

**NRI Report No. 2613  
Project A1004**

**Report of Workshop on “Poverty Alleviation  
and Livelihood Security among the Coastal  
Fishing Communities – Market and Credit  
Access Issues”**

***27–28 March 2001, East Nasirabad,  
Chittagong, Bangladesh***

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**Report of Inception Workshop of Project “Fish  
Distribution from Coastal Communities – Market and  
Credit Access Issues”**

*This report is an output from a research project funded by the United Kingdom Department for International Development (DFID) for the benefit of developing countries. The views expressed here are not necessarily those of DFID.*

*Post-Harvest Fisheries Research Programme – Project R7969*

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## ABBREVIATIONS

CODEC	Community Development Centre, Chittagong
DFID	UK Department for International Development
GoB	Government of Bangladesh
MOFL	Ministry of Fisheries and Livestock
DOF	Department of Fisheries
NGO	Non-Governmental Organisation
NRI	Natural Resources Institute, University of Greenwich, UK
PHFRP	DFID Post-Harvest Fisheries Research Programme
SUFER	Support for University Fisheries Education and Research, DFID funded project based in Dhaka
UoC	University of Chittagong
SL	Sustainable Livelihoods

## **Acknowledgements**

The authors are grateful to all those who have participated at and contributed to this workshop. Particular thanks are due to Mr M. A. Sobhan of the GoB Ministry of Fisheries and Livestock, Mr A. K. M. Azizul Hoque Mollah of the Department of Fisheries, Dr Tony Thompson of the DFID SUFER Project, and the many representatives of the fisherfolk and trading communities, and the NGO sector. The spontaneous contributions by our collaborators Dr Mohammed Solaiman and Dr Iftekhar Uddin Chowdhury, and their teams of the University of Chittagong Marketing and Sociology Departments are gratefully acknowledged. Special thanks are also due to Dr Md Fashiul Alam for chairing the workshop so well. Last but not least, we would like to thank the Post-Harvest Fisheries Research Programme of the UK Department for International Development for providing the funds for this workshop.

## Summary

Coastal fishing communities in Bangladesh and poor market participants are considered to lose out in the fish distribution chain and to suffer from lack of access to credit sources. This results in a number of livelihood constraints, including a low human, financial, and social capital base, and high exposure to seasonal and economic vulnerability. At the same time, there is a lack of information concerning the functioning of the commodity system and possible market inefficiencies.

In view of this, the DFID Post-Harvest Fisheries Research Programme (PHFRP) agreed to fund the project “Fish Distribution from Coastal Communities – Market and Credit Access Issues” from February 2001 – July 2002. The project collaborators are the following organisations: Natural Resources Institute (NRI, University of Greenwich), Community Development Centre (CODEC, Chittagong), and the University of Chittagong Marketing and Sociology Departments.

Following desk research in Bangladesh and the UK, the inception workshop in Chittagong was the first major project activity. The objectives of this two-day workshop were to: inform stakeholders of the project, exchange information and experience, and jointly prioritise research areas, survey methods and analytical tools.

The workshop was attended by 39 representatives of the GoB, the private fishing and trading sector, the University of Chittagong, the NGO sector, and the donor community. Given that a significant number of participants did not speak English, the use of Bangla was encouraged in order to stimulate discussion of key issues. Following introductions, a number of presentations were made. These were followed by working group discussions on market and credit access issues, and the research methodology to be employed.

Workshop discussions confirmed that the project covers important aspects of fisheries livelihoods in coastal areas of Bangladesh. Key issues raised included the link between marketing and access to credit by poor fisherfolk in coastal areas of Bangladesh. It was suggested that, due to their dependence on mainly informal credit sources (e.g. *dadandars*, *aratdars*), they are exposed to exploitative practices. Other marketing related aspects include: lack of community organisation, limited infrastructure, uncontrolled use of chemicals for fish preservation, and lack of quality control. In addition, it was pointed out that the fishing communities also suffer from external shocks and trends such as declining fish stocks, piracy, and soil erosion in coastal areas.

The project will research these and related issues with coastal fishing communities and further up the marketing chain, using a combination of participatory and quantitative survey techniques. Marketing and credit analysis methods will be integrated with the Sustainable Livelihoods Approach. The research will take place in some of the following districts: Chittagong, Cox’s Bazaar, Patuakhali, Barguna, Lakshmipur, and Khulna (i.e. outskirts of Sundarbans).

## **Introduction**

Following a project preparation stakeholder meeting in January 2001 in Chittagong, the DFID Post-Harvest Fisheries Research Programme (PHFRP) agreed to fund the project “Fish Distribution from Coastal Communities – Market and Credit Access Issues” from February 2001 to July 2002.

The project collaborators include the following organisations:

- Natural Resources Institute (NRI), University of Greenwich, UK
- Community Development Centre (CODEC), Chittagong
- University of Chittagong, Marketing and Sociology Departments (UoC, mainly sponsored by the DFID SUFER project).

Following desk research in Bangladesh and the UK, the inception workshop in Chittagong was the first major project activity. The objectives of the workshop were as follows:

- Inform all stakeholders of the project,
- Exchange information and experience, and
- Jointly prioritise research areas, survey methods and analytical tools.

## **Workshop Organisation**

This two-day workshop, which was held at the CARITAS Auditorium in East Nasirabad, was mainly managed by CODEC. The latter were commended by the workshop participants for their excellent organisation and facilitation of the event. Dr Mohammad Fashiul Alam, Professor of Management, University of Chittagong, chaired the workshop.

As outlined in the workshop programme (Appendix 1) a brief introduction by all the workshop participants was followed by presentations and group exercises. A list of participants is given at Appendix 2. Given that several participants did not speak English it was concluded that Bangla should be used as much as possible during the course of the workshop, with summary translations where appropriate. In view of this, Bangla translations were prepared of the main presentations, minutes and group exercises (see Appendix 10).

The discussions following the presentations were viewed as important contributions to the planning of the fieldwork of the project, which is to start in July 2001. This report summarises key aspects from workshop presentations and the working groups sessions.

## **Summary of Project “Fish Distribution from Coastal Communities – Market and Credit Access Issues”**

### **Background to the project**

Coastal fishing communities in Bangladesh and poor market participants are considered to lose out in the fish distribution chain and to suffer from lack of access to credit sources. This results in a number of livelihood constraints, including low human, financial, and social capital base, and high exposure to seasonal and economic vulnerability. At the same time, there is a lack of information concerning the functioning of the commodity system and possible market inefficiencies such as exploitative practices.

### **Project Outputs**

The following project outputs are planned:

- An analysis of the trading and credit system for fish produced in poor coastal communities,
- A validated research methodology integrating market and credit analysis with a livelihoods approach in a post-harvest fisheries context, and
- Policy recommendations benefiting the poor in coastal fishing communities and the fish distribution chain in Bangladesh.

### **Project Beneficiaries**

Target institutions are anticipated to use the outputs to benefit the poor and vulnerable in marine fish distribution chains. This will include the fishermen, net owners, small-scale processors and petty traders and their dependants. It may also have positive benefits for daily or seasonal wage labourers working in the sector. A high proportion of petty traders are women.

The research outputs will be promoted amongst the following organisations:

- GoB Departments,
- Donors (e.g. DFID)
- NGOs,
- Private sector associations representing the small-scale fishing sector.

### **Project Activities**

The following research activities are envisaged:

- One-month desk research in Bangladesh and the UK,
- Workshop in Chittagong involving project collaborators and major stakeholders,
- Analysis of the distribution system of fish from coastal communities in Bangladesh, focussing on:

- Analysis of the marketing system,
- Analysis of the credit system,
- Analysis of the institutional, social, cultural and political context;
- A second workshop involving the research team and other stakeholders to present research findings, develop policy recommendations, and validate methodology;
- Dissemination Activities.

### **Research Methodology**

A one-year survey is deemed necessary to cover all aspects in sufficient detail and allow the establishment of trust between researchers and the communities. It is envisaged that data collection will take place in some of the following districts: Chittagong, Cox's Bazar, Lakshmipur, Patuakhali, Barguna, and Khulna. Specific product / process supply chains will be identified and analysed in detail. In addition, fish markets and decision makers in Dhaka (e.g. GoB departments, NGOs and donors) will be visited. Elements of marketing and credit analysis will be integrated with the DFID Sustainable Livelihoods Approach.

It is intended that the project will use a combination of the following survey techniques:

- Participatory Rural Appraisal (PRA)
- Questionnaire Survey
- Rapid Market Appraisal

See Appendix 6 for more detailed information.



## Summary of Literature Review

Bangladesh, the world's largest deltaic zone, is crisscrossed by big rivers, and their tributaries and distributaries. About 8% of the total population in Bangladesh depends on fisheries for their livelihood (see Appendix 7 for full literature review including references).

About 30 million people live in the coastal area of Bangladesh depending on agriculture, fishery, forestry, near shore transportation, solar salt mining etc. The coastal zone comprises the largest delta of the world and is under a process of active delta development and morphological changes by the Ganges-Brahmaputra-Meghna river system.

The coastal area of Bangladesh, covering 36,000 sq. km. (710 km. in length) is broadly divided into three regions: the Eastern Region, the Central region and the Western region. Once the coastal region of Bangladesh was extensively covered with dense mangrove forests. To the west of the Ganges-Brahmaputra-Meghna delta there is still the largest mangrove forest of the world – Sundarban – covering a total of 571,508 ha, of which about 170,000 ha consists of tidal channels and rivers.

Almost 20 per cent of the population in Bangladesh live on a narrow belt along the coast and estuaries, mostly in fishing villages between sea/river and land. But unlike inland fisheries, coastal fisherfolk mainly have no other economic activities but fishing in the sea and/or river. The fish they catch is their only entitlement to money, food and life.

The total fish production in Bangladesh was 1.087 million tonnes in 1993-94. The contributions of inland and marine fisheries to this were 76% and 24% respectively. About 97% of the production is destined for the domestic market.

The most serious marketing difficulties seem to occur in remote fishing communities in the Bay of Bengal and enclosed inland waters, which lack regular supplies of ice and transport, and where the fishermen are in a particularly weak position in relation to intermediaries. In such locations much fish has to be processed into lower valued cured products and the process of curing often involves considerable losses due to spoilage and infestation.

### Marketing of Fish from Coastal Areas

One feature of the traditional marine fisheries in the country was that most sea fishing was, until 30-50 years ago, undertaken by the *Hindu Jaladas* caste communities. Over the time, the market structure for both inputs and output production became much more centralised, and the traditional fishers had no means to buy new input, such as engines, boats and nylon twine.

The buyers (of fish from the direct catchers) cum lenders are known as *dadandars*. Their dual role distinguishes them from other fish traders (*paikars*) who do not offer loans. The *dadandars* are in turn linked to *aratdar(s)*, who are large-scale traders selling the *hilsa*

catch to the major urban and export markets, and who also have access to the large amounts of capital that the *dadandars* demand.

Fish caught is sold either at sea to collector boats or at the BFDC terminals through intermediaries. Most of the inputs and outputs, i.e. production factors and marketing, are controlled and shaped by vested interests or by institutional sources.

It is suggested that the middlemen in the fishing sector have established a new marketing chain based on the exploitation of the fishing communities by setting up an artificial pricing chain through intermediaries at different levels. The intermediaries through advance payment against the catch have made the fisherfolk inaccessible to the competitive open market and thereby in most cases the fishermen are becoming *de facto* wage/bonded labourers to the traders. During the course of the research project it will be investigated to what extent exploitative practices are nowadays in place in the credit and marketing system.

### Marketing Channels

The market structure varies from area to area, but in general terms can be summarised as follows:

**The Primary Market.** In this market the fisher sells the catch to a mobile assembler, who may be known as a *mahajan*, a *jogandar* or a *faria*. The assembler uses a collector boat or a truck to collect the fish. When buying in estuaries or rivers, he may buy through a local agent (*dalal*) who typically earns a 1% commission for his services.

**The Secondary Market.** The assembler sells the fish in a wholesale market to a local retailer (*nickaries*), local wholesaler (*paiker*), or distributor who transport the fish to other districts (*bepari* or *chalani*). The sale is normally carried out through the medium of a commission agent (*aratdar*) who conducts public auctions. In some markets fish is weighed during auctioning but more often it is not.

**The Higher Secondary Market.** Fish consumed at a distance from the secondary market is transported by the distributors (*bepari* or *chalani*) to other distribution markets, usually wholesale markets in district towns. Here they sell to local retailers (*nickaries*) and wholesalers (*paikers*) through local *aratdars* who render similar services to the first level *aratdars* referred to above.

**Final Consuming Market.** After procuring fish at the higher secondary markets, local wholesalers (*paikers*) sell to retailers (*nickaries*) of outlying upazilla markets and of village markets (*hats*), through whom the fish finally reach the consumer.

Communication between the traders in different markets takes place by telephone which keeps wholesale prices in line throughout the country. The least informed party is the **fisherman**, because of his physical isolation from the markets. Other factors, which weaken the fisherman's bargaining position, are his dependency on credit and illiteracy.

## Credit Access Issues

The sources of the financial capital for the poor coastal people are the informal credit market and the quasi-formal credit market. The chief actors of the informal credit markets are the *dadandars* and the moneylenders; while the NGOs are considered as the actors of the quasi-formal credit market. Members of coastal communities have no virtual access to the formal credit market (scheduled banks) due to lack of their bankable assets.

The source of finance for fishing in the coastal villages, especially in Chittagong, is principally the *dadandars* and usury market. In the usury market, it is estimated that the moneylenders generally lend money at an interest rate of 120-240% per annum. Most of the fishermen resort to the *dadandars* for finance and, as a result of this, they have to hand-over all of their catches well below market price. The *dadandars* fix the prices after sale of the fishes in the wholesale market far away from the village.

Although the *dadandars* and the moneylenders are the chief sources of finance for the poor stakeholders, it is also felt that this system marginalises the fishers to a large extent, both in the credit and product markets, and, consequently, a lot of the fishing households are enchained with *dadandars* and/or usury transaction.

The *dadandar* or his agents provide loans during the lean fishing months, either in cash or by facilitating credit at the local shops. The *dadandar* system traces the economic hierarchy within the communities, providing loans to the wealthier *bahaddars* or *majhi* who in turn provide loans to their crews. The *dadandar* sets the rate of interest for these loans at 60-150% per annum depending on the community and on the credit record of the *bahaddar*. A condition of the loan is that the *bahaddar* must sell the *hilsa* catch to the *dadandar*, and the *dadandar* sets the buying price at several *takas* less than the price offered by other traders. If a loan is not repaid in one season, it is carried over to the next season and the *bahaddar* must again surrender the right to sell his fish on the open market.

## Salient Features of the Coastal Communities

Fishing households in Bangladesh have a larger family size than the national average and the fishing villages are characterized by a high rate of illiteracy, especially among the women. There is low female participation in the work process, especially in fishery-related and non-fishery activities.

It is evident that the traditional fishers have always been fishing; while those of the new entrants into this occupation are gradually shifting their occupation mostly from agriculture & fishing to mainly fishing.

Most of them live on non-motorized boat fishing or no-boat-fishing and live below the poverty line. It appears that the coastal fishing community is an outcast, out of the main stream. The population increase together with the increasing landlessness caused by land

erosion and nagging poverty has changed the structure of the agricultural sector and thereby also the life of the fishing communities. Fishing is seen as the last resort to earn one's livelihood.

The fisherfolk communities have, over the last decades, experienced increasing pressure on the fish resources. Fish resources are decreasing, on the other hand numbers of fishing people in the capture fishery are increasing, resulting in low per capita catch/income; i.e., catch per unit effort is declining.

It is difficult for most of the fisherfolk to consider leaving the fishing profession for alternative economic activities due to their psychological barriers/sense of isolation and also for the unfriendly surrounding environment, which make them conclude that they can't do things other than fishing.

The Hindu fishing community, who represent an ethnic minority, live in isolation from the rest of the mainstream population and thereby have a psychological sense of insecurity vis-à-vis lack of confidence to try new IEGAs (Income and Employment Generation Activities).

In short, the livelihood outcome amongst the coastal poor is poverty. In turn, poverty means:

- hunger to the fishing communities,
- lack of shelter,
- not having an employment except fish catching in the river and sea,
- fear for the future, living one day at a time,
- losing a child to illness brought about by unclean water,
- powerlessness, lack of representation and social status.

For the coastal and riverine fishing communities in Bangladesh, poverty has many faces, changing from season to season, place to place and across the time.

It appears, for a number of reasons, that a consensus is highly necessary to continue development efforts towards coastal and riverine fishing communities in Bangladesh aimed directly at poverty eradication through their own institution and to enable them to invest in the productive purposes. Persistent poverty, especially when it afflicts large sections of society and communities, could cause social instability and threaten the established social order.

The issues raised in the literature review (see Appendix 7 for full review) will be investigated in detail during the course of the fieldwork using a Sustainable Livelihoods Approach.

## **Summary of Presentation of “The Sustainable Livelihoods Approach and its Relevance for Fish Marketing”**

The ultimate goal of Sustainable Livelihoods is to maintain an income, to minimise social exclusion, achieve social equity and a long term productivity of natural resources without undermining livelihoods or compromising livelihood options open to others. The focus of the development debate moved beyond the state of resources and began to include people, livelihoods and poverty alleviation as highlighted in DFID’s Sustainable Livelihoods Approach (see Appendix 9 for full presentation).

In the White Paper on International Development 1997, DFID outlined its commitment to poverty reduction through policies and actions which:

- Promote Sustainable Livelihoods
- Education, health and opportunities for the poor
- Protection and better management of the natural and physical environment

### **Box 1: The three dimensions of Sustainable Livelihoods**

In sum, there are three dimensions to Sustainable Livelihoods (SL):

- an objective supporting the goal of poverty elimination
- a framework for thinking about poverty
- an approach for addressing poverty (the most important dimension)

SL is NOT:

- a panacea for poverty eradication
- a blueprint to guide implementation of programmes or projects targeting poverty.

From this policy objective of elimination of poverty, DFID has worked towards developing a conceptual and operational framework that constitutes the Sustainable Livelihoods approach. Promoting the Sustainable Livelihoods approach within current development thinking is seen as a means to address the ultimate target of poverty elimination. Many NGOs like Oxfam and Care have contributed to the development of the SL approach by taking it up at an early stage and providing critical feed back and suggestions based on their ideas and ‘field’ experiences.

### **Definition and Principles underlying the Sustainable Livelihoods approach**

A livelihood comprises the capabilities, assets and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (Carney, 1998).

In this context, poverty focused development activities should be:

**People centred** – the emphasis is on people, not on resources per se. It mainly focuses on people and livelihoods at the micro community level (e.g. coastal fishing communities) and at higher policy and planning levels (e.g. local government and central government).

**Holistic** – it is important to look at all the different resources, opportunities and constraints that people face in pursuing and improving their livelihood strategies.

**Dynamic** – It is important to recognise that livelihoods are changing in response to external shocks and trends, and it is necessary to understand these changes, how the people themselves perceive these changes and how they have adapted their livelihood strategies in response to these changes.

**Building on strengths – the approach starts with an analysis of strengths and resources rather than a list of needs.**

**Linking macro-micro levels** – Bridges gaps and makes explicit links, e.g. effects of national policies on local communities.

**Conducted in partnership** – with donors, local organisations like NGOs and government.

**Sustainable** – People should be able to deal with and respond to external shocks, hardships and trends, and not being (entirely) dependent on outside support. There are four different dimensions of sustainability that are interrelated:

- a) economic - e.g. supply and demand for fish
- b) institutional – e.g. a well functioning fish marketing chain, availability of credit and loan facilities
- c) social – e.g. support from within the family and the community in general
- d) environmental - e.g. fish stocks

**Box 2: Summary of Sustainable Livelihoods approach's principles**

*What the approach emphasises:*

- A people centred participatory and responsive approach to development
- Starting with positives (what people have) and opportunities (what they can make of it)
- Build on existing development approaches
- Micro to macro policy influencing

*What the approach does not emphasise:*

- Starting with sectors or commodities
- Starting with needs and problems
- Replacement of existing development approaches (but sets them in broader context)
- A focus only on local development

## The Sustainable Livelihoods Framework

The Sustainable Livelihoods approach is a way to understand the needs of the poor and identify key opportunities that will ultimately benefit the poor. In order to understand and analyse the lives of the poor, a Sustainable Livelihoods framework has been developed. It is important to note that it is not an ultimate blueprint. Its elements can be presented and applied in different ways (see Appendix).

SL embraces a wider approach to people's livelihoods by looking beyond income generation activities in which people engage. Through participatory approaches, it seeks to encourage various stakeholders, with their own perspectives, to engage in these discussions and debate about factors affecting their livelihoods.

### Box 3: The key elements of the Sustainable Livelihoods framework

The key elements of the SL framework are:

- *Capital assets*: resources that help people survive and thrive (i.e. natural, social, human, physical and financial capital)
- *Vulnerability context*: things that the poor are vulnerable to
- *Policies, institutions and processes*: influence their livelihoods
- *Livelihood strategies*: how do people adapt and plan in response to threats and opportunities
- *Livelihood outcomes and aspirations*: what are people's objectives and priorities?

### Capital assets

Capital assets are resources that help people survive and thrive. The main capital assets are natural, human, social, physical and financial capital (e.g. fishing skills, aquatic resources, social relations, access to credit, infrastructure, etc). Assets are important in terms of quantity and quality. In addition, the question is how do men and women access assets and what is the extent of their control, rights and security of access. Although it is not possible to define a 'minimum' level of assets needed for survival, as the categories are highly subjective and location specific, it is obvious that the better people's overall asset status is, the better they will be able to respond to changes and face hardships. A pentagon is sometimes used as a visual tool to present information about people's access to assets and the interrelationships.

### Vulnerability

Next to an understanding of people's strengths and access to assets, it is important to understand the vulnerability context in which these assets exist. What are the external factors that influence the levels of assets and how these assets can be used? These external factors are often related to causes of poverty, which makes poor people, in particular, vulnerable. For many poor rural people, changes in natural capital can particularly affect their vulnerability, as they are heavily dependent on natural resources. Three major types of external factors can be recognised: trends, shocks and seasonality (e.g. declining fish stocks, price fluctuations, floods, etc).

## **Policies, institutions and processes**

As mentioned earlier, one of the key principles of the Sustainable Livelihoods approach is the attempt to link micro and macro levels: the household/community level with processes as initiated by the government, the private sector and NGOs. There is a two way influence between assets and policies and institutions. Existence or lack of policies can have important effects on the livelihoods of the poor. Changes or transformations in these policies and institutions can be used to mitigate negative effects of trends on the overall asset status and cushion the impact of shocks and seasonality, thereby reducing people's vulnerability.

Rules of access to natural resources will influence people's access and control over natural capital. The marine fishery is considered as a common property, which means it is shared amongst those who fish it. A common problem associated with common property resources is 'the free rider' problem, as individuals benefit from use of the resources but do not bear the full opportunity costs of their use of common resources. In general, there is a tendency towards short-term gains rather than an attempt to manage the natural resources in a sustainable manner as benefits might be reaped by others who have not made any investment in such sustainable resource management efforts. Consequently, many marine fishing grounds are considered as being overexploited. Not only fishers will be negatively affected by loss of fish resources but also those involved in the marketing chain and many coastal families as they depend on fish as an important source of animal protein. Among policy makers there has been an increasing awareness for the need to devolve user rights to lower levels, such as communities, to encourage sustainable resource management.

## **Livelihood strategies**

Livelihood strategies are the range of outcomes of how people combine and use their assets to make a living given the factors that make them vulnerable and the policy and institutional context within which they live. In the past, development efforts often sought to improve services and opportunities available to categories of people e.g. fisherfolk. However, the Sustainable Livelihoods approach seeks to develop an understanding of the factors behind people's choice of livelihood strategy and to reinforce the positive aspects and mitigate the constraints or negative influences. In sum, the Sustainable Livelihood approach seeks to identify ways how to build on the strengths the people have while at the same time trying to reduce the level of vulnerability.



## Summary of Minutes and Working Groups

### Marketing

As illustrated in Table 1, three main marketing chains were identified for fresh marine fish, with emphasis on Chittagong and Cox's Bazaar districts. Table 2, highlights the two main marketing chains for dried fish.

**Table 1: Main marketing chains for fresh marine fish**

Chain 1	Chain 2	Chain 3
Fish catcher	Fishermen	Fishers
Local Agent	Middlemen	Agent (Sea & Land)
Paiker	Market	Paiker
Aratdar	Factory	Aratdar
Local Market	Consumer	Arat ( District to District)
Consumers		Paiker
		Market
		Consumer

**Table 2: Main marketing chains for dried marine fish**

Chain 1	Chain 2
Fish catcher	Fishermen
Drying in the boat	Paiker
Paiker( Land)	Factory
Paiker ( Market)	Market or export
Market	
Consumer	
Fish species: Lakkha, datina, faishya, Popa, Kata, Loita, Volpopa, etc.	Fish species: ( Ritha, Popa, Lakkha, Chanda etc.
Location : Chittagong, Patuakhali, Barguna	Location : Cox's Bazaar, Kalapara (Patuakhali)

Issues highlighted during the discussions, and to be researched in the project: There is a strong link between fish marketing and the availability of credit. According to fisherfolk representatives, this is often characterised through exploitative practices (for a more detailed account of this constraint see section on credit issues below).

In addition to the Districts around Chittagong / Cox's Bazaar, and Barguna / Pathuakhali / Lakshmipur, it was pointed out that the Sundarbans have a unique fish catching and marketing system that should also be included in the study.

Constraints related to fish preservation (e.g. lack of ice and transport), processing and quality control were highlighted by speakers (e.g. Mr Azizul Haque, Department of Fisheries), as well as private sector and NGO representatives. This includes the uncontrolled use of chemicals for the preservation of dried fish destined for the domestic market, and imported fresh fish from neighbouring countries. It was pointed out that regulations only exist on paper, but are not enforced.

Following the presentation by Dr Khursid Alam on CODEC and its role in the fishing communities in the Coastal Belt of Bangladesh (see Appendix 5), the question was raised as to whether NGOs such as CODEC can develop a model of community

participation, which can improve the situation and bargaining power of fisherfolk in the marketing chain (e.g. the formation of groups who can carry out at least part of the marketing activities themselves). The example of fishing communities in Kerala, India, who play a much stronger role in the marketing chain, was given.

Dr Solaiman, Marketing Department, Chittagong University, suggested that a cheap and efficient marketing method (cold storage system, logistic support, transportation system, packaging system) should be developed.

### **Availability and Access to Credit**

Overview of the stakeholders in the credit system according to their importance:

- *Mahajan*
- *Dadandar*
- Different NGOs
- *Aratdar*
- *Bahaddar* (who appoint labourers)
- Govt. Banks
- BRDB (Bangladesh Rural Development Board)
- Jatiya Maitshajibi Samabaya Shamity (National Cooperative Society for the Fishermen)

Types of credit available to poor fishing communities and small scale operators in the distribution chain:

- Fishing Equipments
- Livelihood need/consumption
- Seasonal loan
- Off-season loan for survival

Links between credit supply and marketing marine fish (fresh and traditionally processed):

- Fishermen are bound to sell their catch to moneylenders (*dadandars, aratdars, etc.*)
- Price fixing completely depends on *dadandar*.
- Amount of credit is inadequate compared to fishing.

Constraints in the system:

- Fishermen must sell their catch to *dadandars*.
- *Dadandars* pay less money than the ascertained agreement, i.e. fishermen receive lower price than on the normal market
- Piracy/Sea Robbery
- No implementation of law and order
- Taxing/Salami system – *Mastan* (hooligan), *chandabaj* (forceful donation collector), *dadandar*
- Too much economic dependency
- Dearth of preservation facilities in coastal area

- Infrastructure problems

Role of women in the credit system (informal and formal):

- Women have access to NGO credit.
- Big NGOs are providing credit to women only (There are exceptions also e.g. CODEC which supports both the male & female members of the coastal communities).

Key issues the research should concentrate on:

- Easy/Convenient way of fish processing
- Reasons for declining fish stocks and catches.
- Multipurpose use of land remaining in the coastal belt.
- Social status of women in terms of credit.
- Odd-season employment opportunity.
- Alternative income sources of women.
- Women involvement in fish marketing chain.

Ideas on possible pro-poor improvements to the credit system:

- Use loans for stated purposes.
- Need based skill development (locally)
- Locality-based skill development.
- Establishment of Fisherfolk Bank in the public sector.
- Utilisation of local resources to credit employment.
- Improved access and control over market by fishing communities.

### **Types of Research Tools and Techniques to be Used**

General steps to be considered:

- Identification of marketing chain followed by discussions with key-informants and focus group in order to identify different wealth groups within marketing sector (i.e. focussing on poor market players).
- Literature Review + Secondary data analysis
- Semi-Structured discussions with stakeholder groups.

At Community/Village level:

Livelihoods analysis with key stakeholders, i.e.

- Group discussions,
- Semi-structured interviews at HH (household) level,
- Tools related to specific issue e.g. matrix ranking, and market appraisal.

A question was raised as to the added value of a questionnaire survey.

Potential problems: logistics – e.g. transport, acceptance by people in fishing communities, “Consistency” of team, interview skills, gender of researchers, time table, social & political issues, language barriers

Time –scale: 10 days / 2 People per village

At trader + intermediary level:

Main tools: Semi-structured interviews; e.g. checklist (individuals + groups)

Variations are likely, e.g. *Aratars* at village, district, or town level.

Potential problems: training in interview techniques (or lack of it).

Time-scale: 1-2 hours per individual

#### **Other key issues highlighted**

- Fishermen become the prey of sea robbers and pirates;
- Declining fish stocks due to overfishing, waste disposal by local industries, etc;
- Devastation of fishing communities due to coastal erosion, and lack of livelihood options in these areas. In particular, poor women’s skills should be developed in order to increase their job opportunities.
- It is important to find out about fishing communities’ activities outside the main fishing season, and how their livelihood options can be improved during that part of the year.

