

Uganda: Selected Fish Landing Sites and Fishing Communities

Survey Undertaken by Fisheries Training Institute for
the DFID Project *Impacts of globalisation on fish
utilisation and marketing systems in Uganda*

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The fieldwork was undertaken by former students at the Fisheries Training Institute in July and August 2002. They recorded their observations on the landing sites and conducted a semi-structured discussion with a group of women at each. The topics covered in the discussion are outlined on the next page. Report edited June 2004.

FISHERIES GOBALISATION SURVEY

PART III: FOCUS GROUP DISCUSSION (to be used for case study)

Group: To identify women leader and those women specifically dealing in fisheries business at landing sites.

1. Can you narrate the development of fisheries over time (before export boom, when exports had just started and now) in terms of the following.

Catches

Marketing opportunities

Returns

General development of this area

Likely reasons for this trend

2. Describe how the export fish business has generally affected the fisheries in this area.

Advantages

Disadvantages

Recommendations for improved performance.

3. Describe how the export business has affected women and children welfare particularly (access and availability of fish, employment etc.)?

Positive

Negative

Recommendations to increase benefits to women and children.

4. Describe how the export business has affected the fisheries ecology and the environment at the landing site in general.

Positive

Negative

Recommendations to increase benefits to the environment.

5. Product flows

6. Financial flows (how returns are shared)

Landing Sites on Lake Victoria

1. Kasensero, Rakai District

It has a population of 5400 with 1864 females, and 200 households.

185 boats are in operation landing 57,631kgs. of fish is landed per week.

An all weather road accessed by buses and pickups. The landing has 50 supply shops, 1 gear shop, 5 inches, 1 Police post, 3 engine repair workshop, 1 Boat Building Yard and 2 Petrol Stations, among the infrastructure and facilities other include 13 restaurants, 30 lodges. 1 toilet and 3 pit latrines and 1 mosque and 3 churches.

- ◆ No credit facilities at the landing. Fisheries, Veterinary and Health Extension services are provided.
- ◆ Beach Management Committees are used in the management of fisheries.
- ◆ The development program in place is on building the Fish Processing Factory.
- ◆ Baganda (60%) are the main tribe followed by Baziba (25%), Banyankole (10%) and Banyarwanda 5%) respectively.

LEADERSHIP STRUCTURE

Fisher – Chairman Task Force, Vice Chairman, Secretary, Information, Treasurer, Defence and Mobilization.

LC System

Decision is made by head of fishers LC.1 Chairman and Fisheries Officer after consulting the fisher community. Information is disseminated through meetings, posters, radios, announcements in churches.

Fishing include fish trade and processing, retail supplies trade and foods, bar and hotel services and lumbering constitute the main income activities as well as employment sources respectively.

MAIN CATEGORIES OF INCOME PER MONTH ARE

1. Those earning less than 50,000/= are 14%
2. 50,000/= - 150,000/= are majority with 59%
3. 150,000/= - 250,000/= are 27%
4. 250,000/= and above are 8%

Malaria is the main disease followed by water borne diseases (diarrhea and skin rash) and AIDS.

Antenatal care and Immunization are the only primary health services.

Ssesse type canoes dominate with 170 in operation followed by parachute, 15 in operation.

There are 170 engines (outboard engines). Gill nets are the main gears in use numbering 11,900 followed by long lines, 25 in number.

Nile perch is the main species landed by 178 boats followed by Tilapia which is landed by 7 boats.

Annual catches for Nile perch are 2,676,000 kgs. and Tilapia 292,000 kgs.

2 working shades, only one operational; 6 weighing facilities and 1 washing slab are the handling facilities available at this landing.

No fish is processed at this landing site and all the fresh fish is sold to Kampala and Jinja fish factories (Nile perch) and, Tilapia is sold to Kyotera, Kyebe and Kakuuto markets.

Product and Financial flows



There are 2 garbage disposal sites and 3 public pit latrines at the landing site. The polythene and plastics are disposed anyhow. Fines are given to non complaint people who misuse the landing site or latrines.

FOCUS GROUP DISCUSSION

NAMES

NAMUGERWA NOELINA – WOMEN LEADER L.C. I
NALONGO RUTH - “ “

1. Development of the fisheries over time

(a) Catches

Before export boom catches were high and when exports had just started, catches were still high because the number of exporters by that time were few. New catches have reduced.

(b) Marketing Opportunities

Before export boom, markets were few only local markets were available. Fish was only used for home consumption and prices were very low.

(c) Returns

Before export boom, returns were low due to low prices paid for fish, when exports had just started, exporters were few and returns were still low. Now returns have increased.

(d) General development of this area

Population of this area has increased. Employment opportunities have increased. Social services, healthy services have improved. Road transport has improved. Housing facilities have improved.

(e) Likely reasons for the trend

Development of the export industry and increased fishing effort are the reasons for this development.

2. Effect on the fisheries of the area

Advantages

Incomes of people have increased. There is improvement in infrastructure at this landing. Handling facilities for fish have improved. There is refrigerated vehicles, working shade. Market for fish has improved.

Disadvantages

It has increased the fishing pressure, because people want to get much fish for sale, hence fish catches have reduced.

3. Effect of the Export Business on women's and childrens' welfare

Positive

Employment among women have increased especially in fishing related activities and down stream activities at the landing site. For example some women here own boats, are involved in trading at the site, hotel services etc.

Negative

There is low fish consumption among children because of the development of the export business, fish is expensive and only sold to factory vehicles.

RECOMMENDATIONS TO INCREASE BENEFIT WOMEN AND CHILDREN

Increase the diversity of species in the lake to provide those species which are not of commercial value to outside countries to children for consumption the Clarias, Bagrus.

4. Effect of the Export Business on fisheries ecology and the environment

Positive

Nothing.

Negative

Over exploitation of the fish and use of illegal gears to catch much fish for sale has destructed the fisheries ecology.

Reduction in diversity of fish species in the lake.

Increased population at the landing for employment has resulted into environmental degradation pollution of the lake through improper disposal of wastes.

RECOMMENDATION TO INCREASE BENEFITS TO ENVIRONMENT

Restock the lake with a variety of species for commercial use.

Protect some breeding ground in the lake.

5. Product flows

Fisherman → Supplier → Exporter

Fishermen → Purchaser → Supplier → Exporter

6. Financial flows

Fisherman → Supplier → Exporter

↓
2,000/= /kg.

2. Kasenyi, Wakiso District

Observations

(i) Description of landing site.

Kasenyi landing is located 5.5km away from Kampala road in a bay. It consists of a recreational beach, boat landing areas, an enclosed off petrol station and factory fish handling purchasing areas as indicated on the map. It is a large busy enclosed landing site with over 50 boats, population size of 100 non residential people.

(ii) Infrastructure

The infrastructure can be regarded as good well arranged infrastructure. Market infrastructure consists of mainly containers and wooden structures. A modern fish handling structure consisting of taps, weighing facility landing and washing slabs is in place through which only factory fish passes through.

Display wooden sheltered table are used for fresh fish. Smoked fish is displayed on wooden unsheltered tables. A water pumping system, tanks are present for water provision through unchlorinated. Permanent pit latrines and toilet structures are available. A wooden police post structure and permanent petrol station present.

The hygiene of the landing site is very good Rubbish thrown along pathways is collected everyday by hired workers and burnt in the main rubbish collecting area. There are just a few instances where rubbish along shores such as polythene, food waste materials get into the lake.

Public pit latrines paid for (100=) are sufficient for the population with pit latrine reserves in case they are full-up. The latrines are cleaned daily. Bathrooms are also available for those interested in bathing. Water is placed in jerricans for washing hands thereafter toilet use

Generally, fish exportation has improved the general cleanliness especially in the fish factory handling area to ensure good fish quality. Also, the proper arrangement of the market area through congested allow for proper item distribution and cleaning.

(iii) General fish Handling techniques

Fish handling techniques have greatly improved with the introduction of a modern factory fish handling facility consisting of weighing facilities, taps, washing and landing slabs through which only fish factory fish go through. All fish going to factories are thoroughly washed, weighed and iced in trucks. Boats (ice container boats) supplying fish to factories are provided with ice to reduce fish spoilage.

In case of non factory fresh fish, wooden sheltered tables are used and transported in uniced plastic buckets. Smoked fish is placed on bare wooden unsheltered slabs and transported in polyethene bags and baskets. Sundried fish (mukene) is transported in sisal sacks and displayed on polythene papers on the ground.

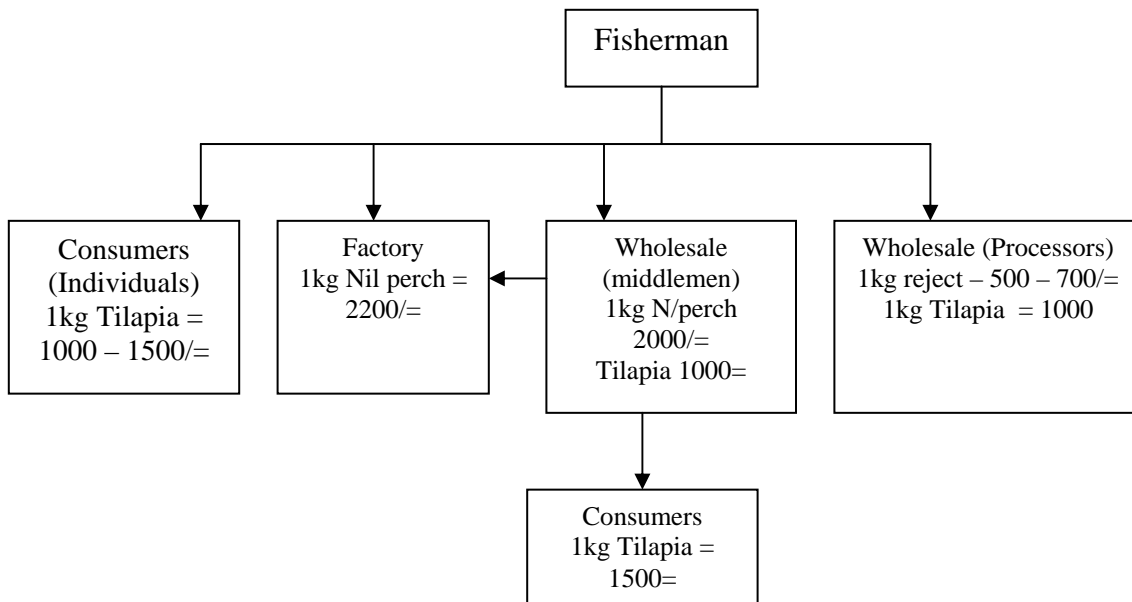
Smoking of fish is entirely carried out outside the landing site in the villages and thereafter brought in the backed for sale. Sundried and some smoked is brought from the Islands.

In conclusion, it is important that fresh fish though for export or local consumption must all go through a jetty to ensure fish quality maintenance.

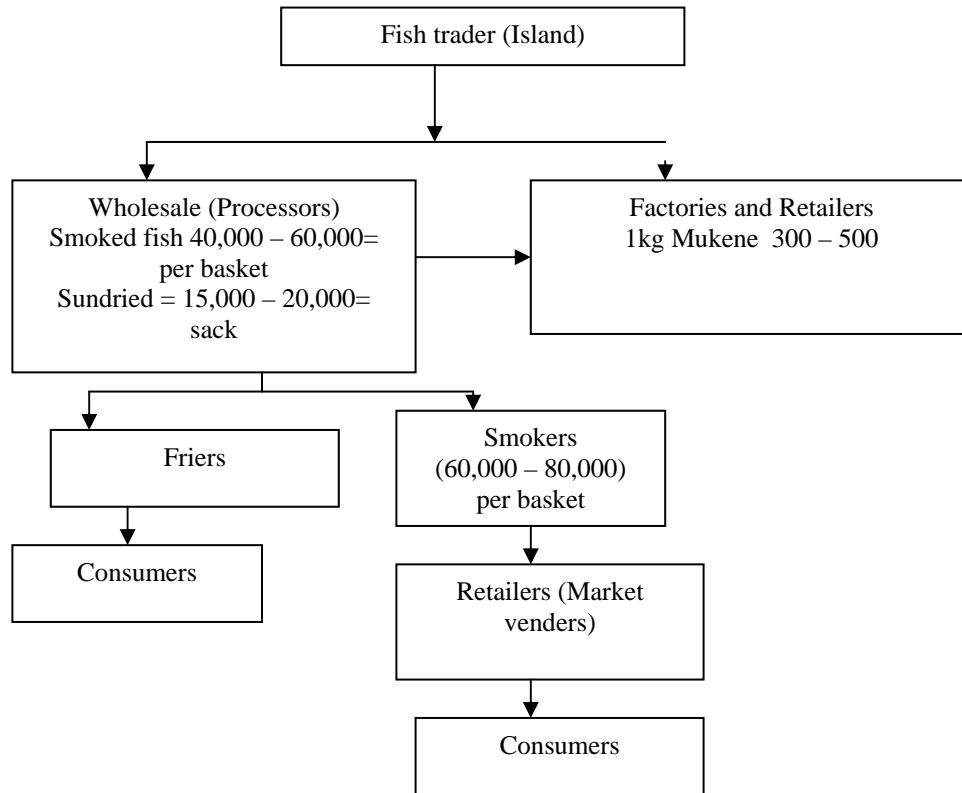
Product flow and financial flow

The flow of products from fishermen to final consumers are in different ways for different products and different sources.

Processed and fresh fish



Smoked and sundried



NB It should also be noted that at different stages off loaders and loaders who are paid approximately 10,000/= depending on the load.

GROUP DISCUSSION (WOMEN)

1. Development of the fisheries over time

(a) Catches

Before export boom, fish catches were very high. On the onset of exports, catches were still high with no realisation in decrease. Presently catches have greatly declined.

(b) Marketing opportunities

Before export boom, marketing opportunities were greater than can be compared to the present situation

(c) Returns

Initially, incomes realised were greater. Presently incomes of women fishers have reduced.

(d) General development of the area

There has been a remarkable change in the development of Kasenyi landing area as compared to before export boom. Communication has been facilitated with the presence of telephone booths, pay phones and phone cards. Taxis and motorcycles have replaced legs. Containers are replacing wooden market structure. Landing site has expanded with many boats. A modern fish handling factory has been constructed. And generally, business is greatly booming with a greater population.

(e) Likely reasons for the trend

Before export boom, all fish captured was consumed locally (Uganda markets and fishing areas) although there existed natural disasters of wind, season which decreased fish catches. Competition was minimal and both mature and immature fish was caught. Due to plenty of fish, it was cheap and many people could afford. As a result, marketing opportunities were great.

Consequently incomes were high since they were assured of selling their fish and getting money. Thus they could afford taxes and other expenses but be able to save. Development was very low because people wee few and foreign investment in the area was absent.

When exports had just started, competition was still low since factories had not yet fully established in the export business. They consumed both Tilapia and Nile perch mature and immature species. However, use of illegal gears (beach seines, cast nets, undersize nets) increased meeting the fish demand. As a result, effects on fish catch, marketing opportunities and incomes were minimal.

Presently, the effect of export boom is great demand for fish greatly increased due to increased fish factories an outside (foreign countries) demand. This created stuff competition between factories and the locals hence increased prices. Nile perch, the target specie for factories has become unavailable to local processes (smokers). In addition use of illegal fishing gears have been stopped. Factories have moved a step forward to distribute ice to fishermen to minimise spoilage. As a result, immature fish and reject are scarce, which was taken up by local processors. This all explains the scarcity of fish in addition to nature (season and winds).

Mature Tilapia fish, the only option for local processors (smokers) is very expensive due to increased demand. As a result marketing opportunities have reduced since fish bought hence sold , is expensive. People cannot afford fish prices.

Also, added expanses of taxes and licences are very high. Consequently, income of women fishers have reduced.

Development is great because a foreign investor (Mwamudu) took over the landing and government put in more effort since it was benefiting from exports.

In conclusion, trend of events were blamed on the export business which has left women with no fish hence unemployed. Depletion of catches is as a result of fish exportation which encouraged use of illegal gears.

2. How export fish business has affected the fisheries in the area.

Advantages.

A modern fish handling facility has been constructed through which fish purchased by factories passes. This has helped improve fish quality.

The fisheries in the area have greatly benefited. Fishermen having access to the factories have benefited from increased market, prices and hence incomes. Even, the number of boats have increased

Disadvantages

The introduction of ice has greatly cut down on the amount of reject fish. As a result, fish smoking activity has greatly reduced affecting women.

The fisheries have been indirectly affected in that the scarcity of fish resulting from exportation has negatively affected all the other ongoing activities which all survive because of fishing .

Fish smoking activity was shifted to the villages. In addition, fish for processing is scarce. This is worst in the case of Nile perch which is all taken up by factories.

Recommendations for improved performance.

Nothing much can be done since government is behind all that is happening. So many promises such as introducing of loan schemes by government are all in vain. Government especially politicians are interested in exploiting the people.

Government however should look into the women fisher problems such as high taxes, fish prices, licences and reduce them so as to benefit the women hence fisheries in the area.

3. How export business has affected women and children welfare.

Positive

Nothing positive has been done for them since they do not sell fish to factories. In addition, a lot of money obtained is spent on taxes, licences such that nothing is left for saving incomes obtained are just for daily survival

Negative

Many women processors have left their jobs of processing fish because of lack of fish.

Children are failing to go to school because money for fees is scarce.

Families are left with the option of eating fish carcass and in a few cases reject fish. Thus, children have no chance of testing fresh fish since it is scarce and expensive. In addition, carcass fish passes through several dirty handling processes just as on dirty trucks from the factory.

Women's incomes have reduced. This is because money received is spent on paying high taxes and licences despite the fact that fish catches have greatly reduced.

Nile perch fish the major raw material for the processor women is unavailable. All fresh fish is taken up by the factory leading to increased prices. As a result, they cannot compete for fresh Nile perch. Reject fish which was another alternative has decreased because of the use of ice. Tilapia the only left option, has become expensive because only mature fish captured by 5 inches net is scarce.

Some women's lives are in danger since they have to move to and from Islands bringing fish in order to survive. They are exposed to water accidents where some women have died. This is all because fish is insufficient. Others, have to wait and buy fish from Island traders, which even makes it more expensive than if they were processing their fish.

Recommendations to increase benefits to women and children

For increased benefits, government should specify quantities taken by factories. This will enable sufficient fish quantities for the local consumers (women in particular).

This is very important because all problems resulting from fish exportation are as a result of very large quantities of fish taken up by factories. This will also give chance for children to eat fresh fish and go to school without difficulties.

Government should also reduce taxes and licences levied on people especially the women. Because of high taxes, licences, expenditures such as firewood, transportation all faced, the incomes released are very low.

Loan schemes targeting women fishers should be opened up by government. This will enable more women obtaining sufficient capital from which they can better develop.

Also, they will be able to sell fish to factories through which their incomes will be improved.

4. How export business has affected the fisheries ecology and environment

Positive

To the ecology, government has now put in more effort to ensure illegal fishing is not gaining on indeed, presently, illegal fishing has reduced.

To the environment, the hygiene and sanitation of the landing has greatly improved. Toilets, pit latrines, bathrooms, rubbish disposal sites all present and daily cleaning of landing is now going on.

Market/business is now booming with an increased number of people. However, the booming business are those in other products which survive because of incomes from the fishers.

The landing site has now expanded because more boats have joined the fishing business in order to meet the export demand.

It brought about construction of a modern fish handling facility which has greatly improved fish hygiene and quality ice is also used.

Negative

The export business has brought about decreases in catches. This is because it encouraged more illegal fishing gear users who wanted to capture more to meet the demand.

