

IUCN Eastern Africa Regional Programme
&
Lake Victoria Fisheries Organization

IUCN/LVFO Socio-economics of the Lake Victoria Fisheries Phase II

Cross-border Fishing and Fish Trade on Lake Victoria

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D. N. Murakwa, K. Odongkara, P. Onyango,
J. P. Owino and F. Sobo



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Lake Victoria Fisheries Organization (LVFO)**

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By

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July 2004

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Following the remit to record and aggregate the expressed views of communities engaged in the fishing industry, the contents of the report do not necessarily reflect the views of LVFO, the governments of the Partner States of Kenya, Tanzania, or Uganda, or IUCN or NORAD.

ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AP	Administrative Police
BMC	Beach Management Committee
BMU	Beach Management Unit
CID	Criminal Investigation Department
DFO	District Fisheries Officer
EAC	East Africa Community
GPS	Geographical Position System
IUCN EARO	The World Conservation Union Eastern Africa Regional Office
LC	Local Council
LDU	Local Defence Unit
LVFO	Lake Victoria Fisheries Organization
LVFRP	Lake Victoria Fisheries Research Project
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MCS	Monitoring, Control and Surveillance
NGOs	Non Governmental Organizations
NORAD	Norwegian Agency for International Development
OCS	Officer Commanding Station
PIT	Project Implementation Team
RDC	Resident District Commissioner
SRPS	Special Revenue Protection Service
TAFIRI	Tanzania Fisheries Research Institute
URA	Uganda Revenue Authority

EXECUTIVE SUMMARY

I. BACKGROUND

The *Cross-border Fisheries Management on Lake Victoria Study* documents the views of border fishing communities and their leaders on the challenges and opportunities for improved fisheries management at the international border areas on Lake Victoria. Based on these views, the study presents conclusions and recommendations for discussion by the LVFO Statutory Committees.

This report is based on discussions with fishing communities and district leaders in the Kenya – Uganda, Kenya – Tanzania and Tanzania – Uganda border areas, carried out from 22nd – 29th April and 5th – 12th June 2002. The following communities were consulted:

- Maduwa Landing Site, Majanji, Busia District (Uganda)
- Marenga Beach, Port Victoria, Busia District (Kenya)
- Mugabo Beach, Muhuru Bay, Migori District (Kenya)
- Sota Beach, Shirati, Tarime District (Tanzania)
- Malehe Beach, Rubafu, Bukoba District (Tanzania)
- Kasensero Landing Site, Kyebe, Rakai District (Uganda)
- Sigulu, Hama and Wayasi Islands (Uganda)
- Remba Island (Kenya)
- Migingo Islands (Kenya)

The study team comprises the members of the Project Implementation Team (PIT) of the *Socio-economics of the Nile perch Fishery on Lake Victoria Project Phase II*. The Project is facilitated by IUCN – The World Conservation Union with support from NORAD. The members of the PIT have been appointed by the LVFO member institutions (Fisheries Departments and Fisheries Research Institutes) and the LVFO Secretariat. IUCN provides additional technical support.

Lake Victoria falls under the jurisdiction of the three states of Kenya (6%), Tanzania (51%) and Uganda (43%) and . The dissimilarity in territorial ownership reflects the respective shares in coastline and follows international convention on demarcation of water bodies between riparian states. Whereas the fishery for tilapia species and dagaa [*Rastrineobola argentea*] contributes significantly to income generation amongst rural fishers and to food security in the region, it is the Nile perch [*Lates niloticus*] fishery, which is the financial driving force of the Lake economy.

Whereas the political and legal responsibilities at all administrative levels are well understood and adhered to, and whereas cross-border co-operation in many aspects is strong, a mobile natural resource such as fish knows no man-made boundary and consequently migrates or moves between differing jurisdictions. Traditionally, this has presented few problems. In recent years however, following the exponential growth of Nile perch and the corresponding growth in the export industry, the concepts of ownership, conservation and community-based management of this resource have become a key issue.

Although the concept of ownership is a cornerstone of the tri-partite commitment to co-management, questions remain unanswered, or only partially answered, on community acceptance of this concept and its constituent parts.

Specifically, do communities recognise the possibility of ownership of the resource? Do they understand the concept and its implications? What do communities perceive as the authorities and responsibilities of each participant? How do communities perceive the threat of overfishing? Do they understand the consequences? If they care, are they willing to make necessary changes?

These questions have a particular relevance at international borders where communities and governments alike have to deal with several types of cross-border interactions, including:

- (i). national fishers fishing in the territorial waters of another state without a licence;
- (ii). national fishers fishing legally in their own waters, but landing the fish in the jurisdiction of another state;
- (iii). fish purchasers crossing international borders to buy fish directly or through agents and transporting it to processing plants in their home country.

There is the possibility that these cross-border interactions and government efforts to regulate them may lead to conflicts. Such conflicts may arise among fishers, as well as between fishers and government authorities of their own or neighbouring states.

II. OBJECTIVES

The aim of the *Cross-border Fisheries Management Study* was to have a sufficient understanding of relevant community views on fisheries management and cross-border relations to be able to facilitate:

- (i). policy makers to address issues of conflict, authority and implementation of the law at border interfaces;
- (ii). incorporation of community priorities into the design of management initiatives;

- (iii). adoption of the concepts of resource ownership, management and co-management.

III. JUSTIFICATION

Following recognition that border-related issues and community perceptions of management, ownership and conservation have not been sufficiently integrated into the decision making process, a consultative approach in identifying key perceptions was therefore adopted by the LVFO. Consultative processes have been initiated at very senior levels, and district based dialogue and co-operation is also in evidence. However, the input that has been missing are the constructive comments from the fishing communities most likely to be affected by any local, national or international move to regulate the fishing activities. Fishing communities as the primary stakeholders have the right to have their views documented and considered by policy makers, if a lasting solution to this situation is to be found.

IV. METHODOLOGY

The study covers all border areas on Lake Victoria. In each case, communities on both sides of the border were selected according to their proximity to the border and their significance as fishing communities. The study team carried out focus group discussions in the selected communities using a standard questionnaire (Annex 3). Discussion groups included youth, women and elders. In addition, the questionnaire was also used in personal interviews with community leaders. In each district, meetings were held with government officials involved in fisheries management, political leadership, or security to solicit their views on cross-border relations in their area. Findings from these meetings are presented in this publication in a descriptive manner as the methodology used in data collection and analysis do not allow for the statistical presentation of the findings.

V. FINDINGS

Fishers in all communities report a decline of fish catches, especially of Nile perch, over the last five years. Several factors contribute to this decline, among them the continued use of destructive fishing gear and an increasing number of fishers. Fishing communities fear that a continued decline of catches will lead to increased poverty, crime and AIDS prevalence in fishing communities.

Fishers have to follow Nile perch stocks on its seasonal movements, moving into deeper and colder waters during the dry seasons. Some communities at the Kenya – Uganda border as well as officials in Kenya believe that Nile perch breed mainly in Kenyan waters and disperse into open waters towards Uganda and Tanzania at the end of the breeding season. The validity of this belief is beyond the scope of this publication.

There is growing concern at landing sites about the environmental situation. Increased algal blooms affect the quality of water for domestic use and health conditions in fishing communities. There are also indications of pollution from factories and urban centres in the lake basin.

There has been an increased use of 'long lines' in most fishing communities. Reasons for this change of gears include affordability of lines and hooks compared to nets, increased safety of this gear from theft, greater success of 'long lines' in catching bigger fish and adjustment of gears to seasonal migration of Nile perch.

Beach Management Units are a new phenomenon introduced by government over the past few years. Their purpose is not yet well internalised by the fishing communities. Several fisher self-help organisations have been formed but they are not well rooted in the communities, and not well linked to external support structures. Women's participation in fisher co-operative societies and fisher organisations is very low.

Fishing communities do not fully understand the roles and responsibilities of different institutions involved in fisheries management. They noted, however, that enforcement of fisheries regulations by fisheries departments is weak, and they would like to see it strengthened. Communities observe that government uses licensing as a revenue generating activity, rather than as a management and control tool.

Fishers have a weak bargaining power in their interaction with fish purchasers. Locally based agents of processing factories dominate the market. Most purchasers no longer avail credit to fishers. Several factors influence where fishers sell their fish, including price, distance of markets, availability and costs of other commodities and domestic goods at the marketing point.

While community members are aware that too many people are joining the lake fisheries, they hold divergent views on whether or not government should control access to the fisheries. Fishers would like to access fishing grounds throughout the lake, while district officials and community leaders would prefer if fishing licenses were to limit operations of licence holders to one or a few districts, rather than being nation-wide. At international border areas, such a license should, however, regulate cross-border fishing and fish trade.

There have been long-standing good relationships between communities living in international border areas around Lake Victoria. However, there is conflict among fishers over theft and destruction of fishing gears, mainly between 'long line'

fishers and drift net ('tembea') fishers. The level of insecurity in the fisheries has escalated to the point where fishers carry weapons (clubs, catapults and guns) when going fishing.

The working relationship between fishers and authorities patrolling the lake is very poor. There are frequent incidents of extortion of money by patrolling agents. Unofficial payments have become a routine procedure for resolving cases of arrest and confiscation of property. Patrolling units cross borders either because they are not conversant with the location of boundaries on the lake, or in some cases they may cross borders deliberately. There are no customs and immigration posts on border islands in Lake Victoria.

Fisheries regulations of the three countries are not fully harmonised by the enforcement authorities. Monitoring, Surveillance and Control has been complicated by night fishing, hiring of boats by non-citizens and using citizens to acquire licences for non-citizens.

Fishers know international boundaries on the lake, yet they cross borders in search of their livelihoods. Fishers are willing to pay official fees and taxes for cross-border fishing and fish trade, but they find it very difficult to obtain licences in neighbouring countries. Fishers believe that levies on fish should be paid to the country owning the fishing grounds where the fish has been caught.

Border administrations, especially at district level, have mediated in border conflicts with some degree of success. However, cross-border meetings take place ad hoc, and there is no established mechanism for holding regular cross-border meetings. Representation of fishing communities and fisheries staff at these meetings has been poor, and resolutions have not been disseminated effectively. There is inadequate awareness among government officials at district and lower levels of fisheries regulations in neighbouring countries.

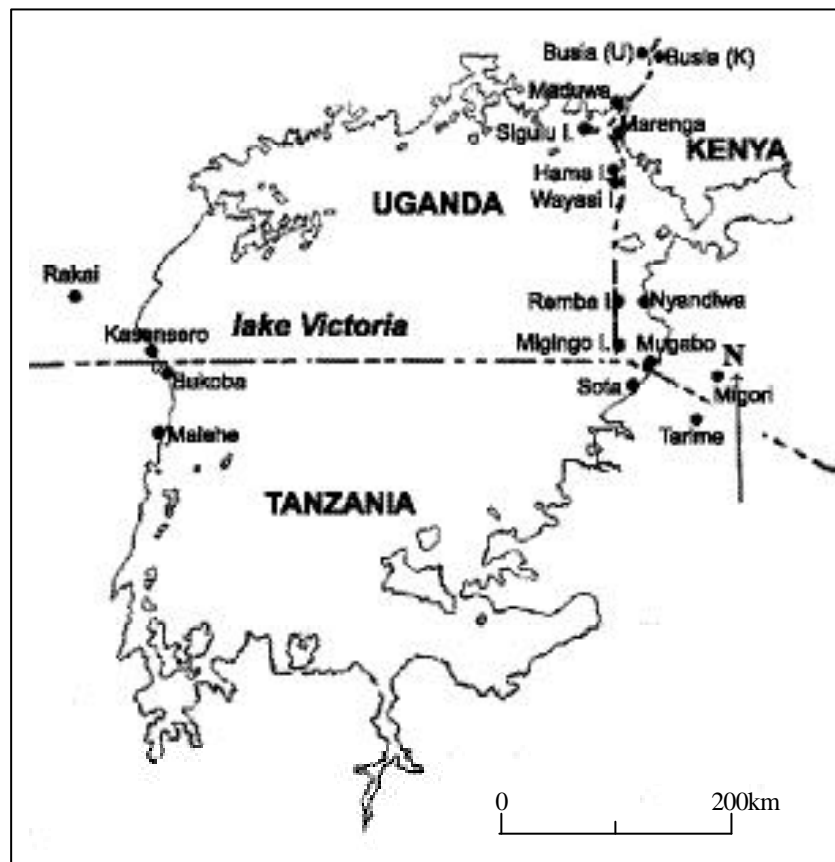
There is a wide-spread perception among fishing communities that government authorities are mainly interested in extracting revenue from landing sites, rather than in enforcing existing rules and regulations to protect and develop the fishery.

VI. RECOMMENDATIONS

1. The fisheries regulations and the enforcing authorities in the three countries should be fully harmonised. Meanwhile, relevant laws should be exchanged between the three countries and communicated to the fishing communities.
2. Regular cross-border meetings, including participation by representatives of fishing communities and fisheries staff, should be co-ordinated by the LVFO Secretariat and facilitated by the member states.

3. Fishers should have a harmonised East African licensing system that regulates access to cross-border fishing grounds in the vicinity of their landing site of operation. LVFO Secretariat should undertake a feasibility study on introducing and implementing a harmonised East African licensing system for Lake Victoria. Fish should be landed and taxed in the country where it is caught.
4. Licences should be used to regulate access to the fisheries (e.g. numbers and amount of licensing fees) involving community participation through BMUs in identifying and monitoring licence holders in their community.
5. Fishers should be registered at their landing site of operation, together with their boats and gears.
6. The use of double/triple netting should be banned.
7. The use of drift nets (tembea) should be regulated to reduce conflict with other fishing methods. Meanwhile, research should provide more data on the impact of drift nets on the socio-economics of fishers and fish biology.
8. An aerial survey and a GPS survey of international border areas in the vicinity of the islands of Migingo, Remba, Wayasi and Hama should be undertaken to ascertain the exact location of boundaries and of small islands and other features in the lake.
9. Research should validate the fish breeding grounds in Lake Victoria.
10. Governments should encourage the provision of loans to fishers by private sectors for the purchase of legal gears.
11. The three countries should strengthen MSC in their territorial waters.
12. The relevant government authorities should establish border points on key islands in the lake to ease cross-border transactions.
13. Border areas should be monitored by joint patrols comprising enforcement agents from both countries.
14. Enforcement agents should be trained on fisheries management matters.
15. Patrolling teams should wear identification tags when on duty on the lake. They also should be represented at cross-border meetings.
16. Existing legal procedures concerning arrest and prosecution of suspects should be complied with, and fishers should be made aware of these procedures.
17. Government should provide BMUs with legal authority to enforce fisheries laws.
18. BMUs should receive training in monitoring techniques and co-management.
19. BMUs should be encouraged to generate funds locally to support their activities.

20. Fisheries staff should be re-oriented to accept partnership with fisherfolk in fisheries management.
21. Fishers and their local associations and co-operatives should be educated in business skills, leadership skills and mobilisation skills and fisheries management.
22. Fishing communities should be sensitised on advantages of fisher associations, including a strong participation of women.
23. LVFO should more strongly publicise its mandate to riparian communities.



Map of Lake Victoria, showing study sites.

1. INTRODUCTION

Lake Victoria falls under the jurisdiction of the three states of Kenya (6%), Tanzania (51%) and Uganda (43%), which jointly own the lake and its resources. The dissimilarity in spatial ownership reflects the respective shares in coastline and follows international convention on demarcation of water bodies between riparian states. Consequently four areas exist where national jurisdictions over the Lake are in proximity to each other. On the mainland, these areas are in the neighbouring districts of,

Busia (Kenya) – Busia (Uganda),
Migori (Kenya) – Tarime (Tanzania), and
Bukoba (Tanzania) – Rakai (Uganda).

In addition, cross-border relations offer specific challenges to fisheries management on and around the islands located close to international boundaries. These include

Sigulu, Hama and Wayasi Islands (Uganda),
Remba Island (Kenya), and
Migingo Islands (Kenya).

The political and legal responsibilities in these Districts and groups of islands are well understood and adhered to, and cross border co-operation in many aspects is strong. On the other hand, a mobile natural resource such as fish knows no man-made boundary and consequently migrates or moves between different jurisdictions. Traditionally, this has presented few problems. Fishers were primarily subsistence oriented and supplying very localised markets. The original source of any fish was relatively unimportant in national terms. In recent years however, following the exponential growth of Nile perch (*Lates niloticus*) and the corresponding growth in the export industry, the concepts of ownership, conservation and community based management of this resource has become a key issue. Specifically,

- (i). This concept of ownership is a cornerstone of the tri-partite commitment to co-management.
- (ii). Similarly, with revenues and licence fees and landing taxes [the scenario differs in each state] generating significant development funds for the individual districts where the fish are landed, ownership of the resource and encouragement to land within a particular district become of prime local political concern, understandably.

- (iii). Thirdly, with exports of fish products generating enormous foreign currency for individual states [and sometimes even royalties for relevant Ministries], protection of national resources has, again understandably, been prioritised.
- (iv). Fourthly, and it is important to recognise the regional commitment to privatisation and the development of the private sector, various processing plants have been constructed in all three states. This has involved considerable investment and, again understandably, these profit oriented initiatives wish to defend their investment and so long as there is constant supply of their raw product, where it comes from (territorially) is of less concern to these investors.

Furthermore, with the immigration of non-indigenous fishers into the arena attracted to the “cash economy”, pressure on the [Nile perch] stocks has increased to a point where the resource base cannot support current fishing effort. This is extremely disconcerting for all concerned, especially managers of the resource.

Although the interface in border areas draws attention to this concept of ownership and management, questions remain unanswered, or only partially answered, on community acceptance of this concept and its constituent parts. Specifically,

- (i). Do communities recognise the possibility of ownership of the resource? Do they understand the concept and its implications? Do they even wish to own?
- (ii). To what degree do communities recognise the need for resource management? Is there a traditional base for this? What do communities perceive as the authorities and responsibilities of each participant?
- (iii). How do communities perceive the threat of overfishing [numbers, size, spatial distribution, sex etc]? Do they understand the consequences? Do they care, and if so are they willing to make necessary changes and painful sacrifices?

