

Chapter 4 The Impact of Institutional Arrangements (Co-Management) in the Fisheries Sector on Rural Livelihoods: The Case of Chimphamba village (Msaka)

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Chapter 4

The Impact of Institutional Arrangements (Co-Management) in the Fisheries Sector

on Rural Livelihoods:

The Case of Chiphamba Village (Msaka)^a

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1. INTRODUCTION

Mvula (2002) established that fishers have diverse livelihoods and that for some, one of their livelihood strategies is mobility. This paper examines how institutions at various levels, including institutions that mediate access to fisheries resources, shape livelihood strategies. The paper draws on earlier work by the author to show the importance of fishing in the local economy and reviews documents to put into perspective the introduction of the fisheries co-management in Malawi. The bulk of the quantitative data was from a previous survey (1999) in which a total of 40 households were selected stratified by whether the head of household or main income-provider was: a fisher (boat or fishing gear owner) originally from the village, a fishing migrant (boat or fishing gear owner), a provider

^a Tsutomu Takane, ed., *Current Issues of Rural Development in Malawi* (Chiba, Japan: Institute of Developing Economies, 2006)

of fishing labour or someone who was not involved in fishing. Ten households were randomly selected in each of the 4 categories.

To trace current changes, the author did some Focus Group Discussions with both fishers and non-fishers in the village, Key Informant Interviews, and life histories. The aim was to unearth salient issues regarding Beach Village Committees (BVCs) and the impact it may have on reciprocal access arrangements that exist in the area.

2. BACKGROUND

2.1 Regulation of the fishery at Lake Malawi

The fishery at Lake Malawi has over the years been managed in a number of different ways. There are hints of the traditional management systems, the modern top-down government management system and recently of the co-management programme. The last type of management is the subject of interest in this paper. The following section describes the set-up of this system in Malawi.

2.2 Co-management of fisheries at Lake Malawi

As opposed to the top-down approach, in principle, the co-management system is a bottom-up approach. It is an arrangement where responsibility for resource management is shared between the government and the user groups (Sen and Nielsen 1996). These authors classified the different kinds of co-management into five categories. The first type they termed instructive and described it as a situation where there is minimum exchange of information between the government and the users. The government is in-charge and informs users on decisions they plan to make. There is very little in terms of reaction from the users. This system is not very different from the top-down approach. Then there is the consultative type of co-management where mechanisms exist for governments to consult with users but all decisions are taken by government.

The third type of co-management is where governments and users co-operate as equal partners in decision-making. This type of co-management is called co-operative. The fourth type of co-management is

advisory, and this is when users advise governments of decisions to be taken. The duty of government is simply to endorse decisions made by the users. The last type is informative. With this type, government delegates authority to make decisions to user groups who are responsible for informing government of these decisions. From the above typology, it is clear that co-management may mean different things to different people in different settings. What is important is that whatever form co-management takes, the approach encourages, supports, and strengthens the communities' existing abilities to identify their own needs and set their own objectives and priorities. It tries to build a two-way communication between fisheries field staff and the community. The two are partners in management and neither group has full control.

It is in this light that the national fisheries objectives in Malawi shifted from an orientation that was focused on the fish resources themselves, where the Department of Fisheries was seen as a guardian of these fish resources, to a concern for the needs of the people. The fishery resources are seen more in terms of their contribution to a stream of sustainable benefits to the fishing community itself and to the wider national community (DOF and GTZ 1998; Donda 1997; Bland and Donda 1994). It is therefore felt that there is a need to bring the resource users into management.

There were other factors though that precipitated this move. One such factor was the collapse of the fisheries at Lake Malombe which went from 5,960 metric tons in 1981 to as low as 79 metric tons in 1994. This happened despite the implementation of the top-down measures by the Fisheries Department. The Department of Fisheries was ill equipped to deal with the calamity and the fishers found it difficult to adhere to the regulations since this was their main source of livelihood. Results of the research commissioned to investigate the status of the Chambo in 1995 showed that this species was in danger of extinction at Lake Malombe and that its status at the southern part of Lake Malawi was in danger. Since the department was deemed to have failed, it was decided to involve the community.

At Lake Chiuta on the other hand, the new system came about as a result of a conflict between indigenous resource users (operating traditional cheaper fixed fishing gear and dug out canoes) and the migrant fishers who came in with more expensive and efficient mobile nets (*nkacha*) and boats (Njaya *et al.* 1999). The indigenous resource users put forward arguments to make it appear that the nets of the migrants were irreversibly damaging the resource, and so an appeal was made to the Department of Fisheries for a new way forward. Thus, in a way, one could conclude that the need for a new system emerged from the community themselves.

The need for a new management approach led to the establishment of Beach Village Committees (BVCs). A BVC is a community level institution composed of the village head, fishing gear owners, fishing crew, women fishers and other active fishers in the village. The roles of a BVC are spelt out by the Department of Fisheries as follows:

- (a) Each BVC should control a named beach or beaches. The officers of the BVC and the members of the group it represents should be listed with their fishing gear.
- (b) The BVC should control admission of additional fishing gear owners to the group.
- (c) The BVC should control the use of each beach and thus, limit access.
- (d) The BVC should be prepared to expel members who do not comply with the BVC's instructions, especially regarding closed seasons, fishing gear specification, etc.
- (e) The BVC should organise group members to discuss the problems of the fishery and reach decisions on how to solve them.
- (f) The BVC should represent members at higher forums (Rashid, 1997).

It was envisaged that after the formation of a BVC, members would receive training in group formation and dynamics and committee procedures. The underlying assumption behind the formation of these BVCs was that they would have the capacity to enforce regulations through a legal framework, limit the number of fishermen through licensing and develop sound mechanisms for funding their activities.

This approach was due to be introduced in phases with Lake Malombe being followed by Lake Chilwa and then Lake Malawi starting from the southern tip going northwards. It was supported by the German Agency for Technical Co-operation (GTZ) in a project called National Aquatic Resource Management Programme (NARMAP). The main aim of the project was to build capacity for co-management within the Department of Fisheries as well as the fishing communities (Walker 1999b).

Initial indications are that the system has helped to improve relations between the Department of Fisheries staff and the fishers. Use of a transfer letter from the BVC of one's origin to the BVC of the beach in which a fisherman wants to conduct business, has had an impact on entry into fishing by the migrating fishers, in that some of them are denied entry.

