

Review of the development of microfinance services for coastal small scale fisheries and aquaculture for South Asia countries (including India, Bangladesh & Sri Lanka) with special attention to women

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1. Preface

Fish workers in the small scale fisheries sector in India, Bangladesh and Sri Lanka have always been very poor and amongst the most marginalized communities. Their low social status is a result of poverty as well as exploitation by middlemen and merchants. Middlemen have control over credit and fish marketing, which drains away the surplus generated and often make them indebted.

A combination of variability in catch, technology upgrades, over capitalization, rising costs, aggressive fishing, overcrowding, etc. have made economics of fishing and fishing related occupations uncertain. The overall output remains almost same but the investment and operational costs have gone up considerably. This has resulted in fishermen getting increasingly dependent on loans to finance their expenditures and also using loans as coping mechanism. The key expenditures include: i. capital expenditure towards purchase of boats, launches, nets and engines, etc. ii. running expenses which include boat, net and engine repairs, ice, fuel and goods, etc. and iii. other expenditure involving medical, emergency and other expenditure for family including education.

Available data indicate that small scale fish workers cannot access formal institutional credit except through intermediary peoples organizations (SIFFS), State cooperatives (Matysafed), NGOs, MFIs (Dhan, ICNW, Sneha, Shanti Dhan, IASC, etc) and SHGs. in India. The lone exception seems to be gold loans for which the fishing community accesses banks quite easily and directly. People still rely on money lenders, financiers, chit funds, borrowings from friends and relatives for raising funds for life cycle needs, housing, education of children, setbacks and emergencies, etc. In many cases, even for production purposes, they have to rely on informal money markets including traders, merchant and money lenders. The situation in Bangladesh is better with the involvement of Grameen Bank offering various microfinance products and services.

Banks are not ready to cater the increasing credit needs of the fish workers because they do not have any collateral security. In the absence of adequate institutional credit, the fisher folk's only recourse is the informal credit system for which the fishermen have to pay a heavy price in terms of high interest outgo as well as selling the prime quality catch at a predetermined rate, that may be half the market price. Besides, the operations involving high risks to life, asset and uncertainties in terms of availability of catch and market related vagaries, have no insurance/ social security to fall back upon. The various credit plus services are almost nonexistent. It is in this background the microfinance services extended by Bangladesh Grameen Bank in general and the integrated microfinance program extended by SIFFS to the sector appear to be noteworthy. The integrated microfinance model of SIFFS incorporating technology development and dissemination, support services for production and repair of marine fishing units, information services including location of fish stock, post harvest infrastructure, alternate livelihood and policy & advocacy needs a special mention towards its possible replication.

2. Abstract

The paper reviews the status of coastal small scale fisheries sector in South Asian countries including India, Bangladesh and Sri Lanka with special focus on women. Fisher folk have always been very poor and amongst the most marginalized communities, often exploited by middlemen and merchants. Middlemen have control over credit and fish marketing, which drains away the surplus generated and often make them indebted. Microfinance can make a difference in the life of coastal small scale fishermen and small scale aquaculturists. Though there is lack of data, the paper attempts to quantify the credit gap after estimating the present level of demand flow etc. The details of various models by intermediary people's organizations such as SIFFS, DHAN Foundation, Bangladesh Grameen Bank model, NCDC model and Matsyafed model are discussed in detail. In the absence of adequate institutional credit, the fisher folk's only recourse is the informal credit system for which the fishermen have to pay a heavy price in terms of high interest outgo as well as selling the prime quality catch at a predetermined rate that may be half the market price. It is in this background the microfinance services extended by Bangladesh Grameen Bank in general and the integrated microfinance program extended by SIFFS to the sector appear to be noteworthy. The role of women and the difficulties faced, are analyzed. The success stories in micro finance have been given in the paper, indicating that if there is a will there is a way. The study also points out the need for financial inclusion of the fish workers in South Asia.

3. Acknowledgements

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4. Acronym & Abbreviation

ADB	Asian Development Bank
AP	Andhra Pradesh
APRACA	Asia Pacific Rural and Agricultural Credit Association
ASA	Activists for Social Alternatives
BIDS	Bangladesh Institute of Development Studies
BIMSTEC	Bay of Bengal Initiative for Multisectoral Technical and Economic Cooperation
BIRD	Bankers Institute of Rural Development
BKB	Bangladesh Krishi Bank
BOB	Bank of Baroda

BOBLME	Bay of Bengal Large Marine Ecosystem
BOBP	Bay of Bengal Programme
BOBP-IGO	Bay of Bengal Programme- Inter Government Organization
BRAC	Bangladesh Rural Advancement Committee
BRDB	Bangladesh Rural Development Board
CAB	College of Agricultural Banking
CAPRT	Council for Advancement of Peoples Action & Rural Technology.
CCMLR	Convention for Conservation of Antarctic Marine Living Resources
CITES	Commission for International Trade on Endangered Species
COFI	Committee on Fisheries
DAHD&F	Department of Animal Husbandry dairying & Fisheries
DANIDA	Danish International Development Agency
DB	Development Bank
DoF	Department of Fisheries
ECB	External Commercial Borrowing
EEZ	Exclusive Economic Zone
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
FFDA	Fish Farmers Development Agency
GB	Grameen Bank
GDP	Gross Domestic Product
GLC	Ground Level Credit
HACCP	Hazard Analysis And Critical Control Point
HRD	Human Resources Development
ICAR	Indian Council of Agricultural Research
ICNW	Indian Cooperative Network for Women
ICT	Information and Communication Technology
IFDP	Integrated Fisheries Development Project
IFP	Integrated Fisheries Project
INR	Indian Rupee
IOTC	Indian Ocean Tuna Commission
IPFC	Indo-Pacific Fisheries Commission
IPOA	International Plan of Action
IWC	International Whaling Commission
LSS	Lok Sahayak Samiti
Matsyafed	Fisheries Federation in Kerala
MB	Motorized Boat
MDG	Millennium Development Goals
MES	Monitoring & Evaluation System

MFI	Micro Finance Institution
MFO	Micro Finance Organization
MISS	Matsyafed Input Security System
MIX	Micro finance Information Exchange
MPEDA	Marine Products Export Development Authority
NABARD	National Bank for Agriculture and Rural Development
NATP	National Agricultural Technology Project
NBCFDC	National Backward Classes Development & Finance Corporation
NBFC	Non Banking Financial Company
NCB	Nationalized Commercial Banks
NCDC	National Cooperative Development Corporation
NGO	Non Government Organization
NMB	Non Mechanized Boats
NMDFC	National Minorities Development & Finance Corporation
NORAD	North America Aerospace Defence Command
OBM	Out Board Motor
ODA	Overseas Development Authority
PDBF	Palli Daridra Bimochon Foundation
PENCODE	People's Employment and Need Based Community Development
PKSF	Palli Karma Sahayak Foundation
PL	Post Larvae
POs	Partner Organizations
PSB	Public Sector Banks
RAKUB	Rajshahi Krishi Unnayan Bank
RBI	Reserve Bank of India
RMK	Rashtriya Mahila Kosh
SAARC	South Asian Association for Regional Cooperation
SBI	State Bank of India
SHG	Self Help Group
SHG-BLP	Self Help Group- Bank Linakage Programme
SHPI	Self Help Promoting Institutions
SIDBI	Small scale Industries Development Bank of India
SIFFS	South Indian Federation of Fishermen Societies
TEAP	Tsunami Emergency Assistance Project
Tk	Taka
TRP	Tsunami Rehabilitation Programme
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Programme
USD	US Dollar
UT	Union Territory

5.1 Background

Despite the potential importance of microfinance as a tool for financial inclusion and for poverty alleviation, a surprisingly low proportion of financial policies in the Asia Pacific Region include specific reference to it. Evidence from evaluation studies of past initiatives suggests that formal credit programmes through cooperatives and rural banks, often supported by donor agencies, are often not successful, both in terms of the viability of lending institutions in outreach and the ability of intended beneficiaries to access cheaper sources of credit. Informal savings schemes and credit markets are widely developed in many countries and may positively contribute to providing access to capital or assets because they are closer to the users, more flexible, have user friendly process and procedures and more adapted to the client's micro credit needs. Consequently, there is growing recognition of the microfinance sector as a crucial development tool for financial inclusion and poverty alleviation, which is yet to be fully reflected in official fisheries policies. Microfinance in this context is seen as the provision of a broad range of financial services such as deposits, loans, payment services, money transfers and insurance, and is characterized most commonly by micro/nano loans to meet urgent family cum production expenses.

Few microfinance institutions or commercial banks exist that are willing and able to provide small loans to small-scale fisher people at interest rates much lower than through middlemen. Fisher people also consider the perceived inflexibility of banks as a big disadvantage in timely access to finance, due to involved documentation and collateral based lending norms.

Globally, women constitute the majority of microfinance clients, primarily because of their excellent loan repayment records and micro savings. They play an important role in fishing communities, encompassing social and economic responsibilities and duties, within and outside their households. Women are particularly involved in productive activities directly related to fisheries production, processing and marketing as well as in non-fisheries income-generating activities. Loan size requirements are frequent but small, which makes them appropriate clients of microfinance. There is a demand for savings and credit services among the fisher people that is rarely met because they rarely have access to institutional finance. Microfinance is needed by the households to increase their income from fisheries activities and other income-generating activities. It is also required for social needs related to their quality of life and for smoothening consumption patterns, particularly during lean and off-seasons when little or no income or food is generated. Microfinance also helps in managing risks and reducing economic and social vulnerability.

5.2 Objective of the Paper

The report is prepared to achieve the following objectives:

- Review the approaches and interventions of microfinance services for coastal small fisher people and aqua culturists, by identifying institutions, the financial services for small-scale fisher people and aqua culturists such as loans, savings, insurance, etc. with a gender perspective.
- Review the success or failures/limitations of these approaches and indicate the causes attributed to their success or failure and their primary and secondary beneficiaries.

- Identify lending gaps and how to provide funds for them.
- Provide specific recommendations for innovative microfinance services, policies, approaches and delivery mechanisms for poverty eradication and livelihood development.
- Identify the challenges faced by banks and other financial institutions providing credit and other services for small-scale fisheries and aquaculture in order to identify challenges and how to address these challenges.
- Review better/best practices as well as poor/bad practices and recommend practices which are worth replication with specific focus on their impact/benefit to women in the sector?
- Recommend the development of detailed FAO guidelines on furthering the livelihood and conservation needs of small scale fisheries and aquaculture in coastal communities in the Asia-Pacific Region through innovative microfinance approaches.
- Analyze the need for training courses, manuals and multimedia materials for microfinance innovations in small-scale fisheries and coastal aquaculture.

5.3 Methodology

The study was designed for an intensive review of the development of microfinance services for coastal small scale fisheries and aquaculture in a few South Asia countries (including India, Bangladesh and Sri Lanka), with specific attention to women, based on a review of available literature, web-based materials and information, and the experience of organizations like NABARD, connected with promotion and development of microfinance in the sector.

Review of literature was conducted using searchable database. From the references on the subject, identified literature was gathered from libraries and internet sources and an assessment of the current scenario was made to prepare the background of the paper as well as to collect data pertaining to the objectives of the present study.

A format for collection of information capturing the objectives and the issues concerning the review exercise was drawn up and the same was provided to the identified agencies for collecting the necessary data and information from the stakeholders involved in small scale fisheries & aquaculture development and extending finance/microfinance services. Analysis of the data and information was carried out for drawing inferences and finalization of recommendations.

6.1. Micro Finance in fisheries & aquaculture

Background of Coastal Small Scale Fisheries Sector in India, Bangladesh and Sri Lanka

6.1.1 Coastal Small Scale Fisheries Sector:

The study of the fisheries sector in the 3 countries is a study in contrasts. In India, the major thrust is on the inland fisheries sector while the brackish water and marine sectors are basic export earners. In Bangladesh, there is a large artisanal and coastal fisheries sector and an equally large inland fisheries sector while Sri Lanka basically represents artisanal marine fisheries (89%). The data set out at Table 1 below, indicates the relative strengths of each country in the fisheries sector.

Table 1: The Fisheries sector – India, Bangladesh and Sri Lanka

Sr. No.	Particulars	India	Bangladesh	Sri Lanka
1	Area (Sq km)	3,290,000	147,570	65,610
2	Water area (sq. km)	N.A.	45757	2905
3	Shelf area (sq.km)	530,000	N.A.	27,800
4	Length of Continental coastline (km)	8118	714	1770
5	Exclusive Economic Zone (Sq.km)	2,020,000	166,000	517,000
6	Population (millions)	1028.700	140.600	20.217
7	GDP at present value (US \$ billion)	1209	225	92
8	Per capital GDP (US \$)	1016	1389	4581
9	Agriculture GDP (US \$ billion)	207.948	67.467	6.901
10	Fisheries GDP (US \$ billion)	17.772	10.042	1.840
11	Population of fisher people (million)	14.485	5.2	0.715
12	Population of marine fisher people (million)	3.519	0.51	0.608
13	Fisheries Export (US \$ million)	1908.63	307	100.8
14	Import (US \$ million)	47.2	NIL	59.4
15	Brackish water fish culture (ha)	130,000	217,877	11,000

However, a study of the fish available for human consumption and commodity balance reveals that per capita supply in Sri Lanka is highest at 17.4 kg/year followed by Bangladesh at 14.24 kg/year while in India, it is lowest at 5.86 kg/year.

Table 2: Commodity balance of fish – India, Bangladesh, Sri Lanka

Sr. No.	Country	Production (tonnes)	Import (tonnes)	Export (tonnes)	Total supply (tonnes)	Per capita supply (kg/year)
1	Sri Lanka	286,370	67,284	13,680	339,974	17.4
2	Bangladesh	2,563,296	--	49907	2513389	14.24
3	India	6,571,630	5,029	551,282	6,025,377	5.86

The conclusion is that fisheries play an important role in national economies of all the 3 South Asian countries, providing full time or part time employment to a considerable proportion of the poorer people living in coastal areas. Most of the fisher people are not financially included and have little or no access to credit and insurance facilities. However, microfinance agencies or self help groups or fisher's associations have provided some financial inclusion services.

6.1.2 Development Prospects

Marine fish production from near shore waters has reached almost a plateau and, at best, only marginal increase is predicted from this zone. Major gap in total fishable potential and present production exists in deep sea and off shore pelagic resources. Good potential exists for coastal aquaculture and mari-culture. Resource enhancement measures in coastal waters also need to be taken up. In contrast, inland fish production has been showing rapid growth of about 6% per

annum and has great potential for further development. Area expansion, diversification of farmed species and augmenting productivity from the existing farms in a sustainable manner are possible strategies in this sector. A substantial portion of the future additional demand for fish will have to be met from aquaculture due to massive and unplanned depletion of marine fish stocks, worldwide.

Objectives for future fisheries development include enhancing fish production and productivity, generating employment, improving socio-economic conditions of fisher people, increasing marine products for export, and increasing *per capita* availability of fish. These objectives are sought to be achieved through intensification of aquaculture, qualitative and quantitative improvement in farming, introduction of more economic varieties, improving productivity of reservoirs and lakes and horizontal expansion of farmed area. Combating diseases, popularizing organic farming and implementing sustainable farming practices would be taken up. Developing policy and legal framework with required safeguards for introduction of exotic varieties would receive attention. In the marine sector besides intensifying coastal aquaculture, sea farming, intensification of deep-sea fishing, better management of coastal fisheries with application of principles of sustainability and stock enhancement measures would be practiced for maximizing returns. Considering the massive processing facilities created and the skilled manpower available, import of raw material for processing, value addition and export has good prospects.

6.1.3 Fisheries Management

The South Asian marine fisheries sector faces frequent fluctuations as cyclic and climatologically effects influence the pelagic stocks. All the coastal States in India have enacted their Marine Fishing Regulation Act with jurisdiction over their territorial waters. Management measures such as closed seasons, delimitation of fishing zones for different categories of fishing craft etc. are implemented for ensuring sustainability. Capture of non-targeted species and rejection of by catches are discouraged through awareness programmes involving stakeholders.

South Asian countries have been associated with development of several international instruments for management of marine fisheries, so also actively participated in the debates for finalization of the IPOAs. The UN Fish stock Agreement has been accessed and national level Committees are overseeing the progress of implementation of the Fish Code. The Code has already been translated in to all the regional languages spoken along the coastal belt. Work on improving the legal and institutional framework to enable implementation of the provisions of these international instruments is in progress.

Conservation of aquatic resources and genetic bio-diversity is another thrust area for the next millennium. These 3 countries are party to the Convention on Biological Diversity and Bio safety protocol. Necessary safeguards are put in place for regulating cross-border movement of live aquatic organisms. Attention is paid to protect endangered marine species such as Olive Ridley turtles by declaring marine sanctuaries and no-fishing zones along their nesting sites. Turtle Excluder Devices have been made mandatory for trawlers in the vulnerable areas. Fishing for endangered species of fin fishes, crustaceans and molluscs listed under IUCN is banned and studies on the vulnerable species have been taken up. Apart from areas listed under Ramsar sites, other ecological hotspots are identified for abetting pollution and restoration of fisheries etc.

Fighting land-based pollution and implementation of Integrated Coastal Zone Management has high priority.

6.1.4 Research

Fisheries research needs to be coordinated by the Agricultural Universities and professionally run institutes for genetic improvements in the commonly farmed species, domestication and breeding of new species, developing improved farming techniques, early diagnosis of diseases in aquatic organisms and their management, developments in harvest and post harvest technologies, and human resource development are some of the main topics researched.

6.1.5 International Cooperation

Besides its active involvement in the fisheries developmental initiatives of FAO's COFI and its subcommittees, the South Asian countries are associated with various other global and regional bodies dealing with fisheries such as Convention for Conservation of Antarctic Marine Living Resources (CCMLR), Commission for International Trade on Endangered Species (CITES), International Whaling Commission (IWC), Indo-Pacific Fisheries Commission (IPFC), Indian Ocean Tuna Commission (IOTC). Among the regional fisheries management initiatives, India hosts the eight-member Bay of Bengal Large Marine Ecosystem (BOBLME) programme in Chennai, the first phase of which has been completed. Another four country regional initiative, namely the Bay of Bengal Programme - Inter-governmental Organization (BOBP-IGO) is also hosted by India and is situated in Chennai. Fisheries issues are also actively debated in other regional fora such as SAARC, BIMSTEC-EC, IOR-RC etc. in which the South Asian countries are members. There are a number of bilateral assistance programmes for development of fisheries.

FAO UNDP Bay of Bengal Programme (BOBP), a regional initiative covering seven countries bordering the Bay of Bengal started in 1979 was concluded during 2003 Assistance was received under the Program in the development of small-scale fisheries, including enhancing the socio-economic conditions of the fishing communities in the region. ODA UK provided technical aid for prevention of post-harvest losses in marine fisheries. The processing sector has largely benefited from the FAO programme for technical assistance in implementing HACCP in seafood processing industries, NORAD assistance for developing deep sea fisheries and cold water fisheries, DANIDA assistance in coastal fisheries development and man power training in marine fisheries, Japanese assistance in development of deep sea fishing, acquisition of modern dredging equipment, manpower training and capacity addition in net making and French assistance in fresh water prawn farming has helped development of these sub sectors. Presently an FAO assisted programme for controlling shrimp disease is under implementation in Andhra Pradesh. A programme for developing cleaner fishing harbours with FAO assistance is under finalization.

6.1.6 Future Trends

Fisheries development plans are aimed at making substantial contributions to doubling of food production, improving the welfare of fisher people, promoting exports and providing food and livelihood security to the coastal population. The per capita availability and consumption of fish is to be doubled for the fish eating population for which production and distribution has to be

scaled up appropriately. All this requires scientific and technological back stopping and capacity building in key areas.

Aquaculture is recognized as an important source for meeting future demands for protein food in the 3 countries. A number of schemes have been instituted to augment production from brackish-water and fresh water aquaculture sectors. The private sector has emerged as a major player in brackish-water aquaculture, particularly in shrimp farming. Responsible aquaculture and prevention and management of aquatic diseases, organic farming, cage farming, induced breeding and fattening of select species are some of the challenges to be addressed in this sector for improving productivity.

Considering the growing global demand for seafood, developing the export production with due care for food safety and product competitiveness has been embarked upon. As a backward linkage for improving hygiene and sanitation in fish handling, centrally sponsored schemes have been launched to upgrade the existing infrastructure at fishing harbours and landing centres and shrimp peeling yards. Quality up gradation in post harvest and domestic marketing sectors requires concerted efforts.

A number of schemes have been initiated by the 3 countries for the welfare of the fishing community, so as to provide them livelihood security through housing, insurance, and sea safety. Training, micro credit and increased participative management by the stakeholders need to be ensured. Another immediate requirement is to update the national preparedness for handling situations such as the recent tsunami, which has profound impact on the coastal communities and their livelihood. Improvements in database management and development of linkages in all sub sectors are another felt need.