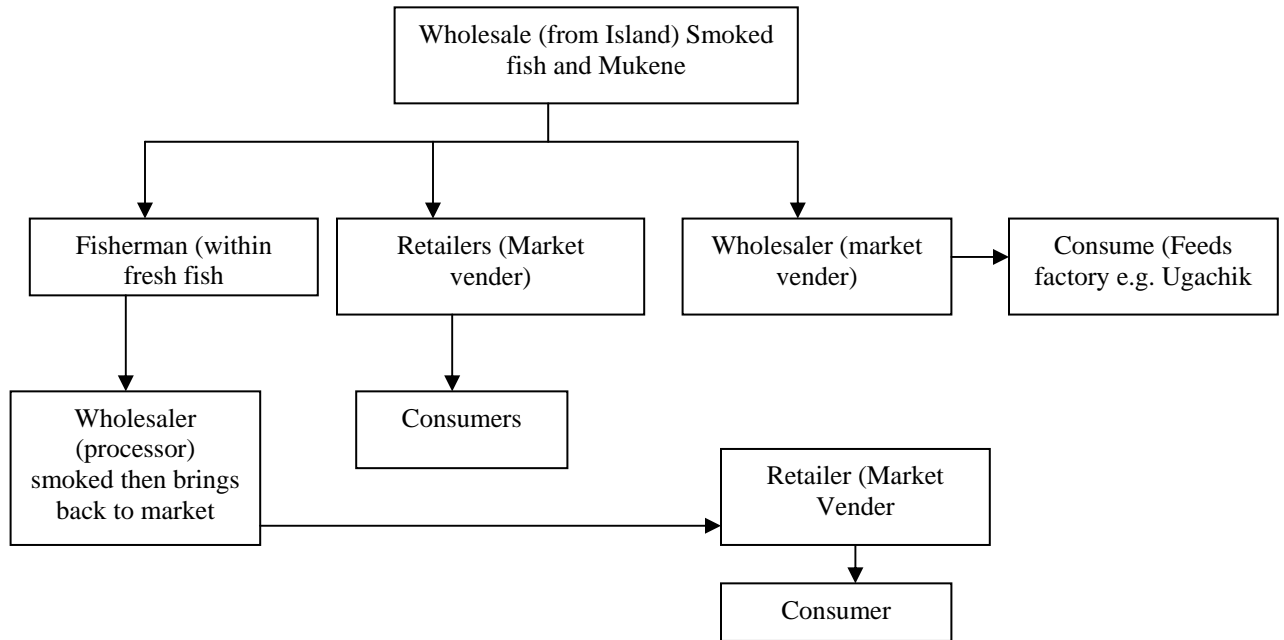
Recommendation to increase environmental benefits.

To increase environmental benefits, government should reduce on number of factories and fish quantities taken by factories. This will reduce high demand for fish and fishers will stop using illegal gears.

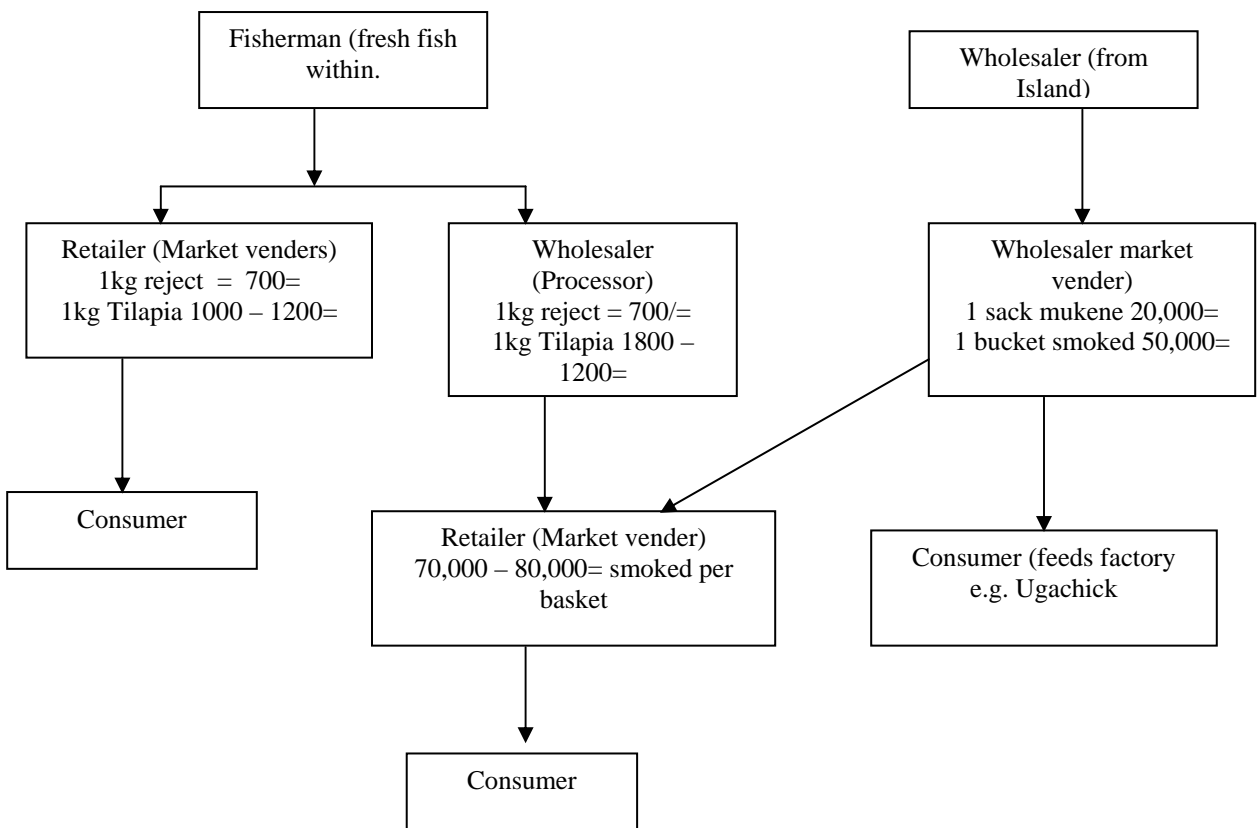
Also, more effort must be put on stopping the use of illegal gears. For example patrol on the lake.

Factories manufacturing illegal gears should be abolished.

PRODUCT FLOW



FINANCIAL FLOW



3. Katosi, Mukono District

LOCATION OF KATOSI LANDING SITE

The landing site lies 18 miles of Kampala – Jinja high way, on the shores of Lake Victoria, in Nsanja Parish, Ntenjeru Su-County, South of Mukono District.

It comprises of 3 sub divisions, namely:- Nabulugo, Katosi main and Cape (Kabaka's landing ground).

The site is a receptacle for commercial goods from the nearby areas, and an outlet for islanders from Ssesse andj Koome Islands in Lake Victoria.

The site is about 100 metres (length). Among the landing sits which researcher has ever visited i.e. Kiyindi, Ssenyi and Katosi, the latter is for more developed, with electricity, permanent buildings all over the place, modern fish handling slabs (5), 4 fuel stations, etc.

The hygiene of the area is satisfactory, many homesteads visited by the researcher had toilets and there are 2 public toilets, one with a water flushing system, and the other using solar.

The boats on leaving the landing site, take fish which they bring. In addition, there are plastic containers into which fish from the boats is packed to be taken to the landing slabs for sorting and weighing

The Fisheries Office is strategically located facing the slabs and there 4 fisheries staff.

There is a taxi park away from the landing site, opposite the Chairman LC's residence. There is also a borehole in the Chairman's compound, where locals draw water at 50/= a jerry can (25 litres), but this being a bit far away from the landing site, it is presumed that the residents next to the landing site are using lake water fro home use.

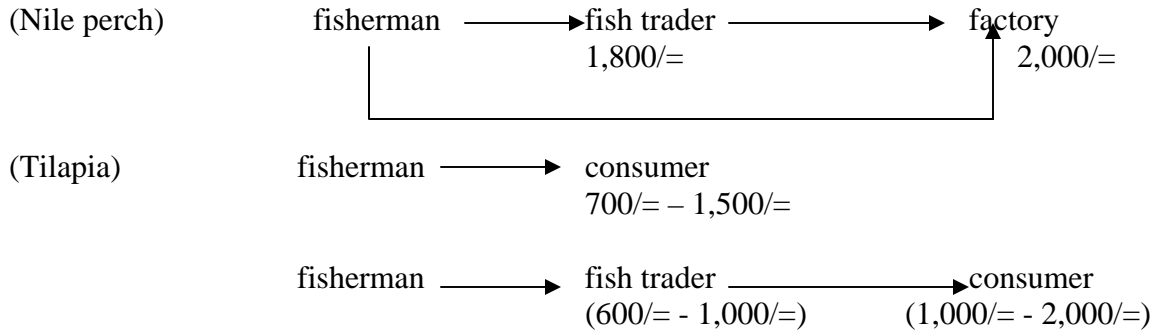
The fish handling slabs are satisfactorily clean but there is no piped water for washing the fish and therefore lake water is used for that purpose.

The methods of garbage disposal are:-

- Collecting and burning
- Burying in pits

The general population including children were healthy and clean.

Product and financial flow:-



FOCUS GROUP DISCUSSION

There is an Association of women in Katosi, comprising of different departments i.e. fishing, agriculture and animal rearing. The Association is called Katosi Women Fishing and Development Association.

It was started in 1996.

OBJECTIVES

1. To eradicate poverty amongst women.
2. To educate our children.
3. To improve on the literacy levels in women through training, study tours, etc.
4. To provide loans to women to start various businesses.

In the fishing section, there are 5 members with their leader Mrs. Joyce Najjuma also Vice Chairperson LC.1 as well as Parish Women Councillor.

Chairperson	-	Joyce Najjuma
Vice Chairman	-	Namaganda Massey
Treasurer	-	Nalongo Bridget
Members	-	1. Getruede Kaggwa
		2. Grace Achen

1. Development of Fisheries Overtime

(i) Catches

Catches are seasonal and currently, we are in an “off-season”

Before the export boom, fish was not on high demand and so the catches were less but the fish were of good size because the illegal fishing techniques were not widely practiced as in the case today.

When exports had just started, there were few competitors (Factories), thus the competition for fish was at a slow pace. Also the fishermen were fewer than now.

Today, there has been a lot of illegal fishing practices as every fisherman struggles to get the fish and also because some factories that deal in “fresh fillets”, the fisherman resorted to those methods of fishing that target small fish. Thus the catches have been high but largely comprising of the immature fish. But now, there an operation that is aimed at stopping the illegal fishing practices. This is done by the Marine Units, Police and Fisheries Department.

Also small fish have market in Arua and Congo (smoked fish), therefore the fishermen had many customers demanding the small sized fish.

MARKETING OPPORTUNITIES

The prices of fish were low before the boom and fish were not sold in kilograms. When it had just started, fish started being weighed but also the prices were low because there were few competitors. Now, a kilo of Nile perch ranges between 2,000/= - 2,300/=.

RETURNS

Because of the higher prices offered per kilogram of Nile perch, the returns are more than before.

GENERAL DEVELOPMENT

The sanitation at this landing has greatly improved, because in addition to homesteads having toilets, there are two public toilets. The hygiene of fish handlers is good, we have a borehole and a protected spring where we draw water for home use.

There are many nice looking permanent buildings built by the fishermen, shops have been put up and these deal in almost all things that one would look for.

The women, out of their Fishing Association, have started other businesses such as shops, farming and rearing, brewing beer etc.

Likely reasons for the trend

- ◆ The EU market can be singled out as the main reason for these developments.
- ◆ LVEMP’s micro projects provided funds and facilities like toilets, a spring well, shallow well and borehole.

2. Effects of fish export business

Advantages of the EU Export Market

- ◆ Improved standard of living
- ◆ Children can now go to school
- ◆ Many have bought plots and built houses
- ◆ Many other businesses have been set up e.g. tailoring, animal and poultry rearing

Disadvantages

- ◆ High revenues/taxes on engines, boats, and fishers
- ◆ High costs of fishing equipments because of high demand for them
- ◆ Increased illegal fishing practices
- ◆ Over-fishing and theft of nets.

RECOMMENDATIONS

- ◆ Factory fish purchasers should issue receipts to the fishermen and fish traders, because at times they are transferred or stopped from work, when they have our debts and we can not go to those factories to claim our money.
- ◆ Government should provide life jackets at subsidized prices so that we all can access them.

3. Effect on Women's and children's welfare

Positive

- ◆ Increased employment opportunities
- ◆ We who are involved in the fishing business can access the fish, for our families.
- ◆ Other women have other businesses such as food and beverage sales; shops both retail and whole sale., clinics and drug shops, sale of wood fuel etc.

Negative

- ◆ Women processors no longer have raw material because they used to smoke the rejected fish which is no longer abundant because fish is now iced after capture, and lands in ice, therefore not much spoils.
- ◆ These women also used to process the small fish which is currently no longer is accepted by the Authorities concerned and if caught with such fish its burnt and the culprit may be imprisoned.
- ◆ In Katosi, out of the many women who used to smoke fish, there are only two remaining because most of them have abandoned the business and have gone back in villages for agriculture.

RECOMMENDATION TO INCREASE BENEFITS TO WOMEN AND CHILDREN

- ◆ Reduce taxes on fishing equipments or else we may leave the business. we are single mothers, we manage homes, have to take children to school etc.

4. Positive effect to the lake environment

The European Union through World Bank funded the fishing community to construct public toilets, spring wells, shallow wells and a bore hole.

Negative effect

The EU export market resulted into fish poisoning in 1998 [sic]

Had led to the widespread illegal fishing and the fishing of immature fish thus depleting the stocks

RECOMMENDATIONS TO IMPROVE BENEFITS TO THE ENVIRONMENT

- ◆ Preserve wet lands
- ◆ Stop cultivation on the lake shores
- ◆ Do not cut down trees near the lake because they provide shed, breeding grounds and prevent drying up of the water.
- ◆ Burn all the polyethylene materials because these prevent water penetration into the ground
- ◆ Construct a garbage disposal site.

4. Kigungu, Wakiso District

OBSERVATIONS

1. Description of Landing Site

Kigungu Landing site is a less busy big landing with over 50 boats, 100 households located in a bay 3km away from Entebbe road. Boat landing areas, enclosed off factory fish purchasing area, petrol stations and aerodrome airport rescue station comprise the landing. More details are indicated in the map.

2. Infrastructure

Generally, infrastructure in the landing site is average. There exist permanent structures of shops, residential houses, health centre, clinics, petrol stations, fisheries offices and a modern fish handling facility (jetty) constructed by Hwan Sung factory.

3. Hygiene

Hygiene of the area is generally good with the exception of the filled up pit latrines which has led to people urinating and defecating on lake shores. However, new pit latrines are still under construction. In addition households own pit latrines that are maintained closed. Toilets and bathrooms serving fish factory purchasing section are cleaned daily. Rubbish placed in individual dust bins and sometimes thrown anywhere is all collected and disposed to major rubbish collecting area. Thereafter, rubbish is carried away by municipal rubbish container vehicles. Water supply is mainly the lake, 2 taps selling water and a distant bore hole.

On the other hand, the fish factory purchasing area is maintained exceptionally clean with a water supply tap.

4. General Fish Handling techniques

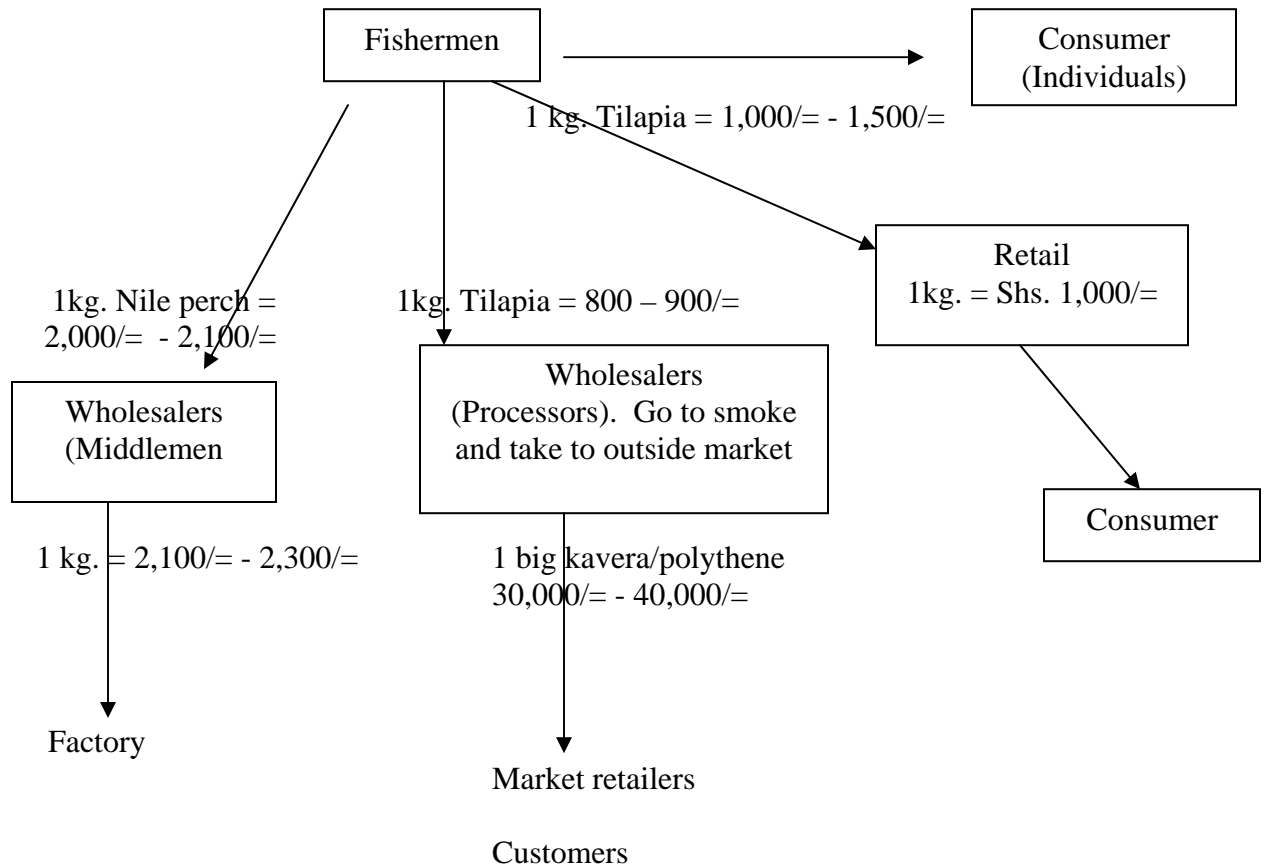
With the introduction/construction of a modern fish handling facility (jetty) consisting of taps, shelter, weighing facility, landing and washing slabs, fish handling had greatly improved. Only fish purchased by factories passes through the jetty where it is washed, weighed and iced in trucks.

On the other hand, non factory fish does not pass through the jetty. It is directly bought by consumers, retailers and transportation is by way of uniced buckets. Display of fresh fish is on wooden unsheltered structures. There also exists a fish container in which captured fish is placed and iced and also ice container boats which carry iced fish.

Processed fish (smoked and sun dried) are unavailable. Fish smoking is carried out deep in the villages and fish taken straight away to external markets (Kampala, Entebbe). Sun dried fish comes from the islands in sisal sacks and are taken straight away to Kampala markets.

In conclusion, not only fish going to factories should pass through a jetty but let all fish captured pass through the jetty to the consumers to main fish quality.

Product and Financial flow



FOCUS GROUP DISCUSSION

1. Development of Fisheries before export boom, when exports had just started and now.

(a) Catches

Before export boom, catches were high, constant during export boom but has greatly declined presently.