Despite the initial successes, problems to do with capacity both at the village level and Department level in terms of implementing the programme were there (Njaya & Chimatiro, 1999; Njaya et.al 1999; Donda, 1997; Chirwa, 1997). Further, most fishers were reluctant to participate in the programme for two reasons. Firstly, people felt that, so far, there has been no restriction so why should they now be subjected to such treatment, and secondly, but perhaps more important, is the realisation of the risk involved. Fishers feel that refusing access to fishers from other areas may be counterproductive since they too could be refused entry when they migrate (Donda 1997). Fishers are rational and highly mobile. Hence issues of reciprocity in whatever action they take in regard to the management of fisheries are at the back of their minds.

2.3 Mobility among fishermen

Within the livelihoods literature, mobility is seen as a much more common and central element in the livelihoods of many people in developing countries (de Haan, 1999). Migration movements are embedded in the society's strategies to obtain livelihoods. In most literature, migration is seen as an option of last resort. Within the livelihoods framework of analysis though, this need not necessarily be the case. It is just another form of portfolio diversification by the rural poor.

Not a great deal has been written about the movements among fishermen. But fishing migration is not a strange phenomenon either. Just like hunters and herders, fishermen move with the availability of the resource. This is more so where the resource fluctuates. One of the most clearly documented practices of mobility among fishermen is that of the West African Flood Plain (Thomas, 1996). In this plain, fishery resources are not productive throughout the year. This causes within-and between-year variation in fish and most fishers with a high dependency on incomes from fishing move about the plain. The movements are usually short ones but in times of drought, long-distance migration for fishing is reported. Sarch and Allison (2000) also report that mobility and livelihood flexibility of fishers on Lake Chilwa in Malawi in the 1970s and Lake Chad in the 1990s enabled them to respond to extreme fluctuations that happened on these water bodies. Fishing migration is thus just as important a livelihood strategy in that through this mobility fishers are able to contribute more fully to the household income. Just like with migration among farmers, movement among fishers demonstrates that survival strategies of fishers are not only rooted in their immediate vicinity, but are also linked into other rural fishing and non-fishing communities.

3. RESULTS

This paper explores the mobility and factors that influence and impact on the mobility of fishermen and consequently their livelihoods. The discussion starts by giving characteristics of the fishers and non-fishers, and then describes the types of migrants that are found on Lake Malawi and the means of livelihoods that are currently pursued by the mobile fishers. It also looks at factors that determine the movements of the fishers. This is followed by a description of the relations between migrants and residents. This includes issues of institutional (the Beach Village Committees) and social set-ups that directly influence mobility. The paper ends with a summary of the major findings.

3.1 Village context

Msaka beach on which Chimphamba Village is situated is on the western tip of the Nankumba Peninsula in Mangochi district in the southern region of Malawi. It is about 60 kilometers Northwest of Mangochi district headquarters. It is a linear settlement because of the physical features surrounding it. On the West of the village is the lake, and to the North, East and South, the village shares borders with the Lake Malawi National Park most of which is a hill.

According to information from Key Informants interviewed during the survey, the original inhabitants of this place were of the Chewa tribe. Due to fishing activities though, people from other parts of the country have come and settled there and the population is now multiethnic. An ethnic group that came and settled in the village in large numbers are the Tonga that came from Nkhata Bay. The first, and smaller group of Tonga people according to the informants came in 1958 but a much larger group came in 1971. A good number of these Tonga now consider Msaka as their home. Apart from these two ethnic groups, there are also the Yao, Lomwe, Tumbuka, Ngoni and Sena. These are mainly involved in trading *usipa*¹. The population of Msaka in general was reported to be unstable because of fishers moving back and forth when the catches are either good or bad. The more permanent population of the village in which the study took place was estimated at 1500 and the total number of households was put at 276.

Road access to Msaka is not one of the best but it is reasonable. Despite the tourist attraction at Cape Maclear, the road to the cape and indeed to Msaka is not tarred from where it branches off from the Mangochi-Monkey Bay main road. During the rains, conditions of this road are difficult, making access to this place a problem. There is no public transport in the area. To travel to Monkey Bay, the nearest town centre, people have to either walk, cycle or ride on pickup trucks carrying fish.

In terms of other infrastructure, at the time of the survey there was one full primary school in the village that was catering for pupils from neighbouring villages. There were a total of 19 different religious groups in the village. The Fisheries Department was one of the few government

departments that had an office in the village. The nearest health facilities are Nankhwali mission hospital and Monkey-Bay (government health centre). Both facilities are about 25 kms from the place and transport to get to these places is a problem. To go to Nankhwali, they have to use a boat and to go to Monkey-Bay they have to use the only available means of public transport, pickups. There are six boreholes in the Msaka area and Chimpamba village has two. There is also a produce market, an agricultural station and a police unit is at the end of the village.

3.2 Characteristics of migrant fishers

Fishing migration on Lake Malawi and other water bodies in the country could be classified into two main categories. There is a group that come from distant places, usually away from their district of origin and seeks a semi-permanent settlement in an area where the type of fish they are interested in is abundant. They are regarded as part of the village but still maintain the visitor status. In some cases, they may even be given their own graveyard. This is to show that they are welcome to stay and carry on with the practices they had at their places of origin. At the same time, it is a reminder that they do not really belong to the village and could be asked to leave should it please the owners. This group of migrants does not have a date when they will leave the place and go back to their homes or move to other places. This is what in migration literature would be termed permanent/temporary migration (McDowell & de Haan, 1997). Examples of this type of migrants on Lake Malawi are the Tonga at Msaka.

The second group of fishing migrants is that of people that just come to the place with their boats, fishing gear and labourers when they hear that there are good catches in a particular area. These usually stay in the place until the catches decline and they move on to where they hear of better catches. Even in the absence of knowledge of better catches elsewhere, so long as the catches have declined in a particular location, they move and try their luck in other places that they have been to before. These usually come from a number of places and may even be strangers to each other. The teams just happen to meet at a particular place.