**A detailed account of the discussions can be found in the workshop minutes (Appendix 3).**

## Appendix 1

### Workshop Schedule

# **POVERTY ALLEVIATION AND LIVELIHOOD SECURITY AMONG THE COASTAL FISHING COMMUNITIES MARKET AND CREDIT ACCESS ISSUES**

**27-28 March 2001**

**Sponsored by the UK Department for International Development (DFID)**

**Venue: CARITAS Auditorium, East Nasirabad, Chittagong, Bangladesh**

### 27<sup>th</sup> March 2001

- |              |   |
|--------------|---|
| <b>10.00</b> | <b>Registration</b>   |
| <b>10.30</b> | <b>Introduction &amp; Welcome speech – Mr. Ulrich K. Kleih, NRI, University of Greenwich, UK</b>  |
| <b>10.40</b> | <b>Introductions of Participants</b>  |
| <b>10.50</b> | <b>Presentation by Mr. M. A. Sobhan, representative of MoFL: Overview of their Activities and Interest in the Coastal Fish Marketing and Credit Access Research Project</b>       |
| <b>11.00</b> | <b>Discussion</b>   |
| <b>11.10</b> | <b><i>Tea break</i></b>   |
| <b>11.20</b> | <b>Presentation by Mr. Azizul Hoque Mollah, representative of DoF: Overview of their Activities and Interest in the Coastal Fish Marketing and Credit Access Research Project</b> |
| <b>11.30</b> | <b>Discussion</b>   |
| <b>11.40</b> | <b>Presentation by Dr. Khursid Alam, CODEC : “CODEC, the Fishing Communities in the Coastal Belt of Bangladesh, the Credit System and Marketing Organization”</b>                 |
| <b>11.50</b> | <b>Discussion</b>   |
| <b>12.00</b> | <b>Presentation of the Project by Mr. Ulrich K. Kleih, NRI : “Fish Distribution from Coastal Communities – Market and Credit Access Issues”</b>                                   |
| <b>12.10</b> | <b>Discussion</b>   |
| <b>12.20</b> | <b>Presentation by Mr. Ranajit Dastidar, CODEC : “Findings of the Literature Review on Fish Distribution from Coastal Communities – Market and Credit Access Issues”</b>          |

- 12.30**            **Discussion**
- 12.40**            **Presentation by Mr. Ansen R. Ward, NRI : “DFID-funded Post-harvest Fisheries Projects in other parts of the World”**
- 12.50**            **Discussion**
- 13.00**            ***Lunch break***
- 14.00**            **Presentation by Dr. Tony Thompson, SUFER Project : Overview of their Programmes/Projects**
- 14:10**            **Discussion**
- 14.20**            **Presentation by the Chairperson/representative of the Marketing Department, University of Chittagong (UoC)**
- 14.30**            **Discussion**
- 14.40**            **Presentation by the Chairperson/representative of the Sociology Department, University of Chittagong (UoC)**
- 14.50**            **Discussion**
- 15.00**            ***Tea break***
- 15.10**            **Presentation by the Chairperson/representative of the Economics Department, University of Chittagong (UoC)**
- 15.20**            **Discussion**
- 15.30**            **Presentation by Alhaj Jamiat Ali Showdagar, *Aratdar* of Fish**
- 15.40**            **Discussion**
- 15.50**            **Presentation by Mr. Tahurul Islam (or by his representative), ED, Sea Mark (a fish exporting firm), Chittagong**
- 16.00**            **Discussion**
- 16.10**            **Presentation by the Representative of Grameen Bank**
- 16.20**            **Discussion**
- 16.30**            **Presentation by the Representatives of the Fishing Communities**
- 16.50**            **Discussion**
- 17.00**            **End of the day**

**28<sup>th</sup> March 2001**

- 10.00**            **Presentation of Summary of the first day: Mr. Ansen R. Ward, NRI**
- 10.15**            **Presentation by Ms. Nicolienne Oudwater, NRI : “The Livelihoods Approach and its Relevance for Fish Marketing”**
- 10.35**            **Discussion**
- 10.50**            ***Tea break***
- 11.00**            **Group Activities**  
                    **Group-1 : Mapping of Fish Distribution Chain & Site Selection**  
                    **Group-2 : Availability and Access to Credit**  
                    **Group-3 : Methodological Issues**
- 13.00**            ***Lunch break***
- 14.00**            **Plenary Session : Presentation of Group-1**
- 14.15**            **Discussion**
- 14.30**            **Plenary Session : Presentation of Group-2**
- 14.45**            **Discussion**
- 15.00**            ***Tea break***
- 15.15**            **Plenary Session : Presentation of Group-3**
- 15.30**            **Discussion**
- 15.45**            **Concluding Remarks from the NRI/CODEC/UoC/Chair and other participants**
- 17:00**            **Close**

***Mr. Kamal Sengupta of CODEC will conduct the Workshop.***

## Appendix 2

**Workshop on “Poverty Alleviation and Livelihood Security Among the Coastal Fishing Communities – Market and Credit Access Issues”, Chittagong, 27-28 March 2001**

### LIST OF PARTICIPANTS

Name	Organisation & Brief Address	Participated on	
		27.3.01	28.3.01
1. Mr. Sukumar Jaladas	A fisherfolk representative from Cox’s Bazaar district	√	√
2. Mr. Abdul Mannan Mridha	A fisherfolk representative from Barguna district	√	√
3. Mr. Tofael Ahmed	A fisherfolk representative from Lakshmipur district	√	√
4. Mr. Abdul Mannan Howlader	A fisherfolk representative from Kalapara district	√	√
5. Mr. Nikunja Jaladas	A fisherfolk representative from Chittagong district	√	√
6. Mr. Mostafa Nuruzzaman	‘SHUSHILAN’ – an NGO, Kaliganj, Satkhira district, and a COFCON-representative	√	√
7. Dr. Tony Thompson	SUFER (DFID) Project, Dhaka	√	√
8. Mr. Mallik Mohammad Ayub	M. Director, ‘SANGKALPA’ – an NGO, Patharghata, Barguna, and a COFCON-representative	√	
9. Mr. M. A. Sobhan	Senior Assistant Secretary, Ministry of Fisheries & Livestock Dhaka	√	√
10. Mr. A. K. M. Azizul Hoque Mollah	Dept. of Fisheries (FIDC), Dhaka	√	√
11. Ms. Nahid Sultana	‘PRIP Trust’ – an NGO, Dhaka	√	√
12. Mr. Sagib Kumar Ghosh	Lecturer, Depart. of Marketing, University of Chittagong	√	√
13. Ms. Tunazzina Sultana	Student, Depart. of Marketing, University of Chittagong	√	
14. Dr. Mohammad Solaiman	Professor & Chairman, Depart. of Marketing, University of Chittagong	√	√
15. Dr. Iftekhar Uddin Chowdhury	Professor & Chairman, Depart. of Sociology, University of Chittagong	√	√
16. Dr. Mohammad Fashiul Alam	Professor, Dept. of Management, University of Chittagong, who presided over the Workshop	√	√



Name	Organisation & Brief Address	Participated on	
		27.3.01	28.3.01
17. Mr. Jamiat Ali Showdagar	Fish Merchant (Aratdar), Reazuddin Bazaar, Chittagong	√	√
18. Mr. Abul Momen	Resident Editor (Chittagong), 'Prathom Alo' – a national daily newspaper	√	
19. Mr. Mohammad Idris	Assistant Editor, 'Purbakone' – a daily newspaper of Chittagong	√	
20. Mr. Peter Bezkorowajnyj	CARE-Bangladesh, Dhaka	√	√
21. Mr. Mohammad Shamsul Islam Khan Shelim	Seafood Marketing (BD) Limited, Chittagong		√
22. Mr. Ulrich Kleih	Natural Resources Institute, UK	√	√
23. Mr. Ansen Ward	Natural Resources Institute, UK	√	√
24. Ms. Nicolienne Oudwater	Natural Resources Institute, UK	√	√
25. Dr. Khursid Alam	CODEC, Chittagong	√	√
26. Mr. Ranajit Dastidar	CODEC, Chittagong	√	√
27. Mr. Kamal Sengupta	CODEC, Chittagong	√	√
28. Mr. Didarul Alam Chowdhury	CODEC, Chittagong	√	√
29. Mr. Absar Habib	CODEC, Chittagong	√	√
30. Mr. S. M. Giasuddin	CODEC, Chittagong	√	√
31. Ms. Alpana Barua	CODEC, Chittagong	√	√
32. Mr. Touhidur Rahman	CODEC, Chittagong	√	√
33. Ms. Shamsun Nahar Chy.	CODEC, Chittagong	√	√
34. Mr. Kiron Das	CODEC, Chittagong	√	√
35. Ms. Sharan Rodrigues	CODEC, Chittagong	√	√
36. Mr. A. B. M. Munir	CODEC, Chittagong	√	√
37. Mr. Abdullah Al Mamun	CODEC, Chittagong	√	√
38. Ms. Julia Chowdhury	CODEC, Chittagong	√	√
39. Mr. Shamsul Momen	CODEC, Chittagong	√	√

### Appendix 3

#### **Workshop on “Poverty Alleviation and Livelihood Security Among the Coastal Fishing Communities – Market and Credit Access Issues”, Chittagong, 27-28 March 2001**

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##### **Workshop Minutes, prepared by CODEC**

A Two day (27 –28 March 2001) workshop on “Poverty Alleviation & Livelihood Security Among the Coastal Fishing Communities: Market and Credit Access Issues” was presided over by **Dr Mohammad Fashiul Alam**, Professor of Management, University of Chittagong, Chittagong, Bangladesh.

The workshop was attended by a number of participants from different sectors; such as – Government of Bangladesh (GoB), NGOs, Chittagong University, Fisherfolk representatives, Fish traders etc.

In his welcome speech **Mr. Ulrich K. Kleih** of NRI (Natural Resources Institute), UK, thanked the collaborators in assisting as well as participating in planning of the project, focusing coastal resources and priorities.

He finally thanked DFID (UK Department For International Development) and CODEC (Community Development Centre) for the support and overall arrangement, and the Chittagong University for their spontaneous participation.

**In his speech Mr M.A. Sobhan, representative of MOFL** (Ministry of Fisheries and Livestock), concerning “Overview of their activities and interests in the coastal fish marketing and credit access research project”, opined that the project indeed is a vital project for which the financing authorities should take more care so that the project may run in a successful tune.

“The actual social status of the most vulnerable – i.e. the fisherfolk community - as well as their alarming issues are not very well understood. As a consequence, we – the quite fortunate or advantaged - have the duty to present them with a floor to provide them at least with the minimum of opportunities. In this context, the hope lies with the proposed project, which should play the role to create for them the success path towards better options”.

In addition he reflected on his concerns in sectors like: the harvesting sector (i.e. fisherfolk) are not getting the actual work value, they are oppressed by other sectors and consequently their living standard is deteriorating. As a result, the main thinking is on how to uplift their livelihoods towards a better change.

Later he focused on some options as to how a better way could be developed – if there are a number of alternate income sources then what will be the capital increasing strategies? This would have to come out from the workshop floor.

##### **Questions:**

- What kind of steps should be taken to protect the fisherfolk from the *dadandars* [*dadan* is a sort of monopsony transaction built upon an uneven lending contract (often verbal), even

before production, in favour of the lender/purchaser of produce/catch. The borrower is obliged to sell the produce/catch to him/her at a price much lower than that of the normal market; and the *dadandar* is the provider of *dadan*]

- The rules and regulations of the Fisheries Department don't really seem to be carried out properly. At the same time the rules are not at the door of the general mass people (the publication level is not maintained properly).
- Relating to shrimp-fry catching, even though the poor fisherfolk are involved with this illegal job for want of their alternative income generation opportunities, they are at the same time facing a number of hazards (such as the oppression of police force, Forest/Fisheries Department et.). What are the steps taken by your department in this respect? Whether there are any other options to consider these issues in a pro poor way?
- The destitute women, who are involved with the shrimp-fry collection, have no other alternative other than this occupation. They need to be rehabilitated first. Then comes the question of making rules. Otherwise the rules will be treated as social disaster upon them.

In this context a recommendation was proposed by **Dr Iftekhar** that, to initiate or plan a law or any project by the government authorities, community level involvement should be ensured.

#### **Answers:**

- The facility is there to afford loan from Agrani bank. But fisher folk should be made aware of this sector first; then comes the question of our administrative discipline – the sector should be more organized. Since the fisher folk don't possess enough collateral they are deprived of the institutional options at the same time.
- The rules are there, but not properly followed by the respective sectors and those who are accountable. There are certain places where fish catching is forbidden and rules to be followed in these cases, yet the rules are not in action. Well, the process is there to make the mass people aware. Yet a long run to be into success.
- The Govt. has already initiated a project to rehabilitate the destitute women who are involved with the shrimp-fry collection.

#### **Presentation by the Representatives of the Fisherfolk Communities:**

1. Shree Shukumer Jaladas, Cox's Bazaar district.
2. Mr. Abdul Mannan Howlader, Hazipur, Kalapara, Patuakhali district.
3. Mr. Abdul Mannan Mridha, Barguna district.
4. Mr. Tofael Ahmmmed, Ramgati, Laxmipur district.
5. Mr. Nikunja Jaladas, Latifpur, Chittagong district.

“We the people who are the coastal inhabitants and live on fish; we have no social and economic security. For catching fish in sea we have to resort to *dadan* at high interest from the moneylenders. Only to survive we avail this *dadan* and then proceed towards sea, there too, we have to cope with the pirates as well as the large trawlers. As a result we have to loose our nets, boats as well as the catch. Even there remain continuous threats on us. Moreover the natural disaster is not at all a minor issue. Then comes the question of legal

security. The law does not provide security at all. Rather we have to hide here and there on account of receiving shelter from legal sector.

Very often, for the survival, it so happens that most of us have to proceed through far away from our station (Shundarban, Khulna). But at moment of arrival the total squad's return appears uncertain. A few remain missing always. But the leading companies avoid taking responsibilities of these missing members. We can fish only for five to six months. The rest of the months we remain jobless, and starve with the family members. Sometimes, in order to survive, we have to beg for loan from the moneylenders at high interest. On the other hand, if we engage ourselves in operating 'current net' (a destructive fishing gear, use of which is banned) we become caught by the legal authorities. And our nets are burned. As a result the family hazards turn to worst. Patuakhali and Barguna are situated in the most southern part of Bangladesh. But to say, this part is the most neglected. There are no development activities taken by the GOVT sector.

So we, the dwellers existing there, are surviving by the assistance of NGOs. Well, after affording loan we are also harassed by the police forces.

After completing all formalities at moment of landing we are deprived of getting the right work values/prices for our catches. In this case both GOB & NGO together can play as helping tool to get the proper work value as well as the preservation sector, so that we can be benefited.

The children of our community who have minimum education have no access to job opportunities. On behalf of the fishing communities our keen urge is to take steps in these stated sectors.”

**In his speech Mr Azizul Haque, Representative of DOF (Department of Fisheries, GoB),** mentioned that somehow we are proved as failure in sector of quality control, for, those who are directly involved with fish catching are not aware of fish preservation. Hence it's quite difficult to keep the fish fresh too long. That's why the processing of fish faces unwanted interruptions. As a result we are not getting the right price from the foreign consumers. In this context NGOs can play as supporting tool to keep the quality controlled and create opportunities in keeping the quality intact through awareness rising.

In this context Mr Kamal Sengupta, Director Program, CODEC, highlighted “the fact – how the fishermen become the tragic prey of sea robbers/pirates which is a matter of great concern now. At the same time stealing nets are really a baffling issue now. Hence our hope lies with the govt. sector that can at least place the matters in parliament table.

#### **Discussion: Comments from the floor**

- The procure management pertaining to marketing should be discussed, at the same time the social as well as economic pressure confronted at the local level should be identified; the barriers in the marketing sector are also to be identified. All levels know that means of preservation would also have to be improved.
- Though we are all aware of the loss of fish quality, what steps are taken by your department to make the fisherfolk people aware?
- Whether there are any options to include the local institutions to work in sector of awareness.

**In reply, Mr. Azizul Hoque** of DOF stated, they are very much involved with controlling quality of exportable fish. There is no extra manpower to deal with the extra works. And the post-harvest technology is not too satisfactory. We have already submitted a model to Ministry; e.g. in making the general mass aware. And hope, the harvesting sector would be aware in this sector in the coming future.

- In addition it is already mentioned that understanding level of the fisherfolk should be changed; some times instead of maintaining service charge formalities, they afford outsiders' illegal options.

**Dr. Khursid Alam**, Executive Director, CODEC, in his presentation mentioned that,

- What is the actual catch & actual asset lying down in fisher folk territory should be considered.
- Besides, there are a number of issues to be mentioned for instance: unplanned fishing, ship breaking, erosion, economic disaster, migration, middlemen are playing as the oppressors, interest rate is exorbitant, bargaining capability of the fishers is totally absent. The alternative marketing channel is not yet developed. That's why the fisher folk are in disaster. The alternative may be some structural change (by the Govt. side). It cannot be done alone by the NGOs, but may be done by the Govt. It should be discussed with the producers. Social security is very important. Very often NGOs are blamed. But the main thing is that the deprived classes at least can identify their present state now; at this stage, at least, this is our outcome. The artisan fisher-folk communities are facing extinction; which is an alarming issue. We have to understand the dynamics and marketing channel, the problems, and the prospects whether there is scope for the fishermen to have access to options and hope for survival.

Discussion:

- How could you define the alternate marketing channels? Who will be the representatives from the fisher folk to participate?
- Due to coastal erosion the communities are devastating; what would be the livelihoods of this territory (specially the women community). At the same time there exist 3 types of aratdars. So the profit rate of these people is under danger. Hence there should be unity in marketing chain.
- Whether CODEC can develop a model of community participation, which can improve the situation of marketing chain.
- Whether CODEC can provide support to the methods utilised by the Govt. in fish preservation and processing.

**In reply Dr Khursid said,**

It is to be verified whether the present marketing chain and the system is poor fisherfolk friendly; whether or not the marketing chain is really beneficial to the fisherfolk mass needs

to be put into consideration. For example, the fishermen in Kerala control the marketing chain themselves.

If GoB has agreed to provide support, only then NGOs such as CODEC can step forward towards changing marketing chains.

At present, the fisherfolk are not controlling the market. They should have an act. Govt. should have a big role in this sector. Structural change is needed.

**Representative from fisherfolk community:**

The proportions of fish-catch are decreasing day by day in the Bay of Bengal. The garbage from the factories is one of the main reasons for fish decrease. Besides the industry and fertilizer mills are splitting up the fish generation. There exist 22 fisherfolk villages in Sitakunda-Patenga (in Chittagong district) coastal belt. The most shocking point is that the ratio of catch during the sixties was much more satisfactory than nowadays. We can't even afford one third nowadays.

It can be mentioned that we organised a fisherfolk rally where the Minister of Fisheries took part. We raised our problems there but we didn't receive any response yet.

**Mr. Ulrich Kleih, NRI**, while presenting his paper focused on – Coastal communities that are considered to loose out in the marketing channel & suffer from lack of access to credit sources. The project intends to improve post harvest utilisation of fish and improve its impact on the lives of processors, traders. We also have to think about the rest of the year and what they will do outside the peak season. The output will be a validated methodology, integrating market and credit analyses with a Sustainable Livelihoods Approach.

In this context the floor eagerly questioned him about the qualitative aspect, gender perspective, research area, researchers of the project.

**Mr Ranajit Dastidar**, Deputy Director – Advocacy, Research & Projects, CODEC, while presenting his paper (literature review) on Coastal areas of Bangladesh, marketing of Fish from coastal areas, marketing Channels, Credit access issues etc. emphasised on – the marketing difficulties remaining in remote fishing communities, which lack supplies of ice and transport and that the position of Fishermen in relation to intermediaries is not at all satisfactory. In addition he stressed that the psychological barriers/sense of isolation and unfriendly surroundings represent vital hurdles to engage in alternate economic activities.

**Mr Ansen R. Ward, NRI** while presenting his paper on “DFID-funded Post Harvest Fisheries Projects in Other parts Of the World” focused on issues like – Physical loss & Quality loss, good hygienic practice, traditional preservation methods (chilly powder) for fish preservation, insect infestation (Physical loss), loss assessment tools, declining fish supplies, increasing deamand, informed decision making, monsoon seasons' post harvest losses in traditional fish processing in India; and also dealt with the question how to reduce post-harvest losses in order to increase income, and food security, and reduce vulnerability.

### **Comments from the floor:**

1. We the fisher folk remaining in the coastal belt of Moheshkhali, Kutubdia, Chokoria, we are not at all safe either on land or in water. In sea we have to cope with the sea robbers, pirates etc. Besides, while we attempt joint effort for installing *bindi* net in the waters we need to face the musclemen, so who would ensure security for these people, who are the victim from all sectors? (Fisher folk representative)
2. One of the reasons why the fish are losing quality is, as because we are unable to provide air-conditioned facilities while importing/exporting fish. Besides we are fully aware of the sorts of chemicals/ medicines used to keep the fish fresh for too long.

**Dr Sulaiman, Marketing Department, Chittagong University.** While highlighting his study paper he stated that a cheap and efficient marketing method (cold storage system, logistic support, transportation system, packaging system) should be developed.

The underprivileged women should be taken under skill development process in creating job opportunities.

Here he emphasised on family-based involvement (everybody should be involved in the total process) activities.

#### **Credit access facilities especially among the small-scale fishermen:**

In his speech the representative from aratdar sector **Mr Jamiat Ali** mentioned that, the fisherfolk are habituated with getting involved with dadandars. “Previously they were the sufferers. But nowadays we do try our best to provide the actual price of their catches. We are facing a lot of problems nowadays. We don’t have enough places to run our business smoothly. There is dearth of enough space. In addition, political instabilities lead to regular disruptions”.

#### **A recommendation rose from the Fisherfolk representatives:**

The hard truth is that the fisherfolk continue fishing by putting their lives at risk. But the baffling situation is while at moment of landing they face a number of obstacles such as: the value of their catches is divided into 3 to 4 hands – musclemen, dadandars, aratdars, policemen etc. So their urge is to get assistance in the sector of fish preservation as well as getting the actual price of catch, so that they can survive peacefully.

While presenting her paper on Sustainable Livelihood Approach, **Nicoliene Oudwater** of **NRI** commented (concerning political relation) that whether the sense of ownership is secured or unsecured it’s related to community rights. It is determined through peoples’ empowerment. Political instability is detrimental to any sustainability.

Sustainable Development secures the common goal of community and part of community life.

It’s not only related to the use of resources but many other things, such as economy, income generating activities, political action, political stability etc.

power relations is also a vital part how the people adopt these things. Sustainable livelihood can contribute to marketing; social institution is also relating that. Here, Livelihood Analysis is to combine marketing & credit systems.

We are trying to prioritize the major issues first.

**A few snapshots came into focus while continuing group discussion:**

- Since the formal financial institutions claim collateral mortgage of land and structures, which appear beyond their capacity, hence they need to pursue credit from other sources. (Fisherfolk)
- Agrani Bank or Janata Bank – these banks are not open for the fisherfolk.
- Either the banks or the Jatiya Shamabaiya Maitshya Samity (National Cooperative Society for the Fishermen), which claim to provide credit to the fishermen don't really serve them at all.
- If one receives credit once from a *dadandar* or an *aratdar* he or she becomes bonded to that particular *dadandar* or *aratdar*. The *aratdar* claims to supply catches only to his arat.
- The reality is that getting no options from other sources at the moments of their urgent need; e.g. before catching they need to gather some preparations, equipments, even when they can't manage catch to survive they need to go to *mahajan* (usurer) & *dadandars* for borrowing money at an exorbitant rate. In the main fishing season they need a big amount of money, which they can't manage from other sources. So to satisfy their urgent need they are bound to face the *dadandars*. Especially at the outset of the fishing season they need to go to the *dadandars*.
- The problems they have to meet are – at moments of marketing they struggle with the musclemen, dacoits, *aratdars*, *beparies*; even the fishermen who have no previous *dadan* have to face hazards to sell their fish at a very cheaper rate.
- They have no liberty to choose *aratdars*. One or two particular *aratdars* pressurise them to sell catches in their *arats*.
- Still the fisherfolk are proud to acknowledge that since the NGOs are with them their social status is uplifted a bit now. Income increased to some extent.
- They are not satisfied with the service of police force. Rather they are oppressed by them if they seek help for justice.
- They face many problems to dry fish because of various reasons – in Kutubdia, Moheshkhali and Sonadia. Here there is no ice



factory, sometimes customer or salesman are not available, fear of dacoits, no transportation facility etc.

#### **Comments from the Floor:**

**Dr Khursid Alam**, CODEC, emphasised on the sub-chains related to the main chains for instance: the fish vendors, widows who sell fish door to door, the police force who claim bribes. At the same time he felt the need of fisherfolk bank (any financial institution) that will serve only the fisherfolk community.

**DR Tony Thompson**, SUFER, mentioned the importance of savings, collective voice of fisherfolk. He added if the fisherfolk collectively proceed then the total control would be theirs.

**Nahid Sultana** from Prip Trust: Since women are very much related with the total processing of fish so they should get their repayment, value or right to get involved.

With the Groups' presentations the workshop came to a successful end.

**Mr Ulrich Kleih**, while concluding, paid his gratitude to all who participated and contributed to the workshop. At the same time he expressed his hope to present policy recommendations in a more specific way once the research is completed.

**Dr Khursid Alam** expressed his heartfelt thanks to the members of NRI to include CODEC as their collaborator. Here he added, "Their research will open at least an interest area for us to explore", the participants to make the workshop a fruitful one and also the chairperson to preside over the workshop as CODEC's close friend. Moreover the members of MOFL & DOF, he stated, here "their participation is always expected in forums like these".

**Dr Fasiul Alam**, the chairperson, expressed his thanks to CODEC to feel him always. And hope that the discussion will help the research team to achieve their research goal and thereby declared the end of the two days workshop.

## **Appendix 4**

### **Workshop on “Poverty Alleviation and Livelihood Security Among the Coastal Fishing Communities – Market and Credit Access Issues”, Chittagong, 27-28 March 2001**

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#### **Introduction Speech, by Ulrich Kleih, Natural Resources Institute, UK**

Honorable Chairman,  
Dear Representatives of the:

Ministry of Fisheries,  
Department of Fisheries,  
NGOs,  
The University of Chittagong,  
Fisherfolk and Trader Associations,  
The Donor Community, and  
Those of other organisations.

I have great pleasure to welcome you to this workshop which is the first major activity of the recently started research project “Fish Distribution from Coastal Communities – Market and Credit Access Issues”.

Firstly, I would like to thank the UK Department for International Development (DFID) for sponsoring this project and the workshop.

Secondly, I wish to thank our collaborators of the Chittagong based Community Development Centre (CODEC) for organising the logistics of the workshop here at the Caritas Centre.

Thirdly, I would also like to thank our other collaborators of the University of Chittagong for assisting us in designing this project and coming to the workshop to participate in planning the research activities.

The objectives of the workshop are to:

- Inform all stakeholders of the project,
- Exchange information and experience, and
- Jointly prioritise research areas, survey methods and analytical tools.

Following a brief introduction by all the workshop participants, it is planned that the best part of today will be spent on a number of presentations as outlined in the workshop programme.

- Mapping of Fish Distribution Chain and Site Selection,
- Availability and Access to Credit
- Methodological Issues.

More information about the project, its background and collaborators will be provided in the presentations, which will follow.

Let me stop here and hand over. And once again, thank you very much for coming to this workshop to work with us today and tomorrow.

## **Appendix 5**

### **Workshop on “Poverty Alleviation and Livelihood Security Among the Coastal Fishing Communities – Market and Credit Access Issues”, Chittagong, 27-28 March 2001**

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#### **CODEC, the Fishing Communities in the Coastal Belt of Bangladesh, the Credit System and Marketing Organization**

##### **Presentation by Khursid Alam Ph.D., Community Development Centre, Chittagong**

The following provide an overview of CODEC and its activities and also highlights some key issues related to marine fisheries and coastal communities specially market and credit related issues.

The Community Development Centre (CODEC) is a non-governmental organization (NGO) established in 1985 by the former Danida project employees of the Chittagong Boat Rental Scheme. Boat Rental Scheme was running by GoB & Danida to assist poor fishing communities by providing mechanized fishing boats on installments. CODEC started its work with fisher-folk communities in Chittagong District and has since expanded its areas of operation to include Laxmipur District in 1988, and Patuakhali and Barguna Districts in 1990.

##### **The main five programs of CODEC are:**

Institution Building  
Education (Children, Adult & Adolescent)  
Training  
Support and  
Credit

CODEC’s program entails community development and it comprises organization of target people in Village Organizations (VOs) and mobilizing them to a higher level of awareness and knowledge of their own potentials and constraints. Together with organizational strengthening and awareness raising and leadership training targeting men and women equally, CODEC also facilitates primary education for children and literacy programs for adults, skills development, training in health and sanitation issues, as well as legal and gender awareness. Gender equality is mainstreamed in all activities. These interrelated activities combined with a savings and credit program for suitable income generating activities provide a synergy effect resulting in increases in income and social status for the poor and marginalized women, men and children in the coastal and riverine communities.

CODEC presently operates through five area offices and 27 branches. By the end of the third phase (June 2001) about 1600 VO will have been established among almost 500 coastal & riverine villages with a total of approximately 48,000 members, of whom 50% are women.

CODEC presently operates through five area offices and 27 branches. By the end of the third phase (June 2001) about 1600 VO will have been established among almost 500 coastal & riverine villages with a total of approximately 48,000 members, of whom 50% are women.

## **Fisheries**

“In 1993/94 the total fish production of Bangladesh was estimated at 1.08 million mt. With 0.22 million mt obtained through marine fisheries (23%), 0.57 million mt from inland fisheries (54%) and 0.26 mt from aquaculture (24%). Since 1983 the total fish production increased 3-4% annually, mainly due to increased aquaculture production (especially shrimps and carp culture) and an increased marine catch.