(b) Marketing opportunities

Before export boom, marketing opportunities were average. Since then, there has been no great change till present.

(c) Returns

Incomes realized initially were greater as compared to the present.

(d) General development of the area

Before export boom and presently, development of the site is little. A few structures (buildings, shops, fish handling facility by Hwan Sung factory) have developed.

(e) Likely reasons for this trend

Before export boom catches included mature, immature and reject fish and fish waste in plenty in the water. Use of illegal fishing gears was normal. Marketing opportunities were the local fish markets in Kampala (Shauriako, Owino) and Entebbe. Incomes were greater because fish though cheap, was ever available, plenty and affordable by local market consumers. Fish traders were also few in the business.

During export boom, changes realized were not significant. This is because though they began exporting fish (both mature and immature of all species), the use of illegal fishing gears also increased. Thus, both foreign and local markets still obtained fish.

Presently, the decrease in catches has been greatly blamed on the earlier increased use of illegal gears (beach seines, cast nets, monofilaments) whose effects are now being realized.

Also, government intervened abolishing immature fish fishing mesh net sizes of 5 inches (Tilapia) and 6 inches above (Nile perch) have been recommended. As a result, immature fish is now very scarce. Small size mature Tilapia which was captured by under size nets cannot be captured anymore.

Factories have specified in Nile perch exportation affecting processors who mainly processed (smoked) Nile perch. The available mature Tilapia was quite expensive. Competition between factories and locals for fish greatly increased with factories taking the greatest quantities.

No change in marketing opportunities is explained by the fact that the past markets to which they sold their fish are still the same present markets. Despite the export business, none has the chance of selling fish to the factories.

In conclusion, decrease in fish catches is mainly blamed on use of illegal fishing techniques but not necessary the export business.

Finally, the low development of the area is blamed on government greatly discouraging local investors. People owning land have been stopped from developing their land because of lack of land plans which they have to obtain by corrupting government officials and paying large sums of money. Some people have been imprisoned leaving land undeveloped. Taxes and licences on fishing are high leaving little chance for development of fishers of the area.

2. How export fish business has affected the fisheries in the area

(a) Advantages

Fish leader (Fisheries Officers) are the greatest beneficiaries of the export fish business. they obtain free money from free fish from fishers in addition to their monthly government incomes.

It has led to the construction of a better handling fish facility (jetty) from where the factory (Hwan Sun and Fish Packers) purchase fish. Also of Fisheries Office, toilets, bathrooms have been constructed.

Generally, fishermen dealing with factories have increased incomes since fish is sold and all bought at a much higher price. Job opportunities for mainly men (loaders, of loaders) have been created.

The number of boats, engine boats and nets have increased mainly fishing in Nile perch. This is to increase fish caught in order to meet the factory and local demand. It is also a sign of development of fishers.

(b) Disadvantages

Fish processing (smoking) activity has greatly decreased with many women leaving the business. This is because reject and immature fish are scarce. Drying racks found in the villages are redundant and wasted.

Nile perch fish is very scarce as all is taken by the factories. Fish traders (processors) are only left with Tilapia as the only option.

(c) RECOMMENDATIONS FOR IMPROVED PERFORMANCE

Nothing can be done since government has put a stop on illegal fishing. They are waiting patiently to see if there will be an improvement in the catches with time. This will enable them continue with their business.

- Government itself is benefiting a lot from the exports and will not be able to help them.
- Government should slightly lower inches to 4 inches for Tilapia to enable them capture small but mature Tilapia fish.

3. How Export business has affected women and children

It should be noted that the greatest percentage of women 84% (5/6) are involved in fish processing and trading with a small percentage 16% (1/6) being fish boat owners. None go fishing.

(a) Positive

Women agreed that there is nothing positive the export business has done for them. This is because their marketing opportunities are still the same as in the past.

(b) Negative

Many women fish processors have become jobless because fish is very scarce. This is partly contributed to factories taking up most of the available fish (Nile perch). No more immature fish. Reject has greatly reduced with the use of ice and the available mature Tilapia fish is expensive.

Women incomes have greatly been affected with the lack of business. Women waste a lot of time waiting for fish everyday, which fish may not even be obtained at the end of the day.

Most women traders are self sustaining and poor. This makes it hard for them to cater for the welfare of their children.

Many children have had to be chased from school because they cannot afford fees.

Children and families at large have been deprived of fish protein in their diet. This is because it is expensive and in case fish is obtained, it is sold to meet other needs.

In many instances, women are innocently imprisoned because of being caught with immature processed fish. Fishermen sell to them this fish and since they are desperate for money, they willingly accept. Only to be caught when they reach the markets or sometimes at their premises.

(c) RECOMMENDATIONS

To increase benefits to women, government should set up loan schemes through which women can obtain capital to buy fishing equipment and own boats.

Taxes and licenses should be reduced to give the women a chance to develop. Taxes paid should also be according to the fish catches. When catches are high taxes can be increased and lowered when catches are low.

Government should work hard to completely abolish illegal gears and undersize nets manufactured by factories. Once factories stop manufacturing illegal gears, they will not be available to fishermen. As a result, fish catches will increase through which women will also have a surplus for processing and home consumption.

Government should construct a permanent market structure at the landing the enable women have a base where they can display their products for sale instead of moving to and from far market.

Small sized mature Tilapia that was captured by undersize nets provided women with more fish. Therefore Government should devise means of how to fish out the small sized mature Tilapia or they should reduce the inches from 5 to 4 inches for Tilapia to increase fish captured.

In case fishermen capture immature fish with legal gears, they should be left with their fish instead of throwing it back to the water. This will give chance to the processors to obtain fish.

4. How export business has affected the fisheries ecology and environment Positive

It has contributed to the cleanliness of the area especially the area factories buy fish from. Government is now fighting the use of illegal fishing gears. Use of illegal gears resulted in the depletion of fish. So, although fish is scarce, they are presently suffering but hope things will change in the future.

Negative

Almost all fishermen who have sufficient capital are targeting/interested in Nile perch fisheries more than Tilapia with the aim of meeting factory demand.

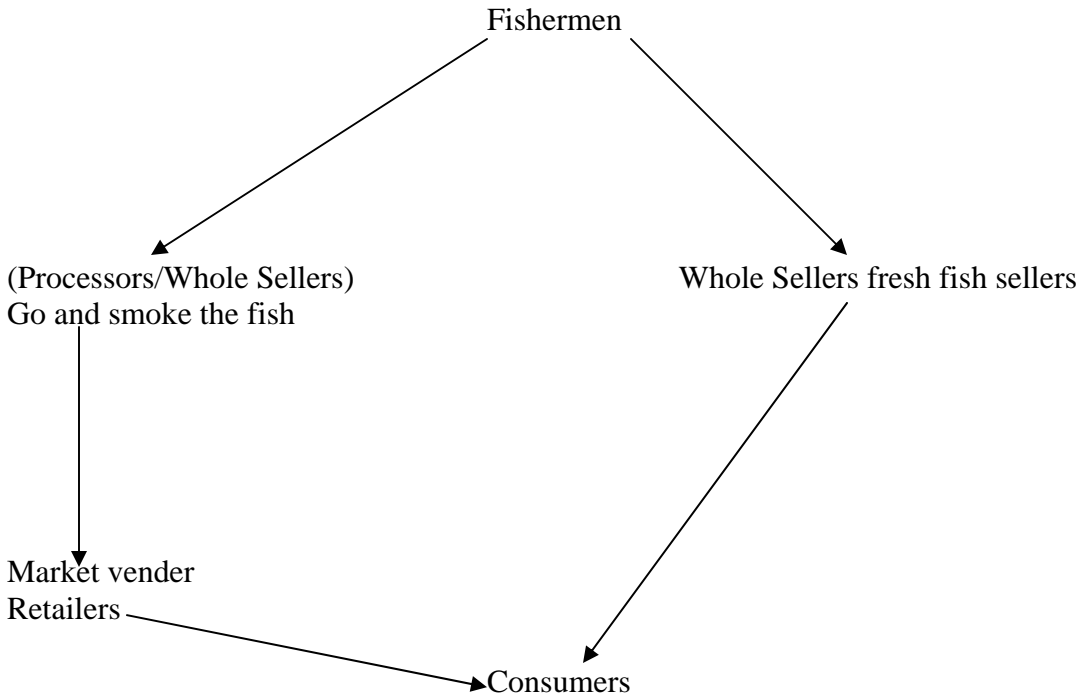
RECOMMENDATIONS

Environmental and ecological benefits can greatly be increase if Government ensures that poor fishing methods are completely abolished. This can be achieved by condemning factories that manufacture the illegal nets. This will make such nets unavailable in the markets. However, although Government has stopped use of the illegal gears, fishers still use them stealfully since they are cheap and available.

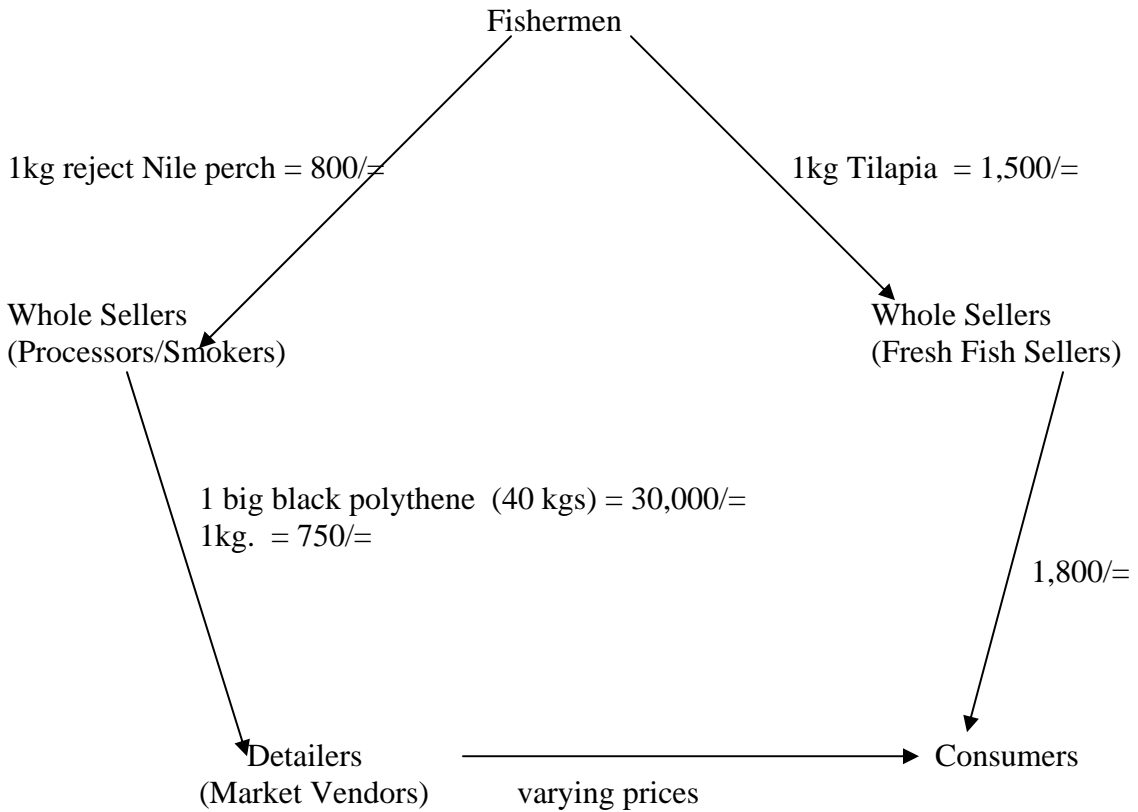
Government should increase security in the lake by putting full time patrol especially at night to capture illegal fish net users.

Competition in which some fishermen with illegal gears are left to continue fishing while others are disciplined should be stopped. This is because some fishermen are connected to high government officials while others are soldiers.

4. Product Flow



5. Financial flow



5. Kyabasimba, Rakai District

Kyabasimba Landing Site has a population of 320 of which 120 are females. There are 49 households and 30 boats in operation. The weekly catch is 11 tonnes.

There is no access road only water transport is used. 8 supply shops, 1 gear shop, 1 classic and 1 building yard are the facilities/structures at the landing. The source of domestic water is the lake.

Credit facilities are lacking and only fisheries extension services are received.

They have a beach management committee that enforces laws as the sole fisheries management activity. There are no development programs/projects at this landing. The Baziba are the main tribe (55%) followed by Baganda (40%), Basoga, Banyarwanda and Banyankole respectively.

Leadership structure consists of Fishers – Gabunga (Chairperson), Vice Chairperson, Secretary, Defence, Treasurer and Information.

Local administration – LC1 system

Decision making is by head of fishers, Fisheries Officer and L.C.1 Chairperson after meeting the entire community. Information dissemination is through meetings and posters. Fishing (including fish marketing), trading (retail supplies), food service are the main income generating activities as well as offering employment respectively.

Income groups fall under 4 categories.

Income group earning 10,000/= - 50,000/= per month are majority – 60%, followed by 60,000/= - 100,000/= per month – 20% then 110,000/= - 150,000/= and above are 4%

- ◆ Malaria and water borne diseases (diarrhea and skin rashes) are main diseases.
- ◆ Family Planning and Immunization are the available public health services at the landing.
- ◆ Ssesse canoe boats are mostly used with 17 out of 23 in operation followed by parachute boats 7 of which 5 are operational.
- ◆ There are 7 engines at the landing.
- ◆ Gill nets (1205) are the main gear in use. There are also a few long lines (10) and mosquito seines (2).
- ◆ Nile perch (553,510 kgs.) is the commercial main target species landed by 20 boats followed by Tilapia (39,150 kgs.) landed by 8 boats and mukene (600 kgs.) by 2 boats annually.
- ◆ Weighing facilities (2) are the only fish handling facilities at the landing.
- ◆ Processing of Nile perch is by smoking 200 kgs. and 150 kgs. Tilapia weekly only 60 kgs. of mukene are sun dried weekly.
- ◆ Fresh Nile perch is sold to Kalisizo and Kampala Fish Factories while the processed goes to Kyebe, Kakuuto and kyotera makreks.

- ◆ Fresh and smoked Nile Tilapia is sold to Kyebe, Kyotera and Kakuuto markets. Mukene fresh and smoked also goes to the same destination.

Product flow and Financial

Fisher - 1,800/= /kg. —————> Middleman – 2,000/= /kg. —————> Factory Supplier

There are 4 garbage disposal sites but no pit latrine plastic and polythene materials are burnt.

Garbage disposal misuse culprits are fined or made to clean the place.

FOCUS GROUP DISCUSSION

NAMES: TEDDY NAMUWAWU – WOMEN LEADER L.C. I
ASE MUSANA – BOAT OWNER

1. Development of the fisheries

(a) Catches

Before export boom, catches were high and fishermen were few. When exports had just started the number of fishermen increased and now catches have reduced.

(b) Marketing opportunities

Before export boom, markets were few and there was low market demand for fish when exports had just started, markets started improving and now there is a high market demand for fish.

(c) Returns

Before export boom, returns were low due to low prices of fish by that time. But now returns have increased due to increase fish prices.

(d) General development of this area

Population of this area has increased, number of fishermen at this landing has also increased. Employment opportunities have also increased.

(e) Likely reasons for this

Development of the export industry that has increased market for fish.

2. Effect of fish export business in general

Advantages

It has improved people's income

It has increased fish prices and market

Disadvantages

Fish for local consumption has reduced, people in this area no longer eat fish. It has promoted over fishing.

6. Masese, Jinja District

Location of the landing

Masese landing site is located East of Jinja town about 2km from Jinja tax pack.

Size

The landing site is big but almost now every space which would be used expansion of the site house used to construct in structures (but they are temporary).

Infrastructure

The road linking the landing site to the town is murrum type.

Hygiene

The landing has toilets (5) and one disposal site so at least there is no careless disposal of faeces and garbage.

Genera fish handling techniques

The fish handling facilities i.e. landing shade, washing slabs are built to the required standards. People can step where fish put and the people involved in off loading fish boats and weigh do not put on over coats and gam boots, so there is a high risk of fish contamination.

On the other side fishing boats there is landing slab, fish is just put on Buvera on the ground and this is a risk as far as fish quality is concerned.

FOCUS GROUP DISCUSSION

1. Catches.

Before export boom.

The catches were little even though there was fish in the water. This was so because by then fish was so cheap and very few involved in fishing hence catches were little.

The catches were very many before export trade because if a fisherman went to the water, could not come out with nothing as it the issue now.

When export had just started

The catches started improving because now there was money in fisheries so many people join the sector with view of getting money. The catches started declining as there ware many fishmongers who join in.

Now

Now catches are very few because people (fishermen) started using bad fishing method/gear (Beach seines) with view of getting much money.

Now catches are in that a fisherman can go and come back with after the fish which had gone into his net being stole.

Marketing opportunities

Before fish export

Markets were very few, we used to sale our fish with in different districts in Uganda but now we take fish (Mukene) as far as Congo and Rwanda.

When Export had just started

Markets become very many.

Now

Markets are very many.

Returns

Before fish export

Fish used to pay less since we used to sell it within Uganda most of us (fish mongers) so we were very many so in order your fish not sell you sell at a low price.

When fish export had just started.

Fish trade started being profitable especially foe those who were taking fish in distant places. Even those that remained in the local markets, their profits improved because the number of fishmonger operating there had reduce. This gave chance to those mongers to increase the price of fish.

Now

Fish now pay much if you can get much fish and take. But the problem is that we are now many fish traders and fish is scarce so you get little fish and you take it to distant places, and thank of things like transport and taxes it become less profitable.

General development of this area

Before fish export

The landing was very small, boats used (very few) used to land here, and among them there were no boat bringing fish from the Islands, but now such comes.

There wee very few houses at this landing but now are many. Even the number of people was little but now are many. Now days most people like me (Researchers) normally come her to study. On the side of women are very few trading fish.

When fish export had just started

People started increasing at this landing, number of boats increased and may houses were built at the landing.

Now

People are very many at landing, now boats have started bringing fish from the Islands. Houses have been built in almost every place.

Likely reasons for this trend.

It is because fish now pay much, people are getting some money, and to add on that most fishmongers have learnt to invest their money.

2. How the export fish business has generally affected the fisheries in this area.

Advantages

- ◆ Because many people have got some money, they have brought services related to fishing nearer
- ◆ The fisheries officers have become very rich.

Disadvantages

It has not affected fisheries.

3. How the export business has affected women and children welfare

Positive

- ◆ They have got employed through trading in fish because it is their daily work.
- ◆ The money they get, some of them are widows have been in position to cater for their children.
- ◆ Their children can not fail to eat fish once in a while because those ones trading in fresh Tilapia can pick some fish and take home for their children. On the side of those who trade in Mukene they do the same thing (taking some at home) or can get money and buy fresh fish since its easy and cheap to get at landing where they are operating.

Negative

You find that fish is scarce now days because many people want to trade in it to take to outside (Busia, Congo and Tororo). This has limited women to get fish at landing especially when the boat has just arrived. Because one has to pick 1st a sack of fish in order to take it. So for women who cannot run first it means that they will not get fish and definitely their children at home will suffer.

Secondly, you find that now fish is sold by Auction the one who is willing to pay high price will take the fish so this has affected some of the women who have little capital.

Recommendations

The prices of this fish especially Tilapia should be fixed so that they can also be in position to buy fish.

