

Coastal Indebtedness and Impact of Microfinance in Marine Fisheries Sector of West Bengal

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ABSTRACT

The Micro-Finance Institutions (MFI)/Self Help Groups (SHG) mobilised in marine fisheries sector play vital role in reducing the indebtedness among marine fisherfolk. The paper makes an attempt on the assessment of the extent of indebtedness among marine fisherfolk in mechanized, motorized and traditional fisheries sectors and the impact assessment of Microfinance Institutions (MFI) on coastal indebtedness. The study was carried out in two coastal districts of West Bengal state. Situational analysis was done through PLA in the selected locations and the sample respondents were selected from mechanized, motorized and traditional sectors. Data were collected through personal interview from members of 12 selected MFIs and non members in these sectors comprising a total of 600 respondents. The results showed that the level of indebtedness of members of MFIs was less compared to the non members. Even if the indebtedness was more in certain cases, the repayment capacity was found to be significantly improved in MFIs. There is an extreme necessity of strengthening the MFI ventures in the traditional, secondary and tertiary fisheries sectors in the state. A comparative assessment of the sources of credit, the purposes of credit and the utilisation pattern of loans in the state also was undertaken to draw valid conclusions. It was also found that the MFIs ranked better in most of the major attributes in the perception of stakeholders compared to banks and non-institutional credit sources. Success cases of MFIs on entrepreneurial capacity building, those significantly played the role in the debt redemption and poverty alleviation were documented as a practical manual for mobilizing MFIs in any key areas on a sustainable basis.

The extent of coastal rural indebtedness in the marine fisheries sector is quite observable throughout the Indian coastal belts. The Micro Finance Institutions/Self Help Groups mobilised in marine fisheries sector do play a vital role in reducing the vicious circle of indebtedness among marine fisherfolk. An exact assessment on the indebtedness level has not so far been attempted among marine fisherfolk. The extent and quantum of indebtedness at a reasonable level of interest sourced out from the organised sector is an indicator of development since availability of finances boosts up the economic activity and capital formation in a region. The extent of indebtedness and the average outstanding debt per indebted households are comparatively less among fishermen as per the figures of institutional sources, but the affairs of the fisherfolk is really grim as they are

virtually gripped in the hands of non-institutional agencies, namely the money lenders and traders for which legitimate data sources do not exist. Vipinkumar and Baldeo Singh (2002) assessed the impact of Self Help Group Dynamics on debt redemption in Horticultural sector in Kerala. Success cases of Self Help Groups in marine fisheries sector in entrepreneurial capacity building for debt redemption through appropriate micro-enterprises were elucidated in an impact assessment study of Vipinkumar and Baldeo Singh (2007). But in fisheries sector, fisherfolk are attracted to the non-institutional agencies on account of simple procedures and timeliness in availing finance and for operational expenses which ultimately make them suffer from debt trap and vicious circle of indebtedness. Even when Fisheries sector possesses a major role in earning foreign exchange, the fisherfolk are still in the

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lower strata of the society because of indebtedness and are in the clutches of non institutional credit agencies. As cheap credit is always essential for development of Indian marine fisheries sector with a coast line of 8129 km, micro finance institutions play a distinct role in this regard to offer low cost credit and thereby save the fisherfolk from permanent debt trap. The importance of the study is in this regard is to assess the extent of indebtedness among marine fisherfolk in mechanized, motorized and traditional sectors on the impact assessment of Microfinance on rural indebtedness in marine fisheries sector as well as and the role of credit agencies in providing credit, the credit utilization pattern as well as repayment behaviour of marine fisherfolk

In West Bengal, there are 76,981 fishermen households in the state with a total population of 3,80,138. There are 188 marine fishing *grama panchayats* of fisherfolk in West Bengal and the maximum number was in south 24 Parganas district. The total number of landing centres is 59, of which 38 belong to Purba Midnapur district. It was noticed that 70 % (53,532) are traditional fishermen families. The average number of families per *grama panchayat* is 409, with 2022 persons per *grama panchayat*. Women form 46 % of the population with 865 females per 1000 males. (CMFRI, 2010). There are 40,870 households below the poverty line. With regard to the education, it was observed that 60 % of fisherfolk are educated with varying levels of education. There are 95,283 active fishermen of whom 55,511 are full time fishermen, 24,744 are part time and the rest are engaged in fish seed collection. Hindus constitute 92% of the total fisherfolk families, followed by muslims (7%) and others (1%).