The marine industrial catch remained more or less stable at around 10,000 mt/year over the last decade and contributes 5% of the total catch. Artisanal catch however increased from 150,000 mt/yr. in 1983/84 to 240,000 mt/yr. in 1993/94.

The majority of the artisanal or small-scale catch (51%) is caught by gillnets operated by mechanized boats. These gears catch mainly Hilsa and it should be realized that the estuarine Hilsa catch is not included in the above statistics. This gives an indication of the importance of the Hilsa catch in the Coastal area. Marine set bag nets contribute 19% of the total catch and estuarine set bag nets 9%.

A basic bottleneck for the application of holistic or analytical stock assessment programs is the lack of reliable data on the number of gears operated. Large differences were found for different monitoring programs operated in the Bay of Bengal. Updating the frame for marine fisheries has a high priority, without a reliable frame no realistic fisheries management policy can be formulated.”<sup>2</sup>

## **Fishing Communities In Bangladesh**

Traditionally, it is the low caste Hindus who are engaged in the fishing profession: the Jaladas, the Malos, and the Malla Burmans, all popularly known as the Jeles.

Hindu society is still a caste-bound society where the low castes are made up of people destined to take up manual labour-professions. The Hindu fisher folk are such caste-bound people. In most of the cases they live in segregated villages or in Paras, which are localities within a village. The high caste Hindus and the Muslim aristocracy and gentry carefully avoid any social mingling with them.

The population increase together with the increasing landlessness caused by land erosion and nagging poverty has changed the structure of the agricultural sector and thereby also the small-scale fisheries sector.

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<sup>2</sup> The Meghna Estuary Study: May 1998: unpublished)

## A Process of Change

Increasing pressure on resources (increasing population, pollution, over fishing, division of lands among heirs etc), and a weakening economic position in combination with an increasing market economy, is the factors, which have contributed to the transformation of marine fishing villages in Bangladesh.

Contact by the fisher folk with the larger economy of Bangladesh has been, and still is, minimal if measured in terms of the flow of goods and commodities. Yet, in spite of this, the changes brought by the market economy in the economic and political structure are not minimal but fundamental.

A key role in the transformation of the fishing villages seems to be played by the middlemen. The middlemen are both Hindus and Muslims, but majority belong to the latter category. The middlemen often act as moneylenders, giving loans at a high interest rate. Since the fishermen often have to take loans during off-season and also at the beginning of the main fishing season, they soon face difficulties.

The loans are difficult to pay back and a vicious circle of indebtedness begins. The trend during the last decades is clear; those who depend upon fishing as their only source of income are becoming poorer while those engaged in the trading of fish have increased their wealth.

## Transformation of Wealth

There seem to be four reasons for the polarization between fishermen and the middlemen. First, it is difficult for the fishermen to market their own catch successfully since they are usually at sea during the market hours. Second, in most of the cases they take tied loans, forced to sell their catches through the middlemen/moneylenders or through the agents of these middle men/moneylenders. Third, the fishermen try to establish long-lasting ties with middlemen to reduce the uncertainty to obtain capital and to ensure social security; and fourth the middlemen have both political and muscle power both inside and out side the village.

## The Credit System and Marketing Organization

It is seen that most of the artisanal fishermen take Dadan (advance payment) from Aratdars (traders/fish assembler/wholesaler) or Paikers (Middlemen made advance payment against the supply of fish - mostly representative of Aratdars). The condition of these sorts of advance either from Aratdars or Paikers is to sell their total catch to them. The fishermen (producers) do not have any bargaining rights. The prices, in most cases, are fixed by the Paikers/Aratdars.

It is also noted that the total fish marketing (mainly Hilsha) is controlled, in most cases by the Aratdars. Most of the fishes are landed or transported to, big cities (mainly Chittagong,

Dhaka, Barishal, Bagerhat etc). A committee of Aratdars fixes the price at evening even after the fish has been transported. They decide the price depending on the supply, demand from different district markets, price of ice etc.

“ A trader must know how prices behave, what is produced where, who does what and how people are related to each other. A trader must know the way and trend of bazaar, how bazaars are supplied and what to send to whom. Above all a trader must know people and must be related to people...”<sup>2</sup>

Knowing the bazaar by the fishing communities imply a barrier to the market involving several hampering factors as described above.

A very few NGOs are actively operating directly with the fishing communities. Their main contribution working with small homogeneous groups with asset less and landless people is that they have succeeded in bringing these target members within the arena of development activities. But to change the situation of the fishing communities, especially in the field of marketing and credit access, requires structural change, which seems to be done by the government.

## **Conclusion**

The old village communities in Bangladesh and India, which were described as the little republic, the traditional fishing community had a definite place in the social and productive system.

In the inroad of modern civilization and market economy, these fishing communities no longer enjoy this social security. In short, the traditional fishing community is facing extinction. They are gradually replaced by a new business class, which has entered into the fishing occupations with trawlers, big mechanized boats, sophisticated nets and other modern equipments. The market economy through penetrating of capital thus creates a few very rich people at the expenses of the traditional fishing communities along the coast of Bay of Bengal.

This paper has raised to a number of issues associated with credit and market access by the coastal communities. It is necessary to understand the real situation of the credit and market issues in details, thus this research study may contribute a lot to understand the credit and market issues in depth.

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## **Appendix 6**

### **Workshop on “Poverty Alleviation and Livelihood Security Among the Coastal Fishing Communities – Market and Credit Access Issues”, Chittagong, 27-28 March 2001**

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#### **Project “Fish Distribution from Coastal Communities – Market and Credit Access Issues”**

**Presentation by Ulrich Kleih, Natural Resources Institute, UK**

#### **Introduction to the Project**

The project “Fish Distribution from Coastal Communities – Market and Credit Access Issues” is a research project funded by the UK Department for International Development (DFID). The following project outputs are planned:

- An analysis of the trading and credit system for marine fisheries,
- A validated research methodology integrating market and credit analysis with a livelihoods approach,
- Policy recommendations benefiting the poor in coastal fishing communities and the fish distribution chain in Bangladesh.

The project collaborators include the following organisations:

- Natural Resources Institute (NRI), University of Greenwich, UK
- Community Development Centre (CODEC), Chittagong
- University of Chittagong, Marketing, Sociology and Economics Departments.

NRI and CODEC will be funded by the DFID Post-Harvest Fisheries Research Programme, whilst it is anticipated that the University of Chittagong will be funded by the DFID SUFER project (Support for University Fisheries Education and Research), which is based in Dhaka, and co-ordinated by Dr Tony Thompson.

The duration of the project is from February 2001 to July 2002

#### **The Natural Resources Institute at a Glance**

The Natural Resources Institute (NRI), University of Greenwich is an internationally-recognised centre of expertise on the natural resources sector. Particular areas of expertise are sustainable agriculture (including horticulture and tree crops), aquatic resources, integrated pest management, environmental sciences (biodiversity, environmental assessment, remote sensing), food technology (storage, crop processing, food quality), farming systems, social sciences, economics, marketing, forestry, and livestock. NRI’s geographical experience spans the world, with excellent links in the scientific community,

both in Britain and internationally. The 270 professional staff of the Institute are involved in research, consultancy, and training projects.

The other collaborators will present their organisations separately.

### **Background to the Project**

The total fish production in Bangladesh was 1.087 million tonnes in 1993-94 (Rahman, 1997). The contributions of inland and marine fisheries to this were 76% and 24% respectively. About 97% of the production is destined for the domestic market. A large number of people, many of whom living below the poverty line, find employment in the domestic fish marketing chain in the form of fishers, processors, traders, and transporters. It is estimated that out of the total number of fishermen in Bangladesh, which is above 10 million, about 450,000 fish exclusively in marine waters. Approximately 30 percent of them are only part-time fishers (Bangladesh Aquaculture and Fisheries Resource Unit, 1995).

The main commercial species of the marine catch include hilsa shad, shrimp, Bombay duck, jewfish (croaker), and sea catfish. The bulk of the marine landings are caught using artisanal methods such as gillnet, set bag net, and longline. Industrial trawling only contributes a small proportion of the catch. This again demonstrates the importance of fishing to the livelihoods of poor coastal communities.

Mainly due to population growth there is a growing gap between supply and demand of fish and fish products in Bangladesh. Narrowing the gap not only requires increasing production but also improvements to the post-harvest activities, including all aspects of the marketing and distribution system. Various sources point to the need for a better understanding of the trading and credit system before any improvements can be envisaged (Stirrat *et al*, 2000; PHFRP Call Papers, 2000; A Kaul (CARE), pers. Comm.). There appears to be a general lack of information about market participants and the functioning of the commodity system. For example, market inefficiencies and the issue of access to credit by poor fishers and other operators in the chain are not sufficiently understood to enable informed interventions to be made.

Coastal communities, in particular, are considered to lose out in the marketing chain and to suffer from lack of access to credit sources. Some of the poorest people in Bangladesh live in coastal fishing communities, which are culturally and economically marginalised and have often little or no voice in local government bodies such as *thanas* (Anon, 1997). To some degree, this is due to the fact that some of these communities consist of minority groups. Compared to small-scale farmers, poor fisherfolk often require larger loans (i.e. for the purchase of boats or fishing gear) and are considered a high risk by lending institutions, including Government, banks, and NGOs. As a consequence, they are more likely to depend on informal, possibly exploitative, credit sources, whereby fish buyers also act as money lenders (i.e. *dadondar* system).

Coastal fishing in Bangladesh is highly seasonal with the main *hilsa* season taking place between June and September. During this part of the year the fishing communities “are

crowded with buyers, boat repairers, salesmen, and tinkers” (Blowfield and Haque, 1996). Income levels are only at a fraction during the remainder of the year, thereby increasing the population’s economic vulnerability.

The lack of women’s access to livelihoods assets and employment opportunities represents a further bottleneck in the livelihoods systems of coastal fishing communities in Bangladesh. According to Blowfield and Kamila (nd), the fact that fish buyers often represent the only external source of credit in coastal fishing communities affects women in two ways. Firstly, it limits their trading opportunities because loans tend to be given to (male) boat owners, who then have to sell an important part of their catch to the provider of the credit. Secondly, the inter-dependency between trade and finance means that women can only access credit through their husbands or other male relatives.

CODEC (nd) provide an analysis of the fish marketing chain in Chittagong City, focusing on fish vendors and their socio-economic standing in the distribution system. This source confirms small-scale operators’ lack of access to credit in that the majority of vendors either rely on their own meagre resources, or obtain loans from friends, relatives, *araddar* (stockists), or moneylenders. It seems striking that coastal fishing communities and poor participants in the fish distribution system do not have better access to appropriate credit sources. After all, Bangladesh is internationally renowned for its micro-finance institutions such as Grameen Bank.

The above shows that studies have been carried out during the 1990s with regard to fish marketing in coastal Bangladesh and related credit access issues. However, it appears that this research has been fragmented with regard to approaches and location, and a coherent overall picture is missing.

As a consequence, the establishment of a complete picture should be one of the priorities of this project. Also, the Fifth Five Year Plan of GoB on Fisheries in Bangladesh (1997 – 2002) indicates the need for a study of production and marketing of small-scale marine fisheries. Aside from a better understanding of the marine fish distribution system, it seems important to identify key constraints hindering poor people’s participation in relation to relevant institutions and policy decision making processes. Recommendations to be developed from the research findings need to include measures which will allow poor fishing communities and disadvantaged members thereof (e.g. women traders and processors) better access to institutions such as Local Government, NGOs or associations. This will enable them to influence decision making, which affects their livelihoods.

### **Goal and Purpose**

The ultimate goal of this project is poverty alleviation and livelihood security among the coastal fishing communities and those involved in the distribution chain. In this context, the DFID Post-Harvest Fisheries Research Programme expects that benefits for the poor will be generated through the application of new knowledge focused on the utilisation, for human consumption, of fish from coastal fisheries. In particular, the project intends to contribute to

improve the post-harvest utilisation of fish and its impact on the lives of poor processors, traders, and consumers.

### **Project Outputs**

The following project outputs are planned:

- An improved understanding of the trading and credit system for fish produced in poor coastal communities,
- A validated methodology integrating market and credit analysis techniques with a livelihoods approach in a post-harvest fisheries context,
- Policy recommendations benefiting the poor in coastal fishing communities and the fish distribution chain in Bangladesh.

### **Project Beneficiaries**

Target institutions are anticipated to use the outputs to benefit the poor and vulnerable in marine fish distribution chains. This will include the fishermen, net owners, small-scale processors and petty traders and their dependants. It may also have positive benefits for daily or seasonal wage labourers working in the sector. A high proportion of petty traders are women who are either married or widowed.

The research outputs will be promoted amongst the following organisations:

- GoB Departments, to assist policy making in favour of poor entrepreneurs involved in the distribution system of fish from coastal areas in Bangladesh. It is expected that the research project will be able to contribute to the GoB Five Year Plan on Fisheries.
- Donors (e.g. DFID) in their capacity as holders of funds destined for the implementation of programmes and projects.
- NGOs, in that they are likely to implement relevant recommendations at community level.
- Private sector associations representing the small-scale fishing sector, in order to strengthen their institutional position. Better information on the socio-economic and political condition of poor fish producers and traders should help them to influence policies and related processes.

### **Project Activities**

The following research activities are envisaged:

One-month desk research in Bangladesh and the UK to study secondary literature, identify elements of the survey methodology, and prepare workshop.

Workshop in Chittagong involving project collaborators and major stakeholders. This first workshop will take place at an early stage of the project in order to jointly prioritise research areas, design survey techniques and analytical tools, and identify channels of dissemination.

Analysis of the distribution system of fish from coastal communities in Bangladesh, focussing on market and credit access issues.

Although a complete separation will not be possible, it appears appropriate to look at these issues in three components:

- Analysis of the marketing system, including mapping of the sub-sector, calculation of costs and margins, assessment of the pricing mechanisms of the fish (both for the producers and consumers), risk factors such as seasonality, evaluation of technical issues (e.g. post-harvest loss, increased necessity for food safety and quality control systems), identification of bottlenecks and opportunities such as availability of marketing information. In this context, it will also be important to assess how globalisation, population growth, changing consumption patterns, and a tendency towards marketing concentration will impact on small-scale fish producers and traders.
- Analysis of the credit system, including an assessment of inter-linkages between fish distribution and credit supply, possible market inefficiencies due to exploitative practices, access to formal and informal sources of credit by poor participants in the commodity chain, relative costs of credit, assessment of possible exploitative practices, and to what extent coastal fishing communities have been able to benefit from micro-credit programmes in Bangladesh (e.g. Grameen Bank). The credit analysis and recommendations will take account of the possible types of credit and the potential to link and deliver them as part of the marketing process ( i.e. receivables financing, advanced production finance working capital, investment finance etc). In this context, relevant product/services need to be determined and methods by which these products might be delivered and their uptake promoted, need to be identified. In addition, the work will look beyond the fisheries sector for broader micro-financing lessons and related institutional arrangements.
- Analysis of the institutional, social, cultural and political context, investigating, amongst other things, patronage relationships between traders and fishing communities, social relations between the various parties involved in the trading and credit network, and distribution of non-economic obligations and rights. In addition, particular emphasis will be placed on poor fish producers' and traders' access to institutions affecting their livelihoods (e.g. Local Government, community based organisations, NGOs).

A one-year survey involving participatory, qualitative and quantitative elements is deemed necessary to cover all aspects in sufficient detail and allow the establishment of trust between researchers and the communities. It is envisaged that data collection will take place in some of the following districts: Chittagong, Cox's Bazar, Lakshmipur, Patuakhali, and Barguna. Exact details of this need to be established at the first project workshop. Also, the identification and detailed analysis of specific product / process supply chains represents an alternative to a general geographic location analysis. In addition, fish markets and decision makers in Dhaka (e.g. GoB departments, NGOs and donors) will be consulted.

During the remaining four months of the project data will be processed and analysed, and outputs produced in the form of reports and publications.

A livelihoods framework combined with traditional market and economic research techniques will be used to analyse the three components highlighted, focussing on capital assets (i.e. human, social, financial, physical and natural), vulnerability context, policies, institutions, and processes.

An analysis of primary data on post-harvest activities and related socio-economic practices will identify the opportunities and constraints to improving the efficiency of the sector at the micro level. It will provide an examination of the opportunities related to credit and improving market access by, for example, reducing loss or the cost of production; adding value; product diversification (including by-products); and, the development of new markets. Once the micro level understanding is in place it will be possible to analyse the policy implications related to poverty alleviation, and develop recommendations regarding better integration of poor fishing communities and small-scale operators into relevant institutions and decision making processes (e.g. Local Government, NGOs, associations).

The collaborators (i.e. CODEC and University of Chittagong), will play a major part in survey design, fieldwork, data analysis, production of outputs, and dissemination thereof. The fact that they are active in the target areas will facilitate access to the communities, and increase the likelihood of research uptake. The actual fieldwork will be undertaken by CODEC and NRI staff, in collaboration with staff and/or students from the University of Chittagong (UoC). It is envisaged that CODEC will concentrate on the participatory / qualitative elements of the research, and that the longer-term / quantitative elements of the field survey will be used for three Masters theses at the University of Chittagong (i.e. Marketing, Economics, and Sociology Departments).

A second workshop involving the research team and other stakeholders from government (e.g. ministries, research institutes), civil society (e.g. associations), private sector, non-governmental organisations, and donor community, will take place towards the end of the project in order to present research findings, develop policy recommendations, and validate methodology. The latter will consist of a practical method for generating new knowledge, integrating market and credit analysis techniques with a livelihoods approach in a post-harvest fisheries context.

Dissemination Activities. In addition to improved understanding of the distribution system of fish from coastal areas in Bangladesh and a validated methodology to study related issues, the main thrust of the project is the development and dissemination of policy recommendations benefiting coastal fishing communities and other poor participants in the commodity chain. Aside from scientific reports and briefing papers, it is envisaged to use electronic media (e.g. relevant web sites) to disseminate recommendations.

## **Appendix: Overview of Research Concept**

The following sections provide a brief outline of the research concept envisaged for this project, namely:

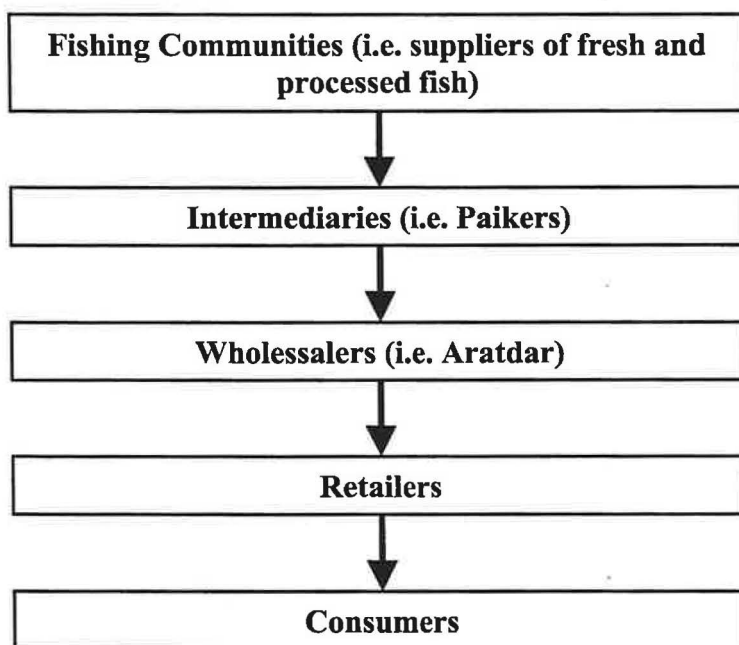
- Collection and analysis of general data
- Mapping of main distribution chains for marine fish
- Type of information to be collected and assessed for each type of operator in the distribution chain (i.e. mainly information on livelihoods, marketing, and credit system)
- Data Collection and Analysis Methods
- Development of Recommendations.

It should be noted that this is a draft only and comments, ideas and suggestions from workshop participants are very much welcome.

### **Collection and analysis of general data**

- Statistics of fish production, processing and marketing with emphasis on coastal areas;
- Number of communities, households, and people involved in marine fisheries sector at production, processing and marketing levels.

**Mapping of main distribution chains** for fish (fresh and processed) from coastal areas, using geographical area, background of fishing communities (e.g. ethnicity or religion) or type of fish sold (i.e. fresh or processed) as selection criteria:



NB: This is a simplified map for demonstration purposes

**Assessment for each operator category (i.e. fish suppliers and traders) of the following types of information:**

Social map using criteria such as:

- Wealth,
- Gender,
- Age.

Household asset base:

- Human capital
- Social capital
- Natural resources
- Physical capital
- Financial capital.

Vulnerability context:

- Shocks
- Trends
- Changes
- Seasonality
- Pollution
- Etc

Marketing system

- Supply and demand situation
- Pricing mechanisms
- Prices (in real terms)
- Marketing costs and margins
- Technical post-harvest issues
- Food safety
- Information
- Infrastructure
- Changing consumption patterns
- Performance of marketing system versus equity considerations
- Etc

Credit system

- Types of credit
- Access to formal and informal sources of credit by poor participants in the commodity chain, with particular emphasis on women
- Relative costs of credit
- Links between fish distribution and credit supply
- Patronage relationship
- Occurrence of exploitative practices
- Lessons form the broader microfinance sector
- Etc.



Policy, institutional and process issues (also beyond the fish production and trading context):

- National Government
- Local Government
- Donors
- NGOs
- Private sector

### **Data Collection and Analysis Methods**

It is intended that the project will use a combination of the following survey techniques:

- Participatory Rural Appraisal (PRA)
- Questionnaire Survey
- Rapid Market Appraisal

Participatory Rural Appraisal (PRA) describes a family of approaches and methods to enable local people to share, enhance and analyse their knowledge of life and conditions, to plan and to act (Chambers, 1994). The tools and techniques include:

- Direct observation,
- Semi-structured interviews,
- Mapping and diagramming,
- Transect walks,
- Matrix scoring,
- Seasonal calendars,
- Trend and change analysis,
- Well-being and wealth ranking and grouping.

Advantages: Provides depth of understanding, (e.g. motivations and relationships), allows local population to play an active role in analysis and information generated would be 'owned' by them (empowerment).

Questionnaire surveys are usually characterized by the following:

- Preparation and testing of questionnaire,
- Use of statistical procedures to obtain sample (i.e. sampling method, and sample size),
- Use of enumerators to fill in questionnaires,
- Use of statistical programmes and techniques to enter, process and analyse data.

Advantages: Statistically valid estimates can be obtained that are representative of target population; Hypotheses can be tested.

Rapid Market Appraisal (RMA) is an efficient way to obtain policy-relevant and intervention-focused information about any commodity sub-sector (Holtzmann, World Bank website, 2001). RMA tends to include the following elements:

- Definition of a sub-sector,
- Review and analysis of relevant literature and available secondary data,
- Visit to physical facilities,
- Identification and interviews of knowledgeable observers of a subsector,
- Key informant interviews, using semi-structured checklists and guidelines.

Advantages: Provides depth of understanding (e.g. asks 'Why'); relatively time and budget efficient.

**Development of recommendations**, i.e. suggestions how the livelihoods of poor operators in the fish production and marketing system can be improved, looking at options within and outside the fisheries sector. This involves improvements to the:

- Household asset base
- Vulnerability context
- Policy, institutional and process context.

**Appendix 7**

**Workshop on “Poverty Alleviation and Livelihood Security Among the Coastal Fishing Communities – Market and Credit Access Issues”, Chittagong, 27-28 March 2001**

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**Literature Review of Fish Distribution from Coastal Communities – Market and Credit Access Issues**

**Presentation by Ranajit Dastidar, Community Development Centre, Chittagong**

# Literature Review of Fish Distribution from Coastal Communities – Market and Credit Access Issues

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## **Abbreviations**

BBS:	Bangladesh Bureau of Statistics
BFDC:	Bangladesh Fisheries Development Corporation
BOBP:	Bay of Bengal Programme
CODEC:	Community Development Centre
Danida:	Danish International Agency for Development Assistance
DFID:	Department for International Development
DOF:	Department of Fisheries
ESBN:	Estuarine Set-bag Net
FAO:	Food and Agriculture Organisation of the United Nations
FMS:	Field Management Support of DFID
GoB:	Government of Bangladesh
HDI:	Human Development Index
IEGA:	Income and Employment Generation Activities
MFI:	Micro-finance Institution
NE:	Northeast
NRI:	Natural Resources Institute
SW:	Southwest
NGO:	Non-Governmental Organisation
PRA:	Participatory Rural Appraisal
RRA:	Rapid Rural Appraisal
Tk.:	Taka (Unit of Bangladesh currency)
UNDP:	United Nations Development Programme

## SUMMARY

Sponsored by the UK Department for International Development (DFID), the Natural Resources Institute (NRI, University of Greenwich, UK) and CODEC (Community Development Centre) are managing a research project on “**Fish Distribution from Coastal Communities – Market and Credit Access Issues**”. The research is about understanding the related problems faced by the poor people in the coastal areas, and also about trying to identify ways of overcoming those problems. The following literature review is a step towards this end.

Bangladesh, the world's largest deltaic zone, is crisscrossed by big rivers, and their tributaries and distributaries. About 8% of the total population in Bangladesh depends on fisheries for their livelihood.

“About 30 million people live in the coastal area of Bangladesh depending on agriculture, fishery, forestry, near shore transportation, solar salt mining etc. The coastal zone comprises the largest delta of the world and is under a process of active delta development and morphological changes by the Ganges-Brahmaputra-Meghna river system.”

The coastal area of Bangladesh, covering 36,000 sq. km. (710 km. in length) is broadly divided into three:

The Eastern region  
The Central region  
The Western region

Once the coastal region of Bangladesh was extensively covered with dense mangrove forests. In the west of the Ganges-Brahmaputra-Meghna delta still there is the largest mangrove forest of the world – **Sundarban** – covering a total of 571,508 ha, of which about 170,000 ha consists of tidal channels and rivers.

Almost 20 per cent of Bangladesh population live on a narrow belt along the coast and estuaries. Most of the people of coastal and riverine Bangladesh live in fishing villages between sea/river and land. But unlike inland fisheries, coastal fisherfolk mainly do nothing but fishing in the sea and/or river. The fish they catch is their only entitlement to money, food and life.

The total fish production in Bangladesh was 1.087 million tonnes in 1993-94 (Rahman, 1997). The contributions of inland and marine fisheries to this were 76% and 24% respectively. About 97% of the production is destined for the domestic market.

The most serious marketing difficulties seem to occur in remote fishing communities in the Bay of Bengal and enclosed inland waters, which lack regular supplies of ice and transport, and where the fishermen are in a particularly weak position in relation to intermediaries. In such locations much fish has to be processed into lower valued cured products and the process of curing often involves considerable losses through spoilage and infestation.

## Marketing of Fish from Coastal Areas

One feature of the traditional marine fisheries in the country was that most sea fishing was, until 30-50 years ago, undertaken by the *Hindu Jaladas* caste communities. The market structure for both factor and output production became much more centralized, and the traditional fishers had no means to buy new input, such as engines, boats and nylon twine.

The buyers (of fish from the direct catchers) cum lenders are known as *dadandars*. Their dual role distinguishes them from other fish traders (*paikars*) who do not offer loans. The *dadandars* are in turn linked to *aratdar(s)*, the large-scale traders who sell the *hilsa* catch to the major urban and export markets and who also have access to the large amounts of capital that the *dadandars* demand.

Fish caught is sold either at sea to collector boats or at the BFDC terminals through the inhibited mediation of the intermediaries. Most of the inputs and outputs, i.e. production factors and marketing, are controlled and shaped by vested interests or by institutional sources.

The middlemen in the fishing sector have established a new marketing chain based on the extreme exploitation of the fishing communities by setting up an artificial pricing chain through intermediaries at different levels.

The intermediaries through advance payment against the catch have made the fisherfolk inaccessible to the competitive open market and thereby in most cases the fishermen are becoming *de facto* wage/bonded labourers to the traders.

## Marketing Channels

The market structure varies from area to area, but in general terms can be summarised below:

### The Primary Market

In this market the fisher sells the catch to a mobile assembler, who may be known as a *mahajan*, a *jogandar* or a *faria*. The assembler uses a collector boat or a truck to collect the fish. When buying in estuaries or rivers, he may buy through a local agent (*dalal*) who typically earns a 1% commission for his services.

### The Secondary Market

The assembler sells the fish in a wholesale market to local a retailer (*nickaries*), local wholesaler (*paiker*), or distributor who transports the fish to other districts (*bepari* or *chalani*). The sale is normally carried out through the medium of a commission agent (*aratdar*) who conducts public auctions. In some markets fish is weighed during auctioning but more often it is not.

### **The Higher Secondary Market**

Fish consumed at a distance from the secondary market is transported by the distributors (*bepari* or *chalani*) to other distribution markets, usually wholesale markets in district towns. Here they sell to local retailers (*nickaries*) and wholesalers (*paikers*) through local *aratdars* who render similar services to the first level *aratdars* referred to above.

### **Final Consuming Market**

After procuring fish at the higher secondary markets, local wholesalers (*paikers*) sell to retailers (*nickaries*) of outlying upazilla markets and of village markets (*hats*), through whom the fish finally reach the consumer.

Communication between the traders in different markets takes place by telephone and this keeps wholesale prices in line throughout the country. The least informed party is the **fisherman**, because of his physical isolation from the markets. Other factors, which weaken the fisherman's bargaining position, are his dependency on credit and illiteracy.

### **Credit Access Issues**

The sources of the financial capital for the poor coastal people are the informal credit market and the quasi-formal credit market. The chief actors of the informal credit markets are the *dadandars* and the moneylenders, while the NGOs are considered as the actors of quasi-formal credit market.

