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Credit utilization pattern and repayment behavior of the fish farmers in Mymensingh and Kishoreganj districts

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Abstract

The study was conducted to assess the credit utilization pattern and repayment behavior of the fish farmers in Mymensingh and Kishoreganj districts during January to December, 2009. Data were collected from 600 fish farmers, 300 each from each district by employing stratified random sampling technique. Credit utilization rate in Mymensingh district was 49.04%, 56.73% and 70.29% in case of small, medium and better-off farmers, respectively. In Kishoreganj district, small, medium and better-off farmers utilized their credit money to the extent of 48.02%, 56.12% and 57.08%, respectively. Fifty eight percent of the credit money was utilized for aquaculture purpose. Credit repayment rate was 96% in both the two districts and the small farmers were found to be better re-payers than the others. Weekly repayment system was found to be the major hindering factor for timely repayment of credit. Utilization and repayment behavior of credit money were almost satisfactory after phasing out of the MAEP project.

Keywords: Utilization, Credit, Repayment, MAEP, SSS, DANIDA

Introduction

Micro credit plays an important role in poverty alleviation efforts of many developing countries. Over the years, there has been phenomenal growth in activities of micro credit across the developing world along with a transition in the paradigm and modalities of micro credit. In the field of micro credit there have been spectacular achievements as well as challenges too (FAO, 2010; ADB, 2010; DoF, 2010). Globally, micro credit is being practiced by various governments, non-governments and specialized organizations to provide credit to the poor people. Bangladesh alone has more than 11 million micro credit clients. As the world leader in micro credit, Bangladesh has introduced a number of innovative micro credit programs for poverty alleviation in response to the changing needs and capabilities of the poor. Micro credit has not been portrayed as a substitute for agricultural credit, nor for traditional banking, as it is for smaller in scale and differently targeted than such lending. However, micro credit fills gaps in credit delivery that are not addressed by other providers. It attempts to catalyze economic development aiming at reducing rural poverty (, Kidd, 2002 ; Rashid *et. al*. 2008 ; Razzak *et.al*, 2009).

In the prevailing agro-ecological suitability with favorable climatic regime along with diverse water resources, the fisheries sector is contributing a vital role in the economy of Bangladesh. Fish as an available and cheap source of protein yet contributes the essential protein supply to about 63% of the people (Karim, 2006).

Due to lack of resources and operational capital the poor people have little access to aquaculture (DoF, 2010). Bangladesh with a total of 2.30 lakh hectares of ponds and about 6.0 lakh hectares of other closed or semi-closed water bodies hold tremendous potential for involvement of poor, landless and marginal farmers where micro credit can be catalyzing element to trigger productive activities (Sharma, 2004; Sharmin, 2006).

Background of micro-credit provision in DANIDA funded MAEP project

Bangladesh Government emphasized credit for fish production and suggested credit provision in the 3rd Five Year Plan (1985-1990). Consequently in MAEP project, credit was also included as one of the main program components. The beneficiaries of the project who qualified for credit have been landless and marginal farmers, because they in addition to limited technical knowledge have little cash. Therefore, micro credit was helpful to start their income generating activities; in case of MAEP earlier phases where credit was provided for fish production, later integrated fish production or related service activities.

During the three phases of MAEP a considerable development of training and credit provision have been completed. Initially the loan amount was Tk.300 per decimal and given by the National bank. Generally loan was disbursed in three installments, the first one was 50% then it was followed by two successive 25% installments in case of carp poly culture. In case of nursery, the entire amount of loan was disbursed in one time. The model of MAEP credit program was a special type of program in its time, which was closely supervised. The project personnel were in constant touch with the borrowers giving them technical advice, which was indispensable for adopting semi-intensive carp poly culture on a profitable way, which ensured correct repayment of the provided micro credit. The first MOU with partner NGOS were signed in 1998 for expanding the activities in large areas. The partners NGO namely Society for Social Service (SSS) was selected for Mymensingh and Kishoreganj district implementing the project activities. The model for working with NGOs in the Consolidation Phase was designed in such way that all the associated costs (program and administration) to be covered by NGOs from the interest (service charge 12.5%) received from the farmers, which model as mentioned above was followed by SSS in the study areas such as Mymensingh and Kishoreganj districts from 1999 . After phased out of the MAEP, this model of micro credit is still followed in the study areas by SSS.