There are 17,348 crafts in the fishery of which 14,282 are mechanized and 3,066 are non-motorized. Trawlers (9.5%), bagnetters (36%) and gill-netters (39%) are the main crafts in the mechanized sector. Out of the 11,958 crafts fully owned by fisherfolk 41 % are mechanized and 59% are non-motorised. In West Bengal, 86% of the fisherfolk houses are kutchha houses and 14% are pucca houses. There are 1198 primary schools, 238 secondary schools and 9 colleges and among the fishing *grama panchayats*, 79 % are electrified.

Mammoo (2004) in a study on income, indebtedness and savings among fisherfolk of Udayapur and Gopalpur of Odisha under BOBP Programme says that fishing communities know two distinct credit sources: the traditional/informal and the institutional/formal. Traditional sources include moneylenders, middlemen, fish traders,

boat owners, shopkeepers and pawn brokers. Institutional sources are mainly banks and cooperatives. Khan *et al* (2005) in a case study undertaken on fisheries sector indebtedness in Baluchistan and Sindh of Pakistan, observed an empirical link between poverty and indebtedness and the mean debt to income ratio in low income group of fisherfolk was 3.4. Yunus (1999), the pioneer of microfinance projects in Bangladesh said the micro finance system enabled thousands of people by offering poor people loans, some fear it could lead to over-indebtedness, but microfinance has benefited the wider economy. Having started with providing loan to a group of impoverished women in the mid 1970s, Yunus has been a pioneer in using microfinance as a tool to lift people in 80,000 villages of Bangladesh out of poverty and indebtedness and he pointed out that while microfinance in India has lots of growth potential, regulatory changes are required and an independent regulator needs to be set up to monitor cases of abuse.

A few studies on the impact of microfinance organizations on rural indebtedness in fisheries sector were conducted in the international level by Fisheries Co- management Case Study from The Gambia (Njie and Mikkola, 2001). Vipinkumar (2007) presented a study in Asian Fisheries Forum on dynamics of twelve women's Self Help Groups in Marine fisheries sector of Malabar area of Kerala and developed a strategy for mobilisation of an effective Self Help Group. Sathiadhas (2009) has conducted a couple of micro level socio economic studies on indebtedness in selected fishing villages in different maritime states in India. Jayaraman (2005) undertook the performance analysis of fisherwomen Self Help Groups in Tamil Nadu and reported women SHGs played a substantial role in alleviating poverty and indebtedness in fisheries sector. Bhairav (2006) reported that there is incontrovertible evidence that rising agricultural debts are forcing farmers to commit suicide and severely affecting Indian Agriculture. Mohanty (2007) studied average debt per indebted households of agricultural labourers and found the per household debt for agricultural labourers has increased by 80 percent from Rs. 2901 to Rs. 5230 between last two RLEs of 93-94 and 99-2000. Tripathi and Sharma (2007) conducted impact assessment of SHG-Bank Linkage Programme on Financial Behaviour of Rural Poor in Raebareli District in Uttar Pradesh to address the issue of sustainable development of the rural poor through SHG-Bank linkage using participatory approach. The livelihood analysis encompasses all the strategies and assets that individuals and households use

to earn a living of which micro finance plays a vital role.(CBCRM Resource Center, 2003; Arciaga *et al*, 2002; Ashby, (2003). NSSO, (2003), Ministry of Finance (2007) and CED (2008) brought out the reports of indebtedness level in the Indian agricultural sector. Kudumbashree (2010) of Kerala state has spent Rs 121.88 crores for microfinance enterprises for women empowerment. In this context, the micro finance institutions /Self Help Groups of fisherfolk do have a pivotal role in reducing the indebtedness in the marine fisheries sector.

The major objectives of the study were

1. To assess the extent of rural indebtedness and the role of various agencies in providing credit, the credit utilization pattern and repayment behaviour in marine fisheries sector in West Bengal state.
2. To study the impact of selected Microfinance Institutions / Self Help Groups on rural indebtedness, supply of credit and empowerment of marine fisherfolk in West Bengal.
3. To study the comparative appraisal of perception of fisherfolk on MFIs, Institutional and Non institutional credit sources in terms of selected attributes.

METHODOLOGY

Assessment of the extent of indebtedness among marine fisherfolk in mechanized, motorized and traditional sectors and the role of credit agencies in providing credit and the impact assessment of Microfinance Institutions (MFI) on coastal rural indebtedness were focused for the present study. The credit utilization pattern and repayment behaviour in marine fisheries sector, the impact of selected MFIs on indebtedness, supply of credit and empowerment of marine fisherfolk, elucidating success cases of MFIs in entrepreneurial capacity building were the major aims.

The study was undertaken in two coastal districts of West Bengal state. Those major maritime districts from where the data were gathered were East Midnapur and South 24 Parganas. The fishing villages selected were Diga, Contai, Junput, Ramnagar, Dadunpatra of East Midnapur district and Kakadwip of South 24 Parganas district. The map showing the locale of the study in West Bengal is presented in figure 1.