These questions have a particular relevance at borders of national jurisdiction. It is necessary to understand how the concepts of ownership [resource management] and co-management are influenced by community proximity to international borders. Perceived problems manifest themselves in two distinct forms.

- (i). Firstly, the situation where national fishers, unlicensed to fish in the territorial waters of another state, do so.
- (ii). Secondly, there is the parallel of national fishers who are licensed to fish in their own waters, doing so but landing the fish in the jurisdiction of another state.

A degree of collusion is likely to exist incorporating both above aspects, with transactions taking place in open water out of reach of the limited resources of local authorities.

1.1 DEVELOPMENT OF LAKE VICTORIA FISHERIES

The introduction of Nile perch (*Lates niloticus*) into Lake Victoria in the late 1950s fundamentally changed the lake's fisheries. In combination with other factors – including other exotic species like *Oreochromis niloticus* and *Tilapia zillii*, overfishing and environmental degradation in the lake basin, it altered the ecosystem of the lake (LVFO 1999a; Ntiba et al 2001; Ogutu-Ohwayo 1995; Orach-Meza 1998). What was formerly a multi-species fishery based on a rich well-balanced species complex has since changed to an essentially three species fishery dominated by Nile perch (*Lates niloticus*), Nile tilapia (*Oreochromis niloticus*) and the sardine-like “dagaa/omena/mukene” (*Rastrineobola argentea*) (Okaroron 1994; Reynolds *et al* 1995). The low diversity of the current fisheries raises concerns about future sustainability. Over the same time, however, total fish landings on Lake Victoria have dramatically increased. From the 1980s to the 1990s, total landings increased fivefold from 86,000 t to 568,000 t, with Nile perch making up over 70% of the catch (van der Knaap *et al* 2002). In recent years, however, signs of a stagnation of total Nile perch catch have been observed, against an increased fishing effort (ibid).

Lake Victoria has an estimated fish production capacity of 400,000 - 600,000 metric tons per year with a value of US\$ 300 - 600 million at the beach level. Fishing is a major activity for people within the lake basin with an estimation of 124,000 fishers (LVFO, 2000). The increase in the catches of Nile perch spurred the establishment of fish processing plants along the shores of Lake Victoria, which produce chilled and frozen fishery products for the international markets in Europe, Asia, USA, and Australia (Abila and Jansen 1997; Jansen 1997). Liberal trade policies in East Africa promoted this industrial development and now there are more than 30 fish processing plants operating on Lake Victoria. The first processing plants were established in the early 1980s in Kenya and in the early 1990s in Uganda and Tanzania (LVFO, 1999a). Presently, the estimated value of annual export earnings from the fishery is about US\$ 600 million of which US\$ 240-480 million per annum is estimated as revenue generated by the lake community (LVFO, 1999a).

To provide for a sustainable fishery on Lake Victoria, the three East African Governments recently adopted a number of management options. The measures include limiting a slot size for Nile perch of 50-85 cm to protect the juvenile and brood stock, undertaking joint monitoring, control and surveillance and

legitimizing Beach Management Units (BMUs) as local fisheries management institutions (LVFO 2001-2002). As a framework for future fisheries development, the three Governments adopted the Lake Victoria Fisheries Management Plan (LVFRP 2001), specifying strategic management goals from a regional perspective.

The main impact of the Nile perch directly relevant to cross-border fishing and fish trade, is that it has fundamentally transformed the social and economic aspects of Lake Victoria fisheries since it emerged as a commercially exploited species in the 1980s (Reynolds and Gréboval 1988; Reynolds et al 1995; Harris et al 1995). There has been a drastic increase in the fishing effort, including tens of thousands of new fishers (many of them from other sectors of the economy), and increasing numbers of boats, engines, gears and fish landing sites. The growing specialisation on Nile perch production may also have affected food security in the lake basin (Abila and Jansen 1997; Jansen 1997). Parallel to this concerning trend, however, it is evident that incomes from the fisheries have grown substantially. Not only has the industry created thousands of jobs on the lake shore, the artisanal fishers who continue to supply the raw product from the lake to the landing sites have experienced a rise in the price for fish.

Importantly for the purpose of this study, the Nile perch fishery has changed the mobility of fishers on the lake. Nile perch migrate seasonally across the lake, following a pattern that seems to be related to rainfall distribution. Fishers try to follow the Nile perch on these movements, as much as their boats and gears allow them. Fishing communities mention this as one of the main driving forces behind their cross-border operations. Fishers may undertake fishing expeditions across the lake for several weeks at a time (Harris et al 1995). However, poorer fishers find it more difficult to participate in this long-distance fishing than fishers with access to more resources and superior boats and gear.

The increased mobility of fishers has vast implications for efforts by fisheries management to incorporate fishing communities into co-management arrangements. In order to be successful, there is need to be highly aware of the dynamic nature of 'communities' and the commercial networks that send fishers across the lake and across borders.

Through these developments, the Nile perch has also brought particular challenges and opportunities for transboundary fisheries management on the lake. It is important to differentiate today between short-distance cross-border movements for artisanal fishing and small-scale trade (of fish and other commodities), and long-distance expeditions by larger boats for commercial fishing and fish purchasing. The latter that has been on the increase with the

growth of the Nile perch export industry, especially since the lifting of the European Union fish import ban in 2000.

1.2 GROWTH OF THE FISHING EFFORT ON LAKE VICTORIA

One of the drivers of changes in cross-border fishing and fish trade is the increase in fishing effort on the lake over the last 20 years. Estimates suggest that the number of fishers has quadrupled between 1980 and 2000, from 30,000 to around 120,000 fishers (LVFRP, 2001). Alongside, the number of boats has grown at a similar rate, as has the number of gears. In addition, more boats today are equipped with an outboard engine than in the past.

Table 1: Summary of the Lake Victoria fisheries frame survey, March 2000

ITEM		COUNTRY			TOTAL
		KENYA	TANZANIA	UGANDA	
LANDINGS	No. of Landing Sites	297	596	597	1,490
FISHERMEN	No. of fishermen	33,037	56,060	34,889	123,986
FISHING CRAFTS	No. of fishing vessels	10,014	15,489	15,544	41,047
PROPULSION	No. of outboard engines	494	1,530	2,031	4,055
	No. of inboard engines	15	10	0	25
	No. of boats with paddles	6,577	11,623	12,848	31,048
	No. of boats with sails	2,928	2,326	665	5,919
GEARS	Gill nets	125,221	225,803	297,663	648,687
	Beach seines	5,245	1,019	811	7,075
	No. of hand line hooks	27,789	13,238	4,585	45,612
	No. of long line hooks	972,087	2,212,571	254,453	3,439,111
	Mosquito nets	11,265	3,267	2,452	16,984
TRANSPORT BOATS	Transport boats	409	639	910	1,958

Source: LVFRP, 2001

These trends have meant more fishers and traders on the lake, moving in bigger boats over longer distances, taking advantage of fishing grounds, fish purchasing points and landing sites around the lake. Mobility has become a key to success for both fishers and traders. In this process, cross-border movements have become more common and more diversified.

On the one hand, the long-standing practice of close-range cross-border visits for petty trade in a variety of goods continues. This is part of a commercial life that one would expect to find at any international border. What is new on Lake Victoria, however, is the commercial exploitation of cross-border fishing grounds and the large scale movement of fish in collector boats from purchasing points to landing sites across the lake. The 'new' cross-border fishery poses a number of challenges to fisheries management: long-distance movements that are difficult and expensive to monitor; high capital investments that compel fishers and traders to push the limits; vertically integrated production and marketing chains; decreasing social control among fishers and traders as newcomers and strangers dominate local communities. These new types of activities require higher capital investments in boats, engines, insulated containers and fuel. They are driven by the demand for Nile perch in the processing and exporting industry.

Cross-border movements on Lake Victoria take place for a variety of reasons, with fishing and fish trade being just two of them. Trade in commodities and consumer goods, social visits, work and schooling are among other purposes for crossing borders. They all involve transport by boat and/or by land. Fisheries management complications arise because these movements are entangled with fishing and fish trade.

1.3 PURPOSE AND OBJECTIVES OF THE STUDY

The aim of the *Cross-border Fishing and Fish Trade Study* is to gain a better understanding of relevant community views on fisheries management and cross-border relations to be able to facilitate:

- (i). policy makers to address issues of conflict, authority and implementation of the law at border interfaces;
- (ii). incorporation of community priorities into the design of management initiatives;
- (iii). adoption of concepts of ownership, resource management, co-management.

Towards this end, the study undertook the following:

- (i). Properly recorded, aggregated and analysed the views of selected border communities on key issues affecting cross-border fisheries management on Lake Victoria;
- (ii). Drew on these views so as to offer recommendations for improved cross-border fisheries management, reflecting the priorities of the communities consulted;
- (iii). Produced a Regional Report, which is this joint publication by LVFO and IUCN.

Following recognition that border related issues and community perceptions of management, ownership and conservation have not been sufficiently integrated into the decision making process, a consultative approach in identifying key perceptions was therefore adopted by the LVFO. Consultative processes have been initiated at very senior levels, and district based dialogue and co-operation is also in evidence. However, the input that has been missing are the constructive comments from the fishing communities most likely to be affected by any local, national or international move to control the fishing effort. Fishing communities as the primary stakeholders have the right to have their views documented and considered by policy makers, if a lasting solution to this situation is to be found.

1.4 METHODOLOGY

The study has been undertaken by the Project Implementation Team (PIT) of the *Socio-economics of the Nile perch Fishery on Lake Victoria Project Phase II*. The PIT is a regionally balanced team of fisheries officers and research officers of the Fisheries Departments and Fisheries Research Institutes of Kenya, Tanzania and Uganda (Annex 5). The study team visited selected border communities and consulted with government officials during two legs of fieldwork in April and June 2002 (Annex 4 for full itinerary). Communities were selected on the basis of their proximity to international borders, and – in the case of island communities – according to their importance in cross-border fisheries management.

In each of the selected communities, the study team carried out focus group discussions using a standard questionnaire (Annex 3). Discussion groups included the youth, women and elders. In addition, the questionnaire was also used in personal interviews with community leaders. Discussions and interviews with different focus groups were carried out simultaneously by interview teams of two officers each. Their findings were subsequently presented to the full study team and incorporated into an integrated community report. Similarly, in each district concerned, meetings were held with government officials involved in fisheries management, political leadership, or security to solicit their views on cross-border relations in their area. Findings from these meetings have been considered separately from community consultations when drawing conclusions and offering recommendations. Summary minutes of these meetings are presented as Chapter 3 of this report.

Findings from these meetings are presented in this publication in a descriptive manner as the methodology used in data collection and analysis do not allow for the statistical presentation of the findings.

2. COMMUNITY VIEWS ON CROSS-BORDER FISHERIES MANAGEMENT

2.1 FISH CATCHES

NILE PERCH

Fishing communities around Lake Victoria report that Nile perch catches per unit effort have been declining steadily over the past five years. This trend manifests itself in different degrees in different locations. At the Kenya-Uganda border the decline was slow, while at the Kenya-Tanzania border it was more drastic. In some places (e.g. Malehe (T)), fishers say that their overall catch is lower today than it was five years ago, in spite of maintaining the same fishing effort. In other communities (e.g. Kasensero (U), Mugabo (K) or Sota (T)), the fishing effort has increased sharply as more fishers and boats joined the fishery, yet the overall catch has not grown.

In Mugabo (K) and Sota (T), for example, a boat with five single nets brought back a good day's catch of 200kg five years ago. Today, fishers go out with fifty double nets per boat and may return with just 50kg of fish. At Kasensero Landing Site (U), four years ago forty boats (20 of them with outboard engines) would bring in 80 tonnes per day during the high season, while today over 100 outboard engine boats bring in the same tonnage.

Fishers observe seasonal fluctuations in their catches. They adapt their gear according to seasonal movements and changes in the stock composition of Nile perch. At Kasensero (U), for example, they use 5 ½ - 6 inch nets during the high season from January - May, whereas they switch to 7 – 10 inch nets during the low season from June - October. In addition, they increasingly turn to long lines during the low season. Community leaders at Kasensero report that during the low month of June, a boat using long lines may catch 400 – 800 kg a day, while one with nets will find it difficult to catch even 20 kg a day.

Fishers attribute the decline of Nile perch catches to a variety of factors. Most often they mention the use of destructive fishing gear as the main reason. They include beach seining, under-sized gill nets, the joining of gill nets to double/triple nets, drift nets, 'tycoonning' and the destruction of breeding and spawning grounds among the destructive gear and fishing practices. Fishers also note that the growing number of fishers, the increased use of outboard engines and 24-hour fishing effort have contributed to the gradual decline of Nile perch catches.

As reasons behind this trend, they see a weak enforcement of existing fisheries rules and regulations, and the strong demand for Nile perch in the export market. Some fishers also suspect that Nile perch may have moved seasonally or permanently to other fishing grounds, making it difficult for local fishers to follow.

At Migingo Island, fishers attribute the decline of catches to a change in fishing gear. While in the past they used gill nets to target Nile perch, today they use mainly lines and hooks ('long lines') since they are more affordable and less prone to theft. Lines and hooks, however, don't yield the same regular good catch that nets provided in the past.

Nile perch catches vary according to seasons. Table 2 summarises community perceptions of high and low seasons in different parts of the lake. Nile perch catches are generally highest during the rainy season, and lowest during the dry season. Fishers follow the Nile perch stocks on their seasonal movements or migrations. During the low seasons, they have to move further into the open waters of the lake in order to catch Nile perch, while during the rainy season they are able to catch Nile perch closer to the shore.

In many cases, this pattern implies that fishers seasonally cross international borders in search for fish. For instance, fishers in Kasensero (U) report that they cross into Tanzanian waters during June to October, while their Tanzanian neighbours in Malehe (T) tend to fish in Ugandan waters during February to May. Likewise, fishers at Mugabo (K) report that they have to follow the Nile perch into deep waters, especially during the dry season between November and February. This often leads them into Tanzanian waters. At Sota (T), there seems to be some local stocks during the rainy season, while for the rest of the year fishers have to move out in search of fish. On the Sigulu Islands (U), fishers who can afford the higher costs follow Nile perch south into Tanzanian waters during the dry season (November – February). At Nyandiwa (K) and Remba Island (K), fishers move to Ugandan and Tanzanian waters during January – May, resulting in increased cases of conflicts with other fishers and arrests by patrolling agents.

On Hama Island, Nile perch migrate into deeper waters near Tanzania during dry season and it is costly to follow. Only boats with engines can follow. The fishers use double nets and some migrate to Remba in search of the fishing grounds. Also the catches are low.

In some communities, the population of fishers decreases during the low season, as fishers may move to other activities in their home areas. Fishing in deeper waters away from the shore requires engines and more inputs than high season




fishing. Only those fishers who can afford these increased expenses are able to fish all year round (Kasensero, Malehe, Hama Island, Wayasi Island). The rest use various strategies to bridge the low season. Some migrate to other landing sites, while others return to their home areas for the season to farm or pursue other activities (Malehe, Migingo). It is also common for fishers to change their fishing gears between seasons, using gill nets in the high season and 'long lines' in the low season. Many fishers, however, simply continue their usual fishing activity at a lower level. In the words of the fishers: 'janam jakinda' – people of the lake are patient.

As to the cause of Nile perch movements or migrations, most fishers observe that Nile perch prefers cold water and moves according to water currents and rainfall patterns. During dry and hot seasons, Nile perch migrates into deeper waters, away from fishing grounds close to the shore. Many fishers believe that fish breed in river mouths and papyrus areas, and move to open waters as they grow. Around the Kenya – Uganda border, many community members argue that at the end of the breeding season in July, Nile perch disperse from breeding grounds in Kenya, and migrate into open waters towards Uganda and Tanzania. Some fishers in Kenya and Uganda observe that Nile perch stocks also move vertically, according to the phases of the moon. At full moon the Nile perch go into deeper waters.

Box 1: Factors contributing to declining Nile perch catches (Fishers' perceptions)

1. The use of destructive fishing gears and methods, including beach seining, small mesh-size gill nets, 'mosquito nets', double/triple nets, drift netting ('tembea'), and tycoonning;
2. Catching of juvenile and/or immature fish;
3. 24-hour fishing effort;
4. Increased use of outboard engines allows year-round fishing;
5. Increasing numbers of fishers;
6. Migration of fish;
7. Destruction of breeding and spawning grounds;
8. Inadequate enforcement of fisheries regulations;
9. Change to less effective gear because of piracy and poverty;
10. Outsiders or fishers from across the border using large capacity gears and boats;
11. Increased demand for Nile perch on the international market;
12. Poverty among fishers and lack of alternative sources of livelihood;
13. Individual greed.

Table 2: Community perceptions of high and low seasons for Nile perch catches

Community	Months											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Maduwa, Busia (U)												
Marenga, Busia (K)												
Mugabo, Migori (K)												
Sota, Tarime (T)												
Malehe, Bukoba (T)												
Kasensero, Rakai (U)												
Hama, Wayasi Isls. (U)												
Remba Isl., Suba (K)												
Nyandiwa, Suba (K)												
Migingo Isl., Tarime (T)												
High Season =  Low Season =  Intermediate =  Source: Cross-border Fisheries Management Study, Community Meetings 2002												

CATCHES OF OTHER SPECIES

Tilapia catches show a similar decline as Nile perch. Fishers attribute this trend to the very aggressive targeting of Tilapia, using drift nets ('tembea') and 'forced fishing' close to breeding areas. On the other hand, many fishers emphasise that most of them selectively fish for Nile perch, and that their catches of other species may not reflect stock levels very accurately. In addition, fishers point to Nile perch predation as a reason for the declining catches of other species.