6.2. Micro finance in small scale fisheries and aquaculture sector – in India, Bangladesh & Sri Lanka - A review

6.2.1 The information and data pertaining to micro finance in fisheries sector and consequently small scale fisheries and aquaculture sector in all the three countries is not readily available. As the mandate of the present exercise is to prepare a review paper on microfinance in the coastal small scale fisheries and aquaculture sector, there is little scope of conducting any field study to generate the necessary data in this regard. In the absence of published data on microfinance in this context, the following procedure has been adopted to make an assessment of the flow of micro finance to the sector.

a. Data submitted to Micro Finance Information Exchange (MIX), a web based micro finance gateway has been relied upon. The data for two consecutive years i.e. for 2007 and 2008 have been generated for the respective countries i.e. Bangladesh, Sri Lanka and India using the database (Table3). The data base does not offer sectoral data.

Table 3: Outreach and Loan Portfolios of MFIs in the three Countries

Country	Year	No. of MFIs Reporting Data	Gross loan portfolio (million US\$)	Number of active borrowers (million No.)	Total women borrowers (million No.)	Share of Women borrowers (%)	Average Loan Size (Amount US\$)
Bangladesh	2007	28	1,759.41	23.67	21.18	89.48	74.32
Bangladesh	2008	6	1,395.77	13.29	13.07	98.41	105.06
Sri Lanka	2007	13	223.55	0.69	0.40	58.14	325.89
Sri Lanka	2008	2	1.72	0.01	0.01	62.45	150.96
India*	2007	76	1,385.26	10.20	9.66	94.66	135.74
India*	2008	61	1,687.89	12.48	11.68	93.59	135.29

Data source: MIX (Microfinance Information Exchange)

* Data does not include SHG Bank Linkage Programme

b. Information on micro finance flow through SHG-Bank linkage programme in India is based on the published data: Status of Micro finance in India, 2007-08 (Table 4).

Table 4: Outreach and Loan Portfolios of MFIs and SHG Bank Linkage Program in India							
Program	Year	Gross loan portfolio (million US\$)	Number of active borrowers (million No.)	Total women borrowers (million No.)	Share of Women borrowers (%)	Amount US\$	
						Average Loan Size (US\$)	Average Loan Size (INR)
mFIs*	2007	1,385.26	10.20	9.66	94.66	135.74	6516
Banking System (SHGs)#	2007-08	3541.65	45.20	36.37	80.46	78.35	3761
Total		4,926.90	55.40	46.03	83.08	88.93	4269

* Data source: MIX (Microfinance Information Exchange)

Data source: MF in India (2007-08), NABARD

Data on active borrowers (BS-SHG) : Microfinance in India, SOTSR-2008, srinivasan

Data on women borrowers (BS-SHG) : Extrapolated from MF in India (2007-08), NABARD

Exchange rate: INR 48 = 1 US\$

c. An effort has been made to assess the sectoral credit flow through micro finance route by following two independent methods i.e. (i) following the ratio of fisheries GDP to the total GDP of the country and working out the share of micro credit of the small scale coastal fisheries & aquaculture in that ratio of the respective countries and (ii) working out the share of micro credit to fishermen to the total micro credit disbursement of each country in the ratio of fishermen population to total population of the respective country (Table 5).

Table 5: Assessment of Microfinance Outreach & MF Credit flow in Fisheries Sector of the 3 Countries

Sl. No.	Particulars	Unit	India	Sri Lanka	Bangladesh
1	Total Population of the Country *	Number (million)	1028.7	20.217	140.6
2	Fishermen Population *	Number (million)	14.485	0.715	5.2
3	Marine Fishermen Population *	Number (million)	3.519	0.608	0.510
4	Share of Fisheries in total GDP of country *	Percent	1.07	1.5	4.91
5	Outreach of Microfinance (SHG + MFI clients) #	Number (million)	55.4	0.69	23.67
6	Loan Outstandings (MFIs +SHGs) #	Amount (US\$, million)	4926.9	223.55	1759.41
7	Average loan outstanding (Sl.no.6 / Sl.no.5)	Amount (US\$,)	89	324	74
8	Estimated fishermen clients of MF- following population ratio	Number (million)	0.780	0.024	0.875
9	Estimated marine fishermen clients of MF- following population ratio	Number (million)	0.190	0.021	0.086
10	Estimated share of fishermen to MF loans- following population ratio	Amount (US\$, million)	69	8	65
11	Estimated share of fishermen to MF loans- following GDP ratio	Amount (US\$, million)	53	3	86
12	Estimated share of marine fishermen to MF loans- following population ratio	Amount (US\$, million)	16.90	6.80	6.39
13	Estimated share of marine fishermen to MF loans- following GDP route	Amount (US\$, million)	12.81	2.85	8.47
14	Lower of the two estimates (Sl.no.12 and 13)	Amount (US\$, million)	12.81	2.85	6.39

* Data source: Official Government Website of the respective country

Data source: MF in India (2007-08), NABARD; MIX (Microfinance Information Exchange)

Data on active borrowers (BS-SHG) : Microfinance in India, SOTSR-2008, srinivasan

Exchange rate: 1 US\$=48 INR

d. The lower of the two assessments following the two methods have been considered for the present assessment of micro credit flow to the sector. The microfinance flow in the coastal fisheries sector of India, Bangladesh and Sri Lanka is estimated to be US \$ 12.81 million, 6.39 million and 2.85 million respectively. There is considerable scope for increasing microcredit to this sector, if low cost funds are available.

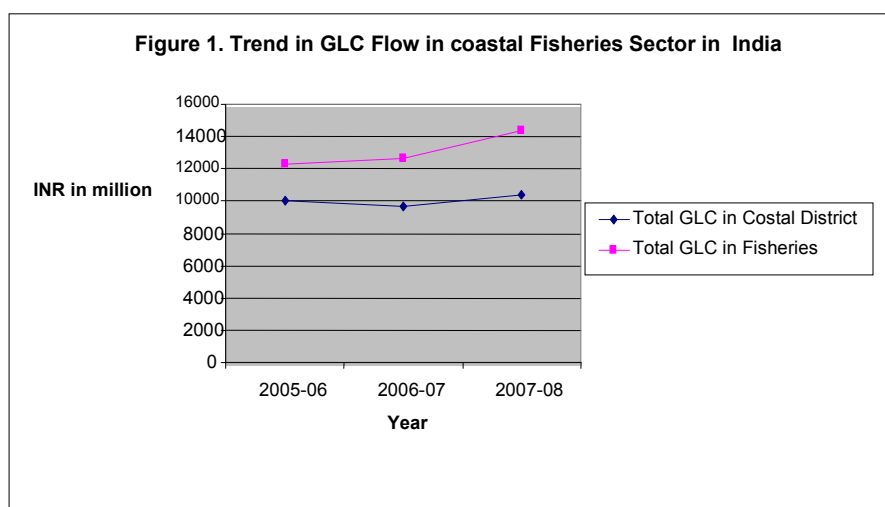
6.2.2 Trends in Bank Finance to the Fisheries sector and share of microfinance

The data on bank finance to fisheries sector in case of Bangladesh and Sri Lanka was not readily available. The available data on flow of credit through regular banking channel (Table 6) to the fisheries sector was analysed for the coastal states of India. There is no clear trend in GLC flow in the sector (Fig. 1) through regular banking channel comprising the scheduled Commercial Banks, Regional Rural Banks, Co-operative Banks. The credit flow to the sector in coastal districts through regular bank finance has been in the range of INR 9633 to 10392.

Table 6: Statewise GLC Flow in Fisheries for the Coastal States of India (INR. in million)

Sr. No.	Name of State	Total GLC in Fisheries			Total GLC in Coastal District		
		2005-06	2006-07	2007-08	2005-06	2006-07	2007-08
1	Orissa	363.6	470.8	421.7	289.6	252.2	276.5
2	West Bengal	548	656.1	909.9	114.5	163.8	504.2
3	Andhra Pradesh	2110	2819.8	3795.6	634.2	875.4	807.3
4	Tamil Nadu	479.1	452.5	488.2	418.2	387.9	419.4
5	Kerala	457.9	763.2	575.2	426.6	743.1	424.1
6	Karnataka	122.3	181.7	193.9	20.8	26.8	26.6
7	Maharashtra	221.9	232	161	165.2	101.1	160.2
8	Goa	36	33.3	71.3	36	25.8	64.2
9	Gujarat	7949	7075.6	7719.1	7941.5	7056.6	7709.4
	Total	12287.8	12685	14335.9	10046.6	9632.7	10391.9

The credit flow through the MFIs and SHG-BLP for the sector has been worked out following the procedure as discussed earlier (table 5).



The agency wise share of microfinance to total credit flow to the sector in the coastal States was analyzed (Table 7), which reflects the share of regular banking channel to be 94.41%. The balance credit flow is through the microfinance route comprising of SHG-BLP accounting for 4.02% and MFIs accounting for 1.57%.

Agency	Estimated Amount	Share (%)
Regular Banking Channel	10392	94.41
SHG-Bank Linkage Program*	442	4.02
MFIs [#]	173	1.57
Total	11007	100

Amount: INR in million

[#] Data source: MIX (Microfinance Information Exchange)

* Data source: MF in India (2007-08), NABARD

Exchange rate: INR 48 = 1 US\$

The available data on microfinance (Table 4) reveals following features of microfinance in India.

- i. The share of women borrower to total borrowers in case of MFIs is 94.66%, whereas the same is 80.46% in case of SHG-BLP.
- ii. The average loan size of MFI borrowers is INR 6516 while that of SHG-BLP is INR 3761.

Thus, it may be concluded that the women borrowers are being given due importance by the micro credit providers. There is also need to step up funds availability for SHGs.

6.3 Analysis of Lending Gap and Financial Services Gap

6.3.1 Lending Gap Analysis

In the absence of readily available data on credit need of the coastal marine fisheries and aquaculture sector of the three countries, an assessment has been made in respect of India utilizing available data (table 8) on occupation profile of coastal fishermen in India (Marine Fisheries Census, 2005).

Sl.No.	Category	Population (number)	Share (%)
1	Full Time fishing	717999	20.40
2	Part Time fishing	117628	3.34
3	Occassional fishing	53901	1.53
4	Marketing	207362	5.89
5	Net making/ repair	139718	3.97
6	Curing / Processing	87142	2.48
7	Peeling	23143	0.66
8	Labourer	220662	6.27
9	Others fishing related	78364	2.23
10	Other than fshing	83073	2.36
11	Total Occupied	1728992	49.13
12	Total Population	3519116	

In order to make an assessment of the credit need, various fishing and non fishing activities have been ranked for credit support broadly into three categories i.e. the activities that may qualify for SHG-Bank linkage, those that may qualify for micro finance and those that may qualify for regular bank finance (Table 9). The activities which are group activities and the loan amount is limited to INR 50000/- per SHG the same has been considered for SHG-BLP. The upper limit for microfinance has been considered upto INR 10,000 per borrower without collaterals and covers individual activities. These have been considered for micro finance support from MFIs. The activities which are beyond the microfinance limit have been considered for regular bank finance with collaterals.

6.3.2 Based on the above categorization of activities for credit support and the available data on existing marine fishing units (Marine Fisheries Census, 2005), the credit need for replacement of the existing units @ 15% per annum have been considered. The bank loan component has been worked out considering margin money to be 25% for mechanized fishing units, 15% for the motorized fishing units and 10% for the non mechanized units.

Table 9: Assessment of Coastal Fishery and Non-fishery Dependant Activities from Microfinance Point of View

Sl.	Activities	Unit cost (INR)	Operation cost / consumption need (INR)	Total Cost (INR)	1' if Individual activity, '2' otherwi	Group size in case of group activity	Average loan size / beneficiary (INR)	Qualify for SHG Bank linkage	Qualif y for micro financ e	Bank Financ e (individ ual / co-operati
A	Fishery Dependant									
1	Mechanized fishing Units									
	Gillnetters	1000000	200000	1200000	1	1	900000	X	X	√
	Trawlers	1000000	200000	1200000	1	1	900000	X	X	√
2	Motorized fishing units	141667	16667	158333						
	FRP boats	165000	20000	185000	1	1	157250	X	X	√
	Catamarans	95000	10000	105000	1	1	89250	X	X	√
	Plank Built Boats	165000	20000	185000	1	1	157250	X	X	√
3	Non Mechanized fishing Units									
	Catamarans	30000	3000	33000	2	3	9900	√	X	X
	Plank Built Boats	125000	8000	133000	2	4	29925	X	X	√
	Dugout canoes	30000	3000	33000	2	3	9900	√	X	X
4	Other Fishing Activities									
	Beach seine	47000	3000	50000	2	30	1500	√	X	X
	Bagnet fishing	20000	3000	23000	2	3	6900	√	X	X
	Seashell collectors	0	3000	3000	1	1	2700	√	√	X
	Fishing as hired labour	0	3000	3000	1	1	2700	√	√	X
5	Post Harvest Activities									
	Fish Trade	0	8000	8000	1	1	7200	√	√	X
	Repair of nets	10000	3000	13000	2	3	3900	√	X	X
	Iceing	5000	10000	15000	2	2	6750	√	X	X
	Fish drying	5000	25000	30000	2	4	6750	√	X	X
	Pickle making	30000	20000	50000	2	10	4500	√	X	X
	Other small scale processing	10000	30000	40000	2	5	7200	√	X	X
6	Coastal Aquaculture									
	Shrimp Farming	250000	125000	375000	1	1	281250	X	X	√
	Fin fish Culture in commnity	10000	30000	40000	2	5	7200	√	X	X
	Mussel culture	20000	5000	25000	2	3	7500	√	X	X
	Sea weed culture	20000	10000	30000	2	4	6750	√	X	X
	Ornamental fish culture	100000	10000	110000	2	5	19800	X	X	√√
	Cage culture	50000	10000	60000	2	3	18000	X	X	√√
	Crab fattening	20000	10000	30000	2	3	9000	√	X	X
7	Other Activities									
	Boat building	1000000	200000	1200000	1	1	900000	X	X	√
	Engine repair	200000	100000	300000	1	1	255000	X	X	√
	Loading / unloading at landing	0	3000	3000	1	1	2700	√	√	X
	Rope making	0	10000	10000	2	3	3000	√	X	X
	Marketing ice	0	5000	5000	1	1	4500	√	√	X
B	Non Fishery Dependant									
	Saltpan worker	0	3000	3000	1	1	2700	√	√	X
	Farming	2000	5000	7000	1	1	6300	√	√	X
	Farm Workers	0	3000	3000	1	1	2700	√	√	X
	Petty traders	20000	10000	30000	1	1	27000	X	X	√

'√' denotes Feasible

'√√' denotes Feasibility in Cooperative sector

Conversion rate: 1 US\$ = 48 INR

6.3.3 Credit need for all other activities have been assessed taking into account the occupation profile of the coastal fishermen.

Table 10: Assessment of Credit Need for Coastal Fishery and Non-fishery Dependant Activities (India)

Sl.	Activities	Unit cost (INR)	Operation cost / consumption need (INR)	Average loan size / beneficiary (INR)	Existing Units / Members engaged	Total Credit Need#	Credit program to Qualify for SHG Bank linkage#	Credit program to Qualify for micro finance#	Credit program to qualify for Bank Finance (individual / co-operative)#
A	Fishery Dependant								
1	Mechanized fishing units	1000000	200000	900000	58911	17968	0	0	17968
2	Motorized fishing units	141667	16667	134580	75591	2597	0	0	2597
3	Non Mechanized fishing units	30000	3000	29700	104270	730	0	0	730
4	Other Fishing Activities								
	Beach seine	47000	3000	1500	17153	49	49	0	0
	Bagnet fishing	20000	3000	6900	17153	67	67	0	0
	Seashell collectors	0	3000	2700	17153	53	0	53	0
	Fishing as hired labour	0	3000	2700	120070	371	0	371	0
5	Post Harvest Activities								
	Fish drying / curing	5000	25000	6750	87142	1969	1969	0	0
	Peeling / processing	30000	20000	9000	23143	435	435	0	0
6	Coastal Aquaculture								
	Shrimp Farming	250000	125000	281250	7836	1273	0	0	1273
	Fin fish Culture in community	10000	30000	7200	7836	211	211	0	0
	Mussel culture	20000	5000	7500	7836	45	45	0	0
	Sea weed culture	20000	10000	6750	7836	77	77	0	0
	Ornamental fish culture	100000	10000	19800	7836	98	0	0	98
	Cage culture	50000	10000	18000	7836	95	0	0	95
	Crab fattening	20000	10000	9000	7836	81	81	0	0
7	Other Activities								
	Fish Trade	0	10000	9000	207362	2136	0	2136	0
	Repair of nets	10000	3000	3900	139718	465	465	0	0
	Boat building	1000000	200000	900000	7836	2743	0	0	2743
	Engine repair	200000	100000	255000	7836	1066	0	0	1066
	Marketing ice	5000	5000	9000	7836	47	0	47	0
B	Non Fishery Dependant								
	Saltpan worker	0	3000	2700	20768	64	0	64	0
	Farming	2000	5000	6300	20768	114	0	114	0
	Farm Workers	0	3000	2700	20768	64	0	64	0
	Petty traders	20000	10000	27000	20768	289	0	0	289
	G. Total (million INR)					33108	3400	2850	26858
	G.Total (million US \$)					690	71	59	560

Assessment of credit for Fishing Units based on 15% annual replacement

Assessment of credit for all other activities based on assumption that the annual credit need for new units will be @ 20% of the existing units

Assessment of credit for operating cost will be for @ 85% of the existing units

= INR in million

Margin Money for Mechanised Fishing Vessels @ 25%

Margin Money for Motorised Fishing Vessels @ 15%

Margin Money for Non Mechanised Fishing Vessels @ 10%

The limit for SHG-BLP loan / Group without collaterals considered to be INR 50000/- (as per RBI guidelines)

The limit for MFI loan / beneficiary without collaterals considered to be INR 10000/-

Conversion rate: 1 US\$ = 48 INR

6.3.4 Financial Services Gap:

In India, the financial services gap is high considering the fact that apart from South Indian Federation of Fishermen Society (SIFFS), DHAN Foundation, there is no other player which provides any kind of insurance products. The social intermediation, enterprise development and social services are provided under the SHG-BLP and by MFIs. The coverage is not uniform and are largely concentrated in the pockets covered by SIFFS, Dhan Foundation, Matsyafed, Church organizations, ICNW, etc. However, Bangladesh Grameen Bank offers comprehensive services covering all possible intermediation comprising of financial, social and enterprise development services.

Items	Credit program under SHG Bank linkage*	Credit program under micro finance#	Credit program under Bank Finance (individual / co-operative)	Total Amount
Total Credit Need [!]	3400	2850	26858	33108
Present Level of Credit Flow	442	173	10,392	11007
Gap in Credit	2958	2677	16466	22101
Gap in Credit (%)	87.00	93.93	61.31	66.75

Amount: INR in million

[!] Data source: Assessment made on the basis of Marine fisheries occupation data, Gol, 2005

[#] Data source: MIX (Microfinance Information Exchange)

^{*} Data source: MF in India (2007-08), NABARD

Exchange rate: INR 48 = 1 US\$

Considering an annual credit need for new units @ 20% of the existing units as well as operating cost @ 85% of existing units, the total credit need for the sector is assessed at INR 33108 million. Of which, INR 26858 million is likely to flow through normal banking channel, INR 3400 million SHG-bank linkage programme and INR 2850 million through MFIs.

The estimated present level of credit flow to the sector is INR 10392 million through regular banking channel, INR 442 million through SHG-BLP and INR 173 million through MFIs. The overall credit gap is assessed to be 66.75%. The gap in credit for the formal banking channel, SHG-BLP and MFIs is estimated to be 61.31%, 87% and 93.93% respectively.