Situational analysis was done through PLA in the selected potential maritime locations in the above mentioned zones and the marine fisherfolk from the various strata such as mechanized, motorized and traditional sectors were taken as representative samples. From each state, 6 MFIs were selected, comprising a total of 12 MFIs and data were gathered from MFI members and non MFI members of mechanised, motorised and traditional sectors comprising a total of 600 respondents. Study was made through personal interview of the fisherfolk to assess extent of coastal rural indebtedness, supply of credit and empowerment and other parameters with a pre-tested and standardized data collecting protocol. Success cases of MFIs on entrepreneurial capacity building were elucidated which significantly played the role in the debt redemption and poverty alleviation and were documented. The sampling distribution is presented in table 1 and figure 2.

Similarly to study the comparative appraisal of perception of fisherfolk on MFIs, Institutional and Non institutional credit sources in terms of selected attributes, respondents were asked to assign ranks to each of the attributes to make comparison. The data obtained from the respondents were systematically tabulated for the purpose of analysis Garrett's Ranking Technique was used to identify and rank the attributes on the functioning of MFIs. Garret's ranking technique provides the change of orders into numerical scores. The prime advantage of this technique over simple frequency distribution is that the reasons and factors are arranged based on their importance from the point of view of respondents. The per cent position of each rank was converted into scores referring to the Table given by Garret and Woodworth (1969). Garret's formula for converting ranks into percent is given below:

$$\text{Percent position} = 100 * (R_{ij} - 0.5) / N_j$$

Where,

R_{ij} = Rank given for i^{th} factor by j^{th} individual

N_j = Number of factors ranked by j^{th} individual

For each factor, the scores of individual respondents were added together and divided by the total number of the respondents for whom scores were added. The mean scores for all the factors were arranged in descending order, ranks were given and the most important factors or reasons were identified. Thereby the comparative appraisal of MFIs, Institutional and Non Institutional credit agencies was made.

The sampling distribution of 600 respondents is presented in table 1.

Table 1 : Sampling distribution in West Bengal

Sector	Total	Non MFI Members	MFI members
Marine Capture fisheries	600	400	200
Primary Mechanised	325	220	105
Motorised	200	130	70
Traditional	75	50	25

RESULTS AND DISCUSSION

The highlights of the results on the level of indebtedness across the sectors are presented in table 2. The average indebtedness of fisheries households in mechanised sector of non members of MFIs is Rs 1.95 lakhs and that of members is Rs 1.52 lakhs. In motorised sector, the indebtedness of non-members is Rs 1.67 lakhs and that of MFI members is Rs 1.27 lakhs. But in the traditional sector MFI members' indebtedness is Rs 0.65 lakhs and that of nonmembers is Rs 0.16 lakhs which indicates the necessity of strengthening the MFI ventures in the traditional sector. It is interesting to see that the level of indebtedness of MFI members is lesser than the nonmembers in all the three sectors and the % of repayment of MFI members also is much better compared to nonmembers. MFIs significantly reduced the dependence of fisherfolk on private moneylender and

considerably reduced the indebtedness level and increased their repayment capacity. The major results on the level of indebtedness of MFI members and non members are presented in table 2. It can be seen that the level of indebtedness of MFI members is lesser than the nonmembers in all the three sectors and the % of repayment of MFI members also is much better compared to nonmembers.

Table 2: Level of indebtedness and repayment in West Bengal

Sector	Indebtedness in Rs lakhs		% of Repayment	
	Non members	MFI members	Non members	MFI members
Mechanised	1.95	1.52	20	22
Motorised	1.67	1.27	23	25
Traditional	0.65	0.16	10.5	18

The following table 3 show the average of family particulars of respondents.

Table 3: Family particulars of respondents

No.	Family particular	Average
1	Family members	5.03
2	Adults	3.40
3	Children	1.63
4	male	2.62
5	Female	2.42

The savings and level of indebtedness of respondents in West Bengal are shown in table 4. The state has the average indebtedness level of 88%.

Table 4 : Savings & level of indebtedness of respondents in West Bengal

No	State	Frequency of respondents having savings				Total	Level of Indebtedness (%)
		Nil	< 0.5 L	0.5-1 L	>1 L		
1	West Bengal	528	54	18	0	600	88

It can be observed that private money lenders are the major sources of loans in West Bengal followed by banks.

Table 5: Sources of credit in West Bengal

No	Sources	No. of respondents	%
1	Banks	178	34.36
2	Co-operatives	42	8.10
3	Private money lenders	218	42.08
4	Friends / Relatives	36	6.94
5	Fish traders	12	2.31

6	Boat owners	8	1.54
7	Shop keepers	10	1.93
8	Jewel loans	14	2.74
Total		518	

Similarly the purposes of credit in West Bengal are presented in table 6 and it can be seen that the major purpose of credit in West Bengal is for the purchase of craft /gear and other fishing related equipments & repair. (74%).