Catches of dagaa, on the other hand, appear to be stable or slightly rising throughout the lake. Few fishers, however, switch between Nile perch and dagaa, and the landing sites visited do not have a strong dagaa fishery.

Several minor species are caught, though their abundance seems to decline. Fishers who frequent fishing grounds close to river mouths (Rivers Kagera, Sio and Nzoia) report that *Clarias*, *Bagrus*, *Labeo*, *Synodontis*, *Schilbe*, and (rarely) *Protopterus* are being caught during the rainy season. *Clarias* and *Labeo*, in particular, are targeted as baitfish for Nile perch 'long line' fishing. At Marenga, fishers indicate that haplochromines (*machachu* and *vidonge*) seem to be on the increase. Fishers on the islands catch *Synodontis* in the open lake from June - August, using 3 - 3½ inch nets. On Hama, fishers point out that in order to catch Tilapia or *Synodontis* they would need to use 3 - 5 inch nets which are illegal in this part of the lake (Bugiri District).

2.2 LANDING BEACH ENVIRONMENT

WATER HYACINTH

The alien invasive species water hyacinth is now under control at all the landing sites visited. In the early 1990s, however, it had infested selected bays in most communities, affecting the fishing communities adversely. The impact included blocking the fishing grounds, waterways, and drinking water supply, and providing breeding grounds for mosquitoes and habitat for snakes and snails responsible for bilharzia. However, water hyacinth also made it temporarily easier to catch bait-fish *clarias* (juveniles) for Nile perch and led to increased catches of minor species such as *Protopterus*. The impact of water hyacinth was felt least on the islands. Communities attribute the disappearance of the weed to the strong currents at their beaches.

QUALITY OF LAKE WATER

All communities observe changes in the colour of lake water, both seasonally as well as in the long term. Lake water may turn greenish or brownish/reddish during rains or strong currents from the direction of in-flowing rivers or from the mainland. Most communities report that algal blooms have increased over the last years and are now a recurrent problem for domestic water supply. The problem is particularly severe during the rainy season on the mainland (Maduwa, Sota, Mugabo, Kasensero), and during periods of strong currents on the islands (Hama, Remba, Migingo). During these times (which may last 2 – 3 months), lake water takes on a 'porridge-like' consistency.

Fishing communities list a number of factors, which they say contribute to these changes in water quality. These include poor sanitary facilities at landing sites, in-flow from nearby rivers, run-offs, water currents in the lake, the discarding of by-catch, engine oil spills from fishing boats, and watering of livestock at the landing site.

DOMESTIC WATER SUPPLY

At most landing sites, water for domestic use is drawn from the lake. Algal growth and other observed changes in water colour lead periodically to a decline of water quality, i.e. the taste of drinking water is poor, and when used for bathing it causes body itching. Few landing sites have alternative sources of domestic water; they include Marenga and Nyandiwa (tap water) and Malehe (stream). Even here, however, some sections of the community continue to rely on lake water for their domestic needs.

SANITATION

The standard of sanitation at the landing sites varies, but is generally low. Many community members observe that their sanitation infrastructure is not keeping abreast with the growth of their community. Some communities, such as Marenga, Malehe, Kasensero, and Nyandiwa, have constructed a fair number of pit latrines, partly supported by government or donors/NGOs. The state of repair and the use of these facilities again differs from site to site. In some cases it is difficult for communities to organise the up-keep of the facilities. At Kasensero, use of public toilets is charged at Ushs 100 per use per individual. The sanitation situation is particularly poor at Maduwa, Mugabo, Sota, Remba Island, and Misingo Island. High rates of diarrhoeal diseases are reported in these communities.

POLLUTION

Communities at Maduwa and Marenga (Kenya-Uganda border) observe indications of pollution from urban centres and industries, reaching the lake through Rivers Sio and Nzoia. Leaders at Maduwa report changes in water colour and taste, and – coinciding with this - changes in the taste of fish. At Sota, elders argue that pollution from urban centres and industries at Musoma and Mwanza is affecting the water quality and fish distribution in their area.

DEFORESTATION

With the exception of Hama Island and Malehe, communities did not report changes in the forest and vegetation cover around their landing sites. This is mainly due to the fact that these sites have never been landscapes dominated by trees. Timber for boat and house construction as well as firewood are brought in from places at a distance from the lake shore. At Malehe, however, the 'Mihumula' tree is gradually disappearing in the area, since its timber is used for house construction and boat building. On Hama Island, likewise, the fishing community uses local timber for building and firewood for cooking and smoking of fish. In some communities (Maduwa, Hama) local groups have started planting trees.

2.3 COMMUNITY ORGANISATIONS

BEACH MANAGEMENT UNITS/COMMITTEES

Most communities visited have a Beach Management Unit (BMU) or Beach Management Committee (BMC). Their activities and effectiveness, however, vary from site to site.

In **Maduwa**, the BMU was only recently launched (a few weeks before the study), on advice from the District Fisheries Officer. Its purpose is therefore not yet fully understood by the community. Community members agree that inadequate

sensitisation took place when the BMU was introduced and that more is needed. Even the BMU leaders are unsure about their roles and responsibilities. One particular point of uncertainty is the integration of the BMU into the local council (LC) system that is well established at Maduwa and has carried out some infrastructure improvements around the landing site.

The BMC at **Marenga** has a longer presence at the landing site. It is nevertheless perceived to be an 'outside' institution through which government is trying to reach the fishing community. BMC leaders and community members are equally uncertain about the roles and responsibilities of the BMC.

At **Mugabo**, the BMC is closely involved in resolving conflicts and following up on grievances arising out of arrests and loss of property at the border. Their leaders, however, feel that they have not been very effective in addressing these issues, due to the lack of government backing.

The BMU at **Sota**, on the other hand, is less active at present. It was launched two years ago, on initiative of the government. While the BMU leaders are aware of their main responsibilities (including boat registration, landing site cleanliness and control of fishing methods), they have not been able to follow through with their task, due to a lack of resources. In addition, BMU leaders find it difficult to move against their neighbours and family members when it comes to controlling the use of illegal fishing practices. One BMU leader attended a seminar in Mwanza, but on returning to Sota he was not able to implement what he agrees would be important activities, such as organising meetings with fishers and establishing good working relationships between BMU and village authorities.

There is a BMU at **Malehe** beach, which has made efforts to curb illegal fishing yet many community members consider it ineffective. Apart from protective gear like rain coats, gum boots and torches, the BMU has received no further support from government or private sector.

At **Kasensero**, a 'Task Force' has been carrying out functions similar to those of a BMU. The Task Force is responsible for monitoring of fishing practices, checking the quality of ice used at the banda and lorries, and ensuring cleanliness of the landing site, fish banda and lorries entering Kasensero beach. In fact, the Task Force has fenced off the beach area from the rest of the community. While it exercises its roles on one side of the fence, the LC carries out their work on the other. The Task Force comprises 10 members, some of whom have received training from government. Their main problem is a lack of funds, since they do not receive any share of public revenue generated at Kasensero. Nevertheless, they claim to have been successful in curbing the use of illegal fishing gear, and

in monitoring fishers and boats frequenting the landing site. In case they find illegal nets, unregistered boats or fishers without tax tickets, they confiscate the catch and distribute it among the poor in the community. At the second offence, they take the offender to the police.

On **Remba**, the BMC has brought security and unity to the island. The BMC is very powerful, and candidates for leadership positions campaign for their posts. The BMC also repaired the fish banda as one of their achievements. Their main problem is insufficient funding and lack of support from the government.

FISHERS ASSOCIATIONS, CO-OPERATIVES AND OTHER GROUPS

At **Maduwa**, a fishers association (Maduwa Based Organisation) has been awarded the tender by Busia District Administration to collect revenue from the fish landing site. Now in the third consecutive term of tender, members of the association consider this as a great achievement. Sub-groups of Maduwa Based Organisation are active in passenger transport across the lake and tree planting around the landing site.

At **Marenga**, Bunyala Fisheries Co-operative Society has a long and chequered history of community involvement. The society receives a service fee of 50 cents per kilo of fish sold to traders at the beach. This is paid directly to the individual fisher who is obligated to remit this to the society of which he is a member. There is a degree of dissatisfaction among members with the society's management and leadership. This has led to splits and the launching of new groups. Under its new leadership, the society has started with the construction of cold storage facilities at the beach. They expect further support from Action Aid and the European Union.

Also at Marenga, several self-help groups support fishers and their families in general welfare. In addition, some groups have contributed to the management of the fisheries. Among them, a village vigilante group has had some success in curbing illegal fishing practices, yet they lack resource to expand their activities. Kachanga Brokers have provided credit to fishers, while Marenga Warriors Football Club has been active in rescuing capsized boats on the lake.

Mugabo Fisheries Co-operative Society receives the standard service fee of 50 cents per kg of fish sold to traders at the beach. Leaders argue that this has not been enough for funding the activities of the numerous self-help groups that are associated with the society. Members of some of these self-help groups have the impression that support is channelled mainly to group leaders and other influential community members.

The organisational level at **Malehe** is very low. Besides the BMU, the only other formal group is a football team comprising some of the youth and sponsored by an individual. On the other hand, community leaders report that fishers co-operate in their daily work by joining in the use of boats and engines. On the other hand, several projects have been implemented in the nearby farming village of Kyamalange, in some cases with external support. These include wells (supported by Bugabo Area Development Programme), road maintenance (community run), a dispensary (Tanzanian Social Action Fund), and a clinic (Bukoba District Council). Yet less effort seems to have been made to address the specific priorities of the fishery. The 'Malehe Fishermen Group' has started to solicit funds for purchasing boats, engines and nets. Currently, however, the group comprises only three members (who own eleven boats).

At **Nyandiwa**, there are three active community groups, i.e. Youth Self-help Group, Gwasi Fishermen Co-operative Society, and Rodi Women Group. These groups have been active in security, savings, housing and loans. On Remba Island, Mfangano South Co-operative Society is active, although it is led by outsiders.

On **Hama** Island, there are four fisher groups i.e. Makindye, Hama Maendeleo Fishing Group (for farming of vegetables), Omena Women Group and Busekamajja Development Association. Busekamajja purchased a 40 hp engine, bought uniforms, issued cards to members and lends money to members with interest of 10% per month. None of these groups has been registered, and they have not received any help from government or NGOs. Their work is also made difficult by the migratory nature of fishers and by increased theft (particularly of gears) in the community.

On **Wayasi**, there are five unregistered associations, including Wayasi Fishing Group as the oldest. The associations have not received any assistance from the government or NGOs because they are not known. They lack knowledge of association development and of registration procedures.

There are two fisher societies on **Migingo** Island, Samo Society and N'goro Society. These societies organise the supply of inputs such as fuel, baits and food for the fishers. They were started around 1990 under the influence of fish agents. Most, but not all, Migingo fishers are members of these societies who also supply fishers at landing sites and islands beyond Migingo. Achievements of these societies include the provision of food and other support to orphans and impoverished fishers.

WOMEN'S PARTICIPATION

In most communities, women's participation in community fisheries organisations and BMUs/BMCs is very low. At some landing sites such as Mugabo, Kasensero, Remba, Nyandiwa and Hama, women are starting to form their own organisations but these are not yet registered and therefore unknown to government. As a result, women's organisations are largely 'invisible'. On an individual basis, several women own gear for dagaa fishing and employ men to work for them. But this stake in the fishery is not reflected in the organisations at the landing sites.

2.4 COMMUNITY RELATIONS WITH GOVERNMENT

Most community members in **Maduwa** consider their interaction with local councils to be good, and their interaction with central government to be fair, if infrequent. The Fisheries Department has carried out sensitisation exercises at Maduwa, for example on the need to market fish domestically, which the community appreciates. Community members at Maduwa, however, wish to receive more information on fisheries matters and on outcomes of high level cross-border meetings.

In **Marenga**, on the other hand, community members expressed some degree of dissatisfaction about their relationship with government. Elders complained that government is only interested in collecting license fees, but does not follow-up with Ugandan authorities on their seized boats and gears. Several community members observed that licensing is handled more as an income generating exercise than as a tool to control the fishing effort. The youth at Marenga feel largely excluded from the government system (including local government and BMC), and they have the impression that government uses taxes to develop areas other than theirs. However, Marenga local leaders appreciate the recent visits by high-ranking officials to consult them on cross-border issues. Like their neighbours in Maduwa, they request that information on progress made in high level cross-border meetings be disseminated more effectively to local communities. Women have the weakest links to government, reaching only up to the BMC level. Beyond this level, their views are not consulted. Likewise, the youth feel poorly informed by central government on issues related to co-management and community involvement in fisheries.

At **Mugabo**, interaction with central government is infrequent and not very satisfactory. The community is disappointed that government has not been more successful in improving their relations with Tanzanian patrol agents, and in retrieving confiscated property from across the border. Mugabo residents further expressed dissatisfaction with the level of contact with the Office of the DFO.

It is perceived that fisheries staff at district level and lower, although present at landing sites, are ineffectual in monitoring and enforcing fisheries legislation.

At **Sota**, fishers and elders report that government officials in general do not listen to their views. Interaction with the Fisheries Department is very infrequent and is usually limited to particular projects. Community members observe that the DFO, though based at Tarime, visits them more often than the staff based nearby. There is some uncertainty among which staff belong to which of the three institutions based at Sota, i.e. Fisheries Department, TAFIRI, and Marine Police. Women report that there is good interaction with the local government who listens to their views. They observe that when they report a crime to the village government, action is taken.

Malehe fishers interact with both local and central government. Most community members find that relations with government are good, but community leaders report that their interaction with local government is quite poor. The people at Malehe appreciate government efforts to consult them. They wish, however, that more actions would follow from these consultations. In particular, they expect government to improve market access for fishers, either by bringing the market closer to Malehe or by assisting fishers to upgrade their fishing equipment.

At **Kasensero**, community members report that their relations with the central government and with district fisheries staff (DFO and five locally based officers in the area) are very good, as the officers are responsive when called upon. They have tried to recover boats and engines from Tanzania, with some success. Relations with local government authorities outside the fisheries sector, on the other hand, are poor. District and sub-county authorities are mainly interested in extracting revenue from the landing site, without investing in the fishery. Community leaders see it as a disadvantage that they are not represented at LC III (sub-county) level. Community leaders have been lobbying to get representation.

A further grievance with local government concerns the Rakai District Tender Board. Kasensero landing site has been tendered to a private individual outside the community for Ushs 2 million per month. The tenderer receives Ushs 30,000 - 50,000 from each factory lorry leaving the landing site. At this rate the tender seems to be undervalued. The beach-based Task Force is interested in applying for the tender, but feel they cannot compete with private businessmen. The District Tender Board demands an up-front payment of 3 to 6 months of revenue, which the Task Force cannot come up with.

Elders and women in Kasensero feel that government is not responding to their needs. Women, however, also report that they have been represented at co-management workshops. They would like that workshops be held at landing sites so that more women can participate. Community leaders think that they have been adequately informed by government on co-management issues and poverty eradication programmes. Yet at the same time, Kasensero lacks even basic public infrastructure. In this community of 10,000 people there is no school and no dispensary. During the last immunisation campaign, over 200 of their children were immunised.

On **Migingo**, interaction with government is limited to encounters with law enforcement agents, including police from Tanzania and Uganda, as well as Ugandan 'home guards' (probably Local Defence Units from Remba Island). There is no interaction with Kenyan government authorities, except that Migingo fishers went to report incidents of harassment to the District Commissioner in Migori.

On **Remba**, mostly the island fishers interact with local government, although the central government provide security for them. There is a Kenya Police post as well as Ugandan LDUs on the island. Remba fisherman would like the current security arrangement to be continued. They fear that otherwise the security of their property may not be guaranteed.

At **Nyandiwa**, fishers mainly interacted with local government but the interaction is bad since local government does not seem to care about them. On **Hama**, there is average interaction with local government with the Chairman LC III and lower chairmen always pleading on behalf of the people. On **Wayasi**, they have good interaction with the LC and believe LCs solve conflicts between fishers.

EAC / LVFO

At the Kenya-Uganda border, there is little awareness of the existence and purpose of the EAC and LVFO. Awareness is lowest among women in both communities. Other groups in Maduwa and Marenga, however, have heard about the EAC and expect them to help in solving cross-border conflicts. In Mugabo and Sota, a few individuals have heard about the EAC in the media, but perceive it as distant government institution that does not involve local communities. The LVFO is unknown in this area. The two communities are uncertain as to what to expect from these regional bodies. At Malehe and Kasensero at the Tanzania – Uganda border awareness is equally low. There is, however, the expectation that these organisations may help free up cross-border movement and strengthen

security on the lake through joint patrols. On the islands, fishers request the EAC to harmonise fisheries regulations and their implementation. Cross-border movement, security on the lake, information to fishers about laws and policies, and facilitation of cross-border meetings are some of the activities fishers think the EAC and LVFO should be engaged in.

2.5 COMMUNITY RELATIONS WITH INDUSTRIAL PROCESSORS

At **Marenga**, purchasing of Nile perch is now dominated by factory agents based at the landing site. The market for Nile perch at landing site is a buyer's market. Fishers' bargaining position is very weak, especially when selling the Nile perch to factory agents or fish brokers. Fishers attribute this weak position to the lack of collective marketing action on their part, and to the absence of cold storage facilities at the landing sites. Marketing is further complicated by the poor state of the feeder road that periodically keeps factory lorries from reaching the landing site. The community would like processors to contribute towards improving the road.

At Maduwa, on the other hand, a banda constructed by a fish factory is currently not in use, and fishmongers from Busia and Tororo are the main buyers. At times fishmongers buy fish on credit from the fishers. Commercial processors have discontinued their previous practice of extending credit and providing fishing gears and equipment to the fishers. Community members regret this development and link it to the rise of factory agents. Fishers would like to extend the market for their fish beyond the current local level, and wish that buyers would provide transport for this purpose.