6.4 Role of micro finance in developing small scale fisheries & aquaculture sector

6.4.1 Institutional Financing Models

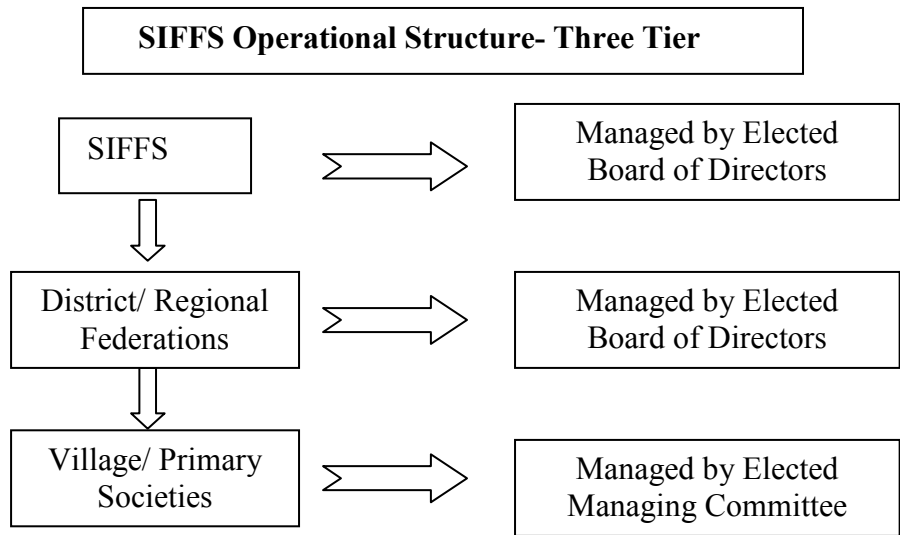
Fish workers in the small-scale fisheries sector in South India have always been very poor and amongst the most marginalized communities of the country. Their low social status is a result of the caste system and exploitation by middlemen and merchants. Middlemen had the control over the credit and fish marketing, which drains away the surplus generated and often make them indebted. A combination of variability in catch, technology upgrades, over capitalization, rising costs, aggressive fishing, overcrowding, etc. has made economics of fishing and fishing related occupations uncertain. Moreover, the distinctive aspect of fisheries credit is that incomes vary widely on a daily, seasonal and regional basis (in addition to the type of fisheries). There are also closed seasons where income from fishing is zero.

The fishermen are getting increasingly dependent on loans to finance their key expenditures namely (a) capital expenditure, like purchase of boats, launches, nets and engines, etc. (b) running expenses like boat, net and engine repairs, ice fuel and good, etc. and (c) other expenditure like medical, emergency and other expenditure for family including education. Banks are not ready to cater these increasing credit needs because they do not have any collateral security. As a result they land in the debt trap of the informal credit system comprising moneylenders, financiers, chit funds, borrowings from friends and relatives.

(a) SIFFS Model

South Indian Federation of Fishermen Societies (SIFFS) is the apex body of a three-tier structure for artisanal fishermen, which has come up as a result of the initiative of many NGOs in the '70s and '80s. SIFFS as the overall apex organisation, was mainly intended in the mid -1980s to take up technology development and promotion, a role that became essential due to the declining fortunes of the traditional fishermen who faced unfair competition from mechanised trawlers. However, over time, SIFFS has diversified its portfolio in response to aspirations, changing needs and opportunities.

Figure 2



Today SIFFS runs a network of boatyards, manufacturing marine plywood boats as alternatives to the traditional craft. It imports and supplies out board motors (OBMs) and spares and also operates a network of OBM service centres. It has a large R&D programme involving development of new boats, improvements in propulsion, artificial reefs, and safety at sea, improvements in fish handling, etc. It also runs ice plants and is trying out export of fish under a social labeling initiative. It has also taken up the responsibility to extend the society network in northern Kerala, central Tamil Nadu and Andhra Pradesh. Policy research and advocacy is added to these activities. The development of a large micro-finance programme in recent years is of particular relevance.

At the village level, there are over 156 primary societies in 17 districts of Kerala, Tamil Nadu and Andhra Pradesh as well as the Union Territory of Pondicherry with the membership of 9500 fishing units in which 50000 fishermen are employed. These societies are in turn affiliated to district federations that are the members of SIFFS. Also 174 women societies / SHGs with a strength of 7500 members are associated with SIFFS.

Figure 3

Three Tier Structure

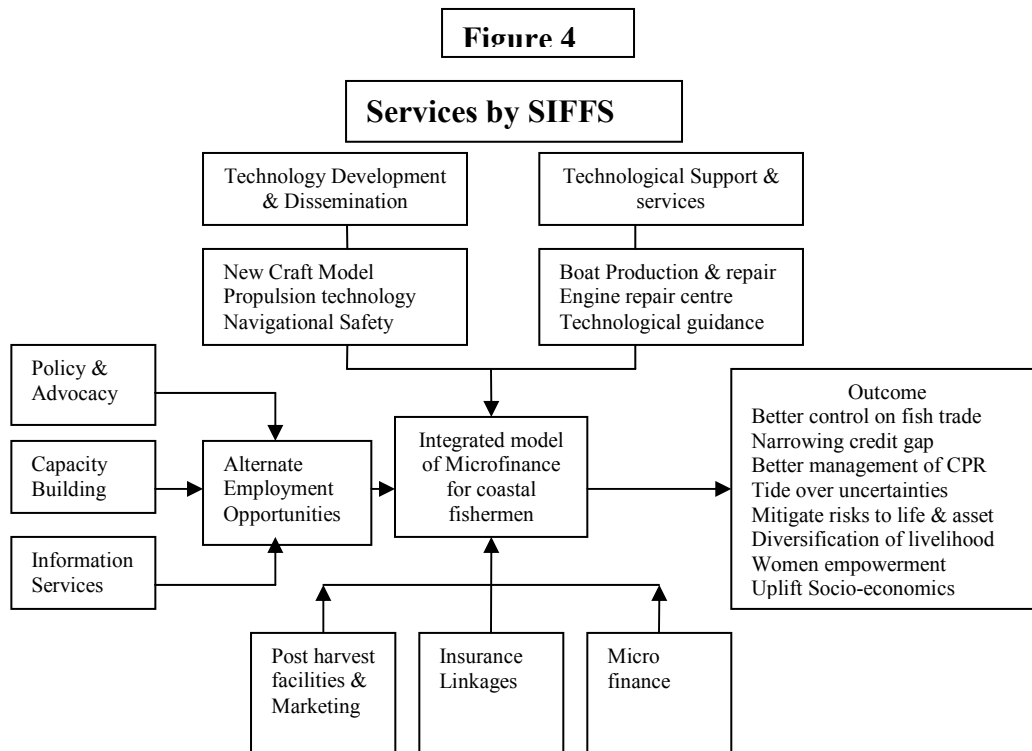
Village society	District federation	SIFFS
<ul style="list-style-type: none"> • Fishermen’s control over first point of sale of fish of members (beach auctions and sale to wholesalers, agents and export houses). • Savings to help members during lean season & emergencies. • Loans to help fishermen acquire fishing equipment and maintain independence from middlemen 	<ul style="list-style-type: none"> • Member services • Supervision and monitoring of village societies • Helping village society with credit access from banks and other sources • Marketing support (direct assistance or just liaison with markets and companies) • Supply of inputs like nets, fuel, etc. at lower / competitive prices based on economies of scale • Welfare activities for members <p>Broader sectoral interventions</p> <ul style="list-style-type: none"> • Formation of new societies • Organising women’s groups • Some forays into education, environmental action, etc. 	<ul style="list-style-type: none"> • Members services • Micro credit programme • Capacity building of district federations • Marketing of fish products (export of specific species) <p>Broader sectoral interventions</p> <ul style="list-style-type: none"> • Development & commercialization of appropriate technologies, especially in fishing craft • Supply of new inputs like outboard motors (imports) • Service network for boats and motors (new technology related) • Expansion of society network to new districts • Policy research and documentation. • Advocacy and lobbying (resource conservation and protection of small fishermen rights)

Integrated Model

The model developed by South Indian Federation of Fishermen Societies (SIFFS) is an integrated model of marine fisheries development, refined and standardised over 30 years. Matsyafed has adopted the same model and very rapidly spread the same across the whole of Kerala state. An interesting fact is that Matsyafed “cooperatives” are the strongest where the SIFFS societies are also strong. A wide variety of choices and alternatives for people has forced these organizations to perform well to attract and retain fisherfolk as members. In Tamil Nadu, State cooperatives are present in several districts but they need significant attention for revival. SIFFS is now rapidly expanding into Tamil Nadu as are other church-based organizations working in Kerala/ Tamil Nadu.

The SIFFS intervention is multi-faceted and holistic. It includes economies of scale, advocacy for influencing policy, interfaces and inter-linkages. Key areas are right to first sale of fish and

release from Indebtedness to merchant moneylenders. Hence, there is an open auction of fish landings, credit support for repairs, replacements (and working capital). The way ahead would be forward linkages of these two critical interventions. That is where SIFFS needs to intervene in greater measure.



SIFFS Micro finance Programme

By the mid-1990s, a major gap in credit availability had emerged as a combination of factors. Firstly, the banking sector had become less accessible due to the aftermath of the loan write-off scheme and the populist loan melas of the late '80s. The service area concept introduced in the late '80s also broke the relationships with some of the banks that had supported the societies. Secondly, fishing had undergone a transformation and most fishermen had started using marine plywood boats and out board motors pushing up the loan requirements to above the level for collateral-free loans. Thirdly, in some areas, the poor track record of SIFFS societies had also created difficulties for banks, in loan recovery.

The district federations, which had the role of facilitating credit flow to the societies, responded by developing revolving funds (based on donor funds) and also put up collateral for getting bank loans for members. All this proved insufficient, especially in Kerala, as the societies were also facing competition from Government sponsored cooperatives, which were liberal with loans and subsidies without enforcing sufficient credit discipline. This led to a decline in the growth of the societies and even an erosion of membership in some areas.

It is in this context that SIDBI approached SIFFS with its pilot programme in microcredit.

SIFFS, which had not considered credit as part of its portfolio of activities, decided to take the plunge. After a slow start in 1997, SIFFS has since 1999, been putting a lot of effort into its microcredit programme and has emerged as a leading MFI in the fisheries sector. Today SIFFS has an outstanding portfolio of INR 86,651,935 in June 2009. The finances for these loans were sourced from SIDBI, SBI, Canara Bank, Indian Overseas Bank, Axis Bank and Cordaid, Netherlands as ECB. At the district and village levels, production loans are sourced from commercial banks. Funds under the SIFFS credit programme are meant for addressing the gap between the demand for credit and its availability from commercial banks.

The following are the main objectives of the SIFFS credit programme.

- To close the credit gap between the demand and supply
- To remain an additional channel rather than to eliminate existing channels of institutional credit to members.
- To use the SIFFS credit programme to introduce professionalism in the credit programmes of the district federations and societies, by example and through training and other forms of support.
- To improve the credit worthiness and absorption capacity of the societies and members by introduction of new concepts and methods in selection, monitoring, etc.
- To give a boost to the expansion of the SIFFS cooperatives and their membership which is stagnating due to difficulties in accessing credit for members?
- To use credit as an instrument for fisheries management to the extent possible, supporting appropriate technologies and discouraging the finance of inappropriate technologies
- To support fisherwomen groups, who have historical links to SIFFS, to have access to credit for their fish vending activities and also to promote alternate employment among fisher folk, especially women and youth.

Table 12 a: Loan products

Category	Target group	Purpose	Loan Amt (INR)	Term	Interest Rate
Production	Owners of artisanal fishing units, motorized and non motorized	Purchase of fishing equipment like kattumaram, boat, motor, net, ice boxes, other equipment, debt redemption	6000-75000	36 instalments in 42 months	12%
Labour loan	Crew of artisanal fishing craft	Consumption needs like children's education, medical expenses and other consumption needs	2000-3000	12 installments in 14 months	14%
Fisher women loan	Fisherwomen	Working capital for fish vending as well as other petty trade and income generating activities	2500-20000	24 installments in 28 months	18%*
Seasonal loan	Fisherwomen with proved credit discipline	Relatively bigger loans for working capital for seasonal fish vending	10000-30000	Bullet payment when season ends	18% *

- the extra 6% goes to women's federation and is not retained by SIFFS

Table 12 b: Details of Different Types of Loans Given By SIFFS

Sl. No.	Purpose of loan	Purpose-category	Beneficiaries	Loan amount (INR)	Group or individual	Loan per head (INR)
1.	Purchase of fishing equipment (motorised)	Production	Men	25,000-75,000	Individual	6,250 -10,000
2.	Purchase of fishing equipment (non	Production	Men	5,000-10,000	Individual	5,000 -20,000
3.	Purchase/ installation of ice	Post harvest	Men/ women	5,000	Individual/	5,000 -10,000
4	Working capital for fish vending and	Post harvest	Women	1,000-20000	Individual	1,000 -10,000
5.	Alternate employment (small businesses other than	Alternate employment	Women	10,000-20,000	Individual	5,000

SIFFS Microfinance – Salient features

- The fishermen have a continuous, ongoing requirement for credit and this is was an instrument of oppression, as middlemen retained control over fishermen’s right to sell fish through this.
- The loan products are customized to suit the needs of the small-scale fishermen.
- Larger amount and longer repayment period of the loan product make difference from other conventional micro finance loan products.
- Continuous credit, independent fish marketing and savings are the three pillars of the SIFFS model of fish marketing societies from its inception. This is helping to bring in fishermen control over fish marketing
- SIFFS has been successfully dealing with fisheries credit despite the fact that it is high risk, since 1980.
- A fixed installment repayment does not make much sense in fisheries credit and hence SIFFS has been following a formula ie. 10% of value of daily fish catches, for repayment of credit.
- Matsyafed, in Kerala has adopted the same model and very rapidly spread the same across the whole of Kerala State. It is interesting to note that wherever the SIFFS societies are functioning well, the Matsyafed “cooperatives” are very effective.

Table 12 c: Comparison of SIFFS with other MFIs

Parameter	Most MFIs	SIFFS
Clients	Predominantly Women	Primarily Men
Local organisation	SHGs or Joint Liability Groups	Fish marketing society (commodity coop)
Loan amounts	Small: A few hundreds to few thousands	Larger: INR.5000 to 50,000
Loan repayment	Fixed installments, often weekly	Fixed percentage of income with high uncertainties and fluctuations in income
Loan period	Short term: 6 months to 18 months	Medium term: 3 years
Loan purpose	Significant percentage for consumption	Almost entirely for fishing equipment (productive purpose)

Interest rates	18-40% p.a; comparison with informal sector rates of 60% and above	16%; comparison with bank agri loans (12%) and Government coops (15%)
Interest spread	High	Low
Operating costs for credit	High due to sole focus on credit and associated activities	Low due to multiple activities and revenue generation from marketing and input distribution
Risk	Lower due to small loan size and effectiveness of peer pressure	High due to larger loan size and repayments dependant entirely on fortunes of fishing enterprise rather than peer pressure.

(b) Matsyafed Model

The Kerala State Co-operative Federation for Fisheries Development Ltd.(Matsyafed), was established on the 19th of March 1984. This organization is registered as a Co-operative Apex Federation of primary level cooperative societies. Matsyafed is an Apex Federation of 653 primary level Fishermen Development Welfare Co-operative Societies. The administration and management of Matsyafed is vested with the Board of Directors having 25 members of who 15 are elected from the primary co-operatives, 7 official members and 3 non-official members nominated by the Government. The Chief Executive is the Managing Director.

Matsyafed has a District Office in each of the nine maritime districts and one in the Inland district of Kottayam, headed by a District Manager for administrative convenience. The District Managers with a team of supporting staff co-ordinate and supervise all the activities in the district. Of the 653 primary societies 334 are in the marine sector, 186 in the Inland sector and 133 women co-operatives. The total membership in these societies is more than 300 thousands. The primary societies are clubbed into 60 clusters for administrative convenience based on geographical area. The number of primary co-operatives varies from 4-8 in a cluster. Matsyafed has a field office named Project Office in each cluster. The field level officer provides necessary guidance and advice on the developmental programmes. This officer also co-ordinates the implementation of the various projects at the grass root level and other extension activities as well. The main objectives of Matsyafed are ensuring total development (economic, social and educational, cultural) of fisher folk community and implementation of various schemes for Promoting production, procurement processing and marketing of fish and fishery allied products.

Matsyafed has adopted the SIFFS model and is very rapidly spreading the same across the whole of Kerala state. An interesting fact is that Matsyafed “cooperatives” are the strongest where the SIFFS societies are also strong. Matsyafed has taken some dimensions of these multi layered and intricately interwoven interventions and scaled them. The positive side is that every fish worker in Kerala is today covered under producers’ organizations.

Activities

The activities of Matsyafed include developmental programmes aimed at enhancing production, self-employment programmes, commercial activities for forward and backward integration, aquaculture programmes, and extension.

i. Development Activities

Beach level Auctions / Control over first sale

The main focus of the Federation is to equip the traditional fishermen to achieve control over the first sale of fish. The system of beach level fish auctions developed across the State through the primary co-operatives have enabled fishermen to exercise first right over sale of fish. The fishermen are also ensured of getting cash-down payment at the beach itself through the primary co-operatives. A tie-up has also been made with seafood exporting companies for procurement of high value and bulk quantity of fishes through the primary societies so that the producers get a reasonable price for their catch at the beach itself. This has ensured that there is no price fall during bulk landings. The fishermen are also assured timely assistance for replacement of their fishing inputs and working capital requirements. Matsyafed also provides working capital assistance to the primary co-operatives for strengthening the beach level auction.

Integrated Fisheries Development Project (IFDP)

The Integrated Fisheries Development Project was formulated and implemented with the assistance of the National Cooperative Development Corporation (NCDC) in 1985. The objectives of the project was to make the fishermen owners of fishing units and eliminate the exploitation by the middlemen at all levels through the implementation of the project. Matsyafed took up the distribution of fishing inputs at subsidized rates and at comparatively very low rates of interest to groups of fishermen through primary cooperatives, provision of working capital, marketing infrastructure, supply of fuel and other fishing accessories.

ii. Welfare Activities

Fishermen Personal Accident Insurance Scheme:

Every year, Matsyafed implements the Personal Accident Insurance scheme for the fishermen members of the affiliated primary co-operatives with the assistance of Insurance Companies by collecting a nominal insurance premium. The scheme provides compensation of INR 0.1 million to the dependants of fishermen who have suffered accidental death, permanent disability, loss of both limbs/eyes etc.

Matsyafed Input Security Scheme (MISS) :

Matsyafed is implementing the Input Security Scheme (MISS) for compensating the losses due to accidents and natural calamities sustained to the fishing implements distributed under Matsyafed schemes. The corpus of this scheme is constituted as a revolving fund by raising funds from different sources including assistance from Government and beneficiary contribution. The fishermen can enroll under MISS at the time of availing assistance for fishing implements under loan schemes of Matsyafed by remitting the contribution @4% of the cost of the implements. The coverage is for a continuous period of 3 years. The losses / damages sustained to fishing inputs under prescribed conditions will be assessed by the Matsyafed Officials and the compensation will be released to the beneficiaries.

Special bus service for fisherwomen vendors (Vanitha bus)

Matsyafed is operating buses at nominal rates for transporting fisherwomen vendors in various routes. The fisherwomen are picked up from selected landing centres and transported to the

various market places and back. These buses are being operated as a welfare service for the fisherwomen vendors who are normally denied access in public transport.

Community Peeling Centers

Matsyafed operates two community peeling centres in Kollam district. The Community Peeling Centres are being run as a common service facility for the fisherwomen of the area.

iii. Employment Generating Activities

The Matsyafed is implementing schemes with financial assistance of National Backward Classes Development & Finance Corporation (NBCFDC) and National Minorities Development & Finance Corporation (NMDFC) to promote economic and developmental activities for the benefit of backward and minority communities. Matsyafed has so far passed assistance worth INR 121.05 millions to 6607 beneficiaries.

iv. Centrally Sponsored Schemes and Plan schemes

The schemes include, Motorisation of country crafts, Subsidy for suitable complements of fishing gear, Popularisation of new Generation crafts, Bankable schemes, Deep Sea Fishing and Value Addition. A project for promoting marketing network by ensuring quality of fishes from the point of fishing to the supply to consumer level is envisaged under plan scheme with an outlay of INR 10 millions.

v. Tsunami Emergency Assistance Project (TEAP) & Tsunami Rehabilitation Programme (TRP)

Matsyafed has been in the forefront of implementing the tsunami relief programmes of the State Government of the fisheries sector of the State since January 2005. Matsyafed was the implementing agency for distribution of fishing units to the tsunami affected marine fishermen of the State and has distributed fishing inputs worth INR 130 millions. Besides, Matsyafed is the implementing agency for the ADB assisted TEAP & TRP programmes in the State and are taking up projects for Fish Kiosk, Vehicle for fresh fish marketing, working capital for revolving fund, seafood kitchen, repair and replacement of marine fishing inputs, introduction of LPG Kit, OBM repair unit etc.

vi. Engineering works

Engineering Division forms an integral part of the organisation as all the construction and developmental needs of the Federation are being taken care of by the Division. The infrastructure developments, diversification and modernization of our units, housing and basic sanitation programmes for the fisherfolk, purchase of machineries, computerization programmes, vehicle purchases and maintenance, printing, stationery purchase, housekeeping, staff welfare measures etc. are being undertaken by this Division.

vii. Other Activities

The other activities include Motivational Programs, Extension and Mass Communication Programmes. The various commercial activities of Matsyafed include net making, ice making, fish processing & freezing, extraction of chitin & chitosan, production of fish manure, supply and servicing of OBMs, supply of diesel, aquaculture etc.

viii. SHG Movement and Microfinance

As a part of building a strong Co-operative institution with the participation of fishermen and their family members, Matsyafed Started organising Self Help Groups associated with Primary Fishermen Co-operatives. Now, we have a total number of 10162 Self Help Groups (2840 Men Groups and 7322 women groups) with 122434 members (33140 Men and 89294 Women). These groups have generated INR 120.71 millions as thrift which is utilized for giving short term loans to the members. The SHG movement has acquired momentum, which resulted in the increased level of participation of fishermen and their family members. Being together as self help groups has considerably changed the organizational culture of fishermen considerably. The thrift generated is used by the groups for internal lending to the members at low interest rates. Within a year it can be inferred that around INR 160 millions is thus revolved in the sector without any assistance from the federation or any other external agencies. This is very helpful to the fishermen families who are otherwise forced to borrow from private moneylenders at exorbitant interest rates. INR 90.0 millions was released as micro finance loan last year to these SHGs. The beneficiary gets the loan at the interest rate of 6%. At the end of last financial year 466 SHGs have started enterprises. We plan to start more number of Micro enterprises under SHGs this year.

