

**REPORT ON PROBLEMS AND
PROSPECTS OF SMALL-SCALE
CYCLE FISH TRADERS
IN SRI LANKA**



Information Bulletin 15

**Problems and Prospects of Small-Scale
Cycle Fish Traders in Sri Lanka**

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Fish and fish products contribute significantly to the protein intake of Sri Lankans. Since fish is the most popular protein source, it is important for a continuous and stable supply of quality fish at a reasonable price to be made available to the population. However, fish is the most perishable of all proteinous foodstuffs. Spoilage, if not checked, leads to quality deterioration and post-harvest losses. The fish trader also suffers loss in revenue when the fish is sold for less than the best price obtainable as a result of spoilage or damage. It has now been recognised in Sri Lanka that there is a post-harvest fish loss (i.e., physical, economic and nutritional) in the present fishing practices (i.e., mode of fishing, methods of transportation) and subsequent marketing methods (i.e., handling and transportation of fish from trading centres to consumers).

The fish trade in Sri Lanka is mainly in the hands of wholesale dealers and retail vendors. The retail fish traders are self-employed people in the informal sector who are dependent on selling fish for their livelihood. Neither the lifestyle of these itinerant traders nor the significance of their contribution to the overall post-harvest fisheries process was, it would seem, given much importance until the Post-Harvest Fisheries Project (PHFP) of the Department for International Development (DFID) undertook a sub-project with the cycle traders from the early 1990s.

The Project studied the small-scale retail fish traders in Sri Lanka and identified the socioeconomic constraints of these fish traders that related to their trade and livelihoods. The Project also found little attention paid to the post-harvest processes in general in Sri Lanka. The primary objective of the Project's work in Sri Lanka thus was to enhance the quality of life of the itinerant fish traders and small-scale fisherfolk by introducing them to better post-harvest technologies. As part of this, a study of cycle traders operating from two markets and two fish marketing sites was made and a series of activities undertaken.

The aim of this report is to present an analysis of the cycle traders, their problems, needs and priorities, and to discuss the Project's work with cycle traders in Sri Lanka.

The DFID-PHFP is funded by the Government of the United Kingdom and covers three countries within the Bay of Bengal region, namely India, Bangladesh and Sri Lanka.

ABBREVIATIONS USED IN THE TEXT

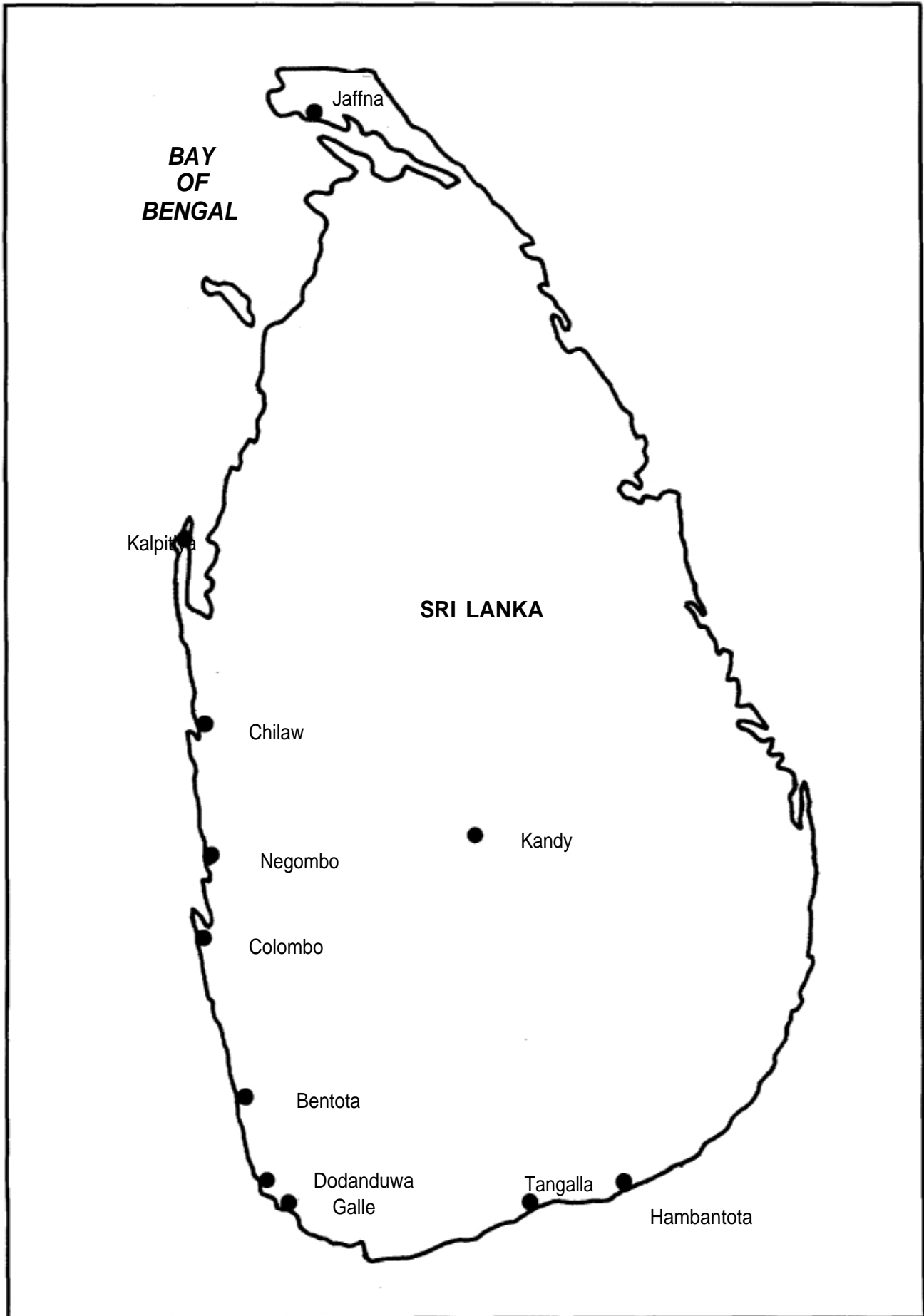
BOBP	Bay of Bengal Programme
DFID-PHFP	Department for International Development (UK) - Post-Harvest Fisheries Project
HNB	— Hatton National Bank
IRED	— Development Innovations and Network
JTF	— Janasaviya Trust Fund
MT	metric tonnes
N A M	— National Aquatic Resources Agency
NDB	National Development Bank
NGOs	— Non-Governmental Organisations
ODA	— Overseas Development Administration
Rs	Sri Lankan Rupees

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MAP OF SRI LANKA





Fish is usually taken from the markets to the consumers in wooden boxes carried on the back of bicycles. This often leads to spoilage of fish (above). The new semi-insulated fibreglass fish boxes introduced by the Project have reduced spoilage and made the purchase of fish more attractive for the consumer (below).





The semi-insulated fibreglass fish boxes are handed over to some cycle traders by Mr Mahindra Rajapakse, Minister of Fisheries and Aquatic Resources, Sri Lanka, at a ceremony in November 1997 (above). One of the motorcycle traders who received an insulated box proudly displays it to a consumer (below).



1. INTRODUCTION

1.1 Background

Sri Lanka is a small, multi-racial, multi-religious maritime country in **South** Asia. Fish and fish products contribute significantly to the protein intake of Sri Lankans. In 1990, the per capita consumption of fish of the island state **was** estimated to be 15 kg per annum. This had increased to 18 kg per annum by 1995. This high per capita fish consumption is consistent with the world trend, fish being preferred over other meat not only for health reasons but also because it is the cheapest form of protein meat available. Moreover, it is acceptable to all races in Sri Lanka.

Since fish remains the most popular protein source, it is important for a continuous and stable supply of quality **fish at a** reasonable price to be made available to the population. However, fish is the most perishable of all proteinous foodstuffs. Spoilage, if not checked, leads to quality deterioration and post-harvest losses. Onboard **handling** and preservation of fish in the artisanal fisheries sector is becoming increasingly more important as **fishermen have** to travel further out to sea, and stay for longer periods, to catch fish.

It has now been recognised in Sri Lanka that there is a post-harvest fish loss (i.e., physical, economic and nutritional) in the present fishing practices (i.e., mode of fishing, methods of transportation) and subsequent marketing methods (i.e., handling and transportation of fish from trading centres to consumers). The value of **fish** decreases with increasing deterioration. It should reach the consumer with minimum delay whether it is **harvested from the sea**, river, lake or a pond. The mechanisms involved in the conveyance of fish from the place of harvest **to the** consumer play an important role in post-harvest fisheries. In Sri Lanka, poorly developed infrastructure and technology mean that traditional practices are still in existence along the entire coast of the island. When fish is brought to the landing sites, it is conveyed fresh or chilled in ice to the consumers by the traders. The post-harvest process, from the landing site to the consumers, is a low profile, individually-controlled enterprise **though large in** dimension. While traders and consumers demand fresh fish, consumers in the hinterland hardly ever get **fresh and good** quality fish for their consumption, although the entire country is surrounded by sea. This is mainly associated with a lack of proper transportation facilities of the fish to the consumers.

The fish trade in Sri Lanka is mainly in the hands of wholesale dealers and retail vendors, although Government also has a role in the fishing industry and in fish marketing through its Fisheries Corporation. Their current practices play an important role in the overall post-harvest process.

The wholesale traders buy fish from the vessels at the landing sites. Landings take place either at the fisheries harbours or close to the beach landing sites. Some fish stocks are transported to central markets, such as the St. John's Fish Market in Colombo and the general market in Kandy, and sold both wholesale and retail. The retail vendors purchase a small portion of the stock, either directly from a fisher or a wholesale dealer.

The wholesalers are commonly known as fish *mdalalis*. The retail fish traders are self-employed people in the **informal** sector who are dependent on selling fish for their livelihood. These small-scale retail fish traders operate **in** different ways. Neither the lifestyle of these itinerant traders nor the significance of their contribution to the overall post-harvest fisheries process was, it would seem, understood until the Project looked at it from the **early 1990s**.

1.2 Retail fish traders

The small-scale retail fish traders operating from beach landing sites, fish trading centres or so-called auctions and fish markets can be broadly categorised into several groups.

The traders who sell their fish stock at the place of purchase are called 'stationary vendors'. They may be **either** ground vendors or slab holders.

The second category, the mobile retail traders, transport their fish stock to the consumers in several ways. **Of** these mobile traders, the most indigenous types are the 'pingo carriers' (kathkarayas) and the women head-loaders (wattiammas). Today, it is very rare to see a pingo carrier in urban areas. However, women head-loaders are commonly seen at beach landing sites along the west coast.

The most prominent mobile traders are the bicycle and motorcycle traders, called the 'cycle fish traders' or 'cycle traders'. They have progressively replaced the pingo carriers and the head-loaders in the retail fish trade over the

last two decades. The cycle fish trader transport fish mainly in wooden or galvanised boxes fixed to bicycles or motorcycles.

The box carriers are another group of mobile vendors who carry their fish stocks in cardboard boxes and use public or private transport. They may sell their fish stock from a fixed central place or sell it to pre-arranged places, such as hotels, restaurants and guesthouses. At present, the box carriers are only a few in number, as transportation has become a problem for them. Although it was common practice several years ago, public transport today is generally not used for fish transport.

1.3 The Post-Harvest Fisheries Project

This Project has always focussed on working with small-scale fishing communities in the marine artisanal fisheries sector. These communities traditionally suffer from natural disasters, environmental degradation, over-fishing and population pressures. Climatic changes also lead to an increasing instability in the coastal areas. Previous fishery capture and production orientated practices have been instrumental in placing more strain on the common pool of resources. Therefore, it is essential that the use of these resources is sustainably managed and the usage of such resources is maximised. The Project has worked towards this aim through improving the efficiency of post-harvest handling, processing and marketing of sustainably produced products. However, the Project has always taken a much broader approach in working with coastal communities through addressing issues that affect the lives of coastal fisherfolk communities and workers in the post-harvest subsector and, ultimately, has always worked towards sustainable livelihood strategies. The principal objectives of the Project are:

- to enhance the incomes of artisanal fishing communities and petty fish traders in India, Bangladesh and Sri Lanka;
- to identify and develop the potential for increasing the diversity of fish products marketed by these communities; and
- to strengthen the ability of non-government organisations (NGO) and fisherfolk associations to replicate and secure sustainable benefits from project activities.

1.4 Project on cycle fish traders in Sri Lanka

The Project worked with the small-scale retail fish traders in Sri Lanka to understand the socioeconomic conditions of these fish traders through the following activities:

- Establishing the occupational identity of cycle fish traders.
- Convincing the relevant authorities of the importance of their contribution to the post-harvest fishery.
- Identifying the problems, priorities and needs of these traders.
- Enhancing consumer preference of fish brought to their doorstep through the introduction of new technologies.
- Encouraging retail fish traders to institutionalise themselves into an organisation.
- Finding ways and means to upgrade their present social status.

As a preliminary step, a local NGO, the Development Innovations and Network (IREN) in Colombo, was entrusted with the task of carrying out a benchmark study on cycle traders operating from St. John's Fish Market in Colombo. Subsequently, from 1991, a series of activities was undertaken to achieve the anticipated goals. Baseline information on the demography and geographical distribution of the cycle traders operating from St. John's Fish Market was initially collected in 1991 and then a fibreglass insulated box was introduced. Later, similar studies were carried out in Negombo, Dodanduwa and Kandy with a view to introducing the new fish box. The new fish box was introduced to make available fish that was hygienically more acceptable to consumers and to improve the economy of the cycle traders.

The aim of this report is to highlight the work carried out by the Project in supporting the cycle traders in Sri Lanka.

1.5 Pilot study

The preliminary study at St. John's Fish Market was focussed on a group of retail fish traders who lived within Colombo city limits or suburbs and used motorcycles or bicycles to transport fish to their respective marketing destinations.

One of the underlying assumptions of the study was that by improving the existing technology adopted by the retail fish traders while fish marketing, there was a greater likelihood of raising their incomes. Therefore, a pilot study was carried out initially to explore the possibilities of improving the quality of the fish container. *i.e.*, the wooden or galvanised box, used by the traders to transport fish. It had been observed that the containers used required larger quantities of ice for the preservation of fish. resulting in reduction of the space for marketable fish, increase in the working capital of the trader, and decrease in the level of income of the fish traders. Further, it was also found that the wooden containers were easily susceptible to the growth of fungi and could result in a supply of low-quality and unhygienic fish to the consumer. All these disadvantages associated with the existing system of fish marketing, therefore, had to be taken into consideration before introducing an improved version of the container.

With these objectives and assumptions in mind, the design of the study constituted the following stages:

1. A preliminary survey of the motorcycle and bicycle retail fish traders operating from St. John's Fish Market to identify the basic characteristics associated with the traders and their fish marketing.
2. Identification of the problems, difficulties etc. associated with fish marketing, and assessment of the needs and priorities of the fish traders in relation to fish marketing.
3. Assessment of the response patterns of the fish traders to the improved version of the fish container.
4. An in-depth study of a selected group of fish traders to be undertaken with a view to gaining a broad understanding of the socioeconomic status of the traders and the factors mentioned in 2 above.
5. Introduction of the improved version of the fish container to a selected group of fish traders and monitoring of the socioeconomic changes that would occur in fish marketing as a result of the new technology.

1.6 Methodology

Approximately 500 retail fish traders of the type targeted by the study operated daily from St. John's Fish Market. The initial aim was to have a proper count of these traders and to identify some of the basic characteristics of their business.

A pre-coded questionnaire was used to collect some of the basic information from the mobile fish traders. As the time the traders could devote for interviews was constrained by several competitive activities (e.g., obtaining credit from moneylenders, bargaining, purchasing fish and ice, paying bicycle caretakers and transportation), neither an extensive survey nor collection of in-depth information was possible. Due to these constraints, the survey had to be conducted in a 'hit-and-run' fashion. However, the reliability of some of the information collected through this survey was verified through personal observations by the researchers. The researchers were also asked to monitor at regular intervals the number of fish traders reaching the market. This exercise took the form of a 'head count'. The process lasted six weeks.

The preliminary survey provided an indication of the problems associated with fish marketing by retail traders and what their needs and priorities were. Arrangements were made to bring together a selected group of mobile fish traders for a dialogue to identify and understand their problems, needs and priorities. This meeting, it was expected, would also provide an opportunity to demonstrate specimens of the improved equipment developed for fish marketing by the Project and to assess the responses of the participant fish traders. Workshops on these lines were later held in Negombo, Dodanduwa and Kandy.

1.7 Marketing structure at the study sites

St. John's Fish Market: This is the largest fish market in the country and located in the heart of the commercial centre of Colombo. The market, which receives fish from throughout the country, is the main wholesale and retail distribution outlet for the metropolitan area and its outskirts. The activities of the market are managed by the Urban Development Authority. Fish brought to the market by both private fish dealers and the Fisheries Corporation is generally sold wholesale from 5.30 to 8.30 in the morning. Retail purchases can be made throughout the day.

A large number of fish traders arrive at the market in Colombo in the early hours of the day to purchase and transport fish to various parts of the country. The wholesale fish traders who come from distant areas transport fish to their marketing outlets by lorry and/or van, whereas the retail traders use motorcycles or bicycles. Public transport is hardly used. The cycle fish traders do not own fish stalls, but sell fish primarily to households and 'boutiques' (petty shops) in the trader's area of operation.

Negombo: Both wholesalers and retailers can purchase fish directly from vessels when they are brought to Maha *Lellama* (large landing site). In general, the price is fixed by the main crew member of the vessel. The fish bought by wholesalers from trawlers or other vessels are brought to nearby fish trading centres for auction. Though there is the opportunity for retail fish traders to purchase directly from the vessels, they compete with the wholesale dealers or beach assemblers only rarely. Retail traders tend to purchase their fish stocks from the auction at the trading centre if they are satisfied with the prices. Trawler catches brought to the landing sites have usually been preserved in ice for several days. The deep sea fishing boats that land during the evening or night also keep their catch in ice for auction the following morning. In addition, fresh morning catches are also brought to Maha *Lellama*.