The poor coastal fisherfolk have got no virtual access to the formal credit market (scheduled banks) due to lack of their bankable assets.

The source of finance for fishing in the coastal villages, especially in Chittagong, is principally the *dadandars* and usury market. In the usury market, the moneylenders generally lend money at an interest rate of 120-240% per annum. Most of the fishermen resort to the *dadandars* for finance and they have to hand-over all of their catches to the *dadandars* usually at 50% of the market price. The *dadandars* fix the prices after sale of the fishes in the wholesale market far away from the village.

Although the *dadandars* and the moneylenders are the chief sources of finance for the poor stakeholders, the very process of overexploitation, both in the credit and product markets, marginalizes the fishers to a large extent and, consequently, almost all of the fishing households are enchained with *dadandars* and/or usury transaction.

The *dadandar* or his agents provide loans during the leanest fishing months, either in cash or by facilitating credit at the local shops. The *dadandar* system traces the economic hierarchy within the communities, providing loans to the wealthier *bahaddars* or *majhi* who in turn provide loans to their crews. The *dadandar* sets the rate of interest for these loans at 60-150% per annum depending on the community and on the credit record of the *bahaddar*. A condition of the loan is that the *bahaddar* must sell the *hilsa* catch to the *dadandar*, and the *dadandar* sets the buying price at several *takas* less than the price offered by other traders. If a loan is not repaid in one season, it

is carried over to the next season and the *bahaddar* must again surrender the right to sell his fish on the open market.

### **Salient Features of the Coastal Communities**

Fishing households in Bangladesh have a higher family size than the national average and the fishing villages are characterized by a high rate of illiteracy, especially among the women.

There is low female participation in the work process, especially in fishery-related and non-fishery activities.

It is evident that the traditional fishers have always been fishing, while those of the new entrants into this occupation are gradually shifting their occupation mostly from agriculture & fishing to mainly fishing.

Most of them live on non-motorized boat fishing or no-boat-fishing and live much below the poverty line. It appears that the coastal fishing community is an outcast, out of the main stream. The population increase together with the increasing landlessness caused by land erosion and nagging poverty has changed the structure of the agricultural sector and thereby also the life of the fishing communities. Fishing is seen as the last resort to earn one's livelihood.

The fisherfolk communities have, over the last decades, experienced increasing pressure on the fish resources. Fish resources are rapidly decreasing, on the other hand numbers of fishing people in the capture fishery are increasing, resulting in low per capita catch/income; i.e., catch per unit effort is declining.

It is difficult for most of the fisherfolk to consider leaving the fishing profession for alternative economic activities due to their psychological barriers/sense of isolation and also for the unfriendly surrounding environment, which make them conclude that they can't do things other than fishing.

As a community, the Hindu fishers live in isolation from the rest of the mainstream population and thereby they have psychological sense of insecurity vis-à-vis lack of confidence to try new IEGAs (Income and Employment Generation Activities).

In short, the livelihood outcome amongst the coastal poor is poverty. Poverty is hunger to the fishing communities. Poverty is lack of shelter to them. Poverty is not having an employment except fish catching in the river and sea, is fear for the future, living one day at a time. Poverty is losing a child to illness brought about by unclean water. Poverty is powerlessness, lack of representation and social status. For the coastal and riverine fishing communities in Bangladesh, poverty has many faces, changing from season to season, place to place and across time.

Apparently, for number of reasons, consensus is highly necessary to continue development efforts towards coastal and riverine fishing communities in Bangladesh aimed directly at poverty eradication through their own institution and to enable them to invest in the productive purposes.



The persistent poverty, especially when it afflicts large sections of society and communities, could cause social instability and threaten the established social order.

Various sources point to the need for a better understanding of the trading and credit system before any improvements can be envisaged. There appears to be a general lack of information about market participants and the functioning of the commodity system. For example, market inefficiencies and the issue of access to credit by poor fishers and other operators in the chain are not sufficiently understood to enable informed interventions to be made.

It is evident from this literature review that studies have been carried out during the 1980s and 1990s with regard to fish marketing in coastal Bangladesh and related credit access issues. However, it appears that this research has been fragmented with regard to approaches and location, and a coherent overall picture is missing.

## 1. Introduction

Sponsored by the UK Department for International Development (DFID), the Natural Resources Institute (NRI, University of Greenwich, UK) and CODEC (Community Development Centre) are managing a research project on “**Fish Distribution from Coastal Communities – Market and Credit Access Issues**”. The research is about understanding the related problems faced by the poor people in the coastal areas, and also about trying to identify ways of overcoming those problems. The following literature review is a step towards this end.

Coastal fishing communities in Bangladesh and poor market participants are considered to lose out in the fish distribution chain and to suffer from lack of access to credit sources. This results in a number of livelihood constraints, including low human, financial, and social capital base, and high exposure to seasonal and economic vulnerability. At the same time, there is a lack of information concerning the functioning of the commodity system and possible market inefficiencies such as exploitative practices. The project outputs will include an improved understanding of the trading and credit system for fish produced in poor coastal communities, a validated methodology integrating market and credit analysis techniques with a livelihoods approach in a post-harvest fisheries context, and policy recommendations benefiting the poor in coastal fishing communities and the fish distribution chain in Bangladesh.

## 2. The Coastal Scenario

Bangladesh, the world's largest deltaic zone, is crisscrossed by big rivers, and their tributaries and distributaries. Moreover, as a land with abundant torrential monsoon rain, most of the plain lands remain inundated during the monsoon season, thus turning the countryside into a big reservoir of water for almost half of the year. The huge, inland, sweet water bodies together with the expanse of saline water in the Bay of Bengal provide the base for a large and diversified fisheries sector. These fisheries provide the country with around 60 – 80 percent of its animal based protein, and livelihood for over 10.8 million households in 1400 coastal villages along the 710 km. coast line. About 8% of the total population in Bangladesh depends on fisheries for their livelihood (Alam, 1996; BBS, 1997; FAO/BFDC, 1972; Hossain, 1991; Planning Commission, GoB, 1998).

The ESCAP document (undated) on “Coastal Environmental Management Plan for Bangladesh (Volume One)” put forward that, the coastal morphology of Bangladesh is characterised by: (a) a vast network of rivers; (b) an enormous discharge of river water heavily laden with sediments, both suspended and bed loaded; (c) a large number of islands in between the channels; (d) the Swatch of No Ground (a submarine canyon) running NE-SW partially across the continental shelf about 24 km south of the Bangladesh coast; (e) a funnel-shaped and shallow northern Bay of Bengal, to the north of which the coastal area of Bangladesh is located; (f) strong tidal and wind actions; (g) tropical cyclones and their associated storm surges.

“About 30 million people live in the coastal area of Bangladesh depending on agriculture, fishery, forestry, near shore transportation, solar salt mining etc. The coastal zone comprises the largest delta of the world and is under a process of active delta development and morphological changes by the Ganges-Brahmmaputra-Meghna river system. About 10 per cent of the world population is living in the Ganges-Brahmmaputra river plains, while the Himalayan Rivers carry nine per cent of global run off to 3 per cent of global oceans”. (Anwar, 1993).

Citing from Pramanik (1988) and Anwar (1993), Shamunnay (April, 1997) describes that the coastal area of Bangladesh, covering 36,000 sq. km. (710 km. in length) is broadly divided into three regions:

1. The Eastern region
2. The Central region
3. The Western region

“The coastline from the *Baro Feni* river to *Badar Makam* along Chittagong is known as the Eastern region. The eastern coast is regular and unbroken and is protected along seacoast by mud flats and submerged sands. A long sand beach about 145 km, lies from Teknaf to Badar Mokam. It is one of the longest sea beaches of the world. A number of small rivers and the mangrove forest, now on the verge of extinct, have been playing an important role in determining the coastal ecosystem in the eastern region” (Shamunnay, April 1997).

“The Central coastal region is from the Tetulia river to the Baro Feni river estuary including the mouth of the Meghna river up to the confluence of the Padma and Meghna river near Chandpur. The region is characterised by heavy sediment load and one of the most complex tropical estuarine ecosystems of the world. The coastline is very much irregular, and consists of a series of islands, where the rivers are continuously changing their courses” (Shamunnay, April 1997).

“The Western coastal region covers the coastline westward from the Tetulia river to the international boundary (India) located at the Hariabangha river. The region is mostly covered with dense mangrove forests with deeply scoured tidal channels of the tidal plain overlapping abandoned Ganges delta” (Shamunnay, April 1997).

Once the coastal region of Bangladesh was extensively covered with dense mangrove forests. In the west of the Ganges-Brahmmaputra-Meghna delta still there is the largest mangrove forest of the world – **Sundarban** – covering a total of 571,508 ha, of which about 170,000 ha consists of tidal channels and rivers. It should be mentioned here that mangrove ecosystem supplies food source for offshore fisheries, coastal protection, land reclamation, forest resources, offshore shrimp cultivation etc. Sundarban provides a livelihood for about one million people working as fishermen, woodcutters and honey, honey-wax, shrimp fry, *Golpata*, grass and other forest product collectors. The top-dying of *Sundari* trees has been reported as a problem in the Sundarban. About 45 million *Sundari* trees have been affected by top-dying (Ali, 1994).

Almost 20 per cent of Bangladesh population live on a narrow belt along the coast and estuaries. Most of the people of coastal and riverine Bangladesh live in fishing villages between sea/river and land. But unlike inland fisheries, coastal fisherfolk mainly do

nothing but fishing in the sea and/or river. Virtually they have no other livelihood. The fish they catch is their only entitlement to money, food and life (Alam, 1996; Hossain, 1991; Rahman et al, 1997).

Coastal fishing in Bangladesh is highly seasonal with the main *hilsa* season taking place between June and September. During this part of the year the fishing communities “are crowded with buyers, boat repairers, salesmen, and tinkers” (Blowfield and Haque, 1996). Income levels are only at a fraction during the remainder of the year, thereby increasing the population’s economic vulnerability.

Fish Production in Bangladesh was 794,000 tonnes in 1985/86, approximately at the same level as was in two decades earlier. Of this quantity, approximately 34,000 tonnes were used for export, while the remaining 760,000 tonnes were destined for the home market. Due to population growth, consumption per capita has fallen over the last two decades, from a level of 12 kg per annum to 7.6 kg per annum. The catch of 1985/86 came from inland capture fisheries (56% of the total), marine fisheries (26%) and culture (18%). The main types of fish caught are *hilsha*, which migrates up the Ganges delta to spawn, carps and catfish. Exports consist mainly of frozen shrimp (marine and freshwater), while frogs’ legs, frozen and cured finfish have also been of significant value (Coulter and Disney, 1987).

Compared to this, the total fish production in Bangladesh was 1.087 million tonnes in 1993-94 (Rahman, 1997). The contributions of inland and marine fisheries to this were 76% and 24% respectively. About 97% of the production is destined for the domestic market. Around 1997, the artisanal fish production was in the tune of 250,000 metric tonnes, of which 55% were contributed by the drift gill-netters (mainly *hilsha*) and 30% came from Estuarine Set-Bag Net (ESBN).

A large number of people, many of whom living below the poverty line, find employment in the domestic fish marketing chain in the form of fishers, processors, traders, and transporters. It is estimated that out of the total number of fishermen in Bangladesh, which is above 10 million, about 450,000 fish exclusively in marine waters. Approximately 30 percent of them are only part-time fishers (Bangladesh Aquaculture and Fisheries Resource Unit, 1995).

### **3. Marketing of Fish from Coastal Areas**

Fish marketing is almost exclusively a preserve of the private sector. The most serious marketing difficulties seem to occur in remote fishing communities in the Bay of Bengal and enclosed inland waters, which lack regular supplies of ice and transport, and where the fishermen are in a particularly weak position in relation to intermediaries. In such locations much fish has to be processed into lower valued cured products and the process of curing often involves considerable losses through spoilage and infestation (Coulter and Disney, 1987).

Associated Services (1979) states that one feature of the traditional marine fisheries in the country was that most sea fishing was, until 30-50 years ago, undertaken by the *Hindu Jaladas* caste communities. Most of the inputs were indigenous to the country: the hemp for nets, the resin for making nets resistant to the seawater, and the boats. At

the start of modernization, the traditional fishermen were not given adequate organizational support for collecting, preserving, and maintaining the quality of their catches. Control of the necessary development resources ended up in the hands of capital-strong non-fishing groups of entrepreneurs including officials concerned with state machinery. The market structure for both factor and output production became much more centralized, and the traditional fishers had no means to buy new input, such as engines, boats and nylon twine. Their level of productivity declined. The traditional fishers of South Kattali village, Chittagong, estimated a 90% decline in productivity over 20 years.

Analysing their findings Blowfield & Haque (1995), Hossain (1991), Alam (1996) and many other BOBP literatures put forward that –

The buyers (of fish from the direct catchers) cum lenders are known as *dadandars*, who are often members of the neighbouring farming communities. Their dual role distinguishes them from other fish traders (*paikars*) who do not offer loans. The *dadandars* are in turn linked to *aratdar(s)*, the large-scale traders who sell the *hilsa* catch to the major urban and export markets and who also have access to the large amounts of capital that the *dadandars* demand.

The study of Associated Services (1979) and several other BOBP (Bay of Bengal Programme) studies reveal that the fish caught is sold either at sea to collector boats or at the BFDC terminals. Landing at the BFDC terminal is controlled by a group of local intermediaries, the *Palton Party*, which monopolizes the transfer of fish from the boat to the landing station and secures a substantial mark up (25%) in the process. Most of the inputs and outputs, i.e. production factors and marketing, are controlled and shaped by vested interests or by institutional sources. Increasing polarisation is underway in local society between those who own fishing assets and those who have only their labour to sell.

The middlemen in the fishing sector have established a new marketing chain based on the extreme exploitation of the fishing communities by setting up an artificial pricing chain through intermediaries at different levels (Thompson et al, 1993).

The intermediaries through advance payment against the catch have made the fisherfolk inaccessible to the competitive open market and thereby in most cases the fishermen are becoming *de facto* wage/bonded labourers to the traders.

CODEC (nd) provide an analysis of the fish marketing chain in Chittagong City, focusing on fish vendors and their socio-economic standing in the distribution system. This source confirms small-scale operators' lack of access to credit in that the majority of vendors either rely on their own meagre resources, or obtain loans from friends, relatives, *aratdar* (stockists), or moneylenders. It seems striking that coastal fishing communities and poor participants in the fish distribution system do not have better access to appropriate credit sources.

According to Khan (1997) and Associated Services (1979), the classes and categories involved in the entire sector include the *Aratdars*, who are large scale brokers and financiers; the *Joganders*, who are suppliers and market intermediaries and occasionally producers; the *Matshajibi* or working fishermen and fish producers; the

*Jele*, who are actual labourers in fishing operations and in many cases may be employed by the *Matshajibi*; the *Mahajan*, who are moneylenders; officials of the institutions involved, local administration personnel; the touts, representing local powerful interests; the dacoits and pirates.

### **3.1 Marketing Channels**

Almost all the fish traded internally passes through private channels. The market structure varies from area to area, but in general terms can be summarised below which is largely based on a description by Ahmed (1983). He divides the market into four stages: Primary Market, Secondary Market, Higher Secondary Market and Final Consuming Market. The system operates as follows:

#### **The Primary Market**

In this market the fisher sells the catch to a mobile assembler, who may be known as a *mahajan*, a *jogandar* or a *faria*. The assembler uses a collector boat or a truck to collect the fish. When buying in estuaries or rivers, he may buy through a local agent (*dalal*) who typically earns a 1% commission for his services.

#### **The Secondary Market**

The assembler sells the fish in a wholesale market to local a retailer (*nickaries*), local wholesaler (*paiker*), or distributor who transport the fish to other districts (*bepari* or *chalani*). The sale is normally carried out through the medium of a commission agent (*aratdar*) who conducts public auctions. In some markets fish is weighed during auctioning but more often it is not. *Hilsha* is typically sold by the count of 80 fishes, this measure being known as a *pon*. The *aratdar* also extends seasonal advances to his suppliers and short-term credit to the buyers. His basic remuneration is his sales commission, which is charged to sellers at rates normally between 3% to 6%. A rate of 3% is typically charged to sellers who owe no money, while up to 6% is charged where credit is outstanding.

#### **The Higher Secondary Market**

Fish consumed at a distance from the secondary market is transported by the distributors (*bepari* or *chalani*) to other distribution markets, usually wholesale markets in district towns. Here they sell to local retailers (*nickaries*) and wholesalers (*paikers*) through local *aratdars* who render similar services to the first level *aratdars* referred to above.

#### **Final Consuming Market**

After procuring fish at the higher secondary markets, local wholesalers (*paikers*) sell to retailers (*nickaries*) of outlying upazilla markets and of village markets (*hats*), through whom the fish finally reach the consumer. Sometimes the wholesaler doubles as a retailer when the upazilla markets or hats are close to the supply source.

It should be added that at each tier of the distribution system there are wholesalers and retailers supplying the needs of the consumers in their respective localities.

While the above is a description of the normal trade channels, there are of course many variations between locations and types of fishermen. For example fishermen sometimes by-pass assemblers and sell directly at the secondary markets, this being particularly common with mechanised vessels landing fish at major southern ports.

Communication between the traders in different markets takes place by telephone and this keeps wholesale prices in line throughout the country. The least informed party is the **fisherman**, because of his physical isolation from the markets. Other factors, which weaken the fisherman's bargaining position, are his dependency on credit and illiteracy.

At the other end of the scale of power and influence are the aratdars in the major secondary markets, including the following:

<u>Market</u>	<u>Number of Aratdars</u>
Dhaka – Swarighat	72
- Newmarket	12
Narayanganj	12
Chittagong	54
Barisal	22
Khulna	12

The *aratdars* are at the centre of the entire marketing system and their role goes far beyond what one would normally expect of a commission agent, including financing of suppliers and buyers, and often dealing on their own account.

#### **4. Credit Access Issues**

The financial asset or capital of the poor stakeholders is the amount of money that they can use to get more of the other assets (SCL Newsletter, March 2000).

The sources of the financial capital for the poor coastal people are the informal credit market and the quasi-formal credit market. The chief actors of the informal credit markets are the *dadandars* and the moneylenders, while the NGOs are considered as the actors of quasi-formal credit market (CODEC, 1997).

They have got no virtual access to the formal credit market (scheduled banks) due to lack of their bankable assets (Rahman et al, 1997).

The source of finance for fishing in the coastal villages, especially in Chittagong, is principally the *dadan* and usury market. In the usury market, the moneylenders generally lend money at an interest rate of 120-240% per annum. On the other hand, *Dadan* is a sort of monopsony transaction built upon an uneven lending contract (often verbal), even before production, in favour of the lender/purchaser of produce to sell the produce to him/her at a price much lower (usually 50%) than that of the normal market.

Most of the fishermen resort to the dadandars for finance and they have to hand-over all of their catches to the dadandars at usually 50% of the market price. They do not even get the revenue or know the price of their fish on the day of catch and sale. The dadandars fix the prices after sale of the fishes in the wholesale market far away from the village (Alam, June 1996).

However, in Laxmipur, Patuakhali and Barguna districts the dadandars are mainly commission agents. The fishers have to sell the catch to the buyers through the shops of dadandars, and the dadanders reap 7%-10% commission on the revenue from the fishers. The rate of usury interest is also less (generally 120% per annum) in these two locations compared to that of Chittagong.

The lack of women's access to livelihoods assets and employment opportunities represents a further bottleneck in the livelihoods systems of coastal fishing communities in Bangladesh. According to Blowfield and Kamila (nd), the fact that fish buyers often represent the only external source of credit in coastal fishing communities affects women in two ways. Firstly, it limits their trading opportunities because loans tend to be given to (male) boat owners, who then have to sell an important part of their catch to the provider of the credit. Secondly, the inter-dependency between trade and finance means that women can only access credit through their husbands or other male relatives

On the contrary, the NGOs provide loans only to their organised poor members and they offer the subsequent loan only after repayment of the former one, whereas the dadandars advance money even before non-realisation of the previous amount. It is often argued that the amount of finance being provided by the NGOs is insufficient and this amount does not commensurate to the poor peoples' actual need (Rahman et al, 1997).

Although the dadandars and the moneylenders are the chief sources of finance for the poor stakeholders, the very process of overexploitation, both in the credit and product markets, marginalizes the fishers to a large extent and, consequently, almost all of the fishing households are enchained with dadan and/or usury transaction. Besides, the incidences of dadan are also prevalent among the shrimp-seed collectors and peasants, whereas borrowing from the moneylenders is prevalent among the shopkeepers (Khan, 1997).

The *dadandar* or his agents provide loans during the leanest fishing months, either in cash or by facilitating credit at the local shops. These loans are made to the boat-owners (*bahaddar*) or captains (*majhi*) who are responsible for their repayments.

The *dadandar* system traces the economic hierarchy within the communities, providing loans to the wealthier *bahaddars* or *majhi* who in turn provide loans to their crews. Anyone who is not a crewmember does not have access to these loans. Boat-owners tend to prefer crews who own their own nets, in it an indicator of wealth. And women, who are excluded from fishing, can only obtain loans through their husbands or male relatives, limiting their access to capital for fish vending and also their control over the amount of money available for domestic purposes (Blowfield & Haque, 1995).



The *dadandar* sets the rate of interest for these loans at 60-150% per annum depending on the community and on the credit record of the *bahaddar*. As most *bahaddars* are illiterate, the *dadandar* also serves as bookkeeper in the transaction. A condition of the loan is that the *bahaddar* must sell the *hilsa* catch to the *dadandar*, and the *dadandar* sets the buying price at several *takas* less than the price offered by other traders. Furthermore, payment is only made at the end of the *hilsa* season (Blowfield & Haque, 1995).

But there is a special twist to the *dadandar* system. No matter what the size of the loan is, the *bahaddar* must promise to sell all his catch through the *dadandar* for that season. Thus, a fisher who requires a loan of Tk. 1,000 and one requiring a loan of Tk. 10,000 must both hand over exclusive rights to their season's catch to the *dadandar*. If a loan is not repaid in one season, it is carried over to the next season and the *bahaddar* must again surrender the right to sell his fish on the open market.

## 5. Salient Features of the Coastal Communities

According to Alam, 1996; CODEC, 1997; Khan, 1997; Rahman et al, 1997; Thompson et al, 1993 and many other BOBP studies:

- Fishing households in Bangladesh have a higher family size than the national average. (Bangladesh Bureau of Statistics, 1990).
- Fishing villages are characterized by a high rate of illiteracy, especially among the women.
- There is low female participation in the work process, especially in fishery-related and non-fishery activities.
- There is a high dependency on earning members in the study villages.
- There is a lack of facilities for higher education, which may tie down the younger generation to the same old activities and increase human pressure on scarce resources.
- It is evident that the traditional fishers have always been fishing; while those of the new entrants into this occupation are gradually shifting their occupation mostly from agriculture & fishing to mainly fishing.
- In the fishing villages the girls are generally married in their teens. Among Hindu fishers, marriages are restricted only within the *Jaladas* caste with strict adherence to their ancient customs.
- The artisanal coastal fisherfolk live in isolation and almost all of them are settled adjacent to the seashore, on the embankments and nearby underlying the coastline. Socially, culturally and psychologically they are separated from the mainstream of the population. Most of them live on non-motorized boat fishing or no-boat-fishing and live much below the poverty line. But the community, as a whole, is not a homogeneous one.

- It appears that the coastal fishing community is an outcast, out of the main stream. Passing hard days alone at the frontier it is braving an unfavourable environment, in physical and social terms. Riddled with problems, but none to look at - unsung and uncared in the research community.
- The population increase together with the increasing landlessness caused by land erosion and nagging poverty has changed the structure of the agricultural sector and thereby also the life of the fishing communities. The fragmentation of land holdings into uneconomic size due to law of inheritance and lack of employment opportunities in the agriculture sector has pushed the marginalized landless population, particularly the Muslims, into fishing as the alternative survival occupation, part time or full time. Fishing is seen as the last resort to earn one's livelihood.

The following are the main factors, which influence the livelihoods of the fisherfolk:

- The fisherfolk communities have, over the last decades, experienced increasing pressure on the fish resources. Fish resources are rapidly decreasing, on the other hand numbers of fishing people in the capture fishery are increasing, resulting in low per capita catch/income; i.e., catch per unit effort is declining.
- The middlemen in the fishing sector have established a new marketing chain based on the extreme exploitation of the fishing communities by setting up an artificial pricing chain through intermediaries at different levels.
- The intermediaries through advance payment against the catch have made the fisherfolk inaccessible to the competitive open market and thereby in most cases the fishermen are becoming *de facto* wage/bonded labourers to the traders.
- The minority Hindu *Jaladas* caste not only confines it to living within a territorial boundary but also within a social and psychological boundary. It is difficult for most of those fisherfolk to consider leaving the fishing profession for alternative economic activities due to their psychological barriers/sense of isolation and also for the unfriendly surrounding environment, which make them conclude that they can't do things other than fishing.
- As a community, the Hindu fishers live in isolation from the rest of the mainstream population and thereby they have psychological sense of insecurity vis-à-vis lack of confidence to try new IEGAs (Income and Employment Generation Activities).
- In case of Muslim fisherfolk, they do not have any psychological barriers and as such they do not have such sense of isolation and insecurity. Other than capture fishing, they do carry out a few non-fishery income generating activities for generating additional income for their families although the scope is limited.

- However the economic exploitation of the Muslim fishing people by the middlemen are almost similar to that of the Hindus.

In short, the livelihood outcome amongst the coastal poor is poverty. Poverty is hunger to the fishing communities. Poverty is lack of shelter to them. Poverty is being sick and not being able to consult a doctor. Poverty is not being able to go to school for the children of the fisherfolk community, not knowing how to read, not being able to speak properly. Poverty is not having an employment except fish catching in the river and sea, is fear for the future, living one day at a time. Poverty is losing a child to illness brought about by unclean water. Poverty is powerlessness, lack of representation and social status. For the coastal and riverine fishing communities in Bangladesh, poverty has many faces, changing from season to season, place to place and across the time (CODEC, 1999).

As poverty has many dimensions in these communities, it has to be looked at through a variety of indicators - level of income and consumption, social condition and position, and now increasingly through the indicators of vulnerability to environmental risk, socio-political access, human rights and lack of institution.

Apparently, for number of reasons, consensus is highly necessary to continue development efforts towards coastal and riverine fishing communities in Bangladesh aimed directly at poverty eradication through their own institution and to enable them to invest in the productive purposes.

CODEC, 1999 puts forward that:

First, from an economic standpoint, the whole society would be benefited from converting the poor fisherfolk from being a social liability to that of an asset through investment in the human capital.

Second, there is the poverty-environment nexus that has become increasingly more important in recent years, perhaps because it has the potential of adversely affecting all, rich and poor, rural and urban in Bangladesh. It is now recognized that poverty puts pressure on the poor to exploit the environment for today's survival in ways that damage the environment and reduce its productive capacity. This takes the form of depleting forests, soils, watersheds and fishing resources, as the poor are forced to search for new sources of survival and marine animals for food.

Third, persistent poverty, especially when it afflicts large sections of society and communities, could cause social instability and threaten the established social order.

Finally, it should be put into cognisance that there is the moral imperative for conscious people to help the poor fisherfolk overcome poverty for the simple reason that they are part of whole human community.

## 6. Conclusion

There is a growing gap between supply and demand of fish and fish products in Bangladesh. Narrowing the gap not only requires increasing production but also improvements to the post-harvest activities, including all aspects of the marketing and distribution system. Various sources point to the need for a better understanding of the trading and credit system before any improvements can be envisaged (Stirrat *et al*, 2000; PHFRP Call Papers, 2000; A Kaul (CARE), pers. Comm.). There appears to be a general lack of information about market participants and the functioning of the commodity system. For example, market inefficiencies and the issue of access to credit by poor fishers and other operators in the chain are not sufficiently understood to enable informed interventions to be made.

It is evident from this literature review that studies have been carried out during the 1980s and 1990s with regard to fish marketing in coastal Bangladesh and related credit access issues. However, it appears that this research has been fragmented with regard to approaches and location, and a coherent overall picture is missing.

As a consequence, the establishment of a complete picture should be one of the priorities of this research project. Aside from a better understanding of the marine fish distribution system, it seems important to identify key constraints hindering poor people's participation in relevant institutions and policy decision-making processes. Recommendations to be developed from the research findings need to include measures allowing poor fishing communities and disadvantaged members thereof (e.g. women traders and processors) better access to institutions such as Local Government, NGOs or associations, thus enabling them to influence decision making affecting their livelihoods.

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## Appendix 8

### **Workshop on “Poverty Alleviation and Livelihood Security Among the Coastal Fishing Communities – Market and Credit Access Issues”, Chittagong, 27-28 March 2001**

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#### **Developing Fish loss Assessment Tools and Understanding Losses and Livelihoods of Small-scale Fish Processors in India**

##### **Presentation by Ansen Ward, Natural Resources Institute, UK**

The presentation summarises two recently completed DFID Post Harvest Fisheries Research Programme Projects which were part of the Programme's Fish Loss Assessment and Control (FLAC) initiative.

##### Tools for Assessing Post Harvest Fish Losses

Post-harvest losses occur in probably all fish distribution and marketing systems and are associated with most post-harvest activities. Two key types of loss are termed physical and quality. Physical loss refers to fish which is completely lost from a distribution system and is caused by such things as severe spoilage and insect infestation. Downgrading of fish and fish products due to spoilage, insect infestation and other types of damage is termed a quality loss.

Due to the growing gap between fish supply and demand in many areas it is important to reduce losses as much as possible for the benefit of post-harvest workers and consumers. The global importance of the problem is described in the FAO Code of Conduct for Responsible Fisheries which highlights the need to reduce post-harvest fish losses. In order to tackle the problem of loss it is first necessary to understand the nature of the problem. A lack of systematic research tools for this purpose was identified as a major constraint.