3.3 Fishing at Chimpamba

In the village of Chimpamba, the FGDs, Key Informant Interviews and other Participatory Rural Appraisal methods revealed that if a fisherman is the one that owns fishing gear and a boat, then there were only 3 fishermen that were from the village proper and the rest were people from other places. Should the definition of fisherman be relaxed to include 'alovi' people employed by the fishermen to help in the fishing, then two thirds of the village would be taken as being engaged in fishing. If the definition is relaxed further to include people with hooks and lines, then everybody in the village is a fisherman.

Most of the fishermen owning assets associated with fish production though, as stated above are from outside the village. The majority of them have moved in from the Northern Region. Attempts to establish why the locals in Chimpamba do not invest in such a venture that seems so lucrative to warrant people from far away to come and ply their trade there showed that the major constraint faced by the villagers is lack of capital. Respondents pointed out that if only people could have access to money, more in the village would be involved in the fishing. Proof of this was in the number of people that were actually working for the Tonga and some that were involved in fish trading. Actually from some of the life histories of the resident fishers, the origins of their fishing was either capital they raised by working outside the country or by working as fishing labourers.

Apart from this, the *Chewa* of Msaka were traditionally farmers and fishing was really a secondary source of livelihood. Hence, investment in it gets a lower priority. Some Chewas even said that it was the poverty that was making them to go fishing. Otherwise if things were well on the farm and other economic activities, they would not bother fishing. One resident actually said, 'I never considered taking up fishing because it is very unpredictable. There are months when there is lots of fish and you make more money and there are months when there is no fish'.

3.4 Household characteristics

Having looked at the general information about the village the following section gives basic characteristics of households that were sampled by the author in the earlier work. The statistics serve to give more background information.

3.4.1 Age of head of household

Table 1 shows a number of demographic characteristics beginning with the age of the head of the household compared across the categories. From the table it is clear that heads of households from which the 'alovi' (labour providers) come from are much younger than the heads of households of the fishers and non-fishers.

Table 1: Household Characteristics by Fishing Category

Household Characteristics	Resident Fishers	Migrant Fishers	Labour Providers	Non-fishers
<i>Sample Size</i>	10	10	10	10
<i>Demography</i>				
Average age of household head	46.9	42.5	33.10	47.13
Average household size	7.10	7.30	4.40	5.50
<i>Education of household head</i>				
No formal education (%)	10.0	0.0	10.0	20.0
Standard 1 –5 (%)	40.0	10.0	30.0	70.0
Standard 6 – 8 (%)	50.0	60.0	50.0	10.0
Form 1 and higher (%)	0.0	30.0	10.0	0.0
<i>Main occupation of household head</i>				
Farmer	0.0	0.0	0.0	50.0
Fisherman	100.0	100.0	10.0	0.0
Business/employed	0.0	0.0	90.0	40.0
Housewife	0.0	0.0	0.0	10.0

Source: 1999 Livelihood Study

3.4.2 Household size

The migrant fishers in Msaka have much bigger households sizes (7) compared to 6 among the non-fishers and 4 among the labour providers. This says a lot in terms of labour provision. Those people engaged in fishing are people with larger households who could easily provide fishing labour should they be not in a position to hire. The labour providers could

have smaller families simply because they are younger. In terms of the livelihood framework (Ellis, 2000) it can be concluded that both the migrant fishers and the resident fishers are well endowed with human capital. They may thus not be constrained when it comes to issues of fishing labour.

3.4.3 Education of household head

Numbers themselves may not tell us much about the quality of the human capital. Hence, this study investigated the education attainment of the heads of households of the various categories. Table 1 above also indicates that among the resident fishers, 1 out the 10 people interviewed did not have any formal education, while 40 per cent did junior primary school and the rest did up to senior primary school. None of the 10 people interviewed among the resident fishermen had done any secondary school.

In contrast, among the migrant *Tongas*, everybody had been to school. Only 1 did junior primary, 60 per cent did senior primary and 30 per cent had been to secondary school. The labour providers were somewhere in between in that while only one of them had been to secondary school, half of them had been to senior primary school, 30 per cent did junior primary and only 1 did not have any formal schooling. For the non-fishers though, only 10 per cent had done senior primary, while 70 per cent did junior primary and 20 per cent had no formal education.

One is tempted from the trends to draw a conclusion that education has an important role to play when it comes to who becomes a fisherman in the village. It is not surprising that nearly all the migrants had been to school. These are from Nkhata Bay where the missionaries first settled. According to Chirwa (1992), it is the education that enabled the Tonga to migrate to other countries and while there they invested in fishing gear. Thus, education in itself may not explain the association with fishing directly. It is a vehicle of people being able to get employment elsewhere where they accumulate the capital to start fishing. It can be safely concluded that in the case of Msaka, access to fishing is partly differentiated by the attainment of education by the head of the household.

3.4.4 Occupation of household head

The survey part of the research also sought to find out the main occupation of the head of the household. In this survey main occupation was defined as the occupation that helps the head bring most income to the household. The results (Table 1 above) show that among the resident and migrant fishers, fishing is the main occupation. Among the labour providers the main source is employment as labourers for the fishermen. This is categorised as casual labour since it is not permanent employment. The situation among the non-fishers though is different. Half the number interviewed (50 per cent) said that farming was their main occupation. A further 40 per cent said that their main occupation was working for some people for a wage (*ganyu*) or doing small-scale business. What is coming out clearly therefore is that the resident and migrant fishers both have one major source of income (fishing) while as in the other categories especially in the non-fishing category households have one or two sources. Thus, the fishers are heavily dependent on fishing. This has implications for the fishery management regimes that have to be put in place.

3.4.5 Ownership of livestock

Ownership of livestock and assets in the Malawian culture is an indication of the wealth status of an individual or household. The livelihoods framework (Ellis, 2000) too does stress the importance of assets when analysing livelihood systems. This research looked at a number of assets that could make a difference in the lives of the people at Msaka. Table 2 shows results of the investigation into livestock and assets. From the table nobody in any of the four groups owned cattle. Among the resident fishers though, 20 per cent of them owned goats and 30 per cent of the sample also owned chickens. Among the migrants, 20 per cent of the sample owned chickens and 10 per cent owned some doves. The constraint among the migrants is land since the only piece of land that they are given is meant for building a house.