The selling practice of fishermen at Kuda *Lellama* (small landing site) is more or less similar to that at Maha *Lellama*, but there is no particular trade centre there for auctions. Unlike at Maha *Lellama*, retail traders can easily deal directly with the fishermen at this landing site. In the case of small retail traders, bidding and negotiating with the fishermen are more flexible here than at Maha *Lellama*. The fish landed at Kuda *Lellama* are rather small varieties, but they are always fresh. Big fish are transported by van from Maha *Lellama* to Kuda *Lellama* for auction. Fish landings and trade start from early morning and last for several hours at both landing sites. A few fishing craft reach the landing sites during early afternoon. Both landing sites are crowded during peak trading hours (i.e., between 5:30 a.m. and 9:30 a.m.). In addition to fishermen and traders, various types of assemblers play an important role at the fish trading centres at these landing sites. Consumers also can be seen at the landing sites. Groups of skilled people are available for slicing the big fish at both landing sites.

Both Kuda *Lellama* and Maha *Lellama* have ice facilities and retail traders purchase ice at a rate of about Rs. 10 a kilo. In addition to the main fish trading centre at Maha *Lellama*, a small area is reserved for retailers who use the ground or open baskets to display the fish to consumers. This area is monopolised by women ground vendors and head-loaders. It has become almost a cultural practice for consumers to enjoy bargaining with the cigar-smoking ground vendors here. There is also a small sheltered trading centre at Maha *Lellama* used as a retail market for lagoon fish caught in the Negombo lagoon. Preliminary observations indicated there were about 800 retail fish traders operating daily from the Negombo beach landing site. This number varied significantly with fish availability during the different seasons (monsoon and pre-monsoon). Therefore, as an initial step, it was decided to obtain a proper census, assess the geographic distribution of these traders, and identify some basic characteristics associated with their occupation.

Dodanduwa: Both wholesale and retail fish trade occurs at the landing site on the beach in a form of auction. Fish trading goes on throughout the day, but the main auction is in the morning, with another in the late afternoon. Wholesalers and retailers can bid for fish directly from the craft or beach seine at the auctions. Near-shore craft that land during the previous evening or night preserve their catch in ice for auction the following morning. In general, the fish catches landed during the day are fresh.

The selling practice of fishermen at the Dodanduwa landing site is more or less similar to that at the Kuda *Lellama* in Negombo, where the price for fish is based on supply and demand and not by weight. Bidding and negotiation with fishermen are common practices.

The landing site is crowded with wholesalers, retailers and assemblers during peak trading hours. In addition, some consumers also buy directly from the fishermen. When a beach seine catch is landed, the auction is usually conducted by the owner of the net. There is a small ice stall at the entrance to the landing site, where ice is sold at prices fixed per slab of 7 lb, 14 lb, 21 lb, etc.

Kandy: The Kandy Market has a wholesale and retail trade centre, owned by the local government authorities who issue licences to the traders. The fish market opens at 6.00 a.m. for retail traders and consumers, and business goes on till late evening. There are separate sections in the market for wholesale and retail fish trading. There is also a retail outlet here run by the Ceylon Fisheries Corporation. And a few ground vendors, slab holders and plank holders are found. The Kandy Fish Market is fairly well organised compared to other markets in non-fish producing districts of the island.

Unlike the fish trading centres in the coastal districts, the Kandy market has no ice facility. All varieties of fish are sold in the wholesale and retail sections, including fresh water varieties such as Tilapia. Inland fish have a good demand and are brought to the market from major reservoirs (e.g., Maduruoya and Kantale).

The wholesale dealers in Kandy fix the prices for fish on a weight basis and the price differential between wholesalers is minimal, allowing little room for bargaining.

2. CYCLE TRADERS

The cycle traders are a unique and popular group of mobile retail fish traders who operate either from beach landing sites or fish markets. Apart from the studies carried out by IRED from 1991, no attempt has been made to examine the geographic distribution, demography, socioeconomic lifestyle or the political setting of these itinerant traders. Nor has their contribution to post-harvest fisheries and the industry been assessed. These self-employed people have been totally neglected by the state, private sector, and NGOs. Fishermen and wholesale fish dealers too do not appear to regard cycle traders as an important segment of the fisheries industry. This is perhaps due to the amount of fish they individually purchase, from wholesalers or fishermen, not being significant compared to the fish stock of a wholesaler or the total landing of a fisherman. They usually operate on an individual basis in a more or less isolated manner. Not being organised as a group, they are in a weak bargaining position at the landing sites or trading centres.

2.1 Census and socioeconomic groups

No estimate is available on the motorcycle or bicycle traders involved in the retail fish trade in Sri Lanka as a whole. Apart from the 800 cycle traders operating from St. John's Fish Market, Colombo, a more or less similar number of cycle traders has been estimated at the Negombo beach landing sites (i.e., Kuda **Lellama** and Maha **Lellama**). The number of cycle traders operating from the Dodanduwa beach landing site is approximately half this number. This may perhaps be attributed to the population density of the area. The number of retail fish traders operating from the Kandy Fish Market is less than one hundred, perhaps due to poor availability of fish there.

These cycle traders can be broadly categorised into three distinct socioeconomic groups (i.e., upper, middle and lower) on the basis of the amount and the nature of the assets they own (see page 12)

The entry of motorcycles into this trade is a fairly recent development, perhaps a sign of the newly-established market economy of the country. Motorcycle traders are less than 15 per cent of the overall number of cycle traders operating from the major market centres and beach landing sites.

2.2 Purchase and processing

The cycle traders reach beach landing sites and fish trading centres from as far as 25 km away. When they come from distant areas, they transport their bicycles in other types of carriers (e.g., lorries) prearranged by them. Usually, they reach the trading centres or landing sites early in the morning to purchase fish caught the previous night. The peak trading hours are between 6.00 and 7.00 a.m.

The traders face several difficulties if they arrive late at the market. They have only about an hour to decide how much fish to buy, what varieties and sizes of fish their customers may require, and what price to pay. Experience tells them that prices fluctuate widely as fishing craft arrive at the beach landing sites or truckloads of fish arrive from other landing sites. They are conscious of all these factors: they cannot spend too long debating over what fish to buy, for there is a high degree of risk involved in marketing such a highly perishable commodity, particularly if another cycle trader on his route gets there before him.

The cycle traders purchase fish either for ready cash or on credit. In the latter instance they have to pay the supplier five per cent interest the following day. If the trader fails to do so, a penalty of Rs. 50 a day is generally imposed. Because of this, most small-scale traders like to purchase fish for ready cash. However, cash limitations compel them to purchase fish on credit or with money borrowed from moneylenders on interest.

Once they have made the day's purchase, most of them place their fish on a small amount of ice as a measure of preservation. Usually, traders buy 7-10 kg of ice, which is just enough to keep their fish in a reasonably fresh condition until they reach their customers. The traditional method of preservation of fish, by mixing it with beach sand, is also still in practice among retail traders.

Traditionally, cycle-traders carry fish in wooden boxes. Nowadays, galvanised boxes or wooden boxes fixed in galvanised frames are also used. In addition to the vehicle and the box, a knife and a weighing scale are the main tools associated with the trade. Usually, bicycle traders carry fish stocks of between 10 and 40 kg, while motorcycle traders carry much more, depending on their routes of operation.

The varieties of fish they purchase are always directly related to the type of fish available at the landing sites or trading centres, the money available to them and the type of clients they serve. Their stocks may comprise both

big varieties, such as *thora* (seer or Spanish mackerel), *para* (Malabar snapper), *thalapath* (Indian banana sailfish) and small varieties like *hurulla* (trench sardine), *salayn* (black-tipped sardine), *gomassa* (bass), *halmassa* (Commerson's anchovy/sprats), *sudaya* (short-bodied sardine), *podissa* (shrimp) and *piyamassa* (flying fish).

2.3 Marketing territory

Cycle traders usually carry fish for quite a distance. However, a cycle trader's selling area is always not very far from his residence. To trade, he usually chooses a marketing territory between the purchasing site and his residence. There are instances when several cycle traders operate on one route. But most of them have regular clients along this route who do demonstrate a degree of loyalty.

Motorcycle traders, it would appear, are at an advantage with respect to investment, efficiency and profit earning.

2.4 Trader families

A majority of the cycle traders engaged in door-to-door sales are married and have families. The young and middle-aged traders tend to have smaller families, generally not more than 4 or 5 persons in the family in most cases.

2.5 Daily expenses and financial stability

The daily expenses of an individual cycle fish trader are quite high. This may be directly attributed to the way the trade is conducted. They are mobile and go from house to house. It is very important for them to finish their daily route and sell almost their entire stock before it perishes. The need for speedy transactions with several clients hardly permits them to spend extra time on meals or tea. Spending money for tea, snacks and cigarettes or meals during trade is quite expensive. It is very rare to see a cycle trader carry lunch with him, for he leaves home very early and also has no place to eat while trading. A majority of them, tired by evening, consume liquor. Then daily expenses are quite high, roughly Rs. 35-50 a day. The rest of the profit is used for household requirements. Only a few traders budget their expenses properly to invest the following day. Those with financial stability are those who attempt to save something, especially through a saving system called *seettu*, which is very popular with people who do not deal with the banking system.

2.6 Residence

The residences of the cycle traders who operate from St John's Market are located around the periphery of the city. The cycle traders operating from the Negombo beach landing sites are from the Minuwangoda area, while most of those at the Dodanduwa beach landing sites are from the Ratgama area.

Fishing is the traditional vocation of a certain group of people who live along the coast of Sri Lanka. However, those living in Ratgama mainly belong to the Salagama caste and fishing is not a traditional vocation inherited from their ancestors. They presumably entered the fish trade as they do not have other indigenous skills or occupational experience and the fish trade is an easy vocation to practise. The people in Minuwangoda, about 10 km southeast of the Negombo beach site, also have no access to fishing nor do they belong to the fishing castes. They have taken to the trade probably due to the demand for fish.

2.7 Age groups

A majority of the cycle traders are in the age group of 30-50. Most younger people enter the fish trade through experienced traders (e.g., relatives or friends). The majority of younger traders who enter the trade through experienced traders have more opportunities for succeeding than those who have entered the trade on their own; the latter tend to leave the trade after some time due to their lack of knowledge and background support.

The percentage of traders over fifty years of age who are actively involved in the trade is relatively low, indicating that most cycle traders leave the vocation after a certain period due to various reasons. Thus, this is a most vulnerable group in terms of social welfare and security.

The experience of the cycle traders in fish retailing varies from a couple of months to about 40 years. A majority of the traders who have continued for longer periods have 10-15 years of experience, irrespective of the place where they operate from.

2.8 Selection of vocation

The education level of the majority of cycle traders is very low. The retail fish trade is a family occupation with

some traders. There is also evidence that some traders have entered this vocation through marriage. When a close relative or a family member is already engaged in the retail trade, it is a positive incentive for others in the family to join the trade.

The extremely low capital investment involved in the trade and its immediate profits have encouraged some traders to covet the fish trade as a means of livelihood. The absence of any sort of supervisory control and the freedom involved have also led some to select this vocation. Also, starting in this trade has few problems; there is no need to rent a place, the need for registering a business has not yet arisen, and the traders are outside the tax net.

2.9 Competition in, and contribution to, post-harvest fisheries

Cycle traders operate in the private sector and competition is a factor they have to contend with at the landing sites, marketplace and during selling.

The cycle traders play a very important role in the overall process of the post-harvest fishery and, subsequently, in the nation's fishing industry. Assuming that a cycle-trader carries an average of 20 kg of fish a day, it can be extrapolated that cycle-traders, operating from the markets and beach landing centres in the major fishing areas, carry about 12,000 mt. of fish to consumers annually. This is a substantial percentage of the total annual marine fish production of the country.

Consumers find these traders indispensable, as it is a convenient arrangement that saves them time and unnecessary expense. The system especially benefits middle class or poor people whose houses are not equipped with refrigerators and who, therefore, have to purchase perishable food commodities on a daily basis. These families may also need credit facilities in some instances. It is very unlikely that they would be able to purchase fish on credit from traders selling fish at the main market. In most cases, cycle traders and regular customers have this type of arrangement. A mutual understanding develops when they associate with each other for a considerable period. This may be one of the strategies that cycle traders adopt to establish a network of regular clients. Consumer acceptance is the principal factor that governs this trade, which in turn is determined by the supply of good quality fish to them at affordable prices.

2.10 Cycle traders operating from St. John's Fish Market

The survey conducted at the St. John's Fish Market covered 496 retail fish traders. The monitoring process set up to take a head count of mobile fish traders operating from St. John's Market counted about 500 traders. Thus, the survey covered most of the regular fish trader population operating from the market. The survey was oriented mainly towards identifying the basic characteristics of the traders and to serve as a database for the prospective in-depth study.

Of the 496 traders covered by the survey, 418 (84.3%) used bicycles to transport fish, whereas the rest used motorcycles. The fish container used by a majority of the traders (60.1%) was a box exclusively made of wood. Another 18.3% of the traders used a galvanised box. Wooden boxes covered by galvanised sheets were used by the rest.

The trader's transactions take place at St. John's Market from 5 to 8 in the morning, the peak time being 6-7. with 77.3% of the traders completing their business by 8. A little more than half the trader population (55%) called off the day's marketing by 1 p.m. whereas 35% went on up to 4 p.m. Closure of business early, however, does not mean that the trader has been successful in marketing the total amount of fish bought for the day. The survey revealed that some traders stored the unsold fish overnight in a refrigerator belonging to a neighbour.

The varieties of fish generally taken by the traders to their respective markets could be classified into two major groups, namely the 'big' and 'small' varieties. The fish belonging to the tuna family (e.g., striped tuna, **balaya**; skipjack tuna, **alagoduwa**; yellow fin tuna, **kelawalla**) and sailfish (**thalapath**), seer (**thora**), shark (**mora**), snapper (**galmalu**) and trevally (**para**) are classified as big varieties, while mackerel (**kumbalawa**), trench sardine (**hurulla**), alligator gar (**habarali**) leatherskin (**bolla**), sardine (**salaya**), flying fish (**piyamassa**), bream (**mivatiya**), bass (**gomassa**) and sprats (**halmassa**) are the small varieties. Of the 496 traders, 73.2% generally supplied a mix of big and small varieties to their customers, whereas 6.3% sold only big fish and 20.67% sold small fish exclusively.

The quantity of fish that the retail traders transported to their marketing outlets was relatively low and in a majority of cases (87.5%) was 25 kg or less, with a mean of 19.3 kg. The average quantity of fish transported by the bicycle traders was 16.7 kg against the 29.3 kg by motorcycle traders.

The survey also attempted to identify at least some of the basic problems associated with fish marketing by mobile traders. Nearly 75% of the traders perceived ice as a major problem. This problem was primarily related to the high rate of ice melting inside the present fish container and, therefore, the increased expenditure on ice that has to be borne by the traders.

The majority of the fish traders covered by the survey were less than 50 years old, with a mean age of 35.5 years.

2.11 Cycle traders in Negombo, Dodanduwa and Kandy

Following the survey in St. John's Market, surveys were conducted in Negombo, Dodanduwa and Kandy. The findings are summarised in this section.

Census and distribution: Cycle traders operating from the Negombo and Dodanduwa landing sites are collectively a significant segment of the overall fish trade when compared with the Kandy Market. Some push bicycle traders operating from Negombo beach landing sites carried their bicycles in lorries up to Negombo Town. These cycle traders are from distant areas and the vehicles that transport their bicycles usually bring building materials from Kochchikade and Nattandiya.

At the Negombo fish trading centre, the cycle traders have free access to Maha **Lellama**, while they have to pay a parking fee of Rs.2 for each bicycle and motorcycle at Kuda **Lellama**, essentially to assure the safety of the vehicles. No money is charged to enter either the Dodanduwa beach landing site or the Kandy Market.

The topography of the area seems to be one of the main factors that determines the nature and number of small-scale retail fish traders operating from the Kandy Market. Cycle traders operating from the Kandy Market do not use ice to preserve their fish. This may be attributed to one of the following factors:

- They purchase fish already preserved in ice for a long time and this fish may be seen to remain without spoiling for a short period.
- The rate of deterioration of chilled fish at a higher elevation may be a slower process compared to the coastal areas.
- The fish may reach the consumer within a short time as it is not transported to distant areas.

The number of cycle traders studied under the baseline surveys at both landing sites (i.e., Negombo and Dodanduwa) and the Kandy Market are given in Table I.

The cycle traders operating from these fish trading centres lived within a 20 km range (Table 2). Their marketing territories, although scattered through the area, were close to their residences. This is a common trend among the cycle traders.

652 cycle traders from 22 small townships, mainly from the Gampaha District, came to the Negombo beach landing sites. Of them, 217 (33.8%) were from Minuwangoda, a small township 11 km northeast of Negombo.

Of the 189 cycle traders recorded in the Dodanduwa beach landing site, the largest number came from Ratgama (26.8%) and Dodanduwa (25.5%). Ratgama is about 6 km south of Dodanduwa. The cycle traders operating from Dodanduwa are from the Galle District, except for two traders who came from the Ratnapura District.

Only 51 cycle traders were recorded at the Kandy Fish Market, of whom 45 (90%) used bicycles.

Although the residences and marketing territories of the cycle traders were mainly confined to the Kandy

Table 1: Census of motorcycle and bicycle fish traders operating from Negombo and Dodanduwa landing sites and the Kandy Market.

Traders	Negombo%	Dodanduwa %	Kandy %
Bicycle	580 89	143 74	46 90
Motorcycle	72 11	46 26	05 10
Total	652	189	51

Table 2: The frequency distribution of bicycle and motorcycle traders visiting Negombo, Dodanduwa and Kandy fish trading centres and the different distance ranges.

Distance (km)	Negombo		Dodanduwa		Kandy	
	PB	MB	PB	MB	PB	MB
00-05	62	3	65	20	8	0
06-10	15	2	40	9	9	0
11-15	230	23	18	8	6	0
16-20	88	7	10	3	10	2
21-25	74	6	2	6	3	2
26-30	64	19	4	3	4	0
31-35	29	12	0	0	0	0
36-40	6	1	0	0	1	0
41-45	0	0	0	0	3	1
46-50	0	0	0	1	1	0

District, there were a few traders from Kegalle, Matale and Nuwara Eliya. The cycle traders operating from the Kandy Fish Market appear to have a wider geographic distribution than those operating from the Negombo beach landing sites. Of the three fish trading centres under study, the highest percentage of motorcycle traders (26%) was found in the Dodanduwa beach landing site (Table I).

The age distribution of the cycle traders operating from the Negombo and Dodanduwa beach landing sites and the Kandy Fish Market is given in Table 3. 52.3 per cent of the cycle traders operating from the Negombo landing site were in the age group of 31-50. Only 25 (3.8%) cycle-traders were over 60 years while 24 (3.77%) were between 16 and 20 (Table 3). The trend in age distribution of cycle traders operating from Dodanduwa and Kandy was more or less similar to that of the Negombo fish landing sites. However, only a few cycle traders over 55 years were found at Dodanduwa and Kandy (Table 3). The percentage of younger cycle traders at Dodanduwa was smaller than at Negombo.