Materials and Methods

Six hundred fish farmers, 300 from Mymensingh and 300 from Kishoreganj district were randomly selected from among the landless, marginal and better-off farmer's categories during the period from January to December, 2009. Semi-structured questionnaire was used to collect data. The data were compiled, tabulated and processed through SPSS package.

Results and Discussion

Aquaculture credit utilization pattern and repayment behavior of the sampled fish farmers are presented below:

Receipt of fish farming credit

Information about the extent of aquaculture credit received by the sampled fish farmers is presented in Table 1. Average amount of loan received by the landless, marginal and better-off farmers in Mymensingh district were found to be Tk.7000, Tk.10000 and Tk.12000, respectively. Similarly the average amount of fish farming credit received by the above categories of fish farmers in Kishoreganj district stood at Tk.6000, Tk.9000 and Tk.12000, respectively. The volume of loan was positively related with the farm size.

Table 1. Summary information about the loan disbursed by SSS in Mymensingh and Kishoreganj district

Farm size	Mymensingh district			Kishoregonj district		
	No. of loanee farms	% of loanee farmers	Average amount of loan (Tk)	No. of loanee farms	% of loanee farmers	Average amount of loan (Tk)
Landless	100	33.33	7000	100	33.33	6000
Marginal	100	33.33	10000	100	33.33	9000
Better-off	100	33.33	12000	100	33.33	12000
All	300	100	9666	300	100	9333

Utilization pattern of credit by fish farmers

The disbursed credit is not only used in fish farming but also used in other productive purposes such as, agricultural production, purchase of livestock and investment in petty business. The credit given from MAEP project is partially utilized for fish farming activities.

Use of credit money for fish farming

Utilization of credit by participants is presented in Table 2 and Table3. Table 2 shows that the landless, marginal and better-off farmers in Mymensingh district invested 7.13, 6.98, and 8.55 percent of the received credit, respectively in pond preparation. The above categories of the farmers used 9.45, 8.07

and 6.85 percent credit respectively for purchasing fish fingerling and 28.25, 36.55 and 48.65 percent respectively for fish feed and fertilizers. Investment on fish farming appears to be 49.04 percent for small farm, 56.73 percent for medium farms and 70.29 percent for large farms. On an average, the farmers invested 58.35 percent of loaned amount in fish farming. Similarly, Table 3 shows that the landless, marginal and better-off farmers in Kishoreganj district invested 7.15, 6.95 and 6.85 percent respectively for pond preparation, 9.35, 8.05 and 8.45 percent for purchasing fish fingerling and 28.15, 36.65 and 45.65 percent respectively for feed and fertilizers. On an average, the farmers used 57.08 percent of borrowed loan amount in fish farming in Kishoreganj district.

Table 2. Utilization pattern of credit in different fish farming activities in Mymensingh district

Utilization pattern	Head of expenditure	Percent of credit			
		Landless	Marginal	Better-off	All
For fish farming	Pond preparation	7.13	6.98	8.55	7.55
	Purchase of fish fingerling	9.45	8.07	6.85	8.12
	Purchase of fish feed and fertilizers	28.25	36.55	48.65	37.82
	Harvesting and marketing	4.21	5.13	6.24	4.86
Total expenditure on fish farming		49.04	56.73	70.29	58.35
Other productive purpose	Agricultural production	9.33	15.45	8.45	11.08
	Purchase of livestock	12.35	10.35	8.5	10.4
	Investment in business	9.45	6.65	4.1	6.73
Total expenditure for other productive purpose		31.13	32.45	21.04	28.21
For unproductive purpose	Purchase of family food	8.33	4.0	2.5	4.94
	Medical treatment for family	2.2	1.4 5	1.21	1.62
	Repay of old debt	9.3	5.37	5.06	6.58
Total expenditure for unproductive purpose		19.83	10.82	8.77	13.15
Grand total		100	100	100	100