Among the labour providers though, 20 per cent of the sample owned goats and 10 per cent owned chickens. Finally among the non-fishers, only 10 per cent of the sample owned chickens. The conclusion one

draws from this is that fishers are relatively better off to enable them accumulate some livestock through the money that they get from the fishing. Unlike the non-fishers who probably do not make lots money to enable them accumulate things like livestock.

Table 2: Livestock and Asset ownership by Fishing Category

	Resident Fishers	Migrant Fishers	Labour Providers	Non-fishers
Sample Size	10	10	10	10
Livestock				
% Households owning cattle	0.0	0.0	0.0	0.0
% Households owning goats	20.0	0.0	20.0	0.0
% Households owning chickens	30.0	20.0	10.0	10.0
% Households owning pigeons	0.0	10.0	0.0	0.0
Assets				
% Households owning bicycle	70.0	30.0	80.0	30.0
% Households owning canoe	100.0	100.0	0.0	0.0
% Households owning lamp	60.0	90.0	40.0	40.0
% Households owning radio	50.0	40.0	50.0	50.0
% Households owning burnt brick house	40.0	10.0	0.0	10.0
% Owning cement floored house	40.0	70.0	10.0	0.0
% Owning iron sheet roofed house	30.0	30.0	0.0	0.0

Source: Livelihoods Survey, 1999

3.4.6 Assets ownership

Ownership of assets too seems to be heavily skewed towards the fishermen. Among the resident fishermen, 70 per cent owned bicycles, all had canoes and 50 per cent owned radios. Comparatively, 30 per cent among the migrant fishers owned bicycles, 100 per cent owned canoes and 40 per cent owned radios. More labour providers (80 per cent) than any other group owned bicycles. The explanation behind this high rate is that the labour providers engage more in trade and so they needed the bicycles to go around during the day so that they are in time for the evening fishing trips. Owners of radios seem to be evenly distributed across the four groups. Among the non-fishers, 50 per cent own radios but only 30 per cent own bicycles.

3.5 Livelihood sources

3.5.1 Sources of income

Table 3 gives a summary of the PRA exercises, regarding what people analysed as the most important sources of income for the households in the village over the past ten years. The table shows that the importance of fishing in the past ten years has not changed. Fishing is just as important now as it was before because it is the primary source of income for the majority of the households in the village. It was indicated that fishing five years ago enabled most people to provide food, clothing and school fees for their children just as it did at the time of the survey. There were a number of years in the 1990s when successive droughts hit the country, and food was a problem. People at Msaka did manage to get by because of the fishing. Even now, since the costs of so many things are high, people still get by through fishing. Thus, despite being faced with different economic scenarios, people in the village reported that it is the fishing that keeps them going.

Table 3: Main sources of income over the years

Main Sources of Income	Now	5 Years Ago	10 Years Ago
1. Farming			←→
2. Fishing	←→	←→	←→
3. Drying and selling fish	←→	←→	←→
4. Fishing labour (<i>ganyu</i>)	←→	←→	←→
5. Retailing	←→	←→	
6. Transportation	←→	←→	
7. Artisanal jobs	←→		

The table also serves to show alternative sources of income that are recent additions in the area and those that have fallen off in importance. One source that used to be prominent ten years ago and whose importance in terms of income contribution has fallen off is farming. This was attributed to the droughts that have been occurring in the country in the past few years and the rising costs of inputs. Though not major now, it was still an important source of income for people that were not directly involved in

fishing. Even for some resident fishers, sale of farm produce was said to contribute significantly to their income.

Two income sources that have become important in the last five years are the retailing business and transportation. As a result of the thriving *usipa* fishery in the village people have built groceries and some just come in for petty trading. The trading ranges from clothing to plastic ware. In the petty trading, some people sell agricultural products and some sell fish products. The most recent important source of income is works done by tradesmen. These include carpenters and people that mend fishing equipment.

3.5.2 Mean household and per capita income

The following analysis compares the four categories of households by looking at their income levels, the number of sources of income that a particular household has recourse to and then the proportions of income that each source contributes to total household income. Table 4 shows serious income disparities among the four groups with migrant fishermen making 8 times more than the people who provide labour in a year, 6 times more than the non-fishers and 1.5 times more than the resident fishers.

Table 4: Mean household and mean per capita income by fishing category

Household Characteristics	Resident Fishers	Migrant Fishers	Labour Providers	Non-fishers
Sample Size	10	10	10	10
Mean annual household income (MK)	50,389.82	78,868.55	9,679.80	12,341.52
Per capita income (MK)	7,845.13	24,977.59	4,605.55	3,304.93

Source: 1999 Livelihood Study

The trend is the same when it comes to per capita income in that the migrant fishers still have higher per capita incomes than the rest. The difference is that the differences were not as big as in the first case in that the migrants were only 5 times higher than the labour providers. The

disparity increases when migrants are compared with the non-fishers. This is no doubt a result of the smaller household sizes among the labour providers. For the same reason, the income per capita of the migrant fishers is now 3 times higher than the non-fishers. In general then, migrants fishers make more money in a year than any other of the 3 groups and the worse off are the labour providers.

Having examined the results of the amounts of estimated annual household income an attempt was made to figure out the number of sources of income that households had recourse to. Table 5 gives the results of this analysis and shows that of the 10 sampled resident fishermen, 40 per cent had 2 sources of income, 40 per cent had 3 sources of income and 20 per cent had 4 sources of income. Among the migrant fishers 50 per cent had one source of income, 30 per cent had 2 sources of income, another 10 per cent had 4 sources and a further 10 per cent had 5 sources of income. None of the labour providers and none of the non-fishers had more than three sources of income. The majority of non-fishers (60 per cent) had only one source of income and the majority (50 per cent) of the labour providers had 3 sources of income. Regardless of the trends, the message that is coming through is that in all the four groups households diversify. There is of course little diversification among the migrant fishers and among the non-fishers. The qualitative survey indicated that the situation is the same now as it was earlier in that migrant fishers have little room for diversification.