4. How the export business has affected the fisheries ecology and environment

Negative

- ◆ The fish is now little among the fishermen and even to us because some fishmongers now have their own boats and nets and fishermen to fish for them, so it becomes hard to get fish because when fishermen land, their fish specifically to the owner.
- ◆ They have now imposed had regulations to those women trading in fish and taking fish out, so by the time they sale their fish the returns are small.
- ◆ The water has been polluted by the near by factory (Masese fish factory). This is because the water around there is even green so it could be due the disposing off waste from the factory.
- ◆ The water hyacinth has greatly affected the place.
- ◆ With the little fish got it has been due to the many wrong gears used, and many fishermen now because fishing pays.

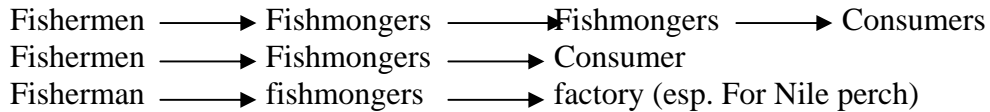
Positive

- ◆ Rearing place for insects which control the water weed has been put in place by FIRRI.

Recommendations

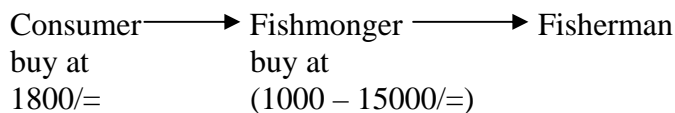
- ◆ The government should limit fishermen who use bad fishing methods may be in future they will be in position to get much fish.
- ◆ The taxes imposed on them should be relived.

5. PRODUCT FLOWS

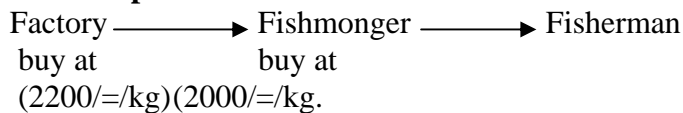


6. FINANCIAL FLOWS (HOW RETURNS ARE SHARED)

For Tilapia



For Nile perch



7. Ssenyi, Mukono District

History

Ssenyi fish landing started in the sixties at a subsistence level. Barter trade was being practiced whereby fish was being exchanged for food stuffs. With time, contracts between the fishermen extended to the neighbouring villages. These contracts eventually gave birth to the present lucrative fish marketing and other downstream related activities (other business around).

Today the Ssenyi landing site is one of the fast developing fish reception centres on L. Victoria and is among the major landing sites in Mukono District.

Location:

It lies on the shores of Lake Victoria South-East of Lugazi town. It is strategically positioned with a 37km murrum road linkage to Lugazi town where there are diversions to Eastern and Central parts of the country.

Economic activities

The area serves as a basic outlet for the fisherfolk and goods destined to Buvuma Islands and neighbouring fishing villages. It is therefore one of the nearest fish receiving centres from the nearby fertile fishing grounds. Fishing and fish trade are major economic activities in the area.

Insulated trucks with ice transport fish to different fish processing plants. Other activities include agriculture, animal rearing and exploitation of forest resources which abundantly surround the area.

Infrastructure

The 37km road from Lugazi town is made of murrum and is rough in some areas. There are 2 schools in the area: a Nursery school and Primary school with no Secondary school.

There are 2 public toilets but one is not functional. The one in use is paid for at 100/= for those who use it.

The area can be generalized as a slum, with a few brick-built houses and a good number of wooden houses. No house has a toilet, not even the brick-built permanent houses.

Source of water

The major source of water for use is the Lake, there is no borehole nor a protected spring well in the area. There is a stream where some people draw water from.

The landing site is in a valley, largely surrounded by a stoney-hilly area and partly a forest behind the hilly area is water (lake).

Hygiene

The hygiene of the area is not good because there is only one functional toilet in the area, not even bathrooms residents therefore bath in their non-cemented wooden houses.

Rubbish is collected in polythene bags and sacks and dumped at night in unspecified places e.g. in brick-houses under construction.

Fish handling techniques

There are 8 slabs for handling fresh fish, made of thin worn-out sheets, and wooden poles as supports.

The fish handlers wear dirty blue over coats and carry fish in their hands not in containers.

However, there are 3 concrete slabs under construction but these came to a standstill for about a year, as informed by the respondents.

There is also construction of a floating jet such that large boats can be able to bring fish at the landing.

Product and financial flow is as for Katosi.

FOCUS GROUP DISCUSSION

NAMES OF FISH SMOKERS

1. Nalongo Kamuze
2. Mrs. Lule
3. Mrs. Mohamed
4. Mrs. Badru
5. Jessica Mutumba

DEVELOPMENT OF FISHERIES OVER TIME

(1) Catches

Before the boom, the catches were low but comprised of mature fish mainly. Even when the exports had just been started, the catches were not so high and comprised of mature fish because there were a few competition. Now, the catches have been high but mainly consisting of immature fish but of recent, the immature fish have reduced because of law enforcement by the Fisheries Department and Army Personnel.

MARKETING OPPORTUNITIES

We no longer get many customers because of scarcity of the raw materials. We sell our fish to fish traders from Kawolo. We used to process all sizes of fish but now we fear being punished if caught with small sized fish. We had over 10 customers but now we can get about 2 every after one day.

RETURN

We used to get much fish but the returns were also low. Though the returns were less, they were enough for our maintenance but now, there is scarcity of the raw material the buying prices are also high so we get very low returns.

We also sell fish maws at 18,000/= a kilogram.

GENERAL DEVELOPMENT

Before the export boom, there wasn't any development with no toilet facility, the population was small, transport on land was a problem because taxis could not come up to here but could stop in the nearby town of Nangunga which is also far from this landing.

All houses were made of wood but now some permanent houses have been constructed. The shops have increased in number, clinics are in place, we have 2 public toilets, the number of boats that bring fish has increased.

Likely reasons for this trend

Developments started when the fish trucks buying Nile perch began to come here and purchase fish.

2. General effect of fish export business

Advantage of the EU export market:-

All the activities in place, all businesses are centered around fishing, whose driving force is the EU export market for fish.

Disadvantages:-

We, the women smokers no longer have enough raw material because we used to smoke small sized fish but these are no longer acceptable by the Fisheries Department.

Also we buy rejected fish but this is also not enough because not much fish spoils.

We can not buy very fresh fish because it is expensive e.g. a very fresh Nile perch of ½ kgs is at 1,500/=, and when smoked we have to sell at about 2,500/= - 3,000/=, yet a retailer or consumer can not afford the price.

RECOMMENDATIONS FOR IMPROVED PERFORMANCE

The concerned authorities should give us loans and also create an export market for the smoked fish as it did for fresh fish.

3. EFFECT ON WOMEN AND CHILDREN WELFARE

POSITIVE EFFECT

Our husbands are fishermen, they earn good money, give us and we enlarge on our businesses or alternatively initiate other businesses.

NEGATIVE EFFECT

- ◆ Nile perch being on high demand by the EU countries, we hardly get what to eat.
- ◆ Scarcity of raw materials causes us at times not to work.
- ◆ The raw materials is also expensive.

RECOMMENDATIONS TO INCREASE BENEFITS TO WOMEN AND CHILDREN

Check and control the export market.

4. EFFECT ON FISHERIES ECOLOGY AND ENVIRONMENT

NEGATIVE EFFECTS

Fish is killed before reaching maturity i.e. before they reproduce thus reducing fish stocks.

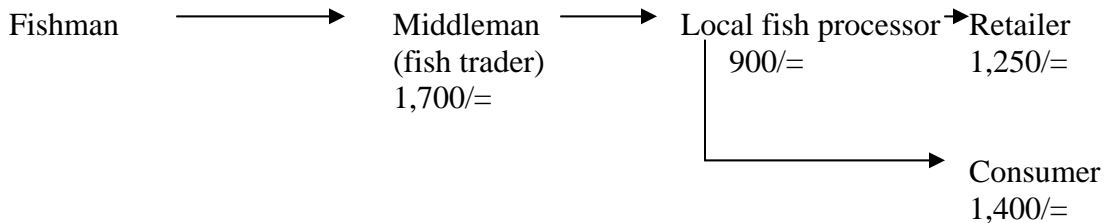
POSITIVE EFFECTS

Women who process small fish will be forced to turn to mature fish.

RECOMMENDATIONS TO INCREASE BENEFITS TO THE ENVIRONMENT

Stop illegal fishing.

PRODUCT AND FINANCIAL FLOW



8. Wairaka, Jinja District

DESCRIPTION OF THE LANDING SITE

Location

Wairaka landing site is located East of Jinja town about 7km along Jinja –Iganga Road to Wairaka town where you branch off to right turn Wairaka town the landing is 2km on the shore of L. Victoria.

Size

The landing apparently is very small but it has a long shore line and land for expansion in feature.

Infrastructure

The road lining the landing site to the Jinja-Iganga high way is murrum type and is only one.

Hygiene

The landing site has two pit latrines

General fish landing techniques

Polythene bags are laid down under the shade, when fishermen land their fish and then transactions between them and fish mongers occurs. Some time transactions take place in the boat.

2. Production flow and financial flow.

Product flow

- ◆ Fishermen bring fish and sale to fishmongers who take it to the local markets
- ◆ Fishermen to consumers.

Financial flows

Consumer buys from fishmonger, fishmonger buy form fishermen at 1000= /kg.

FOCUS GROUP DISCUSSION

A REPORT/VIEWS OF WOMEN SPECIFICALLY DEALING IN FISHERIES BUSINESS (FISH MONGERS) AT WAIRAKA LANDING SITE.

(i) The development of fisheries overtime

Catches

Before fish export, there was very much fish.

When exports had just started the catches were still much but now days fish is scarce.

Marketing opportunities

Before fish export fish was sold in the near by markets, when it had just started, businessmen began taking fish outside Uganda and now very much fish is taken. This has now left the local markets with little fish and sold at a higher price.

When the fish export had just started, the returns also declined because the price of fish increased at the landing and when you take to the market and sale at a high price so that you increase on the profit, people (consumers) will not buy. So you have to reduce the price such that the return are low and now they are very low.

General development

Before fish export, this landing used not to have any building/structures but now and after the fish export they are there and we hope very many structures are present.

Likely Reasons for this trend

- ◆ Since fisheries is now paying many people have joined fishing so that they get much money out of fish export, and is the end fish has reduced.
- ◆ Returns are much for only those ones taking outside but use trading within Uganda, we get little profits.
- ◆ There has been development because now fish is on demand and many people are turning to fish business.

2.How the export fish business has generally affected the fisheries in the area.

Advantages

- ◆ In Uganda markets are little/small, so if fish goes out we get much/big markets for our fish.
- ◆ When people take fish outside, they get much knowledge in trading/business.
- ◆ If fish is not going out it may float and pay less money.

Disadvantages

- ◆ If fish is taken outside, it means those one taking it in plenty and at high prices so it becomes hard for one who only want a basin of fish to compete with them.

Recommendations

At least let those people who take fish out side buy it from other/different landing site.

3. How the export business has affected women and children welfare.

Positively

Access and availability of fish - Trading in fish has given chance to get some fish and take at home to look after our children.

Employment - Women have got employment through buying fish from fishermen and take it to the markets or sale to other fish mongers.

Though working they can get money and buy milk, food, clothes for their children and others who are widows can educate their children.

Negatively

Access and availability of fish - With fish export, the price or returns of fish are now boosted, so very many have come to trade in fish. So sometimes you may fail to get fish or sometimes get little. With this there is no way you can say you will eat fish.

Employment

Some times our level of employment is reduced especially when rich fish mongers come to buy fish. Most of us because we have little money /capital, you can not compete with them as they rise the prices of fish. Sometimes when they come at the landing most of us we do not work.

Recommendations

They think that exporting fish should be stopped or these rich fish mongers should get specific landing sites.

4. How the export business has affected the fisheries ecology and the environment at the landing site in general

Positive

With environment at the landing site a big piece of land has now been cleared up for raising on structures.

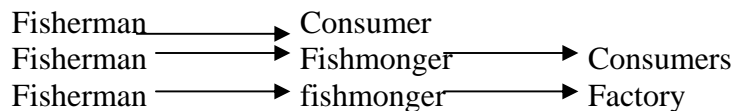
Negatively

It is out of fish export that fish catches have declined because there are now many fishmongers and fishermen dealing in fish.

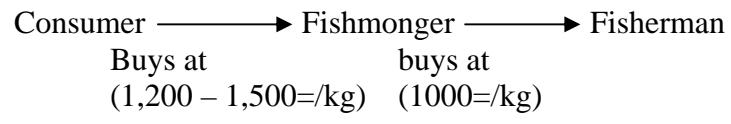
Recommendations

Fish export should be controlled or stopped completely.

4. Production flows



4. Financial flows



Landing Sites on Lake Kyoga

9. Kayago, Lira District

Description of the landing site

Kayago landing site is one of the biggest landing site found in Namasale sub-county, Kyoga county in Lira district.

The landing site is located to the extreme East of the sub-county and bordered to the west by water.

Size:-

The landing is around 1km² area including the village around. The landing is located in 3 places at the shores there. Kayago landing site is divided into 3 divisions as “A”, “B” and “C”. Each of these divisions has got a Local Council system operating there from L.C.1 Chairpersons to Executives and finally to the Councilors.

Infrastructure:-

There is a feeder road connecting Kayago to Namasale trading centre to Namasale sub-county and the road continues up to Lira town.

The place has 3 main trace pass roads connecting villages around.

There is a primary school around 1km away called Kayago Primary School.

The place also has a bore hole, a Police Post, both permanent and semi-permanent buildings. Inside the building people are trading in other goods operating hotels and bars. There is no any electricity access. However, some people use generators and only one person has solar pressure lamps and ordinary glass lamps for lighting their homes at night.

There is only one public toilet being constructed by the Government. However, most families have got pit latrines constructed. There are two working tables constructed just near two close small landings in Kayago main landing site.

There is one drying table made of concrete cement and a modern smoking kiln built next to it.

Hygiene

Kayago has a very poor hygiene and most notably when it rains. The drainage system is very poor. The place is always water logged especially on roads where vehicles pass from.

The place is characterized with too many people especially women and children, ducks, pigs, goats and sheep even. All these things including some people defecate anyhow and anywhere.

Garbage is being disposed off anyhow and anywhere though there are some places where rubbish pits are located within the homestead. Polythene bags and plastic materials and disposed off any where.

Fish handling techniques:-

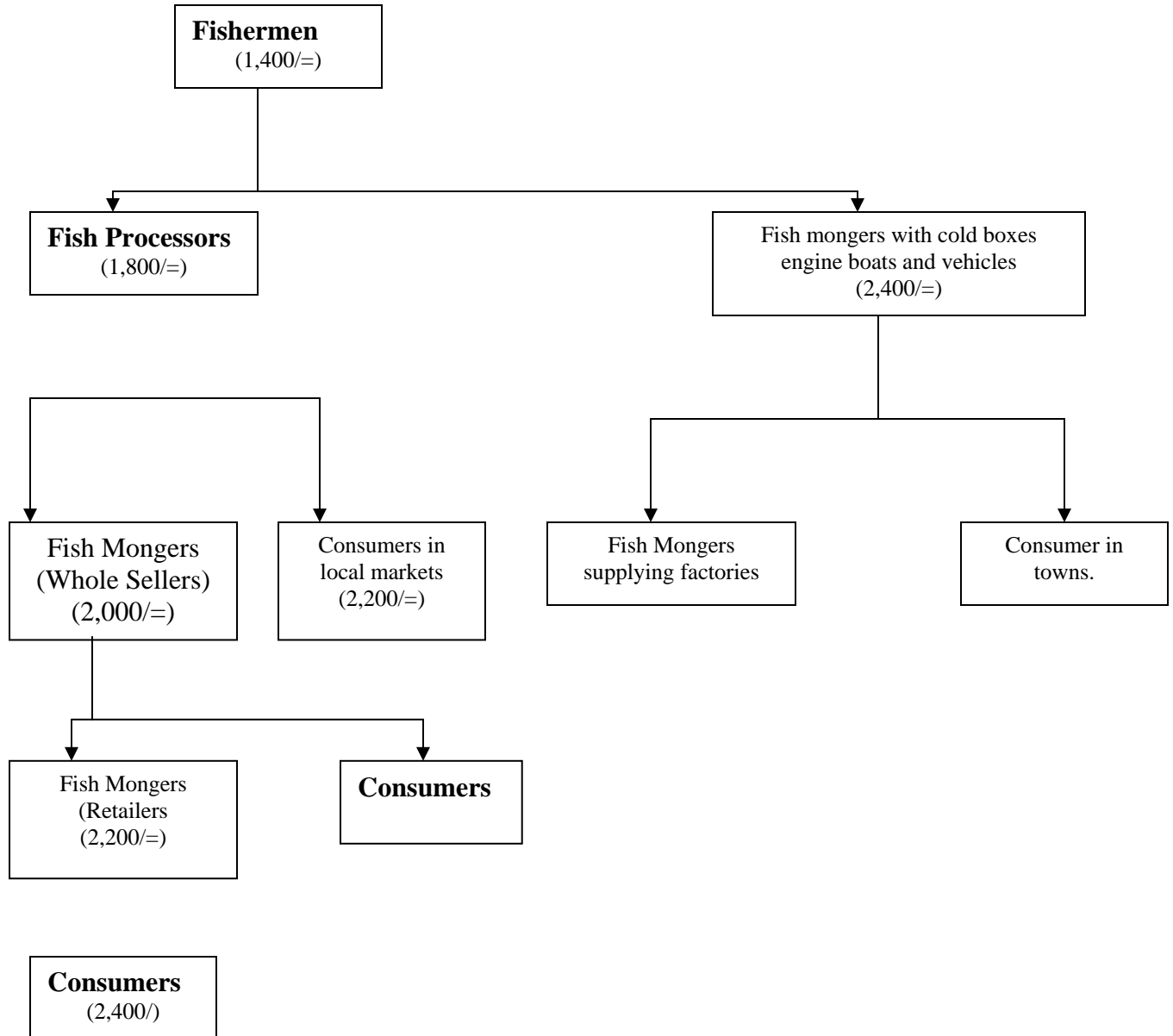
When fresh fish have been brought out of water, they are normally weighed and put in cold boxes containing ice for those who take to the factories and local markets around when still fresh.

When the intending use of the fish is processing like smoking, they are normally gathered in basins and taken home for processing.

There is a strict rule put on handling of fish at Kayago landing site by the Fisheries Department and it is normally monitored by the supporting fisheries staff at the landing site.

Financial Flow:-

(NILE PERCH SPECIES)



10. Kikaraganya, Nakasongola District

Location

Kikaraganya Landing site is situated on Western shores of Lake Kyoga, located in Nakasongola district, Nakasongola sub-county, Lwampanga sub-county, Kisalizi parish. It's surrounded by other landing sites mainly Zengebe and Lwampanga landing site.

It is about 5 miles from Lwampanga landing site to Kikaraganya site a densely populated site.

Size

Kikaraganya landing site is divided into two parts.

One part owned by Government of Uganda. All these parts are under one fisheries officer, local administration but with different Gabungas. The part owned by Kikaraganya Church is having more boats about 40 boats whereas that owned by government has about 28 boats. The overall number of boats at the landing is 68 boats of which 50 are parachute while 18 are Ssesse planked canoes for transport and fishing.

The site is densely populated with about 750 – 800 people more than Lwampanga landing site.

Infrastructure

Health centre

There is one health centre but it is under control of Lwampanga health centre. This offers:

Antenatal care

Immunisation

It has little facilities as compared to Lwampanga health centre.

Schools

It has 2 primary and 1 secondary school.

Road network

Two feeder roads.

Residential houses

Most of the houses are built from grass, they are huts.

Worshipping places

Three churches .

Hygiene at landing site

Inadequate latrine facilities. The population is high but the latrine facilities are not enough to accommodate all the fishers/fish processors.