Table 3. Utilization pattern of credit in different fish farming activities in Kishoreganj district

Using pattern	Head of expenditure	Percent of credit			
		Landless	Marginal	Better-off	All
For fish farming	Pond preparation	7.15	6.95	6.85	6.98
	Purchase of fish fingerling	9.35	8.05	8.45	8.62
	Purchase of fish feed and fertilizers	28.15	36.5	45.65	36.77
	Harvesting and marketing	3.37	4.65	4.12	4.71
Total expenditure on fish farming		48.02	56.15	65.07	57.08
Other productive purpose	Agricultural production	9.25	15.4	8.45	11.03
	Purchase of livestock	12.25	10.3	9.45	10.67
	Investment in business	9.35	6.6	4.5	6.81
Total expenditure for other productive purpose		30.85	32.3	22.4	28.52
For unproductive purpose	Purchase of family food	9.55	4.15	4.25	5.98
	Medical treatment for family	2.5	2.5	1.19	2.06
	Repay of old debt	10.13	5.9	2.25	6.09
Total expenditure for unproductive purpose		21.13	11.55	8.41	14.13
Grand total		100	100	100	100

Use of credit for other productive purposes

It is apparent from Table 2 that the landless, marginal and better-off farmers invested 31.13, 32.45 and 21.04 percent of loan money for other productive purposes such as, rice and vegetables production, purchase of livestock(poultry and dairy) and investment in business (petty business) in Mymensingh district. Table 3 shows that the small, medium and large farmers of Kishoreganj district invested 30.85, 32.3 and 22.4 percent of borrowed loan in above mentioned other productive purposes.

Use of credit for unproductive purposes

Total investment of loaned money for unproductive purposes was 19.83, 10.82 and 8.77 percent for landless, marginal and better-off farmers respectively. In general 13.15 percent of total loan money was spent on unproductive purposes such as purchase of family food, treatment and repay of old debt in

Mymensingh district (Table 2). On the other hand, in Kishoreganj district 21.13, 11.55 and 8.41 percent of total credit money were used on unproductive purposes by the landless, marginal and better-off farmers respectively. In general, 14.13 percent of total loan money was spent on above mentioned unproductive purposes (Table 3). A graphical representation on the comparison of credit utilization pattern in the study areas has been shown in Fig. 1 and 2.