This led to research being undertaken by NRI and a number of collaborators in Africa and India to develop practical tools to assist research and development practitioners assess losses and identify potential loss reduction interventions.

As a result a manual describing three loss assessment methods has been produced. The Questionnaire Loss Assessment Method (QLAM) is used to validate and develop a macro understanding of key data. Load Tracking (LT) enables researchers to generate accurate data on losses. The third method, Informal Loss Assessment Method (IFLAM) is used to provide a detailed qualitative understanding of losses and ideas for loss reduction. The project also developed a database (FishLoss) of information on post-harvest fish losses world-wide and a computer model for assessing the impact of particular interventions.

The tools are designed for use by researchers, extension staff, NGOs and other development practitioners. The information that is generated by using the tools will inform decision making in policy formulation, planning and research. Already projects based on the tools are being designed or implemented in the Philippines, Nigeria and Ghana.

Monsoon Season Post Harvest Losses in Traditional Fish Processing in India During the monsoon season in India it had been identified that small-scale fish processors suffer high post-harvest fish losses resulting in a loss of income and valuable protein for consumers. Research focussed on producing a thorough understanding of this problem in the context of small-scale processor's livelihoods. Simple technical ways of reducing the problem of loss were then identified and tested with processors.

The project was led by NRI and implemented by a variety of partners including the College of Fisheries in Mangalore, NGOS, consultancy companies and State Fisheries Departments. It employed a combination of informal and formal research methods. Key stakeholders from research and development institutions participated in planning and evaluation. Fisherfolk participated in decision making and assisted in the design and implementation of field research.

After clarifying the main cause of loss as insect infestation and rain either washing fish away or preventing adequate drying the project identified a number of interventions that could improve the livelihood of small-scale processors. The focus was on increasing processors income from processing or reducing the risks associated with post-harvest activities. These simple technical ideas were based on processor's existing coping strategies and ideas from research and development specialists.

Field testing identified some appropriate technical interventions which smallscale processors feel can provide them with benefits. These are: the use of proper hygiene practices to reduce the risk of insect infestation; submerging fish in salt brine; and, making sure rain water does not come in to contact with either salt brine or fish have. They enable processors to reduce losses and produce better quality products which sell quickly in the market. The interventions have now been incorporated into training and awareness programmes sponsored by the Government of Andhra Pradesh.

For more information on these projects and other work by the DFID Post Harvest Fisheries Research Programme please contact:

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**Appendix 9**

**Workshop on “Poverty Alleviation and Livelihood Security Among the Coastal Fishing Communities – Market and Credit Access Issues”, Chittagong, 27-28 March 2001**

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**The Sustainable Livelihoods Approach and its Relevance for Fish Marketing**

**Presentation by Nicolienne Oudwater, Natural Resources Institute, UK**

## **The Sustainable Livelihoods Approach and its Relevance for Fish Marketing**

### **Introduction**

The project '*Fish Distribution from Coastal Communities in Bangladesh: Market and Credit Access Issues*' is a research project funded by the Post Harvest Fisheries Research Programme of the Department for International Development, UK (DFID). The ultimate goal of the project is to work towards poverty alleviation and livelihood security among the coastal fishing communities and those involved in the distribution chain. It is expected that the poor will benefit through the application of new knowledge focused on the utilisation, for human consumption, of fish from coastal fisheries. In particular, the project intends to contribute to improve the post-harvest utilisation of fish and its impact on the livelihoods of poor processors, traders and consumers. The aim of this research project is to explore the dynamics of the livelihoods in more detail to develop recommendations how the livelihoods of those involved in the fish marketing chain can be improved by building on their current strengths and opportunities.

The following outputs are planned:

- An improved understanding of the trading and credit system for fish produced in poor coastal communities
- A validated methodology integrating market and credit analysis techniques with a livelihoods approach in a post-harvest fisheries context
- Policy recommendations benefiting the poor in coastal fishing communities and the fish distribution chain in Bangladesh

The purpose of the inception workshop "*Poverty alleviation and livelihood security among the coastal fishing communities*", involving project collaborators and major stakeholders, is to prioritise research areas and identify tools and techniques to meet the objectives. In order to provide a background and guidance for the working group sessions, the paper will present:

- An introduction to the Sustainable Livelihoods Approach
- How the Sustainable Livelihoods approach can contribute to a poverty-focused analysis of the fish distribution chain
- What tools can be used to analyse the fish distribution system from a sustainable livelihood perspective

The first section will provide some background to the development of the Sustainable Livelihoods (SL) approach and its main underlying principles. The Sustainable Livelihoods Approach has been developed by DFID in collaboration with other development organisations. It brings together ideas and lessons learnt from other approaches. The main part of the paper will give an overview of the different components of the Sustainable Livelihoods framework and how it can be applied to improve the understanding of the livelihoods of coastal fishing communities. The components are explained in the context of the fishery sector, drawing upon secondary literature, DFID and Natural Resources Institute (NRI) publications, and preliminary project information on the fish distribution chain.

## **Background**

The idea of Sustainable Livelihoods has its origin in previous debates on sustainable development, primarily from an environmental perspective. International conferences on environmental concerns were organised such as the World Commission, Environment and Development in 1987 which sought to define the concept of sustainable development and raise its global profile. The UN Earth Summit in Rio de Janeiro in 1992 was a follow up, the aim of which was to develop a global action planning agenda, declarations and international agreements. Closely related to the environmental focus, is the concept of integrated development thinking, in which people's livelihoods are seen in a systems context under the assumption that only a sustainable system can maintain long-term productivity of natural resources. However, the dimension of sustainability is not only confined to the ecological principles but also includes economic, social, and institutional dimensions. The ultimate goal is to maintain an income, to minimise social exclusion, achieve social equity and a long term productivity of natural resources without undermining livelihoods or compromising livelihood options open to others. The focus of the development debate moved beyond the state of resources and began to include people, livelihoods and poverty alleviation as highlighted in DFID's Sustainable Livelihoods Approach.

In the White Paper on International Development 1997, DFID outlined its commitment to poverty reduction through policies and actions which:

- Promote Sustainable Livelihoods
- Education, health and opportunities for the poor
- Protection and better management of the natural and physical environment

### **Box 1: The three dimensions of Sustainable Livelihoods**

In sum, there are three dimensions to Sustainable Livelihoods (SL):

- an objective supporting the goal of poverty elimination
- a framework for thinking about poverty
- an approach for addressing poverty (the most important dimension)

SL is **NOT**:

- A panacea for poverty eradication
- A blueprint to guide implementation of programmes or projects targeting poverty.

From this policy objective of elimination of poverty, DFID has worked towards developing a conceptual and operational framework that constitutes the Sustainable Livelihoods approach. Promoting the Sustainable Livelihoods approach within current development thinking is seen as a means to address the ultimate target of poverty elimination. Many NGOs like Oxfam and Care have contributed to the development of the SL approach by taking it up at an early stage and providing critical feed back and suggestions based on their ideas and 'field' experiences.

## Principles underlying the Sustainable Livelihoods approach

Before explaining the different components and the principles underlying the Sustainable Livelihoods approach, it is important to define a working definition of sustainable livelihoods:

*A livelihood comprises the capabilities, assets and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (Carney, 1998).*

### Box 2: Summary of Sustainable Livelihoods approach's principles

*What the approach emphasises:*

- A people centred participatory and responsive approach to development
- Starting with positives (what people have) and opportunities (what they can make of it)
- Build on existing development approaches
- Micro to macro policy influencing

*What the approach does not emphasise:*

- Starting with sectors or commodities
- Starting with needs and problems
- Replacement of existing development approaches (but sets them in broader context)
- A focus only on local development

Poverty focused development activities should be:

**People centred** – the emphasis is on people, not on resources per se. It mainly focuses on people and livelihoods at the micro community level (e.g. coastal fishing communities) and at higher policy and planning levels (e.g. local government and central government). Through participatory approaches, it is crucial to identify and understand people's views, their own perceptions about the opportunities and constraints that constitute their livelihoods. In addition, it is important to recognise the different groups of people within the communities based on, for example, gender, age, ethnicity, religion, socio-economic status etc. Social and stakeholder analysis will identify the marginalised and excluded groups and what their livelihood strategies are. Such an improved understanding should be used to inform and influence policies to help the poor.

**Holistic** – it is important to look at all the different resources, opportunities and constraints that people face in pursuing and improving their livelihood strategies. Multiple sectors, e.g. fishing, agriculture, trade should be included, as people/households might have diversified their livelihood strategies by adapting a wider range of income generating activities and therefore depend on various resources. It should build on people's own definitions of constraints and opportunities and help to support their realisation. It also recognises the fact that there are multiple factors, interactions and actors/stakeholders which influence and shape people's livelihood strategies. For example, rural and urban linkages can play an important role in people's livelihoods. During the lean season, people might temporarily migrate to town to take up other income generating activities to support their families in the rural areas. Additionally,

family members, relatives or business people in town might provide capital to the fisher men to cater for equipment needed for fishing such as fishing nets, boats or consumption credit to bridge the lean season.

**Dynamic** – It is important to recognise that livelihoods are changing in response to external shocks and trends, and it is necessary to understand these changes, how the people themselves perceive these changes and how they have adapted their livelihood strategies in response to these changes. Lessons can be learnt from these changes to support the positive patterns and mitigate the negative ones. It will help to understand the characteristics of those who managed to escape from poverty.

**Building on strengths** – the approach starts with an analysis of strengths and resources rather than a list of needs. It seeks to explore the potential opportunities of the different groups within the community. What can people make of it? The aim is to work together to build on strengths by removing the constraints to the development of the potentials identified.

**Linking macro-micro levels** – Bridges gaps and makes explicit links, e.g. effects of national policies on local communities. Higher level policies need to be informed by lessons learnt and insights at the local level. Questions to be explored are for example what the impact is of a particular policy and institutional structure on people's livelihood and poverty. An improved understanding of livelihoods can be used to help identify or adopt policies that fit with livelihood priorities as perceived by the intended beneficiaries.

**Conducted in partnership** – with donors, local organisations like NGOs and government. Only if the principles underlying the SL approach e.g. people centred, holistic and dynamics, are widely shared, it will enhance and facilitate communication among organisations working in development.

**Sustainable** – People should be able to deal with and respond to external shocks, hardships and trends, and not being (entirely) dependent on outside support. There are four different dimensions of sustainability that are interrelated:

- a) economic - e.g. supply and demand for fish
- b) institutional - a well functioning marketing chain, availability of credit and loan facilities
- c) social - support from within the family and the community in general
- d) environmental - e.g. fish stocks

### **The sustainable livelihoods framework**

The Sustainable Livelihoods approach is a way to understand the needs of the poor and identify key opportunities that will ultimately benefit the poor. In order to understand and analyse the lives of the poor, a Sustainable Livelihoods framework has been developed. This framework is a visual simplification that includes the different components and influences in people's livelihoods and helps in developing an understanding of how these elements link together and shape people's livelihood strategies (see figure 1). It is important to note that it is not an ultimate blueprint. Its elements can be presented and applied in different ways (see figure 1 and appendix 1).

This diagram is especially useful as it helps to envisage the main factors affecting livelihoods and to encourage thinking about the relationships between them and the main influences and processes. It embraces a wider approach to people's livelihoods by looking beyond income generation activities in which people engage. Through participatory approaches, it seeks to encourage various stakeholders, with their own perspectives, to engage in these discussions and debate about factors affecting their livelihoods.

#### **Box 3: The key elements of the Sustainable Livelihoods framework**

The key elements of the SL framework are:

- *Capital assets*: resources that help people survive and thrive (i.e. natural, social, human, physical and financial capital)
- *Vulnerability context*: things that the poor are vulnerable to
- *Policies, institutions and processes*: influence their livelihoods
- *Livelihood strategies*: how do people adapt and plan in response to threats and opportunities
- *Livelihood outcomes and aspirations*: what are people's objectives and priorities?

### **Capital assets**

Capital assets are resources that help people survive and thrive. The main capital assets are natural, human, social, physical and financial capital, which are discussed separately below. Assets are important in terms of quantity and quality. In addition, how do men and women access assets and what is the extent of their control, rights and security of access. Although it is not possible to define a 'minimum' level of assets needed for survival, as the categories are highly subjective and location specific, it is obvious that the better people's overall asset status is, the better they will be able to respond to changes and face hardships.



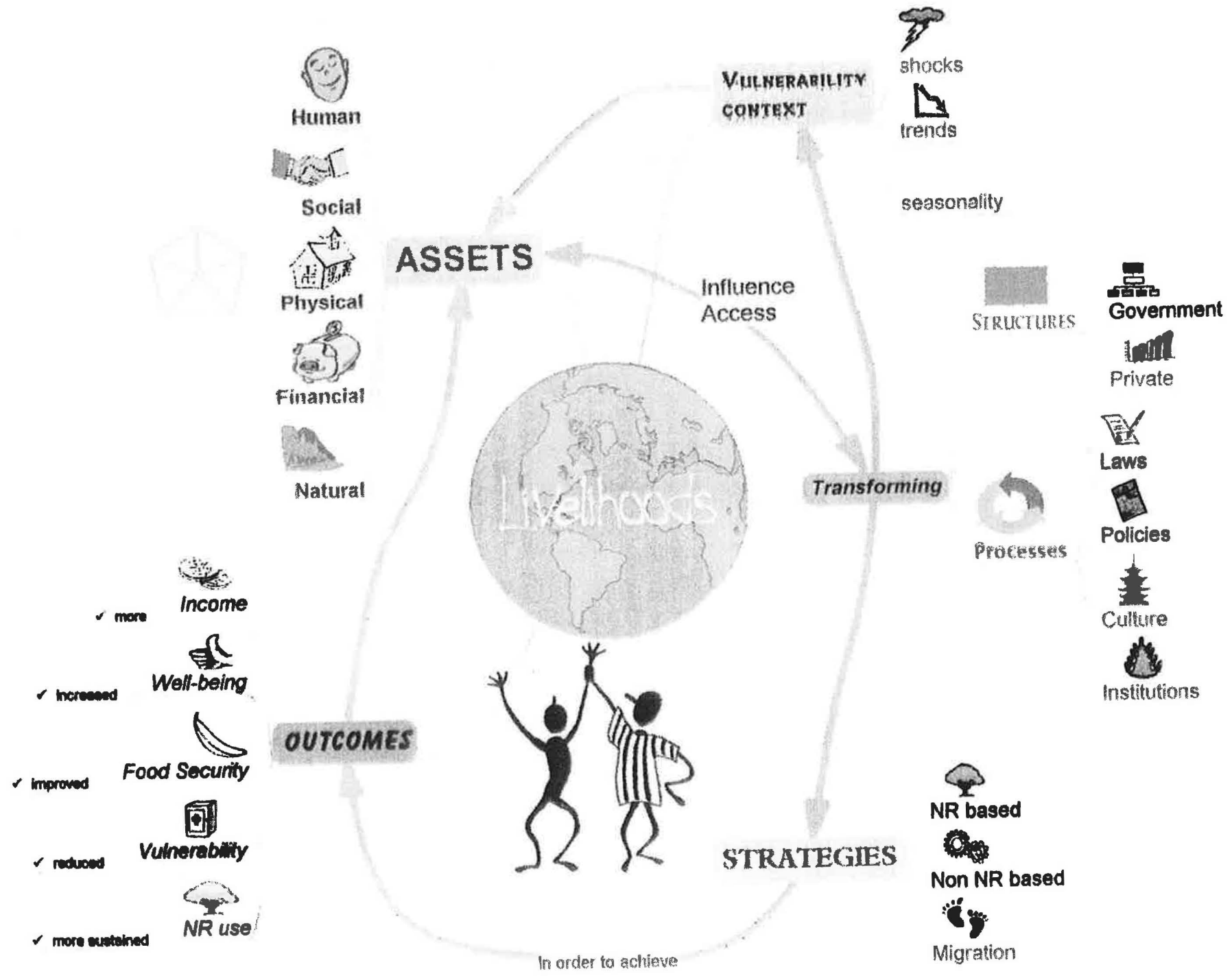


Figure 1: Sustainable Livelihoods Framework

## **Human Capital**

Human capital represents resources such as skills, knowledge, ability to work and good health. Access to a combination of these elements is a prerequisite to be able to make use of any of the other four capital assets. For example, before a fisherman can get a good catch, he needs to know the location of the fishing grounds, how to judge weather conditions, how to operate a boat and how to maintain and produce the necessary fishing equipment such as fishing nets, boats and engines. Those involved in the marketing chain need to know how to assess the quality of fish, how and where to market the fish, how to negotiate good prices and what types of fish are in demand with which type of customers. Again, others involved in the processing of fish need to have profound knowledge on how to dry/smoke or salt fish to ensure they get good quality products to attract customers. People coming from a fishing background, (e.g. fishing has been the traditional occupation of their family for generations), have a clear advantage as they learn while they are young and can get information and support from their parents, relatives and/or other community members. People, coming in from a different area or family, are disadvantaged, as they have to work their way in and probably have to learn the hard way, by doing it and learning from their mistakes.

A good health is important for people to be able to engage in fishing or marketing activities, as these require physical fitness. Formal education might not necessarily be important for engaging in fishing activities as such but it is a positive asset as it increases one's ability to engage in alternative income generation activities if needed. This might be valuable in case the activity is highly seasonal, or worse, catches are declining because of overfishing and people are forced to look for alternative sources of employment.

## **Natural Capital**

Natural capital is the quality and quantity of natural resources that are available to people and above all, the access and control people have over these natural resources. Examples include aquatic resources, water, land, forests, air quality and biodiversity. These resources often form the basis of most rural economies.

People living in coastal fishing communities, not only depend on fish but on a combination of natural resources for pursuing their livelihoods. Fish is caught for both household consumption and sale, generating a cash income. Waterways are also used for transport of persons and produce. Fresh water is used for human consumption and for preserving fish (e.g. brine). Forests provide both building materials for housing and boats but also fuel wood for cooking and smoking fish. In some areas non-timber forest products can be important as an alternative source of natural fibres (e.g. traditional net mending, fishing traps and baskets), edible fruits, leaves, and mushrooms and medicinal herbs. Access to land can be important, especially if fishing is a seasonal activity, because agricultural activities can supplement the household food requirements. Land is also important for processing activities such as drying fish.

In general, it can be said that fish is the key resource for survival. Unfortunately, there are many examples where fish resources are declining, both in quantities and quality (diversity of species). In addition, coastal fishing communities often lack access to land,

and therefore they are limited in opportunities in seeking alternative livelihood strategies. In Bangladesh, fishers often belong to a Hindu caste, for example the *Jaladas*. The *Jaladas* usually do not have land and their traditional occupation is fishing. Increasingly, there is an influx of people, who have lost their land and perceive fishing as a kind of last resort (Alam, 1996).

### **Social Capital**

People are dependent on social resources in pursuing their livelihood strategies. Social resources are determined by relationships and networks, which exist within nuclear and extended families, and in and among communities and groups. These social relations influence the way in which people can access and make use of their assets.

Social relations are often based on trust, reciprocity and exchange, and contribute to a sense of well being and belonging. Such informal social relations form the basis of informal safety nets, which people use to pursue their livelihood strategies in times of problems and emergencies. To enter a fishing business, a young man might be taken on board by his father or other relatives and be given/loaned fishing nets. In order to ensure a good and regular supply of fish, fish traders often rely on their relationships with fishers or other traders, sometimes based on kinship and/or mutual trust. Having a good relationship with a supplier opens up opportunities for obtaining fish on credit. Alternatively, newcomers to the fish trading business may need to be introduced to the market, its suppliers and/or customers by fellow traders. There are also examples where fishers, fish processors and traders share resources. Fishers who share boats, engines and eventually fishing nets are often brothers or father and sons. Fish processors might share the use of smoking/drying equipment and rent transport on a joint basis in order to reduce the costs and waiting time.

Type and relevance of social capital can differ considerably among ethnic groups, gender and age. Being a woman can limit the opportunities to enter particular income generating activities. In some societies, women are not allowed to engage in activities outdoors but are confined to the domestic sphere, thereby increasing their dependence on their husbands or male relatives. Marital status can also influence one's choice of opportunities for potential livelihood strategies. A married woman often enjoys a greater deal of security than a widowed or divorced woman. For example, in Hindu fishing communities, the female headed households (often widowed) often enter the fish processing and trading business as a survival strategy whereas married women are more likely to be supported by their fishing husbands.

Another important aspect of social capital is ethnicity and/or religion. The caste system, which is characteristic of the Hindu religion, is prevalent in many coastal fishing communities in Bangladesh. Traditionally, castes are specialised in particular professions, which can be seen either as protective towards an individual's livelihood strategy as it hinders outsiders to enter, for example, the fishing profession. However, it can also be seen as a constraint as it limits people's opportunity to seek alternative employment strategies outside of their traditional occupation (Alam, 1996, and Blowfield and Haque, 1995). However, there seems to be a growing tendency towards overcoming confined

traditional caste boundaries and outsiders entering new occupations, e.g. such as land-less Moslem families, originally farmers, becoming involved in fishing related activities (Campbell, 2000 and Alam, 1996).

From previous examples, it is clear that there are also negative aspects of social relations, such as exclusivity, hierarchy, obligations and enforcement of power that can affect an individual's access to social capital negatively. Belonging to a lower caste can marginalise particular groups, leaving them more vulnerable to the more powerful castes and/or socio-economic powerful groups within the community or wider society.

Social capital can also manifest itself in more formal ways through organised groups such as trading or fishing associations, membership of religious groups or groups initiated by external facilitators like NGOs focussing on community development. If formally organised groups build upon strong informal social relations, they can lay an important foundation for influencing policies beyond community levels, knowledge sharing, community based management initiatives or improving individual access to financial services.

### **Financial capital**

Financial capital refers to the financial resources which are available to people (savings (liquid/illiquid), supplies of credit and regular remittances/pensions) and which provide them with different livelihood options. It also includes illiquid resources that can be quickly converted into cash and more liquid means. In some societies, there is a preference for saving in kind as that is perceived as having a higher value or being less risky than cash. Examples are jewellery (gold) and cattle, which is often disposed of in case of emergencies such as illness, marriage or death.

Financial capital is the most versatile type of asset as it can be used to acquire other types of capital such as:

- Natural capital - access to land or purchase of fish for trade/processing
- Physical capital - access to fishing equipment, modes of transport, house etc.
- Human capital - access to education and/or vocational training to support access to alternative sources of income

Financial capital can also improve one's social capital as a high socio-economic status often correlates with having power and being respected/feared by others. For example, having good financial assets could enable a person to give loans/credits to those less endowed, thereby creating obligations for these dependants. Moneylenders are often feared/respected within the village because the poor depend on them for matters of survival. Thus, the more wealthy people can use their higher level of social capital to their benefit, e.g. access to free labour or political power (vote buying).

Financial capital can also be used for supporting livelihood outcomes directly as people can use cash to buy food for meeting household consumption requirements.

Credit, both informal and formal, is an integral part of financial capital. Informal credit, such as assistance from financially better-off relatives and friends, loans with local moneylenders or credit in kind, especially important for traders, can improve one's ability to pursue livelihood strategies. As fishing is a highly seasonal income generating activity, incomes for both fishers and traders tend to be irregular and season based. Therefore, fisherfolk face occasional shortages of cash to meet their household requirements, particularly during the lean season. Access to informal credit for both production and consumption purposes can be an important coping strategy as that allows people to prepare, invest and work in their preferred occupation. Formal credit institutions such as banks and NGOs seems to stipulate requirements that sometimes do not recognise and meet the need and priorities of fishing communities, e.g. a regular income, ownership of collateral, targeted at production purposes and favourable to group membership.

Although, informal credit through local middle men is often seen as exploitative, it has the advantage of being flexible (no discrimination between consumption and production credit), timely and easy accessible as it is locally available with very little bureaucratic hassle. In addition, fishers are secured of buyers for their daily catch without having to spend a lot of time trying to sell to several smaller buyers. Alam (1996) mentions that moneylenders also provide an element of social security by protecting the often socially marginalised groups against violence from other more powerful groups (e.g. due to religious or trade rivalries).

However, it is often perceived as exploitative as fishermen are obliged to sell the major share of their daily catch to the money lender below the market price, therefore it is almost impossible to get out of the vicious circle of indebtedness. This also hinders other groups such as traders and fish processors who wish to enter the market as fish supply might be limited at times and they have to compete against large scale operators (Campbell, 2000, and Blowfield and Haque, 1995).

### **Physical capital**

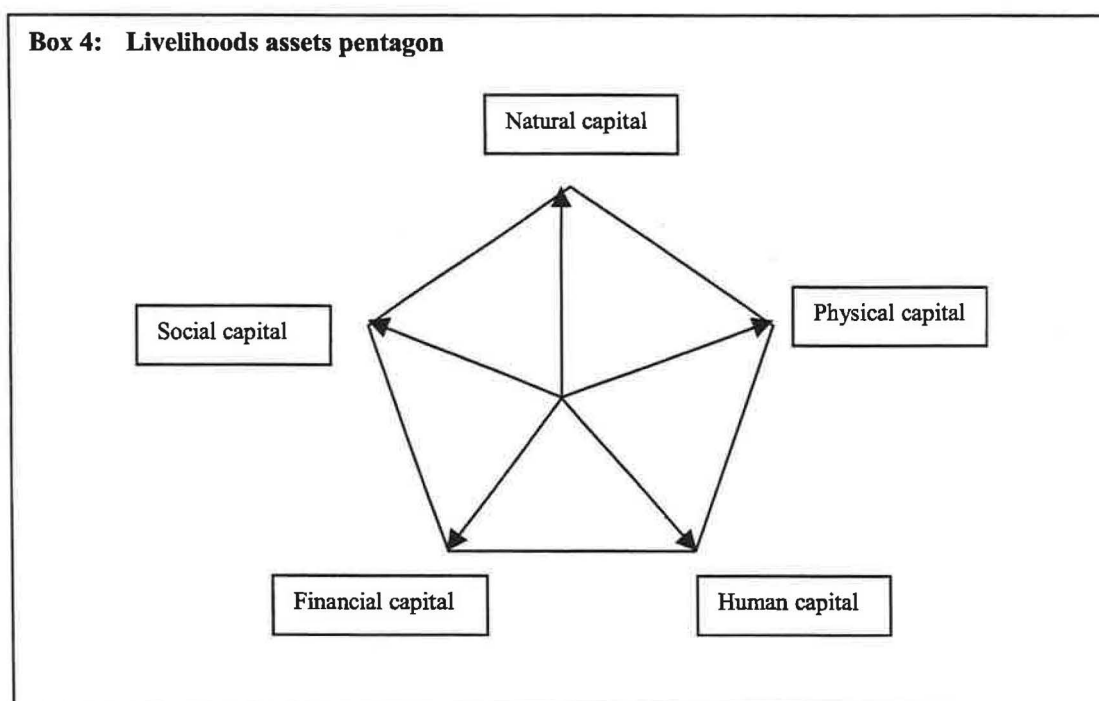
Physical capital is the basic infrastructure such as transport, shelter, sanitation, water, energy and communications, and the production equipment and means which enables people to pursue their livelihoods. It includes public goods such as health care, education and infrastructure, like roads, for which people often do not have to pay directly or contribute partly (e.g. payment of school or hospital fees). Having good access to infrastructure can be especially important for traders as it increases their potential marketing area. Access to health services, safe water supply and sanitation will have a positive contribution to people's health, thereby increasing people's human capital and ability to work.

Also private goods, such as fishing gear, boats, engines, fishing nets, fish processing equipment (ice boxes, smoking ovens, drying racks/slabs) and modes of transport are crucial to support livelihood strategies. Not all fishermen have their own fishing gear, and they might depend on borrowing or using others' equipment in return for payment of rent or lower cash returns for their catch. Having a lot of physical capital does not necessarily mean that someone is better off. For example, a fisherman owning a motorised boat

might be heavily indebted because of outstanding loans and he might actually have a lower return on his investment than those who own nets but no boats and therefore pay for the use of a boat.

### Livelihood assets pentagon

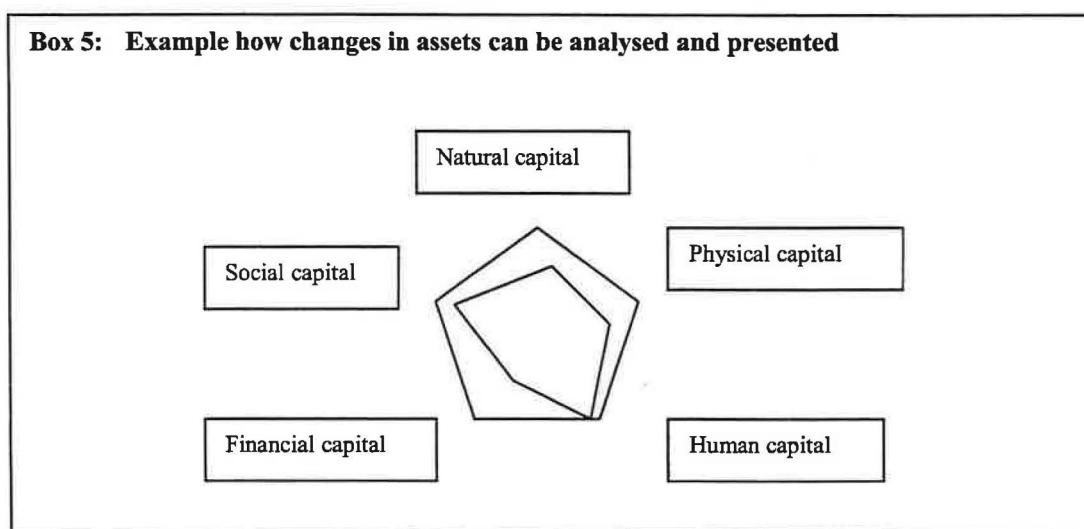
A pentagon is sometimes used as a visual tool to present information about people's access to assets and the interrelationships. The different types of assets are presented in the shape of a pentagon. Access by different groups or households to each different type of asset can be plotted in a schematic way along the 5 axis graph (see box 4 and 5, below). As discussed earlier, access can imply anything from individual ownership of private goods to customary rights for groups. Values or length of axis are not quantified, as values for each asset base are highly subjective, because they are location and context specific. It is used as a starting point for thinking about how and in what combinations, assets do translate into sustainable livelihoods. It can also provide an analytical tool for tracking changes in people's asset base over time and/or drawing comparisons between geographic areas.