At **Sota**, a private trader constructed a banda during the last year, and has since established himself as the largest buyer of fish. He runs daily lorries between Sota and fish factories in Musoma, hires out boats and nets to fishers, and employs others as wage labourers to fish using his equipment. The prices he offers to independent fishers vary from Tshs 800 /kg Nile perch in the high season to Tshs 1,000 – 1,200 /kg during the low season. Those fishers who hire equipment from him, on the other hand, receive a fixed price of Tshs 800 /kg Nile perch. The banda is available to all traders, but community members observe that other traders have become very infrequent.

Fishers at **Mugabo** are aware of their weak bargaining power when negotiating prices with factory agents. They wish there would be more competition between factories so that prices would rise and factory agents would extend credit and bonuses to loyal fishers.

Malehe fishers sell their fish (Nile perch) to an individual factory agent at Igabirolanding site at Tshs 500-900 per kg. Fishers co-operate in collecting their catch and transporting it to Igabirol, using the four outboard engines available at Malehe. Apart from this agent, nobody else is buying fish from here. Consequently, fishers' bargaining position is very weak. They do not want any other relation with factory agents. Instead, they would like to interact more directly with processing factories to get a better price and perhaps receive small loans to upgrade their fishing gear. They think it would benefit them if a fish processing factory opened in Bukoba.

Kasensero fishers sell their fish to factory trucks directly at their beach. They feel their bargaining power is very low, and they have to accept what they perceive to be arbitrary price deductions. Recently, for example, the price has fallen from Ushs 2,000 to Ushs 1,600 per kg Nile perch because of the bad condition of the access road. The youth would prefer to have more stable prices; they also would like that the weighing scales be inspected regularly. Women think that with better communication facilities fishers may be able to negotiate a better price for their fish. Elders argue that processors should maintain sanitation facilities on the beach and help improve the access road. Women and community leaders agree that processors should offer small loans to the community.

On **Migingo**, the main problem is with the control of both the supply of fishing inputs and the marketing of fish by a few (three) factory agents and the societies through which they work. Fishers report prices of Kshs 85/- to 92/- per kg Nile perch, depending on seasons. Factories periodically send 'beach controllers' to Migingo to check on a variety of issues, including the price paid at the landing site. In the fishers' view, agents bribe these inspectors so they can continue to underpay fishers. Fishers argue that they have a weakened bargaining power when they sell through societies controlled by factory agents. There seems to be a trade-off between a less flexible but more reliable society/agent controlled marketing arrangement on the one hand, and a more competitive but less reliable 'open' marketing of fish on the other. On Migingo, the society/agent arrangement is firmly entrenched, and fishers have no other options for selling their fish. On the positive side, Migingo fishers at times receive small loans from agents with whom they regularly interact.

Remba fishers sell their fish to fish factory agents. Their bargaining position is weak as the agents set the prices. The agents also provide credits to very few fishers. Fishers would expect agents to provide portable water supply to the island and also to provide them with cool boxes in order to have good quality fish.

At **Nyandiwa**, women sold their fish to Gwasi Fishermen Co-operative Society, while fishers interact with factory agents. Their bargaining position is very bad because the agents grossly underpay them and they have no means of preserving the fish. They would expect their relationship to involve financial support from the agents, when fishers are arrested on the lake or their gear is confiscated.

On **Wayasi**, fishers used to sell fish to Kenya, but after the advent of Special Revenue Protection Service (SRPS) they now sell fish to the Uganda factory containers at Hama. Fishers have no bargaining power, middlemen set the price.

2.6 COMMUNITY PARTICIPATION IN FISHERIES MANAGEMENT

ACCESS TO THE FISHERY AND OWNERSHIP OF THE RESOURCE

Communities around Lake Victoria express a variety of views on who should be allowed to participate in the fishery, and how access should be regulated, if at all. Underlying these opinions are different understandings of who owns and should manage the lake resources. In all communities, people agree that Nile perch catches are declining. If the trend continues, some indicate that the fishery may collapse and this will leave them with no means of survival. Many are aware of the dilemma between their belief that people should have the right to fish, and the need to sustain the resource.

Community leaders in all three countries realise that access to the fisheries needs to be regulated more effectively, and they think they can play a role in this. Government should consider limiting the number of boats and nets. Since most fishers and their families have few alternative livelihood sources, government should put more effort into saving the fishery.

Women observed that, if stocks continue to decline further the level of poverty and theft in their communities will increase, and more women will die of AIDS since they will be forced to sell their bodies in order to support their families. They blame the wide-spread use of undersize nets and other destructive fishing methods for the on-going decline. Elders and the youth likewise believe that there will be much less fish in the lake in five years to come. They attribute this to overfishing and the rising demand for fish by a growing population. As a result, fishers may experience severe poverty and food shortage, as fishing is the backbone of riparian communities.

In **Maduwa** and **Marenga**, some feel that too many people are joining the fishery and that access should be restricted. Especially the elders, argue that access should be limited to the communities who have participated historically (i.e. their own communities), and that outsiders should not be permitted to join. The majority, however, particularly the youth, indicate that access to the fishery is an inherent, God-given right that cannot be denied, and that the growing numbers of fishers moreover contribute to the economic development of fishing communities. Women in both communities think that government owns the fishery, since the government carries out licensing and enforcement. However, they feel that ownership should be transferred to the people of local communities since they are the ones who depend on the fishery. Elders further argue that lakeside communities should own the fish in the lake because it is their God-given resource. The youth likewise claim that lake resources are owned by God, and that government and local residents should own the fishery jointly.

In **Mugabo** and **Sota** both communities believe that access to the fishery should be more restricted than at present. They further argue that local residents, rather than outsiders, should gain preferred access. People at Sota argue very strongly that use of Tanzanian waters should continue to be limited to Tanzanian citizens, and that Kenyan fishers should be excluded. Sota local leaders also pointed to the positive economic development that the growing Nile perch fishery has brought to their community. They are of the opinion that fishers from other parts of Tanzania should be allowed to join the fishery. Many Mugabo residents have a strong feeling that they themselves own the fish in their part of the lake. At Sota, on the other hand, people argue that government owns the fish in the Tanzanian part of the lake. They agree that this is how it should be, and that local communities should not claim ownership. Women in both communities, on the other hand, believe that God owns the fish and has given it to government to take care of it. Government should continue to manage the resource, they believe since fishermen would not be good custodians.

At **Malehe**, fishers believe that the fish in the lake is owned by the people of their area. They see no reason to limit access to the fisheries for local people. However, they argue that foreigners should not be allowed to fish in their waters since they come with large capacity equipment (bigger boats, outboard engines and nets) that can easily deplete fish stocks in their areas.

At **Kasensero**, most community members agree that the current number of fishers should not rise further. Community leaders further argue that fishers should be restricted in their area of operation through licences that allow them to land fish in one district only. They fear that fishers from outside this area may be

difficult to monitor, and the overall number of boats are hard to control if the current practice continues. Elders, however, caution that in absence of alternative sources of livelihoods, it will be impractical to limit the number of fishers. Instead, the fishing effort should be controlled through restricting boats and gears.

Migingo fishers (elders) don't object to other people joining the fisheries. Migingo fishers argue that the fish is owned by God who created and provides for the fish. On the other hand, they think that the Fisheries Department should own and manage the fish. Fishers think they can make little contribution to fisheries management apart from assuring that illegal fishing practices are discontinued. On the other hand, they are quite aware of government plans to involve fishers in management. Practically, fishers could take on responsibilities as fish scouts in their areas.

Remba fishers thought that no more fishers would be welcome in fishing while the youth said they would welcome more fishers to join the fishery. The three groups have different views on who owns the fishery. The elders argued that the fish is owned by Remba beach while the youth said it is owned by the government and the women said it is a God given property. However, the fish should be owned by the Remba beach because they are the ones who can watch over it.

Nyandiwa fishers think that only some people can join the fishery. The youth think that Nyandiwa beach should own the fishery because the fish is near them. The elders and women however think that the government should own the fish because it has the ability to manage the resource.

On **Hama**, fishers mentioned that more people can join the fishery so long as they use recommended fishing methods. Governments should compensate those whose illegal gears have been destroyed. There is no ownership of fish because fish migrate and it can not be restricted.

Wayasi fishers have no problem with more people joining the fishery so long as proper fishing methods and fish quotas are observed and agreed on respectively. According to them, fish belong to God but the lake belongs to the 3 countries.

USE OF DESTRUCTIVE FISHING GEAR

In most communities, fishers and other residents are well aware that destructive gears are in continued use, although their negative effect is widely known. The wide-spread use of destructive fishing methods is considered the main reason behind declining catches. These practices include the use of beach seines, drift nets, undersize gill nets and joint double/triple nets. Communities see several reasons for their continued use, including:

- (i). Inadequate enforcement of fisheries rules and regulations;
- (ii). Increased demand for small fish, both locally and by factories;
- (iii). Low costs of locally made illegal gears (at about 20% of the cost of legal gears);
- (iv). High costs of switching to recommended gears;
- (v). Fishers' poverty;
- (vi). Destructive gears generate quick returns;
- (vii). Fishers' difficulty of reaching the deeper waters makes them fish close to shore;
- (viii). Seasonal use especially during low season, when legal gears don't yield returns;
- (ix). Legal gear not available on the market;
- (x). Factory agents provide illegal gear;
- (xi). Uncertainty on whether juvenile fish should be caught or not.

MAKING AND ENFORCING RULES AND REGULATIONS

Maduwa residents consider it the responsibility of Fisheries Department staff and beach leaders to control gears and the number of boats as well as to enforce other fisheries regulations. In the making of rules, government should consult with community representatives. In future, they would like to see that LCs and BMUs take on the role of monitoring boats and gears at Maduwa.

At **Marenga**, fishers and other community members think that the making of rules and regulations should be done jointly by government, community leaders and fishers. The controlling of boats and gears should, however, be left to the Fisheries Department. The elders added that the governments of Kenya, Tanzania and Uganda should co-operate to harmonise the fisheries rules and regulations in the three countries.

In **Mugabo**, community members note that fisheries staff together with communities should be responsible for enforcement and control of fishing gear regulations. Further, government should stop the manufacturing of undersize nets. Together with the enforcement of closed seasons, the removal of undersize nets is the only way to stop the ongoing decline of the fishery. Women argue that they can contribute to good fisheries management by refusing to buy and trade immature fish. There is general disappointment with the failure of government to curb illegal fishing methods. Community members propose very direct ways of participating in the fight against illegal fishing, including community policing and formation of vigilante groups.

At **Sota**, elders, youth and women argue that responsibility for controlling gears should rest jointly with the Fisheries Department and the BMU. BMU leaders, however, point out that it is not realistic to expect local leaders to arrest their own relatives and confiscate their property. Instead, government should deploy outsiders to landing sites, rotate them periodically and facilitate them well so that they are less susceptible to bribery. Sota residents share their neighbours' disappointment with the failure of government to curb illegal fishing methods, and regarded the BMU to be the proper channel for their involvement, though not in arresting and confiscating illegal gears for their relatives.

At **Malehe**, community members think that it is the District Fisheries Officer and his staff who should control the fisheries and enforce regulations. Elders argue that beach leaders (balози) should help in controlling boats. Communities should be consulted when rules are made, but should not participate in enforcement. Most sectors of the community think that they can contribute very little to fisheries management. Community leaders argue that most fisheries management problems are caused by influential individuals, and the local community has little leverage to move against their interests. Women, on the other hand, see a role for themselves in discouraging illegal fishing practices. There is some awareness of government plans to strengthen community involvement in fisheries management, but more information is needed on what specific roles communities are expected to take on.

Kasensero community members believe that currently it is the Fisheries Department staff who are responsible for controlling gear and boats, and for enforcing other components of fisheries laws and regulations. They wish, however, that their community would be involved more strongly in both the making of rules and in their enforcement. This can take place through their local 'Task Force' or a BMU. LCs and police should also participate in enforcement.

Migingo fishers are unaware of who should control gears and boats in their area. Rules and regulations should be made by Fisheries Department and beach leaders, and enforced by fish scouts.

On **Remba**, people think that the Fisheries Department has the responsibility of controlling fishing gears and the BMC the role of controlling the number of boats. However, women in the community argue that the governments of the three countries should participate in making rules and regulations as well as in enforcing them. Elders and youth, on the other hand, would prefer a joint effort by the Fisheries Department, beach leaders and experienced fishers in making and enforcing rules.

Residents of **Hama** Island strongly argue that BMUs should be involved in the amendment of the fisheries laws. The aim should be to harmonise fisheries laws in the 3 countries, so that the same norms apply (e.g. for fishing gears) and that enforcement of regulation is co-ordinated across borders. Fishers should participate in patrolling the lake, since they can identify wrong doers more easily.

On **Wayasi**, fishers point out that they participated successfully in the control of fish poisoning and illegal fishing gears. Government should allow the BMUs to recruit a team that can assist the Fisheries Department staff in monitoring fishing gears and sizes of fish. BMUs should also participate in patrolling the lake, together with security agents. However, government should pay the BMUs. Fishers expressed willingness to be involved in making rules and regulations because they know more about the lake. It is their feelings that government officials sitting in Kampala, Nairobi and Dar Es Salaam can not make effective decisions. The enforcement of fisheries rules and regulations should be the responsibility of the beach leaders and fisheries staff together with fishers, buyers, security agents and environmentalists, while the control of gears and boats is the responsibility of the beach leader and fisheries staff at the landing.

GOVERNMENT SUPPORT FOR COMMUNITY PARTICIPATION

Communities are aware that at the moment they are not well prepared to take on the responsibilities they would like. In order to help them to grow into these roles, communities acknowledge that they need continued support and leadership from government. In particular, they prioritise the following contributions government should make:

- (i). Establishment, training and facilitation of BMUs;
- (ii). Formalising the legal authority for BMUs;
- (iii). Educating fishers and community leaders on existing fisheries rules and regulations;
- (iv). Developing communication facilities at landing sites;
- (v). Following up on community reports of illegal fishing methods;
- (vi). Stopping corruption: government officials involved in the apprehension and prosecution of offenders should stop accepting unofficial payments;
- (vii). Provision of legal fishing nets at affordable prices, with the aim to replace existing illegal gears;
- (viii). Provision of storage facilities for fishing inputs;
- (ix). Improvement of feeder roads to fish landing beaches.

2.7 CROSS-BORDER ISSUES

2.7.1 KENYA – UGANDA BORDER

COMMUNITY INTERACTION

Fishers know their international neighbours across the border very well and generally have good relationships with them through intermarriage, continuous family relations and frequent trade of commodities. At Maduwa, Kenyan fishers come across every night to fish while the Maduwa fishers go to Kenya every day to market fish because of higher prices (on average, Kshs 100 vs. Ushs 1,500 per kilo Nile perch) and ready cash payments. Fishers based at Marenga who fish in Ugandan waters sometimes sell their fish at Busiro, Majanji and Jinja in Uganda. Lorries are not allowed to buy fresh fish in Uganda and take it to Kenya for processing, but fishmongers do transport fish across the border on bicycles and load it on lorries inside Kenya.

Box 2: Proposed Community Roles in Fisheries Management (replies by selected border communities)

- (i). Sensitising and educating fishers in matters of illegal fishing gears and conservation;
- (ii). Monitoring of licensing;
- (iii). Keeping records of boats and gears;
- (iv). Reporting offenders to relevant authorities;
- (v). Arresting offenders;
- (vi). Data collection;
- (vii). Improving sanitation at landing sites;
- (viii). Monitoring fish quality;
- (ix). Reviewing existing regulations and developing new ones.
- (x). Joining government agents in patrolling the lake;
- (xi). Confiscating and burning illegal fishing gear;
- (xii). Stop local marketing of immature fish;
- (xiii). Enforcing closed areas such as breeding grounds.

FRICTIONS BETWEEN NEIGHBOURS

The youth in both communities say that they have on-going good relations with their neighbours on land but not in the lake. The main grievances at Maduwa are that their Kenyan neighbours steal their nets and boats and use illegal gears. This is attributed to the nets being more expensive in Kenya, Kenyans being poor and the population being higher than in Uganda.

Marenga fishers complain that their Maduwa neighbours report them to the SRPS who confiscate their fish, which Maduwa traders subsequently buy at a low price. Secondly, Maduwa fishers set their nets on theirs (Marenga's) and steal their fish and nets as well.

CAUSES OF CROSS-BORDER CONFLICTS

On the lake, some Kenyan fishers maintain that the boundary is not very clear to them, hence they always find themselves in the waters of Uganda. This, however, is refuted by their Ugandan neighbours.

The women argue that the Nile perch industry has brought the current problems to the border area. Before the rise of the export industry, fishers used each others waters without major conflicts. The few Kenyans who are given fish trading licenses by the Ugandan authorities, are issued license for Tilapia only, not for Nile perch.

In addition, they point to the poor communication between the authorities on both sides of the border and the fact that many fishers and law enforcement staff come from outside the fishing communities.

BORDER PATROLLING

In 2001, the Ugandan government strengthened monitoring, surveillance and control on Lake Victoria. This made it more difficult for Kenyan fishers to fish in Ugandan waters, and made it more difficult for Ugandan fishers to land or sell fish in Kenyan landing sites. The main complaint Kenyan fishers have is that these measures were implemented without giving them prior notice to prepare and adjust their operations accordingly. Secondly, both Kenyan and Ugandan fishers indicate that arrests and confiscation of property, mainly by the SRPS, are in some cases used to extort money from offenders, and may involve excessive use of force.

The illegal fees quoted range between Kshs 20,000 - 30,000 per boat with engine. Those who fail to make such payment, have their engines, paddles, nets and fish confiscated and are left to drift in the lake. Those (both Kenyans and Ugandans) who want to transport fish from Uganda by water, have to make unofficial payments of Kshs 10,000 to the SRPS team.

