologies in crop production.
- ✓ Farmers were not aware of Good Agricultural Practices (GAP) in crop production.
- ✓ About 38% of farmers were aware of the hazardous nature of pesticide usage.

#### **Technology Adoption:**

- ✓ Farmers reported various advantages of using new technology, including higher production (67.8%), higher prices for produce (49.4%), quality production (31%), low labor intensity (16.9%), pollution-free crop production (14.9%), increased market demand (10.2%), and lower production costs (4.7%).
- ✓ A small percentage of farmers were involved in fruit and vegetable processing activities, such as pickle preparation, ketchup production, oil production, and chips production.

#### **Productivity:**

- ✓ Rice: 11.33 kg (treatment area) and 11.65 kg (control area), close to the national average.
- ✓ Wheat: 12.81 kg (treatment area) and 13.28 kg (control area).
- ✓ Maize: 31.63 kg (treatment area) and 33.49 kg (control area).
- ✓ Vegetables: 26.5 kg (treatment area) and 28.82 kg (control area) per decimal.

Challenges affecting crop production:

- ✓ Farmers in the study areas identified several challenges affecting crop production. The major challenges were high input costs (according to 78.5% farmers), crisis of obtaining quality inputs in a timely manner (74%), limited technical advisory services (44%), difficult to get loan support services (59%), shortage of quality planting materials (53%), lack of market access (38%).

### **Livestock and Poultry Sub-Component**

Farmer Demographics:

- ✓ Approximately 85% of the sample beneficiaries were women, and 15% were men.
- ✓ About 38% of the beneficiaries were youth aged less than 35 years.
- ✓ The average household size was 4.0 in the treatment area and 4.2 in the control area.
- ✓ Around two-thirds of household heads in both areas had completed some formal education, with varying levels of attainment.
- ✓ Among the respondents 15.5% were ultra-poor, 75.6% were transitional poor and rest 8.9% were enterprising poor.

Livestock Farming:

- ✓ Almost all beneficiaries were associated with livestock and poultry farming.
- ✓ Livestock farmers were engaged in meat production (beef fattening), dairy production (milk and related products), or poultry rearing (eggs or meat).
- ✓ Women beneficiaries were more prevalent than men in both treatment and control areas.
- ✓ About 5% of beneficiaries were also involved in crop farming, horticulture, or other activities.

Livestock Types:

- ✓ Livestock animals included cows/bulls, goats/sheep, and buffalo.
- ✓ Milk-producing cows were reared by 89% of households in the treatment area and 90% in the control area.
- ✓ Meat-producing cows/bulls and goats were reared by a significant proportion of households.

Artificial Insemination:

- ✓ Treatment area: 60% used artificial insemination, with para vets as primary providers (50%). Control area: 70% used it, with para vets providing for 40%.
- ✓ Issues faced by a minority included inefficient veterinary services and timing.

New Technology Adoption:

- ✓ Around 4% in both areas used new tech, with the mowing machine as the top choice.

Improved Fodder Collection:

- ✓ Sourced mainly from local bazars: 55% in treatment and 65% in control areas.
- ✓ Challenges: high costs and limited availability.

Farm Machinery Utilization:

- ✓ Treatment: 2.4% and Control: 11.2% used farm machinery.
- ✓ No mobile app usage reported.

Milk Sale:

- ✓ Average milk produced: Treatment: 143.4 liters, Control: 221.2 liters.
- ✓ Main sales outlet: market, with few facing price fluctuations and middlemen exploitation.
- ✓ Contract farming remains a nascent trend.

Vaccination:

- ✓ Treatment: 52% and Control: 60% vaccinated livestock. Few reported medicine quality issues.

Livestock Mortality:

- ✓ Treatment: 17% reported deaths with an average financial loss of BDT 20,554. Control: 23% reported deaths with a loss of BDT 26,400.
- ✓ Primary cause: pneumonia, followed by diseases like PPR, khichuni, and goat pox.

Livestock Sale:

- ✓ Yearly sales averaged 2.4 animals in treatment and 2.6 in control areas, mostly to Beparis.

Group Affiliation:

- ✓ Few farmers associated with meat-producing groups, but 10% of treatment-area farmers connected with RMTP sub-project.

#### Poultry Farming:

- ✓ Types of Poultry Birds: Local chickens (treatment area - 100%, Control area - 95%), Ducks (Treatment area - 73%, Control area - 68%), Sonali chicken, pigeons, and other birds were reared by roughly 10-16.7% of households.

#### Sources of Day-Old Chicks (DOC):

- ✓ Bazar: Treatment - 37%, Control - 41%.
- ✓ Majority (83%) faced no problems obtaining DOC. Issues included non-availability and poor quality.