Years in trade: The experience of the cycle traders in the retail fish trade ranged from a couple of months to 40 years (Table 4). 359 (55.0%) traders operating from the Negombo landing site had experience of less than 5 years and 31% of these traders had engaged in the trade only for a couple of months. Only 23 (3.5%) traders had continuously engaged in this trade for more than 25 years.

In the case of Dodanduwa, only 29.6% had entered the trade 5 years earlier, of whom 34.9 per cent had 5-10 years' experience and 35.1 per cent had engaged in the trade for more than 10 years. The experience of the cycle traders in the Kandy Market ranged from less than one year to 25 years. Only 15 traders (30%) had between 6 and 10 years' experience in the trade. However, there were eight traders with less than a year's experience. Only six traders (12%) had been more than 20 years in the trade. It was found that some of the traders operating from the Kandy Market were farmers who engaged in the fish trade only when they had no work in the paddy fields. The number of years they had been in this trade and the nature of their experience needed to be further explored.

The majority of the new entrants (young cycle traders) to the fish trade were relatives of experienced traders. They had initially been associated with the trade as assistants or helpers to kinsmen and had gradually become independent and stable traders.

Box type: The types of boxes used by the cycle traders is given in Table 5. Of the 652 traders identified during the baseline survey in Negombo, 579 (90.15%) used wooden boxes to transport fish to their consumers. Only nine (1.4%) traders used galvanised fish carriers while 52 (8.0%) used wooden boxes with a galvanised base. It was also found that two traders had been using fibreglass boxes introduced by the BOBP.

The percentage of cycle traders using wooden boxes at Dodanduwa was more or less similar to that of the traders operating from Negombo (Table 5). However, cycle traders operating from the Kandy Fish Market used only wooden boxes. Though 14 galvanised boxes were counted at Dodanduwa, there were no fish traders there using

Table 3: Age distribution of cycle traders operating from the Negombo and Dodanduwa landing sites and the Kandy Market

Age group	Negombo %	Dodanduwa %	Kandy %
16-20	24 03.7	03 01.5	03 06.0
21-25	72 11.2	10 05.3	03 06.0
26-30	118 18.4	32 17.0	06 12.0
31-35	103 16.0	43 22.3	10 20.0
36-40	98 15.3	44 23.4	12 24.0
41-45	79 12.3	23 12.2	06 12.0
46-50	56 08.7	08 09.6	06 12.0
51-55	43 06.7	09 04.7	05 10.0
56-60	24 03.7	01 00.5	01 02.0
61 <	25 03.9	01 00.5	03 06.0
Total	642	189	51

Table 4: The frequency distribution of years of experience of cycle traders operating from the three fish trading centres

Period	Negombo%	Dodanduwa %	Kandy %
00-05	359 55.0	56 29.6	16 32.0
06-10	142 21.7	66 34.9	15 29.4
11-15	75 11.5	41 21.6	07 14.0
16-20	34 05.2	12 06.3	05 10.0
21-25	48 02.8	07 03.7	06 12.0
26-30	17 02.6	03 01.5	-
31-35	03 00.4	02 01.0	-
36-40	04 00.5	02 01.0	-
Total	652	189	49

Table 5: Types of fish containers used by the traders to transport fish stocks to their consumers

Type	Negombo%	Dodanduwa%	Kandy %
Wooden	579 90.2	175 92.5	51 100
Galvanised	09 01.4	14 07.5	-
Wooden with galvanised base	52 08.2	00	-
Fibreglass	02 00.3	00	-

wooden boxes with galvanised bases. The significantly high percentage of wooden boxes is a direct indication of the affordability of this type of box. The use of wooden boxes with a galvanised base by the traders operating in Negombo, however, might indicate that the traders were willing to change the type of box used for various reasons.

Fish varieties and quantity: The types of fish purchased by the traders can be divided into three distinctive groups (i.e., small varieties, big varieties and mixed varieties). The percentage of cycle traders who purchased different fish varieties at the three fish trading centres are given in Table 6. Of the cycle traders interviewed in Negombo, 76.3% purchased mixed varieties on a regular basis (Table 6). The percentage of traders whose markets are exclusively based on selling only either big varieties or small fish was 6.7% and 17.0% respectively. This trend is more or less similar with respect to retail traders operating from the Dodanduwa beach landing site and the Kandy Market (Table 7). A relatively small percentage in Dodanduwa purchased only big varieties (0.6%).

The type of fish purchased by the traders is, in fact, determined by the availability of fish in the market place and the preference shown by the respective customers. The reason why a majority of traders purchase mixed varieties may be attributed to the effort made to get more clients in both the middle and low income groups by catering to customer habits and preference.

Preservation: Ice is an important item in the retail fish trade because the traders have to keep their fish fresh for at least 7-8 hours from morning to evening. The ice melting rate in lidless wooden or galvanised boxes is relatively high in warm humid areas. The money spent on ice by the traders at the fish landing sites is always determined by the weight of the fish stock purchased. The survey revealed that the traders had been using about 2 kg of ice for 12- 15 kg* of fish. Thus, they had been spending about Rs. 6.50 for 10 kg of fish. This situation is more or less similar in Negombo and Dodanduwa.

The quantity of fish that retail traders transport to their marketing territories ranged from 11.5 kg to 40.5 kg during the baseline survey, with a mean of 13.6 kg. The average quantity of fish transported by the bicycle traders was 14.9 kg, while it was 24.6 kg in the case of motorcycle traders.

Contribution to post-harvest fisheries: There is no doubt the cycle traders play an important role in post-harvest fisheries. This was clearly demonstrated during the baseline survey conducted at St. John's Market in Colombo. As there are about 700 cycle traders operating from the Negombo fish landing site and they purchase 15-25 kg of fish daily, it can be extrapolated that they transport about 280 mt of fish a month. This is a substantial part of the marine fish production of the Negombo District according to Fisheries Department statistics (Table 7). The statistics show that the total fish production varied between 462 and 835 mt during the period of the survey (November-January). Fish production in the Galle District was higher during this period (Table 7) and ranged from 489 to 857 mt, with a mean of 632 mt a month. About 80 mt of this catch (about 14% of the total fish production of the Galle District in January 1993) was transported to consumers by the cycle traders of Dodanduwa.

The quantity of fish transported by the cycle traders to their consumers from the Kandy Fish Market was about 22 mt a month. However, sufficient data was not available to compare this with the total fish quantity that reached the Kandy Fish Market monthly.

Table 6: Percentage of different types of fish purchased by bicycle and motorcycle traders at Negombo and Dodanduwa landing sites and the Kandy Market.

Type	Negombo	Dodanduwa	Kandy
Small varieties	170.3	17.4	6.0
Big varieties	6.7	0.6	10.0
Mixed varieties	76.3	82.0	84.0

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Table7: Monthly fish production (mt) during May 1992 - June 1993 in the fisheries districts of Negombo, Galle and Colombo.

Year	Month	Negombo	Colombo	Galle	
1992	May	362	55	190	
	June		42	432	
	July	294	57	174	
	August				
	September				
	October	680	66		
	November	835	174	616	
	December	462	175	857	
	1993	January	622	158	565
		February	651	167	489
		March	424	130	305
		April	478	97	
May		475	84	297	
June		418	35	253	
July					

* Ideally it should be 1 kg of ice to 1 kg of fish

3. SOCIOECONOMIC LIFESTYLE

3.1 Introduction

The pattern of distribution, the socioeconomic status and the personality traits of the cycle traders were studied and reveal a diverse group of people. These fish traders generally have a rugged appearance and rough mannerisms, wear dirty and sometimes bloodstained clothes, and always carry a knife. This conveys the impression that they are rough, tough and ignorant. Of course, a majority of the cycle traders are economically weak and are at a low level in the social hierarchy. Neither the public nor private sector has identified the importance of this group in the overall process of the post-harvest fisheries. Though a few traders have some fixed assets, there are many who cannot be certain about a daily income. Since they are at relatively low levels of the social hierarchy, they benefit less by the social support systems.

It is easy to misjudge the lifestyle of the cycle traders as being carefree and simple, because these isolated people have never articulated their problems, needs and priorities. There are occasions when they return home empty-handed, owing to the high price of fish. They have few plans for the future and live from day-to-day with the resources available to them. They face extreme difficulties at times.

From January to June, when the catch is very poor, there are days when fish cannot be obtained even at a very high price. The demand by the traders far outweighs the quantity of fish available and results in an increase in both the purchasing and selling price. There is also a marked decrease in consumer demand, as very few people can afford to purchase fish at such high prices. Therefore, the profit per day during this season varies between Rs. 100 and 200, and the number of days in trade ranges between 10 and 20 a month. In some cases, it is even less than ten days a month. During the fishing season, however, from July to December, fish can be purchased at a much cheaper rate with a decrease in the selling price. As there is high consumer demand during this season, the daily profit of individual traders ranges between Rs.400 and Rs.600 a day.

A part of what they earn is spent on day-to-day living. Because of this the traders at times have to fall back on moneylenders who demand a very high rate of interest. They also experience hardships resulting from drunkenness, which causes internal squabbles, affects their children's education and leads them into debt.

The factors that could retard the progress of this trade are lack of working capital, the increase in the cost of the fish they have to purchase and uncertainty of supply due to adverse weather conditions. On such days, the money they bring to purchase fish is used for subsistence, depriving them of money to purchase fish the following day and compelling them to borrow money at high rates of interest. The wholesale trader is in a position to cause a rapid fluctuation in the price of fish and the retail trader is directly affected as it lowers his profit. The high cost of living, and the instability of their income are problems which need to be addressed. The only solution appears to be careful budgeting of their income.

Most of them have fairly large families and what they earn is not adequate to meet their daily expenses. On an average they earn around Rs.3000 a month, which is barely sufficient to cover their basic living expenses. The small savings they have are invariably spent during church feasts or festive seasons like the New Year and Christmas. They often also borrow money for these purposes. This money is spent extravagantly to show others that they are socially on a par with them. Some people have had to give up the trade due to such extravagant spending and consequent indebtedness.

Some of them live in rented shanties in slum areas. Their housing is very poor and only a few live in their own homes.

3.2 Socioeconomic background

The baseline survey conducted among the mobile fish traders facilitated identification of a number of basic features associated with them and their occupation. At the beginning of the survey, a database was provided to identify some of the important sociological and technological issues that needed to be further researched.

An important aspect that needed to be noted, especially with regard to the motorcycle traders (as their operational inputs were relatively high), was the implication that the distance from the operation area to the main fish market could have an impact on fish marketing. The working capital of the trader would rise, and eventually the fish prices, if the distances from the area of operation to the fish market and vice versa were longer. The study also

highlighted that a little less than 50 % of the traders carried out their marketing operations in areas beyond 15 km. suggesting a possible increase in fish prices to consumers in those areas.

A majority of the fish traders (58%) had to depend on private moneylenders to carry on their business transactions. An interest rate of 3%-5% a day was levied against such credit. A further 26% of the traders pooled their financial resources as well as the credit obtained from moneylenders. The traders who operated independently and relied on their own resources constituted only 16% of the group. The majority of traders at St. John's Fish Market (74%) bought less than 20 kg of fish a day. while 19% purchased 20-25 kg. Only a very few bought more than 25 kg a day.

Other daily operational expenses of the fish traders included payments for ice (75% paid Rs. 10-15 for ice), vehicle parking taxes (Rs. 2 per bicycle and Rs. 3 per motorcycle), caretakers of vehicles (Rs. 1 per bicycle and Rs. 2 per motorcycle) and fuel for motorcycles (an average of Rs. 50). These expenses could be considered fixed, as they did not vary much (except in the case of ice) with the quantity of fish bought by the traders.

In sum, the socioeconomic profile of the mobile fish traders operating from St. John's Fish Market was that of a middle-aged married male with children. Aged 30-50, he had had formal education for 5-8 years. He lived in Colombo or its outskirts, generally staying 10- 15 km from the market, and had a motorcycle or bicycle for transport. The marketing outlets of these mobile traders, who carry less than 20 kg of fish to marketing destinations, most often coincide with their residential areas. They often depend on outside credit for their business transactions.

3.3 Socioeconomic profile of traders

The socioeconomic profile of the retail fish traders was analysed (Table 8) by dividing them into three groups (upper, middle and lower income groups).

- (A) **The upper income group** comprises those who earn a relatively high income through this trade. They own houses which are permanent structures built using bricks and cement and roofed with tiles. They depend exclusively on earnings from this vocation, which is an indication of the economic stability they have acquired through the retail fish trade. Almost all retail traders who carry fish on motorcycles fall into this category. Using motorcycles for transport, they can carry a larger quantity and serve a larger geographical area.
- (B) **The middle income group** shows a more or less similar socioeconomic status as the upper income group. Its members, however, earn a relatively low income through this vocation; their economic success is due to subsidiary sources of income apart from their earnings from the fish trade.
- (C) **The lower income group** (lower socioeconomic category) comprises those whose houses are temporary wooden structures roofed with galvanised sheets or cadjan. These traders, who carry fish on bicycles, are exclusively dependent on their earnings from the fish trade.

Table 8: Parameters considered in drawing a profile of the socioeconomic groups.

Parameter	Group A	Group B	Group C
No. of years in the trade	15.30	11.30	9.00
No. of days of trading per week	6.80	6.80	6.70
No. of hours in trade per day	4.80	4.10	4.70
Daily expenditure			
Cash	1324.23	1225.00	804.17
Cost of ice	10.96	11.88	8.93
Other expenses	20.93	13.50	3.54
Total	1356.12	1250.38	816.64

All the traders in the lower income group were bicycle traders. All motorcycle traders belonged to either the upper or middle income group.

There were significant differences between the socioeconomic groups regarding the number of years they had been in the trade. The better off group, who depended only on this trade, were the most experienced. Those in the lower income group had been in trade for a relatively short period. Length of time in the trade is the main factor that determines a stable market and, therefore, success.

There are hardly any differences in the number of days per week that these groups spend trading. The middle income group, however, spends a shorter day in the fish trade. This is understandable as its members have other jobs to do, once the fish trading is over.

The other significant difference is in daily expenditure. The daily investment in purchasing fish, on ice and other sundry expenses decreases from the upper income group to the lower income group. A significant drop was noted in the case of the lower income group, who invest only around 60% of what is invested by the upper income group. The 'other expenditure' of the upper income and middle income groups is higher due to expenditure on fuel for their motorcycles.

Most of the traders in the lower income group live in 'slum and shanty' areas within Colombo and its suburbs. It is quite possible that a considerable proportion of the clients of this category of traders is also from their neighbourhoods. The available information also shows that these are the traders who suffer most from lack of credit and high rates of interest. They do not have other methods of raising capital and sometimes cannot engage in the trade because they cannot afford credit at the high rates of interest.

3.4 Three case studies

The methodology used by the study was 'a semi-structured' case study-style survey of SO individual bicycle and motorcycle traders, including participant observation. The study was conducted by researchers trained by IRED. A comprehensive, semi-structured questionnaire was used in the study. As the original research design called for an in-depth analysis of the qualitative information that would throw insights into the processes and dynamics of the lives of the fish traders, the representatives of the research subject were given secondary importance. The primary aim was to understand the economic and social processes and dynamics of their lives. Three examples from the case studies are given below.

Upper Socioeconomic Group (no extra work)

This 60-year-old married trader has two unmarried daughters who have studied up to Grade 10. One of them is employed as a nurse. His wife, 55 years old, earns an income by sewing. She employs three people for this work. They live in their own house in Kottawa. It is a two-roomed brick house with a tiled roof, having space for kitchen, sitting and dining room. Well-equipped with furniture and appliances, the house also has an electricity connection.

The house has been built on a plot of land inherited by his wife from her family. It has been built gradually over several years with money earned from the fish trade and was completed in 1971. Most of the household goods, as well as the sewing machines needed for the business managed by his wife, have been bought from earnings through the fish trade.

This trader was originally from a town in the southern part of Sri Lanka - Ambalangoda. He had come to this area in the mid-Fifties as an unskilled labourer working for a building contractor. He married from the area and lived in his wife's house for some time. He continued to work in the building trade, but without success. Later, he and his wife tried to earn an income by supplying hoppers and stringhoppers to boutiques. This too was unsuccessful. In 1959, he entered the mobile fish trade with the help of a friend.

He began his trade with a bicycle. In the beginning, he had to borrow the other needs of the trade, such as box, knife and weighing scales. Later, he managed to purchase these items from his profits. After being in the trade for about ten years, he was selling about 25 kg of fish a day. However, it was difficult to transport larger amounts on a bicycle due to the distances involved. As a result, he resorted to transporting fish in a hired van from Colombo. Then, in 1986, he purchased a motorcycle for Rs. 8500. By this time he had also improved on the box in order to slow down the rate at which the ice melted. His box had two frames. The outer frame was made of wood and the inner from galvanised sheets. The space in between the frames was filled with rigifoam. The box also had special spaces for a knife and weighing scales.

The improved means of transport helped him to cover greater distances and the improved box helped him to trade for a longer period of time. According to him, the motorcycle has helped him to carry more fish, cover more customers and sell at a lower unit price, while at the same time maintaining his profit margin.

His history shows the stages a successful trader has to go through in order to reach a comfortable status

At present, this trader travels approximately 60 km daily to sell his fish. His hours of trade are from 8.30 a.m. to 4.00 p.m. These hours and the distance are high even for a trader from this socioeconomic background and show

what a successful trader needs to do. The cash needed on a daily basis is around Rs. 3 100, breaking down as follows: Rs. 3000 for the purchase of fish; Rs. 60 fuel; Rs. 20 ice (28 kgs); Rs. 14 other expenses at the market. He sometimes depends on credit for his capital.

This trader does not seem to have difficulties with wholesale traders. His relationship with them has been so well established, that sometimes he gets fish on credit. He believes that there is a need for pension schemes, insurance schemes, and other welfare schemes for mobile fish traders.

This trader also does not have a problem with leftover fish. Selling the potential leftovers at a lower price and extending his hours of trade are mechanisms used by him to dispose of all the fish he has bought. He also keeps a certain amount of his fish for household consumption.