Excessive use of force has been cited on a number of occasions. Both communities complain that their fishers are being beaten on the stomach when caught with immature fish and undersize nets. Community members themselves, however, report that many of the fishers who have experienced arrest were without licence, or in possession of illegal gears, or catches comprising immature fish. Others at Marenga, however, have been subject to arrest or excessive

use of force simply because they were caught in Uganda waters. Fishers at Marenga resent the fact that patrolling is carried out by SRPS rather than by the Fisheries Department.

SUGGESTIONS FOR CONFLICT RESOLUTION

The fishers at Maduwa recommend cross-border meetings as well as the use of identification colours for gears and boats. At Marenga, they recommend clarification and respect of international borders, free movement, fishing, and fish marketing across borders, and a halt on the use of speedboats by patrol teams. They recommend that patrolling be carried out not by SRPS but by the Fisheries Department, since their staff are more familiar with fisheries regulations and more understanding of fisheries matters, such as undersize by-catch. Ideally, they would like to see joint patrols by teams comprising officers of the two countries.

Leaders in Maduwa feel that international neighbours should be permitted to fish in their waters, provided specific definitions are followed. Principally these are that applicable licences are held, defined revenues are returned to the country having jurisdiction over the area where the fish were caught, and that catches are landed in the country where the fish were caught. Community leaders at both Maduwa and Marenga agree that fishers should be able to purchase the necessary licences, and recommend that the process be made simple and transparent.

Women suggest that the three governments should meet and find a solution on the cross-border issue. Kenyan women further suggest that the Kenyans should pay tax in Uganda, since this is where they catch their fish. Payments, however, should be made on an official basis. The government of Uganda should post a Revenue officer at Marenga beach for this purpose.

The youth at Marenga further propose that the three governments should introduce common fishing licences for Lake Victoria. There should be regular meetings between the communities across the border to address grievances between themselves and in their relation with patrol and enforcement units.

2.7.2 KENYA - TANZANIA BORDER

COMMUNITY INTERACTION

Communities on both sides of the border enjoy long-standing good relationships, underpinned by intermarriage, family relations and cross-border trading. People at Mugabo acknowledge that most of their food as well as building materials come from the Tanzanian side, while at Sota most commodities are brought in from Kenya. Mugabo residents report that their Tanzanian neighbours come across daily for work and trade, while Mugabo fishers cross into Tanzania to fish and return home with their catch. People at

Sota confirm this pattern of interaction. Sota fishers, however, claim that they themselves no longer cross the border for fishing or selling fish. Before the establishment of fish factories in Tanzania, they used to take fish on bicycles across the border into Kenya where they would sell it to fish traders who waited with their lorries at particular places. They observe that today, however, prices for fish on either side of the border are almost the same at Tshs 800– 1,200/- vs. Kshs 80– 90/- per kg Nile perch.

FRICTIONS BETWEEN NEIGHBOURS

Sota residents claim that drift net fishing by Kenyans causes the perennial problem of nets drifting into Tanzanian waters and destroying the 'long lines' set by Tanzanian fishers. This often results in fighting and injuries. In addition, Kenyan fishers are arrested when they come to collect their drift nets in Tanzanian waters. They also argue that the use of beach seines by Kenyan fishers in Kenyan waters is affecting the fish stocks in the lake.

At Mugabo, people see themselves not in conflict with their neighbours, but with the Tanzania authorities over access to fishing grounds in Tanzanian waters.

The youth in both communities argue that fishers from Kenya and Tanzania have always stolen gear from each other, and that thieves are as often from their own communities as from across the border. What is different today is the level of violence that accompanies many incidents of theft of fishing gears, boats, engines and catch. Security on the lake has deteriorated to a level where fishers carry weapons (pangas and 'rungus') when fishing.

CAUSES OF CROSS-BORDER CONFLICTS

Both communities agree that the underlying cause of their recent conflicts is to be found in the Nile perch fishery. In particular, disputes arise from a series of differences between the situations in Kenya and Tanzania, including differences in:

- (i). size and wealth of domestic fishing grounds,
- (ii). price and market reliability for Nile perch at landing sites,
- (iii). fisheries laws regulating access to fishing grounds and markets in neighbouring countries,
- (iv). level of monitoring, surveillance and control exercised by the two countries.

Fishers on both sides of this border acknowledge that Kenyan fishers have only a small area of water and that it is obvious that they are bound to fish in Tanzanian waters. Fishers from Kenya are aggrieved that they are not allowed to fish in nearby Tanzanian waters, and this problem has persisted for over 20 years.

BORDER PATROLLING

Community members at Mugabo report that their fishermen are arrested and their boats, engines and gears confiscated by Tanzanian authorities at close proximity to their Mugabo beach. The youth likewise claim that Tanzanian patrol teams have followed them right to their beaches since the waters where the Kenyan fishers land belong to Tanzania while the land belongs to Kenya. The arrests are made by armed police in uniform and those arrested are detained until unofficial payments of Kshs 20,000 per boat (including engine and nets) are made. Mugabo residents argue that, in some cases, Kenyan fishers are charged and prosecuted in 'Kangaroo courts' in Tanzania.

Sota residents, on the other hand, point out that Tanzanian police take arrested Kenyan fishermen to courts of law while Kenyans are reported to mistreat the Tanzania fishermen arrested in their territory. Sota women argue that the Marine Police only intervene in the case of misunderstanding between rival fishermen who have failed to reach compromise.

On both borders, fishers sometimes find it difficult to determine whether loss of equipment and property is the result of Monitoring, Surveillance and Control, or an act of piracy. This is particularly the case when armed men who are, however not in uniform carry out that confiscation. Fishers on all sides report that both domestic and international criminals carry out theft of nets.

SUGGESTIONS FOR CONFLICT RESOLUTION

Both communities agree that the current level of conflict, extortion of money and violence needs to be addressed as matter of highest priority. Towards this goal, they made several suggestions, including:

- (i). At Mugabo, women propose that those who trade fish across the border should pay taxes to the country of selling. They also suggested regular meetings between communities from both sides of the border to address grievances and settle disputes.
- (ii). Both governments to follow up on community reports of mistreatment by enforcement agents.
- (iii). At Mugabo, they suggest that the EAC ensure that fishers can again fish freely in neighbouring waters, as they used to do before the Nile perch fishery. Fishers should be able to purchase a licence that allows them to fish in nearby Tanzanian waters.
- (iv). At Mugabo, they requested the Kenyan government to increase their presence on the lake.

At Sota, the majority of local leaders maintain that only Tanzanian citizens should be allowed to fish on the Tanzanian waters. This is stipulated in existing law. Should this law be changed, however, they indicate that they would be able to accommodate their neighbours from Mugabo.



Fig. 1: Fishermen casting their nets on Lake Victoria.



Fig. 2: Outboard Fishing Boats on Lake Victoria.



Fig. 3: Community Meeting at Malehe Beach,
Rubafu, Bukoba District, Tanzania.



Fig. 4: Community Meeting at Mugabo Beach,
Muhuru Bay, Migori District, Kenya.



Fig. 5: Fishermen at Migingo Island.



Fig. 6: Fishermen cleaning nets at Kasensero Beach, Uganda.



Fig. 7: Sota Beach, Shirati, Tarime District, Tanzania.
Across the lake is Mugabo Beach, Muhuru, Migori
District, Kenya.



Fig. 8: Dried Nile perch on sale.

2.7.3 TANZANIA – UGANDA BORDER

COMMUNITY INTERACTION

The people of Malehe, Tanzania have daily interactions and good relations with their neighbours in Kasensero, Uganda. People from both sides of the border inter-marry. There is cross-border trade in food items such as bananas and in consumer items, mainly from Kasensero to Malehe. Community members differ, however, when describing cross-border interactions related to fisheries. Women and community leaders report that fishers from both sides cross the border daily in search for fishing grounds (in Tanzania) and for markets (in Uganda). Seasonally (February – March) Tanzanian fishers follow Nile perch into Ugandan waters. Similarly, Ugandan fishers routinely cross into Tanzanian waters in search of fishing grounds, during the dry (low) season, this may lead them south as far as Kerebe Islands. Tanzanian fishers regularly come to Kasensero to sell their fish and before the opening of Igabiro beach, all fish caught by Malehe fishers was landed at Kasensero. Kasensero residents believe that this kind of cross-border interaction should be legalised, since communities on both sides of the border will benefit. Today, some cross-border selling continues. The youth and elders, however, deny that such activities take place.

At Kasensero, community members emphasise that they have longstanding good relations with their Tanzanian neighbours. Daily cross-border interactions in both directions are of vital importance for the commercial and social life of people on both sides of the border. These relations should not be jeopardised by conflicts over fishing. Women at Kasensero observe that cross-border relations are good on land, but bad on water. They trade and visit using land border posts, which is cumbersome and expensive. They would much rather use the shorter connection across the lake, but they fear pirates and security agents whose work they do not understand.

FRICTIONS BETWEEN NEIGHBOURS

Conflicts have mainly been caused by theft and destruction of fishing gear, when 'long lines' and drift nets become entangled. Elders report, moreover, that Ugandan fishers like to use double-nets at night, which damage the single nets of Tanzanian fishers. In the past, there have been arrests of fishers in both Tanzania and Uganda.

CAUSES OF CROSS-BORDER CONFLICTS

Conflicts with authorities at the border arise mainly when Tanzanian authorities arrest Ugandan fishers and their fishing gear or engines are confiscated. There is, however, no interference of Tanzanian fishers by Ugandan authorities. Piracy is the overwhelming problem on the lake. There are frequent incidents of robbery, beatings and even killings of fishers. Some elders in Kasensero noted that it is not always clear where the boundary runs in the lake and that fishers may end up in Tanzanian waters unknowingly.

BORDER PATROLLING

Government should strengthen the presence of security organs on the lake, and – in women's view – the community would be willing to contribute to the costs of fuel for the facilitation of patrolling agents. Increased patrolling on lake would be an important contribution by government. At the border, this would preferably be done by joint patrols, combining Tanzanian and Ugandan agents.

SUGGESTIONS FOR CONFLICT RESOLUTION

Conflicts can be reduced if government supports fishers to acquire legal fishing gear, and educates fishers on cross-border regulations. Kasensero residents are aware that cross-border meetings have taken place, involving government officials. Yet they are not sure whether a solution to their conflicts has been reached. They suggest that fishers and other community members from both sides of the border should be included in cross-border meetings. Further, they would appreciate if they were informed of the outcome of government meetings, as far as they affect their daily fishing activities. As a further contribution to conflict reduction, they recommend that government should invest in communication between different beaches. This would also help to fight the severe problem of piracy in this area. Fishers should be able to report security problems quickly to relevant authorities that can then pursue pirates and other offenders.

Elders at Kasensero think that the governments should co-operate across the border in order to ensure the release of confiscated gears and engines. In the long run, they should work through the EAC to free up movement of fish and other goods across the border. However, most community members have not heard of EAC or LVFO, but think that the Tanzania and Uganda government should co-operate and strengthen security in cross-border areas. Elders further argue that the EAC should ease restrictions on cross-border marketing of fish, so that they can make use of markets in Uganda. Kasensero fishers suggested that taxes should be paid on cross-border landings, i.e. to the authorities of the country where the fish is caught.

2.7.4 ISLAND BORDER INTERFACE

HAMA ISLAND (U)

Residents of Hama Island maintain close relations with their Kenyan neighbours, including inter-marriages. Kenyans regularly come to fish in Ugandan waters. Uganda fishers also go to fish in Kenyan waters, and some of them stay at landing sites in Kenya. Kenyans used to come to buy fish at Hama, but they stopped in February 2002 following enforcement of Uganda government regulations.

Ugandans sell their fish to Busiro landing site on the mainland (Bugiri District). Some of the fish, however, is usually diverted to Kenya while on transit between Hama and Busiro. The main reasons for this practice are: higher prices in Kenya (Kshs. 110 - 120 vs. Ushs. 2,100), shorter distance to Kenya, and cheaper fuel in Kenya. In addition, factories in Uganda often take fish only on credit, while in Kenya they always pay cash. Hama fishers have no problem with where their fish is sold because they are interested in the money. They agree, on the other hand, that cross-border taxes on fish should be introduced to aid free movement. For this purpose, they suggest that Uganda Government should open revenue stations on border islands to collect taxes so that fishers can take fish to nearby Kenya in a legalised manner.

They have not heard about LVFO but they have heard about EAC on the radio. They request the two organisations to undertake the following: provision of communications on the island, security on the lake, loans to fishers, access to legal fishing gears, information for fishers on fisheries regulations and laws, provision of storage facilities at the landing site and supporting women in marketing dagaa.

WAYASI ISLAND (U)

Fishers have been having close relations with their neighbours including inter-marriages. Ordinary fishers understand each other well and when they lose their nets they go to each other's beach for identification and collection. They also assist each other in cases of accident on the lake. Ugandan and Kenyan fishers used to fish in each other's waters until the advent of SRPS. These days, the Ugandans can fish in Kenyan waters and bring their catch back, but Kenyans who fish in Ugandan waters have to sell their fish in Hama. Fishers suggest that cross-border trading should be taxed to allow free movement of fish because fishers will always seek good markets.

Within the waters around Wayasi, fishers report recurrent conflicts between those using 'long lines' and those setting gill nets. They have handled this problem through negotiations, including compensating those whose gears have been destroyed.

Wayasi fishers suggest that government should assist fishers whose illegal gears were destroyed to acquire legal gears. Secondly, they feel that residents of islands should receive micro-projects like the communities on the mainland.

REMBA ISLAND (K)

Remba fishers come from Kenya, Uganda and Tanzania. There is also a community of Somalis on the island. Remba residents say that they enjoy good social relations with their neighbours. With respect to fishing, the proximity of the Uganda border means that fishers routinely cross between Kenya and Uganda. There is also frequent movement to and from Tanzanian waters. Fish is landed and sold at Remba from various fishing grounds. In the past, conflicts have developed with Ugandan as well as Tanzanian fishers. There have been incidents of armed robbery of boats and engines on the lake. In addition interaction with Uganda law enforcement agents has not always been smooth. The SRPS has confiscated boats, engines and gears from Remba fishers.

A further cause of conflict is the movement of 'long line' fishers from the mainland (e.g. Nyandiwa) into the open lake. While in the past, gill net fishers avoided 'long line' fishers by moving further off shore, the latter have been following them and have now reached the waters around Remba Island. As a result, the two groups get into conflicts over entangled and damaged fishing gears. Nyandiwa elders report that Ugandan gillnet fishers escorted by armed LDUs based on Remba, attack Nyandiwa 'long line' fishers. Ugandan gillnet fishers on Remba claim that they need LDUs to protect them against Kenyan fishers who in the past attacked them with *rungus* (wooden clubs) on the lake.

In order to reduce conflicts, Remba residents recommended that the EAC/LVFO should introduce one fishing license system, and that SRPS activities should be halted while the cross-border issues are being resolved. Secondly, they suggest that a law be introduced which separates fishing hours for 'long line' and gill net fishers. At Nyandiwa, community members further recommended that drift nets ('tembea') be banned, and that the EAC/LVFO should co-ordinate security measures on the lake.

MIGINGO ISLAND (K)

Migingo fishers, all of whom are Kenyans, firmly believe that Migingo Islands belong to Kenya. They have no interaction with fishers from Tanzania or Uganda. Cross-border interactions are with government agencies, mainly Marine Police at Sota (Tanzania) and Ugandan Local Defence Units (LDUs) at Remba Island. Relations with the Tanzanian authorities have improved. On the other hand, fishers report continued incidents of harassment by Ugandan LDUs. For example, in May 2002, they claim that LDUs came to Migingo and confiscated

three boats, which they took to Remba or Hama Island. Grievances arising out of these conflicts have been reported to Kenyan government authorities, yet fishers at Migingo have seen no follow-up activities.

Migingo fishers do not put much importance on international boundaries. They do not know where the borders between Kenya, Tanzania and Uganda run, nor do they care to find out. They believe that Migingo Islands are in Kenya, and therefore they do not cross international borders for fishing or selling of fish. Neither do purchasers from Tanzania or Uganda come to Migingo to buy fish. Fishers believe that fish should be taxed where it is landed.

Conflicts have been both with Ugandan and Tanzanian enforcement agents, as well as with pirates. Up to 2000, no week would pass without acts of piracy around Migingo Islands. This changed after Ugandan police successfully combated a group of pirates near Migingo.

Migingo fishers suggest that the governments of Kenya, Tanzania and Uganda should hold negotiations to reduce cross-border conflicts. Government should provide increased security to the fishers at Migingo. They are aware of the existence of the EAC and LVFO, and they expect them to undertake joint patrols in the lake.

3. VIEWS OF DISTRICT OFFICIALS ON CROSS-BORDER RELATIONS

The study team met with officials from the District Administration in each of the districts visited. These included (in sequence of consultation) Busia District (Uganda), Busia District (Kenya), Migori District (Kenya), Tarime District (Tanzania), Bukoba District (Tanzania), Rakai District (Uganda), and Bugiri District (Uganda). On the islands belonging to Sigulu Sub-county, Bugiri District (Uganda), separate meetings were held with sub-county officials on Sigulu Island and with representatives of security and patrol agents on Hama Island. Discussions during meetings focused on cross-border issues relevant to the respective district. District officials presented their views of the situation on the ground, and further discussed the roles of their offices in finding a solution to problems that have emerged. The following is a summary of issues raised by officials during the meetings.

