

**DEVELOPMENT OF PROPOSAL FOR CREDIT FACILITY FOR
SMALL SCALE AQUAFARMERS, HATCHERY OPERATORS
AND FEED PRODUCERS IN BANGLADESH**

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EXECUTIVE SUMMARY

Fisheries sector plays an important role in the economy of Bangladesh. It contributes 3.65% to GDP, 60% to animal protein and direct and indirect employment to more than 11% of total population. Demand and supply projections suggest that the country needs to fill gaps ranging from 0.95 to 1.52 million mt beyond what the country could produce in 2024-25 with current technology and resources. Clearly, productivity needs to be improved. As aquafarmers lack required capital, they cannot utilize their full capacity. Organized financing in fish culture is negligible. Since fish culture is usually seen as risky, banks and NGOs are reluctant to provide credit in this sector. Sometimes, aquafarmers receive credit from agricultural bank and MFIs in the name of agriculture but the credit terms do not accommodate the dynamics of aqua farming. Bangladesh Bank has shown that fisheries loan accounts only for 8.5% of the total agricultural loan. Aquafarmers badly need credit do seldom get from the existing institutions. If they are provided credit, the lending institutions impose repayment schedules without considering any grace period. Thus, a suitable credit policy for small-scale aqua farmers need to be devised that is in tune with the dynamics of fish farming. Keeping these issues in view this study has been undertaken with the financial support and technical assistance of FAO.

The study aims at developing business plan for credit facility suiting needs of different types of aquafarmers. The specific objectives are to (i) assess credit needs of the aquafarmers, hatchery operators and feed producers and examine factors affecting receipt of credit; (ii) identify and describe the loan application process, loan ceiling and loan product; (iii) assess feasibility of credit provision for the respondents; and (iv) develop sample business plans including guidelines for small-scale aquafarmers, hatchery operators and feed producers..

Following multistage and simple random sampling techniques, the study worked with a sample of 309 in which 108 were aquafarmers, 70 were hatchery operators, 58 were feed producers, 30 each were prawn and shrimp farmers and the rest 13 were shrimp hatchery operators. It covered different hub areas of the enterprises under study. Demand side information was collected through structured questionnaire from the sampled respondents while supply side information

was obtained from BKB, Jagoroni Chakra Foundation, Mukti, Grameen Bank, BRAC, ASA, General Secretary of Hatchery Association and Upazila Fisheries Officer using a checklist.

The important start-up constraints faced by the finfish farmers are lack of capital and technical knowledge, high cost of feed and lack of quality fish fry. The respondents expressed the need for insurance for their enterprises. Among the banks, the main credit provider to fisheries sector is BKB but it does not give start-up capital. Farmers have to use their land as collateral for bank loan which is difficult or impossible for small farmers. The annual rate of interest is about 10-12% on a flat rate basis. Most of the start-up constraints were same for both finfish farmers and hatchery operators. The start-up constraints encountered by finfish feed producers are lack of start-up capital and insurance, high price and shortage of raw materials and inadequacy of skill. Lack of capital, skills and insurance and high risks were found to be the common start-up constraints for the respondents under study.

The important operational constraints faced by all finfish respondents are lack of operational capital and specialist advice, high feed cost, low price due to low demand, lack of transport and storage facilities, high price of raw materials, etc. Load shedding, lack of good quality seed, virus attack, flood and lack of mother shrimp are the major constraints faced by prawn and shrimp related respondents. The credit-associated constraints are inadequate credit, unmatched repayment schedule, inadequate number of credit delivery institutions and high interest rate and formality.

The study found that 96% each of finfish and hatchery, 95% of finfish feed, 93% of prawn, all shrimp and 54% of shrimp hatchery respondents need credit for their activities. Data show that the shrimp hatchery operators need the biggest size loan compared to other categories. The loan ceiling of BKB per 33 decimals of land varies from BDT25 thousand for Thai Sarpoti to BDT100 thousand for pangas. All of the farmer respondents recommend a 6-month grace period and none of them recommended a 3-month or shorter grace period which is existing in MFIs. A grace period of 3 months and monthly repayment is possible for shrimp hatchery operators. For beginners, grace period may be 6 months followed by a monthly installment schedule.