Table 13: SHG Movement supported by Matsyafed

Sl. No.	Attributes	
1	NO.of societies	270
2	NO.of Groups	10,162
3	NO.of members	122,434
4	NO.of groups with grade >100	6,469
5	NO.of groups started enterprises	466
6	Thrift generated (INR millions)	120.71
7	Amt.used for internal lending (INR millions)	66.21
8	Bank loan availed (INR millions)	43.10
9	Business turnover (INR millions)	263.20
10	Income generated (INR millions)	26.60

ix. Women Empowerment Programmes

Ornamental Fishery Development Scheme

Matsyafed is implementing a scheme on Ornamental Fishery Development with the financial assistance from the Department of Human Resource Development, GOI with an outlay of INR 4.8 million. The project aimed at generating income for women by rearing and breeding of Ornamental fishes is implemented in 7 districts viz. Thiruvananthapuram, Kollam, Alappuzha, Kottayam, Ernakulam, Thrissur and Malappuram. 450 women beneficiaries have been assisted so far.

Production and marketing of value added fishery products from trash fish

A Project with an outlay of INR 10 million for producing value added fishery products utilising trash fish / seasonally abundant is being implemented for fisherwomen of Trivandrum, Kollam, Alappuzha, Kottayam and Ernakulam districts. So far 500 women have been provided financial

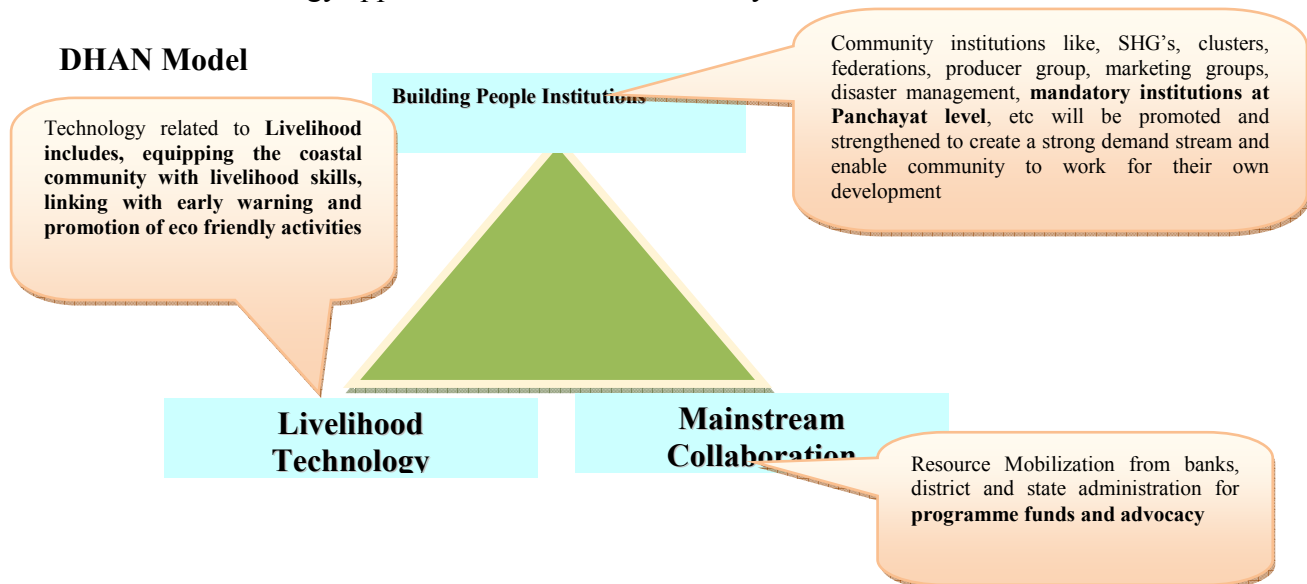
assistance for setting up production units for fishery products such as pickles, wafers, fillets, cutlets etc.

Production and Marketing of Value Added Fish and Fishery Products

A scheme for large scale production and marketing of value added fishery products is being implemented with financial assistance from GOI under the Swarna Jayanti Grama Swarozgar Yojana. 3000 beneficiaries are provided specialized training in the value added fishery products. Financial assistance is extended for setting up of Production and Marketing units. The total outlay of the project is INR 115.7 million.

(c) DHAN Foundation Model

The approach of is well defined based on experience of more than a decade. Organizing community into self managed institutions for their entitlements in co – operative, democratic and self help basis is the first core approach of the DHAN Foundation. By organizing the community the demand stream will be strengthened and institutional legitimacy is attained. The formula of all for one and one for all – mutuality and holistic development could be achieved through the people institution. The community organizing is followed by mainstream collaboration and livelihood technology approach to ensure sustainability.



DHAN Foundation exclusively works with the fisher folk community involved in traditional method of fishing and using minor mechanized crafts, families involved in sea shell collection, fish vending and labourers in four coastal blocks of Ramnad district in Mandapam, Thiruvadanaï, Thirupullani and Kadaladi blocks covering 105 coastal villages. Organizing the community into SHGs creates a scope to work collectively for poverty reduction. DHAN Foundation has so far promoted 261 SHGs in the coastal villages of Ramnad by organizing 4682 fisher folks. Micro finance is used as a tool addressing the credit needs of the poor families and promotion of livelihood activities and SHGs promoted serve a poor's bank. Without complicated procedures the SHG members are able to gain the credit services. The SHGs serve as information dissemination hubs through the monthly meetings. Various development related information, government schemes are discussed through the SHG meetings. DHAN Foundation organizes

regular training events for the SHGs on SHGs concept, system requirement at SHG level, group accounts, leadership, insurance, disaster management, conservation, Health and Nutrition.

The SHG federations provide continuity to the initiatives of DHAN Foundation and support the community in achieving livelihood stability. As on March 2000, DHAN Foundation has promoted 13 SHG federations in Ramnad district and out of which 3 SHG federations are owned and managed by the fisher folk community. The total savings mobilized by the community as on March 2009 is INR 10.2 millions. The total amount mobilized from bank; mainly to strengthen the livelihood activity is INR 12.2 millions.

Insurance

DHAN Foundation has introduced group insurance scheme, in which all SHG members can be enrolled. The various insurance products include life, health and livestock insurance. In Ramnad district 600 fisher folks are covered under life insurance through the group insurance product (Janashree Bhima Yojana – Life Insurance Corporation of India) and recently a health insurance product was introduced. The members enrolled under life insurance get an insurance coverage of INR 10000 to INR 30000 per person in the case of natural death and INR 75000 in the case of accidental death. 3125 families were secured with life insurance under the group insurance scheme.

Outcome

- Institutional approach is the niche of DHAN Foundation. The intervention of the institution always begins with community organizing and promotion of people institution. All interventions of the DHAN are routed through the people Institution.
- DHAN Foundation organized the existing SHG members involved in the eco friendly method of fishing into marketing groups to facilitate income enhancement through collective marketing and non eco friendly activities are prevented.
- Through collective marketing, the poor fisher folks were able gain 10 – 30% as additional income for the fish catch.
- The women were trained on leadership, livelihood activities and institution management and are now leading institutions and interacting with bankers and mainstream service providers to mobilize resources.
- The SHG federations promoted by DHAN Foundation would initiate civic activities addressing the social well being. Health, access to safe drinking water, sanitation, education, employment opportunities, and conservation will be the area of intervention for these institutions.

Table 14: Role of NGO in providing various financial and non financial services to the coastal fisher sector

Type of Intermediation	Services	Particulars
Financial Intermediation	Working Capital	The SHGs engage in micro finance (Savings, Credit and Insurance) activities. The people institutions are linked under government schemes to mobilize working capital for micro enterprise activities.
	Fixed Asset Loan	
	Savings	
	Insurance	
Social Intermediation	Group Formation	In Ramnad district DHAN Foundation has organised 4682 fisher folks into 261 SHGs.
	Leadership Training	DHAN Foundation has organized more than 75 events on leadership covering 1350 households in Ramnad district.
Enterprise Development	Marketing	So far more than 25 micro enterprises covering around 750 families are promoted in Ramnad district. Out of existing micro enterprises 11 are functioned by the fisher community
	Business Training	The coastal communities were trained on collective marketing
Social Services	Education	Every year, around 350 students are supported in the coastal villages to continue their education.
	Health & Nutrition	DHAN Foundation has organized more than 40 awareness events (Street plays) on health and nutrition in 40 coastal villages

(d) National Co-operative Development Corporation

NCDC has been promoting and developing fisheries cooperatives after its Act was amended in 1974 to cover fisheries within its purview. The Corporation has formulated specific schemes and pattern of assistance for enabling the fishery cooperatives to take up activities relating to production, processing, storage, marketing, etc. Assistance is provided to fisheries cooperatives on liberal terms treating the activity as weaker section programme. Assistance to fishery cooperatives is provided for the following purposes:

- Purchase of operational inputs such as fishing boats, nets, and engines
- Creation of infrastructure facilities for marketing, transport vehicles, ice plants, cold storages, retail outlets, processing units, etc.
- Development of inland fisheries, seed farms, hatcheries, etc.
- Preparation of feasibility reports.
- Integrated Fisheries Projects (Marine, Inland and Brackish Water)

The efforts are to reduce post harvest losses, enhance processing of catch and improve income of fishermen. However, the efforts have not borne much fruit as a large number of fisher folk are not funded by the NCDC schemes. Till 31 March 2006, the Corporation has sanctioned assistance of INR.970 million and released INR 7163 million for fisheries development through cooperatives in different States and UTs.

(e) Grameen Bank

Grameen Bank Project was born in the village of Jobra, Bangladesh, in 1976. In 1983 it was transformed into a formal bank under a special law passed for its creation. It is owned by the poor borrowers of the bank who are mostly women. It works exclusively for them. Borrowers of Grameen Bank at present own 95 per cent of the total equity of the bank. Remaining 5 per cent is owned by the government. Grameen Bank has 2,558 branches with area of operation in 84,573 villages through 23,338 staff members. The Grameen Bank, since inception has disbursed loan amounting to US \$ 8.26 billion. Out of this, US \$ 7.34 billion has been repaid. Current amount of outstanding loans stands at US \$ 738.84 million. The projected disbursements for year 2009 at US \$1091 million with loan recovery rate at 97.89 percent.

The Grameen Bank made a profit since inception every year except in 1983, 1991 and 1992. Grameen bank has declared 30% cash dividend for the year 2008. This is the highest cash dividend declared by any bank in Bangladesh in 2008. Highest record of dividend declared by Grameen Bank was in 2006. It was 100%. The bank has also created a Dividend Equalization Fund to ensure distribution of dividends without much fluctuation in successive years. Receiving of dividends each year greatly inspires the shareholders, 96% of whom are borrowers.

The Grameen Bank caters to 7.93 borrowers, 97% of which are women. Grameen Bank finances 100 per cent of its outstanding loan from its deposits. Over 54 per cent of its deposits come from bank's own borrowers. Deposits amount to 139 per cent of the outstanding loans. If both deposits and own resources are combined, it becomes 151 per cent of loans outstanding. Although each borrower must belong to a five-member group, repayment responsibility solely rests on the individual borrower, while the group and the centre oversee that everyone behaves in a responsible way and none gets into repayment problem.

Interest Rates

Government of Bangladesh has fixed interest rate for government-run microcredit programmes at 11 per cent at flat rate. It amounts to about 22 per cent at declining basis. Grameen Bank's interest rate is lower than government rate.

There are four interest rates for loans from Grameen Bank : 20% for income generating loans, 8% for housing loans, 5% for student loans, and 0% (interest-free) loans for Struggling Members (beggars). All interests are simple interest, calculated on declining balance method. The minimum interest offered is 8.5 per cent. Maximum rate is 12 per cent on the deposit to Grameen Bank.

Beggars as Members of the Grameen Bank – A unique scheme

The uniqueness of the Grameen Bank is to have reached the beggars by a special programme, called Struggling Members Programme, to reach out to the beggars. About 111,645 beggars have already joined the programme. Total amount disbursed stands at Tk. 136.56 million. Of that amount of Tk. 102.26 million has already been paid off.

Micro-enterprise Loans

Many borrowers are moving ahead in businesses faster than others for many favorable reasons, such as, proximity to the market, presence of experienced male members in the family, etc. Grameen Bank provides larger loans, called micro-enterprise loans, for these fast moving members. There is no restriction on the loan size. So far 1,944,829 members took micro-enterprise loans. A total of US \$ 730.00 million has been disbursed under this category of loans. Average loan size is US \$ 361.32, maximum loan taken so far is US \$ 23,209. This was used in purchasing a truck which is operated by the husband of the borrower. Power-tiller, irrigation pump, transport vehicle, and river-craft for transportation and fishing are popular items for micro-enterprise loans. The Grameen Bank has introduced scholarship and education loan schemes for its micro enterprise loan members. Students who succeed in reaching the tertiary level of education are given higher education loans, covering tuition, maintenance, and other school expenses.

Life Insurance

Each year families of deceased borrowers of Grameen Bank receive a total of US \$ 0.25 million to 0.29 million in life insurance benefits. Each family receives Tk 1,500. A total of 118,251 borrowers of Grameen Bank died and their families collectively received a total amount of US\$ 4.31 million. Borrowers are not required to pay any premium for this life insurance. Borrowers come under this insurance coverage by being a shareholder of the bank.

Telephone-Ladies

To-date Grameen Bank has provided loans to 360,054 borrowers to buy mobile phones and offer telecommunication services in nearly half of the villages of Bangladesh where this service never existed before. Telephone-ladies operate a very profitable business with these phones.

Telephone-ladies play an important role in the telecommunication sector of the country, and also in generating revenue for Grameen Phone, the largest telephone company in the country. Telephone ladies use 2.22 percent of the total air-time of the company, while their number is only 1.64 per cent of the total number of telephone subscribers of the company.

Getting Elected in Local Bodies

Grameen system makes the borrowers familiar with election process. They routinely go through electing group chairmen and secretaries, centre-chiefs and deputy centre-chiefs every year. They elect board members for running Grameen Bank every three years. This experience has prepared them to run for public offices. They are contesting and getting elected in the local governments. In 2003 local government (Union Parishad) election 7,442 Grameen members contested in the reserved seats for women, 3,059 members got elected. They constitute 24 per cent of the total members elected in the seats reserved for women members in the Union Parishad local government. During 1997 local government election 1,753 members got elected to these reserved seats.

6.4.2. Rating of Models

Considering the various type of financial intermediations and sector specific intermediations provided by the various MFIs, producers organizations and Banks, a rating chart has been developed giving equal weightage to all the services. As may be evident (table 15) the maximum services are being rendered by SIFFS followed by Matsyafed.

Table 15. Services extended by the institutions – loans, savings, insurance, etc.
The Role of mFIs in providing various Financial & Non Financial Services to the Sector

Sl.No.	Type of Intermediation	Services	NCDC	Dhan Foundation	Matsyafed	SIFFS	Grameen Bank
1	Financial Intermediation	Working Capital	x	√	√	√	√
i		Fixed Asset Loans	√	√	√	√	√
ii		Savings	x	√	√	√	√
iii		Insurance	x	√	√	√	√
2	Social Intermediation	Group formation	√	√	√	√	√
i		Leadership training	x	√	√	√	√
ii		Co-operative learning	√	√	√	√	√
3	Enterprise development	Marketing	√	√	√	√	√
i		Business training	x	√	√	√	√
ii		Production training	√	x	√	√	√
iii		Subsector analysis	x	x	√	√	√
4	Social Services	Education	x	√	√	√	√
i		Health & nutrition	x	√	√	√	√
ii		Literacy training	x	√	√	√	√
5	Sector Specific Interventions	Infrastructure Creation	√	x	√	√	x
i		Technology Development	x	x	x	√	x
ii		Technical Support & Services	x	x	√	√	x
iii		Supply of Boat and Engine	x	x	√	√	x
iv		Supply of Fishing Inputs	x	x	√	√	x
v		Post Harvest Operations	x	x	√	√	x
vi		Information services	x	x	√	√	x
vii		Alternate Employment	x	√	√	√	x
viii		Policy & Advocacy	x	x	√	√	x
ix		Women Empoerment	x	√	√	√	√
6	Total Intermediations		6	14	23	24	15

It is observed from the functions of the agencies under consideration that there are some negative attributes associated with some of the organizations that may be against the interests of the sector and the philosophy of micro finance as such. The attributes in the present context are directed government interventions associated with the implementation of government sponsored programmes, creating distortions in the sector vis-à-vis the concept of creating level playing field for operation of all agencies and that of sectoral development

Table 16. Rating of Models

Score	NCDC	Dhan Foundation	Matsyafed	SIFFS	Grameen Bank
Positive Intermediations	6	14	23	24	15
Negative Intermediations	-1	0	-1	0	0
Net Score	5	14	22	24	15

To remove the impact of such distortions, a negative marking has been introduced, which may have to be adjusted to the intrinsic value of such interventions. In the absence of any such yard stick, one point has been deducted from the overall score of these organizations viz. NCDC and Matsyafed (Table 16). The maximum score is that of SIFFS followed by Matsyafed. The sector specific intermediations are the strong points of these producers' organizations. Thus the SIFFS model emerges as the best replicable model.

7. Policies relating to micro finance & gender issues concerning small scale fisheries & aquaculture sector

In line with the main thrust of the Millennium Development Goals (MDGs), eradicating poverty from the region is one of the common priorities of the SAARC nations. Empowering the poor, women in particular has the most effective impact on poverty alleviation. In this regard, facilitating them with the adequate financial means and ways through microcredit is already a proven strategy for the policy makers in empowering the poor.

(A) India

As a large section of population in the unorganized sector particularly in the rural areas remained outside the formal financial structure, a need was felt for alternative policies, systems and procedures, savings and loan products, other complementary services, and new delivery mechanisms which would fulfill the requirements of the poorest, especially of the women member of such households. The emphasis, therefore, was on improving the access of the poor to microfinance.

Microfinance Models in India

The SHG-Bank Linkage Programme

In 1992, a pilot project of linking Self Help Groups (SHGs) with commercial banks was launched under the aegis of National Bank for Agriculture and Rural Development (NABARD), which is the apex bank for rural and agricultural credit in the country. The Government of India has also been supporting the SHG-bank linkage programme through budgetary announcements, inter-alia, regarding the number of SHGs to be linked to banks and other policy issues. The Reserve Bank of India has also boosted the programme with suitable policy interventions. Three different models of linkage have evolved based on variations in the delivery mechanism as follows:

Model I: SHGs formed and financed by banks

Under this model, bank themselves act as Self Help Promoting Institutions (SHPI) as at March 2009, 16 per cent of the total loans to SHGs financed was from this category.

Model II: SHGs formed by NGOs and other agencies but financed directly by Banks

Under this model, Non-Governmental Organizations (NGOs) and other agencies in the field of microfinance act as facilitators and banks in due course link the groups by directly providing loans to them. About 70 per cent of total loans to SHGs as at March 2009 were under this model.

Model III: SHGs financed by banks using MFO/MFIs as financial intermediaries

In this model, NGOs take on the dual role of facilitators and financial intermediaries. The proportion of total loans to SHGs linked to banks under this model is relatively small, i.e., 14 per cent as at March 2009.

The SHG-bank linkage has shown significant growth in terms of number of groups linked to banks. Starting from only 255 SHGs linked to banks in the year 1992-93, the number increased to 0.5 million SHGs linked during the year 2004-05. Cumulatively, the number of SHGs linked

to banks aggregated 6.1 million as at the end of March 2009 whereas 4.2 million SHGs are credit linked with banks. This translates into an estimated 85.4 million poor families brought within the fold of formal banking services. Eighty per cent of the groups linked with banks are exclusive women's groups. Cumulative disbursement of bank loans to SHGs stood at over INR.226.8 billion as on 31 March 2009 with an average loan of INR 53,688 per SHG and over INR 4,000 per member.