3.1 BUSIA DISTRICT (UGANDA)

Attending: Assistant Resident District Commissioner, the District Internal Security Officer (DISO) and the District Fisheries Officer (DFO)

The following issues were pointed out by the district officials present at the meeting:

- (i). Conflict at the border arose originally because of smuggling of fish to Kenya, this results from the well-developed market in Kenya.
- (ii). Under present conditions, it is believed that smuggling of fish to Kenya has been reduced.
- (iii). The District officials have mixed views on whether fishers know the exact location of the boundary between Kenya and Uganda on Lake Victoria.
- (iv). They have good relationships with Kenyan counterparts and have had several cross border meetings to discuss issues including the retrieval of confiscated gear. They suggested that LVFO should facilitate regular cross-border meetings in future.
- (v). They indicated that Ugandan government policy is to encourage export of food commodities.
- (vi). Kenyan fishers could fish in Ugandan waters if they fulfil the legal requirements.
- (vii). Fish caught in Ugandan waters should be landed in Uganda.
- (viii). During closed season for dagaa fishing within Kenya, traders complain that their fish (from Uganda) is confiscated by Kenyan

authorities at Busia border crossing. To alleviate this situation, traders should have a valid certificate indicating the place of origin of the fish. To cross the border, verification of the certificate should come from DFO Busia.

- (ix). Fishers have been told to report cases of harassment by enforcement agents to the office of the Resident District Commissioner (RDC) Busia.
- (x). Enforcement agents should be trained in fisheries matters and legislation, such as acceptable by-catch limits.
- (xi). DFO indicated that he will continue to work with newly formed BMUs on their roles and responsibilities.
- (xii). Monitoring, Surveillance and Control is being complicated by several factors such as:
 - (a) Kenyan fishers crossing into Uganda at night and returning before day,
 - (b) Kenyan fishers hiring Ugandan boats to fish in Ugandan waters,
 - (c) Kenyan fishers hiring Ugandan boats to fish in Kenyan waters.
- (xiii). Ugandan government has sensitised Ugandan fishers to sell fish in Uganda to support local authorities and generate revenue. This has had a positive impact on the amount of revenue collected within the District.

3.2 BUSIA DISTRICT (KENYA)

Attending: District Fisheries Officer and Assistant District Fisheries Officer of Busia District (Kenya)

The district officials present highlighted the following issues:

- (i). Since the increase in Ugandan surveillance, total landings at Busia beaches have fallen by about 40%.
- (ii). Since this surveillance increase, use of illegal gear including beach seines has increased on the Kenyan side. Enforcement of regulations has become more difficult due to the general hostility of fishers against authorities.
- (iii). Since this surveillance increase, tilapia traders have moved from Port Victoria and Busia (Kenya) across the border to Busia (Uganda), bringing fish back to Kenya by road. This incurs high fees and taxes and the number of traders still operating has dropped from 30 to 7 traders.
- (iv). Kenyan fishers face a predicament in having very limited waters. In order to survive they continue to fish in Ugandan waters, landing their catch in Kenya. By doing so they encounter the Ugandan enforcement agencies. Ugandans also land fish in Kenya to take

advantage of market conditions, and face the same enforcement units.

- (v). Kenyan fishers caught pay their way out unofficially.
- (vi). Busia (Kenya) District Officials are unfamiliar with Ugandan fisheries legislation including requirements regarding fishing in Ugandan waters. Hence the need for the exchange of information concerning legislation, ultimately leading to harmonisation.
- (vii). The implementation of enhanced MSC by Uganda was abrupt with no prior notice given to the Kenyan authorities.
- (viii). On a number of occasions Ugandan authorities have been unable to attend cross-border meetings.
- (ix). LVFO should facilitate regular cross-border meetings.
- (x). Fisheries issues should be prioritised by districts on both sides of the border.

3.3 MIGORI DISTRICT (KENYA)

Attending: District and Deputy District Fisheries Officers, Migori District

The meeting coincided with the attendance of the District Commissioner, Migori District at a cross-border meeting in Suba District (Kenya) to discuss recent border conflicts. Migori District has borders with both Tanzania and Uganda. The District Fisheries Officer gave the following account of cross-border relations in Migori:

KENYA - UGANDA BORDER

- (i). There are reports of arrest of Kenyan fishermen who have to make unofficial payments for their release as well as the release of their confiscated property.
- (ii). Fishermen are unclear on boundary demarcations.
- (iii). Ugandans have suggested a 'non-citizen fee' of Ushs 1,000,000 (per year) for fishing in Ugandan waters. This seems to be prohibitive.
- (iv). Ugandans claim that Kenyans are using undersize mesh when fishing in Ugandan waters.

KENYA - TANZANIA BORDER

- (i). It is indicated that in some areas of Migori, Tanzanian waters reach up to the Kenyan shoreline.
- (ii). It is difficult to distinguish between official law enforcers from Tanzania and impostors.
- (iii). Tanzanian patrols enter Kenyan waters to arrest Kenyan fishers.

- (iv). Kenyan fishers who are arrested make unofficial payments for their release.
- (v). Kenyan authorities have never policed the border area. There has never been adequate facilitation for patrols, nor have the Kenyan authorities considered patrols to be really necessary.
- (vi). It is reported that Kenyans, when arrested, are tried in 'kangaroo courts' (i.e. extra-judicial courts) in Tanzania. Here, apprehended fishers can effect their release by making unofficial payments.

3.4 TARIME DISTRICT (TANZANIA)

Attending: District Commissioner, District Executive Director, Officer Commanding District, District Fisheries Officer, and the District Natural Resources Officer of Tarime District

The following account was offered by the district officials present at the meeting:

- (i). The Tanzanian law is very clear on the issue of access to Tanzanian fishing grounds. Non-citizens are not allowed to fish in Tanzanian waters, except with permission from the Minister responsible for fisheries. Fish caught in Tanzania must in any case be landed within Tanzania. Kenyans have been informed of these regulations.
- (ii). Kenyan drift net fishers are often blown into Tanzanian waters where they interfere with other gears set by Tanzanian fishers.
- (iii). At present, the Minister responsible for fisheries is the only authority to issue licences to non-Tanzanians. Should this law be amended, it may be possible to devolve particular aspects of the licencing authority to Regional Fisheries Officers. However, applicants should be registered bona fide fishermen with a verifiable address in their own country, hold the correct licences in their own country, and have their vessel registered in Tanzania.
- (iv). Tanzanian authorities are duty-bound to enforce the existing law, and will continue to do so.
- (v). Tanzanian officials are aware of the needs of Kenyan fishers arising from their limited domestic fishing grounds. Good neighbourly relations between the two countries should be fostered, and this has led Tanzanian authorities to be lenient to offenders in the past.
- (vi). There is a need for exchange of information on border issues and for harmonisation of various aspects of the fishery.
- (vii). There is a need for physical boundary marks on the Lake.
- (viii). Tarime District officials are not aware of the existence of 'kangaroo courts', but they recognise that this issue must be looked into.

3.5 BUKOBA DISTRICT (TANZANIA)

Attending: Ag. District Commissioner, Officer Commanding District, Ag. District Executive Director, Ag. District Natural Resources Officer, District Fisheries Officer (Bukoba Rural)

The District Fisheries Officer explained that any non-citizen wishing to fish in Tanzanian waters needs a permit from the Minister of Natural Resources and Tourism. Likewise, anybody who wants to export fish out of Tanzania requires a licence from the Director of Fisheries. Since there are no fish factories in Kagera Region, fish destined for export is taken to Mwanza or Musoma for commercial processing. Other fish landed in Kagera is consumed locally or traditionally processed and sold in neighbouring districts.

The licencing procedure for non-citizens would be that the DFO receives the application and forwards it to the Director's office in Dar es Salaam. So far, however, no applications have been received from Ugandan fishers or traders. Instead, it appears that Ugandan and Tanzanian fishers and traders work together to by-pass existing regulations. There are cases in which Ugandans use Tanzanian citizens as agents to obtain Tanzanian permits for fishing or trading. In other cases, Ugandan purchasers facilitate Tanzanian agents to take fish to the border where Ugandans buy the fish for onward transport to Ugandan factories.

In another pattern of cross-border movement, Ugandans buy molasses from Kagera sugar factory and distil it in Uganda. The spirit is taken back to Kerebe Island (T) where they barter it for sun-dried dagaa. In a recent incident 14 Ugandans were caught with 15 bags of dagaa. They were charged in court, but subsequently released.

There are persistent incidents of illegal fishing in Bukoba, including beach seining, fishing in breeding grounds or during breeding seasons, and use of under-size nets. In addition, Ugandan fishers at times enter Bukoba waters for setting nets, especially during night-time, without being licensed. The minimum mesh size for dagaa nets in Bukoba is 10mm, although in Uganda fishers may use smaller mesh sizes. For gill nets, the minimum size is 5 inches (127mm). From January to the end of June, gazetted breeding areas are closed for fishing. Enforcement of these regulations is in the hands of fisheries staff and Marine Police.

There are recurrent conflicts between fishers using 'long lines' and those setting gill nets, since these gears frequently become entangled. In addition, in Bukoba a similar problem has developed between Ugandan fishers who enter Tanzanian waters with drift nets and Tanzanian fishers using bottom-set gill nets. The DFO suggested that in order to reduce conflicts, 'long lines' and gill nets should be used

at different times of the day, i.e. 'long-lines' used during the day, and gill nets set in the evening and collected the following morning.

Beach Management Units have been established at Bukoba landing beaches, but their operation has been difficult. Fishing communities have become used to practices such as beach seining which provide poor sections of communities with affordable fish. They, therefore, often resent efforts by BMUs to curb such fishing methods. There have been cases of attacks on BMU leaders and destruction of property by community members. In addition, it has so far proven difficult to sustain BMUs financially, and they are not facilitated or rewarded for their work. Consequently, motivation among BMU leaders is low.

Cross-border meetings have taken place between Bukoba and Rakai officials, but fisheries issues have so far not been taken up, and fisheries staff have not participated in these meetings. Bukoba officials would find it practically difficult to pass information to Ugandan authorities concerning arrests of Ugandan fishers or confiscation of their property. The DFO reported that in cases of arrests, Ugandan fishers have been taken to court and been released upon payment of fines. No imprisonment or confiscation of engines has taken place in Bukoba.

The DFO argued that the first priority in fisheries management on Lake Victoria has to be the eradication of illegal fishing methods such as beach seining and use of under-size nets. Only after this priority has been addressed can there be negotiations about sharing of lake resources between the three countries.

Factories have increased the price for immature fish because the export market prefers fillets from immature fish. This has provided incentives to fishers for targeting immature fish.

In Bukoba, the fight against illegal fishing includes disrupting the market for immature fish, night-time patrolling, confiscation of illegal catches, and closing of notorious landing beaches. BMUs need to be strengthened to participate in this effort.

Fines and/or punishment for illegal fishing are specified in the Principle Fisheries Regulations of 1989, amended in 1997, as follows:

- (i). Any person using or possessing poison to kill fish shall be guilty of an offence and shall be liable on conviction.
- (ii). in the case of a first offence, to a penalty of a fine not exceeding three hundred thousand shillings or a term of imprisonment of not less than three years or both such fine and imprisonment;
- (iii). in the case of a second offence, to a penalty of a fine of not less than five hundred thousand shillings or a term of imprisonment of not less than four years or both such fine and imprisonment.

3.6 RAKAI District (Uganda)

Attending: District Fisheries Officer, Sub-county Chief Kyebe

The District Fisheries Officer explained the current situation in the Kagera fishing area of Rakai District. Fishing in Kagera fishing area is carried out mostly along the common border with Tanzania. This fishing ground is centred around the ecologically rich mouth of River Kagera. Nile perch is the dominant fishery, but other species caught include tilapia spp., *Labeo victorianus*, *Synodontis* and *Schilbe*.

Apart from the largely subsistence oriented landing sites of Lukunyu (40 canoes), Kyabasimba (15 canoes) and Sango Bay (40 canoes), this area contains the commercially very productive landing site at Kasensero. With 100-200 largely motorised commercial fishing vessels, this landing site produced an average daily catch of 6.4 tons of Nile perch during 2001. Over 98% of this catch is taken up by fish processing factories for the export market.

There has been long-standing co-existence between the cross-border communities of Uganda and Tanzania, based on the use of the shared fisheries through fishing and trade. This co-existence has been generally peaceful, but a few problems have developed occasionally. Most of these conflicts have arisen from piracy and unauthorised cross-border fishing. The District Fisheries Officer listed the following incidents:

PIRACY

- (i). On 22/7/2000 alleged Tanzanian pirates attacked and killed 4 Ugandan fishers, robbed 3 engines, boats and nets.
- (ii). On 2/12/2000 similar pirates killed 2 fishers, stole 2 engines and a number of gill nets.
- (iii). On 01/01/2001 one boat engine was stolen from Ugandan fishers.

The above cases were reported to the Ugandan police and other district authorities. The matters have also been taken up at cross-border regional levels, but the Rakai District Fisheries Department is not aware of the final status of these cases.

UNAUTHORISED CROSS-BORDER FISHING

- (i). On 3/5/2001 six Ugandan fishers were arrested by Tanzanian authorities on allegations of fishing from Tanzanian waters without authorisations. However, Tanzanian courts later found the suspects not guilty and released them.

There are no records from the recent past to show that Ugandan authorities have arrested any Tanzanian fishermen for unauthorised fishing in Ugandan waters.

The District Fisheries Officer emphasised that such incidents of conflict should not be allowed to escalate, and that measures need to be put in place to reduce the potential for future conflict. In his own words:

'A few cross-border conflicts have happened and may continue to happen. But these should not overshadow the century-long co-existence of border communities. On the side of fisheries, the common item pursued is fish which do not recognise political or administrative boundaries. As long as the cross-border interaction is not parasitic, it should be cemented.'

In order to further develop an environment for harmonious cross-border interactions, the DFO made the following suggestions:

- (i). Improve transport and communication infrastructure,
- (ii). Ensure that cross-border communities comply with existing laws on either side, e.g. by obtaining proper authorisation for cross-border fishing or payment of required taxes,
- (iii). Create and maintain permanent cross-border fora to deal with issues such as security, trade and fishing. These fora should be at appropriate levels, i.e. community or regional level, as the case may require,
- (iv). Harmonise regulatory mechanisms such as fishing regulations and quality assurance standards.

3.7 BUGIRI DISTRICT (UGANDA)

Attending: LC V Chairman, Deputy Chief Administrative Officer, Deputy Resident District Commissioner and District Fisheries Officer

Against the background of a dwindling natural resource base and a growing human population, district officials in Bugiri have prohibited the use of less than 6 inch gill nets to curb the catch of immature fish.

Following his visit to Wayasi and Hama Islands, the Minister of State for Fisheries informed the people of Bugiri that all fish caught in Ugandan waters should be landed in Uganda and exported through the proper channels. Before this statement fishers could take fish caught in Ugandan waters to Kenya.

Two cross-border meetings were held between Ugandan and Kenyans officials to address issues from Sigulu. The first meeting was between district officials from Bugiri (U) and Suba (K), Migori (K) and Bondo (K). In a joint communiqué the meeting agreed that long-term Kenyan residents of the Sigulu Islands should not be treated as non-citizens. The second meeting between Bugiri (U), Busia (U) and Busia (K) agreed that non-resident Kenyans be allowed to fish in Ugandan

waters, only if they are licensed by the relevant Uganda authority. However, the impact of these meetings has been limited, since the resolutions have not been communicated effectively.

2002 frame survey results show the presence of 2,000 boats and 4,000 fishers in Bugiri District. District officials felt that the scheduled fees for 'special licenses' for non-citizens are very high. Non citizens using boats of 5 - 11m size are required to pay Ushs 500,000 per year (boat license), boats over 11m are required to pay Ushs 1,000,000/= per year (boat license), and insulated boats or trucks from Kenya used for transporting fish pay Ushs 250,000/= per year. This compares to a fishing vessel license fee of Ushs 30,000/= per year payable by Ugandan citizens. The DFO reported that no Kenyan has so far applied for a special license in spite of being given the rates. The District however, plans to carry out a licensing exercise, after reviewing the current fishing effort and deciding how many licences will be issued, including licenses for non-resident Kenyan fishers.

The population of Siro, Wayasi and Hama Islands are mostly (90%) Kenyans, the rest being Ugandans. The Kenyans who are settled on these islands are now considered as Ugandans and are registered voters. Some of them have even been elected to Local Council positions.

Kenyan settlers on the islands have relatives in Kenya, and there are no conflicts between fishers from both sides of the borders.

Conflicts have, however, developed between fishers and Uganda Revenue Authority (URA) officials. URA officials are responsible for collection of taxes in the border area. More recently, the Special Revenue Protection Service (SRPS) have been put in charge of controlling smuggling of all goods, including fish, across the borders. The patrols by SRPS has curbed piracy, which could not be managed by the fisheries staff, because the pirates are armed. In addition, the district does not have a working boat and engine to help in patrolling. Fisheries is the second most important source of revenue for the district (next to Graduated Tax), but the Fisheries Department is not well facilitated.

During the initial days of the patrol by SRPS the factories buying fish in Bugiri used to fill their trucks in a day, but now it takes 3 - 4 days. This is a sign that smuggling of fish to Kenya is going on. Factors contributing to the sale of fish to Kenya are:

- (i). price differences for fish in Uganda and Kenya,
- (ii). the distance to the market and the cost of fuel,

- (iii). the opportunity to buy other commodities in Kenya for re-selling in Uganda,
- (iv). most fishers in the Bugiri Islands are Kenyans.

REMBA ISLAND

Remba Island poses notorious problems for fisheries management. The island itself is in Kenya territory, while the fishing grounds adjacent to the west are in Ugandan waters, as part of Bugiri District. There are serious conflicts between Ugandan fishers resident on Remba who use gill nets, and Kenyan fishers who use 'long lines'. When the 'long lines' get entangled with the gill nets, Ugandan fishers are frequently taken to Kenya by Kenyan fishers where they are fined Kshs. 20,000 before they are released.