◆ **Improper disposal of fish offals.**

Since many people are involved in the salting of fish, fish offals are not put in an authorised place.

◆ **Personal hygiene**

Many fishermen don't keep themselves clean. The clothes used when fishing are the same clothes used when not fishing.

FISH HANDLING TECHNIQUES

Inadequate insulated fishing vessels.

Fishing boats insulated at the landing are very few. Most of the boats are open and fish receive direct sunlight.

Improper clothing of fish handlers.

The fish handlers at the landing are not well protected. No provisions such as gloves, boots, head gears.

Improper design of weighing facilities

There is no shed for the weighing facilities. The weighing facilities are open. No drainage system for runoff water from Refrigerated vehicles. All the water drains into the lake.

Lack of fish tubes for transportation of fish to refrigerated vehicles from boats.

Inadequate knowledge of proper handling techniques by fishermen and fish processors.

GROUP DISCUSSION

DATE 2ND AUGUST, 2003

	Name	Responsibility	Signature
1.	Mr. Sebutiko Robert	Gabunga (church founder)	.....
2.	Mr. Musisi Elly	Elder	.....
3.	Mr. Byakatonda Godrey	Fisherman	.....
4.	Miss. Mirabu Martin	Head Fish Processor	.....
5.	Miss Nabugga Margaret	V/Chairperson/women leader	.....
6.	Mr. Ndahura Rogers	Sec. For production and Environment Protection	.....
7.	Mr. Lubega Johnson	Gabunga (Govt. Owned)	.....

	Before export boom	When exports had just started	Now
Catches	<ul style="list-style-type: none"> • Fish was abundant • Low fishing boats/nets/gears. • The size of fish caught was big. • The number of illegal fishing gears and methods used was limited. • Low technology fishing equipment with low greater fishing efficiency. 	<ul style="list-style-type: none"> • Fish abundance began to decline. • Increase fishing boats/nets and methods. • Variety of fish species were caught. • The cost of construction of boats began to rise. 	<ul style="list-style-type: none"> • Fishing nets are expensive and catches are low. • Taxes imposed on fishing has doubled. • Size of fish caught is small. • The license of fishing vessel is high. • Fishing boats are expensive. • Modern fishing gears with greater efficiency.
Marketing opportunities	<ul style="list-style-type: none"> • Increased market for fishing gears. • The price of fish was low. • Fish was bought on credit. • Local fish processors (smokers and salters) had dominated the market. • Local consumption of fish was low. 	<ul style="list-style-type: none"> • The price of fish began to rise • Fish was bought on credit. • Many fish processors were out competed by the refrigerated vehicles/Agents. 	<ul style="list-style-type: none"> • Various market outlets for fish. • Many fish processors had left the business because of competition. • Taxes are high • More people in fisheries administration
Returns	<ul style="list-style-type: none"> • Income levels of the fish processor was high. • Income levels of the fishers was less and the whole population • Income levels of the women were down. • Many women were involve in agriculture 	<ul style="list-style-type: none"> • Slight rise in cost of construction of boat. • Improvement in earning of people. • Expenditure was minimal 	<ul style="list-style-type: none"> • Cost of buying nets is very expensive. • Improvement in income earning of women. • Improvement in income earning of women. • Income levels of the people has improved. • Expenditure is high especially of the fishermen.

<p>General development of this area</p>	<ul style="list-style-type: none"> • The population was low. • The landing site was inhabited by people of almost one tribe • Huts were used as residential houses • No access to schools. • Moving to Lwampanga to receive medical cared • Roads were impassable during rainy seasons 	<ul style="list-style-type: none"> • The population number began to rise. • Many different tribes began to come in to involve in fishing. • Few commercial shops. 	<ul style="list-style-type: none"> • The population is high. • Many tribes are now present. • Permanent houses are now built. • Primary and secondary schools are now in place. • Accessibility to essential goods. • A health centre is now constructed.
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REASONS FOR THE TREND.

Caches.

- ◆ The fishing boats involved in fishing today are many resulting into low catches.
- ◆ Increasing fishing gears and methods used today are illegal such as seine nets.
- ◆ Modern fishing gears with greater efficiency are now on market and many in use such as monofilaments.

Markets opportunities

- ◆ More Industrial fishing processing plants have led to increased market outlets of fish.
- ◆ Improvement of fish quality sold to fish traders.
- ◆ Improvement of communication and transport net work. Many fish purchasers can come and buy fish.
- ◆ Action of the church of Uganda to enlarge on the landing.

Returns

- ◆ High price of fish because of many buyers in the market.
- ◆ Competition for fish has improved the standard of living of fishermen.
- ◆ Expenditure is high because of high taxes imposed on essential goods such as sugar, salt and paraffin.

General development of the area

- ◆ Nature of administration is good: people are involved in decision making at the landing.
- ◆ Revenue collection from fishers, processors and industrial fish processors.
- ◆ Security at the landing is tight which has enabled people to participate in different activities without hindrance.

ADVANTAGES OF EXPORT FISH BUSINESS.

- ◆ Ready market for fish due to competition among buyers.
- ◆ Income levels of people has increased since fish in time and at high price.

- ◆ **Deterioration of postharvest losses.**

Most fishing boats are provide with ice to go and purchase fish or to carry out fishing so this has reduced on the deriorative level of fish.

- ◆ **Transport network development.**

The roads are now maintained in good conditions, it takes little time to reach Nakasongola town.

- ◆ **Creation of employment opportunities.**

Many people are involved in different activities related to fishing such as those selling local brew, fishermen, drivers etc.

- ◆ **Communication network development.**

The fishermen can easily know the price of fish easily without even consulting the factories.

- ◆ **Increased population**

Many different tribes are now involved in fishing in this area. This provide market for the goods purchased and tax base is widened.

Disadvantages

- ◆ **High taxes**

Fishing vessel/fisher monger licence has increased to the extent that we may leave fishing. The taxes are high for everybody.

- ◆ **Insufficient fish for consumption**

Women can't afford to buy fish because the price is too high and also some fishermen may sell them all and take nothing at home.

- ◆ **Theft of gears and fish**

Some gears are stolen especially traps and gillnets by other people and if fish is in it, it is also taken.

- ◆ **Indiscriminate fishing gears**

Illegal fishing gears are many and are being used to catch fish in order to get more.

- ◆ **Over exploitation**

So many fishermen now can carryout fishing four times in a day which was not the case in the past.

◆ **Increased use of under-sized nets.**

Many fishermen use undersized nets because they are cheaper to get and have greater efficiency.

◆ **Isolation of some fish traders from business.**

The export fish business has isolated some fish traders from competing successfully in the fish trade. This has forced low investment traders from trading freely.

Recommendations for improved performance

- ◆ Government should provide “**Entandikwa**” to fish traders with low investments to compete favourably with other purchasers in the market.
- ◆ Provision of fishing gears to fishermen at subsidised prices.
- ◆ Government should put up a tax holiday or at least reduce the taxes imposed to fishermen.
- ◆ Roadblocks should be banned or those people should be provided with right documents.
- ◆ Co-operation and collaboration between districts which share the lake Kyoga for efficient enforcement of fisheries regulations and rules.
- ◆ Fishing communities should also participate in the making of rules.

EXPORT FISH BUSINESS (TO WOMEN AND CHILDREN)

Positive

Employment opportunities

More women are involved in activities related to fishing such as Basket making, Alcohol selling, Restaurants which provide them with money.

Transport accessibility

Pregnant women can easily move to health centres around or even for as a result of the improvement in transport due to increased fish export business.

Negative

Little access to fish

The price of fish is high which can't be afforded by women and children at the landing. So women have some access to by-catch which are not purchased by these fish traders.

Most women have resorted to beans and vegetables and at times to go without source. The practice of buying fish in kilograms have resulted into fish products very expensive for them.

Recommendations

Fish farming units should be set up because women can easily monitor them. “Entandikwa” should be made available to them to start more small scale business units.

EXPORT BUSINESS - Ecology and the environment at the landings

Positive

- ◆ Planting of trees.
- ◆ A variety of fish species are now caught.

Negative

- ◆ Deforestation

Especially fish smokers. These cut down trees to get logs for smoking fish. These have affected the environment too much.

Also longs for construction of wooden boats.

- ◆ Pollution

Especially water pollution

- The sound of outboard engines tend to make fish species to migrate to other areas.
- Water wastes from refrigerated vehicles drain into the lake.
- Oils from engines tend to cover the surface of the water and also kills some fish species.
- Settlements alongside the lake has influenced people to cut grass, papyrus vegetation to build their own houses. Since many houses are made of thatched grass. Yet these papyrus vegetation offers a breeding ground for fish species.

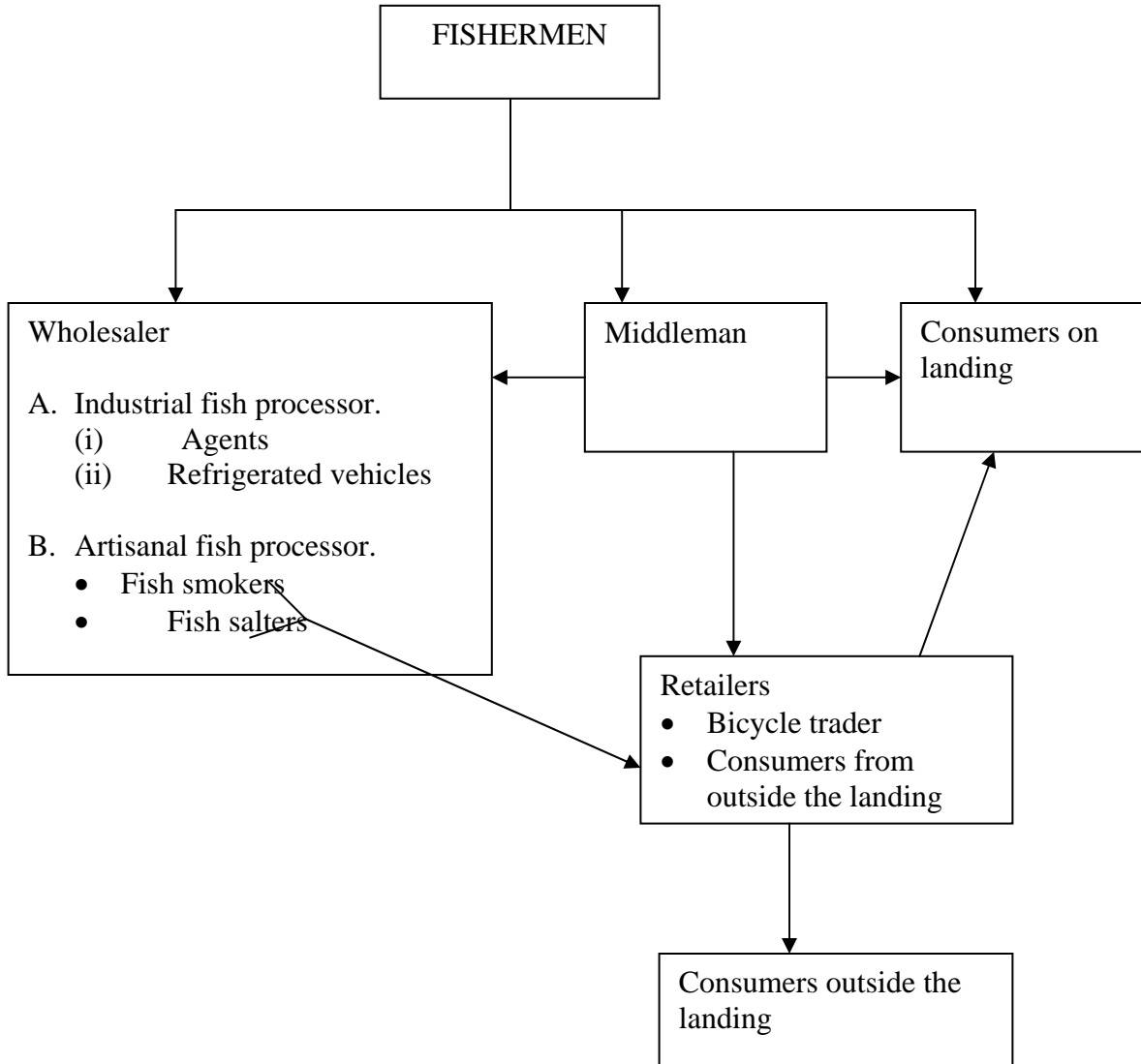
Recommendations to increase benefits to the environment.

- Provision of electricity in the area to at least minimise the use of firewood.
- Construction of metallised stainless drying racks to stop the construction of drying racks made up of wooden materials and papyrus vegetation.
- Provision of plastic handling facilities to prevent the baskets made up of papyrus for transportation of fish.

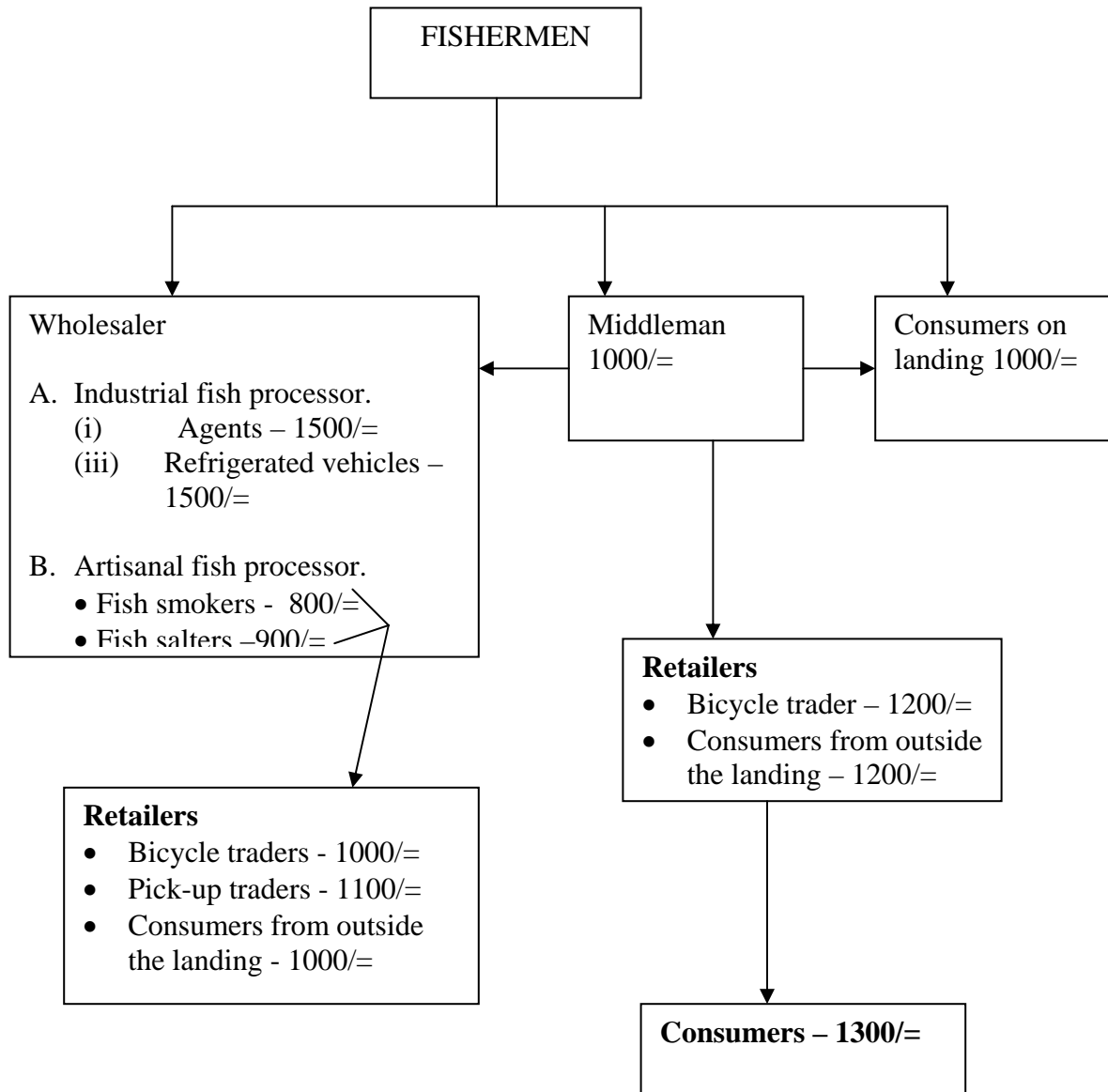
- **Mobilisation and sensitisation**

The people should be educated on the values of a healthy environment and way to use the natural resources efficiently.