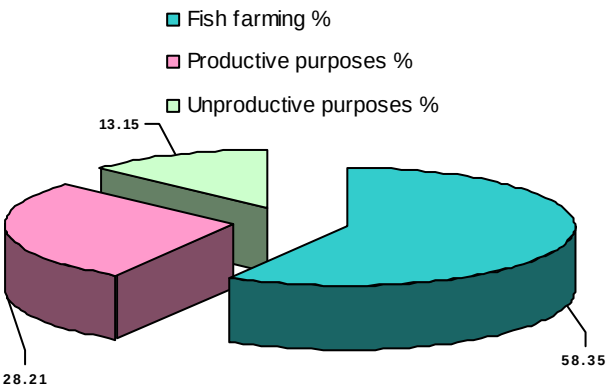

Fig. 1. Utilization patterns of credit in Mymensingh district

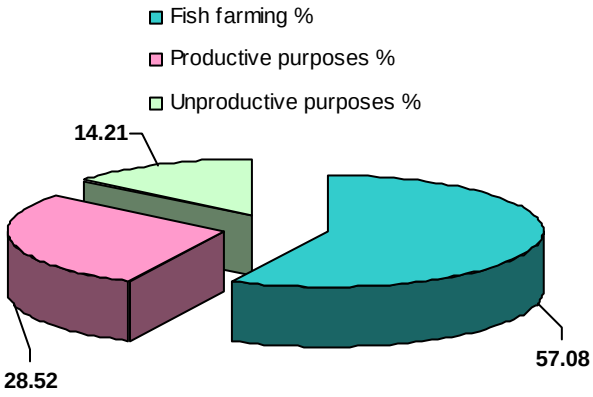

Fig. 2. Utilization patterns of credit in Kishoreganj district

Repayment behavior of credit by the fish farmers

Repayment capacity is one of the crucial aspects of credit analysis. Timely credit repayment depends on the proper utilization of credit in the profit oriented sectors. The rate of interest of the aquaculture credit was 12.50 percent for all the fish farmers. The credit was required to be repaid in 45 installments in one year.Table (4 & 5) show the average repayment and overdue loan paid by SSS in the two districts. In Mymensingh district average amount of loan due for recovery were Tk.376, 422 and 634 and percentages of loan repayment were 98.20, 96.25 and 95.30 for small, medium and large farms, respectively. The average repayment was 96.58 percent for all farm categories. In Kishoreganj district, the average amount of loan due for recovery were found to be Tk. 189, 364 and 680 and percentage of repayment were 97.20, 96.40 and 95.35 for small, medium and large farm respectively. The average repayment was however, 96.32 percent for all farm categories. It is evident from the Table 4 & 5 that the recovery percents of the fish farming credit provided by the Society For Social Service (SSS) were satisfactory for both the districts. The small farmers were found to be better repayers than the others.

Table 4. Repayment behavior of credit (SSS) borrowers according to aqua farm size in Mymensingh district under MAEP program

Farm size	Principal	Interest	Total	Type of repayment		Re-payment	Due	Percent of total repayment
				Weekly (45 weeks)	Installment amount (Tk.)			
Landless	7000	875	7875	(45) weeks	175	7449	376	98.20
Marginal	10000	1250	11250	(45) weeks	200	10828	422	96.25
Better-off	12000	1500	13500	(45) weeks	300	12866	634	95.30
All	9666.66	1208.33	10875	(45) weeks	225	10381	477.33	96.58

Table 5. Repayment behavior of credit by of SSS borrowers according to aqua farm size in Kishoreganj district under MAEP

Farm size	Principal	Interest	Total	Type of repayment		Re-payment	Due	Percent of total repayment
				Weekly (45 weeks)	Installment amount (Tk.)			
Landless	6000	750	6750	(45) weeks	150	6561	189	97.20
Marginal	9000	1125	10125	(45) weeks	225	9761	364	96.40
Better-off	13000	1625	14625	(45) weeks	325	13945	680	95.35
All	9333.33	1166.67	10500	(45) weeks	233.33	10089	411	96.32

Factor affecting timely repayment of fish farming credit

Regarding repayment of credit, the respondents were asked to mention about the factors that hindered them to repay the borrowed credit timely in the study areas. The credit repayment systems were considered as hindering factors. Three systems were considered as hindering factors although there were other factors too. The MAEP credit money provided by SSS was solely aquaculture oriented. As a result, installment system is one of the most important hindering factors. Table 6 shows that 95, 93 and 91 percent landless, marginal and better-off farmers respectively reported that weekly installment system is the major hindering factors of timely credit repayment in the study areas. About 93 percent farmers reported that weekly repayment system is the most important constraint in timely credit repayment. A small percentage (3%) of the respondents indicated that the tri-monthly repayment system could be a moderate means of timely credit repayment effective factor in aquaculture.