Fishers using 'long lines' cover a vast area, and often go on the lake with containers that allow them to stay on the lake for up to a week. Following these conflicts, Bugiri District has prohibited the use of 'long lines' and containers in its waters. All Kenyans who want to fish in Ugandan waters must be licensed and use gillnets.

Remba Island also used to be subject to piracy, with most pirates coming from Tanzania. The situation has improved following a meeting between the RDC Bugiri (U) and DC Suba (K) who agreed on a joint security arrangement for Remba Island. Bugiri District sent Local Defence Units (LDUs) to Remba, while the Kenya Police continues to operate in the area. This arrangement was successful in combating piracy in the area.

- (i). The Commissioner for Fisheries (U) should issue guidelines for taxation in the fishery and distribute the guidelines to all districts. These taxes should be harmonised with Kenya and Tanzania.
- (ii). There is need to hold a stakeholder meeting with representatives from district officials, Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), URA, Presidents Office, Department of Economic Monitoring Ministry of Finance and SRPS to discuss the activities of SRPS on the lake.
- (iii). There is need to explore with MTN (mobile telecommunication network) the possibility of putting a communication mask at Lolwe Island to improve communication on the islands.
- (iv). The small community of Ugandan fishers on Remba should be allowed to land their fish in Kenya because of the proximity. However, the Ugandan authority should license both the Kenyans and Ugandan fishers using Ugandan waters around Remba.

3.8 SIGULU SUB-COUNTY, BUGIRI DISTRICT (UGANDA)

Attending: Chairman LC III Sigulu Sub-county, Sigulu Sub-county District Councillor, Hama Parish Chief, LC I Chairmen of Hama A and B

The local government officials present gave the following views on cross-border issues in Sigulu:

- (i). Local authorities implement government policies, and the SRPS implement fisheries laws and policies. This is why they are being accused of harassment.
- (ii). The Commissioner for Fisheries has issued a clear policy requiring non-citizens to have a specific (special) license, since there is need to support local fish factories.
- (iii). Conflicts started when fish was stopped from being taken to Kenya. Fish is taken to Kenya because of better prices.
- (iv). Regulations on illegal gears such as under-size nets should be harmonised with the Kenyan authorities. Suba has done some good work but the case is not the same with Port Victoria where fishers are still using beach seines. The Ugandan fishers complain that the government is stopping them while the Kenyans continue using their illegal gears.
- (v). The local councillors observed that Kenya has a small water surface with many experienced fishers.
- (vi). Kenyan Police welcome fish brought in by Ugandans but do not allow them to take out goods without paying '*Kitu Kidogo*'. On return to Uganda with goods the fishers are arrested by SRPS. Sometimes their sugar is poured into the lake and their confiscated goods are taken to the URA post at Bugoto landing.
- (vii). A URA custom post used to exist in Sigulu Island but was moved to Bugoto landing without explanation.
- (viii). Local Councillors complained that they are being used as rubber stamps and not allowed to exercise their powers. SRPS despises the LCs and even refuse to register at the LCs office saying they are only answerable to the state. They have taken over some of the powers of the fisheries staff.
- (ix). Before the conflict, the residents of the islands and their Kenyan neighbours used to move freely, but now Ugandans are being arrested in Kenya by Kenyan Chiefs and Administrative Police (APs) using the colonial law of '*Makan-yag'o*' (trespassing).
- (x). Lack of immigration officers at the island border point has made it difficult for the residents of the islands to move to Kenya with official documents.

- (xi). Kenyans lack knowledge of the location of the boundary. The MP from Bunyala (K) has made Kenyans believe that these Islands belong to Kenya.
- (xii). The three countries must observe and respect each other's laws concerning fisheries.
- (xiii). SRPS and other patrol teams should be given guidelines on how to handle fishermen, or the fisheries staff should be well facilitated to carry out the patrol.
- (xiv). An East African Identity Card should be issued to fishers.
- (xv). A Customs post be placed on the island to collect taxes.
- (xvi). Kenyans should come and buy fish from the island and pay taxes and be assured that good governance now exists in Uganda.
- (xvii). A limited number of containers could be allowed to go to Kenya. These containers should be identified by Kenya, pay a special license and be given numbers.
- (xviii). No special license to be issued by the District until adequate information on quantity of fish required by the Ugandan factories and available balance to be given out is known.

3.9 SECURITY AGENTS, HAMA ISLAND, SIGULU SUB-COUNTY, BUGIRI DISTRICT (Uganda)

Attending: SRPS members, O\C CID, O\C Police, Members of Reserve Forces or Local Defence Unit (LDU), Chairman Sigulu Sub County, District Fisheries Officer Bugiri, Fisheries Officer I\C of Hama

- (i). The SRPS have four patrol units with one each based in Sigulu, Lolwe, Hama and Wayasi. The SRPS are under strict instruction not to enter Kenyan waters and only arrest those fishers found in Ugandan waters. Fishers arrested are charged in courts of law. In some cases, especially of 'long line' fishers, gears are confiscated to discourage them.
- (ii). Initially SRPS used to impound engines and forward them to URA in Bugoto, but they are now under a new directive to confiscate and forward them to the police.
- (iii). The complaint from Kenyan fishers is as a result of the patrolling which has curbed fish smuggling and the use of beach seines in Ugandan waters.
- (iv). SRPS officers deny the allegation of beating fishers and pouring goods (sugar) into the water. They report that all those arrested are taken to Bugoto.
- (v). There has been mis-reporting in the media by referring to enforcement of government policy (all fish caught in Ugandan waters must be landed and processed in Uganda) as harassment.

- (vi). Piracy, which was rampant in 1995, has been contained. However, Kenyan fishers are still experiencing incidents of piracy amongst themselves with pirates thought to be coming from Sio Port.
- (vii). There is concern that prices offered to fishers in Kenya are higher than in Uganda, although the factories in both countries are owned by the same people.
- (viii). Need for special documents for fish transporters, which can be checked by SRPS. All fish containers should come back with a General Receipt, which must be filed at Hama.
- (ix). The DFO declared that with effect from June 12th 2002, all boats taking fish to the factory should leave the island with a chit indicating the tonnage and boat number. The officer at the receiving end should also issue a stamped chit indicating the tonnage delivered and the number of the boat. Both chits to be checked by SRPS and filed with the Fisheries Officer at Hama. This measure is meant to reduce the practice of diverting fish destined for Busiro (U) to Kenya.
- (x). If agreed that fish containers can go to Kenya, then an office should be opened on the Islands (Hama, Sigulu and Lolwe) for collection of taxes.
- (xi). A non Ugandan who wishes to fish in Ugandan waters must have a special license as prescribed by the Ugandan law.
- (xii). Joint patrols, involving Ugandan and Kenyan officers, should be given appropriate facilitation.
- (xiii). Equal treatment should be given to all arrested in the three countries. Unlike in the case of Remba, where a group of Kenyans, Ugandans and Tanzanians were arrested together by the Kenyan authority, Kenyans were released, Tanzanians were charged KShs. 1,000, while Ugandans were taken to court.

3.10 SUBA DISTRICT (KENYA)

Attending: District Commissioner, Officer Commanding Police Division, CID Officer, District Fisheries Officer

The District officials made the following recommendations to improve the security situation along their border with Uganda (including the area around Remba Island).

- (i). Harmonisation of fishing regulations and standardisation of fishing gears and vessels, eventually leading to a uniform license;
- (ii). The three countries should establish a uniformed body to look after the lake, including uniformed patrols;
- (iii). Encourage unity among the people of Kenya, Tanzania and Uganda in fishing according to harmonised rules and regulations;

- (iv). Take care of fishers' equipment when arrested;
- (v). Arrange regular meetings at alternate venues;
- (vi). Establish customs office posts in the lake.

Further to fisheries management, the District Fisheries Officer suggested that:

- (i). LVFO, as a body to develop the fisheries of Lake Victoria, is yet to assist the fishers in the three countries.
- (ii). Kenya provides fish breeding grounds. After breeding, fish move into Ugandan and Tanzanian waters, yet Kenyan fishers are not permitted to follow the fish.
- (iii). Uganda's ban on 'long lines' (in practice in Bugiri) should be re-considered.
- (iv). Uganda licence fees for non-citizens are too high, in relation to fishers' income.

4. CONCLUSIONS

On the basis of this study, the following conclusions can be drawn about the perceptions of communities and local government authorities concerning cross-border fishing and fish trade:

4.1 FISH CATCHES AND BEACH ENVIRONMENT

- (i). There has been a decline in fish catches over the last five years.
- (ii). Several factors contribute to this decline, among them the continued use of destructive fishing gear and methods (esp. use of beach seines, undersize nets, double nets and drift netting), fishing for twenty-four hours, and an increasing number of fishers.
- (iii). Fishing communities fear that a continued decline of catches will lead to increased poverty, crime and AIDS prevalence in fishing communities.
- (iv). Nile perch distribution is lake-wide with no clear pattern of migration, although it is known that Nile perch is closer to the shores during the rainy season and further off-shore during dry season. It was also mentioned that Nile perch moves vertically to deeper layers of water during full moon, as opposed to dark nights when it is closer to the surface.
- (v). Fishers have to follow Nile perch stocks on its seasonal movements, moving into deeper and colder waters during the dry seasons. In many cases, this leads them across international borders.
- (vi). The high season for Nile perch catches is during the rainy seasons while during the dry seasons catches are lower.

- (vii). There is an increase in algal blooms, which affect water colour and taste.
- (viii). Fishers report indications of pollution from factories in urban centres in the lake basin.
- (ix). Sanitation at beach landing sites is generally poor.
- (x). In most beaches visited, at least a section of the community relies on lake water for drinking water supply.
- (xi). Fishers have not observed changes in the tree cover close to their communities.

4.2 COMMUNITY ORGANISATION

- (i). Several fishers' self-help organisations have been formed but they are not well-rooted in the communities.
- (ii). BMUs are a new phenomenon introduced by government over the past two years, but their purpose is not yet well internalised by the fishing communities.
- (iii). There is a higher level of organisation on Kenyan border beaches than in Uganda and Tanzania.
- (iv). Co-operative societies have experienced difficulties and splits due to poor management.
- (v). Fishers organisations are dissatisfied with the level of support they receive from government and private sector.
- (vi). Women's participation in fishers' co-operative societies and fishers' organisations is very low.

4.3 COMMUNITY RELATIONS WITH GOVERNMENT AND PRIVATE SECTOR

- (i). There is a weak relationship between communities and central/local government.
- (ii). There is inadequate sensitisation by government on involving communities in fisheries management.
- (iii). Communities expect government to strengthen security on the lake.
- (iv). The main interaction with the private sector is for selling and buying fish. Fishers have a weak bargaining power in their interaction with fish purchasers. Locally based agents of processing factories dominate the market. Most purchasers no longer avail credit to fishers.
- (v). Several factors influence where fishers sell their fish, including price, distance of markets, availability and costs of other commodities and domestic goods at the marketing point.

4.4 FISHERIES MANAGEMENT

- (i). While community members are aware that too many people are joining the lake fisheries, they hold different views on whether or not government should control access to the fisheries.
- (ii). Most communities believe that it is government or God who owns the lake and the fish in the water.
- (iii). There has been an increased use of 'long lines' in most fishing communities. Reasons for this change of gears include affordability of lines and hooks compared to nets, increased safety of this gear from theft, greater success of 'long lines' in catching bigger fish and adjustment of gears to seasonal migration of Nile perch.
- (iv). Communities observe that government uses licensing as a revenue generating activity, rather than as a management and control tool.
- (v). Fishers would like to access fishing grounds throughout the lake, while district officials and community leaders would prefer if fishing licenses were to limit operations of licence holders to one or a few districts, rather than being nation-wide. At international border areas, such a license should regulate fishing activities.
- (vi). Communities believe they can contribute more to fisheries management than at present.
- (vii). Fishing communities do not fully understand the roles and responsibilities of different institutions involved in fisheries management. They noted, however, that enforcement of fisheries regulations by fisheries departments is weak, and they would like to see it strengthened.

4.5 CROSS-BORDER ISSUES

- (i). There have been long-standing good relationships between communities living in international border areas around Lake Victoria.
- (ii). However, there is conflict among fishers over theft and destruction of fishing gears, mainly between 'long line' fishers and drift net ('tembea') fishers. The level of insecurity in the fisheries has escalated to the point where fishers carry weapons (clubs, catapults and guns) when going fishing.
- (iii). There is a poor working relationship between fishers and authorities patrolling the lake.
- (iv). There are no customs and immigration posts on border islands in Lake Victoria.
- (v). The main underlying reason for the increased level of conflict on Lake Victoria is the high demand for Nile perch in the international market.

- (vi). Communities in the three countries noted that Kenyan fishers have very limited fishing grounds within their national borders.
- (vii). Fisheries regulations and enforcement authorities of the three countries are not harmonised.
- (viii). The level of routine lake patrolling in Kenya appears to be lower than in Tanzania and Uganda.
- (ix). Fishers know international boundaries on the lake, yet they cross borders in search of their livelihood.
- (x). Patrolling units cross borders either because they are not conversant with the location of boundaries on the lake, or in some cases they may cross borders deliberately.
- (xi). Fishers find it very difficult to obtain licences for fishing and fish trading in neighbouring countries.
- (xii). In some cases legal procedures of arrest and prosecution are circumvented and punishment is carried out instantaneously, sometimes involving excessive use of force.
- (xiii). Fishers are willing to pay official fees and taxes for cross-border fishing and fish trade. Fishers believe that levies on fish should be paid to the country owning the fishing grounds where the fish has been caught.
- (xiv). There is a wide-spread perception among fishing communities that government authorities are mainly interested in extracting revenue from landing sites, rather than in enforcing existing rules and regulations to protect and develop the fishery.
- (xv). Fishing communities are not well informed about the existence of LVFO and the East African Community and the roles of these institutions in the Lake Victoria fisheries.

4.6 VIEWS OF DISTRICT LEADERS

- (i). Border administrations have mediated in border conflicts with some degree of success.
- (ii). Monitoring, Surveillance and Control has been complicated by night fishing, hiring of boats by non-citizens and using citizens to acquire licences for non-citizens.
- (iii). Cross-border conflicts are caused by smuggling of fish and use of illegal gears.
- (iv). District authorities are strongly interested in the generation of revenue from the fisheries through strict implementation of existing rules and regulations.
- (v). There is inadequate awareness among government officials of fisheries regulations in neighbouring countries.

- (vi). Unofficial payments have become a routine procedure for resolving cases of arrest and confiscation of property.
- (vii). Inadequate facilitation of fisheries staff limits cross-border meetings.
- (viii). Cross-border meetings take place ad hoc, and there is no established mechanism for holding regular cross-border meetings. Representation of fishing communities and fisheries staff at these meetings has been poor, and resolutions have not been disseminated effectively.

5. RECOMMENDATIONS

The following recommendations are based on the views of communities and government officials consulted in the course of this study. The recommendations should be understood in the spirit of co-operation between the member states of the East African Community.

1. The fisheries regulations and the enforcing authorities in the three countries should be harmonised. Meanwhile, relevant laws should be exchanged between the three countries and communicated to the fishing communities.
2. Regular cross-border meetings, including participation by representatives of fishing communities and fisheries staff, should be co-ordinated by the LVFO Secretariat and facilitated by the member states.
3. Fishers should have a harmonised East African licensing system that regulates access to cross-border fishing grounds in the vicinity of their landing site of operation. LVFO Secretariat should undertake a feasibility study on introducing and implementing a harmonised East African licensing system for Lake Victoria. Fish should be landed and taxed in the country where it is caught.
4. Licences should be used to regulate access to the fisheries (e.g. numbers and amount of licensing fees) involving community participation through BMUs in identifying and monitoring licence holders in their community.
5. Fishers should be registered at their landing site of operation, together with their boats and gears.
6. The use of double/triple netting should be banned.
7. The use of drift nets (tembea) should be regulated to reduce conflict with other fishing methods. Meanwhile, research should provide more data on the impact of drift nets on the socio-economics of fishers and fish biology.
8. An aerial survey and a GPS survey of international border areas in the vicinity of the islands of Mbingo, Remba, Wayasi and Hama should be undertaken to ascertain the exact location of boundaries and of small islands and other features in the lake.
9. Research should validate the fish breeding grounds in Lake Victoria.
10. Governments should encourage the provision of loans to fishers by private sectors for the purchase of legal gears.
11. The three countries should strengthen MSC in their territorial waters.
12. The relevant government authorities should establish border points on key islands in the lake to ease cross-border transactions.
13. Border areas should be monitored by joint patrols comprising enforcement agents from both countries.
14. Enforcement agents should be trained on fisheries management matters.

15. Patrolling teams should wear identification tags when on duty on the lake. They also should be represented at cross-border meetings.
16. Existing legal procedures concerning arrest and prosecution of suspects should be complied with, and fishers should be made aware of these procedures.
17. Government should provide BMUs with legal authority to enforce fisheries laws.
18. BMUs should receive training in monitoring techniques and co-management.
19. BMUs should be encouraged to generate funds locally to support their activities.
20. Fisheries staff should be re-oriented to accept partnership with fisherfolk in fisheries management.
21. Fishers and their local associations and co-operatives should be educated in business skills, leadership skills, mobilisation skills and fisheries management.
22. Fishing communities should be sensitised on advantages of fisher associations, including a strong participation of women.
23. LVFO should more strongly publicise its mandate to riparian communities.