This case study from the upper income group reveals a combination of factors which are important to make a success of the fish trade in the present context. These are:

- There was a certain initial advantage he got from marrying a person from the area; through her he could integrate into the community. In addition, the wife was from a family with some means; she inherited a piece of land from the family. The initial help he got from friends was a sign of this integration and this certainly helped him to get started. The initial capital, which can come in various forms (resources of various sorts), it is clear, is important.
- It is also clear that both he and his wife show significant qualities of entrepreneurship. Perhaps the wife's capacities in this area are equally significant. She employs three persons and has invested in eight sewing machines for her business. But the initial capital for this was from the fish trade.
- His entrepreneurship is reflected in the improvements in the equipment he uses. There have been significant improvements both in the type of box used and in the means of transport. These have helped him to expand his market, sell more fish and sell at a competitive price yet secure a profit margin.
- A well-established trader like this is also able to overcome the all-important hurdle of lack of credit. On the one hand, he does not need to depend so much on credit because of the accumulation he already has, while on the other, being an established successful trader, it is not difficult for him to get credit.

Middle Socioeconomic Group (engaged in extra work)

This fish trader is 42 years old, married and has two children. His wife is from another district, Kurunegala. She does not have an independent income. He lives in Kelaniya and comes from a family who have lived in that locality for the past 27 years. His father and a brother have been involved in the fish trade for some time, selling fish at a roadside fish stall.

His house is well built; it has brick walls, a tiled roof and ceiling. Most of the other residents in the area are from potter families.

He entered the fish trade in 1968. His initial motivation was the need for a means of livelihood that would give him a steady income. His choice was between unskilled wage labour or some type of retail trade. He had observed that those who ran roadside fish stalls were in a business that provided an adequate income. With his father running a roadside stall, he was at an advantage in starting off as a mobile fish trader. However, most of the initial effort was his own. He began by selling small fish. This was carried in a basket and he and a helper used to walk through the village. Two helpers employed by him later became independent traders.

The savings he accumulated enabled him to purchase a bicycle. As a bicycle fish trader he began with a wooden box, then progressed to a galvanised box. He still uses the same galvanised box, having maintained it well. One of the primary reasons for this shift was the fact that it took a long time to clean the wooden box.

In 1979, he purchased his second bicycle. In 1980 he progressed to a motorcycle. Since then he has changed his motorcycle six times. The one that he had at the time of the survey was purchased in 1987 for Rs. 18,000.

He begins his round around 8.30 a.m. and completes it by noon. He sells fish in the same area where he lives. Monday is his weekly day off. His daily expenses include Rs. 3000 for the purchase of fish, Rs. 42 for ice and Rs.7 for other expenses. He buys around 30-40 kg of fish daily. He has a regular market, mostly of monthly wage-earners. In addition, he has diversified his market by supplying fish to suppliers of food parcels. Supplying packets of rice and curry to the working population of Colombo and suburbs is an expanding business. This trader receives bulk orders for fish from these customers from time to time. There are days when he has leftover fish. However, he is able to store them in his own refrigerator and sell them the following day.

In addition to the fish trade, he is involved in other means of income-generation. He has started a pottery workshop and employs several people. There is opposition to this trade from his mother due to the association of it with a particular caste. He also earns extra income through moneylending. As a matter of policy, he does not lend money to other fish traders.

He says that lack of credit is a major problem for fish traders and almost 7.5% of the traders suffer from this problem.

This case study reveals that the major contribution to income is from the fish trade, his initial means of income-generation. This case study shows certain factors that have contributed to the success of this fish trade. These are :

- Initial impetus and linkages. This gives the initial know-how, the knowledge to tap a market and, sometimes, some capital. In this case, the linkages and access to the market network seem to be more important.
- It takes a considerable number of years to develop a market and clearly identify the needs of the market. Once this is established, the trader knows what to buy and from whom to buy. This trader seemed to have established a regular market among those from the monthly wage-earning class.
- The coincidence between the area of residence and the area of trading can be largely explained by the above two factors. It is the linkage with, and knowledge of, the area in which the trader lives which gives him the initial linkages to get off the ground and the knowledge to establish a market.
- The entrepreneurship shown by this trader is important for the progress he has made. This has helped him to gradually improve his equipment. He has improved both his means of transport as well as his box. In addition, he has taken steps to expand his market by sensing an opportunity in the growing business of prepared lunch packets. This too is a sign of entrepreneurship.

Lower Socioeconomic Group

This fish trader from the lower income group is a 33-year-old father with two children. His mother also lives in the same household. His wife does not have a regular source of income but once worked in West Asia as a housemaid.

The trader lives in a shanty slum in Colombo. His house is small, has walls made of wood, an asbestos roof and a cement floor. The household is not well furnished, and has no electricity.

His father came to this area in 1958 from a township in the southern part of the country — Ratgama. They had built a small house on state land and lived there. But their house was burnt down in the mid-Eighties when there was a confrontation between the shanty dwellers and Air Force personnel over a minor incident that escalated into violence. After this incident, Government paid compensation to the family. The plot of land on which they live was given to them as well as a loan of Rs. 15,000 to build the house. This was how they managed to improve their living conditions to the present level.

He began his involvement in the fish trade when he was in Grade 5. After school, he worked for another fish trader as a helper. He used to carry fish for this trader in a basket. For his efforts he was given Rs. 10-15 a day. Gaining experience, he became a trader with a bicycle in 1974 when he was 16 years old. He left the trade temporarily when his wife worked in West Asia, as she sent enough money for the family.

When he began as a bicycle trader, he began by selling small fish. It was about eight months before he began to sell large fish as well. His box was made of wood as well as galvanised sheets.

He begins his trade around 8.30 in the morning and finishes by 11.30. His daily expenditure is as follows: Rs. 600 for the purchase of fish, Rs. 10 for ice and Rs. 3 for other expenses. He has to resort to credit often in order to meet his daily expenses.

He trades in an area not far from his residence. A major factor that determines his choice is the absence of competition. One of his major complaints is about the entry of a large number of new traders during those periods when fish is cheap. This is when it is difficult to make a profit. He also sells in a market where there are a large number of customers who buy on credit. He has to spend a lot of time after he has finished his trade in going around collecting debts. There are times when he has the problem of leftover fish. He stores them in a refrigerator belonging to a neighbour and pays Rs.1.5 per kg for this service. Problems of credit, cheating by wholesale traders and the influx of new traders when fish prices are low are the major handicaps he faces.

This case study in respect of the lower income socioeconomic group reveals:

- Compared to many other avenues of income generation available for this class, the cycle fish trade can give a steady income. The trader had chosen this trade from many avenues available to him, giving it up temporarily only when the family had a better source of income.
- The major determinant here seems to be the market and the competition in the market. His market seems to be mainly from the lower socioeconomic group. It is not easy for him to expand his income by selling fish to them. In fact, he has to give them fish on credit, which lowers his returns for purchases the following day.
- The urban milieu in which he lives and trades also makes the competition keener. At times when fish prices are low, there is an influx from the unemployed labour force in the area who enter the trade in order to eke out a living making use of the low prices of fish. This makes it difficult for regular traders to earn a profit.
- His general family background is such that he does not have any advantages to begin with. It is a typical urban, low income family.
- He depends greatly on credit at a very high rate of interest for his day-to-day expenses. He also has to pay heavily for other goods and services, like a refrigerator.

4. PROBLEMS, NEEDS AND PRIORITIES

4.1 Introduction

Most of the needs and priorities of itinerant retail fish traders are associated with financial stress, as this category of people belongs to a low income group with heavy family burdens. Borrowing money on interest is a common habit. The extra expense incurred during trading often makes them more vulnerable to financial difficulties. In addition to these problems, cycle traders identify some other problems associated with their vocation. namely:

- Lack of working capital
- The problem of transporting fish to their consumers
- Poor storage facilities in the case of leftover fish.
- Buying on commission and selling on credit.
- Interference of brokers or beach assemblers at the landing sites.
- Higher prices involved in investment when purchasing fish.
- Scarcity of fish during the off-season and also during the fishing season.
- Lack of an occupational identity.
- Lack of recognition in society.
- Absence of an insurance scheme.

The priority order of these problems varies from individual to individual. However, it is patent that financial problems associated with the trade is the first priority of most of them. Next to the financial problem is the question of transport of fish from the landing sites to their customers. With respect to the transport of fish and storage in the case of leftover fish, these traders have shown keen interest in a container that would satisfy their requirements. A reliable and efficient transportation facility is one of the key factors associated with their trade. As they carry fish to distant areas, what they seek are quick transportation systems that would help them reach the market early for purchasing, contact more clients in a shorter period and keep fish fresh with ice.

The high price of fish at trading centres and the resulting low income due to low demand are directly related to the socioeconomic lifestyle of the traders. In addition, the storage of leftover fish until the following morning is an important factor for new traders. Without storage facilities, they would have to sell their leftover fish at low prices in the evening or else store it in a refrigerator belonging to an outsider for which the trader would be charged according to the weight of the fish. No attempt has been made to overcome such problems by creating new methods to keep fish fresh for a longer time or for preserving leftover fish.

4.2 Identification of problems and assessment of needs

For an in-depth understanding of the cycle traders' problems, needs and priorities, fortyone fish traders with whom the research team had comparatively strong social ties in St. John's Market were invited for a meeting. Thirtyone traders participated in the discussion and a small payment was made to them to cover travelling expenses. The workshop consisted of two parts. The first was aimed at identifying the problems, needs and priorities of the traders, while the second part included a demonstration of the improved equipment and obtaining the views and suggestions of the participants on the prototypes on display. A structured questionnaire was used to obtain some of the basic socioeconomic information relating to the participant traders.

Of the 31 traders who participated in the workshop, 22% were in the age group 20-30 years. The age groups 30-40 years and 40-50 years each comprised 36% of the total. The traders who were 50 years and above formed only 6% of the group. The educational levels of the majority of the fish traders could be considered satisfactory, as 65% of them had an average of eight years of schooling while 8% had an average of five years of schooling. The number of traders who had not received any formal education was 17% of the group. Ninety per cent of the traders selected were married and a majority of them had two or three children.

Although the selection of the group of fish traders to participate in the workshop was primarily based on the close contacts which the research team cultivated with them, they were representative of the general mobile fish trader population. The group consisted of motorcycle as well as bicycle traders and were chosen to represent the different geographic areas from which the trader population generally came and their respective marketing outlets.

The bicycle traders constituted 68 % of the total group, while the motorcycle traders accounted for the balance. Residents of Colombo and such suburbs as Kelaniya, Kadawata, Homagama and Moratuwa (areas 15-20 km from Colombo City) were included in the participation group. Fortytwo per cent of the traders had to travel less than 15 km from their residences to reach St. John's Fish Market. whereas another 26% lived within 10- 15 km of the Market and 32% had to travel less than 10 km. Similarly. the marketing outlets of 20% of the traders were 5- 10 km from the Market. while for another 38% it was 10- 15 km away. Fortytwo per cent travelled more than 15 km to reach their marketing destinations.

Similar workshops were later held for fish traders operating from the Negombo and Dodanduwa beach landings and the Kandy Fish Market. Sixtyfour traders representing small-scale fish marketing outlets in the Gampaha District participated in the workshop held in Negombo. The number of participants at the workshops held in Dodanduwa and Kandy were 65 and 34 respectively. These groups consisted of bicycle as well as motorcycle traders and represented traders in different geographic areas of the respective fish trading centres.

4.3 Needs assessment

St. John's Market: The workshop's participatory character was significant — it helped initiate a dialogue between the traders and Project officials. Subsequently. the fish traders were given an opportunity to write down the problems and needs associated with their trade on a priority basis. The problems and needs associated with the trade were then carefully examined and compiled into several categories. Each trader was asked to identify only three major problems or needs relating to his trade.

The preliminary survey conducted among retail fish traders had indicated a number of articulated problems and issues encountered by traders. such as the difficulty in obtaining credit to purchase fish, fraudulent weighing scales used by fish *mudalalis*, and lack of bargaining power at the market. The workshop aimed at obtaining a clearer and more consolidated picture of the real problems and needs of the mobile fish traders. The technique used for this purpose was to give each participant trader a set of three different coloured cards (pink, blue and yellow) one after the other and request them to write down the problem or the need associated with their vocation which they considered most important. The problems and needs listed at the Colombo workshop are shown in Table 9 below:

Table 9: Problems and needs perceived by mobile fish traders in Colombo

Item	Stage 1	Stage II	Stage III
Credit	19	4	2
Preservation of fish leftovers	2	12	6
High cost of repair to bicycles or motorcycles	3	2	2
Use of fraudulent weighing scales by <i>mudalalis</i>	3	6	3
Need to have an improved fish container		3	3
Obtaining fish that does not contain formalin		1	1
Need for better organisation of traders			7
Need to safeguard the market from outsiders			
To have an occupational identity			2
Threats from fish <i>mudalalis</i>			1

Note: Even though the traders were asked to mention only one problem or need at a time. some of the traders did not respond to the request due to unforeseen reasons.

The problems and needs listed by the Colombo participants were then arranged in hierarchical order (priority basis) after discussion with them and the following order arrived at:

1. **Credit:** Lack of credit and high rates of interest were perceived as the biggest obstacles to fish marketing. The need for credit facilities became obvious.
2. **A method to preserve fish leftovers:** Several traders were confronted with the problem of preserving fish leftovers until the following morning. The leftovers were generally sold at a lower price in the evening or else stored in a refrigerator belonging to an outsider and the trader was charged for the service. resulting in an increase in price that has to be borne by the consumer for low quality. unhygienic fish. This problem was also a pointer to why fish traders generally do not carry larger quantities of fish

to their marketing outlets. It would appear that it is the lack of marketing linkages that restricts the trader from carrying larger quantities rather than the lack of credit facilities available to him. An in-depth study of this is needed.

3. **Use of fraudulent weighing scales by the fish mudalalis:** Fish bought by the traders was often underweight because of this. The retail traders lacked bargaining power and therefore lost in the transactions.
4. **Need for an organisation and occupational identity:** Attempts to organise loosely-knit retail fish traders into a coherent occupational group have not been made. Individual efforts to win their rights and achieve their needs have not been successful during the last few decades. There has been no drastic change in the socioeconomic situation of the retail fish trader. The importance of forming an organisation of retail fish traders that would increase their bargaining power with the fish *mudalalis* and maintain their occupational identity while protecting them from outside threats was emphasised. The formation of a Capital Fund which would give them access to credit facilities at relatively low interest rates was suggested. The participating traders were unanimous in agreeing on this as a felt need.

The workshop ended with the identification of two important propositions that would help the fish traders to find solutions to their immediate problems and needs. They were:

- Developing a fish container that would replace the existing wooden or galvanised container and enable the preservation of leftover fish at low cost: and
- Establishing an organisation of retail fish traders which would enable them to interact more closely with each other, manage better their sociopolitical environment, and find solutions to their problems and needs.

Negombo, Dodanduwa and Kandy: The following were identified as problems and needs of the cycle traders operating from Negombo and Dodanduwa beach landing sites and the Kandy Market:

- Financial problems associated with borrowing money on interest, low income and extra expenses during trade.
- The need to have an improved container to carry fish stock for their customers.
- The problem of transporting fish to their marketing outlets.
- Poor storage facilities in the case of leftover fish.
- Selling on credit.
- Interference of brokers at the beach landing sites.
- High price of fish and low profit.
- Difficulty in reaching beach landing sites during early hours.
- Scarcity of fish during off-seasons.
- Need to have an occupational identity.
- Difficulties in obtaining fresh fish (in the case of the Kandy Market).

These traders did not highlight their difficulties in obtaining credit from moneylenders to purchase fish. They also did not emphasise fraudulent weighing scales used by fish *mudalalis*, a common problem faced by traders at the St. John's Fish Market in Colombo.

In prioritising their needs and problems, the fish traders from Negombo highlighted financial difficulties. In contrast, the first priority was given to transportation in Dodanduwa (40.6%) and Kandy (38.2%). Transportation was a second priority in Negombo.

It is important to place emphasis on transportation problems, since a reliable and efficient transportation facility is one of the key factors associated with the trade. As traders carry fish to distant areas, quick transportation of fish would help them to contact more clients during a short period, keep fish fresh with ice, and reach the market early for purchasing.

The third major requirement pointed out by the cycle traders was the high price of fish at the trading centres and the resulting low income, which directly reflects on the lifestyle of these itinerant traders. The needs with respect to storage of leftover fish until the following morning were highlighted at all three workshops.

A few traders pointed out interference by intermediate persons (brokers) while traders were purchasing fish from the mudalalis. Selling fish to their regular customers on credit resulted in borrowing money on interest from the moneylenders. The retail fish traders who participated in the Negombo and Dodanduwa workshops did not highlight the problems relating to the use of fraudulent weighing scales. This is because the price of fish on the beach was always fixed on an individual basis and not on a weight basis.

Response to the prototype box: The fish traders had highlighted an alternative for wooden or galvanised fish containers as a key priority item during the needs assessment workshops. The last part of the workshops was therefore devoted to demonstrating the new Project-designed fibreglass fish container. This box offered better insulation properties, low ice meltage, greater strength — being made out of fibreglass — and a lid to prevent contamination. The fish traders were given an opportunity to observe and examine the container and requested to express their views. The advantages of the new container against the existing one are shown elsewhere. The majority of the traders were positive about the new container, perhaps due to its good finish, elegant appearance and being handy to carry. The participant traders proposed several constructive suggestions which are given on page 21.

5. TECHNOLOGICAL INNOVATION

5.1 Semi-insulated fish box

The use of ice for preserving fish is not a modern technology. In Sri Lanka, the general practice has been to mix fish with about half its weight of ice, purchased from ice stalls to help in preservation. In the case of small varieties, especially shrimp, the fish is mixed with beach sand, an indigenous method of preservation*. It has now been realised that post-harvest processes are impossible without ice. The potential of ice in presenting fish between trading centres and marketing areas has not yet been properly understood. But it was felt that a considerable impact could be made through proper use of ice by cycle traders in their day-to-day sales. Certainly, consumer acceptance was better when fish was carried in a closed container with ice.

Closed containers keep the fish in a dust-free environment, help to reduce damage to the fish during handling, and prevent spoilage by cutting off sunlight. Ice chills fish and slows down spoilage, thus helping the fish to command a better sale price. Insulated boxes need less ice to chill fish and to keep them fresh and clean. Therefore, the cost involved in keeping the fish chilled and in fresh form is much less. However, the capital cost involved in owning an insulated box is fairly high. Traditional wooden or galvanised containers are much cheaper and can be constructed by the traders themselves at a much lower production cost.