#### Use of Ready Feed:

- ✓ Used ready feed: Treatment - 95%, Control - 85%.
- ✓ Primary sources: village shops, local markets, and upazila market.
- ✓ Most did not face issues, though some highlighted high costs.

#### Vaccination of Birds:

- ✓ Vaccinated birds: Treatment - 30%, Control - 26%.
- ✓ Sources included market, veterinarian, pharmacy, and shops.
- ✓ Issues: Ineffectiveness due to possible break in the cold chain.

#### Poultry Mortality:

- ✓ Mortality: Treatment - 65%, Control - 97%.
- ✓ Main cause of death: ranikhet - Treatment 42.3%, Control 41.3%.
- ✓ Average financial loss: Treatment - BDT 5,415, Control - BDT 4,790.

#### Marketing of Poultry Products:

- ✓ Almost all sold products, primarily to markets (70%) or neighbors (30%).
- ✓ Average sales per month: Treatment - 176.1 eggs and 70.9 kg meat, Control - 120.9 eggs and 8.3 kg meat.
- ✓ Contract farming was rare, present in 3% of treatment and 6% of control areas.

#### Management of Poultry Waste:

- ✓ Methods: composting (27%), biogas (23%), manure (20%), deep litter system (20%), and vermicompost (7%). Poultry waste primarily used for manure and biogas.

#### Group Affiliation and Tech Use:

- ✓ Few farmers (3% treatment, 6% control) were affiliated with poultry groups.
- ✓ Mobile app use was minimal, but they can offer valuable information on poultry rearing.

### **Fisheries and Aquaculture Sub-Component**

#### Farmer Demographics:

- ✓ A total of 683 men and 101 women were selected as respondents in the treatment areas.
- ✓ The majority of respondents were men (65.18%), followed by youth (21.94%), women (5.36%), and youth (women) in treatment areas.
- ✓ Among the respondents 0.64% were ultra-poor, 66.07% were transitional poor and rest 33.29% were enterprising poor.

#### Occupation Categories:

- ✓ Besides fish farming and fish production, male farmers were involved in crop farming (25.9%), fish processing (22.3%), fish production (20.9%), microenterprises (15.5%), and livestock farming (1.6%) in treatment areas.

#### Fish Culture and Methods:

- ✓ The average land size of ponds/ghers was 115.13 decimal in treatment areas, with own land accounting for 76.57 decimal, leased land for 31.77 decimal, and mortgaged land for 7.89 decimal.
- ✓ Carp culture was the most common fish farming activity (54%), followed by shrimp culture/production (29.1%), other fish culture (24.6%), tilapia culture (23.2%), pangus culture (8.9%), high-value native fish culture (4.6%), and local small fish culture (2.2%) in the treatment area.
- ✓ The average cost per acre for different types of fish culture was BDT 262542.5 in the treatment area and the average production per ha was 4829.66 kg.
- ✓ The majority of respondents in the treatment area followed improved traditional methods for fish culture (77.9%), while a small proportion used traditional (19%), semi-intensive (2.4%), or intensive (0.6%) methods.
- ✓ Only 13.1% farmers used aerator (new technologies) in fish production in treatment areas.
- ✓ A small percentage of respondents had agreements with government or non-government organizations for equipment or technical support.

- ✓ No respondents of treatment and control group followed the GAqP in production of fish.

#### Fingerling Collection and Fish Selling:

- ✓ Regular fingerling sellers were the primary source for fingerlings (65.8% in treatment areas and 60.1% in control areas), followed by floating fingerling sellers, government hatcheries, and non-government hatcheries.
- ✓ Most respondents sold their fish at selling points established by the project, followed by wholesalers, fishers, retailers, and big markets.

#### Fish Sales and Involvement in Other Sub-Projects:

- ✓ The average yearly fish sales per respondent were 7223.07 kg in the treatment area and 7565.35 kg in the control area.
- ✓ Only 0.8% of respondents were involved in the production of fish products, while the majority were not familiar with these technologies or the market prospects.
- ✓ Most fish were sold in the local market, and a smaller percentage was sold in distant markets.
- ✓ The majority of respondents did not have any involvement with market intermediators, while 14.4% admitted to involving intermediators.

### **Micro Enterprise Sub-component**

#### Sample Respondents:

- ✓ The baseline study collected data from a total of 792 sample respondents, including 73 men and 285 women, as well as 62 youth men and 372 youth women.

#### Types of Micro-enterprises:

- ✓ Micro-enterprises (MEs) were involved in various types of businesses, including grocery, small business, furniture, buying and selling goods, etc.
- ✓ Most MEs operated in the local market, but some also operated at higher levels, such as at the Union, Upazila, district, or out of the district.
- ✓ Women's main occupations within ME households were primarily in business (34.85%), followed by occupations such as cattle farming, crop farming, fish farming, and dairy processing.
- ✓ Among the respondents 15.4% were ultra-poor, 73.36% were transitional poor and rest 11.24% were enterprising poor.