A total number of 438 banks including 27 public sector commercial banks 13 private sector commercial banks, 85 RRBs and 313 co-operative banks are now associated with the SHG-bank linkage programme. While 583 out of 612 districts of the country in 31 States / Union Territories have been covered under this programme, the total number of NGOs presently involved as SHPIs in this linkage is around 2318.

Bank-MFI Bulk Lending Model

An alternative delivery model for microfinance is the bulk lending model, where funds are placed at the disposal of NGOs or MFI for on lending.

The Bank-MFI Partnership Model

This model has been popularized by the new generation private sector banks in the country. Under this model, the MFI evaluates, recommends, originates the loans, helps in disbursement and subsequently tracks and collects the loans. However, the loans are accounted for in the books of the bank and not of the MFIs. This model has overcome the constraints of capitalization of the MFI. 60 MFIs have availed of loans amounting to INR 37.3 billion from banks under this program. Some NGO – MFIs in India have adopted the Bangladesh Grameen Bank model for providing microfinance to poor women.

The Policy Framework for Microfinance

While there is no accurate data on MFIs in the country, the number of MFIs is estimated to be around 800, majority of which are operating on a smaller scale with number of clients ranging from 500 to 1,500 per MFI. An estimate from the largest association of MFIs indicates that on March 31, 2009, outstanding loans disbursed by 522 MFIs, amounted to INR 37.32 billions. Micro finance institutions that are registered as companies come under the regulatory purview of RBI. Non-Banking Financial Companies (NBFCs) accepting the public deposits are subjected to rigorous supervision by RBI. There are, however, only a few MFIs in the country that are registered as NBFCs. Further, companies which are engaged in micro financing activities, licensed as not for-profit companies and are not accepting public deposits, are exempted from the key regulatory / statutory requirements, viz. registration, and maintenance of liquid assets and transfer of minimum percentage of profits to the Reserve Fund.

Reserve Bank of India has been striving to create an enabling environment for the growth of micro finance in the country. The pilot project of SHG-bank linkage launched by NABARD in 1992 received full policy support from RBI and it advised the commercial banks to actively participate in linkage programme which has since been extended to the regional rural banks and co-operative banks. The Reserve Bank set up four informal groups in October 2002 to examine (i) structure and sustainability issues, (ii) funding issues, (iii) capacity building issues and (iv)

regulatory issues relating to microfinance. The Advisory Committee on Flow of Credit to Agriculture and Related Activities from the Banking System (Vyas Committee) appointed by the RBI also examined various microfinance issues.

Further, Foreign Direct Investment (FDI) has been allowed by the Government of India in the MFI sector subject to certain norms and NGOs engaged in microfinance have now been allowed to raise External Commercial Borrowing (ECB) upto USD 5 million during a financial year.

Expanding the Outreach of Microfinance

An Internal Group of RBI on Rural Credit and Micro-Finance (Khan Committee) had examined the issues relating to expanding the outreach of microfinance through linkage between banks and intermediaries from the formal, semi-formal and informal sectors and leveraging information and communication technology (ICT) for the purpose. On the basis of recommendations made by the Committee, banks have since been permitted to use the services of NGOs / SHGs / their federations, MFIs and other civil society organizations as intermediaries in providing financial services through the use of (i) Business Facilitator and (ii) Business Correspondent Models.

Role of other Apex Level Institutions

NABARD

A Micro Finance Development Fund of Rs.1 billion was established in NABARD in the year 2000-01 for (a) giving training and exposure to Self-Help Group (SHG) members, partner NGOs and government agencies; (b) providing start-up funds to microfinance institutions and meeting their initial operational deficits; (c) meeting the cost of formation and nurturing of SHGs; (d) designing new delivery mechanisms; and (e) promoting research, action research, management information systems and dissemination of best practices in the microfinance sector. The corpus of the fund has now been raised to INR 2 billion and it has been renamed as Micro Finance Development and Equity Fund. The objective of the re designated fund is to facilitate and support the orderly growth of microfinance sector through diverse modalities.

The Small Industries Development Bank of India (SIDBI)

The cumulative assistance of SIDBI's microfinance initiatives as at the end of March 2005 aggregated to INR 4.2 billion through 209 MFIs, benefitting approximately 1.51 million poor, mostly women.

The Rashtriya Mahila Kosh (RMK)

The cumulative loan sanctioned by RMK stood at INR 1.3 billion in respect of 749 NGOs and other agencies as at the end of March 2004.

Impact Evaluation

Impact evaluation studies conducted by NABARD and SIDBI brought out positive results. The SIDBI study indicates that the microfinance initiatives have increased non-farm employment of the rural people and women in particular have been benefited in terms of economic and social empowerment, their ability to access loan, own productive resources, engage in income generating activities, decision making and increased mobility.

The Road Ahead – Issues and Challenges

a) Regional Variations

Although more than 90 million poor families have been covered so far there is a need to upscale the number of SHGs, particularly in the Northern, Eastern and North-Eastern parts of the country where there is a dearth of good Self Help Promoting Institutions (SHPIs).

b) Cost of Credit

Adoption of innovative methods and processes including low cost ICT solutions can be one way for reducing their transaction cost and, hence, the cost of credit to the borrowers.

c) Promotion of micro-enterprises

The average loan amounts per SHG and per member are about Rs. 58015 and Rs.7,000 respectively. The per member loan amount is too small for any meaningful micro enterprise activity. The average per SHG savings amount to Rs.9060. The quantum has to be increased substantially when the SHGs go higher up the ladder to the level of micro-enterprises.

d) Funding Support

The Micro Finance Development and Equity Fund established in NABARD is expected to play an important role in providing Equity Capital or Quasi Equity to enhance the capacity of the MFI to undertake financial operations. The banking sector also supports the “Fit and Proper” NGOs / Self Help Promotion Institutions (SHPIs) in the formation and nurturing of SHGs and other microfinance initiatives.

e) Capacity Building and other Developmental Issues

Efforts of NABARD, SIDBI and associations of the MFIs in this area need to be continued. The national level training institutions like the College of Agricultural Banking (CAB), Pune and the Bankers Institute of Rural Development (BIRD), Lucknow are also involved in the training of banks and MFIs. There is need for more stringent disclosure norms for MFIs / NGOs. In the interest of these organizations, proper accounting standards have to be developed and implemented. There is also a requirement of some form of credit information bureau on a localized basis to provide borrower information to banks and the MFIs.

B. Bangladesh

Microfinance is currently at the center of policy discussions related to financial sector development and poverty alleviation. Microfinance experiences in Bangladesh have made important contributions to the emergence of this concept globally.

International agencies and development professionals have accepted microfinance as a tool for poverty alleviation although the models and the experiences are diverse. It is important to analyze the experiences of microfinance as the exercise can lead to potential lessons for developing sustainable rural finance to eradicate rural poverty. Microfinance Institutions (MFIs)

have managed to develop important innovations that enabled them to expand financial frontiers in developing countries such as Bangladesh. For the first time, large numbers of poor borrowers have access to financial services through formal or semi formal institutions, due to these innovations. It permitted these institutions to serve poor clients successfully without collateral that is normally required by banks. The techniques that are used by the MFIs are in sharp contrast with the formal banks operating in the rural areas. Therefore, there is a need to learn from the emerging sector and build up a conducive regulatory and policy environment for the development of this sector.

I. Development of Microfinance Sector in Bangladesh

The institution that has shaped much of modern-day microfinance is the Grameen Bank, which began in 1976 as an experimental project and has been established as a formal bank for the rural landless in 1983 (by a separate Ordinance), a progress expedited by its success. For the last two decades, Bangladesh has been drawing the attention of the world for its microfinance initiatives. Over the last 25 years, hundreds of specialized microfinance NGOs have been created worldwide mainly based on the Grameen model, either to provide microfinance services exclusively or to add microfinance to their main agenda of social services. Bangladesh also experienced a massive expansion of microfinance activities during the 1990s.

In the early 1990s, replication of the success of microfinance institutions in Bangladesh was one of the big challenges. Since then microfinance has seen a massive expansion all over the country with scaling up of existing providers, entry of new players and emergence of an apex funding institutions like Palli Karma Sahayak Foundation (PKSF). Therefore, survival and expansion strategies for the microfinance sector discussed today are more in terms of vertical expansion through market segmentation and product diversification, providing more client-responsive services, establishing fair competition through a regulatory environment, ensuring accountability by a proper monitoring system, and linking microfinance with the mainstream financial market.

II. Microfinance Programs of Different Types of Organizations

In Bangladesh, there are four main types of institutions involved in microfinance activities. These are 1) Grameen Bank (GB), a specialized institution, 2) Non-Governmental Organizations (NGO) like BRAC, Proshika or ASA, 3) Commercial and Specialized banks, like Bangladesh Krishi Bank (BKB), Rajshahi Krishi Unnayan Bank (RAKUB), and 4) Government sponsored micro finance projects / programs like Bangladesh Rural Development Board (BRDB), Palli Darido Bimochon Foundation (PDBF), Swanirvar Bangladesh, RD-12 and others which are run through several ministries. As of June 2003, the total coverage of microfinance in Bangladesh by different organizations is over 15 million households (Table-17). It is a sector that has created jobs for over 1, 00,000 employees. Semiformal NGOs are the major players in the microfinance market in Bangladesh. A rough estimate finds that near about 60% of the total market is occupied by them.

Table 17: Coverage of Microfinance Program in Bangladesh (as of June, 2003)

Organizations	Borrowers covered
NGO-MFIs	8,894,969
Grammen Bank	2,786,748
BRDB	709,073
PDBF	272,349
Department of Youth Development	123,800
Department of Social Service	48,469
BSCIC	42,837
BARD	43,123
Sub Total	12,921,368
Nationalized Commercial Banks	2,159,927
Private Banks	117,954
Sub Total	2,277,881
Grand Total	15,199,249

Source: Maps on Microcredit Coverage in Upzilas of Bangladesh, June 2003, PKSF.

In the macro context, microcredit loans constitute around 5% of the total private sector credit in the economy. Table-18 shows a rising trend for the share of microfinance institutions in the total private sector credit. But in terms of the aggregate number of borrowers, the MFI sector may have a larger share than other private sector lending organizations. MFIs have nearly 15 million borrowers who had received only 5.30% of total private sector credit in the financial year 2004, while the private sector's borrowers number only 7.85 million (from the banking sector, the largest supplier of credit in amount).

Table 18: Yearwise outstandings

Outstanding (in billion Takas)	FY 02	FY 03	FY 04
Banks	675.70	776.60	902.20
Non-banks	24.60	31.60	40.20
MFIs	36.30	43.10	53.00
Total	736.60	851.30	995.40
Microfinance as % of Private Sector Credit	4.90	5.10	5.30

Source: Bangladesh Bank

III. Key Information of Different Types of Institutions are Given Below:

- a. **Grameen Bank:** Grameen Bank is the pioneering institution in the country. It emerged as a specialized microcredit bank in 1983 by an Ordinance after years of experimenting. Over the past 23 years the bank has emerged as the largest MFI, attaining a network of 1,735 branches by the end of December 2005. By that time it had mobilized 5.58 million members with loans outstanding of Tk.27.97 billion. Along with the expansion of its network and loan disbursement, there has been an increase in savings mobilization from the members. The net members' savings balance till December 2005 was 20.14 billion, which is a little over seventy per cent of the loans outstanding. Total savings from both members and non-members stood as Tk.31.66 billion by December 2005. Grameen Bank finances 100 per cent

of its outstanding loan from its own funds and savings from its depositors. Although the bank was subsidized in its initial years, its dependency on cheap funds has declined. This is evident from the contribution of its savings in loan financing. The bank has been operating profitably with a high degree of efficiency.

b. Non-Government Microfinance Institutions (NGO-MFIs) in Bangladesh :

Non-government MFIs number over 1,000. Of them, 721 institutions (including all major players in this sector) had mobilized more than 14 million members, and loans outstanding of around Tk.44 billion by the end of December 2004. The average loan is Tk.3,896 per borrower. Although players are many, top three – BRAC, ASA and Proshika – dominate the sector. These three non-government MFIs mobilize 73.60 per cent of the borrowers and account for about 77 per cent of the loans outstanding. Next in line are only ten NGOs who have more than 50,000 borrowers followed by forty more those borrowers number between 10,000 and 50,000. The rest, the overwhelming majority of the NGO-MFIs, are small, having less than 10,000 members. (Table: 19)

NGO-MFIs also mobilize savings from their members. Their savings mobilization approaches vary from voluntary to compulsory. Till December 2004, these institutions mobilized Tk.17.29 billion from their members as savings. But average net savings per member is quite low. By end of 2004, it was only Tk.1,200 per member. The top 20 institutions mobilize 89%, while the topmost trio (ASA, BRAC and Proshika) mobilize 73% of the total savings. Savings occupy a significant portion of the total loanable funds of NGO-MFIs. At the end of December 2004, around 40% of the outstanding loan of NGO-MFIs had been financed by the savings collected from members.

Grameen Bank and BRAC have emerged as the largest MFIs in Bangladesh. BRAC is the largest in terms of membership while Grameen is the largest in terms of credit disbursement. By the end of December 2004, BRAC commanded around 23.99 per cent of the total borrowers, while Grameen Bank's share was 20.04 per cent. Grameen's share in credit disbursement, on the other hand, was 33.51 per cent, while BRAC's was 24.27 per cent.

Table 19: Market Share of Major MFIs

Agency	Number of Members (Million)	Number of Active Borrowers (Million)	Outstanding Loan Portfolio (Million Taka)	Member Savings (Million Taka)
Four Big MFIs*				
Grameen Bank	4.06	3.70	20008.20	13793.10
BRAC	4.86	3.99	14491.54	7656.09
ASA	2.99	2.77	13775.62	2828.24
Proshika	2.75	1.54	4851.07	2103.56
PKSF's other Partners	1.7	1.25	3021.74	2557.66
Other NGO-MFIs	3.9	0.8	3561.43	1446.34
Total	20.26	14.30	59709.60	30384.99
Big Four as % of Total	72.36%	85.66%	88.97%	86.82%

* Figures for the big four for December 2004; figures for other NGO are for June 2004.

c. Government Microfinance Programs in Bangladesh:

The government has been promoting public sector microfinance programs with financial support from international financial institutions or agencies. Seventeen departments of the thirteen ministries of the government of Bangladesh have poverty-alleviating microfinance programs (Table-20). The programs are implemented as projects. The government programs include any collateral free loan provided directly.

Table 20: Micro credit Program of Different Ministries (As of December, 2003)*

Sl. No.	Name of the Ministry	Cumulative Disbursement (Taka in Million)	Cumulative Recovery (Taka in Million)	Recovery Rate (%)
1	Ministry of Finance	1359.90	1106.30	81.35
2	Rural Development & Cooperative	30374.30	25880.00	85-95
3	Ministry of Women & Children Affairs	2353.10	1589.70	64-100
4	Social Welfare Ministry	5503.50	5002.20	90.89
5	Ministry of Labour & Employment	147.20	376.30 (Past due)	255.64
6	Cabinet Division	89.90	76.90	85.54
7	Ministry of Fisheries & Livestock	1567.80	1055.50	45-77
8	Ministry of Industry	1968.20	1747.60	69-91
9	Ministry of Agriculture	2673.10	1914.30	71-98
10	Ministry of Land	684.60	554.30	80.97
11	Ministry of Local Government	561.80	237.50	42.27
12	Ministry of Youth & Sports	5331.70	4365.30	81.87
13	Ministry of Textile	262.30	89.20	34.01
Total		52877.50	43990.60	83.19

* Bangladesh Economic Review, 2004, Ministry of Finance.

By the end of 2003, the total outstanding loan of these projects was about Tk.8.89 billion and their cumulative disbursement was Tk.52.88 billion. The programme implemented by the BRDB under the Ministry of Local Government, Rural Development and Cooperatives is the largest programme run by the government. BRDB has disbursed Tk.34 billion to 102,342 cooperative societies/groups comprising 3.6 million members. Palli Daridra Bimochon Foundation (PDBF) is another big programme of the government. BRDB and PDBF together have achieved significant mobilization of members with over 3.95 million in numbers.

d. Banks in microfinance – The concept of microfinance is perceived a little differently by the nationalized commercial banks (NCBs), specialized banks and development banks (DBs). They consider any loan up to Tk.50,000 and extended without any collateral either based on ‘individual’ or ‘group’ basis as microfinance. This can be termed as small loans to encompass both micro and small loans. From this perspective, the NCBs and the DBs have been making very significant contributions to microfinance. By the end of June 2003, 12 banks disbursed a cumulative amount of Tk.99.35 billion among 10.80 million beneficiaries (Table 21). Bangladesh Krishi Bank (BKB) is one of the specialised banks that has been providing financial services largely in rural financial markets. It had disbursed Tk.9.5 billion by the end of December 2003.

Table 21: Micro credit disbursement by Banks as of December 2003*

Name of the Bank	No. of beneficiaries	Cumulative disbursement (in million Tak)	Recovery Rate (%)
Sonali Bank	4,302,144	46,937.70	98.87
Agrani Bank	3,073,802	14,338.10	99.47
Janata Bank	756,901	18,317.40	89.83
Bangladesh Krishi Bank	1,507,863	9,488.80	86.26
Rajshahi Krishi Unnayan Bank	183,975	1,691.70	77.55
Rupali Bank	32,546	254.70	85.00
Ansar-VDP Bank	632,222	2,835.70	98.43
Social Investment Bank	3,279	232.70	94.00
National Bank	12,273	93.70	95.00
Islami Bank	130,465	2,923.60	98.00
The Trust Bank Limited	30,000	1,564.90	95.00
Basic Bank Limited	159,576	673.30	98.00
Total	10,827,246	99,352.30	

* Bangladesh Economic Review, 2004.

e. Palli Karma-Sahayak Foundation (PKSF) : Apex Funding Organisation

Palli Karma-Sahayak Foundation (PKSF) is the apex microcredit organisation established by the Government in 1990. It also works for capacity building of the organizations. It does not directly lend money to the landless and the asset less people but reaches its target groups through its Partner Organisations (POs). It is getting financial support from the government and development partners. PKSF currently provides loanable funds to 233 POs, at 4.5% interest to small and medium POs and 7% to large POs. PKSF is also widely credited for sharpening the

focus of many NGO-MFIs towards financial sustainability and also in setting appropriate standards that would ease the way for a strengthened regulatory structure for micro finance. Upto September 2005, PKSF has provided Tk.23,291.74 million to its POs that enabled them to disbursed Tk.23,175.46 million to targeted poor. Outstanding number of borrowers of the microcredit programme directly supported by PKSF stood at 5.68 million as on September 2005. Loan outstanding stood at Tk.10,947.76 million. Repayment rate is around 98 per cent due to strict monitoring and incentives for POs to repay in order to access new loan trenches.

IV. Major Microfinance Developments in Bangladesh

Microfinance sector in Bangladesh could indeed take pride in substantial achievements especially in terms of outreach, sustainability and its impact on the borrowers, within only two decades. Some of the significant features of achievements are as follows:

a. **Outreach or coverage:** The growth in the MFI sector, in terms of the number of MFIs as well as outreach, was phenomenal during the 1990s and continues till today. The total coverage of microfinance programmes in Bangladesh is over 15 million households (Table 17). A survey conducted by the PKSF mentions that overlapping would be around 33%. After adjusting the overlap, the effective coverage of MFIs stands at 10.05 million, and that covers around 37% of all households in the country. If 80% of them are living below poverty line then it can be said that this programme covers more than 8 million poor households.

b. **Savings collected by the sector:** Till December 2004 Grameen Bank and NGO-MFIs had collected more than Tk.30,384.99 million from over 14 million poor people (Table 19) of rural Bangladesh as savings. This clearly indicates that the notion that poor people cannot and do not save is completely wrong. This means that there is a huge demand of savings in the rural Bangladesh, along with the demand for credit. This demand for savings products is not properly recognized by the banking sector operating there.

c. **Sources of fund and financial sustainability:** With the exception of Grameen Bank, no other MFIs are equity-based organizations. Although initially all MFIs were very much dependent on donor funds, different sources have emerged over time. In the initial years, commercial banks were not involved in micro lending for poverty alleviation. PKSF emerged as an effective organization in the nineties for wholesale lending to its partner MFIs. As MFIs are financial intermediaries, they mobilize resources from the members and raise funds from external sources for financing lending activities. 'Revolving Loan Fund' is financed with flow of funds from different sources such as (a) member savings; (b) PKSF, (c) local commercial and Development Banks, (d) International NGOs, (e) International Donors, (f) Local NGOs (g) Own Fund & Reserve, and Net revenue. During the last few years there have been significant changes in the composition of revolving loan fund of the non-government MFIs. Now the sector is accumulating more funds from local sources, i.e., members' savings and service charges; these two sources contributed more than 50 percent into the revolving loan fund in 2004.