Further, it highlights the interrelationships between the different capital assets and to what extent they are interchangeable. For example, natural capital may be the basis for financial capital (land as collateral that can be used to obtain a loan). Or natural capital might be linked to social capital. In many societies, investment in a large number of livestock is associated with social prestige and provides a basis for kinship support. Financial capital correlates often with socio-economic status and the ability to develop dependency relations, creating both obligations and benefits, thereby increasing the individual power base and decision making power. Financial capital can be converted into physical capital through purchase of fishing nets and fish processing equipment etc. Access to physical assets again links to human capital, such as being able to invest in

human health and education, increasing a person's ability to seek alternative employment opportunities.

In box 5, a simplified example is presented below, illustrating how a fisherman's balance of assets can change over time as a result of declining catches.



Natural capital is reduced due to a decline in fish resources and thus reduced catches per unit and less supply of fish to the markets. Due to an increase in pressure on nearby forest resources, access to fire wood has become scarce and therefore less available for household use and fish processing. Human capital has remained rather consistent as the person is still physically fit and has all the knowledge and skills needed for fishing. Financial capital has decreased, because incomes from fishing have gone down due to a decline in catches, even though the prices may have increased. Therefore, the person depends more on informal loans to meet household needs, thereby reducing his social capital, as he has become more dependent on other people for assistance rather than being able to assist others in return for favours beneficial for him. His physical assets have declined, as his fishing nets were damaged in the previous fishing season and he does not have sufficient cash to replace them with good quality ones. Instead he relies on mending his old nets, which become even more prone to damage, thereby reducing the volume of caught fish and increasing the time spent repairing the nets after coming back from the sea.

The above example gives an idea of the changes over time and how the asset status is affected. Has it improved or decreased? What changes in assets status can be predicted given the current changes and the impact on the assets status as identified in the above case. What are the main causes of change and how does it vary for the different social groups (e.g. in terms of socio-economic status, gender, age and ethnicity)? Such an analysis of causes of change can help in identifying the factors that enabled people to move out of poverty, and develop an understanding about the combination and sequencing of assets and livelihood strategies which allowed them to do so.

## **Vulnerability**

Next to an understanding of people's strengths and access to assets, it is important to understand the vulnerability context in which these assets exist. What are the external factors that influence the levels of assets and how these assets can be used? These external factors are often related to causes of poverty, which makes poor people, in particular, vulnerable. For many poor rural people, changes in natural capital can particularly affect their vulnerability, as they are heavily dependent on natural resources. Three major types of external factors can be recognised: trends, shocks and seasonality.

### *Trends*

There is a major long-term negative trend in relation to the quantity and quality of natural resources. Over the past decades, fish resources have declined and particular species have become extinct or are prone to extinction. The loss in biodiversity may have negative drawbacks on the remaining resources as the marine ecosystem has been disturbed. The underlying causes for the increased pressure on natural resources are rather complex, but two important ones are a rapid population growth and urbanisation. Few examples of interrelated sub trends are:

- Pollution of water resources (e.g. industry, mining, urban development, agriculture and aquaculture (use of pesticides and fertilisers).
- Habitat destruction through aggressive fishing methods and clearing of natural vegetation such as mangrove areas, land loss through inappropriate water shed management.
- Growth of export market: increased demand for high value fish have resulted in extractive fishing methods and a greater uptake of mechanised fishing technologies, thereby adding pressure on the natural resources. It also pushes out the already marginalised, poor fisherfolk, who are not able to invest in capital intensive fishing technologies.

Other institutional related trends include liberalisation of trade, introduction or lifting of trade bans, and change in consumer preferences. For example, the demand for fresh fish has increased significantly, stimulating the use of preservation technologies such as the introduction of ice. This may have a negative impact on the livelihoods of small-scale fish processors who rely on traditional low cost preservation technologies such as sun drying, salting and smoking of fish.

### *Shocks*

Shocks are unpredictable events affecting livelihoods such as war, natural disasters such as floods, droughts, cyclones, earth quakes, land slides, disease epidemics and sudden economic changes e.g. currency devaluation. In the fishery context, cyclones and floods have a devastating effect on people's lives and properties. Many lives are lost (loss in human capital), and physical infrastructure and assets are wiped out, such as loss of fishing gear, roads, bridges and transport linkages being washed away, thereby again limiting access to health and education services and employment opportunities in other sectors. A decline in availability of natural resources and loss of biodiversity make events such as cyclones and floods unpredictable, more common and worst of all, the effects on people's livelihoods have become more severe. Loss in biodiversity has negatively



affected nature's ability to resist natural disasters. Due to deforestation of mangrove forests, the natural protection against floods has become minimal. In addition, loss of biodiversity has also reduced people's ability to cope with disasters as building materials become scarce and income from fishing declines therefore limiting people's capacities to build up a buffer zone against such calamities.

### *Seasonality*

Seasonality includes recurrent changes throughout the year that influence people's access to assets and livelihood outcomes. Seasonal change in weather is such an example. The major fishing season may occur during the rainy season, thereby limiting the cash income to few months a year, imposing a strain on the household cash flow and household food security during the lean season. Because most of the fish may be caught during the rainy season, there is a greater risk for those involved in fish processing due to higher humidity and higher prevalence of insect attack of the processed fish. Also transport of fresh fish might be more unreliable in the rainy season as roads may become flooded. Other aspects of seasonality include changes in prices, marketing opportunities, health (e.g. higher risk of malaria during the rainy season) and availability of alternative employment opportunities.

In sum, if people are unable to deal with these trends, shocks and/or seasonal changes, they will become increasingly vulnerable. It is important to keep in mind that the vulnerability context can differ among the different social groups as the levels of vulnerability is related to their individual combination of assets available and accessible to them. The vulnerability context can be best explored through an examination of perceived risk factors, key problems, changes, potential solutions and the coping strategies that people have developed. Policy interventions may be required to prevent people from becoming more vulnerable and therefore unable to cope with shocks, trends and seasonal changes.

### **Policies, institutions and processes**

As mentioned earlier, one of the key principles of the Sustainable Livelihoods approach is the attempt to link micro and macro levels: the household/community level with processes as initiated by the government, the private sector and NGOs. There is a two way influence between assets and policies and institutions. Existence or lack of policies can have important effects on the livelihoods of the poor. Changes or transformations in these policies and institutions can be used to mitigate negative effects of trends on the overall asset status and cushion the impact of shocks and seasonality, thereby reducing people's vulnerability.

Rules of access to natural resources will influence people's access and control over natural capital. The marine fishery is considered as a common property, which means it is shared amongst those who fish it. A common problem associated with common property resources is 'the free rider' problem, as individuals benefit from use of the resources but do not bear the full opportunity costs of their use of common resources. In general, there is a tendency towards short-term gains rather than an attempt to manage the natural resources in a sustainable manner as benefits might be reaped by others who have not

made any investment in such sustainable resource management efforts. Consequently, many marine fishing grounds are considered as being overexploited. Not only fishers will be negatively affected by loss of fish resources but also those involved in the marketing chain and many coastal families as they depend on fish as an important source of animal protein. Among policy makers there has been an increasing awareness for the need to devolve user rights to lower levels, such as communities, to encourage sustainable resource management.

Overfishing is further triggered due to greater uptake of highly mechanised fishing technologies. This may be in response to demand for high value fish on the global market, making the fishing sector more attractive for high capital investments. Consequently, the artisan fishers may be pushed out of the marine fishery, as they cannot afford to invest in new mechanised fishing methods. Present fishing methods may damage fish resources such as the indiscriminate use of trawlers and small mesh gear. It is suggested that policy makers should work towards strengthening the management structures, designing an international legislation for the fishing industry, and trying to protect the fishing areas for local stakeholders rather than the multinational fishing industry. Legislation could embrace a fishing ban during the breeding season of endangered and commercially important fish species and regulations concerning the use of fishing technologies.

Extension services by the Department of Fisheries targeted at post harvest activities can improve fish traders' and fish processors' awareness and skills to reduce post harvest losses during the processing and storage of fish. As a result incomes will go up due to a greater amount of processed fish available for sale, and they are likely to get a better market price due to the higher quality of cured fish.

Policies of organisations working within the coastal areas can also influence people's use and access to assets. Local organisations, either community based or initiated by NGOs, might play a major role in representing the marginal groups within the communities by identifying the key priorities and working towards the specific needs of these stakeholder groups. Some NGOs are involved in providing credit services to local poor communities. Each NGO may have their own selection criteria and repayment regulations. Most NGOs seems to provide credit for production purposes only, such as purchase of agricultural inputs or fishing nets, and require regular instalments. However, the fishing sector is highly seasonal and requires a large capital input at the onset of the major fishing season. The amount of money needed might be outside the scope of maximum amount of credit. Further, fishers might not be able to meet the regular instalments as their income is highly seasonal and subject to considerable fluctuations. In addition, most fishers need credit to cover household consumption needs during the lean season when their incomes are non-existent or insufficient. Most financial service providers appear not to allow credit to be taken for consumption purposes, therefore excluding fisherfolk from access to financial resources. Consequently, fisherfolk are dependent on informal loan arrangements with local moneylenders and/or local business men. This often means lower incomes during the fishing season, as they are obliged to sell the major share of their catches to the moneylender to repay the loan in 'kind'. If NGOs and/or financial service providers

would be able to adjust their credit policies to suit the specific requirements of the fisherfolk, the fisherfolk might be able to free themselves from a vicious circle of indebtedness.

Given the context of such bond credit relations within the fish marketing chain, market information might be distorted as market prices are relatively fixed and set by moneylenders, which often do not reflect the real market value. This has a negative impact on other fish traders who have to buy at a higher price but are forced to sell it again at a relatively low price as they have to compete with traders obtaining goods below the actual market price. In case they are competing for the same market, a market concentration will occur with moneylenders controlling bigger shares of the market.

Above examples mainly relate to the way formalised institutions and policies are influenced by and affect people's asset status. However, also informal processes such as cultural practices, power relations and (traditional) beliefs can play a significant role in the way in which assets are transformed into livelihood outcomes, e.g. in a Hindu society the type of occupations is closely related to caste boundaries.

### **Livelihood strategies**

Livelihood strategies are the range of outcomes of how people combine and use their assets to make a living given the factors that make them vulnerable and the policy and institutional context within which they live. In the past, development efforts often sought to improve services and opportunities available to categories to people e.g. fisherfolk. However, the Sustainable Livelihoods approach seeks to develop an understanding of the factors behind people's choice of livelihood strategy and to reinforce the positive aspects and mitigate the constraints or negative influences. In sum, the Sustainable Livelihood approach seeks to identify ways how to build on the strengths the people have while at the same time trying to reduce the level of vulnerability.

Inherent to its holistic principle, the Sustainable Livelihoods Approach recognises the importance and prevalence of a diversity of livelihood strategies that an individual and/or household pursues. Poor people and their household have often diversified their range of livelihood strategies in order to reduce their vulnerability and to be able to cope with uncertainties or lack of sufficient income from one major income-generating activity.

Through a social stakeholder analysis, it is crucial to identify the different social groups/communities as they might each have their own opportunities and constraints that determine their livelihood strategies. Within the fish distribution and marketing chain, there might be different groups of traders, each involved in a particular part of the marketing chain given their ability to combine the assets available to them. For example, women, who have little trading capital and are dependant on a irregular supply of fish, are mainly involved in buying leftovers and low quality fish brought to the landing sites which they sell in the local neighbourhood. Others with a higher operational capital and better supply channels of higher value fish might sell at regional markets or in nearby urban markets.

Poor people's livelihood strategies may be more or less based on natural resources. Especially, due to urbanisation processes, access to natural resources become increasingly limited and people have to seek alternative non-natural resource based livelihoods. It is obvious that the range of livelihood choices is more restricted for the asset 'poor' than for those who have good access to all sources of capital. The fact, that many fisherfolks are tied up in informal loans, which they need to repay, reduces their opportunities to move to alternative preferred livelihood strategies. Further, the prevailing culture, gender and caste restrictions can reduce people's choices of potential income generation activities. In order to develop an understanding why particular livelihood strategies might be followed and others not, it is useful to examine the constraints the poor people face in achieving local livelihood objectives.

### **Livelihood outcomes**

People often aim for a range of preferred outcomes based on their perceived priorities and objectives, for example, income, well being, food security, sustainable use of natural resources, reduced vulnerability and decision-making power. Through participatory poverty assessments, it is possible to develop an understanding of about local perceptions and definitions of poverty, and what people themselves see as pathways out or into poverty. Individual livelihood strategies might deal with different dimensions of poverty and aim for different outcomes. In the case of fisherfolk, access to consumption credit is an important mechanism to ensure food security and the ability to go fishing when the main season starts. In addition to exploring people's livelihood goals and preferred outcomes, it is also worthwhile getting an insight in the way people rank the outcomes of their livelihood strategies. Some fisherfolk, tied to local moneylenders through outstanding loans, might perceive it as exploitation and as a factor stopping them moving out of poverty as they cannot invest in alternative income generating activities. Others might value the social security provided by the more powerful group within their community and accept the fact that they are limited in developing alternative livelihood strategies.

Further, social groups and/or individuals might value the trade-offs between immediate livelihood gains and longer-term losses differently, depending on the range of choices they have. Large scale fishers might not be concerned by the decline in fish resources as they will have sufficient resources to invest in other livelihood strategies if required. However, artisan fishers might have a stronger incentive to work towards sustainable management of fishery resources, as they are limited in taking up alternative livelihood strategies due to lack in access to assets and their vulnerability.

### **Conclusion**

The focus of this paper has been to summarise and explain the core elements of the Sustainable Livelihoods approach with specific references to the coastal fishing communities and their role in the fish distribution and marketing chain. The Sustainable Livelihoods framework can be a useful tool for analysing and understanding the broader context and sustainability of the livelihoods of people in coastal fishing communities. Only if an in-depth knowledge is generated about the complexity and dynamics of poor people's livelihoods in coastal fishing communities, recommendations can be made to

strengthen people's livelihood opportunities, specifically focussing on improving access to markets and credit.

A wide range of tools can be used for data collection to support an analysis based on the Sustainable Livelihoods approach. It is suggested that a combination of participatory, qualitative and quantitative tools could be used. Suggestions are:

- Participatory methods borrowed from Participatory Rural Appraisals (PRA)
- Sample surveys including structured and semi-structured questionnaires
- Institutional appraisal, including formal and informal access to credit
- Identification and analysis of fish distribution channels
- Market analysis and risk assessment
- Social analysis
- Gender analysis
- Stakeholder analysis and conflict assessment
- Participatory poverty assessment techniques
- Case studies

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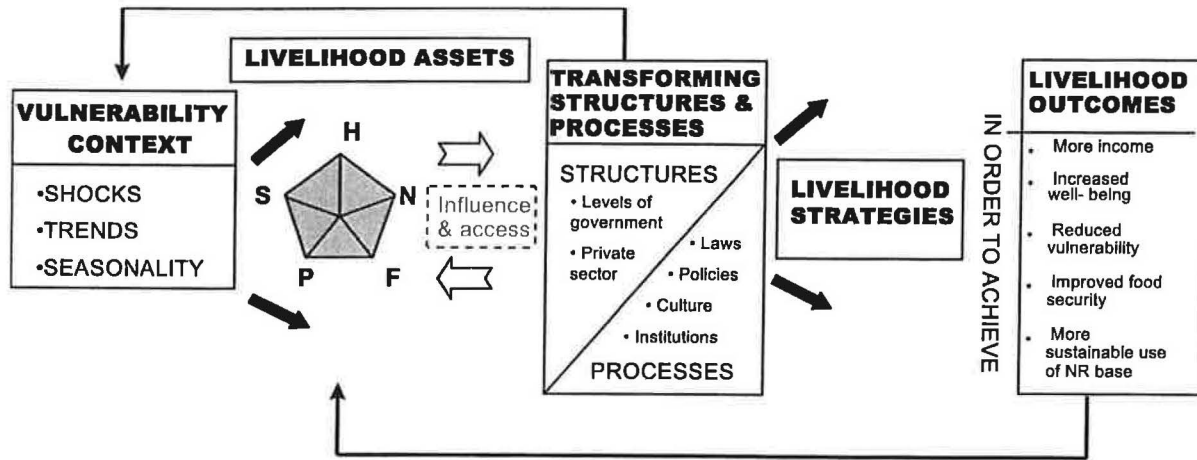
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# Appendix 1: A Sustainable Livelihoods Framework



Source: DFID/ ODI

**Appendix 10**

**Workshop on “Poverty Alleviation and Livelihood Security Among the Coastal Fishing Communities – Market and Credit Access Issues”, Chittagong, 27-28 March 2001**

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**Bangla Version of Workshop Documents**

**Prepared by CODEC, Chittagong**



## স্বগত বক্তব্য

সম্মানিত সভাপতি,  
প্রিয় প্রতিনিধিরা যারা

- মৎস্য মন্ত্রণালয়
- মৎস্য অধিদপ্তর
- এন, জি. ও
- চট্টগ্রাম বিশ্ববিদ্যালয়
- মৎস্যজীবী ও ব্যবসায়ী পরিষদ
- দাতা জনগোষ্ঠী এবং
- অন্যান্য সংগঠন থেকে এসেছেন।

আমি অত্যন্ত আনন্দিত এ কারণে যে এ ধরনের কর্মশালা সম্প্রতি শুরু হওয়া প্রকল্পের Fish distribution from Coastal Community- Market and Credit Access এর পক্ষ থেকে প্রথম হতে যাচ্ছে।

প্রথমেই আমি UK Department for International Development কে ধন্যবাদ জানাতে চাই এ ধরনের একটি প্রকল্পে সহায়তা করার জন্য।

দ্বিতীয়ত আমি চট্টগ্রামস্থ Community Development Centre [CODEC] কে ধন্যবাদ জানাচ্ছি কারিতাস অডিটরিয়ামে এটার প্রয়োজনীয় ব্যবস্থা করা করার জন্য।

তৃতীয়ত আমরা ধন্যবাদ জ্ঞাপন করছি চট্টগ্রাম বিশ্ববিদ্যালয়কে এই প্রকল্পটির পরিকল্পনায় সাহায্য করার জন্য।

## প্রকল্পটির উদ্দেশ্যগুলো হচ্ছে

- প্রকল্পের সংশ্লিষ্ট সকলকে অবহিত করা
- তথ্য ও অভিজ্ঞতা আদান প্রদান
- যৌথভাবে গবেষণার ক্ষেত্র, জরিপ পদ্ধতি নির্ধারণ করা।

সংশ্লিষ্ট পরিচয় পর্বের পর অনেকগুলি গুরুত্বপূর্ণ বক্তব্য উপস্থাপিত হবে যা আজকের কর্মশালার প্রধান আকর্ষণ।

## আগামীকাল Working Group গুলি

- মৎস্য বিতরণের গুরুত্বপূর্ণ ডেইন ও জৌগলিক এলাকা নির্ধারণ করবে
- গ্রাপ্যতা ও মাগের অভিজ্ঞমাতা
- গবেষণায় কি পদ্ধতি ব্যবহার করা উচিত

এছাড়াও এই কর্মশালায় এই প্রকল্পের উপর বিস্তারিত তথ্য, এটা শুরুর পেছনের কারণ এবং এর সাথে সংশ্লিষ্ট সকলের বক্তব্য প্রকাশ পাবে যা পরবর্তীতে অনুরণন করা হবে।

## কোডেক এবং বাংলাদেশের জেলে সম্প্রদায়, ঋণ ও বাজার

ড. খুরশীদ আলম

### ভূমিকা :

কমিউনিটি ডেভেলপমেন্ট সেন্টার, যা কোডেক নামে পরিচিত। বাংলাদেশ সরকার ও ডেনিশ সরকারের ৮০র দশকে পরিচালিত একটি প্রকল্প যা ডেনিশ বোট বিল্ডিং-এর, পরে বোট রেন্টাল স্কিম নামে পরিচিত। তার উত্তরসূরি হিসাবে ১৯৮৫ সাল থেকে কাজ করছে চট্টগ্রামে, ১৯৮৮-তে লক্ষ্মীপুরে এবং ১৯৯০ সাল থেকে পটুয়াখালী ও বরগুণায় কাজ করছে।

মোট ৫টি কর্মসূচী : যা ১. গ্রাম সংগঠন বিনির্মাণ, ২. শিক্ষা, ৩. প্রশিক্ষণ, ৪. সহযোগী কর্মসূচী ও ৫. ঋণ কর্মসূচী - এর মাধ্যমে ২৭ টি কেন্দ্রে ১৬০০ গ্রাম সংগঠনে প্রায় ৫০০ গ্রামে - ৪৮,০০০ হাজার সদস্যদের সাথে কাজ করছে।

### ফিসারিজ :

বাংলাদেশে মৎস্য সম্পদের পরিমাণ ও আহরণের তথ্য নিয়ে বিভ্রান্তি রয়েছে। এক সমীক্ষায় বলা হয়েছে ১৯৯৩ - ৯৪ সালে মোট মাছ উৎপাদনের পরিমাণ ১.০৮ মিলিয়ন মেট্রিক টন।

### বাংলাদেশের জেলে সম্প্রদায় :

এককালে ঐতিহ্যগতভাবে নিম্নবর্ণীয় হিন্দুরাই এই পেশায় নিয়োজিত ছিল। জনাদাশ, মালো, মাল্লা, বর্মণ - এরা সবাই জেলে বলে পরিচিত।

হিন্দু সমাজ এখনও বর্ণ ভিত্তিক সমাজ। এই সমাজে নিম্নবর্ণীয়রা যেন দৈহিক পরিশ্রমের জন্যই জন্ম নিয়ে থাকে। হিন্দু জেলেরা এরকম নিম্ন বর্ণের মানুষ। অধিকাংশ ক্ষেত্রেই তারা আলাদা পল্লী বা পাড়ায় বসবাস করে, যেগুলো গ্রামের ভিতরেই গড়ে উঠেছে। উচ্চ বর্ণের হিন্দু এবং অভিজাত মুসলমান সম্প্রদায়ও এদের সাথে কোন রকমের সামাজিক মেলামেশা এড়িয়ে চলে।

নদীভাঙনে ভূমিহীনতা এবং অব্যাহত দারিদ্র্যের পাশাপাশি জনসংখ্যা বৃদ্ধির ফলে কৃষির কাঠামো বদলে যাচ্ছে। এতে ক্ষুদ্র আকারের মৎস্য চাষের ক্ষেত্রেও পরিবর্তন এসেছে।

চাষযোগ্য জমি দিনদিন ক্ষুদ্র ক্ষুদ্র খন্ডে বিভক্ত হচ্ছে, কখনও এত ক্ষুদ্র খন্ডে যে, তা একটি পরিবারকে টিকিয়ে রাখতে পারছে না।

বাংলাদেশের নদী ও সমুদ্র উপকূলবর্তী ভূমিহীন কৃষকদের জন্য তাই মাছ ধরা জীবিকাটি কর্মসংস্থানের পূর্ণ অথবা খন্ডকালীন একটি উৎসে পরিণত হয়েছে। ক্ষুদ্র আকারের মৎস্য চাষ এদের আয় উপার্জনের শেষ সহায় হয়ে দেখা দিয়েছে। এই অবস্থার পরিণতিতে দেখা যাচ্ছে, ঐতিহ্যবাহী জেলে সম্প্রদায় - যারা বেশীরভাগই হিন্দু। এখন নতুন আসা মুসলমান মৎস্যজীবীদের কাছ থেকে প্রবল প্রতিযোগিতার মুখে পড়েছে। নতুন যারা এসেছে তারা হয় স্ব-নিয়োজিত অথবা দিনমজুর হিসেবে এই পেশায় কাজ নিয়েছে।

#### পরিবর্তন :

‘মধ্যস্বত্বভোগী’ একদল লোক জেলে জীবনে বিরাট প্রভাব ফেলেছে। ঋণের জালে একবার এক জেলে আবদ্ধ হলে তার থেকে তাদের বেরিয়ে আসার আর সম্ভাবনা থাকে না। ফলে দেখা যায় যারা উৎপাদনের সাথে সরাসরি জড়িত তারা দিনদিন গরীব থেকে গরীবে পরিণত হচ্ছে। অপরদিকে মৎস্যস্বত্বভোগী গোষ্ঠী তাদের সম্পদের পরিমাণ বাড়িয়েছেন।

#### এই পরিবর্তনের কারণ :

- ক) জেলেরা তাদের উৎপাদন সরাসরি বাজারজাত করতে পারেন না।
- খ) ঋণের বন্ধনের ফলে দাদনদার-আড়তদার-পাইকারের মাধ্যমে বিক্রি করতে হয়।
- গ) দাদনদার-আড়তদার-পাইকারের দীর্ঘ মেয়াদী এই ঋণের বন্ধন - যা পুঁজির অভাব এবং সামাজিক নিরাপত্তার তাগিদে করতে বাধ্য।
- ঘ) দাদনদার-আড়তদার-পাইকারেরা রাজনৈতিক তথা পেশীশক্তিতে শক্তিশালী।

#### ঋণ ব্যবস্থা এবং বাজার সংগঠন :

জেলেদের ধরতে গেলে এই আড়তদার-পাইকার-দাদনদার থেকেই পুঁজি অভ্যন্তর বেশী মুনাফায় নেওয়া ছাড়া আর কোন উপায় থাকে না, অনেক ক্ষেত্রে এই পুঁজি বিনিয়োগের মুনাফা নির্ণয় ও কঠিন যোহেতু সরাসরি উৎপাদিত মাছ এরা নিয়ে নেন। দামও নির্ণয় করেন আড়তদার-পাইকার-দাদনদাররাই।

এটাও দেখা যায় মাছ কোথায় পাঠানো হবে কিভাবে এসবও ঠিক করেন আড়তদার-পাইকার-দাদনদার। বাজারজাত করার জন্য, বাজারজাত করার যে সকল জ্ঞান থাকা দরকার তা জেলেদের নেই।

কোনো কোনো এনজিও সরাসরি জেলেদের সাথে যদিও কাজ করছেন এদের সবচেয়ে উল্লেখযোগ্য কাজ এই পরীষ জনপোষ্ঠীকে উন্নয়নের ধারায় সংঘবদ্ধ করা। তবে মাছের বাজারজাতকরণ ও ঋণের চাহিদার সঠিক সমাধান দিতে পারেননি সেহেতু তার জন্য কাঠামোগত যে সকল পরিবর্তন দরকার তা এনজিওদের পক্ষে করা সম্ভব নয়।

**উপসংহার :**

পুরানো দিনের বাংলাদেশ তথা ভারতের গ্রামগুলিকে ছোট ছোট রিপাবলিক বলা হতো। কালক্রমে তা ভেঙে গেছে। সনাতন জেলেরা এখন সম্পূর্ণরূপে নিশ্চিহ্ন হওয়ার পথে। বাজার অর্থনীতিতে পুঁজির বিকাশ সৃষ্টি করেছে কিছু নব্য বড়লোকদের - যারা সনাতন জেলে সমাজকে করেছে উৎখাত।

## মৎস্য বিতরণ প্রক্রিয়ায় উপকূলীয় জনগোষ্ঠী: বাজারজাতকরণ ও ঋণের অভিজ্ঞতা ইস্যুসমূহ

উলরিখ ক্লেই

ন্যাচারাল রিসোর্চ ইনস্টিটিউট, যুক্তরাজ্য

### প্রকল্প পরিচিতি:

‘মৎস্য বিতরণ প্রক্রিয়ায় উপকূলীয় জনগোষ্ঠী: বাজারজাতকরণ ও ঋণের অভিজ্ঞতা ইস্যুসমূহ’ নামক গবেষণা প্রকল্পটি মূলত: যুক্তরাজ্যের আন্তর্জাতিক উন্নয়ন বিভাগ (ডিএফআইডি) এর আর্থিক সহযোগীতায় পরিচালিত। এ প্রকল্পের সহযোগী সংস্থাগুলো হচ্ছে:

- ন্যাচারাল রিসোর্চ ইনস্টিটিউট (এনআরআই), গ্রীনউইচ বিশ্ববিদ্যালয়, যুক্তরাজ্য।
- কমিউনিটি ডেভেলপমেন্ট সেন্টার (কোডেক), চট্টগ্রাম, বাংলাদেশ।
- মার্কেটিং বিভাগ, সমাজবিজ্ঞান বিভাগ ও অর্থনৈতিক বিভাগ, চট্টগ্রাম বিশ্ববিদ্যালয়, চট্টগ্রাম, বাংলাদেশ।

এ ক্ষেত্রে এনআরআই এবং কোডেক তহবিল সহযোগীতা পাবে ডিএফআইডি পোস্ট হারভেস্ট ফিসারিজ রিসার্চ প্রোগ্রাম এর কাছ থেকে, অপর পক্ষে চট্টগ্রাম বিশ্ববিদ্যালয় তহবিল সহযোগীতা পাবে ডিএফআইডি সাফার প্রকল্প হতে, যা ঢাকা কেন্দ্রিক এবং যার সমন্বয়কারী হচ্ছেন ড. টনি থম্পসন।