Table 6. Factor affecting timely repayment of credit according to farm size in Mymensingh and Kishoreganj districts

Affecting factors	Farm size							
	Landless		Marginal		Better-off		All	
	No. of respondents	%	No. of respondents	%	No. of respondents	%	No. of respondents	%
Weekly installment	190	95	186	93	182	91	558	93
Monthly	4	2	8	4	14	7	26	4
Tri-monthly	6	3	6	3	4	2	16	3
All	200	100	200	100	200	100	600	100

Role of micro-credit in aquaculture development and poverty reduction

Micro-credit though it is a small amount of working capital but its proper utilization in the appropriate fields can give more benefit to the potential users. It is very difficult for the poor to get small working capital from formal banking system for various reasons. A collateral free working capital is the requirements at the door steps of the poor at the right time to help them facilitate and start feasible intended income generating activities (IGAs). Due to the lack of water resources and operational capital, the poor people are not involved in aquaculture. In the rural environment, there exist tremendous opportunities to expand aquaculture due to the adoption of scientific modern aquaculture technique in different level involving poor, marginal, destitute women, entrepreneurs and unemployed youth through the conduct of micro-credit by the Department of Fisheries and NGOs in fisheries sectors (DoF, 2010). To strengthen the rural economy based on its water resources, ponds, lakes, flood plain, haors, canals, borro pits, road side ditches and culture based management of semi-closed and open water bodies are being utilized through micro-credit facilities with the easy repayment schedule with minimum rate of service charge varies from 5% to 12.5% and simultaneously disseminating improved culture technologies through training for obtaining increased fish production for domestic consumption and export involving different fish farmers for their socio-economic development that has impacted on overall poverty reduction in the country (FAO, 2010). In some donor-funded aquaculture projects, the NGOs are involved as partner or are given sub-contract to implement specific responsibilities including the group credit delivery. The group credit is being used for renovating water bodies, purchase of production inputs; facilitate income generating activities (IGAs) like poultry raising, cattle fattening, horticulture etc.; for developing derelict ponds / dighis and other closed or semi-closed water bodies ensuring participatory involvement of beneficiary group members. The group members are sensitized and given training on environment friendly aquaculture ventures. Within the perspective of economic growth and to reduce the poverty situation of the country the female force is being utilized into the development process including aquaculture. The ongoing development projects of DoF are involving 30-40% women in the group to perform aquaculture activities, in some instances even the group is constituted with 100% women. Moreover, a large number of NGOs are investing micro-credit to promote fish culture involving the poor through group approach (DoF, 2010; PKSF, 2010, RMC, 1995). Khaleque *et al*. (2006) reported that the utilization of MAEP integrated aquaculture credit provided by SSS were 55% in fish farming, 35% in household economics followed agriculture and 10% in other unproductive purposes. They also stated in their report that the recovery rate of credit was 96.5% disbursed by SSS and weekly credit repayment system is not a fair means of

credit repayment system in aquaculture and many women are going to achieve the self sufficiency involving in MAEP project. They again strongly suggested minimum three months of grace period in aquaculture credit. Kuri *et al*. (2007) and Winrock International (2003) reported that the credit utilization pattern and repayment behavior of DANIDA funded MAEP project in Mymensingh and Kishoreganj districts were 53% in fish farming, 30% in other productive purposes and 17% in other unproductive purposes through family uses and credit recovery rate was found to be 97.02%. They also commented that MAEP supported micro-credit has been working as vital capital like a catalyst in implementing MAEP carp-polyculture technologies in that two districts. Hood *et al*. (2008) showed in their impact evaluation of aquaculture interventions in Bangladesh funded by DANIDA that the credit utilization pattern of MAEP project was 51% in pond fish culture, 29% in other agricultural production and 20% in other unproductive purposes and credit recovery rate was 96% in Mymensingh and Kishoreganj districts. They recommended at least three months of grace period in aquaculture credit provided by the NGOs.The results of the present study is very similar with the findings of Khaleque *et. al*. (2006), Kuri *et al.* (2007), Winrock (2003), Hood *et al*. (2008), and Andras *and Khaleque* (2003). It was found that 58% credit was used in fish farming, 28.02% in other productive purposes and 13.04% in other unproductive purposes and credit recovery rate was found to be 96% in an average and the weekly credit installment system was the main hindering factor of timely credit repayment system by the fish farmers in the study areas.

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