Local banks are now more responsive and they contributed more than 12 per cent to the revolving loan funds of MFIs in 2004. Because of the growing importance of PKSF and internal sources (net revenue and member savings) of finance, the share of international donors has declined from around 48 per cent to around 10 percent over a span of eight years. These results

do suggest the emerging role of PKSF and the internal funds sources. It has been observed that the sector has made impressive progress towards financial sustainability; MFIs in Bangladesh have been consistently covering cost of operations as well as cost of finance over the last several years. Smaller MFIs rely more on PKSF loans than savings, whereas big MFIs rely more on savings and accumulated surplus. An interesting research observation is that MFIs can be profitable in every level of operations if they can appropriately match their incomes and expenses, with their size of operations.

d. Impact of microfinance: A number of studies on the impact of microfinance highlight the fact that access to microfinance has resulted in increase in employment and income. The most comprehensive and rigorous among them were carried out by the Bangladesh Institute of Development Studies (BIDS). Three important studies can be mentioned here (1) Joint study of BIDS and the World Bank on the impact of group based credit programmes in Bangladesh, (2) Survey report of BIDS on PKSF's Monitoring and Evaluation Systems (MES) and (3) Follow up study on PKSF's Monitoring and Evaluation Systems (MES) done by HB Consultants Limited. Summary findings of these three are as follows :

- i. **Impact on Income and Employment:** The programmes do help poor in consumption smoothing, as well as in building assets. The average annual income of participant households is higher than that of non-participants. Self-employment activities had contributed more than 50% of the total income of the participants as against 43% in case of non-participants. Compared to non-participants, the participants' households were better able to cope with flood, sustain their income, and achieve higher purchasing power and consumption levels. Wage and self-employment in non-agricultural sector is also higher for the participant households due to their access to microfinance program. The last study mentions that the total household income has increased from 2.8 % to as high as 12.2% p.a. during 1997-2004. Wage employment for women participants has increased significantly between 1998 and 2004.
- ii. **Social Impact:** Micro finance programs promote investment in human capital (such as schooling) and contribute to increased awareness of reproductive health among poor families. Adult literacy rate is significantly higher among the eligible participants. The second study also found that program participation increases the chance of both boys and girls to be enrolled in schools.
- iii. **Impact on Women empowerment:** Findings suggest that women do acquire assets of their own and exercise power in household decision making. One of the most visible recent changes in the lives of rural women in Bangladesh has been a significant increase in their access to credit. In Bangladesh, in the last 15 years hundreds of thousands of women have become more visible through increased mobility. Microcredit programs make women come to the center meeting and that helps build their confidence. Microcredit allows a woman to handle money; she becomes a financial manager. Anyone can see this great transformation in Bangladesh. One simple example from Grameen Bank is its housing loan; there is a precondition that to take housing loan, the land has to be transferred to the woman's name. A great legal change is involved here. There are some evidences that members are able to stop domestic violence due to personal influence in income generation and through group action. In Bangladesh, microcredit

programs have also increased women's participation in the activities of local government. Some women microcredit clients have been elected as Chairpersons and members of various Union Parishads, the lowest and the most vibrant tier of local government.

- iv. **Impact on local economy:** The programs have spillover effects in local economies, thereby increasing local village welfare. The results of the studies strongly support the view that microfinance not only affects the welfare of participants and non participants, but also facilitate aggregate welfare at village level.

Nevertheless, there has been little work on the aggregate poverty reduction impact of microfinance at the local or national level in Bangladesh. A World Bank study based on the 1991/92 household survey indicates that only about less than five percent of microfinance borrowers can lift themselves out of poverty each year, even if the estimated impacts on consumption are sustained over time. Such percentage represents only about 1 percent of the population; thus the aggregate poverty impact of microfinance programs was quite negligible in the period. 1991/92. The last study mentions that according to the most recent national estimates, absolute poverty declined by 9% points between 1991-92 and 2000 and 11% points between 1998 and 2004. However, the moderate poverty declined by less than 5% point between 2000 and 2004. The declining trend implies a positive and statistically significant effect of microfinance.

V. Emerging Issues

The Microfinance market in Bangladesh has come quite a long way. However, there are certain issues that need special attention. Stakeholders frequently talk about the following issues.

- a. **Interest rate:** The effective annual interest rate of microcredit usually varies between 20 to 30 percent. Though apparently higher than the commercial bank's lending rate, it cannot be considered so from the perspective of sustainability approach. Considering the enormous effort needed in mobilizing the large numbers of poor borrowers and making financial services available at their doorsteps, it seems really tough to keep the interest rate close to that of the commercial banks and make the institution financially sustainable. Lending interest rates probably will come down if MFIs operate efficiently in a competitive market. But this requires restructuring of MFIs and establishment of an appropriate regulatory agency. The interest rate is still a debatable issue among the policy makers and needs to be handled carefully.
- b. **Programs for the extreme poor:** The extreme poor, who constitute about 15% of the total population of Bangladesh, have remained outside the traditional microcredit programs. Those deprived include beggars, slum dwellers, day labourers, bonded labourers, female headed households, physically disabled and elderly persons without a source of income. The current microcredit program design does not fit with the needs of these groups, who require different products with ore flexibility. Though present day microcredit programs are characterized by predomination of a single loan product and one/two savings instrument, there are encouraging moves by MFIs to diversify their products in order to meet the varied needs of the poor people. PKSF, Grameen Bank and some other NGO-MFIs have recently taken some special programs to reach the excluded groups. MFIs are however yet to meet the challenge

of diversifying their products adequately to meet the growing demand of the hardcore poor and microfinance needs to be prepared for the extreme poor.

- c. **Graduated borrowers and microenterprises:** As borrowers have become more skilled, the average size of the loans made by MFIs has grown. Currently, many microcredit borrowers are attempting to become scaled up micro enterprises. Research shows that there has been a growing demand from microcredit borrowers for larger loans. MFIs are being encouraged to support these borrowers in order to help them generate additional income and employment. While not all MFIs are able to provide these borrowers with adequate funds, some are responding to their customers' needs. Unlike MFIs, banks have not traditionally provided smaller loans to poverty graduates or to other micro entrepreneurs. In addition, bank credit is generally collateralized, which makes it almost impossible for microenterprises to qualify. Therefore, there arises a serious financial demand from these growing small and medium enterprises which need to be met.
- d. **Commercial viability and Self reliance:** Currently nearly half of the revolving loan fund of microfinance programs of MFIs comes from the interest earning and their members' savings. The rest is coming from subsidized sources, donors' fund and commercial lending, Access to commercial borrowing is also very costly for them. Therefore, the question of commercial viability without subsidy is an important issue for them. It is true that access to public deposits helps Grameen Bank to reduce its dependency on subsidized fund. Without having access to public deposits MFIs need to start up funds as grants or concession which can often seriously damage their spirit of self-reliance.
- e. **Ownership and Governance Issues:** As the existing legal framework to register the microcredit operating NGOs is inadequate, these organizations have been usually registered under different charters of the government of Bangladesh, where the issues of ownership and governance are not appropriately defined. Research findings indicate that governance and financial sustainability are closely interrelated. Weak governance and management characterize many microfinance NGOs in Bangladesh. The problems of governance are mostly due to the inadequacy of the existing laws and regulations and lack of reporting, supervision and monitoring. At the same time, the ownership structure of NGOs is not well organized. Both the issues are important, now that the sector has become institutionalized.
- f. **Regulation and Supervision:** The issue of regulation and supervision has come to the forefront because MFIs are providing financial services and products to the poor, outside the formal banking system. NGO-MFIs should be subject to appropriate but a friendly regulatory framework. Regulation would shield them from political interventions. It would enable MFIs to protect the interest of its members. It would also enable MFIs to grow and develop like financial intermediaries. If they operate under a proper regulatory authority, the monitoring system of MFIs will develop to comply with certain regulatory requirements. The Micro credit Regulators Authority has since been set up in Bangladesh 2006.

VI. Future Challenges

Followings are the future challenges that the microfinance sector faces in Bangladesh as a new and growing industry:

- a. **Sources of fund and the issue of sustainability:** It is clearly understood that donor funds for microcredit will diminish in near future, which means that the current operating spreads of MFIs will shrink and they will have to seek more commercial sources of funding. Hence, MFIs will need to balance greater efficiency and reduce fund for cross subsidization of social programmes that many NGO-MFIs operate. It is obvious that in future MFIs will have to prepare more efficient financial strategies for survival.
- b. **Operational efficiency:** As the industry reaches the peak of its maturity it would face more competition. Therefore, MFIs will need to further refine the services/products that they offer and will have to identify market needs and design appropriate products accordingly to compete.
- c. **Monitoring microfinance sector development:** Development of the microfinance sector requires both sustainable MFIs and a flow of information for comprehensive understanding. At least two agents are required for sound microfinance sector development: sustainable micro finance institutions, and appropriate regulatory framework for monitoring and supervision. In Bangladesh, efforts are underway to develop sustainable MFIs and a regulatory framework. Big MFIs have their own institutional arrangements for training, management information system, monitoring and research but small MFIs are unable to have institutional arrangements for monitoring and research. PKSF, however, provides technical support to its partner MFIs on a limited scale to build up their capacity. Much help is actually needed in this area.
- d. Many questions related to the regulation and supervision remain unsolved which will be solved by the future regulator. It is frequently asked that whether the same type of regulation and supervision would fit all types of NGO-MFIs and what would be the most cost effective technique to supervise some 1000 plus organizations? NGO-MFIs mainly operate in the rural areas, which sometimes are very difficult to reach in time; communication is generally poor in the rural sector. Considering all these problems and their non-traditional method of operation what kinds of supervision technique would be suitable for them – on site or off-site or self regulatory for smaller NGO-MFIs ?
- e. **Developing comprehensive rural financial market:** Rural financial markets comprise formal, informal and semi-formal institutions. Public sector banks (PSBs) dominate the formal financial market. These PSBs, are not able to reach all types of clients in the rural financial market, they are not also commercially viable. In such a situation, rural financial market can be more effective by making MFIs as the formal institutions. It will enable MFIs to expand their portfolio and exploit economies of scale. As such, MFIs would be able to improve their viability and offer financial services at relatively low interest rate especially for the poor people in the rural financial market.

VII. Conclusion

Microcredit in Bangladesh has reached over one-third of all rural households in Bangladesh. Currently there are more than 1000 NGO-MFIs operating all over the country. In Bangladesh, mainly four big institutions including Grameen Bank dominate the market. Government programs and commercial banks' participation in microfinance are now considered valuable,

they are also playing useful promotional and a development role in this sector. The important observation is that the microfinance operations are now more self-reliant than before; it has funded half of its operation from local sources that comprise members' savings and service charges on loan. However, the interest rate is still a debatable issue among policy makers. The issue of regulating microfinance and supervising NGO-MFIs is being discussed more seriously among the policy makers, including the government and its development partners. In this context, PKSf is playing an important role in the development of a self-regulation process and in supervising its partner organizations, which would help build up a culture among the community. The government has established the Micro credit Regulatory Authority to develop uniform policy guidelines and to formulate a regulatory framework for this sector.

C. Sri Lanka

Over the years Sri Lanka has developed a widely diversified microfinance system. However, by international standards it operates at a very low level.

The core problem is the poor quality of the microfinance services offered, indicated by insufficient outreach, low repayment, low cost efficiency and financial products which are not client driven. This seriously threatens the sustainability of the offered financial services and their outreach to poorer households, micro and small enterprises. The March 2005 joint study on the investment climate of Sri Lanka conducted by the World Bank and Asian Development Bank has cited high costs and limited access to finance as two of the most crucial impediments to economic growth, especially in the rural areas.

The main causes of the poor performance of MFIs lie in the inadequate qualification of the MFI staff and the fact that the Government of Sri Lanka has yet to design a national sector policy for a sustainable microfinance sector. Another problem lies in the lack of a cohesive regulatory and supervisory structure which encompasses all MFIs. Commercial banks engaged in the microfinance business are regulated and supervised by the Central Bank. The multipurpose cooperatives such as the savings and credit cooperatives are supervised by the Department for Cooperative Development. The Samurdhi Banks (MFIs attached to the government welfare programme of the same name) are supervised by the Samurdhi Authority of Sri Lanka. However, most NGOs engaged in microfinance are neither regulated nor supervised although most mobilize savings deposits from the public. These institutions are weakened by politically motivated debt relief, often ahead of elections, and presently as a consequence of the tsunami disaster, which seriously jeopardizes the repayment culture among its clientele.

Further cause lies in the insufficient infrastructure for training, further education and advisory services to provide immediate and relevant practical advice. The pervasive and immense challenges of poverty alleviation in remote rural areas and in the once again accessible regions of the North and East are so enormous that MFIs have prioritized support and development measures for their target groups over improvements of their own organizational and service structures.

The negative impacts which result from all of the above, ensure insufficient supply of financial services to the poorer sections of society and micro and small enterprises. These groups can only

be marginally integrated into the economic cycle. This hinders employment and economic growth and further hampers economic progress and poverty reduction.

Moreover, there is the danger that a number of unregulated MFIs may collapse, causing depositors, mostly poorer households to lose their savings. Additional problems have now arisen due to the tsunami catastrophe of 26 December 2004. The need for small loans has substantially increased. The existing institutions can only partially meet this financial requirement. Moreover, there is an urgent need to coordinate the various donor initiatives planned in response to the disaster.

The government is aware of this critical situation. The first steps towards stabilization of the microfinance sector have been taken. A new Department for Development Finance has been set up in the Ministry of Finance to stabilize the microfinance sector. The Central Bank has drafted legislation for a system of prudential regulation and supervision of microfinance institutions.

Subsequent to the Tsunami devastation in December 2004, the framework for the Sri Lankan MF Sector and Institutions (MFIs) has changed considerably with the influx of a considerable amount of donor funds which were channeled through grants, soft loans, subsidies etc. Many of the MFIs who had not operated in the affected areas, set up new branches in these areas to be able to engage in tsunami relief activities. Many MFIs started provided loans with lower or zero interest, soft terms and also grants and in kind. As mentioned, these changes were mainly driven by donor funded relief programmes which included microfinance and livelihood recovery components.

8. Role of women in small scale fisheries and aquaculture development

According to a United Nation's report, women perform 65% of the world's work, receive only 10% of the world's income and own only 1% of the total assets. Though the transformation of fisheries sector due to mechanization, has enabled multi-faceted changes in the role and contribution of fisherwomen, the overall structural changes in the marine fisheries sector brought about by extensive use of ice in local markets and export oriented development efforts have dislodged a large proportion of women from employment sectors like fish drying, curing, dry fish trade and net making.

8.1 Indian Scenario

There are about 0.5 million fisher households located all along the Indian coast and a total of 3 million fisher folk inhabiting the coastal villages. The average number of sea going fishermen is 282 in a coastal village. Out of the 1.2 million fisher folk in post harvest sector, women occupy a considerable proportion of more than 0.5 million. They play a significant role in the pre and post harvest operations in capture fisheries while their presence is conspicuous in all the stages of culture fisheries. Their role in household management is far higher than that of women of other sectors. Majority of the labour force in the pre-processing and processing plants of shrimp are women. Women also contribute a major proportion of the workforce in export oriented processing of cuttlefish, lobsters and finfish varieties.

In Tamilnadu, women are engaged in seaweed collection in addition to fish curing, marketing, net making and prawn seed collection. Salt-pans are another major sector, which employs many women. In Andhra Pradesh, the main occupation of women include collecting fish, and molluscan shells in addition to fish drying, curing, marketing, shrimp processing and net making. In West Bengal, fishermen spend little time in actual fishing and engage themselves in net making. Women from non fisheries communities also carry out fish drying and curing. In Maharashtra, women play a major role in fish marketing and control the entire fisheries economy revolving around Mumbai. In Gujarat women mostly do the handling and processing activities. In Lakshadweep, particularly Minicoy, the major fishery products known as *masmin*, *riha*, and *akru* of tuna are produced mainly by women. The scope of providing alternate employment for women and thereby invigorating their socio-economic progress as well as the growth of marine fishery sector, remains unexplored.

8.2 Direct Contribution of Fisherwomen in Marine Sector

In capture fisheries, the role of fisherwomen in the post harvest sector had been analyzed by many research studies. The entire processing sector is highly dependent on women as more than 90 per cent of the work force in prawn peeling and 70 per cent in the processing of other fishery products are women.

Table 22: Direct contribution of fisher women in marine sector in Kerala

Sl. No.	Category	Total No. of Workers	No. of Women Workers	Percentage
1	Beach workers	20843	5612	26.92
2	Small scale fish traders	67527	20220	29.94
3	Fish curers	21103	14028	66.47
4	Peeling workers	43620	39397	90.31
5	Processing plant workers	11051	6504	58.85
Total		161144	85761	53.22

Out of the total working fisherwomen, maximum number are engaged in prawn peeling sector followed by the small scale fish traders. Women also play a major role in small scale fish marketing, value addition and aquaculture practices. However, as in any other State, many constraints including occupational segregation and wage discrimination are noticed among fisherwomen of Kerala (Table:22).

8.3 Indirect Contribution of Fisherwomen in Marine Sector

In a fishing family, the responsibility of household management – food, childcare, education, health, sanitation, financial management and the responsibility of getting and repaying debts rests squarely on the women's shoulders. The burden of her responsibilities doubles in the off-season. After mechanization and intensification of multi-day fishing, the household responsibility of fisherwomen has increased to a greater extent. The daily routine chart of a fish trading woman of Edava, Kollam district of Kerala who purchases fish from a traditional fish landing centre and sells at the local market, reveals the magnitude of strain in her day-to-day life (Table:23).

Besides, in many places women are running petty shops, selling fishing inputs and other household articles. In Vizhinjam landing centre of Kerala, the diesel supply units for boats are the monopoly of women. Mobile food selling units are run by women in landing centres. The extent of involvement of fisherwomen in household management in the districts of Thiruvananthapuram and Kollam are shown in the following Tables 23 & 24.

Table 23: Activities and time allotted by fisherwomen

Activities	Time	Duration (Hrs.)	Activities	Time	Duration (Hrs.)
Cooling	4-6 am	2	Fish trading	4-7 pm	3
Landing centre	6-7 am	1	Shopping for grocery	7-8 pm	1
Travelling	7-8 am	1	Household activities	8-11 pm	3
Fish trading	8-12 am	4	Rest	11-12 pm	1
Household activity	12-2 pm	2	Drinking water collection	12-1 am	1
Landing centre	2-3 pm	1	Sleeping	1-4 am	3
Travelling	3-4 pm	1			

Table 24: Indirect Contribution of Fisherwomen in Marine Sector

Sr. No.	Activities	Contribution of Women
1	Cooking	96%
2	Childcare and education	89%
3	Family health	84%
4	Sanitation	81%
5	Finance (including repayment of debts)	54%
6	Petty shops in landing centre	56%
7	Diesel supply for boats	41%
8	Mobile food units	66%

Women's role as a homemaker, though supportive and unpaid is indispensable for the men to go for fishing. However, an examination of the demographic development indicators like population growth rate, sex ratio and infant mortality among the fisher folk reveal the prevalence of gender injustice and socio-economic marginalization (Table:25).

Table 25: Demographic Development Parameters among Fisherwomen of Kerala

Parameters	Kerala	Fishing Villages
Population growth rate	1.9	2.3
Sex ratio	1032	972
Infant mortality	40	85

Source : Report of State Planning Board, Kerala (1997-2002)

The much acclaimed social progress in Kerala, also indicated by surplus females, is found to be lacking among fishing communities. The well being of fisherwomen measured on the basis of capabilities like morbidity, longevity, nutrition and education has been found to be low. Even though neo-natal death is more among male children, the high population growth rate among fisher folk is not reflected in the proportion of girl children. It leads to the assumption of higher mortality rate among girl children. The dowry system and marrying the girls off at an early age devalues the girl child and the resulting neglect can be one of the possible reasons for the skewed sex ratio and infant mortality.

8.4 Trend in Role Transformation of Fisherwomen

The course of changes in the role of fisherwomen has traversed during the major phases of technological transformation in household management as well as pre and post harvest activities in the fisheries sector of the Kerala State is assessed and given in Table 26, below:

Table 26: The Trend in Role Transformation of Fisherwomen in Kollam and Trivandrum Districts of Kerala (after the Indo-Norwegian Project)

Sr. No.	Role Items	Extent of Involvement of Women during Technological Transformation		
		Traditional (1952-62)	Motorization & Mechanization (1962-98)	Multi-day Fishing (1998-)
1	Indirect Roles			
	a) Decision making	++	+++	++
	b) Financial management	++	+	++
	c) Family welfare	++	+	+++
	d) Net making	+++	++	+
	e) Petty shops	#	++	++
	f) Mobile food supply	#	++	+
2	Direct Roles			
	a) Peeling	+	++	+++
	b) Fish trading	+++	++	+
	c) Export oriented processing	*	+	++
	d) Landing centre oriented works	+++	++	+
	e) Value addition	+	++	++
	f) Small scale entrepreneurship	*	++	++
g) Fish curing	+++	++	+	

+ Poor Involvement

++ Medium Involvement +++ High Involvement

Not available

* Nil / Meager

The indirect role fisher women play, concern decision making, financial management, family welfare, net making, running petty shops, mobile restaurants and supply of food to fishermen at the landing centre's and fish markets. The more direct involvement of women are in post harvest

related activities *viz.* peeling, fish trading, export oriented works, making value-added products, small scale entrepreneurship, fish curing, etc. A number of interventions both by government and non-government agencies have acted as catalysts in this process of transformation. The social mobilization (and consequently unionization later) among the fisher folk in Kerala for the first time was spearheaded by an agitation led by a *Mahila Samajam* in Trivandrum district for a statutory right to use public transport by women fish vendors. Various extension interventions for propagating mariculture technologies among the women fisher folk have been attempted at coastal villages of south-west coast. Nevertheless, the follow-up studies have indicated that the sustainability of most of these interventions is at stake.