After identifying the problems with the wooden and galvanised containers used by the cycle traders in Sri Lanka, TRED made the necessary arrangements to initiate the construction of new insulated fish boxes, with the appropriate modifications to satisfy the requirements of the cycle traders. A firm in Hendala, Sri Lanka, was contracted to manufacture the prototype fish boxes. There was a drainage hole fitted in a bottom corner and the box could be partitioned by a removable wooden plank. The weight of the box was about 18 kg and the inner dimensions were 72 x 39 x 22 cm. The box could carry about 40 kg of fish. The ice melting rate of these new boxes was examined by the Post-Harvest Technology Division of the National Aquatic Resources Agency (NARA) of Sri Lanka. The results indicated that the insulated box reduced the melting rate by nearly three times the rate in the case of the traditional wooden box. For the trader, this meant that his ice lasted longer (possibly through the trading period) and that he needed to buy less ice in the first place. The new insulated box would, it was felt, help the cycle traders by:

- Reducing fish spoilage and, thereby, ensuring a higher price for fish;
- Enabling the leftovers to be kept overnight;
- Enabling the purchase of less ice;
- Enabling better presentation of the fish to consumers; and
- Enabling expansion of their market territory and gaining new clients.

The workshops on needs assessment conducted by IRED provided an opportunity for the cycle traders to look at the specimens of the newly designed insulated fish boxes and to express their views, opinions and suggestions. The cycle traders agreed that the insulated fish box could, in principle, be fixed on to a motorcycle or bicycle. but suggested the following:

- The lid should not be a sliding type, but must, instead, be affixed permanently to the container using stainless steel hinges.
- The fish box should be able to retain the ice for at least 7-8 hours.
- A special stand that could be fixed on to the bicycle or motorcycle to hold the box should be developed.
- The retail price of the insulated box must be less than Rs. 2000.
- The new box was suitable for bicycle traders, but the size needed to be changed, by increasing its inner capacity, to suit motorcycles as well.
- There should be a place to keep the weighing scales, the knife and the chopping board.

* Beach sand, however, is contaminated.

These suggestions were accepted as constructive and arrangements were made to modify the container. The group of cycle traders at St. John's Market who had been already subjected to in-depth case studies were selected to introduce the modified box on an experimental basis. A monitoring programme was launched following the introduction of the new boxes, to determine whether the new intervention had a significant impact on various aspects of the trade as it existed.

5.2 Monitoring of the impact of the ice box

Monitoring of potential impacts or changes as a result of any outside intervention can be carried out in two different ways:

- By comparing situations prior to and after the intervention. and
- By comparing the group that has been subjected to experimentation with another control group.

In the first approach, a set of pre-selected parameters would be monitored for a period of time prior to, and after, the intervention. However, the limitation of this approach is that it would not be possible to isolate the impact of the particular intervention, as several uncontrollable factors and processes could influence the potential changes.

The second approach, commonly known as control versus experimental technique, was used for the monitoring exercise in this case. Twenty traders selected from among the fifty studied were divided into two groups of ten, namely the experimental and the control group. Both experimental and control groups represented more or less similar characteristics as outlined below:

- 1 Similar age groups.
- 1 Years in trade.
- Mode of purchase.
- Vehicle and box types.
- Variety and quantum of fish purchased.
- Quantum of ice used
- 1 Residence and marketing territories.
- Type of consumers contacted

However, in certain cases, some of these parameters overlapped with each other and could not be differentiated completely for individual traders.

The initial research plan called for the new boxes to be given to the experimental group and a comparative survey carried out between the experimental and control groups. Fifteen important parameters were identified for monitoring on four consecutive days. These parameters were selected on the assumption that they could result in change as a consequence of the new intervention.

However, there could be a number of limitations to adopting a scientific methodology in a research action of this nature. For example, it would not be easy to convince the fish traders regarding the basis of their selection as experimental or control groups. Therefore, it was felt that a more participatory approach would be more realistic and acceptable to the traders.

In these circumstances, a lottery system was introduced to select the fishermen to be provided with the new fibreglass, semi-insulated fish containers. Eighty traders participated in this meeting and ten 'drew' new boxes. Of them, only six had been subjected to study earlier. As there was a great demand for the new boxes from the traders, five more boxes were distributed.

5.3 Outcome of the monitoring programme

The basic information about the 14 retail fish traders who received the prototype fibreglass semi-insulated boxes is summarised in Table 10. These fish traders lived within the Greater Colombo area and its suburb (Table 10). Their respective marketing destinations were in all cases close to their residential areas. The age of the fish traders selected ranged from 21 to 48 years and their involvement in the trade ranged from one to 22 years. However, the majority of them had been engaged in the trade only upto 5 years. Only two had been in the trade for more than 15 years. Further, as indicated in Table 10, only one trader used a motorcycle to transport fish to his marketing destination. Only two traders had used galvanised boxes to carry their fish before they were provided new boxes.

Table 10: Basic pre-trial information about the 14 fish traders who were provided with the new fibreglass boxes.

Trader's No.	Residence	Age (yrs)	Years in trade	Vehicle*	Box**	Marketing area
1	Colombo	30	15	PB	GB	Colombo 8
2	Hunupitiya	22	08	MB	WB	Hunupitiya
3	Kelaniya	22	03	PB	WB	Kelaniya
4	Kadawata	47	22	PB	WB	Mahawaramadiya
5	Colombo 8	31	13	PB	GB	Colombo 9
6	Colombo 10	21	03	PB	WB	Orugoda
7	Angoda	42	05	PB	WB	Angoda
8	Kadawata	26	01	PB	WB	Kelaniya
9	Kadawata	48	24	PB	WB	Gonawala
10	Colombo 14	26	03	PB	WB	Colombo 14
11	Tuduwegedara	38	09	PB	WB	Weweldeniya
12	Rajagiriya	35	10	PB	WB	Rajagiriya
13	Kadawata	31	10	PB	WB	Kiribathgoda
14	Rajagiriya	39	12	PB	WB	Rajagiriya

*PB = Push Bicycle. MB = Motorcycle. WB = Wooden Box. GB = Galvanised Box

The list of parameters examined during the monitoring exercise is listed in Table 11. Of the 14 parameters originally proposed, 'possible changes in credit' was not taken into account because of insufficient information given by traders during the case studies and the monitoring exercise. Items 4 and 5 of the original format (i.e., box and fuel) were also omitted, since these parameters were considered insignificant and irrelevant in the monitoring exercise. However, two other parameters, i.e., the number of customers contacted and the number of actual purchases, were considered more relevant in determining the impact of the new boxes and were included in the monitoring programme. Of the 13 parameters, six were to be considered qualitative and seven used for quantitative analysis (Table 11).

Table 11: List of parameters examined during the monitoring programme

Parameter	status
1. Type of vehicle	Qualitative
2. Amount of ice used	Quantitative
3. Quantity of fish purchased	-do-
4. Total investment	-do-
5. Type of fish	Qualitative
6. Marketing territory	-do-
7. Marketing distance	-do-
8. Starting time	-do-
9. Number contacted	Quantitative
10. Number of purchases	-do-
11. Leftover fish	-do-
12. Income	-do-
13. Closing time	Qualitative

Mode of transport: None of the retail traders in the monitoring exercise changed their vehicle after obtaining the new fish carriers.

Amount of ice: The amount of money spent on purchasing ice (Rupees per 10 kg of fish) by each trader before and after receiving the new box is given in Table 12.

The money spent by the traders to purchase ice decreased in almost all cases. They spent less than Rs.7.00 per 10 kg to chill their fish. In general, these traders purchased approximately 20 kg of fish each day and they were engaged in trade for about 25 days a month. Thus, the average amount of money saved by a retail fish trader as a result of the new fish container was about Rs. 200 a month as a result of the decrease in the expenditure on ice. The highest saving was about Rs. 360 a month (Case Study 4) while the lowest was Rs. 20 (Case Studies 6 and 9).

Quantity and investment: The total investment made by the retail fish traders during the monitoring exercise and prior to the introduction of the boxes was analysed in relation to the quantity of fish purchased by each trader. Of the ten traders who were subjected to the analysis, three purchased less fish during the monitoring exercise, while the rest bought more fish than indicated in the original study data. One trader doubled the quantity of fish purchased after receiving the new box.

The total investment per day was calculated taking into consideration the money spent on ice and gasoline (only in one case) plus the amount of money spent on fish. In general, the traders who participated in this exercise spent between Rs. 418 and Rs. 1820 per day prior to the introduction of the new box while their investment during the monitoring exercise varied between Rs. 508 and Rs. 1725. The average investment per trader was Rs. 734.90 during the case study period, whereas it increased to Rs. 856.00 per trader per day during the monitoring exercise. The increase in investment following the introduction of the new box cannot be attributed to any fluctuations in market prices, as the fish prices were more or less stable during the exercise.

Income: The average total investment and their respective incomes per day for each fish trader is given in Table 13. The difference between the average income and the total investment was considered as the net profit per day. The daily net profit of the 13 fish traders who had been monitored ranged from Rs. 242 to Rs. 679. The percentage frequency distribution of

Table 12: Changes in money spent (Rs.) to purchase ice for 10 kg of fish per day before and after receiving the new fish box.

Trader's No.	Before (Rs.)	After (Rs.)	Difference (saving) (Rs.)
1	10.00	5.50	4.50
2	12.50	6.50	6.00
3	7.60	5.30	4.30
4	12.10	4.90	7.20
5	8.00	3.50	4.50
6	6.40	6.00	0.40
7	8.50	3.70	4.80
8	9.10	4.70	4.40
9	5.10	4.70	0.40
10	7.10	3.30	3.80
11		5.20	
12		4.80	
13		8.60	

Table 13. Average investment, income and actual profit per day during monitoring exercise.

Case study	Investment (Rs)	Income (Rs)	Profit (Rs)
1	520.00	795.00	275.00
2	1725.00	2372.50	647.50
3	1016.05	1411.25	395.20
4	628.00	882.00	254.00
5	1089.75	1446.25	356.50
6	566.50	846.75	280.25
7	763.75	925.00	161.25
8	585.60	957.75	372.15
9	647.00	896.50	249.50
10	1050.50	1650.60	600.10
11	595.50	1275.00	679.50
12	762.00	1195.00	433.00
13	536.60	791.60	255.00

different income groups among the traders clearly shows that the majority of traders (54%) earned over Rs.300 a day, with 23% earning double that and more.

5.4 Analysis and discussion

Fish is a rapidly perishable commodity and consumer preference depends on factors like freshness and price. Therefore, small-scale retail fish traders are always at risk when selling fish. Poor post-harvest practices and handling aggravates the spoilage process of fish. Conventional fish carriers (e.g. wooden or galvanised boxes) promote further deterioration during trading. The ice melting rate is significantly high in these conventional fish carriers. Therefore, there is great potential to improve the socioeconomic lifestyle of small-scale fish traders by introducing the newly designed semi-insulated fibreglass boxes. Next to the vehicles they use for transport of fish, containers rank as the most important and technology adoptable component of this trade.

The methodology followed to examine the impact of the introduction of the synthetic containers on the lifestyle of the fish traders was appropriate, even though less emphasis was given to appropriate statistical analysis, primarily because of changes in experiment design and sample size. However, an attempt was made to perform a quantitatively and qualitatively balanced analysis.

It must also be noted that the group of traders in the monitoring exercise were a poor representative sample with respect to demographic and other factors related to the trade (e.g. vehicle and box type, years in trade, etc). Also, the information collected from the three traders not studied earlier could not be used for comparative analysis as there was no previous data.

A significant change is unlikely in their mode of transport after retail traders get synthetic fish carriers. The likely positive impact of changing over from a bicycle to a motorcycle is a costly proposition and cannot be met by a little monetary saving within a short time period, especially in this type of socioeconomic group. However, in the long run, it is a possibility and needs examination.

The amount of ice used by the traders appears to have decreased significantly during the monitoring exercise. Since the ice melting rate in the fibreglass container (which has a lid) is very low, traders could keep their fish fresh and chilled with less ice during trading and the leftovers could be kept overnight. The reduction in the amount of ice used could directly contribute to savings. If a trader could be convinced about the effective use of an optimum amount of ice, he could easily save about Rs. 300 a month. A cost-benefit analysis reveals that over a year the savings could more or less equal the cost of a new fish box, around Rs. 3900 at the time.

The increase in the quantity of fish purchased and in the daily average investment by many traders during the monitoring exercise may be attributed to the confidence developed by them after receiving the new box. Investment in fish during the case studies and the monitoring programme did not show significant differences. A few traders showed a decrease in the quantity of fish purchased, possibly due to problems associated with their socioeconomic lifestyles. Further systematic investigation is necessary.

The type of fish purchased, before and after introduction of the new box, included both big and small fish (mixed varieties), perhaps to cater to the middle- as well as the lower-income groups. But the marketing destinations of the traders who exclusively purchased small varieties of fish were restricted to the densely populated shanty areas of Colombo.

Though leftover fish was not subjected to a comparative analysis due to lack of available information from the case studies, there was leftover fish in a few instances during the monitoring exercise. These instances may not be directly related to the impact of the new boxes. However, the sale of their entire fish stock, except for a little leftover fish at the end of the targeted trading time, indicates that either the traders contacted more clients, or more consumers than expected bought fish. Retail fish trading is a site-specific and time-bound exercise which involves various factors: thus, it requires relatively long-term monitoring to determine the actual impact of the new device.

It was found during the monitoring exercise that there was a wide range of investment in fish by the retail traders. Broadly speaking, traders who invested between Rs. 500 and Rs. 1000 a day could be regarded as part of the lower income group, while traders who invested more than Rs. 1500 a day could be termed as the upper income group. The middle income group were those who invested between Rs. 1000 and Rs. 1500 a day. Significantly, in the lower income group, the income was approximately Rs. 5000 a month for 25 days of business a month. The monthly income could be up to Rs. 15,000 in the case of the upper income group if they were in business for 25 days a month. However, these figures cannot be considered realistic as sufficient information was not collected during the monitoring exercise on investment and earnings. This was partly due to the smallness of the sample size. It is, however, apparent that the retail fish traders earn a substantial income (at least they did during the monitoring period), though this is not reflected in their social lifestyles and they continue to be considered poor. A person's social lifestyle cannot be exclusively attributed to his earnings. He needs the support of society, kinship and friends for his social survival. Such social institutions when mobilised and activated will support individuals, in terms of needs, despite their economic position. A person who is well-integrated into society can mobilise support from such social supportive systems at no financial cost. The fish traders, who are generally marginalised and scattered, cannot mobilise such support without expending part of their earnings.

5.5 Recommendations

- A proper experimental design with a statistically valid sample is a prerequisite to test the hypotheses discussed in this report. A relatively long period of monitoring is suggested.
 - The ice melting rate in the newly-designed semi-insulated boxes is very low, and though there are daily monetary advantages, savings may be insignificant on a monthly basis. For example, when a fish trader invests about Rs. 1000 to earn about Rs. 300 as profit, Rs. 10 saved on ice does not make any substantial difference to his overall investment and earnings. However, the significance of this saving in the long run could be emphasised by exposing the traders to awareness-building training programmes and savings and credit schemes.
 - Small-scale fish trading is a bilateral process, between fish-mongers and their customers. The new box would provide traders with social status. At the same time, it might attract more customers if they could be convinced of the resultant freshness and hygiene. A consumer education programme is suggested.
 - The new fish box helps the traders preserve leftovers overnight, but the study revealed that the more experienced fish-mongers had no leftovers at the end of the day. Therefore, it is important to design fibreglass semi-insulatory boxes of different sizes, facilitating the carrying of different quantities of fish as required.
 - There is a wide range of income groups among the retail traders. The number of years in trade is a function of the income in most cases. The number of traders under investigation must be increased to draw a clear distinction between different income groups. Though it is estimated that the average monthly income of the higher income group is far beyond the monthly salaries of skilled labour or a medium class government servant, the socioeconomic lifestyle of the retail fish trader remains relatively poor due to various unclear factors. These factors should be explored and addressed with a view to improving the lifestyles of the traders.
 - The recognition and acceptance given to the small-scale retail fish traders by social supportive systems is downright poor. This hinders their capabilities to deal with financial institutions, to obtain loans or credit. The situation might change if the fish traders could be organised, enabling them to gain identity and legitimacy.
- 1 A programme should be initiated to popularise the importance of the new semi-insulated fish carrier. This would, in turn, help to decrease the cost of the new box through mass production. The average price of the new box should range between Rs. 2,000 and Rs. 2,500. If more, subsidisation should be considered.

- Finally, an integrated approach is required to help the retail fish traders improve their socioeconomic lifestyle. This would involve introducing credit and saving schemes which would release them from the bondage of moneylenders and forming groups to increase the bargaining strength of the traders. Without such an integrated approach, the maximum benefits expected from the insulated box might not materialise.

(6. MOBILE FISH TRADERS' CO-OPERATIVE SOCIETIES)

6.1 Organising the traders

As individual efforts made by scattered cycle traders were not strong enough to assert their rights or fulfil their needs, it was felt that a tangible effort should be made to bring them together as a cohesive group. There had hitherto been no attempt to bring the retail fish traders together to form a society or association. This was discussed in detail at each workshop. However, the cycle traders themselves had not identified this aspect as an important need for improving their trade and quality of life. Meeting as they do only at trading centres, and being busy with their purchasing and processing schedules, they hardly get a chance to talk to each other or discuss their common problems.

An attempt was therefore made to develop a strategy to organise and institutionalise the cycle traders, in order to facilitate closer interaction among them and strengthen their capacity to adjust to their socioeconomic environment. To this end it was thought that, firstly, the significant contribution of cycle traders to the post-harvest process in the fisheries industry in Sri Lanka should be brought to the notice of the policy planners and decision-makers of the Ministry of Fisheries and Aquatic Resources Development. It was also intended to introduce the cycle traders to the policy planners and decision-makers as an important sociopolitical group in the country.

Preliminary dialogues were initiated with the Co-operative Department of the Ministry of Fisheries and Aquatic Resources. The officials of the Ministry of Fisheries appreciated the urgent need to organise not only the cycle traders but all small-scale retail fish traders to ensure their vocational identity in order to improve the quality of their socioeconomic lifestyle.

The St. John's Fish Market in Colombo was selected as a focal point to implement this task, mainly because:

- It is the largest fish market in the country, operating on a wholesale and retail basis, and has the largest number of cycle traders operating on a regular basis.
- 1 Researchers of the partner organisation who had carried out the preliminary studies on the cycle traders were well-acquainted with the traders operating from St. John's Fish Market, as well as with the entire process of fish trading and market structure.
- 1 Fifteen traders operating from St. John's Fish Market had already been provided with the newly designed fish containers on an experimental basis and the impact of the containers on the mobile fish trade had been monitored.
- 1 Access to the traders operating from St. John's Fish Market by the research group of the partner organisation was particularly easy.