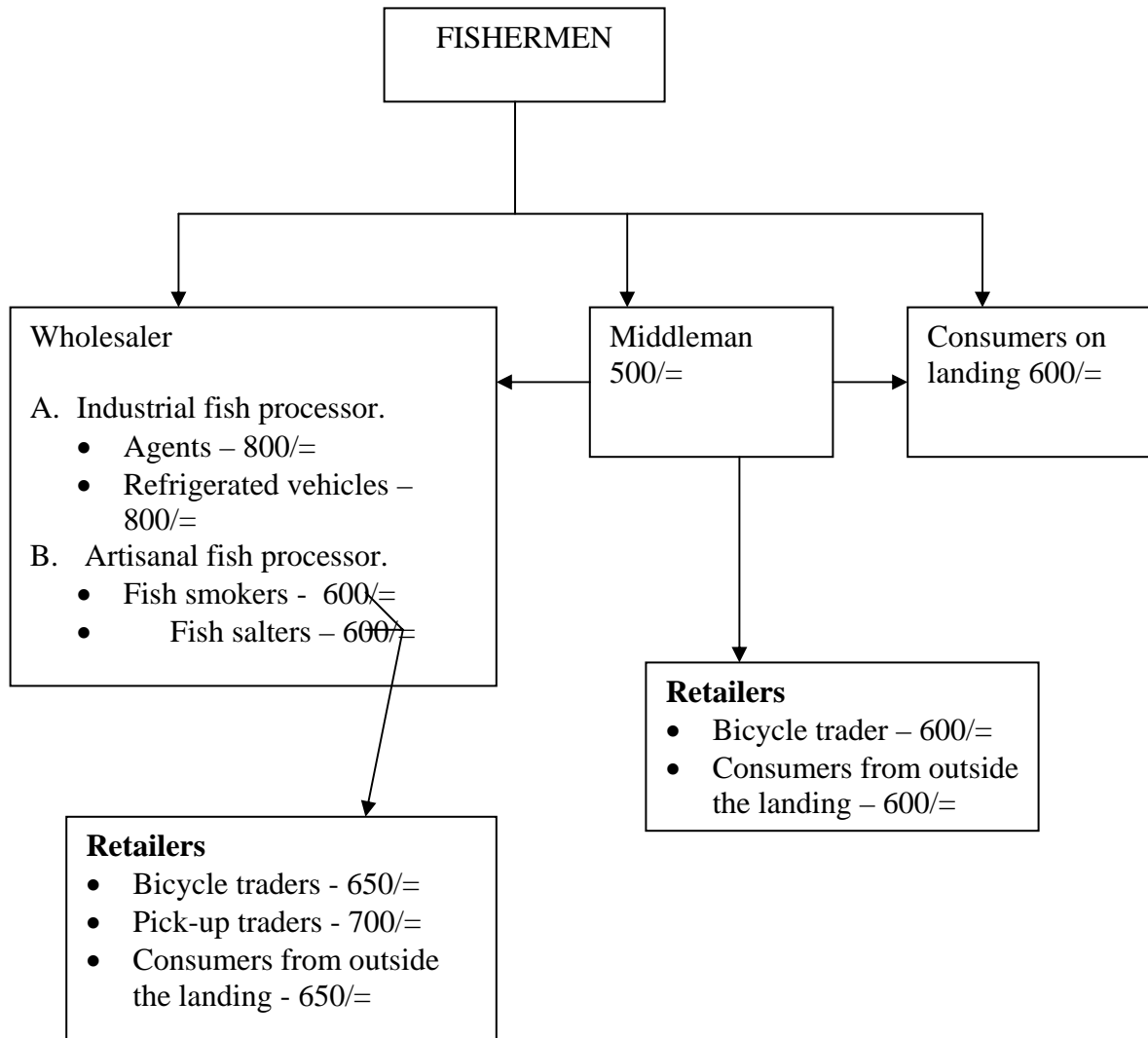
PRODUCT FLOWS



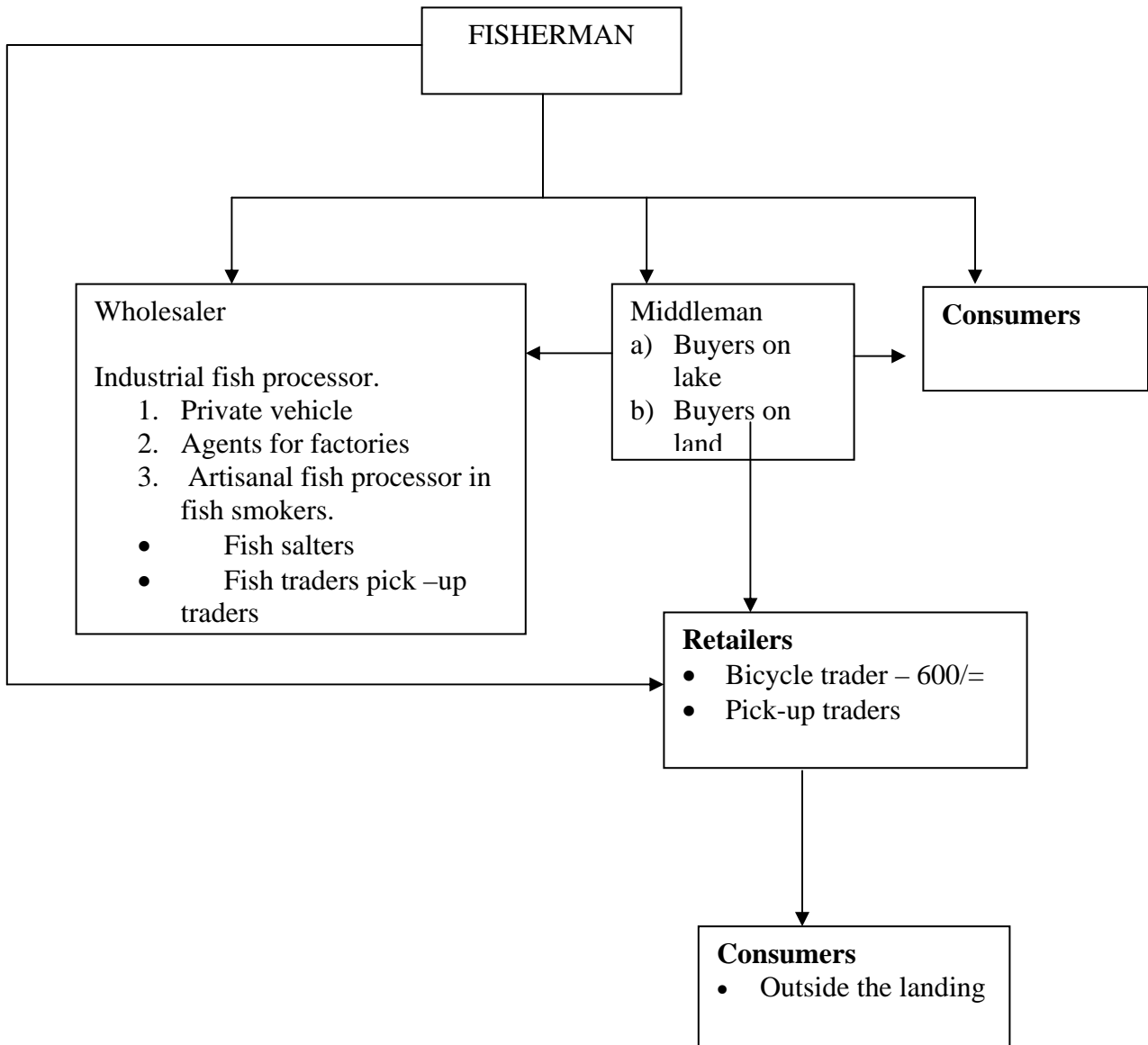
FINANCIAL FLOWS (Nile perch)



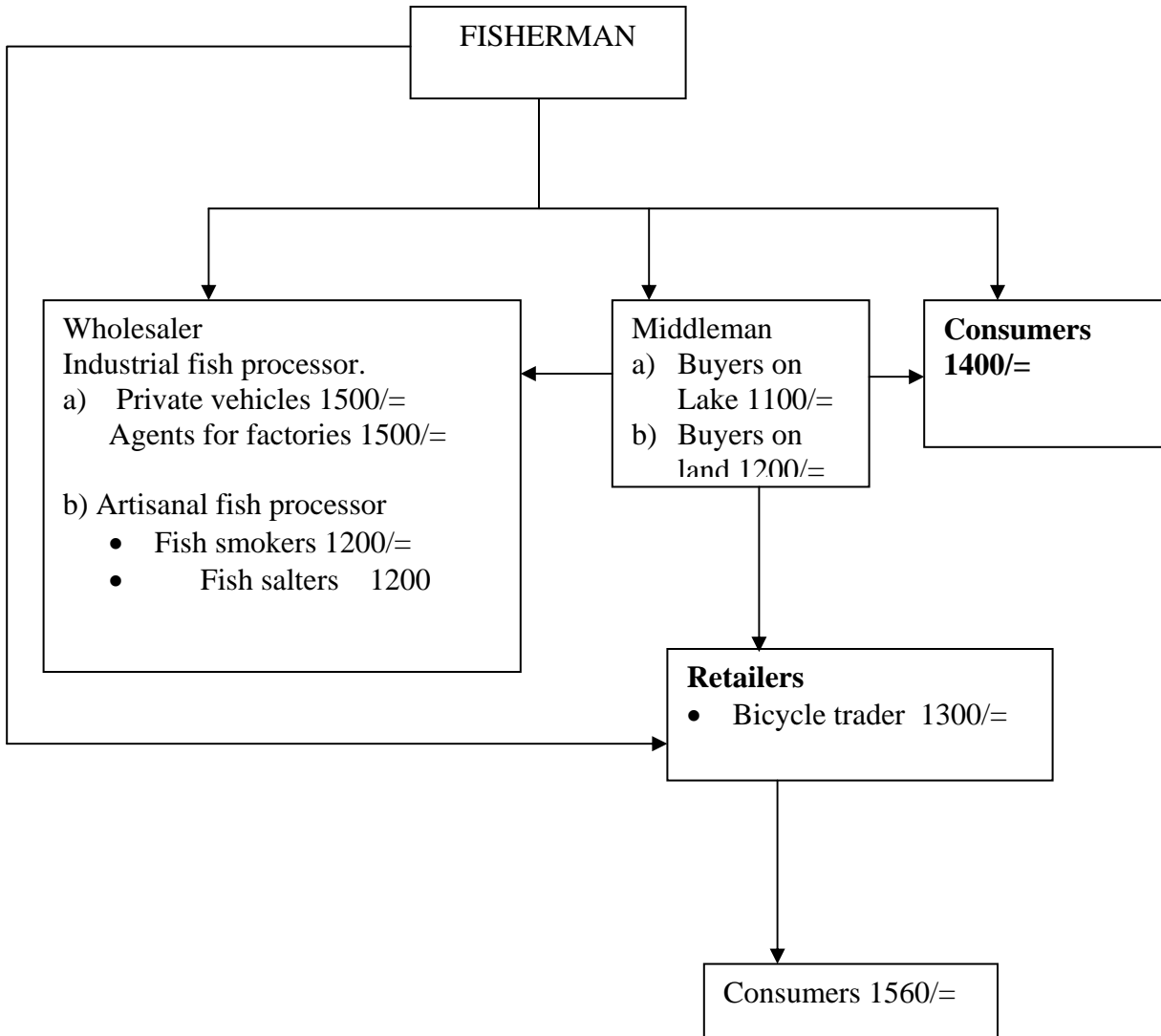
FINANCIAL FLOWS (Tilapia)



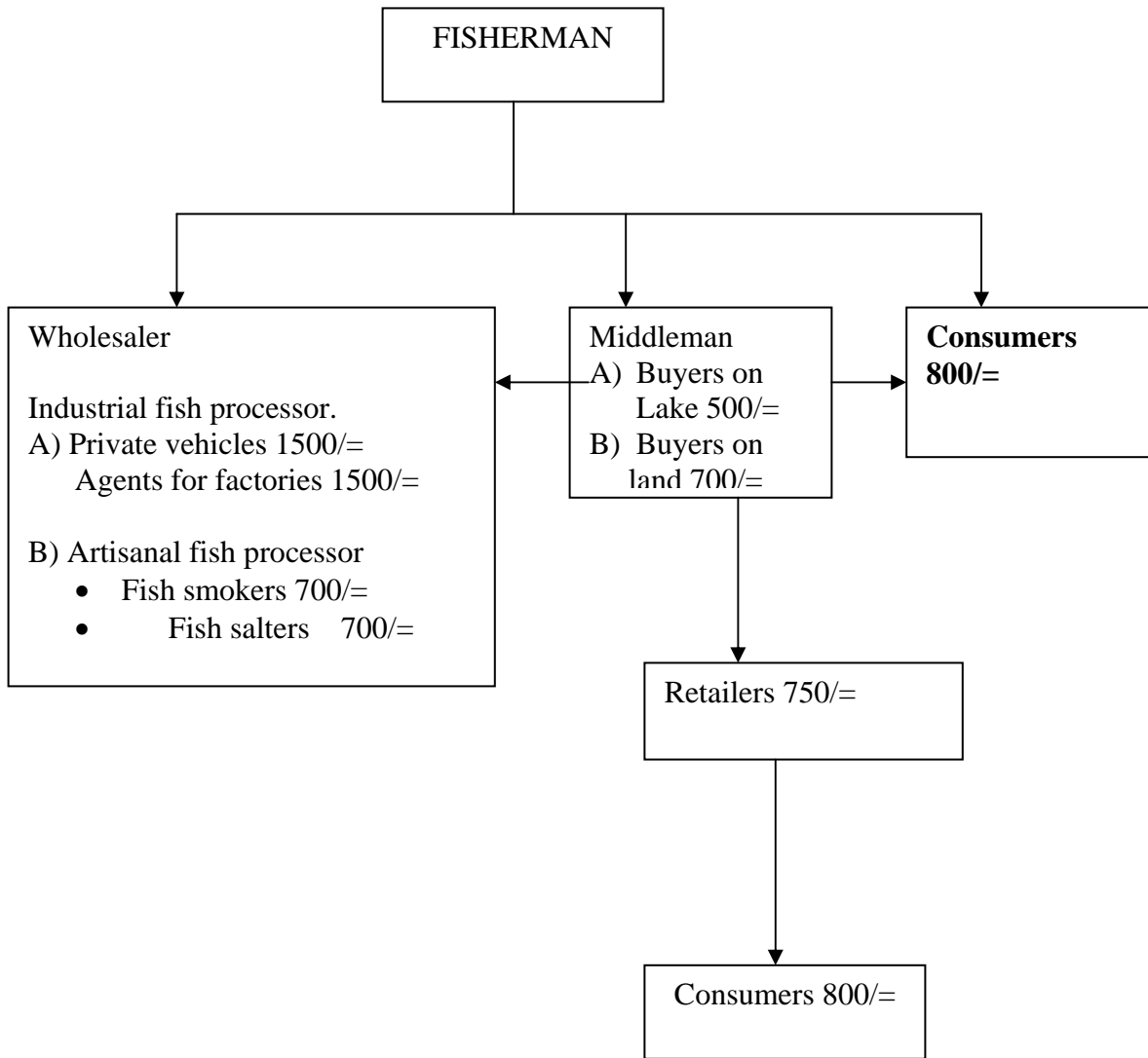
PRODUCTION FLOWS



FINANCIAL FLOWS (Nile perch)



FINANCIAL FLOWS (Tilapia)



11. Kikarangenye, Nakasongola District

KIKARANGENYE LANDING SITE, LWAMPANGA, has a population of 770 with 257 females and 300 households. There are 30 boats that land about 15 tones of fish weekly. 2 feeder roads access the landing site by vehicles, bicycles and motor bikes. Other means of transport is by water.

There are 15 goods supply retail shops, 2 gear shops, and 2 drug shops. 2 clinic and one health centre serves the community. Source of domestic water is lake water and a bore hole.

There is one engine repair workshop, no electricity, Banks, and Police Post. There are 3 churches, 1 Secondary School, 2 Primary and 1 Nursery Schools. There are 2 CBOs/Credit facilities: Tukole Bukozi Development Association and Dembe Group.

Veterinary services provide drugs to piggery project and fisheries extension services, mobilization and sensitization on better fishing methods. No research services were noted.

The community work with Fisheries Department enforce fisheries laws and in monitoring and to surveillance to manage the fisheries.

Development programs include poultry keeping project and pig rearing and vegetable growing projects.

Ventilated improved pit latrine construction and construction of drying racks for salted fish LVEMP micro projects.

Baruli are the main tribe with about 60% proportion followed by Basoga (20%), Langi (10%) Baganda (5%) and Iteso (5%).

LEADERSHIP

Fishers → Gabunga → Vice Gabunga → General Secretary
 Tender Board → Security Personnel
 Committee consisting of head fisherman Treasurer

Baruli, Basoga and Luo and Itesots.

Local Administration follows the LC system. Chairperson Vice Chairperson,
 Secretary Defence, Secretary for Women, Secretary Environment Protection and
 production, General Secretary and Treasurer

Decision Making

L.C. 1 Chairperson, Vice Chairperson, Gabunga, Management Committee and
 Defence/Security respectively. Top down in consultation with community members.

Dissemination of information is through meetings/community and committees, posters, door to door by Secretary of Information.

The main income generating activities are fishing (including processing), retail trade, food and brewing service and farming but fishing (processing) and local brewing provides the most employment respectively. Farming also provides employment.

There are 5 categories by income per month.

Less than 20,000/=	-	27%
20,000/=	- 50,000/=	30%
50,000/=	- 100,000/=	30%
100,000/=	- 180,000/=	10%
More than 150,000/=	-	3%

Malaria is the main disease followed by water borne diseases (diarrhea and skin rash) and flue and cough and AIDS respectively.

- ◆ Immunization, nutritional, awareness, family planning and reproductive health are the main primary health services available at landing.
- ◆ There are 50 operational parachute boats and 8 non operational Sseese type (transport) boats and 2 non operational.
- ◆ There are 9 outboard engines. The main gear type is gill nets (5" – 7") used by about 40 boats, 3 beach seines, 10 cast nets and 5 long line and 10 traps.

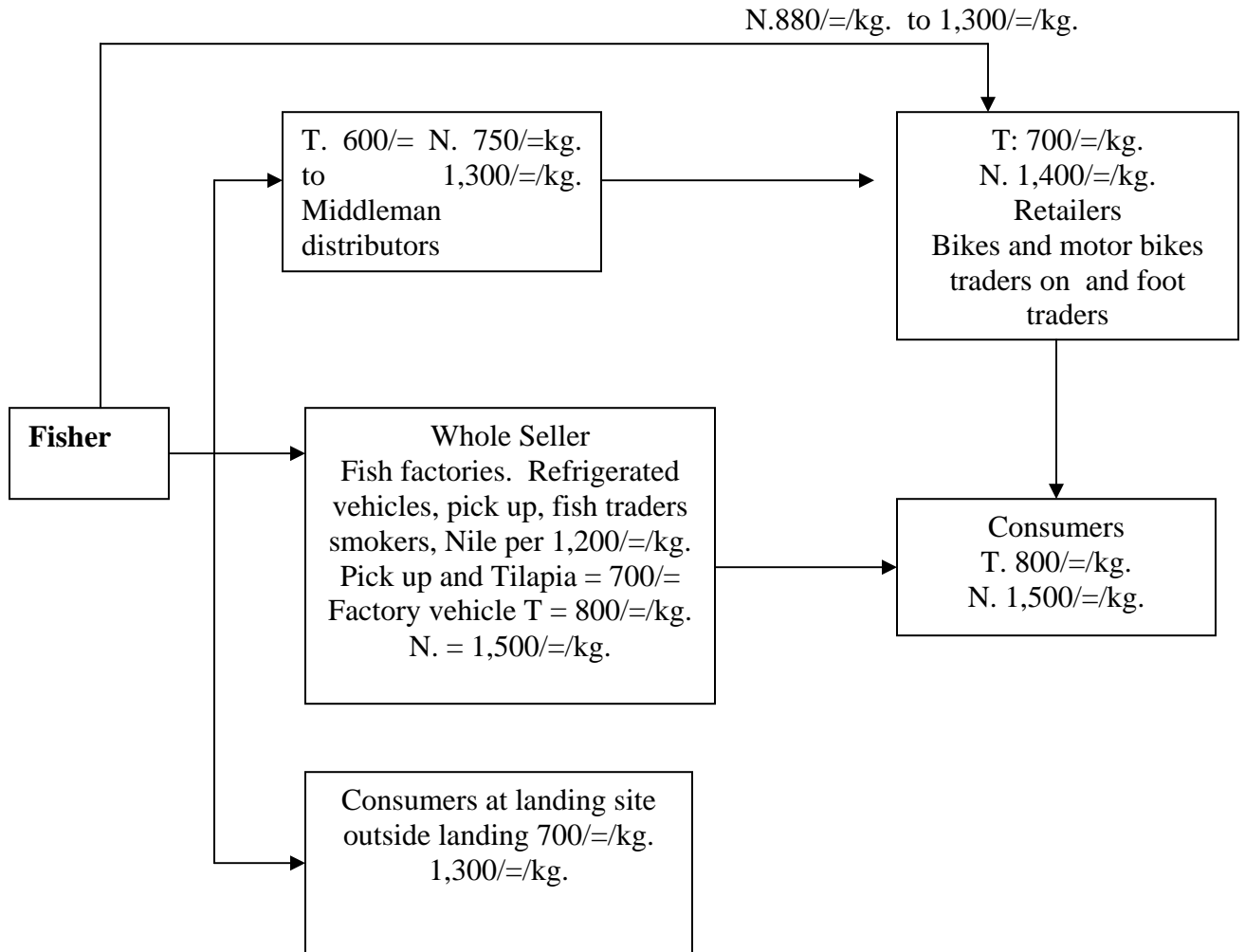
Main target species is Tilapia landed by 50 boats then Nile perch by 10 boats and Protopterus and Clarias by 4 boats respectively.

Annual catches from landing for Nile perch = 90,000 kg. and for tilapia 500,000 kgs., Clarias 1000 kgs. and Protopterus 1000 tonnes.

- ◆ Facilities for handling/processing fish include 2 working table, 6 drying racks, 2 weighing facilities and 2 ice containers.
- ◆ Quantities of fish processed for Nile perch (10%) smoked and Tilapia 30% smoked, 60% sun – dried and 10% fried. Protopterus 10% smoked and 10% fried while Clarias is only 5% smoked.