8.5 Major Issues Confronting the Fisherwomen of Capture Fisheries

Social Issues

In the fishers' community women either like taking the roles of a housewife or go for some income generating occupation. The various social issues concerned by the fisherwomen and their perception towards the issues were ranked and given below in Table 27. In a traditional fisheries society, a woman's social status is often referred with respect to that of her husband. When a fisherwoman goes for some job, it will be mostly counted as the inability of her husband to support the family. Because of the same reason the women usually do not enjoy the freedom to go for some work or interact with change agents, especially when the agents are males. Nevertheless, few exceptions are there who overcome the barriers of society in the struggle for existence and they, in due course, develop behavioral modification, characteristic of androgyny.

Table 27: Perception of Fisherwomen towards Various Social Issues

Sr. No.	Issues	Rank
1	Poor social status	I
2	Poor social acceptance	II
3	Lack of representation in fishery cooperatives and other local bodies	II
4	Heavy dowry system	IV
5	Lack of platform to express opinion	V
6	Restriction to go for work	VI
7	Men do not take supportive role	VII
8	Less interaction with development agencies	VIII
9	Division of labour and wage discrimination	IX

Fisherwomen were found to lack an overall picture of their working environment and accept whatever meager facilities are provided to them. The tendency of profit being fixed as the sole motivation coupled with autocratic style of management prevailing in majority of the seafood processing centres of Kerala could have worsened the extent of marginalization of women labourers.

8.6 Economic Issues

Fisherwomen in any work sector can be found occupying the position of a sub category or performing supportive roles. At landing centres women engaged in fish drying collect small sized by-catches. In markets women usually sell low value products in a remote corner. Though highly nutritive and helping to meet the nutritive demands of these by-catches fetch very low

price and a poor profit margin for the women. Wholesalers among women are very few, like at markets in Trivandrum and Mangalore. The major economic constraints ranked by the respondents are furnished in Table 28.

Table 28: Perception of Fisherwomen towards various Economic Issues

Sr. No.	Issues	Rank
1	Lack of secure marketing channel	I
2	Poor income	I
3	Inadequate saving schemes	III
4	Lack of marketing information	III
5	Poor working capital	V

Lack of alternate employment in off-seasons leads to forced borrowing from money lenders at very high interest rate of 10% /month or even more. Though they work hard in peak season, they can hardly pay back the money, as it would have doubled by then. The vicious circle of indebtedness continues. Women in value addition sector also sell their products to local petty shops and households. The inadequate information support on markets and lack of sound distribution networks are reasons behind this. The problem is not the lack of opportunities but is of unawareness about these opportunities.

8.7 Institutional Issues

It is seen from Table 29 that the inaccessibility to credit was perceived to be the most important institutional issue by the fisherwomen. The fisherwomen are often denied credit from public sector institutions due to lack of ownership of assets. The slow administrative procedures for obtaining credit also make it inaccessible to small scale entrepreneurs.

Table 29 - Perception of Fisherwomen about Institutional Issues

Sr. No.	Issues	Rank
1	Inaccessibility to credit	I
2	Inadequate saving schemes	I
3	Lack of location specific development projects	II
4	Shift in focus from local markets to export markets	IV
5	Lack of job security	V
6	Insufficient information support	VI
7	Inadequate supply of production inputs	VII
8	Lack of professional expertise in NGOs	VIII
9	Inadequate legislative support	IX

Most of the institutions neither have saving schemes suitable for fisherwomen, nor do they come forward to introduce innovative schemes. The problem of unawareness about the safe saving schemes can be solved. But the formality of procedures coupled with lack of awareness makes them shy of starting accounts in either Post Offices or banks and other financial institutions. The chit agents collect the money personally and all the transactions can be done orally. None of the financial institutions under the government sector have flexible operations, which are

fisherwoman friendly. As in any other low-income group, the infrastructure facilities are also not satisfactory. Even the basic amenities like drinking water facility, toilets, rest rooms, etc. are not provided in the work places.

Though NGOs take steps for promoting small scale entrepreneurial development in culture fisheries, they are not receiving due attention. It is disheartening to note that women spending their lifetime as peeling workers are still not included under the category of fisherwomen by the state government and are not provided with benefit of any of the welfare measures.

8.8 Technological Issues

Technologies, as technique, affect the ways in which people do things and as a system of knowledge, affect the ways of thinking and in the same way they are not value free or gender neutral. The extent of technological marginalization experienced by fisherwomen is evident from the perception of the majority that technological progress has led to unemployment (Table 30).

Table 30: Technology issues

Sr. No.	Issues	Rank
1	Technological progress leading to unemployment	I
2	Lack of innovative equipment / method	II
3	Lack of technical advice / supervision	III
4	Lack of training opportunities	IV

Women engaged in various fishery occupations are technologically marginalized to a greater extent e.g. in clam fishery a metal teathed dragging net (*Palli*) for collecting clam is introduced which is very heavy and women cannot handle it. As a result the male workers go to deeper areas and collect huge quantities in less time outsmarting the women clam collectors. The negative impact of the technological changes on the small scale entrepreneurs is often ignored.

The women fish traders form a good proportion of petty fish traders (in Kerala out of the 67,527 small scale fish traders 20,220 are women). The fish trading women face severe competition from not only the men folk who use two-wheelers in domestic marketing but also the agents of the export companies resulting in the non-availability of quality fishes which commands high consumer preference in local markets. Currently, they also face the same fate of the traditional net makers who have almost vanished from the scene.

Establishment of fish booths for women at retail level in prominent places including markets, preferential allocation of prominent place in markets, etc. can be tried. But even in Kerala where women form a major chunk of extension personnel, farmwomen are not generally contacted by extension workers. This may be the reason for the delayed availability of technological inputs to fisherwomen.

8.9 Personal Issues

It may be seen from Table 31 that ergonomic problems were rated as the most important issue. This is not surprising as the working climate for most of the fisherwomen is deplorable whether it is a market or a peeling shed.

Table 31: Perception of the Fisherwomen towards Various Personal Issues

Sr. No	Issues	Rank
1	Ergonomic problems	I
2	Lack of alternate employment opportunity in off season	II
3	Lack of access to change agencies	II
4	Lack of ownership of assets	IV
5	Irresponsible nature of counterparts	V
6	No time to look after household activities	VI
7	No time / mind set to maintain social contacts	VII
8	Low literacy rate	VIII
9	Lack of political commitment	VIII

Poor access to change agents is not due to their dearth but their apathy towards their mission. Simultaneously the change agents concentrate on men folk who are more socially visible by virtue of the traditional patriarchal social system. Lack of ownership of assets is also discussed under institutional problems, which is an outcome of the social marginalization. Irresponsible nature of spouse indicated by alcoholism, gambling, etc. was another major complaint. Interestingly this was found related with the introduction of mechanization. Low literacy rate and poor political commitment of fisherwomen seems to be very minor in their view, but are most important factors underlying the above issues.

8.10 Psychological Issues and Methodological Issues

All the above issues cannot be solved by equipping or empowering women as the issues are overlapping and are of course linked with the problems and prospects of their male counter parts. Fisherwomen should develop interest in and desire to seek changes in existing practices related to farm and home and adopt changes as and when practical and feasible *i.e.* she should get enough opportunities for developing *innovations*. The perception of women on the improved practices could be marred by the results of their past experience and knowledge. Thus, the extent of *risk orientation* is very important in leading a successful career. *Self-awareness* shows that the level of awareness a fisherwoman has about her potentials and drawbacks, is directly related with entrepreneurial skill development. An individual's orientation towards achievement of maximum economic benefits in his or her profession, indicates the extent of *economic motivation*.

8.11 Conclusion

Empowerment of the individuals, both male and female members should be assured which gains significance in the context of ever changing technological options in marine fisheries. There are many areas in capture fisheries sector with ample scope for employing fisherwomen. Several mariculture technologies ensure enough scope for accommodating women in large numbers. More effort is to be put towards filling the gaps in program planning rather than program implementation. Researchers also have to pay sufficient attention for identifying the needs of fisherwomen and thereby generating women-friendly technologies. As Amartya Sen (2001) has rightly observed "*there are no good reasons to abandon the understanding that the impact of women empowerment in enhancing the voice and influence of women does help to reduce gender inequality of many different kinds, and can also reduce the indirect penalty that men*

suffer from the subjugation of women”. Women empowerment and thereby the community development through combined efforts of men and womenfolk requires a holistic approach.

9. Micro Finance Success Stories:

9.1 Access to Credit

- Fisher women SHGs from South Kanara District, Karnataka were highly indebted to local money lenders to meet their daily credit requirement for fish marketing. The NGO (GMR Varalakshmi Foundation) came to their rescue and extended not only microcredit (INR 4000) but helped the SHGs to get linked with banks who financed them. As a result the daily requirement of INR 1000/- to 4000/- is being met by the SHGs themselves. They have stopped taking loans from moneylenders and in fact no moneylender is even visible in their village
- The Uppada Kothapalli Mathsyakara Mandala Mahila Samakya is having 388 SHGs (women) who are in dry fish and wet fish marketing business. They have bank linkage with Andhra Bank and SBI. These SHGs are availing pavalavaddi benefit viz if the repayment is above 95%, the SHGs are eligible for reimbursement of 3% interest charged by the State Governments on the loans availed by them from banks.

9.2 Market intervention

- Smt. Banumati illiterate and poor fisher woman from Mangalore Karnataka was selling fresh fish, availed micro credit from Canara bank. After prompt repayment and availing fresh loans now she owns a three wheeler tempo, an ice factory (Gajanana Ice and Cold storage" with a capacity of 15 tonnes/day) and even extended her business to nearby States, proving that micro finance can make a poor into a business woman.
- Pultibai's is from the fisher community from Gudpally village of AP was basically a marine fish seller. Unable to earn a livelihood her family migrated to Raipally, which is on the banks of the river Manjira.he availed a micro credit (INR1500) from SKS microfinance for purchase of nets and started fishing activity and later availed INR 6000 for purchase of more nets and leads a successful business. Putlibai's success has inspired others from non-fisher families to take up fishing as a profession
- The Indian Bank, Kanyakumari Branch Tamil Nadu tried out the SHG route to reach a group of fishermen who needed credit for meeting their operational expenditure, clear off their indebtedness from money lender/traders. As the members have borrowed money from local traders, they had to sell their high valued catches at the lowest rate fixed by the traders. The bank has sanctioned an advance of INR 2.00 million on 18-1-2006 to Alankara Matha Mens' SHG to redeem themselves from the clutches of traders of high value fish. The group members have come out of the clutches of middlemen and they are supplying their catches to other exporters directly and get better margin. Besides, the male SHG is arranging the bulk supply of inputs like nets etc, at a cheaper rate and even started an outlet to sell fishing nets and materials with bank loan.

9.3 Innovative approaches/ Diversification

- Lok Sahayak Samiti (LSS), an NGO from Puri district of Orissa, has helped the coastal women SHG to take up activity of sea shell craft as alternative source of income for the

members with financial assistance from NABARD, CAPART etc. NGO helps in marketing of these products. Besides, LSS is also involved in health awareness and family planning programmes, training to unemployed educated youths, disaster management, management of environmental resources by community etc.

- Peoples' Employment And Need Based Community Development (PENCODE), an MFI for the development of migrated Telugu speaking fisher community of Puri. has formed 81 SHGs, has played a vital role in motivating the fisher women community to form into four co-operative societies. The organization has provided the training on new areas like sea shell craft works, processing Shark liver oil, quality dry fish prawn and fish pickles etc.
- Seven Joint Liability groups from Manadapam, Tamil nadu supported by *Goodlife NGO*, have proved that sea weed cultivation in the coastal areas is an alternate viable livelihood activity among the lower income group of the fisher women in the coastal villages. SBI and BOB have extended financial assistance to the tune of INR14.647 million under SGSY with a buy back arrangement by Aqua Clinic Centre Mandapam.
- 35 women SHGs with 358 members formed for crab fattening activity in North & South 24 Paraganas Crabs are exported to Europe, USA and South East Asia. Women are fully involved right from feeding to segregation of sexes and grading for marketing. In West Bengal, fisherwomen are also engaged in value added products like fish pickle, fish noodles, fish soup powder, fish papad and fish sauce etc,. As a one more progressive step, the Captain Bhery Shaluk Fisher women cooperative society has recently signed Memorandum of Understanding with TIFAC of a project on Value addition technology transfer to fisherwomen form low value fish. Total Project Outlay of which is at INR 2.025 Million comprising of share from TIFAC: INR 1.18 Million, Society : INR 0.429 Million and Group : INR 0.435 Million. Fisherwomen are successfully engaged in this new activity

9.4 Insurance

- To mitigate the problem of middle men, the Social Welfare Samithi an NGO organised the fisherwomen into SHGs, and State Bank of Travancore Sakthikulangara branch advanced INR 24.5 Million (US \$ 5,44,000) to 917 fisherwomen under 118 groups even before the mandatory six months period. The bank has advanced individual loan of INR 25000 to INR 50000 per member of the group. These groups are mainly undertaking 3 activities viz. Pre-processing of fish to be supplied to the sea food export units, Curing and drying of fish and Fish vending. Encouraged by prompt recovery of loans, as an additional benefit, the bank has arranged to cover each member of the programme under the Super Suraksha Policy of the SBI Life. This model is emerging as a success banker's model than that of fisherwomen.

10. Prospective:

The marketing of fresh fish is relatively easy with access to fish for women, facilitating flexibility of operation, financial security and occupational sustainability. But the vendors have range of problems with fish supplies becoming increasing scare due to depletion of fish catches, increased competition from processing and export sector. Most women prefer this activity mainly due to the high demand for fresh fish and quick return of the investment.

The studies conducted have observed the following activities of Women in Fisheries in India.

- Clam collection
- Sorting
- Marketing
- Fresh fish marketing
- Dressing of fish (Surumi Units)
- Aquaculture (Fish farms, Shrimp farms and shrimp hatcheries)
- Processing plants (Peelers, Graders, Packers)
- Labour at Landing centres (Loading ice to boat. unloading fish from boat, loading fish to tempos, sorting of fish)
- Traditional fish processing (Salting and drying of fish)
- By product units (Fish meal, fish oil, liver oil units and Manure)

10.1 Constraints of women in post harvest fisheries

- i. Raw materials (Seasonal availability, uncertain of catch/scarcie supply of fish, high perishability, intense competition, long waiting, non availability of ice, losses due to spoilage, poor quality, lack of cold storage facility at markets)
- ii. Traditional Processing (Labour intensive, non availability of good quality salt, lack of knowledge on hygiene, scarcity of portable water, lack of space for drying, adverse climates, inadequate drying, losses in drying on road sides, losses during storage by insect infestation, browning, drying at floor levels, lack of facilities in drying yards (raised platform drying racks), informal trading - large no. of intermediaries, lack of storage facilities, low profit margins, risks and uncertainties, low quality products)
- iii. General (Low income, lack of transport facilities, long distances, inadequate facilities for women at markets and landing centres), declining fish catches, no alternate income source, use of inappropriate tools and accessories, high interest rates)
- iv. The advantages to be in post harvest by fisher women are flexibility in working hours, immediate returns, skill and expertise, strong demand for fresh and dry/salted fish, low investment, low working costs , support from the family.
- v. Although value addition provides the highest earnings per hour, fish vending offers the best opportunity to earn higher annual income in terms of the average annual working hours provided. Shrimp peeling is a seasonal activity depending on prawn fishery season. the peak being June to September. Usually in a peeling shed, women are employed depending on the quantity of prawns they peel in a day.
- vi. As soon as the catch is landed, mostly women are engaged for the post harvest operations including curing and drying. Sorting is done for separating different varieties of fishes into separate lots. There are three grades of sorting based on the uniformity in sizes and quality in first, second and third grades. The procured fishes are sorted out and trash fishes are taken to fish meal plants. The exportable varieties are graded, cleaned, packed in ice and sent to processing centres. In fish drying women labourers working on contract basis. Women fish vendors operate as an important link between producers and final

consumers. They purchase fish either from the fishermen at landing centers through auction or from traders through bargaining. Female vendors carry baskets of fish as head loads. These fisher women borrow Rs. 500 to Rs. 2000 daily from middlemen to buy fish. After selling the fish they return the money to lenders, with interest.

10.2 Constraints in development of Fisher women

- Limited access to resources
- Lack of access to leadership positions and voice in decision making
- Inadequate training and formal education
- High disparity in ownership of productive assets and wage structure
- Exploitation by middlemen and contractors
- Intensive labour and long working hours
- Lack of interest in occupations other than fisheries
- Lack of credit facilities
- Socio economic frame work with traditional customs and conventions
- Inadequate health care for occupational hazards
- Lack of knowledge in latest technologies of aquaculture and post harvest management.

10.3 Training Needs:

- Location specific and need based training programmes for fisher women should be organised to enhance the awareness and technical know-how enabling them to start self generating grants/employment ventures in aquaculture and post harvests fisheries sector.
- Involvement of women in all types of aquaculture practices should be encouraged.
- There is enormous scope to adopt and expand ornamental fish culture to earn a very high income both in rural and urban centres.
- In view of the possibilities of income and employment generation in the rural areas, pearl culture could be suggested as an alternative and lucrative micro venture, especially to women, both in marine and urban segments. Women could take up pearl culture as a productive income earning venture on account of the vast unutilised potential.
- Another opportunity in aquaculture is the extensive adoption of mussel culture by self help groups of women.
- More emphasis should be given for the involvement of women in the preparation of value added products. Promotion of diversified value added products not only accelerate earnings in exports but also provide a multiplier effect on employment front especially for weaker sections and women folk.
- Efforts taken by government and non governmental agencies to organise fisher women into SHGs and involving them in the preparation of value added products and marketing has brought out encouraging results.
- Aqua feed making using the indigenous resources as a cottage industry may be developed to suit the needs of the aquaculture industry.

10.4 Suggestions for sectoral growth

- I As discussed elsewhere, the gap in information and credit flow to the sector is yawning. Despite our best efforts, it was not possible to get the sectoral credit flow data from Bangladesh and Sri Lanka and micro finance data from all the three countries. Any exercise of the present kind, dealing with enhancing financial services flow to the sector would demand information and data that is not being recorded by identified agencies. In case of India, although data relating to ground level credit flow to the fisheries sector from scheduled Commercial Banks, Regional Rural Banks and Cooperative Banks is available, further classification into inland, coastal and marine sectors is not available.
- II The data relating to credit flow through SHG-Bank linkage in India also suffers from the above point of view. The data relating to micro credit and micro finance services to the sector is not available in respect of all the three countries. The only data that is presently available and is in the public domain, is country data on micro credit flow and its outreach. The micro finance gateway and micro finance information exchange websites are useful in this context, but as indicated, sectoral data is not captured in these databases. Besides, these databases are dependent on the reporting by MFIs, which is on a voluntary basis.
- III Considering the above constraints in availability of data on credit flow to the sector, the central banks in the respective countries may consider the following suggestions pertaining to reporting of data.
 - i. A guideline on activitywise reporting of sectoral data on credit flow may be devised and the banks as well as MFIs advised to follow the same vigorously.
 - ii. A centralized data repository agency may be created by the Central Banks, which may be responsible for data compilation and dissemination. Such reporting may be made mandatory for the banks and MFIs and the same should be linked to rating of MFIs.
 - iii. Considering the large gap in information on microfinance to the sector, a detailed study may be mounted by agencies like FAO/UNDP to assess the role of microfinance in the respective countries through conduct of suitable field surveys.
- IV The models relating to microfinance which have been analysed as a part of the present exercise, reveal that credit plus services are being offered by MFIs in varying measures. Considering the special need of the sector, the most comprehensive services are being offered by SIFFS and Matsyafed in India. Although Matsyafed model is based on SIFFS model, the portfolio of Matsyafed is crowded with implementation of several Govt. sponsored programmes and is also influenced by Govt. policies and decisions, including piloting subsidy, schemes of Government, resulting in distortion. Considering the same, the ideal and holistic model for the fisheries sector may be that of SIFFS which in addition to the range of various microfinance services, takes care of the sector specific needs pertaining to technology, supply of fishing related hardwares, inputs and services.
- V The lack of spread and penetration of microfinance services in the fisheries sector in general and coastal fishing and aquaculture in particular, is a reality and considering the same, a number of steps and measures are required to increase its outreach and service to

fisherfolk who are financially excluded. They have been subjected to extreme exploitation by the middlemen and moneylenders who control the market and the lives of fisherfolk condemning them to abject poverty. Any improvement in the living conditions has to deal with all the externalities affecting the operations of fishermen involving, credit need, risks to life and assets, uncertainties in marine harvest, seasonality of income, poor infrastructure human development and social issues. All these would require concerted efforts of all development agencies, financial institutions, MFIs and producers organizations like SIFFS. Various concerns in this regard have been addressed in the recommendations.