#### Income and Expenditure:

- ✓ ME households had an average yearly income of BDT 378800 in the treatment area, with the highest incomes recorded in Khulna, Barisal, Rajshahi, and Rangpur.
- ✓ Small businesses generated the highest income for MEs, followed by agriculture, others, cattle and poultry, and fish farming.
- ✓ The highest expenditure for ME households was on food consumption, followed by other categories such as education, medical expenses, social affairs, and entertainment.

#### Training and Loans:

- ✓ The majority of respondents had not received any training from organizations, but a small percentage had received training on different agricultural activities.
- ✓ ME borrowers obtained loans from various sources, such as GJUS, ASA, GAK, CODEC, Grameen, BRAC, etc.
- ✓ The average number of times loans were taken from ME borrowers was 3.2 in the treatment area and 2.7 in the control area.
- ✓ The last loan taken by ME borrowers had an average size of BDT 63,630 from different financial institutes, projects, or NGOs.
- ✓ The highest 42.1% of Respondents of the ME borrowers had invested their ME loan in agri-khamar-related activities, followed by ME business (27.7%), livestock purchase (9.8%), material purchase (4.3%), agricultural activities (4.1%), land purchase (3.9%), etc.
- ✓ 29.4% of respondents admitted that loans positively impacted their ME business.

#### Experience in ME Business:

- ✓ The highest percentage of respondents had engaged in ME business for 3-5 years, followed by 1-2 years, 6-10 years, less than a year, and 11 & above years.

## **Minimum Dietary Diversity for Women**

MDDW is an indicator for women aged 15-49 measuring diet diversity. Women consume foods from 10 predefined food groups, and those consuming from at least 5 different groups in the past 24 hours are considered to have met their nutrient needs.

Overall MDDW:

- ✓ In the RMTP project's baseline, 34.4% of women in the treatment group and 34.08% in the control group meet the criteria for MDDW. This similarity suggests that both groups experience similar factors affecting their dietary diversity.

## **Knowledge, Attitude, and Practice (KAP) in Baseline Survey**

The baseline survey assessed KAP across several domains including nutrition, hygiene and sanitation, cultural beliefs, food preparation, and child feeding.

Nutritional Knowledge:

- ✓ There's a variation in correct nutritional knowledge, with the treatment area ranging from 19.80% to 64.85% and the control area from 17.76% to 64.79%. The control area had a slightly higher overall score (0.433 vs. 0.421).

Hygiene and Sanitation:

- ✓ Respondents displayed strong knowledge on practices like washing hands before meals (93.37% in treatment and 96.87% in control) and after defecation (91.41% and 93.00%). Scores were quite close (0.750 vs. 0.741).

Cultural Beliefs and Food Behaviors:

- ✓ There was mixed knowledge, with the highest awareness on the belief that excessive food can affect expected delivery (84.93% in treatment and 83.24% in control). Scores were nearly the same (0.644 vs. 0.642).

Food Preparation and Hygiene:

- ✓ Comparable knowledge in both areas, ranging from 29.69% to 74.26% in treatment and 30.14% to 76.99% in control. The scores were closely matched (0.433 vs. 0.432).

Child Feeding Knowledge:

- ✓ Notable high knowledge about the first food for newborns in both areas (97.88% in treatment and 99.06% in control). The treatment area had a slightly higher score (0.636 vs. 0.621).

Overall KAP Score:

- ✓ The overall knowledge level was nearly identical across both areas, with scores of 57.68% in treatment and 57.38% in control.

## **Women's Empowerment Situation**

Women's empowerment is defined as enhancing women's status through education, training, awareness, and literacy. It is a crucial development issue, emphasizing women's roles as agents, not mere recipients of development.

Key Takeaways:

- ✓ Women's empowerment, indicated by decision-making roles, is relatively low in both areas.
- ✓ Dominant reasons include cultural norms, lack of education, and restricted access to resources.
- ✓ Majority of the decisions are made jointly with husbands across most domains, with a few areas like daily cooking and choosing clothes seeing more independent decisions by women.

To ensure the smooth implementation of the project, it is essential to coordinate with other agencies to avoid overlapping support, provide training to input suppliers for effective technology transfer, establish an inputs hub for a consistent supply, offer specialized training in vermicompost and bio-flock fish farming for women beneficiaries, enhance beneficiaries' capacity to engage local government agencies, foster Micro Enterprises, maintain collaboration with government and research institutes, build the capacity of Project Officers, provide regular monitoring and market linkages, promote cooperative marketing, facilitate market access through pre-sale contract farming, and disseminate success stories widely. By adhering to these recommendations, the project can operate smoothly and achieve its goals while empowering and supporting its beneficiaries effectively.



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