



# A study on the role of microfinance on indebtedness in marine fisheries sector in Odisha

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## Abstract

The microfinance organizations and self help groups mobilised in marine fisheries sector play vital role in reducing the indebtedness among marine fisherfolk. The study 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 four coastal districts of Odisha 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 for strengthening the MFI ventures in the traditional and tertiary fisheries sectors in the state. A comparative assessment of the sources of credit, purposes of credit and utilization 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.

**Keywords:** *Microfinance, indebtedness, credit, self help groups*

## Introduction

The level of indebtedness in the marine fisheries sector is quite notable throughout the Indian coastal belt. NSSO (2003), Ministry of Finance (2007) and CED (2008) brought out the reports of indebtedness level in the Indian agricultural sector. The Micro Finance Institutions (MFI) and Self Help Groups (SHG) in marine fisheries sector play a pivotal role in reducing the level of indebtedness among marine fisherfolk and cheap credit is essential for development of Indian marine fisheries sector. The average outstanding debt per indebted household is comparatively less among fishermen as per the figures of institutional sources, but the affairs of the fisherfolk are really grim as they are virtually gripped in the hands of non-institutional agencies for which legitimate data sources do not

exist. Though fisheries sector plays a major role in earning foreign exchange, the fisherfolk are still in the lower strata of the society because of indebtedness and are in the clutches of non institutional credit agencies.

Odisha is the state with maximum level of indebtedness compared to other coastal states of the country (Vipinkumar *et al.*, 2013). In Odisha, there are 1,14,238 fisher families in 813 marine fishing villages with a population of 6,05,514 and out of which 56,279 households are below poverty line. The maximum numbers of fisher families are in Balasore district (47,162) followed by Jagatsinghpur district (17,508). The total numbers of landing centres are 73, of which 20 are in Ganjam district. About 77% are traditional fishermen families. The average number of families per village was 141, with 745 persons per village. Women form 47% of the population with 893 females per 1000 males. With regard to the education, it was observed that, 53% of fisherfolk are literate with different levels of education. There are 1,62,411 active fishermen of which 99,972 are fulltime fishermen, 35,609 part-time and the rest engaged in fish seed collection. Hindus constitute 97% of the fishermen families, with a minority being Muslims (2%) and Christians (1%). In Odisha, 76% of the fishermen live in kutchha houses and the remaining 24% are pucca houses. There are 810 primary schools, 255 secondary schools, 49 colleges, 31 technical institutions and among the fishing villages 64% are electrified. There are 10,826 crafts in the sector of which 2,248 are mechanised, 3,922 motorised and the rest are non- motorized. Trawlers (58%), gill netters (35%), liners (5%) and bagnetters (2%) are the main crafts in the mechanized sector (CMFRI, 2010).

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 reported that, the microfinance system enabled thousands of people by offering credit to poor people, some fear it could lead to over-indebtedness, but microfinance has benefited the wider economy. Sathiadas (2009) has conducted 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 that, women SHGs played a substantial role in alleviating poverty and indebtedness in fisheries sector. In this context, the Microfinance institutions /Self Help Groups of fisherfolk do have a pivotal role in reducing the indebtedness in the marine fisheries sector. 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 and found SHGs played a significant role in economic empowerment and there is a great need to mobilize SHGs through participatory approaches and strategies. Dynamics of micro-credit in women's SHGs in marine fisheries sector of Malabar area of Kerala was studied and a strategy for mobilisation of an effective Self Help Group was developed by Vipinkumar (2007).

Vasantha and Manohar (2008) in a study on microfinance proved that microfinance programmes are presently being promoted as an important strategy for concurrently addressing both poverty alleviation and women's empowerment and micro financial firms must maintain efficiency levels to increase their scale of operations which surely will bring down the cost of financing and ultimately, the benefits will be transferred to the poor people in terms of improving the standard of living and reasonable cost of borrowing. Mammoo (2004) in a study on income, indebtedness and savings among fisherfolk of Udayapur and Gopalpur of Odisha under BOBP Programme, reported that fishing communities are familiar with 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. Nevertheless, an exact assessment on the indebtedness level among marine fisherfolk has not been attempted so far. In this context, this study is an attempt to assess the extent of indebtedness among marine fisherfolk in mechanized, motorized and traditional sectors as well as to assess the impact of microfinance on rural indebtedness in marine fisheries sector, the role of credit agencies in providing credit, the credit utilization pattern as well as repayment behaviour of marine fisherfolk in Odisha and to study the comparative appraisal of perception of fisherfolk on MFIs, Institutional and Non institutional credit sources in terms of selected attributes.