- VI The sustainable development of the coastal fisheries and aquaculture sector is yet another major challenge. The over capacity and over exploitation in the sector is a glaring feature, globally. Use of destructive and wasteful fishing methods like trawling and purse seining and their impact on coastal resources, is a matter of concern. Use of beach seines and gears of small mesh size in artisanal marine fisheries sector is also a potential threat to sustainable development. Implementation of FAO's code of responsible fishing and retirement of vessels in sectors where excess capacity has been created, needs to be supported strongly by the development agencies and the financial institutions.
- VII Women play a major role in the coastal fisheries sector particularly in fish vending and post harvest processing. However, gradually they are withdrawing from it as a result of stigma attached to the profession. School and college going children do not want their mothers to continue as vendors. Interventions are required to upgrade fish procurement, processing, storage, transport and sale of fish. These are places for value addition through processing and through tapping better marketing opportunities.
- VIII Owing to pre processing and demand for ready to eat fish products associated with sale of fish in hyper markets and city malls, there is considerable scope for fisherwomen to work in these areas. There is a huge market to be tapped. Fisherwomen being better educated than men, they are in a better position to imbibe entrepreneurial training and could successfully run such business besides small scale mariculture activities such as sea weed culture, mussel culture, crab fattening, ornamental fish culture, etc. Women fisherfolk need to be aggressively supported for such activities in order to help the community to diversify their livelihood and widen their income base.
- IX Considering the analysis made in respect of the MFI models, it may be necessary to strengthen institutions like SIFFS and Matsyafed. They may be encouraged to render assistance to agencies outside their zone of operation to develop their expertise in rendering comprehensive micro finance services to the coastal fishermen communities. The concerned State Governments and Central Banks may prepare blueprints for such coastal community development programmes.

11. Recommendations

The recommendations of the study for FAO/UNTRS, in respect of financial services flow to small scale marine fisheries sector (R.S.Arunachalam et.al, 2008) is very well researched and exhaustive. The authors have found the recommendations to be appropriate in the present context and they have chosen to adopt the same with suitable modifications as under:

11.1 Centralized data repository agency

A centralized data repository agency may be created by the Central Banks, which may be responsible for data compilation and dissemination. Such reporting may be made mandatory for the banks and MFIs and the same should be linked to rating of MFIs.

11.2 Need for detailed study on micro finance

Considering the large gap in information on microfinance to the sector, a detailed study may be mounted by agencies like FAO/UNDP to assess the role of microfinance in the respective countries through conduct of suitable field surveys.

11.3 Make coastal fisheries viable through enforcing appropriate regulations

The yield from capture fisheries in inshore waters have stabilised across India, Bangladesh and Sri Lanka. Because too many people are chasing too little fish in the same space, there is unhealthy competition, leading to overcapacity (higher horse power engines, more aggressive fishing techniques, larger volumes of nets, break down of traditional fishing restrictions on mesh size, timing, zoning etc) and increasing tensions among various segments of the sector. Hence stringent enforcement of the regulatory policy is urgent. It should cover Zoning, Seasonal bans, Control over fleet size, Craft/gear combinations, Licensing and registration and Quota systems. The overall objective should be to restrict/control fresh inflow of financial and other resources into capture fishery in the inshore waters. This is a very critical aspect for (financial viability) of fisherfolk engaged in harvest fisheries.

11.4 Phase out the mechanised sector and enable diversification

To ensure viability of small-scale fisheries, financial investment, particularly in the mechanised sector, should be phased out. Diversification should be encouraged. This calls for great caution in financing new units in mechanised fisheries. Engines of higher horsepower should be discouraged. Increased duties, raise tariffs and interest rates, toughen finance flow. It is recommended that Ministry of Finance/Central Bank of the respective countries constitute a working group to ensure that appropriate guidelines are framed to prevent lending by any financial institution (including Central Government run co-operative institutions like NCDC) in support of unsustainable marine fishery practices including use of Encircling Nets, Trawlers, Higher Horse Power Engines, etc.

11.5 Remove distortions in financial markets

Subsidies: There are huge distortions in financial markets which are imperfect subsidies are

available through certain channels whereas other channels do not have it. So, there is a need to create a level playing field by making subsidy available to individuals irrespective of organizational affiliations. State governments must be dissuaded from giving subsidies through their own channels. If these subsidies exist, they should be available to individuals, irrespective of institutional affiliation. In general, production subsidies should be reduced.

Supply-side distortions: These distortions must also be addressed. Lending institutions must lend to all intermediaries and channels. There is a need to create credit guarantee interventions to enable producer groups and MFI type channels to access and leverage more funds from lending institutions.

Interest Subvention: The issue of a level playing field also concerns private versus public sector banks. The interest subvention by the Central Governments must be made available for fisheries at par with agriculture.

11.6 Revitalise State-run financial institutions, make them autonomous

Governments should make financial institutions autonomous. There are very many examples of unviable government financing. They should instead strengthen the capacity of existing cooperatives and create federations at district/state levels. While the Government's aim to revitalise these cooperatives is right, the best approach could be:

- Strengthen governance, transparency, management and systems in village cooperatives and ensure/enable autonomy for their operation by allowing these cooperatives to really function as cooperatives - by, for and of the people.
- Further, the SIFFS/Matsyafed 'model' for capture fisheries and SIFFS/Dhan models for post harvest activities could be adapted and replicated all at the village cooperative level.
- The affiliated State federation could be scaled up into an autonomous Fisheries Cooperative Bank (with district outlets). The assistance of NABARD and NCDC should be mobilized for capitalising this fisheries bank and building its capacity.

11.7 Provide composite life and health insurance products for protection

Fishing communities are vulnerable to epidemics because of their living conditions. There is a huge opportunity for governments to structure composite (life and medical) insurance products, since the current penetration of such financial products is almost nil. There is also a need to sell through intermediaries like (SIFFS/DHAN/SHG) and their federations to ensure on-time payment of premia and good service. The distribution mechanism is very critical for insurance and without this, no insurance product, however well designed, will be effective. Private sector insurers have very valuable experience in structuring and distributing products for low income people and they could be invited to pilot models and products.

- Composite Insurance for crew members: Unnamed crew insurance is already in practice (SIFFS) but some useful rider's can be added to these existing products like critical illness and/or other such riders. Insurance regulatory authorities may be approached to provide special permission for such products, given the nature of the fisheries sector
- The delivery mechanism plays a critical role and here participation of local fisherfolk must be explored and tried. This is with regard to life, health or asset insurance etc. Basically, the distribution channels must suit customers. They should deliver what

clients want in a way that will reach them and provide cost-effective service to a low-income fisher clientele. This could be achieved by keeping administrative costs low by using technology, outsourcing some functional responsibilities to fisheries related local producer or other organizations and leveraging existing infrastructure for distribution

11.8 **Enabling provisions needed to assist in delivery of insurance products**

For asset insurance for boats to be expanded, several internal control aspects need attention like registration number, location etc. These aspects require regulatory attention from the government and all boats must be registered and have a unique (ID) number.

11.9 **Voluntary savings – attitude change, products and mechanisms**

Voluntary Savings: The SIFFS system of compulsory contribution of 10% for loan repayment, 4% towards savings and 3% towards meeting expenses of federation has resulted in generating cash surplus and timely loan payment to fishermen, to a large extent. However, there is a need to enable the fishers to inculcate financial discipline and save, voluntarily. There is genuine need to change attitudes and producer organisations/ governments must facilitate that. Banks can also work with producer organisations to collect savings as per the banking correspondent model with ATM's and also serve as conduits for insurance layered on savings.

11.10 **Facilitate establishment of pilot projects in the following areas:**

Women have several unique needs and demands. Special pilot activities could be carried out. The focus of interventions in the area of gender could include:

- **Special financial products for women:** There is increasing evidence that traditional loan products, especially relating to weekly repayment, cause women great stress. Pilot activities that promote understanding on how to create products specifically for women, with loan terms and conditions convenient to women's needs, are required.
- **Delivery of risk-management products tailored to needs of low-income women:** The design and distribution of the micro- insurance and risk mitigation products in fisheries would call for action research that would throw light on micro-insurance for low-income women in fisheries, especially post-harvest fisheries.
- **Reducing transactions cost for retailing with technology:** The search for a low-cost technology- based retail model for delivering financial services to low-income fisherwomen on a mass scale merits attention. Mobile phones and other such mechanisms can be encouraged. It would be a smart strategy to Invest in public- private partnerships and provide efficient technology-based scaleable retail models to help low-income fisherwomen.
- **Encouraging public-private partnerships to overcome market imperfections.** This is a key aspect. Pilot projects to enhance diversification of fishers into urban and rural livelihoods are required. Such pilots should: (i) Attempt to spark (sustainable) growth with regard to micro-enterprises and micro- livelihoods systems for low income fisherwomen; and (ii) Facilitate development of strong and vibrant micro-enterprises and micro-livelihood systems. These should be in areas, where a large number of low- income fisherwomen are active.
- **Enabling livelihood financing for women through larger loans/individual lending:**

There is a great window of opportunity for MFIs to get into “livelihoods financing”, in partnership with bankers/ Corporates and other(s) through public-private partnerships. MFIs could play a important role through livelihoods financing with a single product or a combination of several products, tailored to the needs of low-income women: (i) Warehouse Receipt Financing; (ii) Cash Flow Based Financing; and (iii) Other Innovative Products including leasing.

- **Client education:** In order to promote financial inclusion of fishermen presently outside the fold of formal credit, it is necessary to educate the beneficiaries in matters relating to financial discipline by mounting financial literacy campaign through specialised NGOs and such efforts need to be supported.
- **Economics data base and credit scoring:** There is need for hard data and relative cost data. A scientific template that models the economics for units using hard data across locations, borrowers, geographies and time is necessary so that it can be used in fisheries financing. What can enhance credibility and finance flow to capture fisheries is the creation of a data base on catch and economics across seasons, across geographies, across crafts, across states for many borrowers. Institutions can use that to devise credit scoring models that will reduce the risks of lending to capture fisheries. The pilot could be tried with SIFFS, which already has a good MIS/database.

11.11 Do not use traditional MF approaches for harvest/capture fisheries. Use traditional microfinance approaches for loans to non boat owners women vendors etc.

Typical micro-credit approaches apply well to financing of vendors/hawkers, etc and perhaps crew. Holistic approaches appear to be more suitable for financing activities in the low income fisheries value chain - especially for capture fisheries. This integrated approach can be delivered by multi-purpose, large, well networked institutions that can diversify risks across craft types, geographies, etc.

11.12 Support Diversification in Capture Fishery through Innovative Priority Sector Financing

Finance must support diversification into these aspects through innovative financial products (and carefully framed pilots), covered under Priority Sector Financing. Mariculture, production and harvesting of sea weeds, plantations along the coast (bio-shields), forest covers can provide gainful employment opportunities and avenues. Financing of these requires an ‘experimental’ approach and banks and Financial Institutions would have to be innovative in supporting and lending to these Innovations/Pilot tests.

11.13 Make post-harvest fishery a thrust area for financial institutions

Small-scale fishery is being sustained despite falling catches and increasing operational costs because of the high demand for fish in the export and domestic markets. This has made post harvest fishery interventions and financing of aspects related to it extremely important. women fish vendors (fresh, dry and pickled) and cycle/scooter/three wheeler vendors (smaller trade loops) and now cold chain networks supplying processed and branded fish to the up markets. There is a need to strongly finance storage and holding facilities (ice, iceboxes, storage facilities) so that producers can negotiate better market prices. Such entrepreneurial units can also provide services such as floor prices, market intelligence and credit against fish held in

stock and even market “futures”, especially in partnership with exporters, banks and whole sale merchants.

The traditional Microfinance approaches using SHGs/JLGs could also be tried here as delivery mechanisms. The use of warehouse receipts has been largely successful in reducing vulnerability in other sectors can be tried in fisheries Women can be organised for value addition and processing, so that apart from retaining women in fishing, even younger and educated women can find employment spaces and entrepreneurship opportunities in post harvest fishery.

11.14 Classify Supplies by Fishers as Deemed Exports

Specifically, producer organizations should be eligible for packing credit type of working capital and other infrastructure credit etc, much like marine exporters are being financed. Special loans (and tie-ups with exporters) could be provided to intermediary/producer organizations like SIFFS.

11.15 Fish Producers and warehouse receipts

Experience from around the world illustrates that warehouse receipts can make a difference to producers. By storing their goods in a reliable warehouse until the price increases while using the goods as loan collateral, producers may access funds before they sell their goods. Warehouse receipts are often administered to producer groups, instead of individual, which helps the flow of market information. Warehouse receipts also can create price transparency. This empowers producers to make informed sales decisions rather than waiting for “gate” buyers who often offer below market prices. Producer organisations/Microfinance institutions (MFIs) also have a strong incentive to offer warehouse receipt financing. With this system, their risk is reduced because the system has a built in use of collateral that can retain a high commercial value and be liquidated quickly. The necessary Govt. regulations in this connection needs to be in place.

11.16 Role of Supply Chain Actor

Although export promotion expenditure may be justified by trickle-down effects, the investment on downstream actors, namely the fishers, has to be increased. This is where Finance can play a major role and extending packing (working capital) credit to producer organisations is a strategy recommended as part of Priority Sector Financing. This must be supported whole-heartedly by Financial Institutions. Banks should also provide working capital/other loans at packing credit interest rates to producer organisations like SIFFS – especially, if the produce is traceable as going to exports (Deemed Exports).

11.17 Finance Projects to Reduce Length of the Value Chain

The fisherman’s share in Rs.1 of fish is between 32%-45%, by and large and it could vary across different markets and places. Clearly, value can be added by financing infrastructure for cold storage/wholesaling /transport and other vulnerability reducing mechanisms that can help them get post harvest loans and/or reduce the perishability risk. However, the marketing process is also inefficient with several layers of intermediaries – facilitating consolidation of intermediaries or by-passing one/two of them could lead to more value for fishermen, more stability in their cash flows, and quicker turn around in accounts receivable. Commercial banks need to whole heartedly finance innovative approaches to reducing

the length of the value chain, especially through producer organisations like SIFFS.

11.18 Innovative Financing for Fisheries Including Under Priority Sector

The following loan products can be tried by the Public and Private Sectors Banks as also Cooperative Banks and Priority Sectors as under:

- **Special loan for Disinvestments/Downsizing**

(i) *Disinvestment Financing*: Owners of trawlers/other large boats who wish to replace their boats/ craft/equipment should be given finance to enable them to diversify (their occupation and livelihoods). This should help in reducing over-capacity, particularly in the mechanized sector. (ii) *Downsizing Loans*: For the ring seines and large canoe boats, special (incentive) loans may be given to help them to change to smaller crafts and more sustainable practices.

- **Special loan for Merchant Traders**

It is critical to find financial products/investment that can make the merchants/traders more efficient and/or reduce the risks for them so that they increase price to societies/fisher folk and also reduce lead time for settlement of payables

- **Flexible loans for Fishermen**

Cash Flow Based Financing for capture Fisheries: To create a lending program in association with bank/financial institution/Producer Organisations wherein the loan is structured to factor in “payment holidays” during the lean period when the earnings are impacted – (monsoon time/ breeding months, when Govt imposes ban on fishing, etc). This calls for cash flow based financing with repayment holidays on principal/interest and a lot of flexibility in repayment. Such a product could be piloted for harvest fisheries through producer organisations. This again could be classified as Priority Sector Financing

Debt Swap: Initially to look at debt replacement/ consolidation - repaying high cost loans with low cost loans. This will enable fishermen to lower their interest burden, which in turn will improve their cash flows and also ability to make timely repayment of other loans and also give them discretionary income. This could be classified under priority sector financing.

Flexible Credit Limits for Enterprising Owners: As far as responsible and enterprising owners are concerned (graded on fishing asset value, average monthly catch across three years, average bills written, savings and extent of loan repayment - please see below), they could have access to flexible and fungible working capital loans (working capital limit can be fixed each year). Thus, Credit limits may be offered to high performing units, on a yearly basis – this could also serve to incentivise units to graduate upwards. Once these persons have established good relationship they can be also supported with a larger basket of credit (housing, education, household equipments and amenities consumption financing). Here again pilots could be tried through producer organisations and all of these may be classified under Priority Sector Financing.

- **Special Loans for Women**

Individual Lending to Women: Women handle the cash in the household and manage the running of the house in a very professional manner and hence, can be lent to individually. Vocational centres are needed to train and help women diversify into livelihoods like - handicrafts, tailoring and embroidery, agarbatti making, etc. These women must be encouraged and enabled to individually set up small scale business units - like grocery shops / trading in commodities etc, to generate cash profits and thereby enhance household earnings. Mentors and financing is crucial for this. Hence, one could provide women with small individual loans, for them to become/scale-up as Micro-entrepreneurs and thereby enhance household earnings. Mentors could be identified and capacitated through producer organisations, NGOs etc. Individual loans are very successful today and these could be provided to them under Priority Sector Lending

- SHG (DHAN) methodology or Solidarity Group (ICNW) methodology could also be adapted and tried in this regard. The group methodology has been used world wide with similar workers. These could also be classified under priority sector financing.
- *Innovative Risk Management Products for Crew:* Accident /death at sea/work cover should be ensured through a master policy with each owner (unnamed crew cover introduced by SIFFS is an example) but useful riders on critical illness and other aspects could be added to make it more useful. Insurance Regulatory authorities needs to be sensitised in this regard and special permission obtained for the same.
- *Micro-pensions with flexible payment options* through linkages to UTI Mutual Fund (or others) as in India could be designed and delivered for crews.

11.19 Capitalize and Capacitate Producer Organisations/MFIs/RFIs

Producer Organisations/MFIs/RFIs should be capitalized and capacitated so that equity investment can occur in these along with a package of (institutional) systems support, training, MIS and other aspects. Without equity, producer organisations/MFIs/RFIs cannot access low cost money – many producer organisations/MFIs/RFIs are over leveraged and with the recent outsourcing guidelines that call for critical functions not to be outsourced and also preparation for adoption of BASEL II norms, loans to producer organisations/MFIs/RFIs would be difficult to come by in the future.

Products similar to the quasi equity (transformation loan) product of SIDBI could be developed for Producer Organisations//MFIs/RFIs with exit routes for investors. Quasi equity investment and flow of loans to good intermediaries (like Cooperatives/Producer Organisations/MFIs, etc.) should also be facilitated. This can also be done through guarantees and counter guarantee mechanisms and many national/ international donors are quite willing to offer this and they must be brought on board.

11.20 Credit Information Bureaus

Collateral substitutes should be created to gain historical information and reduce risk perceptions; this includes integration of low income fishery loans and transactions into MIS of Producer Organisations with CIBIL. Credit history is the only immediate collateral that a low income fisher builds through his/ her prompt repayments of loans over the loan cycles.

Capturing this credit history and making it available to the client/financier is increasingly becoming important. Also, availability of credit history can help segments of population like migrant fish workers to access credit from different places they migrate to. Technology enables all these and much more and needs to be properly harnessed to this effect.

11.21 Establish A Fisheries Innovation Challenge Fund

Establish a Fisheries Innovation Challenge Fund (FICF), which will strive to support innovation and financial deepening through public – private partnerships and linkages, with investment by various stakeholders. It is critical to establish such a Fisheries Innovation Challenge Fund to help Producer Organisations/Microfinance industry and private sector innovate and develop models, methodologies, products, processes, procedures and performance measures for financial intermediation specially tailored to the needs of low income fishers in several contexts. It is suggested that this fund be established with contributions from, multi-lateral and bilateral donors and other stakeholders. The FAO Tsunami Secretariat could act as co-ordinator .

11.22 Support Priority Demonstration Pilots On Financing for Fisher folk

Governments and Donors could initiate action pilots to test out new models, new methodologies and new products like micro-pensions, alternative savings products, technology based delivery systems (including SMS banking and use of e money the huge success with poor in Africa by Vodafone), special loan products for fisherfolk like flexible versus fixed repayment, individual lending models, cash flow based financing etc. These could be supported through the challenge fund.

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