Main destination/fish market for fish:- fresh Nile perch is sold to filleting factories in Kampala and Entebbe, while Tilapia (fresh) is sold to markets in Bwaise, Kampala and the smoked/processed is sold to Congo, Gulu, Kampala (Owino market). Clarias and Protopterus are sold to Bwaise market as fresh and to Owino market, Shauriyako – processed.

Product and Financial flows



12. Lwampanga, Nakasongola District

LOCATION

Lwampanga , one of the busiest landing site in Nakasongola district is found on eastern shores of Lake Kyonga located about 25 miles from Nakasongola town.

This landing is in Nakasongola county, Lwampanga sub-county, in Kisalizi Parish. One hour and half drive through a dusty murram road pavement by short shrubs and grass leads you to Lwampan landing site.

On reaching the landing, a big building with Police station and sub-quarter head quarters.

Size

About 40 boats both parachute and Ssesse planked Canoes with respect to fishing and Transport operate at Lwampanga Landing site. The number of people living at the landing site range 600 - 650 people. The number of females are grater than number of males.

Fishing is the main activity taking place at the landing with at least 80% the total population depending on fishing either directly or indirectly. Cultivation of crops like maize, cassava take place on the margins of the lake. The main species caught are Nile perch and Tilapia.

Infrastructure at landing

Health centre

There is one health centre which offers the following services:

- ◆ Antenatal care
- ◆ Immunisation
- ◆ Health education
- ◆ HIV/AIDS Counselling and testing
- ◆ Integrated management of childhood illnesses.

It is well facilitated with Midwife, Nursing assistants.

Police station.

There is one police station which take in charge of four other police posts.

Sub-county headquarter

The office of the sub-county head-quarter is located at Lwampang landing site with Prison, LDUs (Local Defence Unit), LC III, Sub-county chief.

Schools

There are 2 Primary schools owned by the government of Uganda.

Road network

There are 3 feeder roads which are normally used by people to go out or come in at the landing site.

Communication network

Mobile phones especially MTN Uganda is accessible though at times weak signals occur.

Worshipping places

There is one mosque and four churches.

Non operations cooling plant and fishing cooling plant and a fish market at the landing site.

Residential houses

These are both permanent residential and trading houses made of bricks and iron sheets.

Hygiene

Generally the sanitary conditions of the landing site were good.

There were authorised garbage disposal sites which were utilised correctly.

However, the disposal of fish offals especially those carrying out smoking and salting was inefficient.

Personal hygiene

Most fishermen were generally clean, immediately after fishing, they put on other clothes which are clean.

Toilet facilities

There are 2 public pit latrines but however each homestead is having its own latrine which has had at least the sanitation conditions good.

General fish handling techniques

Inadequate insulated fishing boats

About 35 parachute boats are involved in fishing. These boats bring in fresh fish sold to refrigerated vehicles and fish traders on the landing but they lack ice cabins which could quicken the fish spoilage rate. About 80% of the fishing boats are parachute.

Non sheltered weighing facility.

The weighing facility is open and fish is weighed in open and fish is weighed in open sun which could raise the temperature of fish thus increasing the spoilage.

Improper clothing of fish handlers.

All the fish handlers at the landing site are not equipped with gloves, boots, mouth protection.

Wooden working tables

The working table are made up of wood which cannot be properly cleaned. It is undurable since it frequently comes into contact with water.

Wooden drying racks

The drying racks for salted fish are made up of wood which are normally destroyed by frequent sunshine and water that drains from fish.

Non knowledgeable fish handlers

The fish handlers are not knowledgeable on proper handling techniques at the landing.

GROUP DISCUSSION LWAMPANGA LANDING SITE.

DATE 2ND AUGUST, 2003

	Name	Responsibility	Signature
1.	Mande Robert	L.C. I Chairman	.....
2.	Mutundi Livingstone	Gabunga	.....
3.	Joseph Mugerwva	Head of Fish Traders	.....
4.	Kintu T. Alex	Elders At Landing	.....
5.	Mutundi Livingstone	Tendering officer	.....
6.	Nakazi Rita	Fish Processor	.....
7.	Naweyiso Jane	Fish Trader	.....

	Before export Boom	When exports had just started	Now
Catches	<ul style="list-style-type: none"> ◆ The fishing vessels involved in fishing were less. ◆ The sizes of fish species caught were smaller. ◆ Fish was abundance. ◆ Recommended gear sizes were used. ◆ Fishing gears involved in fishing were less. 	<ul style="list-style-type: none"> ◆ More fishing vessels entered into the fishery. ◆ The size of fish species caught tend to be big. ◆ Fish was still abundant ◆ Application of numerous fishing gears and methods started to happen. 	<ul style="list-style-type: none"> ◆ Increased movements of fishermen with migration of fish. ◆ The size of fish caught is big. ◆ The quantities caught are less. ◆ Many fishing gears and methods are now in place from other districts e.g. Apac. ◆ More variety of fish species are caught.
Marketing opportunities	<ul style="list-style-type: none"> ◆ Limited market outlets for fresh fish ◆ Most of the people involved in marketing 	<ul style="list-style-type: none"> ◆ Many people (buyers) involved in purchase of fish. ◆ Most bicycle 	<ul style="list-style-type: none"> ◆ The buyers are honest. ◆ Competition of fish. ◆ Various market

	<p>system were bicycles traders, consumers on landing and Artisonal fish processors.</p> <ul style="list-style-type: none"> ◆ Fish traders dictated the price of fish. ◆ Dishonest traders were available ◆ Buying of fish was on credit 	<p>traders, consumers in landing were left out in the marketing system.</p> <ul style="list-style-type: none"> ◆ The price of fish began to rise. 	<p>outlets of processed and fresh fish.</p> <ul style="list-style-type: none"> ◆ Price of fish is dictated by the fishermen.
Returns	<ul style="list-style-type: none"> ◆ The price of construction of fishing vessels (boats) was low. ◆ Fishing nets were cheaper. ◆ Income levels of the people was less. ◆ Income levels of the fish processor was high 	<ul style="list-style-type: none"> ◆ Slight rise in price of construction of fishing vessels. ◆ Rise in price of fishing nets. ◆ Income levels of the fishermen was risen. ◆ Increased fishing vessel license. 	<ul style="list-style-type: none"> ◆ Income has risen especially of fishermen. ◆ The price of fishing nets has doubled. ◆ Cost of construction of boats has doubled.
General Development of this area.	<ul style="list-style-type: none"> ◆ Local fish markets were operating at a high rate. ◆ The roads were poorly maintain. ◆ Little revenue for tendering officials 	<ul style="list-style-type: none"> ◆ Local markets started to collapse. ◆ The roads were renovated on regular basis. ◆ More revenue was collected by tendering officials. 	<ul style="list-style-type: none"> ◆ More residential and commercial landing are built. ◆ Another road network joining to the town is constructed. ◆ More Worshipping places are built. ◆ Communication network has improved.

Likely Reasons for this trend.

- ◆ The catchability variations: is due to increased fishing effort (fishermen, boats and gears).
- ◆ The increased monitoring of the fisheries.
- ◆ Department has resulted into fish species of reasonable size to be caught.

Marketing opportunities variations are due.

- ◆ Dominance of local fish traders at first leading to low market outlets.
- ◆ Increased competition of fish by purchases which creates market.

Returns

The income levels of the fishermen has increased.

- ◆ More buyers are in the market today.
- ◆ More filleting factories are being constructed.

The changes in fish processors is due high demand/price of fish by industrial fish processors.

General development of this area.

Is due to increased collection of taxes by authorities concerned which have been used as construct more roads.

Security reasons due to presence of police. The criminal rate is now low.

2. Effect of fish export business

Advantages of export fish business in this area.

- ◆ Creation of employment opportunities. Many people are involved in different activities as a result of export fish business. These include: Tendering officials, Drivers, Restaurants around.
- ◆ Communication network development people have got money and have started purchasing mobile phones for easy communication with the Industrial fish processors, owners of refrigerated vehicles to know the price of fish.
- ◆ Transport network development. The roads are now frequently maintained and more vehicles are now noticed at the landing which transport fish to Rwanda.
- ◆ Income base of fishermen has gone up through high competition of fish sold to fish buyers.

Disadvantages of export fish business

- ◆ Neglect of agriculture (cultivation and livestock).
- ◆ Increased use of illegal fishing gears from the shored lake (L. Kyoga) such as seine nets, cost nets by fishermen to get more fish.
- ◆ Theft increase. Most fishermen especially from Lira and Apac are found of stealing fishermen's nets and engines.
- ◆ Imbalance of landing site development. Lwampang is not developed (no handling facilities like those found on landing site around L. Victoiria.
- ◆ Increased fishing boats in the fishing zone which has led to low catchability.
- ◆ Fishing zone conflicts fishermen like to concentrate in those areas which have high fish species.

3. Export business (Women and Children)

Positive

Employment opportunities

Different women involved in catering activities i.e. selling food, tea to fishermen, fish traders, industrial fish processors. They cultivate their food crops and the surplus or sold to fishermen/processors at high price.

Access to availability of fish.

Most of the women, their husbands are involved in fishing, so they have to come with fish every day.

However those women whose husbands are not fishermen have a problem of fish access as it costs much for them due to high competition.

Health access

Since some women are involved in activities like cultivation, then food can easily be bought and can easily have access to health services like antenatal.

Negative

Moral Decay - Some fishermen due to increased price of fish, their income levels has increased which has resulted into some women involving with them sexually in order to get money.

Widowed/single women has little access to fish because the price is high and in the process the children may be affected.

No accessibility to money because their husband spend most of their time drinking and at times essential commodities may not be available.

Recommendations for improved performance

- ◆ Widowed/single women should be provided with loans to start some small scale business like poultry keeping; Pig rearing.
- ◆ Women (fish processors i.e. smokers and salters should be provided with money to compete with the industrial fish processors.
- ◆ Women participation in businesses like commercial trading/processing should be forced from taxes.

Export fish business affected fisheries ecology and environment at the landing.

Positive (fisheries ecology and environment).

- ◆ Tree planting
- ◆ Recreation facilities (conserving some land for future use).

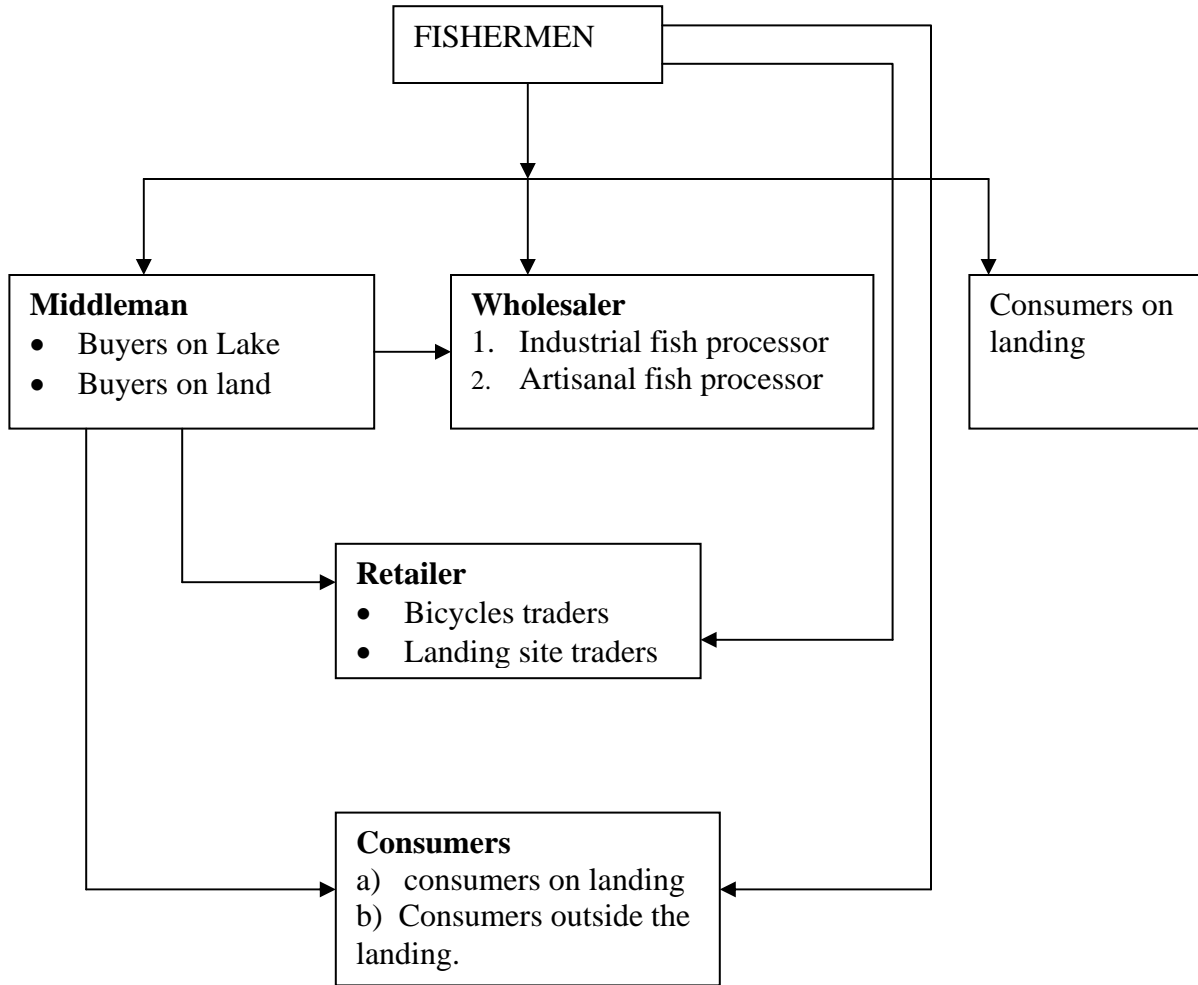
Negative

- ◆ Fish species reduction
- ◆ The species caught has reduced greatly due to increased fish exports.
- ◆ Settlements alongside the lake. Many people are found living alongside the lake.
- ◆ Pollution especially the water pollution. The fish wastes from these refrigerated vehicles drain into the lake.

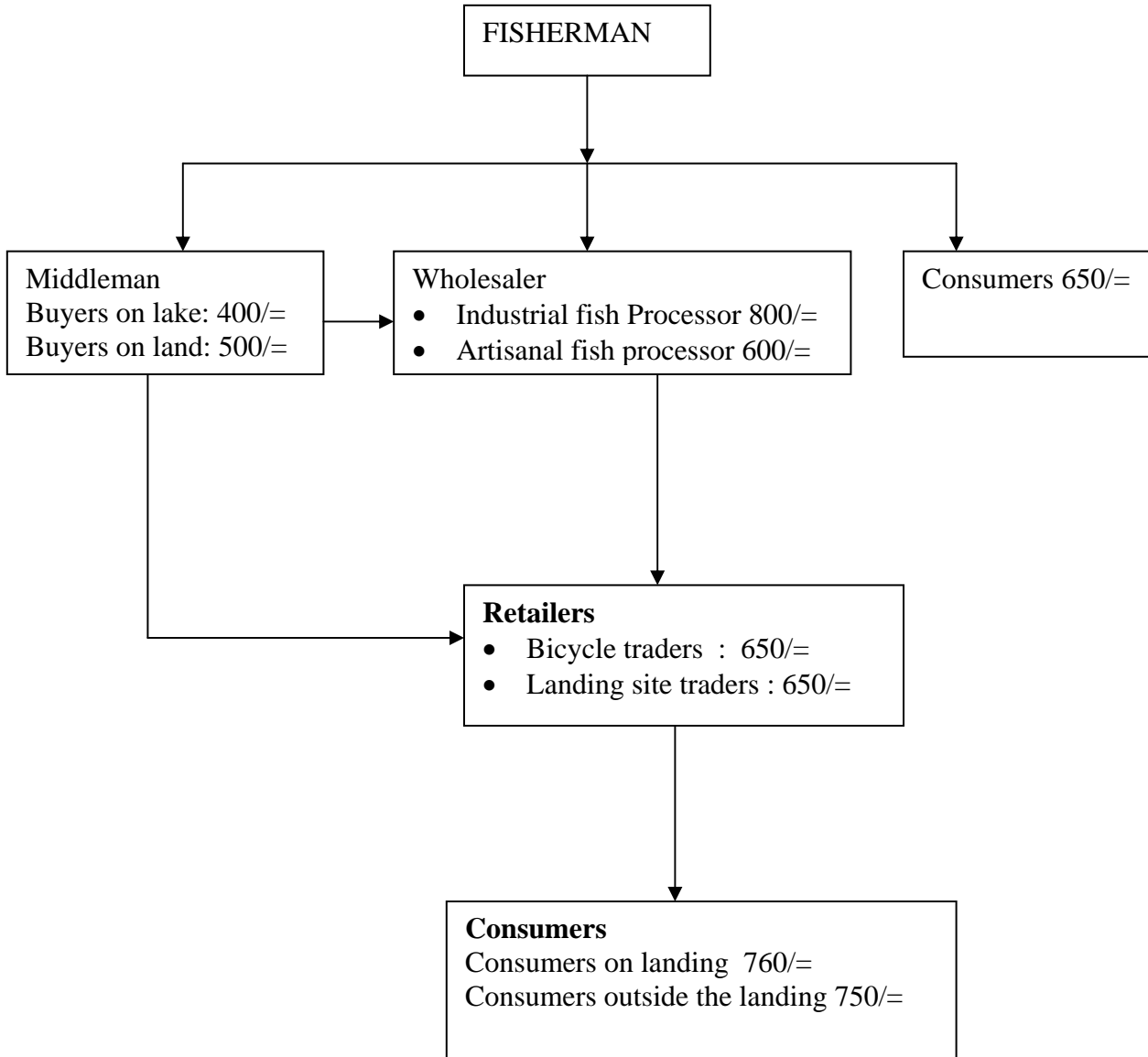
Recommendations to increase to benefits to the environment.

- ◆ Stocking of the lake with new species.
- ◆ Encourage fish farming.
- ◆ Purification of these wastes by sedimentation.