## Material and methods

The study was undertaken in four coastal districts of Odisha state namely Ganjam, Puri, Jagatsinghpur and Balasore. The selected locations were Aryapilly and Gopalpur of Ganjam district, Astrang and Konark of Puri district, Jagatsinghpur and Paradeep of Jagatsinghpur district and Balasore and Chandipur of Balasore district of Odisha state. Situational analysis was done through Participatory Learning and Action (PLA) and the marine fisherfolk from the various strata such as mechanized, motorized and traditional sectors were taken as representative samples from the study locations. Data were also collected from members of microfinance institutions (MFIs) identified in these locations. Three MFIs selected from each of the four

districts comprising a total of 12 MFIs were covered. Any mobilized group venture with a productive economic activity initiated by thrift deposits and sustained by an appropriate micro-enterprise either independently or by the intervention of an external agency is considered an MFI for the study. This included SHGs also which finished the gestation period of 36 months with an economic activity initiated through thrift deposits and sustained by an appropriate micro-enterprise promoted by micro-finance either independently or by the intervention of an external agency like NGOs, private micro financial firms, banks etc. Data were gathered from both MFI 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 study area and the sampling distribution are presented in Fig.1 and Table 1.

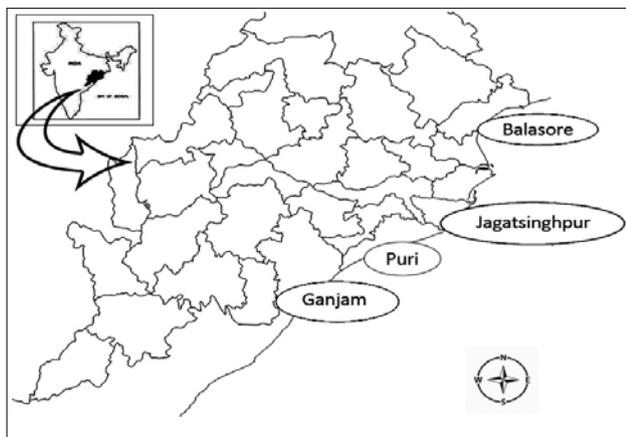


Fig.1. Map of Odisha showing the locale of the study.

Table 1. Sampling distribution in Odisha (N = 600)

Marine capture Fisheries Sector	Total	Non MFI Members	MFI members
Mechanised	320	210	110
Motorised	220	160	70
Traditional	60	30	20
Total	600	400	200

Similarly to study the comparative appraisal of perception of fisherfolk on MFIs, Institutional and Non institutional credit sources in terms of selected attributes, the respondents were asked to assign ranks to each of the attributes. Garrett's Ranking Technique was used to identify and rank the attributes on the functioning of MFIs. The 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:

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

Where,

$R_j$  = Rank given for  $j^{\text{th}}$  factor by  $j^{\text{th}}$  individual

$N_j$  = Number of factors ranked by  $j^{\text{th}}$  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 for the comparative appraisal of MFIs, Institutional and Non Institutional credit agencies.

## 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 was Rs 2.15 lakhs and that of members was Rs 1.74 lakhs. In motorised sector, the indebtedness of non-members was Rs 1.83 lakhs and that of MFI members was Rs 1.43 lakhs. But in the traditional sector MFI members' indebtedness was Rs 0.73 lakhs and that of non-members was Rs 0.26 lakhs. The results indicate that the level of indebtedness of MFI members was lesser than the non-members in all the three sectors and the percentage of repayment of MFI members was also much better compared to non-members. MFIs significantly reduced the dependence of fisherfolk on private moneylender and considerably reduced the indebtedness level and increased their repayment capacity which proclaims the necessity of strengthening the MFI ventures in the traditional sector.

Table 2. Level of indebtedness and repayment in Odisha

Sector	Indebtedness (In Lakhs -Rs)		% of Repayment	
	Non members	MFI	Non members	MFI
Mechanised	2.15	1.74	26.0	28.0
Motorised	1.83	1.43	29.0	31.0
Traditional	0.73	0.26	16.5	26.0

The average figures of family particulars of the selected respondents are presented in Fig. 2. In Odisha, 77% of fisherfolk families were traditional. The average number of families per village was 141, with 745 persons per village. Women form 47% of the population with 893 females per 1000 females.

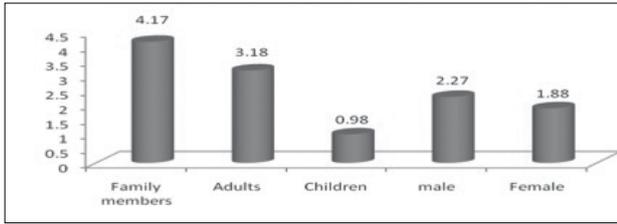


Fig.2. Family particulars of the respondents ( Average family size).

The expenditure pattern of respondents pooled together from all the selected districts of Odisha is presented in Fig.3. It was seen that 52 % of expenditure of the family was spent for the food items followed by 9% for clothing. The details of savings and indebtedness of respondents in Odisha are presented in Table 3.

The extent of indebtedness in Odisha is 89% and was highest compared to other maritime states (Vipinkumar *et al.*, 2013). The sources of credit in Odisha are presented in Fig.4. It can be observed that the private money lenders were found to be the major source of credit followed by banks.