Although commercial banks require collateral, they hardly provide credit to the fisheries sector. BKB and RAKUB finance this sector but in limited scale. BKB provides credit of BDT70000 to 75000 per 33 decimals pond to the pond owners. MFIs sanction credit without collateral. Thus the MFIs can be a major source of financing small scale aqua farmers and entrepreneurs. But the credit size, disbursement and repayment schedule of MFIs do not match with the timing of aqua enterprises. So, adjustments require regarding MFI financing. Overall, MFIs and BKB or RKUB can be the major sources of credit for small scale aqua farming in Bangladesh.

The main marketing problem faced by shrimp hatchery operators is the penetration of low quality cheap shrimp seed from India. Poor demand particularly for pangus due to off-flavor is a major problem for finfish farmers while hatchery operators seriously suffer from poor road condition for transportation of fish seed. Feed producers are faced by high price of raw materials and usually they have to sell feed on credit. Prawn and shrimp farmers have to sell at prices fixed by traders. It was found that almost all the farmers harvest at the same time. Such practice reduces market price and it is aggravated further by the lack of storage and transportation facilities. Price fluctuating, high transportation cost, PL mortality during transport and difficulty to detect pathogens are the frequently encountering problems for shrimp hatchery operators. BCR results show that all the enterprises are profitable but prawn farming is the most profitable and finfish feed is the least. Among the different species, the highest BCR was found for tilapia.

Most of the financial institutions are not willing to provide credit to the aquaculture sector due to perceived and actual risks in this sector. Important risks affecting finfish farming are epizootics, water pollution, flood, low reliability of fish seed, low fish price and sometimes deliberate poisoning in the fish pond. Risks relating to finfish hatchery are diseases, poaching, lack of matured brood, treatment facility, capital, flood, etc. The identified risk factors in feed industry are credit sale, high raw material cost, load shedding, drying problem in monsoon and lack of capital, storage, and insurance. The measures suggested by the finfish respondents to cope with these risks are engagement of finfish culture specialists, maintaining water quality through regular changing, installation of irrigation device in hub areas, training, supplying more credit on easy and matching terms and conditions, introducing insurance, establishment of storage facilities, reduction of credit sale, lower tariffs on imported raw materials, etc.

The respondents reported epizootics and viral disease, tidal surges, price fluctuation and lack of quality seed, capital, treatment, insurance and quality brood as major hindering risks for prawn and shrimp enterprises. They also suggested several strategies like smooth supply of good quality therapeutants and feed through a proper agent, technical training, good quality net for protection, engaging shrimp hatchery specialist, periodical cleaning, etc. to cope with these risk factors.

Results of product design and business plan study suggest that the grace period for aqua enterprise credit should be 6 months and at least 3 months for hatchery and feed producers. Disbursement of loan for aqua farming should be based on the production stages, for example, 20% before pond preparation, 50% at stocking and the rest 30% before sale of product. However, disbursement of loan for hatchery operation and feed production should be a one-time event. Insurance should be introduced as a part of loan product.

A sample business plan represents the farmers and producers' expectation regarding the business prospect in future compared to previous years. Expected budget, income statement, balance sheet and monthly cash flows are the major components of the sample business plan. There are four major credit arrangements used by the respondents are: (i) without any credit, (ii) with bank credit, (iii) with trade credit and (iv) with moneylender credit. However, majority of them are using trade credit, no credit and credit from moneylenders. Income and cash flow analyses of these four facilities show that flexible MFI and bank credits are the most suitable for the enterprises to sustain in the long run.

Income statement shows that credit facilities contribute significantly to net revenue for all cases and net worth increases after credit intervention. With appropriate credit, monthly cash flows are all positive even though the business is not generating any revenue during the initial stage of production. Therefore, it can be argued that appropriate credit facilities are very important for viability of the business. In addition, appropriate and timely credit facilities may reduce production cost and hence reduce the market price as well. A business plan is also very helpful for MFIs and banks by providing a guide to the timing and quantum of credit interventions.

The study also made some recommendations. The important ones are (i) POs of PKSF and MFIs can be the major sources of financing for aqua farmers, only repayment schedule needs to be adjusted; (ii) commercial banks would be the main source for financing hatchery and feed enterprises as their loan requirement is bigger; (iii) grace period of loan should be consistent with the nature of the business, for example, 6 months for aquafarmers and 3 months for hatchery operators and feed producers; (iv) separate bank or financing program for fishery sector; (v) introduction of insurance bundled with the loan product; (vi) ensuring good quality matured broodstock by encouraging brood production as a separate enterprise by DoF; (vii) quality feed at affordable subsidized price; and (viii) impart training on aquafarming and preparation of business plan.