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ANNEX 1: Relevant Articles of the Treaty for Establishment of the East African Community

Article 5

Objectives of the Community

1. The objectives of the Community shall be to develop policies and programmes aimed at widening and deepening co-operation among the Partner States in political, economic, social and cultural fields, research and technology, defense, security and legal and judicial affairs for their mutual benefit.
2. In pursuance of the provisions of paragraph 1 of this Article, the Partner States undertake to establish amongst themselves and in accordance with the provisions of this Treaty, a Customs Union, a Common Market, subsequently a Monetary Union and ultimately a Political Federation in order to strengthen and regulate the industrial, commercial, infrastructural, cultural, social, political and other relations of the Partner States to the end that there shall be accelerated, harmonious and balanced development and sustained expansion of economic activities, the benefit of which shall be equitably shared.
3. For purposes set out in paragraph 1 of this Article and as subsequently provided in particular provisions of this Treaty, the Community shall ensure :
 - (a) the attainment of sustainable growth and development of the Partner States by the promotion of a more balanced and harmonious development of the Partner States;
 - (b) the strengthening and consolidation of co-operation in agreed fields that would lead to equitable development within the Partner States and which would in turn, raise the standard of living and improve the quality of life of their populations;
 - (c) the promotion of sustainable utilisation of the natural resources of the Partner States and the taking of measures that would effectively protect the natural environment of the Partner States;
 - (d) the strengthening and consolidation of the long standing political, economic, social, cultural, and traditional ties and associations between the peoples of the Partner States so as to promote a people centred mutual development of these ties and associations;
 - (e) the mainstreaming of gender in all its endeavours and the enhancement of the role of women in cultural, social, political, economic and technological development;
 - (f) the promotion of peace, security and stability within, and good neighbourliness among, the Partner States;

- (g) the enhancement and strengthening of partnerships with the private sector and civil society in order to achieve sustainable socio-economic and political development; and
- (h) the undertaking of such other activities calculated to further the objectives of the Community, as the Partner States may from time to time decide to undertake.

Article 6

Fundamental Principles of the Community

The fundamental principles that shall govern the achievement of the objectives of the Community by the Partner States shall include;

- (a) mutual trust, political will and sovereign equality;
- (b) peacefulness and good neighbourliness;
- (c) peaceful settlement of disputes;
- (d) good governance including adherence to the principles of democracy, the rule of law, accountability, transparency, social justice, equal opportunities, gender equality, as well as the recognition, promotion and protection of human and peoples rights in accordance with the provisions of the African Charter of Human and Peoples' Rights;
- (e) equitable distribution of benefits; and
- (f) co-operation for mutual benefit.

Article 7

Operational Principles of the Community

1. The principles that shall govern the practical achievement of the objectives of the Community shall include:
 - (a) people – centred and market – driven co-operation;
 - (b) the provision by the Partner States of an adequate and appropriate enabling environment, such as conducive policies and basic infrastructure;
 - (c) the establishment of an export-oriented economy for the Partner States in which there shall be free movement of goods, persons, labour, services, capital, information and technology;
 - (d) the principle of subsidiarity with emphasis on multi-level participation and the involvement of a wide range of stake holders in the process of integration;

- (e) the principle of variable geometry which allows for progression in co-operation among groups within the Community for wider integration schemes in various fields at different speeds;
 - (f) the equitable distribution of benefits accruing or to be derived from the operations of the Community and measures to address economic imbalances that may arise from such operations;
 - (g) the principle of complementarity; and
 - (h) the principle of asymmetry.
2. The Partner States undertake to abide by the principles of good governance, including adherence to the principles of democracy, the rule of law, social justice, and the maintenance of universally accepted standards of human rights.

Article 114

Management of Natural Resources

1. For purposes of Article 111 of the EAC Treaty i.e. Environmental Issues and Natural Resources, the Partner States agree to take concerted measures to foster co-operation in the joint and efficient management and sustainable utilisation of natural resources within the Community for the mutual benefit of the Partner States. In particular, the Partner States shall:
- (a) take necessary measures to conserve their natural resources;
 - (b) co-operate in the management of their natural resources for the conservation of the eco-systems and the arrest of environmental degradation; and
 - (c) adopt common regulations for the protection of shared aquatic and terrestrial resources.
2. For purposes of paragraph 1 of this Article, the Partner States:
- (b) with regards to the management of their water and marine resources, agree to co-operate through:
 - (i) the establishment and adoption of common regulations for the better management and development of marine parks, reserves, wetlands and controlled areas;
 - (ii) the adoption of common policies and regulations for the conservation, management and development of fisheries resources;
 - (iii) the establishment of common fisheries management and investment guidelines for inland and marine waters;

- (iv) the strengthening of regional natural resources management bodies;
- (v) the establishment of common rules of origin for flora and fauna; and
- (vi) the establishment of a body for the management of Lake Victoria.

Note: Article 114 (2) (a) is concerned with conservation and management of forests. So it is (b) which is relevant to this publication (as presented above).

**ANNEX 2: The Decisions of the Council of Ministers of
the Lake Victoria Fisheries Organization
(LVFO) made in Nairobi, Kenya, 28th June 2002**

**CROSS-BORDER FISHING AND FISH TRADE ON
LAKE VICTORIA**

The Council of Ministers reviewed the progress on implementation of the Jinja Recommendations on cross-border fishing and fish trade on Lake Victoria; and also considered follow-up actions recommended by the Fifth Special Session of the Executive Committee held in November 2001 in Arusha, Tanzania.

Noting the urgency to speed up and finalise the process of harmonization of Fisheries Laws and Regulations for Lake Victoria, the Council of Ministers approved the following measures for conducting cross-border fishing and fish trade on Lake Victoria:

- a) Surveillance and patrols should be conducted by Fisheries Authorities, which could be backed up by the other government agencies;
- b) Seizure forms should be issued for confiscated items and official receipts be issued for any fines;
- c) Those arrested should be charged in court of law and information on the culprits circulated to Partner States for black listing;
- d) Container collector boats that smuggle fish across borders should be banned from the lake;
- e) Artisanal cross-border fishing and trade should be allowed when they comply with applicable law and regulations in Partner States;
- f) The Fisheries competent Authorities should share information on fishing activities in the lake;
- g) Strongly condemn smuggling of fish by processors;
- h) Joint surveillance and licensing by the Partner States should be encouraged;
- i) Regular joint cross-border meetings at the local level;
- j) National surveillance taskforce should work closely with the regional fisheries authorities with adequate consultations and co-ordination;
- k) Sensitise the communities on the MCS System with all its advantages.

**PROGRESS MADE IN THE IMPLEMENTATION OF THE
DECISIONS OF THE COUNCIL**

- (i). A consultative study on cross-border fishing and fish trade has been conducted and findings have been disseminated to communities and other stakeholders.
- (ii). A lake-wide joint monitoring and sensitization mission by the Heads of Fisheries Management and Research of the Partner States was undertaken in January 2003.
- (iii). The Lake Victoria Fisheries Organization (LVFO) in collaboration with IUCN is building capacities of communities along the common borders including translation of relevant sections of the fisheries legislation of the Partner States in local languages.
- (iv). The fisher communities of Busia Districts of Kenya and Uganda are undertaking cross-border exchange visits in June – July 2003 to establish collaboration. Tarime and Migori Districts and Bukoba and Rakai Districts fisher communities will also visit each other during the same period.
- (v). An international workshop on community participation in fisheries management was held on 7 – 10 October 2003 and actively involved the Beach Management Units (BMUs) of Lake Victoria.
- (vi). The Partner States have put in place modalities to license fishers for cross-border fishing and fish trade.
- (vii). Monitoring, control and surveillance to enforce the fisheries laws and regulations to curb illegal, unregulated and unreported (IUU) fishing lake-wide is being implemented by the Partner States.

Action: The Council of Ministers urged the Partner States to implement the above measures for conducting cross-border fishing and fish trade on Lake Victoria.

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ANNEX 3: QUESTIONNAIRE

NAME OF COMMUNITY AND LOCATION					
Date of Interview					
TARGET GROUP					
TEAM MEMBERS INTERVIEWING					
Section 1: Stock Related Issues					
1.1 How are the Nile Perch catches?	Very Good	Good	Fair	Poor	Very Bad
1.2 How have the Nile perch catches changed over the last 5 years?	Drastic Decline	Slow Decline	No change	Slow increase	Tremendous increase
1.3 Why do you say this (reasons for your answer)?					
1.4 How are the catches of other species?	Very Good	Good	Fair	Poor	Very Bad
<i>tilapia</i>					
<i>omena/mukene/dagaa</i>					
<i>bagrus</i>					
<i>schilbe</i>					
<i>protopterus</i>					
<i>hapochromines</i>					
<i>clarias</i>					
<i>others</i> <i>[to be named]</i>					
1.5 What are the reasons for these catch levels					
1.6a] In your area, how are Nile perch stocks distributed?					
1.6b] When are the high seasons(months)					

1.6c] When are the low seasons(months)					
1.6d] How do these seasonal changes affect your activities?					
1.7a] Annually, how do Nile perch stocks move? 1.7b] If not locally, where do they move to (places)?	Do not move	Locally	Far	Out of reach	
1.7c] How does this movement affect your activities?					
Section 2: Environmental Issues					
2.1a] What is the effect of water hyacinth on your activities?	Very bad	Bad	Varies	Little	None
2.1b] If there is an effect, what is it?					
2.2 Around your site, how have fishing activities affected the environment?					
2.3a] Specifically, what changes have you observed: in the vegetation along the lake shore? in the colour and quality of lake water?					
2.3b] What (do you think) are the reasons for these changes					

2.4a]What has been the effect of fishing on drinking water?	Very bad	Bad	None	Good	Very good
2.4b] What (do you think) are the reasons?					
2.5a]What has been the effect of fishing on sanitation at the lake shore?	Very bad	Bad	None	Good	Very good
2.5b]What (do you think) are the reasons?					
Section 3: Mobilisation and Organisational Issues					
3.1 What organisations do you have here?					
3.2 How is your degree of organisation?	Very bad	Bad	Fair	Good	Very good
3.3 What have been the organisation's achievements?					
3.4 What are their main problems?					
3.5 How were your organisations started?	From outside	Responded to outside	Jointly	Inside leaders	All
3.6a] How would you describe government support to your organisation/mobilisation efforts?	Bad	None	Some	Good	
3.6b] Why do you say this (reasons for your answer)?					
3.7a] How would you describe support from the private sector to your organisation/mobilisation?	Bad	None	Some	Good	
3.7b] Why do you say this (reasons for your answer)?					

Section 4: Interaction with Local and Central Government					
4.1 When interacting with "Government" who do you deal with?	Local Govt	Mostly Local Govt	Mixed	Mostly Central	Central
4.2a] How would you assess your interactions with Government?	Very bad	Bad	Fair	Good	Very good
4.2b] Why do you say this (reasons for your answer)?					
4.3a] How do you describe the way Government listens to your views?	Very bad	Bad	Fair	Good	Very good
4.3b] In your opinion, why is this so?					
4.4a] How much do you think you could contribute to fisheries management?	Very much	Some	Very little	None	
4.4b] What contributions could you make?					
4.5 Government has been trying to give communities more say in fisheries management. How well are you informed about this?	Very bad	Bad	Fair	Good	Very good
4.6 Describe how Government could involve you more in fisheries management (practical steps Government could take).					
Section 5: Interactions with commercial processors					
5.0 How do you market your fish?					
5.1 Describe to whom you sell Nile perch.					

5.2a] How would you describe your bargaining position?	Very bad	Bad	Fair	Good	Very good
5.2b] Why is this so (reasons for your answer)?					
5.3 what other dependants/relationships do you have with purchasers?					
5.4 What relationships would you like to develop with purchasers					
Section 6: Fisheries Management					
6.1 How do you feel about more and more people joining the fishery?					
6.2a] Who do you think owns the fish in your waters here?	This beach	This area	This area and those we know	Govt	No-one
6.2b] Why do you say this (reasons for your answer)?					
6.3a] Who do you think should own the fish in your area?	This beach	This area	This area and those we know	Govt	No-one
6.3b] Why do you say this (reasons for your answer)?					
6.4 Have you heard about "overfishing"? Is this a problem in your area?					
6.5a] What do you think is the result of taking small fish and using small mesh sizes?					
6.5b] Why are people using these gears?					
6.6a] In five years from now, do you think there will be more or less fish than now in this area?	More	Same	Less	Much less	None

6.6b] Reasons for your answer?	
6.6c] What would fishers do, if fish catches declined very much?	
6.7 At present, whose responsibility is it to control gears number of boats in your area	
6.8 Who should participate in making rules and regulations about fishing in your area?	
6.9 Who should participate in enforcing rules and regulations in your area?	
Section 7: Cross-border Issues	
7.1 What interactions do you have with fishers across the border? How well do you know them? How good is your relationship in general?	
7.2 How often do neighbours from across the border come here to fish or work?	
7.3 How often do people from here go to fish or work on the other side of the border?	
7.4 Do you take fish across the border?	

7.5 Do people from across the border come here to buy fish?	
7.6 Why do (don't) you sell across the border?	
7.7a] How much of your fish (do you think) is landed across the border	
7.7b] Is that a problem? Give reasons for yes/no	
7.8 Should there be taxes on cross-border landing/trading of fish? (reasons for your answer)?	
7.9 Do you have problems or conflicts with your international neighbours? If yes, what kinds of conflict/problems?	
7.10a] Why do you think there are these problems (or not)?	
7.10b] How are you practically handling these problems? Successfully? What else could be done to reduce conflict with international neighbours?	
7.11a] Have you had similar problems within your country (i.e. with neighbours from other beaches/areas)?	

<p>7.11b] How are you practically handling these problems?</p> <p>Successfully?</p> <p>What else could be done to reduce conflict between fishers from different beaches/areas?</p>	
<p>7.12 What do you believe are the strengths of your community?</p> <p>How can your community contribute to reduce conflict between fishers?</p>	
<p>7.13 What could Government do to strengthen your community?</p>	
<p>7.14 Have you heard of the East african Community/LVFO?</p> <p>What could they be doing to assist you?</p>	

ANNEX 4: ITINERARY

Date	Activity
21/4/02	Busia (Uganda) Introductory team meeting
22/4/02	Maduwa Landing Site, Majanji, Busia District (Uganda) Community Meetings
22/4/02	Busia District (Uganda) Meeting with District Officials
23/4/02	Busia District (Kenya) Meeting with District Officials
23/4/02	Marenga Beach, Port Victoria, Busia District (Kenya) Community Meetings
24/4/02	Migori District Officials (Kenya) Meeting with District Officials
25/4/02	Mugabo Beach, Muhuru Bay, Migori District (Kenya) Community Meetings
26/4/02	Tarime District (Tanzania) Meeting with District Officials
27/4/02	Sota Beach, Shirati, Tarime District (Tanzania) Community Meetings
28 – 29/4/02	Tarime (Tanzania) Preparation of Interim Report
6/6/02	Bukoba District (Tanzania) Meeting with District Officials
7/6/02	Malehe Beach, Rubafu, Bukoba District (Tanzania) Community Meetings

8/6/02	Rakai District (Uganda) Meeting with District Officials
8/6/02	Kasensero Landing Site, Kyebe, Rakai District (Uganda) Community Meetings
10/6/02	Bugiri District (Uganda) Meeting with District Officials GROUP 1
11/6/02	Sigulu, Hama and Wayasi Islands, Bugiri District (Uganda) Community Meetings Meeting with Sub-county Officials (Sigulu) Meeting with Security Officers (Hama) GROUP 1
11/6/02	Nyandiwa Beach, Suba District (Kenya) Community Meetings GROUP 2
12/6/02	Remba Island, Suba District (Kenya) Community Meetings GROUP 2
11/6/02	Migingo Island, Migori District (Kenya) Community Meetings GROUP 3
13 – 15/6/02	Kisumu (Kenya) Preparation of Draft Report

ANNEX 5: List of Members of the Project Implementation Team

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Other titles appearing in this series:

1. **Cross-border Fishing and Fish Trade on Lake Victoria**, (2004), by S. Heck, J. Ikwaput, C. Kirema-Mukasa, C. Lwenya, D. N. Murakwa, K. Odongkara, P. Onyango, J. P. Owino and F. Sobo.
2. Report on **The International Workshop on Community Participation in Fisheries Management on Lake Victoria: *BMU Development on Lake Victoria***, Imperial Hotel, Kisumu, Kenya, 7-10 October 2003 by S. Heck, C. T. Kirema-Mukasa, B. Nyandat and J. P. Owino.

LAKE VICTORIA FISHERIES ORGANIZATION (LVFO)

Established in 1994 by a Convention signed by the three Partner States of the East African Community (Kenya, Tanzania and Uganda), The Lake Victoria Fisheries Organization (LVFO) is mandated to foster cooperation among the three East African Community Partner States; harmonize national measures for the sustainable utilization of living resources of the lake; and develop and adopt conservation and management measures to assure the Lake's ecosystem health and sustainability of the living resources. The Organization has activities within 5 broad programme areas: fisheries policy, legislation, institutions and institutional processes; resource, environmental and socio-economic research monitoring; aquaculture; database, information, communication and outreach; and capacity building. The LVFO is governed by a Council of Ministers responsible for Fisheries matters in the Partner States. The LVFO is a specialised institution of the East African Community.

IUCN - The World Conservation Union

Founded in 1948, The World Conservation Union brings together States, government agencies and a diverse range of non-governmental organisations in a unique world partnership: over 980 members in all, spread across some 140 countries. As a Union, IUCN seeks to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. The World Conservation Union builds on the strengths of its members, networks and partners to enhance their capacity and to support global alliances to safeguard natural resources at local, regional and global levels.

Socio-economics of the Nile Perch Fishery on Lake Victoria Project Phase II

One of the many projects within the Eastern Africa Programme of IUCN is the Socio-economics of the Nile Perch Fishery on Lake Victoria, Phase II. It is being implemented through (and with) Lake Victoria Fisheries Organization. The objectives for this phase, include: improving information dissemination on social and economic trends; improving capacity of resource user groups to participate in fisheries management; and improving policy processes to respond to social and economic trends. Within these general sets of objectives, the project focussed on understanding the challenges of trans-boundary fisheries management and developing tools to overcome them. The focus was found in response to increasing tensions (starting September 2001) over cross-border fishing and fish trade, an issue that has become the most immediate obstacle to fisheries management on the lake.

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