During this exercise, the most suitable and capable candidates were identified. Subsequently, individuals were encouraged to convey this information to others residing in the same area with a view to bringing them together to form cluster-type group organisations of cycle traders. Eight such clusters were organised, covering the entire marketing area of the cycle traders operating from St. John's Fish Market. This was initiated by a group of self-motivated cycle traders who expressed their willingness to take part actively in forming a traders' association.

The activities of the cluster groups were observed carefully by the research team of the partner organisation. They also played a catalytic role on a regular basis and gave appropriate instructions and proper guidance when needed. Subsequently, informal meetings were organised for those cluster groups with a view to identifying the needs, problems and priorities associated with their trade and socioeconomic lifestyle. Active individuals in each cluster group were encouraged to develop leadership qualities. Since these exercises were conducted in a participatory manner, an evolution of leadership qualities within the cluster organisation was noticed.

6.2 Cooperative society

In March 1993, the leaders of the cluster organisations and the partner organisations were called for an informal meeting with representatives of the Ministry of Fisheries. This meeting discussed the best way of organising the mobile traders into a society or association. It was felt that forming a cooperative society was an appropriate solution at this stage. In May 1993, the Co-operative Society of Mobile Retail Fish Traders operating from St. John's Fish Market was established under legislation laid down in the co-operative society system in Sri Lanka. This was a landmark in the history of the small-scale retail fish traders in Sri Lanka. Most of the leaders of the cluster organisations became the office-bearers and members of the Executive Committee of the Co-

operative Society. A constitution was prepared by amending the existing constitution for Fisheries Co-operative Societies which had already been accepted by the Government of Sri Lanka. The constitution of the Co-operative Society of Mobile Retail Fish Traders clearly spelt out the objectives, structure and functioning of the society.

Training programme: The partner organisation arranged a training programme for the office-bearers and the members of the executive committee to learn about the following:

- Management issues and leadership qualities.
- Maintenance of accounts.
- 1 Organisational activities.
- Recording and documentation.
- Establishment of links with other organisations.

A rapid training programme of this nature has many weaknesses, mainly because of the poor educational background of the target group: many among them did not seem to understand most of the material presented. However, they grasped the basic idea of the structure and functioning of a co-operative society.

Registration of the Society: The third general meeting of the society was held on June 21, 1993, with 63 members of the Society present. The amended constitution was approved. The Society was registered in July 1993. According to the constitution, members of the association were expected to buy shares up to Rs. 200 in addition to paying a membership fee of Rs. 25. Less than ten per cent of the cycle traders operating from St. John's Market sought membership of the Society at this stage. It was decided to increase the membership to strengthen the Society by initiating activities that could have a positive impact on the trader community. These activities were identified by analysing the outcome of the needs assessment workshops.

Manager: A work plan was prepared by the partner organisation in collaboration with the office-bearers and members of the executive committee of the Society. In this plan, priority was given to establishing a savings and credit scheme.

The ability of the members of the Society to carry out an exercise of this nature was carefully examined. It was found that the Society itself was not in a position to handle this task due to a lack of knowledge, experience and time. Therefore it was necessary to recruit an outsider as manager to handle the proposed savings and credit scheme of the society and maintain financial transactions on a regular basis together with the treasurer of the Society, but under the supervision of the partner organisation. To begin with, a temporary manager was appointed by the partner organisation and the salary for the manager was partly paid from the Project funds. It was anticipated that the Society would in time be self-sustaining and allocate remuneration from the net income earned by it through the savings and loan schemes. The following duties and responsibilities were assigned to the manager:

- Increasing the membership of the society.
- Collecting the daily savings of the members and depositing them in the bank on the same day.
- Maintaining proper bookkeeping and cash flow records of the savings.
- 1 Implementing the loan scheme.

6.3 Savings and Credit

Savings scheme: With a membership of 82 in August 1994, the first savings scheme of the members of the Society was initiated. About 90 per cent of the members actively participated in the scheme from its inception. The amount they saved daily varied from Rs. 10 to Rs 50, resulting in saving about Rs. 100,000 within a year.

By 1995, membership had increased to 145 members, but an average of only 45 members actively participated in the daily savings scheme every month. This resulted in a saving of Rs. 61,800 (Table 14), about 40 per cent less than the previous year. There was a decreasing trend in the daily savings scheme towards the end of 1995 and this continued in 1996.

Table 14. Savings in 1995

Month	NS*	Amount (Rs)
Jan	63	6200
Feb	78	8120
Mar	86	8100
APr	52	5100
May	31	3470
Jun	24	3150
Jul	27	4250
Aug	36	4200
Sep	32	5105
Oct	39	6125
Nov	43	4560
Dec	34	3420
Total		61,800

*NS = Number of members engaged in saving

Long-term loans: When it was realised that the savings scheme was not sufficient for a loan scheme that would satisfy the financial requirements of the members of the Society on a regular basis, IRED looked into possible ways of finding capital to establish, along with the ongoing daily savings, a loan scheme.

The Marantha Trust Fund, an NGO, was first approached by IRED for capital for the loan scheme. Delays and complications resulted from the lengthy formalities and bureaucratic procedures. As an alternative solution, IRED agreed to mobilise Rs.80,000 at 18% interest a year to establish the loan scheme, provided the Co-operative Society credited Rs. 40,000 from the savings of the Society to IRED's account as a guarantee. IRED would release this deposit (Rs.40,000) when the Society recovered the loan in instalments within a period of 18 months. It was also agreed that the Society would pay 18% interest per annum to IRED for the Rs. 80,000 while the partner organisation would pay 17% interest per annum to the Society for the guarantee bond of Rs. 40,000. Once this was agreed on, the Society implemented its long-term loan scheme in February 1994. The Society disbursed loans to 13 members, for a variety of purposes, at an annual interest rate of 23%. The recipients were selected on the basis of the following criteria:

- Only members of the Society were eligible to apply for loans.
- The applicant enrolled in the daily savings scheme should have proven performance.
- Two other members of the Society should sign as guarantors.
- The loan was to be recovered in instalments within eight months.
- Recipients of the loan should pay 24% interest per annum to the Society.
- The loan should be utilised for one of the following purposes:
 - Subsidy to purchase a motorcycle.
 - To repay past debts, which had been obtained from money lenders at 5% interest per day.
 - To repair the member's bicycle or motorcycle.
 - To purchase tools and implements related to the trade.
 - To purchase a bicycle.
 - To purchase one of the new fish boxes.

In addition, during selection, the savings of members and their active participation in the Society were also taken into consideration. However, some traders requested a loan for various other purposes, including building or renovation of houses and purchase of household equipment. All applications were carefully examined by the executive committee of the Society in consultation with the partner organisation and 13 applicants were identified to receive loans on a priority basis for trade-related activities.

Three traders were able to buy motorcycles with the loans they got and changed over from bicycles to motorcycles. These traders extended their marketing area and, in turn, increased their number of customers. Some others used the loans to settle their long-standing debts to moneylenders. The rest of the recipients purchased tools and implements required for the trade.

In the case of loans given as subsidies to purchase motorcycles, two-thirds of the value was given by the Society and the rest was contributed by the trader. These motorcycles were registered under the Co-operative Society's name until the entire loan was settled. Table 15 shows the amount of loans given to individual traders and the percentage recovery up to the end of December 1994.

Table 15. Long-term loans given to 13 traders and the percentage recovery as reported on December 31, 1994.

No of Recipient	Amount given	% recovery
1	8,000	9.3
2	10,000	35.3
3	12,000	12.5
4	4,000	77.5
5	5,000	61.5
6	2,000	100
7	2,000	80
8	4,000	99
9	12,000	30
10	12,000	15
11	5,000	20
12	1,000	100
13	3,000	100
Total recovery upto December 31, 1994		Rs. 45,540
Interest earned		Rs. 11,648
Interest paid to partner organisation		Rs. 9,600
Balance payment to partner organisation		Rs. 31,120

Mobile loans: The various workshops and discussions had revealed that there were often immediate requirements of money to purchase fish. Fish was a primary requirement of the cycle traders and, thus, this was a problem that had to be solved immediately. Unavailability of sufficient money in the morning drove most traders to borrow money from moneylenders at interests of 3-5 % a day.

So, it was planned to introduce an *in situ* loan scheme at the market site to address the immediate monetary needs of the traders and enable them to avoid borrowing from moneylenders at high interest. This scheme, called the mobile or instant loan scheme, was initiated in April 1994 by allocating Rs. 10,000 from the savings scheme with the prior approval of the Executive Committee of the Society. A maximum of Rs.500 was to be given to a member of the Society on request and it had to be settled within 14 days on an instalment basis. Interest of 4% was charged for a two-week period, but failure to repay would result in 8% interest on the balance for the next 14 days. Eightyfour loans were granted within the first five months of this scheme. It has become the most popular loan scheme at the market site and a substantial amount of money is earned by the Society from the interest and fines. All financial transactions at the market and the bookkeeping at the office of the partner organisation were carried out by a manager appointed by the Project but under the supervision of IRED.

Thirty traders had obtained 164 mobile loans amounting to Rs. 84,000 up to the end of 1994. The recovery rate was 100% at that stage. The loan scheme earned Rs. 6,619 from the interest (Rs. 2,866.00) and the fines imposed (Rs. 3,753.00).

In March 1995, the loan amount being given to members of the Society was increased from Rs.500 to Rs. 750 under the following terms and conditions:

- Repayment period of 20 days.
- Rs. 30 interest for the loan period.
- Fine of fifty cents per Rs. 100 per day after ten days

During 1995, 115 mobile loans were given, about ten a month, although it had been anticipated that 52 loans would be taken monthly. Further, only 9.6% of members of the Society took mobile loans in a month against an anticipated 35.8%. If the loan scheme was properly operated and the repayments were made on a regular basis with interest at 4% for the loan period, the authorised amount of money (Rs.20,000) could have been issued 52 times each month. This would have resulted in an annual total issue of Rs.480,000, leading to an interest amount of Rs.19,200. However, there was a marked decline in the operation of the mobile loan scheme during 1995, indicating poor participation by the members of the Society.

6.4 Performance of the Traders' Co-operative Society

One year after the inception of the Co-operative Society of Mobile Retail Traders operating from St. John's Fish Market, it was decided to assess the progress and stability of the Society. The Executive Committee of the Society and the representatives of the partner organisation met in a participatory workshop. The main objectives of this workshop were:

- To evaluate the progress of the Society during the first year of its functioning.
- To identify the reasons why the Society had not progressed as anticipated.
- To find ways and means and relevant strategies to promote the progress of the Society.
- To examine whether the Society could sustain itself when the responsibilities of the partner organisation were relaxed.
- To examine whether there was any positive impact leading to members of the Society seeking to improve the quality of their socioeconomic lifestyle.
- To look at the possibilities of the Society being linked with other formal financial institutions, such as the banking system and the Janasaviya Trust Fund.

The rate of recruitment of members to the Society and the regularity of their daily **savings** were considered indices of the progress of the Society. It appeared that only about 10% of all cycle traders operating from St. John's Market had become members of the Society and their savings were about Rs. 100,000 over the first year. The low rate of recruitment of members might have been due to several factors. As there was no office space for the Society in the market, the manager carried out his duties in the open. This resulted in severe difficulties, especially in adverse weather conditions. The operation of the Society in this manner failed to develop the confidence of the traders in it. They considered the Society an unstable, ad hoc organisation. This idea was further promoted by groups indirectly involved in the retail fish trade, especially the moneylenders who would be affected by effective operation of a co-operative society of this nature. The manager of the Society tended to arrive late at the market site, while the moneylenders coming from distant areas reached St. John's Market before 6 a.m. and left the market only after the traders had finished purchasing and processing fish. With the manager not available at the market site when most needed, there is little possibility of the traders, especially non-members, using the Society's service.

However, both the long-term and mobile loan schemes were rather successful activities of the Society. The recovery of loans was satisfactory as the recipients were not compelled to pay their instalments in a short period. In general, the functioning of the Society according to its constitution was also satisfactory. It had been proposed that several welfare activities should **be** implemented to support members of the Association in distress or to develop friendship between members. These areas have not been explored as yet. To minimise weaknesses **and** eliminate shortcomings observed during the first year, several activities were proposed for future development. The first priority was obtaining office space for the Society at the market site, followed by the need to expand the long-term and mobile loan schemes. It was also proposed to look into the possibility of the traders themselves getting involved in the construction of new fish containers through attending training programmes. Welfare facilities for other members of the trader families and their active participation in the Association were also considered priority items to be implemented in the near future.

6.5 Some observations

The work with the cycle fish traders in Sri Lanka clearly demonstrates that there is no one-way process to uplift their quality of life. These traders interact with dealers (either wholesalers or fishermen) and consumers. Therefore, it is important to improve the trader-dealer relationship and trader-consumer ties by institutionalising the traders into a society with a clear agenda for both social and technology-based programmes.

The members of such an association should not regard their group as merely a system to disburse loans to reduce their financial burden. This model can be applied to any type of isolated groups of itinerant traders. The success of the model, however, will always depend on its self-sustainability.

6.6 Organisation of small-scale retail traders in Negombo

After discussions in depth, it was decided to replicate the St. John's Fish Market model for the cycle traders operating from the Negombo fish landing sites (i.e., Kuda **Lellama** and **Maha Lellama**). Initial discussions were launched by IRED with both the Negombo North and South Fishermen's Co-operative Societies. Subsequently, the Negombo South Co-operative Society agreed to adopt the model and organise the cycle traders operating from the Negombo fish landing sites into an association. It was also decided to confine this organisation only to the cycle traders residing within the Gampaha electoral district.

A preliminary meeting was held in December 1994 by IRED with the Negombo South Fishermen's Co-operative. Five cycle traders operating from the Negombo fish landing sites also attended the meeting. It was announced that the new project would be carried out from the beginning of 1995. Accordingly, a person knowledgeable in co-operatives was recruited as manager. It was also decided to recruit an assistant to the manager. The major functions of the assistant were outlined as organisation of clusters, and initiation of savings and credit schemes following the establishment of the co-operative society. In addition, he was to be the contact person for the traders at the sites, carrying out all transactions in savings and credit. The manager was to be responsible for maintaining the accounts, keeping proper books and dealing with the banks.

The progress was studied by the Project in early 1995 and it was agreed that the cycle traders operating from the Negombo fish landing sites should be organised through group meetings or cluster organisations. The importance of an awareness programme on a co-operative society for cycle traders was emphasised. The manager and his assistant would function under the close supervision of IRED, it was agreed.

The report submitted by the manager of the project on the progress of the activity revealed that the preliminary arrangements were satisfactory. Initial discussions had been conducted with cycle traders living in Kochchikade, Heenatiya, Andiambalama, Pamunugama and Maharagama in Gampaha District. There was evidence that the cycle traders who had participated in these group discussions were interested in becoming a cohesive group in the near future. Meanwhile, it was noted that Government too had launched a programme to improve the socioeconomic lifestyle of petty fish traders operating from beach landing sites on the south coast. Under this programme, the Ministry of Fisheries and Aquatic Resources had offered support to small-scale retail fish traders operating from the Hambantota and the Beruwala/Aluthgama fish landing sites. This was a positive sign for a better future for the retail fish traders.

7. DRAWBACKS AND REMEDIAL MEASURES

7.1 Introduction

The slow progress in 1995 of the Co-operative Society at St. John's Fish Market was a cause for **concern**. The donor agency and the partner organisation seriously wondered about its sustainability in the long run. Whether the Project should continue with the same structure and strategies or whether new strategies should be adopted to restructure the activities of the society was considered. As stated at the beginning, the primary **objective of the Project** in Sri Lanka was to enhance the quality of life of the petty fish traders and small-scale fisherfolk by introducing them to better post-harvest technologies. Had this objective been achieved, to some extent at least, by establishing and introducing the activities and schemes described in the previous pages? This **debate led to** a reassessment of the needs and priorities of the target group.

In order to reassess the project, a workshop was organised in early 1996. It sought to

- refresh the memories of the members of the Society of the primary objectives of the project in terms of its ongoing activities;
- find out whether the ongoing project activities were an acceptable way of improving the **socioeconomic** status of the traders; and
- identify whether the traders had alternative expectations which could be introduced in order to achieve a significant improvement of the socioeconomic status of the target group.

The activities introduced and carried out with a view to improving the socioeconomic status of the small-scale fish **traders** were:

- Establishment of a co-operative society of the fish traders operating from St. John's Fish Market.
- Introduction of saving and credit schemes, namely,
 - A daily saving scheme
 - A mobile loan scheme
 - A long-term loan scheme.
- Involvement in insurance schemes.
- Linkage with the banking sector for credit opportunities to start income-generating activities (**self-employment**).
- Introduction of semi-insulated fibreglass fish boxes to improve consumer acceptance and traders' incomes.
- Introduction of welfare activities and educational programmes through the co-operative society.
- Establishment of an office of the co-operative society in St. John's Fish Market to carry out daily transactions.

However, despite the introduction and implementation of these activities by the co-operative society, a decline was observed in the anticipated progress from mid- 1995. This may be attributed to:

- Decrease in attendance at meetings.
- Decrease in recruitment of new members.
- Decrease in active involvement of the members in saving and credit schemes and other activities.
- Withdrawal of membership (about 10%).

7.2 Reassessment of needs and priorities

Members of the Society who participated in the workshop organised by IRED were divided into four groups and asked to discuss their needs and priorities with respect to trade and to present their views on the **reasons for the slow** progress of the activities of the Society. They were also asked to identify whether the ongoing activities of the project were acceptable measures to improve the socioeconomic status of the trader community **or, if not, to identify** their expectations.

Views of four groups

The groups gave the following reasons for the slowdown of the society:

- Weakness of the leadership of the 'Board of Directors'.
- Problems associated with the manager.
- Improper management of loan schemes.
- Failure to provide information to the members.
- Weaknesses associated with the new fish boxes.

Their views on improving the socioeconomic status were:

- Ongoing activities are acceptable measures to improve their socioeconomic status.
- Improvement should be symbolic. For example, change of the mode of transport of fish from bicycle to motorcycle. This can be achieved by giving long-term loans.
- There should be sufficient capital for an instant loan scheme.
- The new fish box is an acceptable intervention, but the standard of the present box is not acceptable.
- The fish box is not a priority with respect to the trade.
- The savings and credit schemes should be restructured.
- Vocational identity of traders should be established in the market.
- There should be a regular mechanism to provide information to members.