Table 5: Number of sources of income by fishing category

Source of income	Income (Malawi Kwacha)							
	Resident Fishers		Migrant Fishers		Labour Providers		Non-fishers	
	N	%	N	%	N	%	N	%
One	0	0	5	50	1	10	6	60
Two	4	40	3	30	4	40	3	30
Three	4	40	1	10	5	50	1	10
Four	2	20	1	10	0	0	0	0
Five	0	0	0	0	0	0	0	0

Source: 1999 Livelihood Study

3.5.3 Contribution of fisheries to household income

Having established the number of sources of income, the analysis now turns to the identification of these sources of income and their contribution to the household income. In general at Msaka, five sources of income were identified. For purposes of this research the sources were split into *usipa* fishing, other fish, farm income which was split between crops and livestock, non-farm income which among other things included income from fishing labour, and finally, remittances.

Table 6 shows that among the resident fishers income from fishing is more than 80 percent and the bulk of it is from the *usipa* fishery. Crops contribute only 6.3 percent, non-farm income contributed 3.6 percent and livestock contributed only 1.4 percent.

Table 6: Income contribution by source (%)

Source	Resident Fishers	Migrants	Labourers	Non-Fishers
Livestock	1.4	0.0	8.5	48.5
Crops	6.3	2.8	9.1	9.8
Non-farm	3.6	20.3	82.4	41.7
Usipa	63.4	69.2	0.0	0.0
Other fish	25.3	6.8	0.0	0.0
Remittance	0	0.9	0.0	0.0

Source: 1999 Livelihood Study

Among the migrant fishers income from fishing contributed just over 70 percent to total income and almost all of it was from *usipa*. A significant proportion of income (20.3 percent) was from non-farm income and crops contributed only 2.8 percent. For the labour providers, almost all their income was from non-farming activities and this is mainly from providing fishing labour. Crops contributed only 9.1 percent to total income and livestock contributed only 8.5 percent. Among the non-fishers, livestock (48.5 per cent) accounted for the largest share, followed by non-farm (41.7 per cent) and then crops (9.8 per cent).

By and large one sees that there is a heavy reliance on income from fishing for the households that are involved in fishing and for those not involved in fishing, the reliance is on farming activities and non-farm activities.

3.6 Importance of fishing to the village

From the above analysis, fishing is for this lakeshore village one of the most important sources of food, employment and income. People along the lakeshore regard a plate of fish as the most appropriate relish that one could ever have. Nutritionally too, fish is a major source of protein. Thus, to them, fishing is very important in that they readily get high value nutrition relatively cheaply. This is regardless of whether one owns a net or not, since every household, so it was reported can do some fishing for domestic consumption using hooks and lines.

Fishing as has been shown above is also important because it is one of the few sectors in the village that employs a big number of people. The majority of fishers that fish in this area are people from outside but they do employ a lot of the local people as labourers (*alovi*). With unemployment so high in the country the fishing sector then is a good avenue of employment for people in this village.

Fishing is also a major source of income for many households in different respects. There are people that are directly involved in fishing. These are the owners of the gear and boats and people that they employ to do the fishing. The cash income to these people is direct and both from the Focus Group Discussions and Key Informant Interviews it was reported that it is the income from the fishing that enables certain households to send their children to school, buy farm implements and basic necessities for the home. Then there are those who by virtue of having fishing activities in the area have established small-scale businesses. A large group of these are women from the village and some that have come from outside the village. One business that is blossoming as a result of the fishing in the area and the bad road leading to the village is that of pick-up trucks. These are the vehicles that most people use to go to buy fish from the area and also for going to Monkey Bay, Mangochi and Blantyre to sell fish. Fishing then is a pull factor for lots of economic activities in the area.

Last but not least, nearly all the people that have come and settled here to fish and those that come to fish for short periods of time, do not have land and thus do not grow their own food. For these people then the

only means of livelihood is fishing. It is through the fishing that they get the day-to-day necessities including food. This has created a market for those people who rely on farming for their income since these people coming from other places have to buy food from them. There is thus a close interconnectedness of the various sectors.

Fishing is thus the backbone of the economy of this village. There are lots of gains for everyone in that it is both the migrants and the locals benefiting in the reciprocal exchanges.

3.7 Fluctuations in the *usipa* fishery and the fishing calendar

One of the reasons why the Tonga came all the way from the North to settle in Msaka was that *usipa* at this site is found almost all year round. Even if there are months when the catches are not that good people can still get something. The reason for the ever presence of *usipa* is that the lake at Msaka is for a good part of the year calm. Hence, the small *usipa* can easily grow and not be carried away since they are light.

It emerged though that the months when the least *usipa* is caught are June and July and this was attributed to the cold weather when *usipa* are said to go into deeper waters for the warmth. This is compounded with the fact that occasionally there were strong southerly winds at that time. Some people said that of the remaining ten months there were no months, which could be said to be more productive than the other. The fishermen reported that they are a lot happier if more *usipa* is caught in June or July to November when there is a lot of sun to dry it. January to March are unfavourable months because it is hard to dry the *usipa*. This though ties in well with the agricultural calendar. January to March are the busy months when people with farms would want extra labour. For the resident fishers this would not be a problem since they could work in their gardens but not for the migrant resident fishers who do not own farms.

3.8 Coping with fluctuations

As alluded to earlier and as has become clear in the course of the discussion, *usipa* fluctuates according to months and years. Even if it was reported that most of the times the catches at Msaka are good, there are still