এ প্রকল্পের মেয়াদ হচ্ছে ফেব্রুয়ারী ২০০১ হতে জুলাই ২০০২ পর্যন্ত।

### পটভূমি:

বাংলাদেশের উপকূলীয় জেলে জনগোষ্ঠী এবং মৎস্য বাজারের দরিদ্র অসহায় শ্রমিক ও ভোক্তাগণ মৎস্য বাজারজাতকরণ প্রক্রিয়ায় নানা ভাবে বঞ্চনার শিকার হচ্ছে এবং প্রাতিষ্ঠানিক ঋণ এর ধারাবাহিক উৎসসমূহ হতে বঞ্চিত হচ্ছে। ফলশ্রুতিতে এ জনগোষ্ঠী তাদের জীবিকার মান উন্নয়নে নানাবিধ বাধার সম্মুখীন হচ্ছে। এর সাথে প্রতিনিয়ত যোগ হচ্ছে নিম্ন পর্যায়ের মানবিক অবস্হা, অর্থনৈতিক, সামাজিক অনিরাপত্তা এবং অধিক মাত্রায় মৌসুমভিত্তিক নির্ভরশীলতা। একই সময় এ ধারাকে ত্বরান্বিত করছে, বাজার পণ্য সম্পর্কিত তথ্য ব্যবস্হার দুর্বলতা ও তথ্য বিতরণে সংকট এবং দ্রাঘত বাজার ব্যবস্হায় বিরাজমান ধারাবাহিক শোষণ প্রক্রিয়া।

### প্রকল্প ফলাফলসমূহ:

এ প্রকল্প হতে যে ফলাফল প্রত্যাশা করা যাচ্ছে:

- উপকূলীয় দরিদ্র জনগোষ্ঠী অধ্যুষিত এলাকায় মৎস্য আহরণ ও উৎপাদন ক্ষেত্রে মৎস্য ব্যবসা এবং ঋণ ব্যবসহার বিশ্লেষণ ও চিহ্নিত বিষয়াদি।
- মৎস্য আহরণোক্তর প্রেক্ষাপটে জীবিকার মান উন্নয়নে সমন্বিত বাজার ও ঋণ ব্যবসহার বিশ্লেষণ লক্ষ্যে একটি সহায়ীত্বশীল গবেষণা পদ্ধতি।
- দরিদ্র উপকূলীয় জেলে জনগোষ্ঠীর উপকারার্থে এবং বাংলাদেশে কার্যকরী মৎস্য বিতরণ শৃঙ্খল উন্নয়নে নীতিমালাগত সুপারিশসমূহ।

### প্রকল্পের উপকারভোগীগণ:

প্রকল্পের ফলাফলসমূহ উদ্দীষ্ট সংসহাগুলো দরিদ্র জনগোষ্ঠীর উপকারার্থে এবং নাজুক সামুদ্রিক মৎস্য বিতরণ শৃঙ্খলের উন্নয়নে ব্যবহার করতে সক্ষম হবে। এ প্রক্রিয়ায় সংশ্লিষ্ট হবে জেলে জনগোষ্ঠী, জালের মালিক, ক্ষুদে মাছ প্রক্রিয়াজাতকারীগণ এবং ক্ষুদে ব্যবসায়ী এবং তাদের উপর নির্ভরশীল অন্যান্য সদস্য/ সদস্যগণ। এছাড়াও এ প্রকল্পের মাধ্যমে এ সেক্টরের দিন মজুর এবং শ্রমিকরাও উপকৃত হবে। এ ক্ষেত্রে ক্ষুদে ব্যবসায়ীদের মধ্যে অধিক হারে রয়েছে মহিলা, যারা বিবাহিত বা বিধবা।

গবেষণাধীন ফলাফল নিম্নবর্ণিত সংসহাসমূহের মান উন্নয়নে সাহায্য করবে:

- বাংলাদেশ সরকারের সংশ্লিষ্ট বিভিন্ন বিভাগসমূহ।
- দাতাসংসহাসমূহ (ডিএফআইডি)।
- এনজিওসমূহ।
- ক্ষুদে মৎস্য বাজার ও ব্যবসার সাথে সংশ্লিষ্ট প্রাইভেট সংসহাসমূহ।

### প্রকল্প কর্মকান্ডসমূহ:

প্রধানত: নিম্নলিখিত গবেষণামূলক কাজসমূহ করা হবে:

- বাংলাদেশ এবং যুক্তরাজ্যে এক মাস টেবিল কেন্দ্রিক কাজ।
- প্রকল্প সহযোগী ও প্রধান উপকারভোগীদের অংশগ্রহণে চট্রগ্রামে প্রথম একটি কর্মশালার আয়োজন।
- মৎস্য বিতরণ প্রক্রিয়ায় উপকূলীয় জনগোষ্ঠী: বাজারজাতকরণ ও ঋণের অভিজ্ঞতা ইস্যুসমূহের বিশ্লেষণ:
  - বাজার ব্যবসহার বিশ্লেষণ।
  - ঋণ ব্যবসহার বিশ্লেষণ।

➤ প্রাতিষ্ঠানিক, সামাজিক, সাংস্কৃতিক এবং রাজনৈতিক প্রেক্ষাপটের বিশ্লেষণ।

- গবেষণা টিম এবং সংশ্লিষ্ট উপকারভোগীদের অংশগ্রহণে দ্বিতীয় কর্মশালার আয়োজন করা, যেখানে গবেষণায় চিহ্নিত বিষয়াদি, নীতিমালাগত সুপারিশ এবং সহায়ীত্বশীল গবেষণা পদ্ধতির উপসহাপন হবে।
- নির্দিষ্ট কর্মকাণ্ডের দায়িত্ব অর্পন ও প্রসার ঘটানো।

#### গবেষণা পদ্ধতি:

বস্তুত: ব্যাপক প্রেক্ষাপটে, গবেষণা সংশ্লিষ্ট ব্যক্তিবর্গ ও লক্ষিত জনগোষ্ঠীর মাঝে ফলপ্রসূ সম্পর্ক ও বিশ্বাস সহাপন লক্ষ্যে এক বছর মেয়াদী একটি জরিপ কাজের প্রয়োজনীয়তা এ মুহুর্তে অনুভব করা যাচ্ছে। প্রতীয়মান হয়েছে যে, ডাটা সংগ্রহের কাজটি যে সকল জিলায় আয়োজিত হবে, সেগুলো হচ্ছে- চট্টগ্রাম, কক্সবাজার, লক্ষীপুর, পটুয়াখালী ও বরগুনা। উৎপাদন ও প্রক্রিয়ার সুনির্দিষ্ট বিতরণ ও তার শৃঙ্খলসমূহ চিহ্নিতকরণ ও বিচার বিশ্লেষণ নির্ভর করবে ভৌগলিক অবস্থান বিশ্লেষণের ভিত্তিতে। উপরন্তু, মৎস্য বাজার সংশ্লিষ্ট সিদ্ধান্তগ্রহনকারীদের সাথে (সরকারী বিভাগসমূহ, এনজিও ও দাতাসংসহাসমূহ) ঢাকায় দেখা সাক্ষাতের ব্যবস্থা করা হবে।

জরিপ কর্ম- কাণ্ডের উদ্দেশ্যে নিম্নবর্ণিত কৌশলগুলো যৌথ সম্মাহারে অবলম্বন করা হবে:

- অংশগ্রহনভিত্তিক গ্রাম মূল্যায়ণ (পিআরএ)।
- প্রশ্ন- পত্র ভিত্তিক জরিপ।
- দ্রুত বাজার মূল্যায়ণ।

মৎস্যসরবরাহ প্রক্রিয়ায় উপকূলীয় জনগোষ্ঠী  
(বাজারজাতকরণ ও ঋণের অভিজ্ঞতার ইস্যুগুলো)

সংশ্লিষ্ট সাহিত্য পর্যালোচনা

রনজিত দাস্তিদার  
কোডেক  
চট্টগ্রাম



জালেরমত ছড়িয়ে ছিটিয়ে থাকা বড় বড় নদী-উপনদীগুলি বাংলাদেশকে পৃথিবীর সর্ববৃহৎ বদ্বীপে পরিণত করেছে। আভ্যন্তরীণ মিঠা পানির সাথে বঙ্গোপসাগর থেকে আসা নোন পানি মিলে বাংলাদেশ বিচিত্র মৎস সম্পদের একটা আধারে পরিণত হয়েছে। এই মৎস সম্পদ দেশের সর্বমোট প্রোটিনের ৬০-৮০ ভাগ সরবরাহ করে থাকে। যা প্রায় ১০.৭মি: পরিবারের জীবিকার ব্যবস্থা করে। দেশের প্রায় ৮ ভাগ লোক মৎস্যের উপর নির্ভরশীল।

প্রায় ৩০ মিলিয়ন লোক উপকূল অঞ্চলে বসবাস করে যারা কৃষি, মৎস, বন, উপকূলীয় পরিবহন ও সৌর লবণ চাষের উপর নির্ভরশীল। এই উপকূল পৃথিবীর সবচাইতে বড় বদ্বীপ ধারণ করছে যা এখনও পরিবর্তিত হচ্ছে গঙ্গা-ব্রহ্মপুত্রের নিত্য পরিবর্তনশীল আচরণের জন্য। এই বদ্বীপ পৃথিবীর জনসংখ্যার প্রায় ১০ ভাগ ধারণ করছে।

বাংলাদেশের উপকূলীয় ৩৬০০০বর্গ কিলো মিটারের এলাকাকে মূলত তিন ভাগে ভাগ করা যায়।

- ১। পূর্বাঞ্চল
- ২। মধ্যাঞ্চল
- ৩। পশ্চিমাঞ্চল

একদা বাংলাদেশের গোটা উপকূল গরান বনভূমিতে আচ্ছাদিত ছিল। এখনও দক্ষিণ-পশ্চিমাঞ্চলের গঙ্গা-ব্রহ্মপুত্র-মেঘনা পৃথিবীর সবচেয়ে বড় গরান বনভূমিকে ধারণ করে আছে। এই বনভূমি প্রায় ১ মিলিয়ন লোকের জীবিকার ব্যবস্থা করছে।

দেশের ২০ ভাগ মানুষ উপকূলের এই সরু এলাকাতে বসবাস করে যাদের সিংহভাগের বসবাস জেলা গ্রামগুলোতে।

১৯৮৫/৮৬ সালে বাংলাদেশের মৎসের উৎপাদন ছিল ৭৯৪০০০টন, যা দুই দশক পূর্বের উৎপাদনের সমান। যার ৩৪০০০টন বিদেশে রপ্তানী হয়েছিল। আর বাকীটা দেশের প্রয়োজনে ব্যবহৃত হয়। জনসংখ্যা বৃদ্ধির কারণে মাথাপিছু ভোগের পরিমাণ ১২ কেজি থেকে কমে ৭.৬ কেজি হয়েছে। এই মৎসের ৫৬% আভ্যন্তরীণ নদী-নালা, ২৬% সমুদ্র এবং ১৮% এসেছে পুকুরের মাছ চাষ থেকে।

মৎসের বাজার এখনও ব্যক্তিমালিকানাধীন পর্যায়ে রয়েছে। সবচেয়ে বড় বাজার সমস্যাগুলি হচ্ছে দুরত্ব। স্বল্প বরফ সরবরাহ এবং মধ্যস্থত্বভোগীদের তুলনায় দুর্বল অবস্থান।

## ২. উপকূলীয় এলাকা থেকে মাছের বাজারজাতকরণ :-

প্রথাগতভাবে হিন্দু জলদাসরাই ছিল উপকূলীয় জেলেদের প্রধান। বাজারের কাঠামো খুব বেশী কেন্দ্রীভূত হয়ে যাওয়ায় এবয় মাছ ধরার সরঞ্জামাদি খুব বেশী দামী হওয়ায় এরা খুব বেশী সমস্যার সম্মুখীন।

ক্রোতা এবং ঋণদাতারা দাদনদায় নামে পরিচিত। তাদের দ্বি-মুখী ভূমিকার কারণে তারা অন্যান্য ক্রোতা যেমন পাইকারদের থেকে ভিন্ন যারা ঋণ দানে জড়িত নেই। দাদনদাররা অপরদিকে আড়তদারদের সাথে সম্পর্কিত যাদের আবার বিশাল পুঁজির ব্যবস্থা করার ক্ষমতা রয়েছে। ধৃত মাছ সমূহ সংগ্রহক নৌকায়ই বিক্রি হয়ে যায় নতুবা বি,এফ,ডি,সি এর টার্মিনালে মধ্য স্বত্বভোগীদের নিকট বিক্রি হয়ে যায়।

মধ্যস্বত্বভোগীরা নতুন ধরনের বাজারের শৃংখলা তৈরী করেছে যেটার বিভিন্ন স্তরে বিভিন্ন মধ্যস্বত্বভোগীরা রয়েছে। যার মাধ্যমে এরা কৃত্রিম মূল্য সংকট তৈরী করে। মধ্যস্বত্বভোগীদের তৈরী করা শৃংখলের কারণে আসল মৎসজীবীরা এখন মূলত মৎস্য মজুরে পরিনত হয়েছে।

বাজারজাত করণের রাস্তা :-

বাজারের কাঠামো এলাকা বিশেষে পরিবর্তিত হয়। সাধারণত এগুলো হচ্ছে নিম্নরূপ :-

#### প্রাথমিক বাজার

এই বাজারে জেলেরা ভ্রাম্যমান মহাজন, জোগানদার বা ফরিয়াদের নিকট মাছ বিক্রি করে দেয়। এই সংগ্রাহকরা সংগ্রহক নৌকা বা ট্রাক ব্যবহার করে এ কাজের জন্য। এরা এখন মোহনায় বা নদীতে সংগ্রহ করে। এখন এ কাজ তারা করায় কিছু দালাল দিয়ে যারা ১% কমিশন পায়।

#### মাধ্যমিক বাজার

সংগ্রহকরা মাছগুলো পাইকারী বাজারে বিক্রি করে অথবা এমন কারো কাছে যে এগুলোকে অন্যান্য জেলায় বিক্রি করে, যাদেরকে বেপারী বলা হয়।

#### উচ্চ মাধ্যমিক বাজার

যে মাছগুলো মাধ্যমিক বাজার থেকে দূরবর্তী কোথাও যায় সেগুলো আবার অন্য বিতরণকারী বাজারে (মূলতঃ জেলা পাইকারী বাজার) পৌঁছায় চালানীদের হাতে। এখানে এগুলো বিক্রি হয় এলাকার খুচরা বিক্রেতা বা পাইকারীদের কাছে। এখানেও আড়তদাররা আরেকদফা কমিশন পায় পূর্ববর্তী কমিশন ভোগীদের মত।

#### চূড়ান্ত ভোগ বাজার

উচ্চ মাধ্যমিক বাজারে মাছ সংগ্রহ করার পর পাইকারীরা এগুলো খুচরা বিক্রেতাদের কাছে বিক্রি করে যারা উপজেলা বাজারে বা গ্রাম্য বাজারে বসে সাধারণ ভোক্তাদের কাছে বিক্রি করে। ব্যবসায়ীদের ভেতরের যোগাযোগ সীমিত এবং মূল্য নির্ধারণের কাজটি চলে টেলিফোনের মাধ্যমে। সবচাইতে বাজার বিচ্ছিন্ন মানুষটি এখানে জেলে। আরেকটি ব্যাপর যেটা জেলেকে দুর্বল করে দেয় তা হচ্ছে ঋণ নির্ভরতা ও অশিক্ষা বা অল্প শিক্ষা।

## ঋণ অভিজ্ঞম্যতার সমস্যা

গরীব উপকূলীয় জনগোষ্ঠীর ঋণ প্রাপ্যতার উৎস হচ্ছে অনানুষ্ঠানিক ঋণ বাজার বা দৃশ্যত আনুষ্ঠানিক ঋণ বাজার। এই বাজারের মূল ব্যক্তিটি হচ্ছে দাদনদার এবং ঋণ প্রণেতা, অপর পক্ষে এ,জি,ও, ওরা হচ্ছে দৃশ্যত আনুষ্ঠানিক ঋণ বাজার নিয়ন্ত্রক। তাদের আনুষ্ঠানিক ব্যাংক ঋণের সুবিধা না থাকার কারণে হচ্ছে অপরিপূর্ণ সম্পদ। চট্টগ্রাম উপকূলীয় জেলেদের অর্থের উৎস হচ্ছে মূলত দাদনদার এবং সুদের কারবারী। এখানে ঋণদাতারা ১২০-২৪০ ভাগ হারে ঋণ দিয়ে থাকে। যেহেতু সব জেলেরা দাদনদারদের কাছে জিম্মি সেহেতু তারা তাদের সমস্ত মাছ তাদেরকে বাজার দরের অর্ধেক দামে দিয়ে দেয়।

দাদনদার এবং ঋণদাতারা অর্থের প্রধান উৎস হওয়ার কারণে জেলেরা ঋণ বাজার ও দ্রব্য বাজারে প্রাপ্তি হয়ে যাচ্ছে। দাদনদাররা বিভিন্ন অর্থনৈতিক স্তর বুঝে সম্পদশালী বহুদার বা মাঝিদেরকে ঋণ দেয় যারা বাকীদেরকে পরে বিতরণ করে। এই ঋণ জনগোষ্ঠী ভেদে ৬০-১৫০ ভাগ সুদে বিতরণ হয়ে থাকে। এক্ষেত্রে বহুদারদের অতীত রেকর্ডও যাচাই করা হয়। এই ঋণের অন্যতম শর্ত হচ্ছে ধৃত মাছ বহুদার অবশ্যই দাদনদারের নিকট বিক্রি করবে এবং এই সুযোগে দাদনদাররা অন্যান্য ব্যবসায়ীদের দ্বারা ডাকা মূল্যের চাইতে কয়েক টাকা কমিয়ে মাছ ক্রয় হয়। যদি এক্ষেত্রে এক মৌসুমে ঋণ পরিশোধ না হয় তাহলে এটা পরবর্তী মৌসুমে উসুল করা হয়। এক্ষেত্রে জেলেরা তাদের অধিকারের আবার সমাধান করে দাদনদারদের নিকট।

## উপকূলীয় জনগোষ্ঠীর লক্ষণীয় বিষয়

- \* বাংলাদেশের জেলে সমাজের পরিবারগুলোর অবস্থার আকারের চাইতে বেশী; ফলস্বরূপ অজ্ঞতা, বিশেষত মহিলাদের ক্ষেত্রে প্রধান বৈশিষ্ট্য হয়ে দাঁড়িয়েছে।
  - \* এখানে মহিলাদের অংশগ্রহণ কম পরিলক্ষিত হয় বিশেষ করে মৎস সংক্রান্ত বা কার্যক্রমে।
  - \* এটা প্রমানিত যে, প্রথাগত জেলেরাই বেশীরভাগ ক্ষেত্রে মাছ ধরছে। আর নতুনরা মূলত প্রাপ্তি চাষী থেকে ভূমিহীন হয়ে পরবর্তীতে এ পেশায় এসেছে।
  - \* জেলেদের বেশীরভাগ মটরবিহীন নৌকা বা নৌকা বিহীন মাছ ধরার উপর জীবন নির্বাহ করে। এবং দারিদ্র সীমার অত্যন্ত নীচে বসবাস করে। জনসংখ্যা বৃদ্ধির সাথে ক্রমবর্ধমান ভূমিহীনতা যা নদী ভাঙ্গার জন্য ঘটছে একসাথে মিলে কৃষি সেक्टरের কাঠামো বদলে দিচ্ছে এবং সেই সাথে বদলে দিচ্ছে জেলে জীবন। মাছ ধরাকে দেখা হয় জীবন জীবিকা নির্বাহের সর্বশেষ উপায় হিসাবে।
  - \* জেলেরা বিগত দশকে মৎস সম্পদের উপর অত্যাধিক চাপ পড়তে দেখেছে। মৎস সম্পদ খুব দ্রুত হ্রাস পাচ্ছে। অপরদিকে মৎস জীবির সংখ্যাও বাড়ছে দ্রুত ক্রমবর্ধমান ভূমিহীনতার কারণে। ফলস্বরূপ মাথাপিছু আয় এবং একক প্রতি চেপ্টার বিনিময়ে মাছ ধরার পরিমাণ কমছে।
  - \* অধিকাংশ মৎসজীবির পক্ষে এই পেশা ছেড়ে দেওয়া খুবই কঠিন অপ্রতুল বিকল্প পেশার কারণে। এর প্রধান কারণগুলি মনস্তাত্ত্বিক বাঁধা বা জনবিচ্ছিন্নতা এবং অবক্ষুসুলভ পারিপার্শ্বিক পরিবেশ যা তাদেরকে এই উপসংহারে পৌঁছাতে বাধ্য করে যে মাছ ধরা ছাড়া অন্য কিছু করা অসম্ভব।
  - \* জনগোষ্ঠী হিসাবে হিন্দু মৎসজীবির মূল জনগোষ্ঠী থেকে বিচ্ছিন্ন জীবন যাপন করছে এবং সে কারণে তারা মনস্তাত্ত্বিকভাবে তারা নিরাপত্তাহীনতায় ভোগে এবং ফলস্বরূপ যা নতুন আয় ও কর্ম সৃষ্টিকারী পেশা গ্রহণে অল্প বিশ্বাস জোগাতে ব্যর্থ হয়।
- ক্ষুদা হচ্ছে মৎসজীবির জনগোষ্ঠীর দারিদ্র। দারিদ্র হচ্ছে তাদের কাছে আশ্রয়হীনতা। দারিদ্র হচ্ছে দূষিত পানি পানের কারণে সন্তানের মৃত্যু। দারিদ্র হচ্ছে ক্ষমতাহীনতা। প্রতিনিধিত্বের অভাব এবং সামাজিকভাবে ভঙ্গুর অবস্থান। উপকূলবর্তী এবং নদীতীরবর্তী জনগোষ্ঠীর জন্য দারিদ্রের অনেকগুলি চেহারা আছে যা মৌসুম থেকে মৌসুমে, স্থান থেকে স্থানান্তরে এবং সময় থেকে সময়ে পরিবর্তনশীল।

মৎস্য বিনষ্ট প্রক্রিয়া মূল্যায়ণ উপকরণ উন্নয়ন, ভারত বর্ষে মৎস্য বিনষ্ট প্রক্রিয়া ও ক্ষুদ্রে মৎস্য

প্রক্রিয়াজাতকারীদের জীবিকা অনুধাবন

আনসেন ওয়ার্ড

ন্যাচারাল রিসোর্চ ইনস্টিটিউট, যুক্তরাজ্য

আহরণোক্তর মৎস্য বিনষ্ট প্রক্রিয়া মূল্যায়ণে হাতিয়ার:

আহরণোক্তর মৎস্য বিনষ্ট প্রক্রিয়ার সাথে মৎস্য বিতরণ শৃঙ্খল, বাজার ব্যবসহা তথা সকল ধরনের মৎস্য আহরণোক্তর কর্মকাণ্ড জড়িত রয়েছে। মূলত: বস্তুগত ও গুণগত ভাবে দুই ধরনের মৎস্য বিনষ্ট প্রক্রিয়া ঘটে থাকে। বস্তুগত বিনষ্ট প্রক্রিয়া ঘটে থাকে বিতরণ ব্যবসহার ধারাবাহিক ধাপগুলোর মধ্য দিয়ে। দেখা গেছে, বিতরণের বিভিন্ন ধাপে মাছে পঁচন ধরা ও পোকা- মাকড় দ্বারা আক্রান্ত হয়ে থাকে। এছাড়াও আরো অন্যান্য কারণে বিশেষ করে মৎস্য দেহে আঘাতজনিত কারণে এর গুণগত মান বিনষ্ট হতে থাকে দ্রুত।

ভৌগলিক এলাকা ভেদে মৎস্য চাহিদা ও সরবরাহ প্রক্রিয়ার মাঝে বিস্তৃত শূন্যতা মৎস্য বিনষ্ট প্রক্রিয়ারোধে গুরুত্বপূর্ণ ভূমিকা পালন করে থাকে। বিশেষ করে মৎস্য আহরণে সংশ্লিষ্ট শ্রমিক ও ভোক্তারা এর দ্বারা বেশী উপকৃত হওয়ার সম্ভাবনা বেশী। মৎস্য আহরণোক্তর বিনষ্ট প্রক্রিয়া সমস্যাটি আন্তর্জাতিকভাবেও গুরুত্ব পেয়েছে এবং এ সম্পর্কিত ফাও এর কোড অব কনডাক্ট এ বর্ণিত রয়েছে যে, এ বিনষ্ট প্রক্রিয়াটি রোধ করা একান্ত প্রয়োজন। এ সমস্যাটি প্রতিরোধ করতে হলে সর্বপ্রথম বুঝতে হবে এ বিনষ্ট প্রক্রিয়া সমস্যাটির ধরণ ও প্রকৃতি। এ প্রকৃতি ও ধরন চিহ্নিতকরণ লক্ষ্যে একটি সূ- সংহত গবেষণা উপকরণ উদ্ভাবনের অভাবই এ পথে এখনো বড় বাধা হয়ে আছে।

বস্তুত: এমন একটি পরিস্থিতিই এনআরই'কে একটি সূ- সংহত গবেষণা হাতে নিতে উদ্বুদ্ধ করেছে। এবং এর সাথে জড়িত হয়েছে আফ্রিকা ও ভারতের অনেক সহযোগী গবেষক, যারা এ অবসহার মূল্যায়ণে একটি মোক্ষম গবেষণা উপকরণ উদ্ভাবনে যৌথবদ্ধ হয়েছেন এবং একনিষ্ঠভাবে সহযোগীতা করে যাচ্ছেন, বিশেষ করে আহরণোক্তর মৎস্য বিনষ্ট প্রক্রিয়ার মূল্যায়ন ও প্রতিরোধ লক্ষ্যে। এর ফলে বিনষ্ট প্রক্রিয়া মূল্যায়ণে তিনটি পদ্ধতি এ পর্যন্ত উদ্ভাবন করা হয়েছে। মৎস্য বিনষ্ট মূল্যায়ণ পদ্ধতি-প্রশ্নপত্র ব্যবহার হয়ে থাকে মূল ডাটাসমূহ বিস্তৃতভাবে অনুধাবন করার লক্ষ্যে। লোড ট্র্যাকিং পদ্ধতি গবেষকদের মৎস্য বিনষ্ট সম্পর্কিত সুনির্দিষ্ট ডাটা তৈরীতে সাহায্য করে থাকে। তৃতীয় পদ্ধতিটি হচ্ছে বিনষ্ট প্রক্রিয়া মূল্যায়ণে একটি অনানুষ্ঠানিক পদ্ধতি, যা বিনষ্ট প্রক্রিয়ার গুণগত অবসহা অনুধাবন এবং পাশাপাশি বিনষ্ট প্রক্রিয়া রোধে নতুন ধারণার উদ্ভাবনে সাহায্য করে থাকে। সংশ্লিষ্ট এ প্রকল্প বিশ্বব্যাপী আহরণোক্তর মৎস্য বিনষ্ট বিষয়ে তথ্য- সম্পর্কিত একটি ডাটা- বেসও নির্মান করতে সক্ষম হয়েছে এবং এ সংশ্লিষ্ট বিভিন্ন কৌশল ও পন্থা মূল্যায়ণে একটি কম্পিউটার মডেলও উদ্ভাবন করেছে।

এ সম্পর্কিত বিভিন্ন মূল্যায়ন উপকরণ তৈরী করা হয়েছে গবেষক, সম্প্রসারিত কর্মী, এনজিও এবং অন্যান্য উনয়ন কর্মীদের জন্য। এ সব উপকরণ ব্যবহারের ফলশ্রুতিতে আহরিত তথ্যাদি নীতিমালা প্রণয়ন, পরিকল্পনা গ্রহণ ও গবেষণা ক্ষেত্রে সিদ্ধান্ত নিতে ব্যাপক উপযোগীতা বয়ে আনে।

### ভারত বর্ষে সনাতনী মৎস্য প্রক্রিয়াজাতকরণে মৌসুমী ঋতুসমূহে আহরনজোর মৎস্য বিনষ্ট প্রক্রিয়া:

মৌসুমী আবহাওয়ার দেশ ভারতে ক্ষুদে মৎস্যজীবীরা মাছ ধরা থেকে মাছ প্রক্রিয়াজাতকরণ ও বাজারজাতকরণ প্রক্রিয়ার ধারাবাহিক ধাপগুলোতে পর্যাপ্ত মাছ বিনষ্ট হওয়ার কারণে আর্থিক ভাবে ক্ষতিগ্রস্ত হয়ে থাকে এবং পাশাপাশি ভোক্তারাও মাছের পুষ্টিগত মান থেকে বঞ্চিত হয়ে থাকে। গবেষণা কর্মকান্ড এ বিষয়টির উপর পর্যাপ্ত মনোনিবেশ করেছে বিশেষ করে ক্ষুদে মৎস্যজীবীদের জীবিকার মান উনয়ন প্রেক্ষাপটে। এ ক্ষেত্রে এ সমস্যার উত্তরণে একটি সাধারণ কৌশল উদ্ভাবন করা হয় এবং তা সংশ্লিষ্ট প্রক্রিয়াজাতকারীদের অংশগ্রহণে পরীক্ষিতও হয়।