Conclusions

At the end of the workshop, the problems, needs and priorities highlighted by the four groups were analysed separately by the consultant to the project and the researchers of the partner organisation and they came to the following conclusions:

- There are positive signs of improvement of the socioeconomic status of the members of the Co-operative Society as a result of the project. However, improvement of their socioeconomic status was not apparent due to a lack of symbolic features and the short duration of the project.
- Problems associated with the new box are to be expected as it is a low-cost product.
- The vocational identity of the traders at the market should be established through strengthening the membership of the Society and regular functioning of an office at the market.
- There were problems in the disbursement of loans, but then repayment was also poor.
- It is important to provide regular information to individual traders, especially on their financial transactions, by issuing passbooks.
- Overall management of ongoing activities should be restructured and reorganised.

7.3 Amendments to the constitution

The Second Annual General Meeting of the Co-operative Society of Mobile Fish Traders operating from St. John's Market was held on May 27, 1996. Several amendments to the constitution were proposed and accepted. The Executive Committee became the Board of Directors. In addition, the following decisions were taken at the meeting:

- To increase the external loan limit to Rs 200,000.
- To increase the maximum amount of mobile loans to Rs 1000.
- To allocate Rs. 25,000 from shares to promote the mobile loan scheme.

The poor progress of the ongoing activities of the Society was highlighted and the necessity to develop a proper work plan for the forthcoming fiscal year was emphasised. The need for regular inspection of financial transactions was also stressed.

7.4 Impact of mobile loans

The disbursement of mobile loans decreased markedly in 1995 and it was attributed to management problems. The total amount issued as mobile loans was Rs. 67,450 in 1995. However, it was reviewed again in 1996, following the appointment of a new manager, and it was found that Rs. 88,250 had been issued up to the end of September 1996.

The recovery rate of this loan scheme was highly satisfactory and the association earned a substantial income from interest and fines. For example, it earned Rs.11,932 from its inception to August 1996 by operating the mobile loan scheme. Such income could strengthen the financial status of the association. This scheme was becoming very popular among the traders at the market site. Therefore, it was decided to gather more information from the traders who were actively involved in the mobile loan scheme through a study. The aims were to identify whether the mobile loans had been effectively utilised and to find ways and means of strengthening the Society's as well as the traders' economic standards by effective operation of the mobile loan scheme.

Twentyfive members of the Society who had fully participated in various activities were identified as a random sample for the study. First, their involvement in the activities of the Society (e.g., savings, credit. etc.) was analysed by examining already available information. The financial transactions of the individual traders, e.g., amount obtained and repayment of mobile loans, were then analysed to determine their performance in the scheme. Subsequently they were invited to the office of the partner organisation in two batches for two consecutive days. Of the 25 traders invited, 16 participated in the study. Of the absentees, five traders had shown poor performance in repayment of mobile loans. They had delayed instalments for several months for various reasons and, ultimately, the balance had to be deducted from their savings.

It was found that 14 of the traders who participated in this study were economically stable and were successful in their vocation. This was mainly judged by the properties and assets owned by the traders, their lifestyle and the income they earned daily. Nine traders owned houses with electricity supply and such amenities as television and furniture. Almost all participants with children sent them to school. Eight of the participants could be considered active members of the Society (e.g., holding positions in the Executive Committee, good performance with savings and credit). The priorities in the ongoing schemes of the Society (e.g., long-term loan, mobile loan, fish box, insurance, Hatton National Bank loans) varied from person to person. In the mobile loan schemes, Rs.78,350 had been issued to 15 participants since the inception. Only Rs. 2,270 had to be deducted from the savings of four traders who had failed to make repayments. Twelve traders showed excellent performance, reflecting 100% recovery. By and large, the participants had performed well in repaying the mobile loans.

All traders participating in the study sold fish on credit to only a few customers. Two traders used to collect money from their customers on a monthly basis. Except for one trader, others obtained mobile loans only as and when the need arose. The trader who did not obtain mobile loans was found to be the most successful in the trade. He had engaged in this vocation for the last 20 years. His success was evident from the properties and assets he owned and the level of education of his children. Even this trader appreciated the mobile loan scheme operated by the Society as it brought great relief to the cycle traders. The degree of participation in discussions on the advantages and disadvantages of the mobile loan, the operation of the mobile scheme by the Society and how the scheme could reinforce the mobile fish trade was quite encouraging.

The study further revealed that of the 16 participants, 15 had obtained mobile loans on a regular basis from April 1994. No trader claimed that the Society was an ineffectual organisation: in fact, all the participants unanimously agreed that the Society had benefited them in their trade. Participants also agreed that the Co-operative Society had a good future. However, they felt the ongoing activities should be further improved.

They all agreed that mobile loans were the most popular and beneficial aspect of the Society's activities. It helped ensure that they had money in their hands in the morning, thus playing an important role with respect to their day-to-day business and, in turn, their daily earnings. The participants also agreed that the long-term loan scheme, the introduction of fibreglass fish boxes, the (Hatton National Bank) loan scheme under the Gami Pubuduwa (Village Awakening) Programme and the insurance scheme implemented by the Society were beneficial activities.

7.5 Utilisation of mobile loans

The key issue of the study was determining the actual utilisation of mobile loans taken by the traders. Only a few traders stated that they used the loans exclusively for the purchase of fish. A majority of participants said they

had, in addition to purchasing fish, used the loans for other purposes (e.g., to pay other loans or seettu, to pay for medicines, or to purchase food).

One of the key findings during the study was that most of the participants stopped borrowing from moneylenders from the time they began obtaining mobile loans from the Society. It was also noted that none of the participants used these loans “to make money”, by lending on interest, or to invest in other productive purposes. The major advantages of the mobile loan were its relaxed repayment terms and that it did not demand guarantees or sureties. The participants were also happy with the low interest rate.

A few traders had failed to repay in some instances due to poor sale of fish. Only one trader had failed to repay due to high personal expenses. The traders who have benefited by the mobile loans are not bothered about the fine imposed on delayed repayment. Though the traders felt that the management of the mobile loan scheme should be improved, they were not unhappy with it at the time of the study. A majority recommended increasing the amount given to each individual trader. Some felt the total amount of loans given per day should be increased to help a larger number of members. If the amount given to an individual alone was increased, only a few members would benefit.

The study concluded that the mobile loan scheme was the most popular activity operated by the Co-operative Society of the Mobile Fish Traders operating from St. John’s Fish Market. The traders actively involved in the scheme had directly or indirectly benefited, but improvements to their socioeconomic standards were not significant as yet, perhaps because of the short duration of the scheme. No trader had used the loans exclusively for productive or consumptive purposes other than the purchases of fish. The strength of the Society could be enhanced by improving and popularising the mobile loan scheme among members.

7.6 Restructuring the project activities

Having re-assessed the merits and demerits of the ongoing schemes of the Societies in Colombo and Negombo, it was decided to restructure the project activities in terms of the needs and priorities of the traders that emerged at the workshops and in the studies. This was planned primarily with a view to implementing phasing-out strategies. Work plans for 1996-1997 were prepared by the project staff of the partner organisation in collaboration with the Executive Committees of the traders’ Societies. While designing the work plans, attention was focussed on rehabilitating the current activities of the project to achieve sustainability in a short period of time. The proposed work plans, with clearly defined activities and timeframes for their accomplishment, have also focussed on the strengthening of membership and fund-raising for long-term loans and welfare activities. In addition, awareness-building and training programmes have been proposed to promote the fibreglass fish box among the traders and to improve the capacities of the members of the Executive Committees for effective management of the Societies. Several activities have also been proposed to improve the economic stability of the members by introducing them to the banking sector to obtain loans for self-employment projects. Details of the work plans are outlined below.

7.7 Work plan for St. John’s Market

Increase of membership: Increase the membership through awareness-building among non-member traders by holding cluster meetings. The responsibility for this is the Board of Directors’. The project staff of the partner organisation will participate in the meetings as observers. The manager of the association to take appropriate measures to increase the membership at the market place, through dissemination of information about the Society.

A new concept of associate membership to be introduced, to recruit more members and strengthen the fish traders’ association. Any retail fish trader could become an associate member of the association by paying an admission fee of Rs. 10. but would not have voting rights. Associate members would be eligible to obtain mobile loans and engage in savings, but would have to ensure that they had 50% of the mobile loan they received in the form of savings in their accounts. They would also be eligible to obtain long-term loans under surety bonds. Members would be rewarded at the end of each fiscal year for the best savings, repayment, etc.

Improvement of savings: Non-active members of the Societies to be encouraged to participate in the saving schemes. Attempts to be made to activate this scheme through cluster meetings. (It was anticipated that members’ savings would be built up to Rs. 10,000 per month, thereby increasing total savings to Rs. 120,000 by June 1997.) Compulsory savings to be made by deducting Rs. 60 from each Rs. 1000 mobile loan issued to the traders. (If the association releases 200 loans per year, the overall savings from the scheme would be Rs. 12,000.)

Encourage members to save Rs. 10 at the time of repaying each instalment of the mobile loan. (Since ten repayments are made daily, the overall savings expected under this scheme is Rs. 30,000 per annum.)

Members to be encouraged to save 10% of the loan they received from the Hatton National Bank under the Village Awakening Programme. (If the HNB releases loans amounting to Rs. 100,000 a year, the expected savings is Rs. 10,000.)

Establishment of a welfare fund: Organising a raffle to establish a welfare fund for the Society. Tickets were to be sold by the traders to their customers. (The target was about 5000 raffle tickets at a rate of Rs. 10 each. The prizes were to be sought from banks, insurance companies, etc.)

Mobile loan scheme: Maximum size of the mobile loan to be increased from Rs. 750 to Rs. 1000 and daily issues to be as follows:

- Three mobile loans each of Rs. 500 = Rs. 1500
- One mobile loan of Rs. 1000 = Rs. 1000
- Total release per day = Rs. 2500

Rs. 20,000 to be allocated from the savings account to operate the mobile loan scheme effectively. Attempts to be made to recover the non-paid mobile loans with due interest from the savings of the traders who had failed to make repayments within the due date. (Mobile loans were issued to traders when the applications were guaranteed by other members even if they did not have sufficient savings in their respective accounts.)

Long-term loan: Request for ten loans for self-employment projects under the Village Awakening Programme of the Hatton National Bank. The potential recipients to be identified and forwarded to the HNB and the progress of repayment monitored. Arrangements also to be made to obtain a loan from a donor agency, perhaps ODA, in order to disburse it among ten active members of the Society as long-term loans for improvement of their trade (e.g., to purchase motorcycles).

Insurance scheme: To encourage traders to take life and accident insurance schemes (an enrolment of 75 members was targeted), but cancel the policies of those who failed to pay their monthly subscriptions.

Training programme: Programmes to be organised for the Board of Directors and the Manager of the Society to train them in the financial and management aspects of the Society and in leadership qualities.

Annual progress report: To compile the proposed activities and achievements into an annual progress report. (A committee consisting of the Board of Directors and some active members of the Society was appointed to prepare this report under the supervision of the project staff of the partner organisation. It was also suggested that the proposed annual report be printed and circulated among the members of the Society at the end of the year.)

Reactivation of the office at St. John's Market: To reactivate the office at St. John's Market by the members themselves and a member of the Board of Directors to be appointed to inspect the activities of the office every month and report progress. The office should function as a centre where the traders could attend to their different needs and financial transactions.

JTF loan scheme: To initiate discussions with the Janasaviya Trust Fund (JTF) to obtain a Rs. 100,000 loan for the Society. (The JTF was to be given all relevant information on the disbursement and repayment of mobile and long-term loans operated by the Society.)

Co-operative development fund: To establish a co-operative development fund with a separate bank account to strengthen self-management of the association and to ensure its financial viability. (It was decided to allocate Rs.5,000 from the shares to establish this fund and Rs. 500 each month from the overall earnings of the Society. Of this, Rs. 1,500 would be allocated for travel and subsistence of the Directors.)

7.8 Work plan for Negombo

Membership: To bring membership up to 150 within a year through each member of the Society mobilising at least two new members. To hold seven cluster meetings in the year to create awareness. To launch the following propaganda programmes to increase membership:

- Distribution of a brochure on the Welfare Society, highlighting the present activities and the progress.
- Issue of identity cards to members of the Society.

Daily deposits/savings: To increase daily deposits from Rs. 2.50 to Rs. 10. (If 50 members saved on a regular basis there would be a saving of Rs. 120,000 at the end of the year. However, only 20% of the members were actively involved in the daily savings scheme at this stage.) To distribute tills among members who did not meet the manager at the landing sites. (It is extremely difficult for the manager to meet each and every member in the couple of hours he spends at the landing sites. The traders would therefore be encouraged to save at home and the monthly savings would be deposited in their respective accounts.) To initiate reward for the best savings and best repayment every year. To introduce associate membership as at St. John's Market.

Mobile loan scheme: Maximum size of the mobile loan to be increased from Rs. 500 to Rs. 1000.

Long-term loans: To provide 75% of the members of the Society with insulated fish boxes during the year with the support of long-term loans anticipated from external sources. (The monthly instalment would be Rs. 100.) To make arrangements to provide ten bicycles to traders through loans from the Hatton National Bank

Training programme: To conduct three training programmes for the Executive Committee of the Society on financial and managerial aspects and leadership qualities.

Housing loans: To make the necessary arrangements to obtain housing loans (maximum of Rs. 20,000 per member) from a state or non-government organisation. (It was anticipated that a loan of Rs. 450,000 could be obtained for disbursement to 15 members posting surety bonds.)

Welfare fund: A raffle to raise funds for the welfare activities of the members of the Society. (It was hoped to sell 2,000 raffle tickets at Rs. 10 each to the traders' customers.)

7.9 Progress from April to December 1996

Membership drive: One of the most important expectations of the proposed work plans was to increase the membership of both societies by 200 by the end of December 1996 through cluster meetings. There was a progressive increase in membership in both associations, with that of the Negombo Mobile Fish Vendors Welfare Society increasing from 51 to 90 during April-September 1996. Apart from the awareness-building cluster meetings proving fruitful, the membership also introduced several non-member traders to the Society. The major constraint to increasing the membership in Negombo was the lack of an office for the Society close to the fish landing sites. It was noticed that wrong attitudes and perceptions prevailed among traders when an association operated without an office. In the case of the co-operative society operating from St. John's Fish Market, the membership increased by 25 to reach 130 during the same period.

Associate membership: A brochure containing the following information was distributed among the fish traders operating from both St. John's Fish Market and the Negombo landing sites.

- How to become an associate member.
- Qualifications required for associate membership.
- Benefits for an associate member:
 - Becoming a member of a strong trader organisation;
 - Establishing a vocational identity;
 - Contributing to saving schemes;
 - Obtaining mobile loans;
 - Obtaining loans from the HNB;
 - Entering saving schemes operative at home;
 - Obtaining loans to purchase motorcycles; and
 - Purchasing a fibreglass fish box.

A membership drive was conducted in November 1996 at St. John's Fish Market and at the Negombo fish landing sites for two consecutive days to recruit associate members. A simple plastic membership card indicating the name of the Society, registration number and date of registration, signatures of the secretary and the president, (and the address of the office in the case of the co-operative society of St. John's Fish Market) was issued on payment of the membership fee. On the back of the membership card were the words "An initiative of IRED-BOBP-ODA Post-Harvest Fisheries Project" and the address of the partner organisation. The members could pin this identity card on their shirts while on business.

Apart from membership, there was a marked increase in savings in both Societies. The members at St John's Fish Market saved Rs.250,000 within a period of eight months while the amount achieved in Negombo was Rs.57,000 during the same period. The St. John's Market co-operative society allocated Rs.20,000 towards mobile loans and was, thus, able to give 100 loans a month. Loans were also given to purchase motorcycles and bicycles. Thirtynine members obtained life and accident insurance policies from the Janasakthi Insurance Company Ltd. The existing office at St. John's Market was reactivated. In addition, 12 members obtained HNB loans for self-employment projects under the Village Awakening Programme.

Daily savings scheme: The total daily savings at St. John's Market were Rs. 29,680 from July to September 1996, which exceeded the target for the period by Rs. 9880. This satisfactory achievement of the savings scheme was mainly due to:

- The systematic functioning of the newly-appointed manager;
- Updated accounts;
- Savings started by new members; and
- Compulsory deposits of Rs. 10 while repaying each instalment of mobile loan.

In the case of the Negombo Fish Traders Welfare Society there was little progress with respect to savings due to the unavailability of fish at the landing sites during the Southwest Monsoon. Though the Society distributed 12 tills among the fish traders, only four of them deposited their till-savings on a regular basis.

Mobile loan scheme: Though it was hoped to expand this scheme at St. John's Market, by increasing the size of a loan from Rs. 750 to Rs. 1000 during the first quarter of the proposed period, only Rs. 10,000 was allocated from the savings for the scheme. On an average, Rs. 1,900 was released per day and loans totalling Rs. 58,200 were given out from July to September 1996. A decision was taken by the Board of Directors to increase the loans by allocating Rs. 25,000. On the negative side, the duration of repayments increased from 14 to 30 days along with the increase in the size of the loan. This has resulted in money staying with the recipients for a longer period. In Negombo, the operation of the mobile loan was satisfactory, but the Society has been unable to increase the size of the loan.

Life and accident insurance policies: The scheme, in operation only in Colombo, did not show much progress during July-September 1996. Some trader members who obtained insurance coverage did not pay their monthly instalments on a regular basis. However, the majority of members wished to get insurance policies. The insurance scheme had still to be introduced to the members of the Negombo Society at this stage.

HNB loan scheme: Six trader-members of the Colombo co-operative society were selected and introduced to the Hatton National Bank to receive loans for self-employment projects. The HNB postponed the processing of these applications as one of the traders had defaulted on the repayment of a loan given previously. This situation created a serious problem. However, after much pressure was exerted on the trader, he started to repay the loan, but defaulted again. In contrast, the HNB loans released to the Negombo Fish Traders Welfare Society have been very successful. Loans to members of the Society for the purchase of motorcycles were being negotiated at the time of writing.

Traders Association Development Fund: The St. John's co-operative society established this fund mainly to ensure the self-sustainability of the administration. It did so by crediting Rs. 5000 into a separate bank account at the HNB in August 1996. The Negombo Fish Traders Welfare Society established a similar development fund in a new bank account at the HNB's Negombo branch.