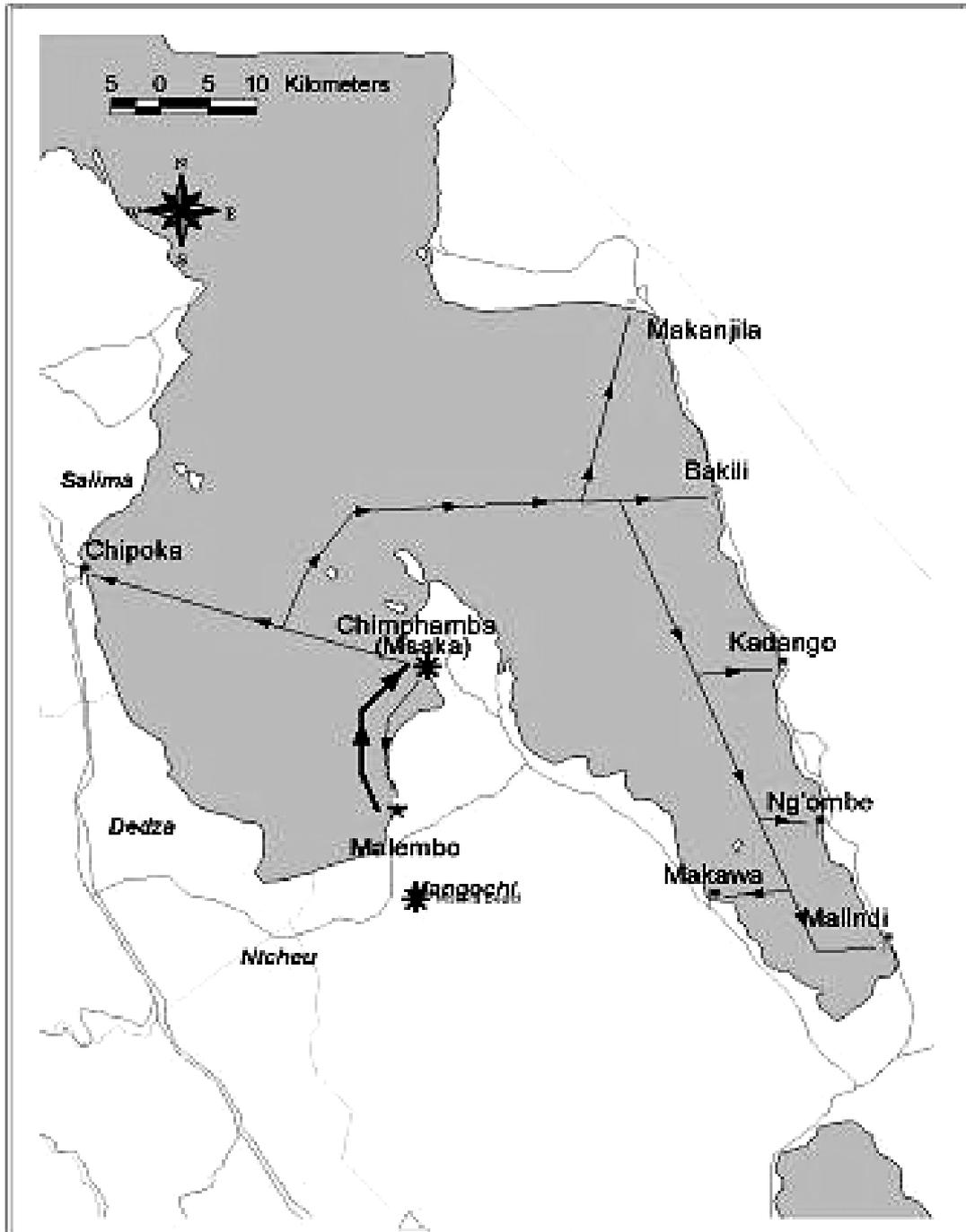
months when catches are not satisfactory. People's response to these fluctuations in the village of Chimphamba is mainly twofold. For the migrant fishers, the only response they have is to move in search of good catches in other beaches. This is because, they have no other source of income let alone food. For the residents, movement is a secondary choice. The villagers grow their own food and so when fish is scarce, the situation is not as precarious as that of the migrant fishermen. The residents go back to the land and cultivate. During the rain season they work on the family farms and during the dry season they work on the wetlands to produce vegetables that they later sell.

The fact that some residents do not move is not always out of choice though. Most of the resident fishers do not have good boats that can take them far. This is the advantage that the Tonga have over the original inhabitants of the village.

3.9 Fishing areas

According to many of the people that took part in the PRA exercises, *usipa* in the Southwest arm of the lake is found almost anywhere. This was mainly the small *usipa* locally known as 'bonya'. The big *usipa* though was reported to be commonly found around Mumbo and Domwe islands and the Simbawe rock which is way out into the lake. When *usipa* is scarce though, fishermen move to other beaches including beaches in Salima (Chilambula, Ngodzi, Chitukula, Chitipi, Senga Bay and Lifuu). They thus, do cover quite a large area (Figure 1). When they go to these places, be they migrant Tonga resident at Msaka or the resident fishers from Msaka, they always come back to Msaka when the catches improve. The migrants in temporary camps around Msaka cover even longer distances. Some go as far as Makanjira on the other side of the Southeast arm of the lake. This is because they have better boats and equipment.

Figure 1: Movement of fishers to and from Msaka



3.10 Co-management versus movement

It was learnt during the PRAs that in the past before the introduction of co-management on most beaches there used to be a committee that used to be headed by a chairperson. Such a committee administered activities at the beach. The committee usually comprised both migrants and residents, however and perhaps surprisingly, in most cases the migrants, who were the majority of fishers, were in the majority. These were largely informal structures. They were used to assist the village headmen in keeping order at the beach. In places where BVCs had been introduced on Lake Malawi the traditional structure had been subsumed into the BVC but this often resulted in confusion over roles. While, as in the original set-up, they were simply safeguarding the security and checking the behavior of fishers, they now had to take on the roles as specified in the BVC setup. Some village headmen were sceptical about the whole idea. They thought that the government was trying to weaken their influence.

The notion of BVCs was relatively new and most people had heard about them first on the radio. However most people had a vague idea of what these committees were supposed to be doing. At Msaka the committee that had been there before was replaced by a new one that was to conform to the ideals of BVC structures. Close scrutiny of their activities showed that, as was the case with the previous committees their mandate was to keep order at the beach and provide assistance in a number of social aspects. Management issues, as stipulated by the programme setting up these BVCs, are not part of their current job description. Hence, beachside temporary migrants do not see BVCs as a threat to their free movement. People feel that, as with the previous chairmen and committee members who were helpers of the village head, BVC members will also have the role of helpers and thus they will not be strict regarding who should be allowed to fish from their areas.

At the time of the research, most of the people on the committee at Msaka were migrants. The inadequacy of local membership on the committee was a serious issue because the locals felt that they were losing control of the resource. Questions of effectiveness also arose concerning

the ability of a committee full of long-term migrants to fully enforce regulations, since fishing was for them a means of survival and they would probably care less about the long-term future of the resource. The committee had the hallmarks of a hurried set-up. One of the reasons for this hurried set-up could, as Njaya *et al.* (1999) found out at Lake Chiuta, be the desire for popularity among local leaders. Those authors established that one of the incentives for the local leaders in setting up BVCs was that there appeared to be some form of competition among local leaders to take part in resource management and enjoy the perceived material benefits. The motivation at Msaka could however have been more complex. Since there was already a natural resources management committee in existence it could be that the fishers did not want to be outdone.