এ প্রকল্পটি পরিচালিত হয় এনআরআই কর্তৃক এবং এর বাস্তবায়ন ঘটে বাঙ্গালোরের ফিসারিজ মহাবিদ্যালয়, এনজিও, পরামর্শক কোম্পানীসমূহ এবং সরকারী ফিশারিজ বিভাগসহ বিভিন্ন অংশীদারীদের দ্বারা। এ প্রকল্প কর্ম প্রক্রিয়া আনুষ্ঠানিক ও অনানুষ্ঠানিক পদ্ধতির যৌথ সমাহারে প্রয়োগ করা হয়। গবেষণা ও উনয়ন প্রতিষ্ঠানসমূহ হতে আগত মূল উপকারভোগীরা পরিকল্পনা প্রণয়ন ও মূল্যায়ন প্রক্রিয়ায়ও অংশগ্রহণ করে। জেলে জনগোষ্ঠীর প্রতিনিধিরা সিদ্ধান্ত গ্রহণ প্রক্রিয়ায় অংশগ্রহণ করে এবং মাঠ পর্যায়ের গবেষণা কাঠামো গঠন ও বাস্তবায়নে তারা সহযোগীতা দানে নিবিড় ভাবে জড়িত ছিল। মাছে পোকা-মাকড় আক্রান্ত থেকে শুরু করে বৃষ্টিতে মাছ শূঁটকিকরণে বাধাসমূহ ইত্যাদি বিশ্লেষণ শেষে বিনষ্ট প্রক্রিয়া সম্পর্কে স্পষ্ট ধারণা অর্জন হয় এবং এর প্রতিরোধ ও উত্তরণসমূহ উদ্ভাবিত হয়। মূলত: ক্ষুদে মৎস্য প্রক্রিয়াজাতকারীদের আয় বৃদ্ধি এবং এর সাথে মৎস্য বিনষ্ট প্রক্রিয়ার ঝুঁকি কমানো ছিল এ প্রকল্পের মূল লক্ষ্য। এ সাধারণ কৌশলসমূহ প্রক্রিয়াজাতকারীদের বিদ্যমান কৌশল, গবেষণা লব্ধ জ্ঞান এবং উনয়ন বিশেষজ্ঞদের অভিজ্ঞতার সম্মিলিত ফলাফল হিসেবে বিবেচিত হয়েছিল।

মাঠ পর্যায়ের পরীক্ষা-নিরীক্ষা কিছু সঠিক প্রযুক্তিগত ব্যবস্থা চিহ্নিত করে, যার প্রয়োগে মৎস্য প্রক্রিয়াজাতকারীগণ নিজেরা উপকৃত ও লাভবান হওয়ার পথ খুঁজে পেয়েছিলেন। এই প্রযুক্তিগত বিষয়গুলো ছিলো:

- আহরিত মৎস্য রক্ষণাবেক্ষণে বিজ্ঞানসন্মত পরিষ্কার-পরিচ্ছন্নতার ব্যবস্থা করা।
- বিশেষ উপায়ে লবনাক্ত পানির মধ্যে আহরিত মাছকে ডুবিয়ে রাখা এবং নিশ্চিত করা যে, এই লবনাক্ত পানি বা মাছের সংস্পর্শে বৃষ্টির পানি আসবে না।

এ উপায়সমূহ প্রক্রিয়াজাতকারীদের মৎস্য বিনষ্ট হওয়ার হাত থেকে তথা আর্থিক লোকসান হতে রক্ষা করেছে এবং পাশাপাশি মাছের গুণগত মান ভালো হওয়াতে দ্রুত ও ভালো বাজার পেতেও সাহায্য করেছে। এ সব প্রযুক্তিগত প্রয়োগ অত্র প্রদেশ সরকারের সহযোগীতায় এখন প্রশিক্ষণ ও সচেতনতা বৃদ্ধি কর্মসূচীতে অন্তর্ভুক্ত করা হয়েছে।

মৎস্যসরবরাহ প্রক্রিয়ায় উপকূলীয় জনগোষ্ঠী  
(বাজারজাতকরণ ও ঋণের অভিজ্ঞতা)

নিকালিন অড্‌ওয়াটার

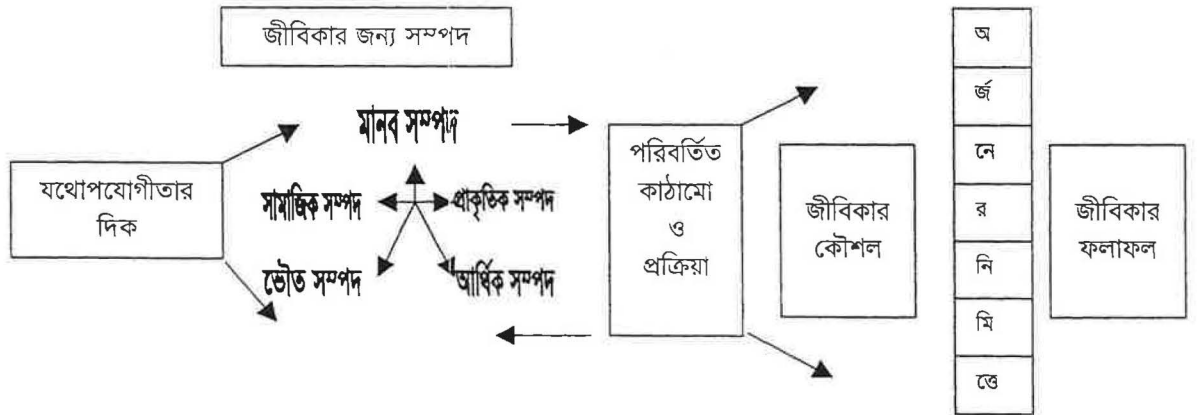
## জীবিকা কি?

জীবিকা শব্দটির বহুবিধ ব্যবহার রয়েছে। এক্ষেত্রে জীবন ধারণের জন্য প্রয়োজনীয় কর্মকাণ্ড, সম্পদ এবং সক্ষমতাকেই জীবিকা অর্থে ব্যবহার করা হচ্ছে।

## স্থায়ীত্বশীল জীবিকার সন্ধান (Sustainable livelihood approach) বলতে কি বোঝায় ?

স্থায়ীত্বশীল জীবিকার সন্ধান হচ্ছে দরিদ্র মানুষের প্রয়োজন উপলব্ধি করার উপায় চিহ্নিত করা এবং এমন একটি উন্নয়ন প্রক্রিয়া সাজানো যার মাধ্যমে এই সমস্ত প্রয়োজনগুলো অর্জনে তারা কার্যকর ভাবে অংশগ্রহণ করে। জীবিকা এমন একটা প্রক্রিয়া যার মাধ্যমে মানুষ তার সক্ষমতা, দক্ষতা ও জ্ঞানকে একিভূত করে এবং পারিপার্শ্বিক সম্পদকে নিজের জীবনের জন্য সঠিক ভাবে ব্যবহার করে জীবনকে সুখময় করে। স্থায়ীত্বশীল জীবিকা হচ্ছে বর্তমানের প্রয়োজন মিটিয়ে তা ভবিষ্যতেও এমন ভাবে অব্যাহত রাখা যাতে করে সম্পদের উৎস নষ্ট না হয়। পাশাপাশি বর্তমান প্রয়োজন মিটাতে গিয়ে অন্যের অধিকার যেন হরন করা না হয়। এটি এমন একটা ব্যবস্থা যা প্রাকৃতিক দুর্যোগ কিংবা ঋতু পরিবর্তনের কারণে ক্ষতিগ্রস্ত না হয়। এই স্থায়ীত্বশীল জীবিকার সন্ধান Sustainable livelihood approach (SLA) কালে জনগণকে সব কিছুর কেন্দ্রবিন্দু হিসাবে বিবেচনা করা হয়। এতে প্রথম জনগণকে বিবেচনায় এনে বাকী সব সম্পদকে পরে বিবেচনা করা হয় প্রয়োজনানুযায়ী।

## স্থায়ীত্বশীল জীবিকা ফ্রেইম-ওয়ার্ক :



## দরিদ্রের সম্পদ

দরিদ্রের সম্পদগুলির (বা পুজি) সাথে অন্তর্ভুক্ত হলো :

- মানুষের বল, দক্ষতা এবং কর্মক্ষমতা (মানব সম্পদ)
- চতুর্পাশের প্রাকৃতিক সম্পদ (প্রাকৃতিক সম্পদ)
- যে জনগোষ্ঠী ও পরিবারগুলোর সাথে সহবাস তাদের থেকে প্রাপ্ত সহযোগীতা (সামাজিক সম্পদ)
- অবকাঠামো যা তারা ব্যবহার করতে পারে। যেমনঃ- রাস্তা, পানি সরবরাহ বা বন্দর। (ভৌত সম্পদ)
- অর্থ যা তারা অন্যান্য সম্পদ আরোহনের জন্যে খরচ করতে পারে। (অর্থনৈতিক সম্পদ)

জীবিকার প্রয়োজনে মানুষ এই সমস্ত সম্পদগুলোকে বিভিন্ন প্রকারে একীভূত করে।

## স্থায়ীত্বশীল জীবিকা সন্ধানের লক্ষ্য :

স্থায়ীত্বশীল জীবিকা সন্ধানের লক্ষ্য হচ্ছে দারিদ্র বিমোচন ফলে এই দারিদ্র বিমোচনের উপর প্রভাব সৃষ্টিকারী সকল প্রকার বিষয়াদিই এক্ষেত্রে বিবেচনা যোগ্য :

তাই নিশ্চিত করা প্রয়োজন যে :

- মানুষের পর্যাপ্ত সম্পদের ব্যবহারের অধিকার আছে।
- তাদের এ সুযোগ প্রাকৃতিক বিপর্যয়েও ক্ষতি হবেনা।
- পরিবর্তনীয় কাঠামো তাদেরকে সম্পদের ব্যবহার/প্রবেশাধীকারকে উৎসাহিত ও সহজ করে এবং সমর্থন দেয়।
- তারা যেন তাদের সম্পদকে একীভূত করতে পারে জীবিকা অর্জনের জন্য।
- জীবিকা যেটা তারা সৃষ্টি করবে তা যেন স্থায়ীত্বশীল হয়।

## পরিবর্তনযোগ্য কাঠামো এবং প্রক্রিয়া

পরিবর্তনযোগ্য কাঠামো হচ্ছে প্রতিষ্ঠান ও সংস্থা যেমন, সরকারী ও বেসরকারী, বা বাজার। জীবিকা অর্জনের জন্য সম্পদে প্রবেশাধিকার এবং এই সম্পদকে কাজে লাগানোর ক্ষেত্রে এটি সহায়ক এবং প্রতিবন্ধক উভয়ই হতে পারে। সরকার ভালভাবে শাসন করতে পারে এবং ভাল নীতি বাস্তবায়িত করতে পারে যা গরীবদেরকে সমর্থন ও সহযোগীতা প্রদানে সক্ষম। অপরদিকে এন জি ও দরিদ্রদের জন্য উপযুক্ত কার্যক্রম গ্রহণ করতে পারে। কাঠামোগত পরিবর্তন মূলত বিভিন্ন নীতিমালা যা মানুষকে সম্পদ ব্যবহারে উৎসাহিত করবে। এই প্রক্রিয়া গ্রহণ করতে পারে সরকার, বাজার এমনকি জনগোষ্ঠী নিজেরাই। যেমন, সরকারী পর্যায়ের ভালো নীতিমালা উন্নয়নকে গতিশীল করবে, কর্মসংস্থান বাড়বে এবং সম্পদকে দরিদ্রের অধিকার আসবে। উপকূলীয় জনগোষ্ঠী বিশেষ করে যারা নিচু জাতের তারা এই সকল উন্নয়ন কার্যক্রমে যুক্তই হতে পারছেন।



## স্থায়ীত্বশীলতা- এর মানে কি ?

স্থায়ীত্বশীলতা এর চারটি উপাদান :

পরিবেশগত স্থায়ীত্বশীলতা :-

প্রাকৃতিক সম্পদের উৎস যখন ভবিষ্যৎ প্রজন্মের জন্য সংরক্ষিত হয় তখন পরিবেশগত স্থায়ীত্বশীলতা অর্জিত হয় ।

অর্থনৈতিক স্থায়ীত্বশীলতা :-

অর্থনৈতিক অবস্থা যখন একটা সুস্থির পর্যায়ে পৌঁছায় এবং টেকসই হয় তখন অর্জিত হয় অর্থনৈতিক স্থায়ীত্বশীলতা ।

সামাজিক স্থায়ীত্বশীলতা :-

এটা অর্জিত হয় তখনই যখন সামাজিক বর্জন কমিয়ে আনা হয় এবং সামাজিক সাম্যতা বাড়ানো যায় ।

প্রাতিষ্ঠানিক স্থায়ীত্বশীলতা :-

এটা অর্জিত হয় যখন বর্তমান কাঠামো অনেকদিন চলার মত শক্তিশালী হয় ।

## ওয়াকিং গ্রুপ ১ : মৎস বিতরণ চেইনের মানচিত্র এবং জায়গা বাছাই

উপকূলীয় জনগোষ্ঠী এবং জনগণ যারা মাছ ধরা পরবর্তী প্রক্রিয়ায় জড়িত তাদেরকে অনেক ধরনের বাজার জাতকরণ শৃঙ্খলের উপর বিভিন্ন করতে হয় যেখানে প্রধান স্টেইকহোল্ডাররা বা পনধারীরা সবচেয়ে গুরুত্বপূর্ণ ভূমিকা পালন করে বিশেষ করে ক্ষুদ্র ঋণ ও বাজারে প্রবেশধিকারের ক্ষেত্রে। বাজারজাতকনের চেইন সম্পর্কিত সম্পূর্ণ সামাজিক, অর্থনৈতিক ও কারিগরী ধারণা অনুপস্থিত। এ ব্যাপারটা অনেক জায়গায় উল্লেখিত, যেমন সরকারের মৎস চাষ সম্পর্কিত পঞ্চবার্ষিক মহা পরিকল্পনা, কোডেক ও দি ডিপার্টমেন্ট ফর ইন্টারন্যাশনাল ডেভেলপমেন্ট এর মাছ ধরা পরবর্তী গবেষণা প্রোগ্রাম।

“উপকূলীয় জনগোষ্ঠী হতে মৎস বিতরণের” পরিপ্রেক্ষিতে ‘বাজার ও ক্ষুদ্র ঋণের প্রবেশাধিকার’ সম্পর্কিত গবেষণা প্রকল্প হাতে নেয়া হয়েছে। বর্তমান জীবিকা সংক্রান্ত এবং বাজার ও ক্ষুদ্র ঋণের প্রাপ্যতার তথ্য সংগ্রহের পাশাপাশি এই প্রকল্প কিছু মতামতও ব্যক্ত করবে যা পরিবর্তন ও দারিদ্র বিমোচন সংক্রান্ত।

নিম্নের অনুশীলনগুলি পরিকল্পনা করা হয়েছে সবচেয়ে গুরুত্বপূর্ণ মেরিন ফিশারীজের চেইন এবং ভৌগোলিক লক্ষ্যাবস্থান যেটা নিয়ে গবেষণা হওয়া উচিত সেগুলোকে সহায়তা করার জন্য।

### টাস্ক :

আপনার ধারণা ও বৈশিষ্ট্যের উপর ভিত্তি করে বলুন বাণিজ্যজাতকৃত মৎসের আয়তন, কত মানুষ এতে জড়িত। দারিদ্রের মূল কারণ এবং/অথবা অর্থনৈতিক গুরুত্ব এবং সবচেয়ে গুরুত্বপূর্ণ সামুদ্রিক মৎস বিতরণ ও বাজার জাতকরণের চেইন সম্পর্কে আপনার মতামত দিন যা পক্ষান্তরে সবচেয়ে অরক্ষিত মানুষ গুলোর জীবিকার ব্যবস্থা করে।

### প্রত্যেকটা বাজারজাতকরণ চেইনের জন্য :

ক) আপনার পছন্দমত কারন লিখুন

খ) সংক্ষিপ্ত বর্ণনা দিন :

- কারা প্রধান স্টেইকহোল্ডার বা পনধারী, কোথায় তাদের অবস্থান এবং এদের ভেতরের আন্তঃ সম্পর্ক কি ?
- মৎস প্রজাতি ও মৎসজাত পণ্য।

- প্রধান ভৌগোলিক এলাকা ।
- প্রধান পাইকারী বাজারের অবস্থান ।
- পরিবহন পদ্ধতি ।

গ) স্টেকহোল্ডার বা পনধারীদের যোগান, চাহিদা ও অভিবাসনের সংক্রান্ত কোন মৌসুমি বৈশেষ্ট ও সমস্যা যদি থাকে বর্ণনা করুন ।

ঘ) আপনি সচেতন এমন কোন বাঁধা বা সুযোগ রয়েছে কি? দয়া করে আপনার প্রাপ্ত ফলাফলকে সাজিয়ে ১০ (দশ) মিনিটের সংক্ষিপ্ত একটা উপস্থাপনার (Presentation) ব্যবস্থা করুন ।

### টাস্ক ফর্ম :

ওয়ার্কিং গ্রুপ : মৎস বিতরণ চেইন বা শৃঙ্খল এবং স্থান নির্বাচনের মানচিত্রায়ন ।

বাজারজাতকরণ চেইন বা শৃঙ্খল

পছন্দের কারণ

মূল স্টেকহোল্ডার বা পনধারী । কোথায় এবং আন্তঃ সম্পর্ক

প্রজাতী সমূহ /উৎপন্নজাত দ্রব্য :

ভৌগোলিক এলাকা :

প্রধান পাইকারী বাজার :

মৌসুমী বৈশিষ্ট :

বাঁধা এবং সুযোগ :

## ওয়াকিং গ্রুপ ২ : পর্যাপ্ততা এবং ক্ষুদ্র ঋণের প্রাপ্যতা

উপকূলীয় জনগোষ্ঠী এবং জনগণ যারা মাছ ধরা পরবর্তী প্রক্রিয়ায় জড়িত তাদেরকে অনেক ধরনের বাজার জাতকরণ শৃঙ্খলের উপর নির্ভর করতে হয় যেখানে প্রধান স্টেইকহোল্ডাররা বা পনধারীরা সবচেয়ে গুরুত্বপূর্ণ ভূমিকা পালন করে বিশেষ করে ক্ষুদ্র ঋণ ও বাজারে প্রবেশাধিকারের ক্ষেত্রে। বাজারজাতকনের চেইন সম্পর্কিত সম্পূর্ণ সামাজিক, অর্থনৈতিক ও কারিগরী ধারণা অনুপস্থিত। এ ব্যাপারটা অনেক জায়গায় উল্লেখিত, যেমন সরকারের মৎস চাষ সম্পর্কিত পঞ্চবার্ষিক মহা পরিকল্পনা, কোডেক ও দি ডিপার্টমেন্ট ফর ইন্টারন্যাশনাল ডেভেলপমেন্ট এর মাছ ধরা পরবর্তী গবেষণা প্রোগ্রাম।

“উপকূলীয় জনগোষ্ঠী হতে মৎস বিতরণের” পরিপ্রেক্ষিতে ‘বাজার ও ক্ষুদ্র ঋণের প্রবেশাধিকার’ সম্পর্কিত গবেষণা প্রকল্প হাতে নেয়া হয়েছে। বর্তমান জীবিকা সংক্রান্ত এবং বাজার ও ক্ষুদ্র ঋণের প্রাপ্যতার তথ্য সংগ্রহের পাশাপাশি এই প্রকল্প কিছু মতামতও ব্যক্ত করবে যা পরিবর্তন ও দারিদ্র বিমোচন সংক্রান্ত।

নিম্নের অনুশীলনগুলি পরিকল্পনা করা হয়েছে ক্ষুদ্র ঋণের পর্যাপ্ততা এবং প্রবেশাধিকার সংক্রান্ত তথ্য গবেষণা করে বের করার জন্য।

### টাস্ক :

আপনার ধারণার উপর ভিত্তি করে উল্লেখ করুন :

স্টেইকহোল্ডারদের প্রাতিষ্ঠানিক বা অপ্রাতিষ্ঠানিক ক্ষুদ্র ঋণের সাথে সম্পর্কের একটা সার্বিক ধারণা প্রদান করুন। এটাতে স্টেইকহোল্ডারদের গুরুত্ব সম্পর্কে ধারণা দিন।

- পর্যাপ্ত ক্ষুদ্র ঋণ যেটা গরীব মৎসজীবীদের হাতের কাছে সেটা চিহ্নিত করুন এবং ক্ষুদ্র ব্যবসায়ীদের চেইনে অবস্থান চিহ্নিত করুন।
- ক্ষুদ্র ঋণের যোগান ও সামুদ্রিক মাছের বাজারজাতকরণের মধ্যে সম্পর্ক নির্ধারণ করুন। তাজা মাছ ও প্রতিক্রিয়াজাত মাছের মধ্যে কি একই সম্পর্ক বিদ্যমান।
- এই ব্যবস্থায় কি মাত্রার সীমাবদ্ধতা বা বাঁধা বিদ্যমান এবং এর কারনসমূহ।
- ক্ষুদ্র ঋণ ব্যবস্থায় মহিলাদের ভূমিকা চিহ্নিত করুন।
- ক্ষুদ্র ঋণ এবং অন্যান্য আর্থিক সম্পর্কিত ইস্যু চিহ্নিত করুন যার উপর গবেষণা চালানো একান্ত প্রয়োজন।

আপনার প্রাপ্ত ফলাফলের উপর দশ মিনিটের একটা উপস্থাপনা বা Presentation ত্রয় ব্যবস্থা করুন।

একজন দলের মুখপাত্র নির্বাচন করুন। উপস্থাপনার পর মুখপাত্র তার প্রাপ্ত তথ্য কর্মশালা ব্যবস্থাপকের নিকট প্রদান করুন।

### টাস্ক ফর্ম :

ওয়ার্কিং গ্রুপ : পর্যাপ্ত ক্ষুদ্র ঋন প্রাপ্তির ক্ষেত্রে স্টেকহোল্ডারদের ভূমিকা এবং গুরুত্ব

- দরিদ্র মৎসজীবী জনগোষ্ঠী এবং ক্ষুদ্র ব্যবসায়ীদের জন্য পর্যাপ্ত ক্ষুদ্র ঋনের প্রকারভেদ।
- ক্ষুদ্র ঋনের যোগান ও সামুদ্রিক মাছের মধ্যে সম্পর্ক (কাঁচা ও প্রথাগতভাবে প্রক্রিয়াজাত)
- সিস্টেমের ভেতরের সমস্যা এবং এর কারণ সমূহ।

- ক্ষুদ্র ঋন সংক্রান্ত ব্যাপারে মহিলাদের ভূমিকা ।

- মূল ইস্যুসমূহ যেখানে গবেষণা হওয়া প্রয়োজন ।

- ক্ষুদ্র ঋন সংক্রান্ত সিস্টেমের উন্নয়নে ধারণা ।

ওয়াকিং গ্রুপ ৩ : মৎস বিতরণ চেইনের বাজারজাত করণ, ক্ষুদ্র ঋন এবং জীবিকার ইস্যু সংক্রান্ত গবেষণার পদ্ধতি নির্ণয়

উপকূলীয় জনগোষ্ঠী এবং জনগণ যারা মাছ ধরা পরবর্তী প্রক্রিয়ায় জড়িত তাদেরকে অনেক ধরনের বাজার জাতকরণ শৃঙ্খলের উপর বির্ভর করতে হয় যেখানে প্রধান স্টেইকহোল্ডাররা বা পনধারীরা সবচেয়ে গুরুত্বপূর্ণ ভূমিকা পালন করে বিশেষ করে ক্ষুদ্র ঋণ ও বাজারে প্রবেশধিকারের ক্ষেত্রে। বাজারজাতকনের চেইন সম্পর্কিত সম্পূর্ণ সামাজিক, অর্থনৈতিক ও কারিগরী ধারণা অনুপস্থিত। এ ব্যাপারটা অনেক জায়গায় উল্লেখিত, যেমন সরকারের মৎস চাষ সম্পর্কিত পঞ্চবার্ষিক মহা পরিকল্পনা, কোডেক ও দি ডিপার্টমেন্ট ফর ইন্টারন্যাশনাল ডেভেলপমেন্ট এর মাছ ধরা পরবর্তী গবেষণা প্রোগাম।

“উপকূলীয় জনগোষ্ঠী হতে মৎস বিতরণের” পরিপ্রেক্ষিতে ‘বাজার ও ক্ষুদ্র ঋনের প্রবেশাধিকার’ সম্পর্কিত গবেষণা প্রকল্প হাতে নেয়া হয়েছে। বর্তমান জীবিকা সংক্রান্ত এবং বাজার ও ক্ষুদ্র ঋনের প্রাপ্যতার তথ্য সম্ভরণের পাশাপাশি এই প্রকল্প কিছু মতামতও ব্যক্ত করবে যা পরিবর্তন ও দারিদ্র বিমোচন সংক্রান্ত।

লিটারেচার রিভিউ ছাড়াও, অংশগ্রহনমূলক, গুণগত এবং পরিমাণগত কৌশলের উপর ভিত্তি করে উপাত্ত সংগ্রহ ও নিরীক্ষা করা হবে। এগুলো পাটিসিপেটরী কুরাল এপ্রাইজাল, প্রশ্নপত্র জরীপ এবং দ্রুত বাজার যাচাইকরণ থেকে আহরণ করা হবে।

নিম্নের অনুশীলনের মাধ্যমে গবেষণার জন্য সবচাইতে ভাল উপায় ও কৌশল নির্ধারণ করা হবে। এর মূল উদ্দেশ্য হচ্ছে মৎস বিতরণ চেইনের সকল স্তর যেন গবেষণার আওতায় আসে।

টাস্ক :

আপনার ধারণা এবং বৈশিষ্ট্য উপর ভিত্তি করে যে গুলো অন্তর্ভুক্ত হবেঃ ভৌগোলিক অবস্থান, লিঙ্গ, ধর্মীয় পরিচয়, ব্যবসার মাত্রা বা আকৃতি, এবং মৎস বিতরণ চেইনে জড়িত স্টেইকহোল্ডার বা পনধারীদের প্রকৃতি। (উদাহরণঃ জেলে, প্রক্রিজাতকারী, ব্যবসায়ী ও ক্ষুদ্র ঋন প্রতিষ্ঠান)



পরামর্শ দিন যাতে করে জনগোষ্ঠী ও গ্রাম পর্যায়ে দারিদ্র, জীবিকা, বাজার ও ঋনের উপর গবেষণার সুবিধার্থে উপাত্ত সংগ্রহ করা যায়। আপনার পছন্দের পক্ষে যুক্তি দিন। গবেষণার পথে বাঁধাগুলো বর্ণনা করুন। একটা গ্রামে উপাত্ত (Data) সংগ্রহে সর্বোচ্চ ও সর্বনিম্ন কি পরিমান সময় লাগবে।

পরামর্শ দিন যাতে করে ব্যবসায়ী এবং মধ্যসত্ত্বভোগী স্তরের (উদাঃ পাইকার ও আড়তদার) জীবিকা, বাজার ও ঋনের ইস্যুর উপর গবেষণার সুবিধার্থে উপাত্ত সংগ্রহ করা যায়। আপনার পছন্দের পক্ষে যুক্তি দিন। গবেষণার পথে বাঁধাগুলো বর্ণনা করুন। একটা গ্রামে উপাত্ত (Data) সংগ্রহে সর্বোচ্চ ও সর্বনিম্ন কি পরিমান সময় লাগবে।

পরামর্শ দিন যাতে করে প্রাতিষ্ঠানিক পর্যায়ে (উদাঃ সরকারী অধিদপ্তর, বেসরকারী প্রতিষ্ঠান, আর্থিক প্রতিষ্ঠান এবং বিভিন্ন সংঘ) জীবিকা, বাজার ও ঋনের ইস্যুর উপর গবেষণার সুবিধার্থে উপাত্ত সংগ্রহ করা যায়। আপনার পছন্দের পক্ষে যুক্তি দিন। গবেষণার পথে বাঁধাগুলো বর্ণনা করুন। একটা গ্রামে উপাত্ত (Data) সংগ্রহে সর্বোচ্চ ও সর্বনিম্ন কি পরিমান সময় লাগবে।

আপনার প্রাপ্ত ফলাফলের উপর দশ মিনিটের একটা উপস্থাপনা বা Prevention ক্রয় ব্যবস্থা করুন।

একজন দলের মুখপাত্র নির্বাচন করুন। উপস্থাপনার পর মুখপাত্র তার প্রাপ্ত তথ্য কর্মশালা পরিচালনাকারী নিকট প্রদান করুন।

### টাস্ক ফর্ম :

ওয়ার্কিং গ্রুপ ৩ : সামুদ্রিক মাছ বিতরণ চেইনের বাজারজাত করণ, ক্ষুদ্র ঋন, এবং জীবিকা সংক্রান্ত ইস্যুর গবেষণার পদ্ধতি।

গবেষণার প্রক্রিয়া এবং কৌশলের প্রকৃতি নির্ধারণ করতে হবে যা জনগোষ্ঠী /গ্রাম পর্যায়ে কাজে লাগবে।

আপনার পছন্দের কারণ :

এই পর্যায়ের গবেষণার উল্লেখ্যযোগ্য সমস্যা সমূহ :

একটা গ্রামে উপাত্ত (Data) সংগ্রহে সর্বোচ্চ ও সর্বনিম্ন কি পরিমান সময় লাগবে ?

গবেষণার প্রক্রিয়া এবং কৌশল নির্ধারণ করতে হবে যা ব্যবসায়ী এবং মধ্যসত্ত্বভোগী পর্যায়ের তথ্য সংগ্রহে কাজে লাগবে (উদাঃ পাইকার ও আড়তদার ) ।

আপনার পছন্দের কারণ :

এই পর্যায়ের গবেষণার উল্লেখ্যযোগ্য সমস্যা সমূহ :

একটা গ্রামে উপাত্ত (Data) সংগ্রহে সর্বোচ্চ ও সর্বনিম্ন কি পরিমান সময় লাগবে ?

গবেষণার প্রক্রিয়া এবং কৌশল নির্ধারণ করতে হবে যা প্রাতিষ্ঠানিক পর্যায়ে (উদাঃ সরকারী অধিদপ্তর, বেসরকারী প্রতিষ্ঠান, আর্থিক প্রতিষ্ঠান এবং বিভিন্ন সংঘ ) তথ্য সংগ্রহে কাজে লাগবে (উদাঃ পাইকার ও আড়তদার ) ।

আপনার পছন্দের কারণ :

এই পর্যায়ের গবেষণার উল্লেখযোগ্য সমস্যা সমূহ :

একটা গ্রামে উপাত্ত (Data) সংগ্রহে সর্বোচ্চ ও সর্বনিম্ন কি পরিমান সময় লাগবে ?