Traders Society Welfare Fund: In order to raise the money necessary for this fund, both trader associations printed raffle tickets and distributed them among the traders to sell to their customers. The scheme was supported by the HNB. The prizes were contributed by donors and the raffle was drawn in December 1996.

'Raining programmes: The first training programme for the Board of Directors of the St. John's co-operative society was conducted in September 1996. A qualified trainer from the Co-operative Department instructed them on the following subjects:

- Basic bookkeeping;
- Exercises on bookkeeping (issue of loans and deposits);
- Writing journals;
Preparation of general ledgers;

- Preparation of balance sheets;
- Rules and regulations of co-operative societies;
- Structure/organisation and development of co-operative societies;
- Inter-relationships between co-operative societies;
- Authority, duties and responsibilities of the Board of Directors;
- Policy decisions and implementation; and
- Problems of developing systems in the fishery industry.

The following recommendations were made at the end of the training programme:

- The financial transactions of the Society to be monitored by a Director at the end of each week.
 - 1 All financial transactions occurring during a week to be compiled in a brief report.
 - 1 The implementation of the proposed activities of the association to be regularly monitored.

A training programme for the leaders of the two fish traders' societies in Negombo and Colombo was also conducted in September 1996. It was titled 'Motivation, attitudinal and behavioural change required for strengthening organisations'. The purpose was to get the leaders of the two Societies to show more initiative, leadership and courage in strengthening and developing their organisations. The two Societies, even though they operate savings and credit schemes, a welfare fund etc.. are still weak in the following areas:

- **Membership.** This remains small and the leadership does not take much initiative to increase the numbers.
- **Plans and programmes.** Members do not have new ideas for these.
- **Consensus.** The leadership still does not know how to make collective decisions.
- **Initiative.** The leadership does not take the lead, and if not for the efforts of the partner organisation nothing would be accomplished.
- **Communication.** The leadership cannot directly deal with outside organisations like banks and the Co-operative Department.
- **Objectives.** The leadership is still unclear about the objectives of the Society.
- **Analysis.** Their thinking and action within the Society are not different from their thinking and action in their personal lives.

Eighteen directors of the two Societies were invited to participate in a third training programme held in Colombo on 3.1.10. 1996 and 5.1.1. 1996. The programme focussed on:

- 1 Motivation.
 - Group works and group leaders.
 - Initiative and persistence
 - Leadership.
- 1 Communications.
- 1 Problem-solving/decision-making.
- 1 Conflict resolutions.

The programme included lectures and practice sessions and the performance of participants was evaluated at the end of each day.

7.10 Problems associated with technological intervention

Attempts to popularise the semi-insulated fish box with a fibreglass lid among the mobile fish traders ran into problems due to manufacturing defects and the high cost. The fish box was initially seen as a non-priority item for the traders because of its high price. When the boxes were manufactured at a low cost, their durability was very low.

Several of the first manufactured fish boxes were rejected due to early appearance of leaks and cracks. The project identified a competent and experienced fibreglass manufacturer in Negombo to fabricate the fish boxes. The new boxes were manufactured under the close supervision of the project staff and met the required standards:

- Better insulation;
- Reduced ice meltages;
- Assurance of hygiene – Greater strength;
- Better appearance: and
- Better quality of preservation.

Monitoring: Two semi-insulated fibreglass boxes manufactured in Negombo for motorcycles and bicycles were given to a motorcycle trader and a bicycle trader respectively operating from St. John’s Market, Colombo. in September 1996 and their use was monitored. The recipients were asked to use them to carry fish and to record both positive and negative aspects, particularly with reference to the ice melting rate. The two traders were also given a one page questionnaire to be filled every day. Eight monitoring forms were returned by October 17, 1996 and the comments made by the two traders are summarised in Table 16.

Table 16. Observations of the recipients of new Negombo-made fish boxes on the general conditions of the box and its ice melting rate.

Character	Box for motorcycles	Box for bicycles
Ice melting rate	Good	Good
Quality of fish	Keeps fresh	Keeps fresh
Quantity of fish	Could be increased	Could be increased
Consumer acceptance	Good	Good
Dimension of box	Too big/deep	Too deep
Cleaning of the box	–	–
Fixing and dismantling	–	A little difficult
Draining of water	Good	Good
Increase in income	Too early to comment	Too early to comment
Beading	Good	Good
Hinges	Poor	Poor

Despite a generally positive response, the enthusiasm for the boxes was not very encouraging. The earlier low-cost product had created a bad impression about the box throughout the trader community. The traders also appeared to feel that the semi-insulated box could not make a significant and immediate impact on their trade.

Fish traders’ views: The opinions and constructive suggestions of the traders that needed to be taken into account included the following:

- The high cost of the fibreglass box.
- The need for the box to be removed from the bicycle, left inside the house at night, and fixed again the next morning.
- Lack of perfect water-sealing conditions inside the box.
- The varied requirements of the traders, particularly in respect of the size of the box.
- The importance of displaying the fish to the customers. (Traders, therefore, prefer containers with a minimum height, and a width and length to suit the fish they prefer to stock.)

7.11 Activities of the traders’ associations in 1997

Colombo: An audited financial report revealed that the St. John’s co-operative society had earned a profit of Rs. 16,000 for fiscal year 1996/1997. However, it was revealed that there was a deficit of Rs 44,825.15 in the annual account. It also resulted in a loss of confidence in the Society by the members. There was, as a consequence, a substantial decrease in savings and the participation of members in the mobile loan scheme declined markedly. In addition, conflicts arose between some office-bearers of the Society and the partner organisation. Eventually, the manager was suspended and all financial transactions stopped till the situation improved.

The **third annual** general meeting of the Society was held on November 24, 1997. Observers at the **meeting include representatives** from IRED, the Co-operative Department of the Ministry of Fisheries, **and the Project.** New **office-bearers** and a new Board of Directors were elected at the meeting. A decision was taken **to appoint a** new manager and restart the activities of the Society at the market site. A joint meeting was then held by the **Colombo and** Negombo Societies on December 3, 1997 with a view to reshaping the activities. A new manager was appointed and financial transactions were restarted at St. John's Market in December 1997.

The Ministry of Fisheries intervened at this stage and agreed to support the trader-societies. A formal meeting was held with the Minister of Fisheries and other officials at the Ministry on January 21, 1998. The primary objective of this meeting was to discuss the present status of the trader-societies, the ongoing activities, and to **identify** the activities to be carried out to stabilise and strengthen the trader-societies, The following decisions were taken at this meeting:

- To make necessary arrangements with the Urban Development Authority to establish an office **at** St. John's Fish Market for the Society.
- To transfer the technology of manufacturing fibreglass fish containers to the Ceynor Agency and to establish a special loan scheme with the Ceynor Agency to provide 100 fish boxes to members of the Society.
- To introduce a pension scheme sponsored by the Government to members of the Society.
- To provide 100 toilets to members of the Society under the Sri Lanka Fisheries Development Programme.
- To discuss with the Bank of Ceylon and Peoples Bank the possibility of loans to the members of the Society.
- To establish a link with the Fisheries Corporation for the purchase of fish.

Residential training programme: Meanwhile, 21 members from the Colombo and Negombo Societies were **trained in** the following at the Polgolla Co-operative Training School in Kandy between January 5-7:

- Rules and regulations of co-operative societies.
- Fish marketing by co-operative societies.
- Improvement of the talents and capabilities of the membership.
- Contribution of the membership to achieving the goals.
- Planning the future of the two Societies established by the cycle traders.

Negombo: The Negombo Mobile Fish Vendors Welfare Society showed considerable improvement and stability **during** the fiscal year 1996/97. The Society achieved savings of Rs 13 1,699 by the end of December 1997. However, savings and other activities were affected tremendously by a cholera epidemic along the northwest coast during the latter part of the year.

The annual general meeting of the Society was held in Negombo on October 5, 1997. The annual report and the **audited** budget were presented. Subsequently, new office-bearers and executive members of the committee were **elected** for the next fiscal year. Plans for the coming year were discussed in detail. It was decided to register the Society under the Sri Lanka Co-operative Act as soon as possible.

In November 1997, the Society established a long-term loan scheme with the Hatton National Bank. The object **of** this scheme was to help members to purchase motorcycles, bicycles, deep freezers, etc. In addition, it was **agreed** that the traders could utilise these loans to purchase land and to repair or rehabilitate houses.

A special general meeting was held on February 8, 1998, to discuss the constitution to be submitted for the **registration of the Society under the Sri Lanka Co-operative Act.** Several proposed activities of the Society were **also discussed during** this meeting.

8. PROJECT EXPERIENCES – SUCCESSES, FAILURES AND LESSONS LEARNT

8.1 Participatory approach

The execution of a development process to improve the living standards of a grassroots level target group by introducing various development activities and withdrawing external support when the project reaches self-sustainability is called a participatory project cycle. The sustainability of any such project initiated for the socioeconomic upliftment of people at the grassroots level in the informal sector depends on the participation of the target group in decision-making, planning, implementation and evaluation, because they

- have the inherent knowledge and experience;
- face the problems and could, therefore, identify needs and priorities:
could build up confidence;
- could operate with responsibility: and
- could perform the duties necessary to achieve their goal.

Therefore a participatory project has a series of interconnected characteristics. In the first place, it is necessary to identify the target group, then assess their needs, priorities and aspirations, and thereafter institutionalise them in the form of a group or society. They must be trained in various activities and their performance observed and evaluated. It is also necessary to identify their strengths and weaknesses and adopt remedial measures. During the second phase, the performance of the activities, and their needs and priorities should be reassessed to examine the validity of the project. Finally, phasing out strategies should be carried out to promote the idea of the project remaining exclusively in the hands of those for whom the project had been started. In what has been called 'the cycle traders project', a group of mobile fish traders operating from St. John's Fish Market, Colombo, and the Negombo beach landing sites were targeted and development interventions made in a participatory manner. The intention was to minimise post-harvest losses while improving the living standards of the target group and providing better quality fish to consumers at affordable prices.

8.2 Community institution-building

The formation of a co-operative society of mobile fish traders operating from St. John's Market in Colombo is a classic example in Sri Lanka of community institution-building. This co-operative society facilitated a closer interaction among the scattered petty fish traders and strengthened their capacity to manage and regulate their socioeconomic environment to a certain extent. The replication of the model in Negombo achieved similar progress. The formation of the Societies also helped to establish their vocational identity and increase their bargaining power. This also resulted in a decrease in the number of moneylenders at the trading centres; in fact, two at St. John's Market have gone out of business since the Society started lending money. Building linkages with state and non-government organisations and banks was also a great advantage for them and helped to improve their socioeconomic environment.

There were, however, enormous difficulties in organising a scattered group into an organisation because it was difficult to change their attitudes and improve the motivation of grassroots-level, marginal people. They did not have the ability to identify hidden capabilities and needed vigorous and regular training and support to enhance management skills. In addition, they found themselves exposed to bureaucratic procedures and conflict situations within a short span of time. These in turn established political linkages. There was also the question of priorities. Theirs was credit and finance for trade, the Project's was technological intervention.

The major weaknesses observed during the functional phase of the associations were unequal sharing of benefits and resources among the membership and misappropriation of finances by the administration. This situation was more pronounced in the case of the Society at St. John's Market. This, however, could be also attributed to poor coordination and attendance to duties by the supporting staff of the partner organisation. Nevertheless, both traders' societies have built up a significant image at the trading centres. They can fulfil their credit requirements with proper management of the Societies and, thereby, increase their bargaining power at the market.

Two types of threats were identified during the course of the activity: from moneylenders and from rival groups within a Society. There was initial reluctance by the banks to recognise the self-employed petty fish traders as a

significant group in society; this has not been the case with farmers and other petty businessmen. Ultimately, the Hatton National Bank agreed to grant loans to the members of the society. Subsequently, the Bank of Ceylon and Peoples Bank have followed suit.

The success of the project was the establishment of legitimate organisations for mobile fish traders in St. John's Hsh Market, Colombo, and for those operating from beach landing sites in Negombo. As a result of this, the petty fish traders are now identified as an important group of people who play a fundamental role in the **post-harvest fisheries** sector. The fish traders themselves have understood that they could improve their socioeconomic living standards and establish a vocational identity for themselves, thereby increasing their bargaining power at the market and the trading centres. However, it is felt that it would take a long time for the Societies to **become** self-sustaining. This is mainly due to the negative attitude of some members who are not qualified to manage a project of this nature. In addition, there are difficulties in introducing new technologies to grassroots-level people. This is mainly due not only to their reluctance to accept the new technologies **but** also to the high cost of equipment and the poor presentation of the new technologies to the fish traders by the project. The primary **lesson learnt** during the process of establishment of a co-operative society for the petty fish traders was the slowness of the development process because of the wide and scattered distribution of a target group of low literacy and poor socioeconomic background.

8.3 Credit and finance

In the case of petty fish traders who obtain money from informal systems of credit and finance due to a lack of knowledge of how to deal with the banking system and the existing co-operative systems, any system that operates *in situ* and exclusively on mutual understanding is more convenient, as it needs no sureties or guarantees. For instance, the traders are allowed to return only the interest the following day, and not the capital, when they borrow from moneylenders. In general, state organisations and banks do not support the credit and finance requirements of petty fish traders. Yet, these traders need credit because their earnings, which are unstable and vary **due** to several factors, are generally not sufficient to support their daily requirements. They also sell fish on credit on a regular basis and have extra expenses during trading. The credit obtained by these traders is used mainly for the purchase of fish, the repair of vehicles, family health needs and to purchase household necessities. **In many** instances, they cannot pay the capital and can pay only the accumulated or daily interest. This is again due to their low daily income, selling fish on credit and the unnecessary extra expenses incurred during trade. This group of people also spends lavishly on social events.

The two Societies established credit schemes for cycle traders which had several special features (e.g., operating **at the** market site, flexibility of repayment, low interest). The viability of any credit scheme can be measured by the **degree** of independence of the organisation which operates and manages it in the long run. In other words, the organisation in question should have the necessary income to manage and service credit funds without depending **on** outside agencies. In this case, the following factors need to be looked into carefully:

- Amount of money released as loans at different interest rates;
- Amount kept for liquidity;
- Disbursement of loans over different years; and
- Institutional cost to manage the credit scheme.

The credit should be in a position to satisfy the demands of the members when they ask for liquid cash. Yet it should operate like a bank to mobilise money. And the process should gain the confidence of the stakeholders by maintaining the equity and sharing the benefits.

It **is** important to train the beneficiaries on different aspects of financial management. The traders' societies established and maintained a mobile loan as well as a long-term loan scheme during the process of development. **It is extremely** difficult to operate long-term schemes from the savings capital of such societies. Therefore, funds should be obtained from other financing organisations. In the case of the fish traders' societies, the members were introduced to the Hatton National Bank to obtain loans under the Village Awakening Programme that provided loans to initiate income-generating activities (self-employment). It is important to build confidence and trust between members of the Society and the external agencies during the operation and management of community-based institutions. In addition, it is necessary to ensure accountability, transparency and a sense of responsibility. In the case of the two Societies in Sri Lanka, bills were issued in all financial transactions, pass books were **updated on** a regular basis and the savings were deposited daily in the bank. Further, an audited budget was

submitted at the annual general meeting of the Societies and annual financial reports were issued to each and every member.

In addition to credit schemes, different types of savings were also introduced (e.g., daily savings, savings from mobile loans, savings from long-term loans) at various stages. Because savings capital demonstrates the strength of the society as well as the viability of the credit schemes, savings should be collected from a large number of members by encouraging them to save in different ways. It was initially difficult to motivate savings because of poor confidence. While savings were collected at the market in the morning they were not mobilised to start new activities (e.g., welfare activities). The strength of the savings capital caused the Society to link with other financial organisations (banks, Co-operative Department, NGOs, etc.). In other words, the linking of the Society with other financial organisations meant entering into the mainstream of national development. This resulted in banks releasing loans for fish traders.

8.4 Training

Training is needed to improve the skills, knowledge and experience necessary to establish and manage an organisation. It also helps build up leadership qualities and the capacity of the organisation. The attitude and motivation of the target group could also be changed through proper training and building up awareness among the membership. The training needed could be identified through experience of the functioning of the organisation within a certain timeframe and through discussions with the members. It can be also identified by examining the educational background, knowledge and past experience of the membership. The specific requirements of training could be identified during the process of developmental intervention by examining the reports and documents prepared by the organisation. Therefore, before designing a training programme, it is necessary to identify the area in which knowledge, experience and skills are required to manage the organisation in a sustainable manner.

It is important to conduct training programmes on specific areas for both the target group and for the animators to establish sustainable institutions. It is, therefore, necessary to identify qualified trainers to conduct the training programmes. It is also necessary to select suitable candidates to participate in the training programmes and ensure maximum participation through proper choice of date, time, venue, etc. Necessary handouts and stationery should be provided to the participants to receive and evaluate their feedback. A working exercise should be incorporated in the training and an honorarium should be provided for participants. It is also necessary to conduct each programme within a short timeframe using simple, relevant language. It is important to use audiovisual examples and conduct the programmes in a more participatory manner. Though several programmes were conducted on various disciplines during the project, it was noticed that the grasping capacity of the grass-roots people was very low. This was mainly due to their poor educational backgrounds. Therefore, the performance of the members showed poor results in many cases.

8.5 Technological intervention

In the case of the cycle traders, it was assumed that they faced serious problems when they had to transport fish in un-insulated open wooden boxes exposed to contamination from outside as well as from the unwashed box. Leftover fish at the end of trading posed its own problems. Therefore, a new technological intervention (i.e., a fish box) was designed and introduced to minimise deterioration of fish from the market to the consumer.

The main agenda of the overall project was to determine whether the semi-insulated fish box could bring about a significant positive impact on the socioeconomic lifestyle of the cycle fish traders by providing fresh and hygienic fish to the consumers, which would increase consumer preference and, thereby, enhance the income level of the traders. The reasons for the fish box not becoming a priority were many and some of them have already been explained. Yet if the fish box could be promoted on grounds of hygiene with support from the State sector and the mass media, the consumer will get better fish and the trader an increased income. This, however, will take time to see success. Meanwhile, the fish traders have gained from the project through one of its spin-offs – institutionalisation.

POSTSCRIPT

Since this report was written, the Department of Fisheries has come forward to assist the two cycle trader associations. An advisory committee is being formed, with nominees from the Department, the NGO and the Co-operative Department to oversee and guide the two Societies until they can stand on their own. The Project has provided each Society with Rs.100,000 as support funds to help them increase their income through lending, deposit interests, etc.