One question that lingers however relates to the impact of BVCs on movements of fishers if they were to operate according to standard rules. The BVCs have powers to bar an individual from a particular beach, and this is the main motivation for some people participating in the BVC. Even if the resource may not be in danger, migrants may be kept out simply because they have better fishing gear and haul better catches than the locals. Some people could thus be barred from coming to certain beaches for valid reasons while others could be barred out of petty jealousies. People could even hide behind BVCs to advance their political ambitions in places where there are tensions and conflicts. If this happened it would be a disaster for many people. As discussed above, some fishers, especially the migrants, employ mobility as a major feature of their livelihood strategies. In the process they employ many people as fishing labourers. If BVCs were to restrict movement, a whole group of people that benefit from the presence of migrants in their communities would be adversely affected either directly or indirectly. Firstly the livelihoods of many fisherman and their families would deteriorate due to loss of income. Secondly there is the possibility of the village losing out economically as the people that are usually employed by the migrants can no longer be employed. Finally other people in the village too would also lose out because of being denied a market for their small-scale businesses.

Another issue that arose many times in discussions was that of reciprocity. The consensus in the group discussions was that they would find it hard to keep others out of their beaches. The main reason was that they feared that they too would be banned from using other beaches when they had poor catches at their beaches. Ribbink (1999) writing about conservation and sustainability issues pertaining to the fishery at Lake Malawi recognized this dilemma. He urged caution when dividing the lake into zones so as to preserve the traditional rights of communities and the understanding that had developed between fishing villages in terms of fishing reciprocity. Among the Tonga on the island of Tonga, while people perceive their traditional fishing grounds as a kind of 'territory', only a few express the wish to exclude fishermen from neighbouring villages (Bender 2000). It would appear therefore that even when BVCs are fully functional, if they were to operate according to custom, they would not prohibit fishers from accessing any beach. However some social groups, as they operated in the pilot projects, used the BVCs, in order to try to prevent migrants from using designated territories.

3.11 Access to fishing

Results from the PRA exercise point to the fact that since time immemorial, the lake and the resources in it were free for everyone to use. From the time that people were fishing with hooks to this very day, access to fishing in Msaka has been relatively free. The only barriers that had emerged recently were the establishment of the Lake Malawi National Park, aimed at protecting some precious species. Recently, Mumbo Island was privatised and bought by commercial tour operators, Kayak Africa. Mumbo Island is a potentially good *usipa* fishing ground. As a result of the privatisation, fishers now cannot fish around the island or land the catch on the island. It was also reported that there were places where fishermen are not allowed to fish within a distance of 100 metres of the shore. Apart from these three restrictions, access to fishing at Msaka was open. That was why it was relatively easy for people from the north to settle there. The migrants also disclosed, that despite the congestion of fishermen at this beach, it was

still relatively easy to get permission from the village headman to fish from the beach.

The preceding section described the ease (with the exception of a few areas) with which people can fish at Msaka. Below, issues of access are further investigated by analysing the relations that exist between migrants and the residents of the various beaches that they visited.

3.12 Relations between resident and migrants

The past practice at most beaches had been that when there is a number of migrant fishers on the lake, the village head appoints one person to be a link person between himself and the migrants. This person is normally called a chairman. When migrants arrive at a place therefore, they reported to this chairman who introduced them to the chief. Where such a chairman does not exist, migrants go straight to the chief. The chief then grants them permission to stay and fish and also gives them a place to build a house or a hut. Normally migrants are not given land for cultivation.

Some fishermen reported however that the permission they sought was not permission to fish. They claimed that they just informed the chief of their presence, where they were from and the type of fishing gear they had. This was really for purposes of personal welfare in case there were problems such as illness or death. The chief gave them advice on how they were supposed to conduct themselves while they were in the village. In essence the issue with the village head had nothing to do with fishing. It had to do with village customs, since these migrant fishers had to mix with residents. Some of the things migrants were advised to guard against were: going out with other people's wives, excessive drinking, fighting, theft and disturbing the village peace in general. Nagoma and Nyirenda (1991), in a study in Mdyaka village similarly reported that the village head exercised no control over fishing activities. People only visited the chief as a matter of courtesy. Chirwa (1997) makes the same observation. The control of the chief was not over the lake and fishing, it was over the general social and economic activities of the people who were under him or her. In an interview with Chief Chimwala of Mangochi in 1997 the chief said: "The power of the chief is over his people. He is their guardian, and they gave

him gifts of food and other items in return for his guardianship. A portion of fish was always given to him as token of appreciation” (*ibid*).

Under normal circumstances when people were given permission to stay and fish in the village the chief did not directly demand anything in return. Fishermen reported that they knew that once in the village they were expected to live like the villagers and so, when an event that called for group action occurred, say a funeral; they were expected to help by giving some fish for relish. Most fishermen had no problem with this because in the event of a funeral in their camp the residents also rendered support in one way or another. Even if they were not asked, it was social custom for them to do so. In the case of the village headman, even if he does not explicitly demand something from the fishermen, the latter will still tend to give some fish to the chief as a token of appreciation for allowing them to stay in the village. The name of this practice at Msaka is '*mawe*. The act was carried out to signify oneness with the folk of the village via their chief and the practice was a form of insurance for the fishers because, by accepting them into the village, the village head took upon himself full responsibility for the personal security of the migrants. This was one way of building and cementing networks.

There were people who considered this practice to be bribery, however the fishers did not regard it as such. Networks in the African context are very important because they determine one's chances of acceptance in a community. Berry (1989) states that funerals, marriages, naming ceremonies, and initiation rites create opportunities for individuals to gain respect and create obligations among their kin and neighbours by contributing food, drink, clothing, ritual offerings, and gifts. These acts may serve to reaffirm or advance people's status within their families and communities and their ability to draw on the resources or support of the group in negotiating their own claims to productive resources. The fish gifts given to the village heads were seen in this light and not so much in extractive terms.