Finance plays a crucial role in accelerating any business activity/economic development and fisheries sector is not an exception. Being the state with maximum level of indebtedness, compared to other maritime state, the economic activities of the fishing villages in West Bengal mainly depend upon the availability of credit at reasonable cost to enhance production and income. The extent and quantum of indebtedness at a reasonable level of interest sourced out from the organised sector is an indicator of development since availability of finances boosts up the economic activity and capital formation in a region. Regarding the Indebtedness in fisheries sector of West Bengal, the average indebtedness

per household was observed as Rs 0.89 lakhs and the fisherfolk are virtually gripped in the hands of non-institutional agencies, namely the money lenders and traders. Fisherfolk are attracted to the non-institutional agencies on account of simple procedures and timeliness in availing finance mainly for meeting their immediate operational expenses. Since majority of the money lenders in fisheries sector are middlemen cum traders, who offer credit on the guarantee of selling of fish to them, often exploit fishermen by offering less price for produce.

Similarly the purposes of loans in West Bengal are presented in table 6 and it can be seen that purchase of craft/gear and other fishing related equipments & repair has the highest per cent followed by house construction. Loan being utilized for Non Performing Asset (NPAs) creation other than fishing and related activities existed to a great extent as loans are being used for non-fisheries activities like asset creation and social obligations.

Table 6: Purpose of credit in West Bengal

No	Purpose	No. of respondents	%
1	Purchase of craft /gear and other fishing related equipments & repair	394	73.78
2	House construction / land purchase	38	7.11
3	Marriage expense	34	6.36
4	Education	12	2.24
5	Health and Social Security	6	1.12
6	Any others (business, purchase of vehicles)	50	9.39
Total		534	

The final objective to make a comparative appraisal of perception of fisherfolk on MFIs, Institutional and Non institutional credit sources in terms of selected attributes, respondents were asked to assign ranks to each of the attributes to make comparison. The comparative assessment of MFI, Institutional and non-institutional credit are compared in the table 7. Garrett's Ranking Technique was used to identify and rank the attributes on the functioning of MFIs. It provides the change of orders into numerical scores. The prime

advantage of this technique over simple frequency distribution is that the reasons and factors are arranged based on their importance from the point of view of respondents. From the table it can be seen that in many of the attributes like provision of longer loans, provision of loan grace periods, easy repayment schedule, low interest rate, less stringent for default of payment, limited hidden cost and concerns and need for collateral security, MFIs are much better in performance in majority's perception.

Table 7: Appraisal on the functioning of the MFI/ Institutional/ Non-institutional credit agencies

SI.No	Attributes	Institutional		Non Institutional Credit		Micro Finance Institution	
		Score	Rank	Score	Rank	Score	Rank
1	Easy approval process	41.75	III	49.30	I	45.50	II
2	Diverse areas of funding	42.85	II	43.65	I	40.75	III
3	Eligibility of recipients	61.35	I	46.95	III	48.95	II
4	Maximum loan amount	62.75	I	57.35	II	54.75	III
5	Need for collateral security	56.45	I	53.65	II	52.65	III
6	Provision of longer loans	51.25	II	43.75	III	52.45	I
7	Provision of loan grace periods	43.35	II	40.75	III	44.55	I
8	Easy repayment schedule	49.45	II	41.35	III	52.85	I
9	Low interest rate	57.35	I	42.35	III	44.65	II
10	Stringent for default of payment	56.35	II	59.25	I	55.35	III
11	Hidden cost and concerns	50.35	II	59.35	I	45.55	III

CONCLUSION

The study makes an attempt on the assessment of the extent of indebtedness among marine fisherfolk in mechanized, motorized and traditional sectors and the perceived impact assessment of Microfinance Institutions (MFI) on coastal rural indebtedness. The study was carried out in two maritime states in the potential coastal belts of West Bengal State and in general, it can be observed that the level of indebtedness in MFIs is less compared to non MFIs. Level of indebtedness in non MFIs is almost 3 times of MFIs. Per household indebtedness in West Bengal is approximately 0.89 lakhs and level of indebtedness is 88 %. Even when the indebtedness is high, the repayment capacity of MFIs is found to be more. Private money lenders were found to be the major source of funding followed by banks. Non-institutional credit agencies still hold good across the sectors. NPAs existed to a great extent as loans are being used for non-fisheries activities like asset creation and social obligations. There is an extreme necessity of strengthening the MFI ventures in the traditional and tertiary sectors.

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