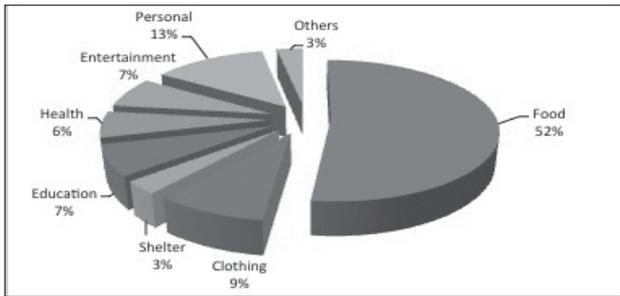


Fig.3. Expenditure pattern of respondents in Odisha.

Table 3. Savings and Level of Indebtedness in Odisha

No	State	Frequency of respondents having Savings				Total	Indebtedness (%)
		Nil	< 0.5 L	0.5-1 L	>1 L		
1	Odisha	534	50	16	0	600	89

Finance plays a definite role in accelerating any business activity/economic development, and fisheries sector is not an exception. Being the state with maximum level of indebtedness, the economic activities of the fishing villages in Odisha mainly depend upon the availability of credit at reasonable cost to enhance production and income. Regarding the indebtedness in fisheries sector of Odisha, the average indebtedness per household was observed as Rs 1.36 lakhs and the fisherfolk were virtually gripped in the hands of non-institutional agencies, namely the money lenders and traders. Fisherfolk were attracted to the non-institutional agencies on account of simple procedures and timeliness in availing finance mainly

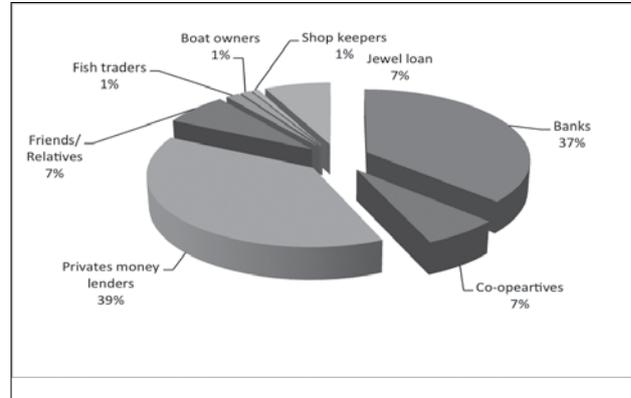


Fig.4. Sources of credit in Odisha.

for meeting their immediate operational expenses as also reported by Sathiadas (2009). Since majority of the money lenders in fisheries sector was 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 purpose for which the loans were availed in Odisha are presented in Table 4 and purchase of craft/gear and other fishing related equipments and repair was the main reason 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.

The comparative assessment of MFI, Institutional and non-institutional credit are presented in the Table 5. 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

Table 4. Purpose of Credit

No	Purpose	Odisha State	%
1	Purchase of craft /gear and other fishing related equipments & repair	320	56.53
2	House construction / land purchase	142	25.08
3	Marriage expense	6	1.06
4	Education	4	0.70
5	Health and Social Security	46	8.12
6	Any others (business, purchase of vehicles)	48	8.51
Total		566	

security, MFIs are much better in performance in majority's perception. With these background perspective, it could be inferred that, concerted efforts on social mobilization though SHG and Micro Finance are inevitable for the economic empowerment of the fisher community in India as also proved in Bangladesh (Yunus, 1999), Tamil Nadu

Table 5. Appraisal on the functioning of the MFI/ Institutional/ Non-institutional credit agencies

Sl.No	Attributes	Institutional		Non Institutional Credit		Micro Finance Institution	
		Score	Rank	Score	Rank	Score	Rank
1	Easy approval process	40.75	III	48.30	I	44.60	II
2	Diverse areas of funding	40.85	II	42.65	I	39.36	III
3	Eligibility of recipients	62.45	I	45.6	III	47.95	II
4	Maximum loan amount	64.75	I	56.50	II	55.85	III
5	Need for collateral security	55.45	I	51.65	II	51.35	III
6	Provision of longer loans	50.85	II	40.75	III	51.45	I
7	Provision of loan grace periods	42.05	II	41.9	III	42.45	I
8	Easy repayment schedule	47.45	II	40.25	III	50.85	I
9	Low interest rate	56.35	I	41.85	III	42.45	II
10	Stringent for default of payment	55.45	II	60.5	I	54.15	III
11	Hidden cost and concerns	51.05	II	58.3	I	44.75	III

(Jayaraman, 2005) and Raebareli, Uttar Pradesh (Tripathi and Sharma, 2007).

The study indicated that the level of indebtedness among the MFIs assisted fisher families was less compared to non MFIs. Level of indebtedness in non MFIs was almost 3 times of MFIs. Per household indebtedness in Odisha is approximately 1.36 lakhs and level of indebtedness is 89 %. The repayment capacity of MFI assisted family was found to be more even though the indebtedness is high. Private money lenders were observed to be the major source of funding followed by banks. Non-institutional credit agencies still hold good across the sectors. There is an extreme necessity for strengthening the MFI ventures in the traditional sector, considering that majority of fisherfolk in Odisha (77%) belongs to the traditional sector. Therefore, concerted efforts in this direction to strengthen MFIs in the traditional and tertiary sectors are inevitable for better entrepreneurial capacity building through mobilized group ventures

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