In general, relations between migrants and residents were cordial. Most migrants reported that, as they moved from place to place, they established good relations. Most residents were happy to see them coming

because they knew that from their activities they stood to gain by providing labour, buying and selling fish. Also they knew that during funerals they would not have to spend a lot of money on relish since the fishers would give them. The Village Head stated that they allowed migrants to reside at the village so that they acted as stimulants to their young men to take up the trade and work hard (i.e. a demonstration effect).

The other direct benefit to the villagers was that most of the beaches had small markets where the locals sold foodstuffs such as bananas, maize flour and other things. The migrants provided a ready market for such items because migrants did not have gardens or permanent homes. In this way migrants boosted the local economy. The actions of residents and migrants thus complemented each other. Migrants sold fish to the residents, and in turn, the residents sold agricultural products to the migrants. In some places this exchange took the form of barter. For instance, fish was exchanged for items such as cassava flour, maize and bananas. If the exchange was with flour, the volumes were the same; a tin full of fish for a tin of flour. But in cases of maize, half a tin of fish was exchanged for a tin of maize. The usual measure was a 10-kilogram tin. Thus among other things the research established that commercialisation of fishing at Msaka led to the growth of small-scale business. Business in the service sector such as restaurants and guesthouses developed to cater for people coming to buy and sell fish. Chirwa (1992) also reports that there is a direct link between commercial fishing and the expansion of the restaurant business. Fishers were thus a major part of the local economies.

3.13 Conflict

Conflicts that have to do with fishing as an activity were reported here and there and these involved things like theft of nets and fishing close to some groups' self-proclaimed fishing areas. Some groups had, through the years, established good fishing locations to which they laid some informal ownership claims. These sites would often be held in secret and they would mark them by visual triangulation, often in relation to features such as the positions of mountains. If some other group came and fished there, fights would sometimes break out. Such conflicts though were rare,

because everybody knew that no one has ownership rights. Once such fights happened they were not protracted affairs. These sites are not recognition of formal tenure rights and often as Pollnac (1985) and Acheson (1981) have indicated in other fisheries, secrecy and information management were the tools used by a group to keep the spot to themselves.

From the FGDs and key informant interviews it was learnt that, with the increase in the number of fishermen, quarrels amongst themselves are increasing. In Msaka there were reports of fishermen from opposing camps destroying each other's boats and lamps. It was reported that these things happened because the population of fishermen had increased and fishers cannot get as much as they used to. The research team observed that most of the fishing grounds around Msaka were densely populated and it was established that this was largely due to migration. Chiefs were thus looking for ways to reduce the number of fishermen. In Msaka it was reported that these days, when the son of a migrant marries, he is not given a piece of land on which to build a house. He is asked instead to go back to his father's home.

Another cause of tension between migrants and residents was that most residents in these villages were not fishermen and they did not have fishing gear. For this reason, some residents were not happy seeing migrants making money while they remained poor. Petty jealousies came into play and tensions arose. At Msaka, there was also mention of a conflict with pair trawlers² but these appear to be isolated incidences.

4. SUMMARY OF KEY FINDINGS ON MIGRATION

From the socio-economic profiles, sources of livelihoods and results from the PRA exercises discussed earlier it is clear that fishing and fishing activities are the backbone of the local economy. It is important in all the four groups that were identified and studied at this site. Migrants though make more money from fishing than the other three groups. The main species that people around Msaka catch is *usipa*. This fishery though is highly mobile and fluctuates throughout the year.

The other major lesson is the realization or the confirmation that fishers are highly opportunistic. They want at all cost to maximize their catch. Hence, if a certain fishing ground does not give them enough and they hear of better catches elsewhere, they move on. Closely related to this is the fact that people have been doing this kind activity for sometime. They have been to a number of these places a couple of times before and formed good relationships. Their arrival signals employment for some people in the area and some other social benefits. Trying to keep them out therefore may not only hurt their livelihood, but that of the locals as well.

In terms of authority, the fishers respect the chief of the village, which more or less owns the beach. They pay him a courtesy call like any other person that would come to the village. This is much for purposes of guarding against any mischief or mishaps. The chief does in no way control the activities at the lake. At the moment he can only refuse somebody to stay at his village if they have misbehaved, socially. Otherwise one could be banned from the village and still come to fish in the nearby waters operating from another beach where he is welcome. In other words, the strength of the chief in as far as activities in the water are concerned is almost non-existent.

Another lesson that is coming out clearly is the awareness among the migrants that the fishery is dwindling. The cause is that there are now too many fishers and hence overexploitation of the resource. Many of them know the rules and regulations as laid down by the Department of Fisheries and have no problems with these. Many know that this is the answer to safeguarding the fishery but are reluctant to comply due to their over dependence on fish for livelihood.

A crucial point also coming out is that the introduction of the BVC has not adequately addressed the plight of the migrating fishermen. Even if these are not fully operational on Lake Malawi, the concept does not favour moving fishers. What the BVCs suggest is to keep out strangers whenever possible. So far, this has not been the case at Msaka. Literal application of the principles of co-management as described above would have bad consequences both for the fishers and the locals. The fishers would lose their major source of livelihood and the resident non-fishers

would lose benefits that come about as a result of the moving in into the village of migrant fishers.

Fishing is the number one source of livelihood for the migrant fishers. This is followed by farming and small-scale businesses, which are often done by household members. Fishers may help with the farming when the fishing is bad, but this is only for a short period of time. It is therefore necessary that fisheries management be placed within a wider perspective. It should take into account the mobility of fishers and their reciprocal access, which appear to be very crucial in the livelihoods of the migrating fishermen since this is what permits their survival in the dynamic environment of Lake Malawi. Flexibility in the management regimes is thus called for. This flexibility though may result in over-fishing sometimes. This could be allowed to happen in certain circumstances until alternative economic activities that could serve to reduce risk are put in place. Drawing on lessons from the West African Flood Plain, Thomas (1996) reports that the over-fishing problem needs to be tackled but that solutions must be sought in the context of survival in a resource-patchy environment. Thus, a natural resource policy needs to be broadened to consider the social and economic sustainability of resource use, and not just biological sustainability as contained in the 'maximum sustainable yield' approach.

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ENDNOTES

¹ A small, elongated, silver sardine like fish belonging to the family of cyprinids.

² Pair trawlers have bigger boats and engines and are a step above then the artisanal fishers as they operate along commercial lines. In the co-management setup, pair trawlers are supposed to be managed directly by the Fisheries Department.