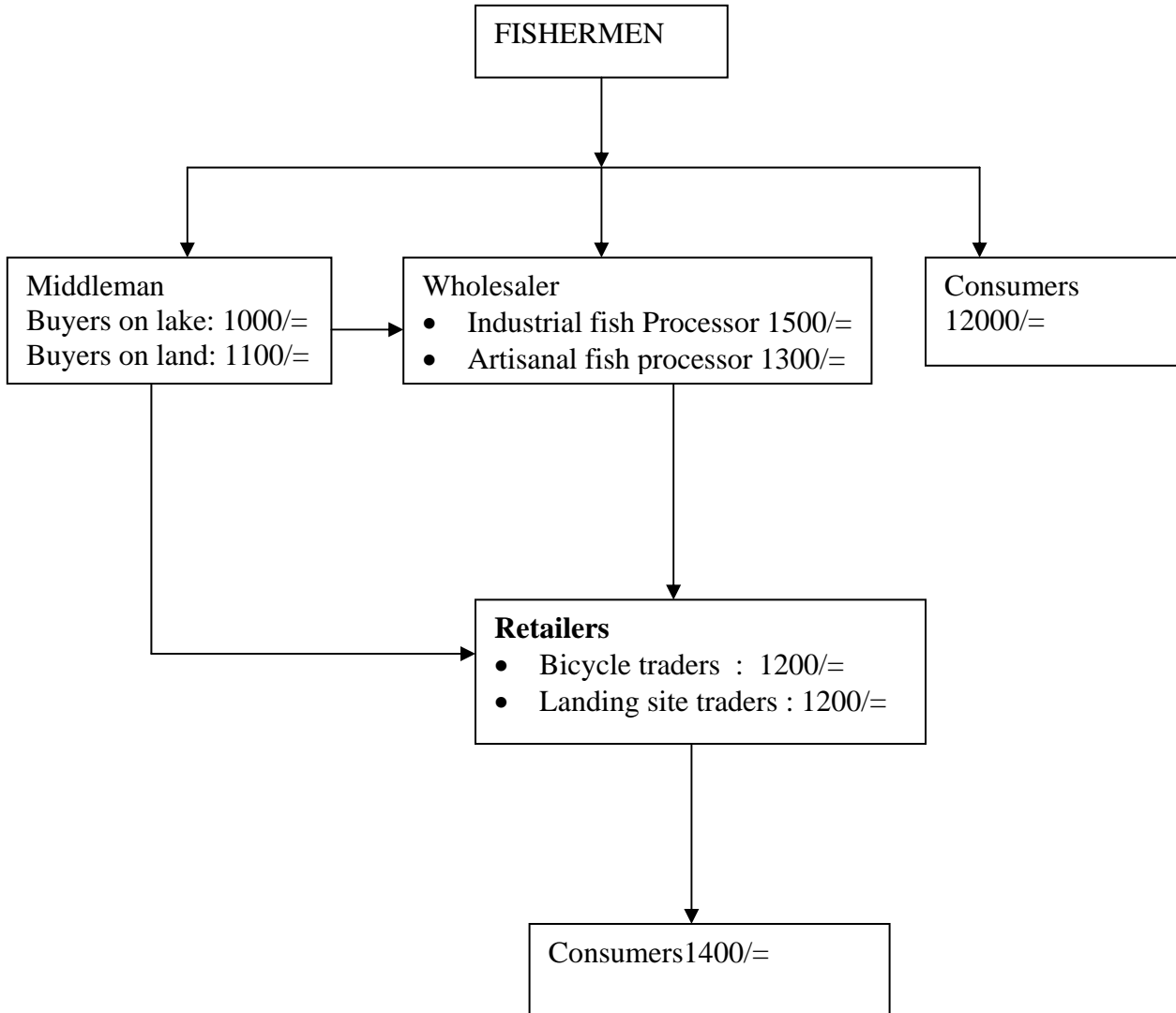
PRODUCTION FLOWS



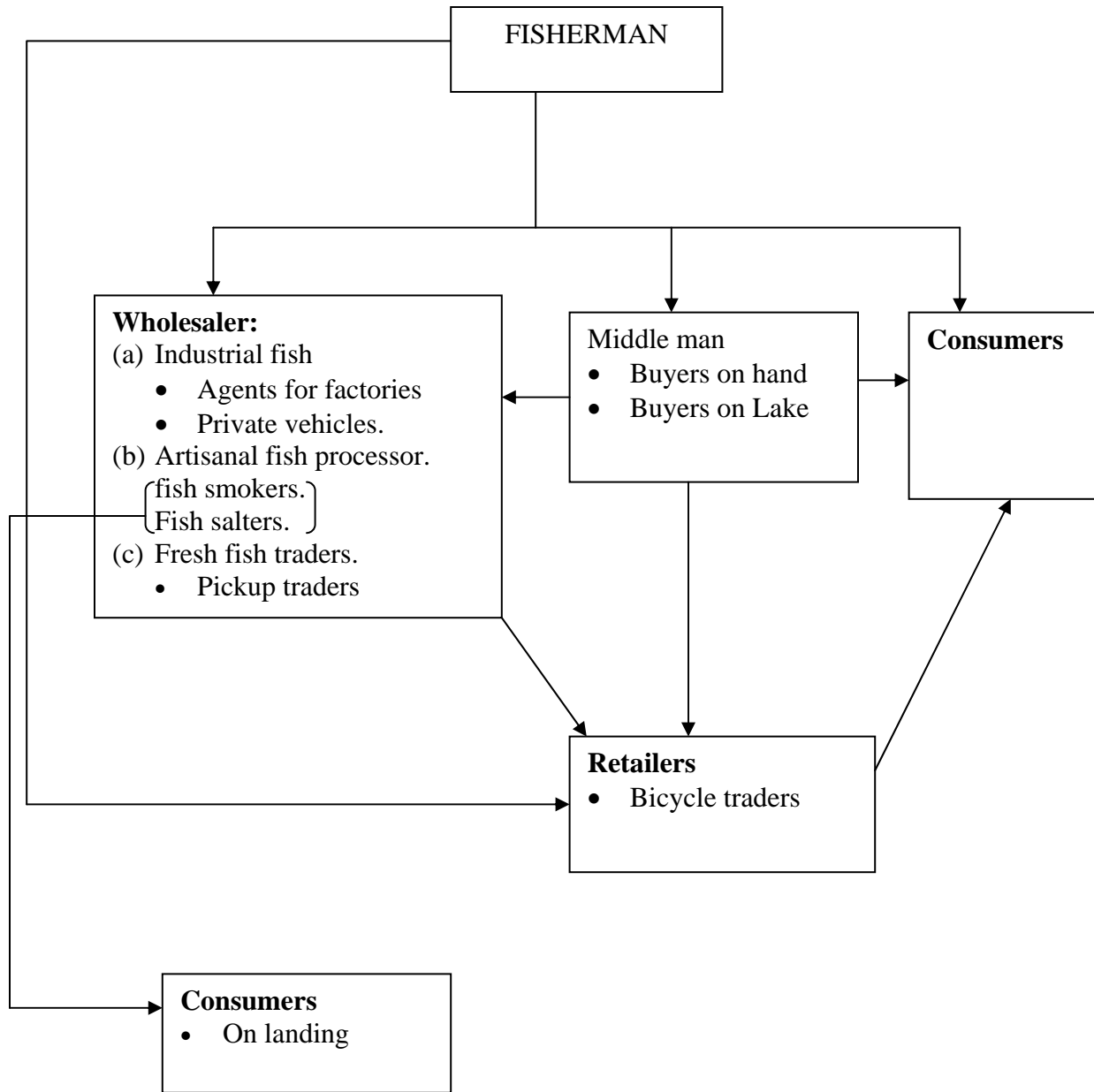
FINANCIAL FLOWS (FOR TILAPIA)



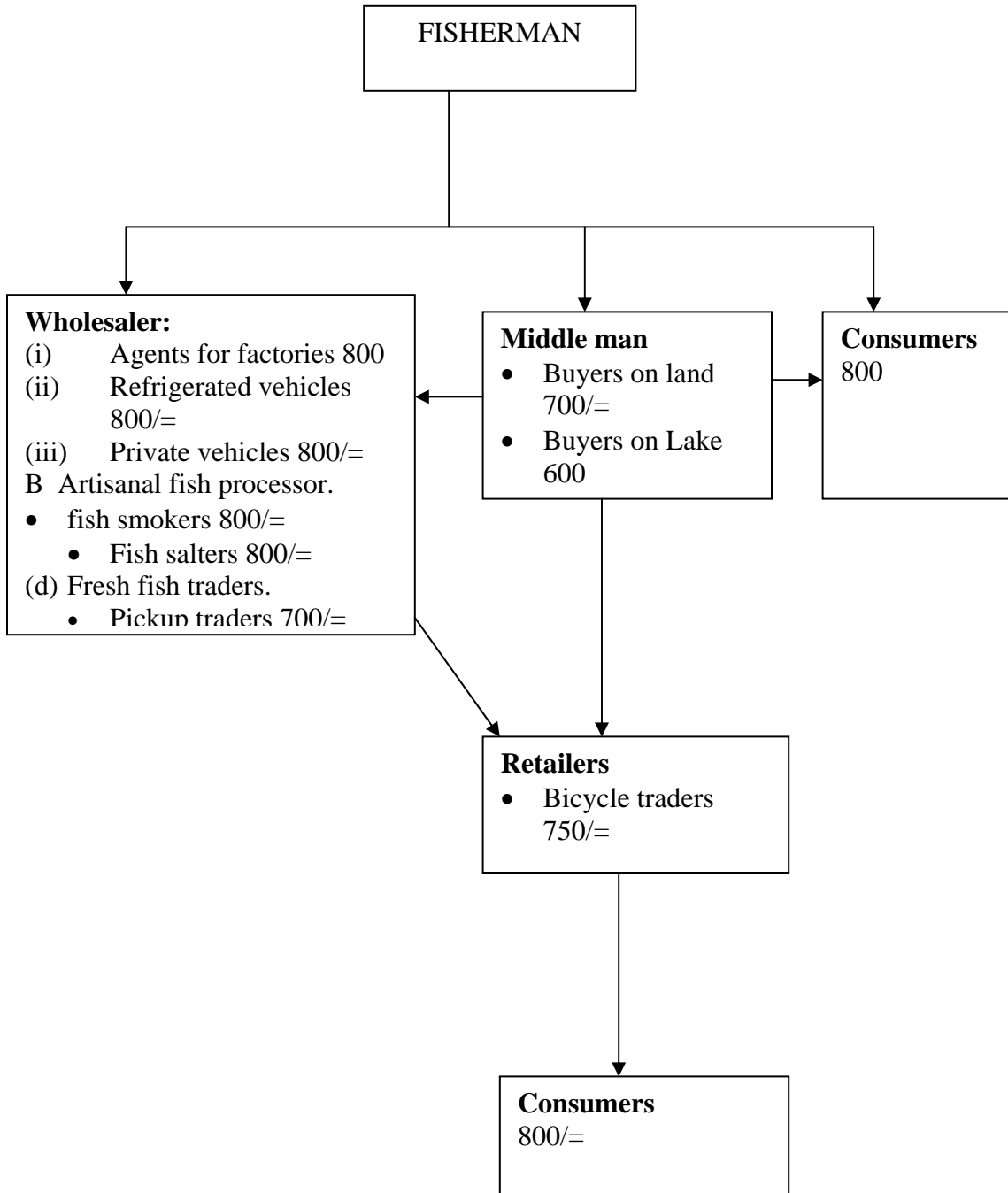
FINANCIAL FLOWS (NILE PERCH)



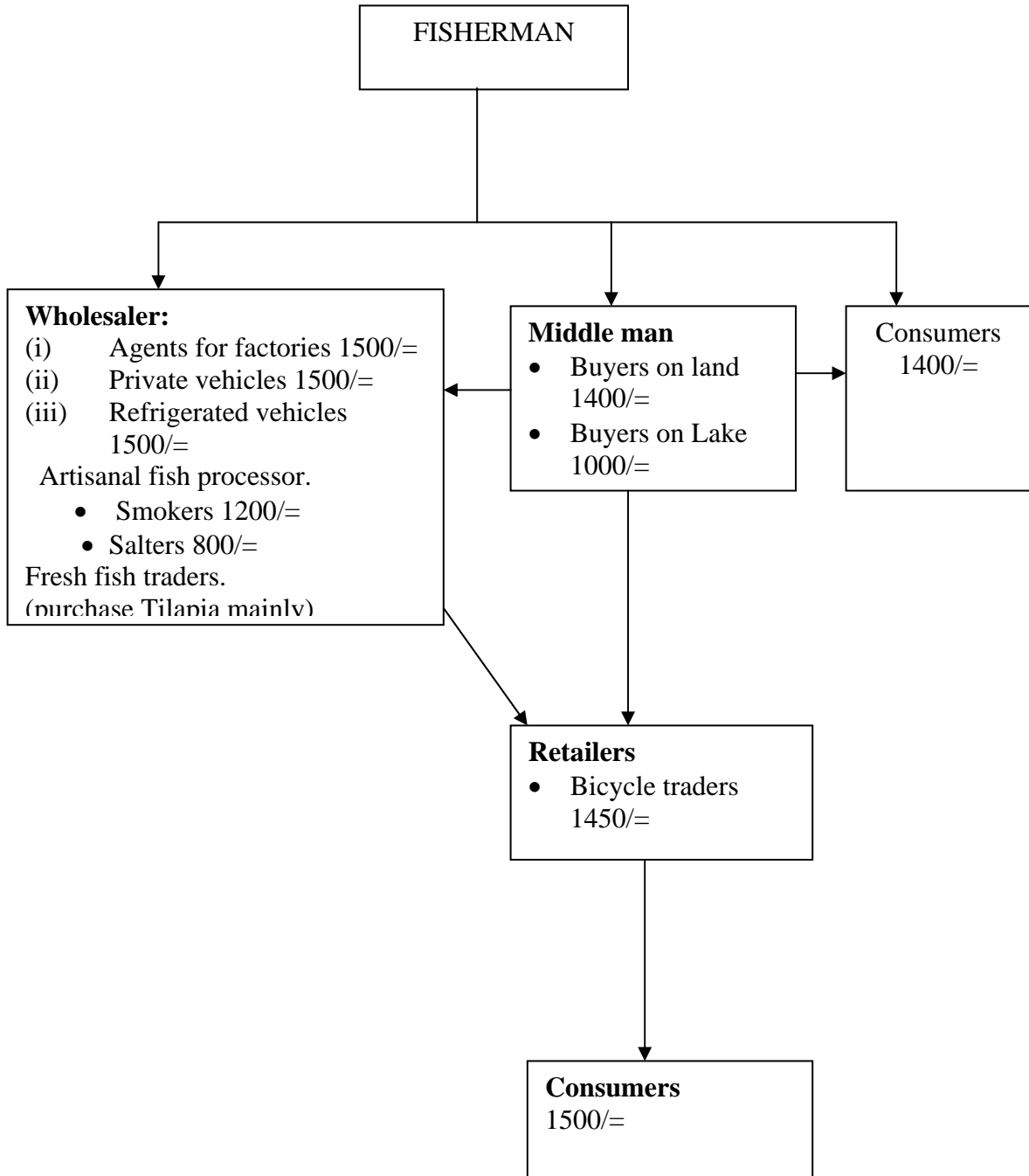
PRODUCT FLOW



FINANCIAL FLOW (Tilapia)



FINANCIAL FLOW (Nile perch)



13. Namasale, Lira District

Description of the landing site

Namasale landing site is located in Namasale Sub-county found in Kyoga County Lira district.

It is one of the busiest landing site in Namasale county. The landing is at the extreme east of the Sub-county bordered by land from the West and water (L.Kyoga) from the East (See the map).

Size

Namasale landing site is about 50 metres long when stretched. But generally it is in a curved shape. However, the overall land area plus the residence or village around is about 1km² area.

Infrastructure

There is only one main feeder road connecting Namasale landing to the sub-county and up to Lira town. However, there are some other small trace pass roads within the homestead which are normally poorly developed.

There is a primary school (Namasale Primary School) and a technical school (Namasale technical school) located just within the area. Within the school compounds there exist boreholes in each one of them. These borehole served not only the school community but the entire population in the area also. This is their main source of drinking water in most homes and Lake water is used purely on washing things at home i.e. general cleaning.

There is a dispensary being constructed by the government just within the area also though not yet in use as yet.

New buildings are coming up, which new buildings plus old ones are used for mostly business activities like: Trading in other things like clothes, shoes, soaps, sugar etc. There are also hotels, bars and Restaurants in those buildings. Still within the villages around the greatest activities carried out are local brewing of beers and selling also.

However, the biggest problem here is power (Electricity) which has not yet reached the place. But there are people using solar system and rest use either pressure lamps or ordinary glass lamps to light their premises.

Hygiene

Generally the hygiene of this area (Namasale landing site) is very poor. Most notably in the villages where fish are normally processed e.g. smoking, sundrying and at times frying. The area is characterised by to many pigs, ducks, goats and kids who are

normally dirty and tend to defecate anywhere uncontrolled. The drainage system is very poor and when it rains it's waste even. But then around the landing sites exactly like around 20m² is normally kept very clean. In fact it has a sweeper who normally works hand to keep the place clean by sweeping regularly and there is also a good rubbish pit in the area.

Above all, villagers around dispose off polythene bags and plastic materials any how.

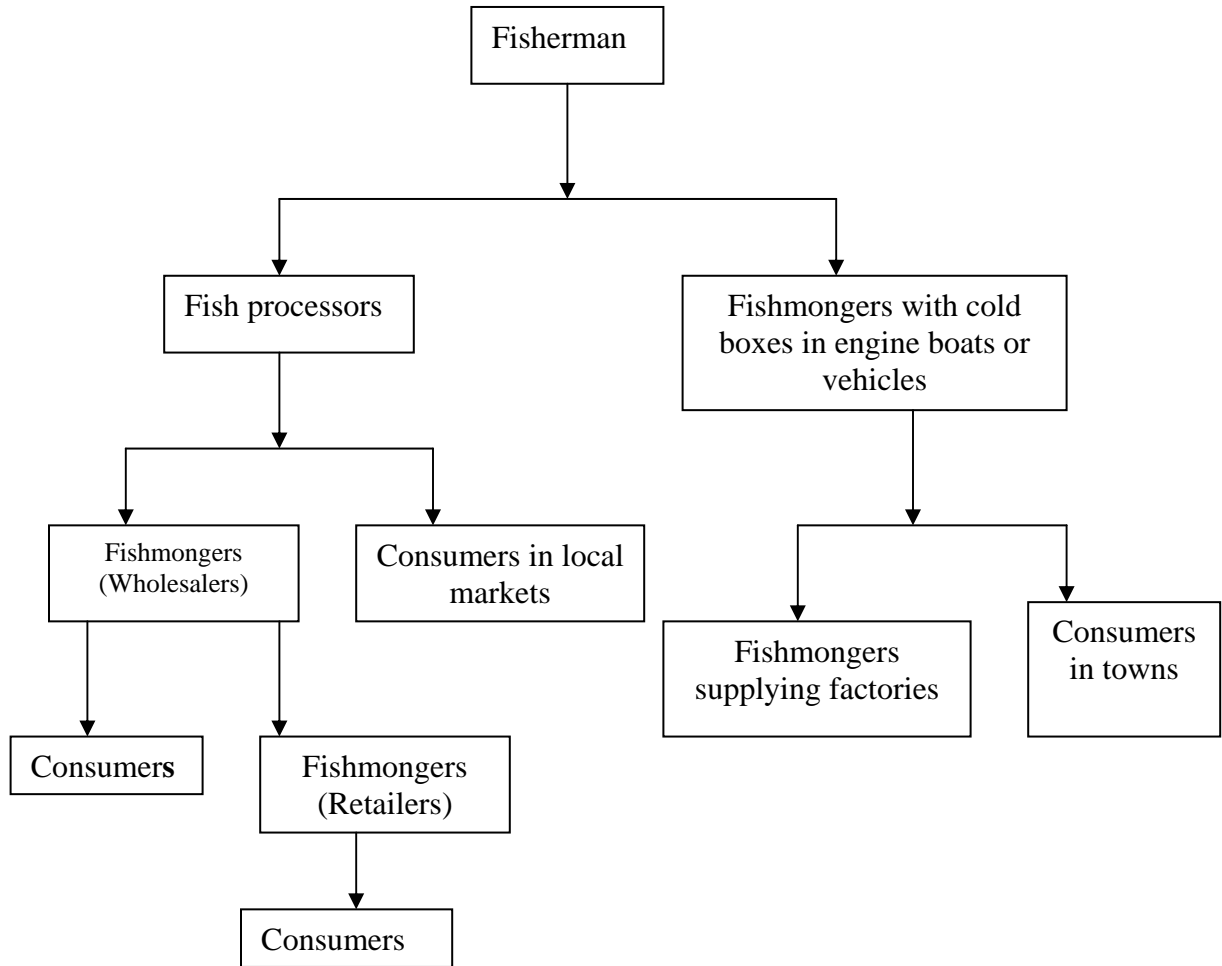
Fish handling techniques

Fish handling techniques at Namasale landing site is quite fair because, when fresh fish have been brought out of the water by the fishermen, they are normally weighed and after which kept in cold boxes containing ice, awaiting transporting to their specific markets like factories and local markets in towns and trading counties.

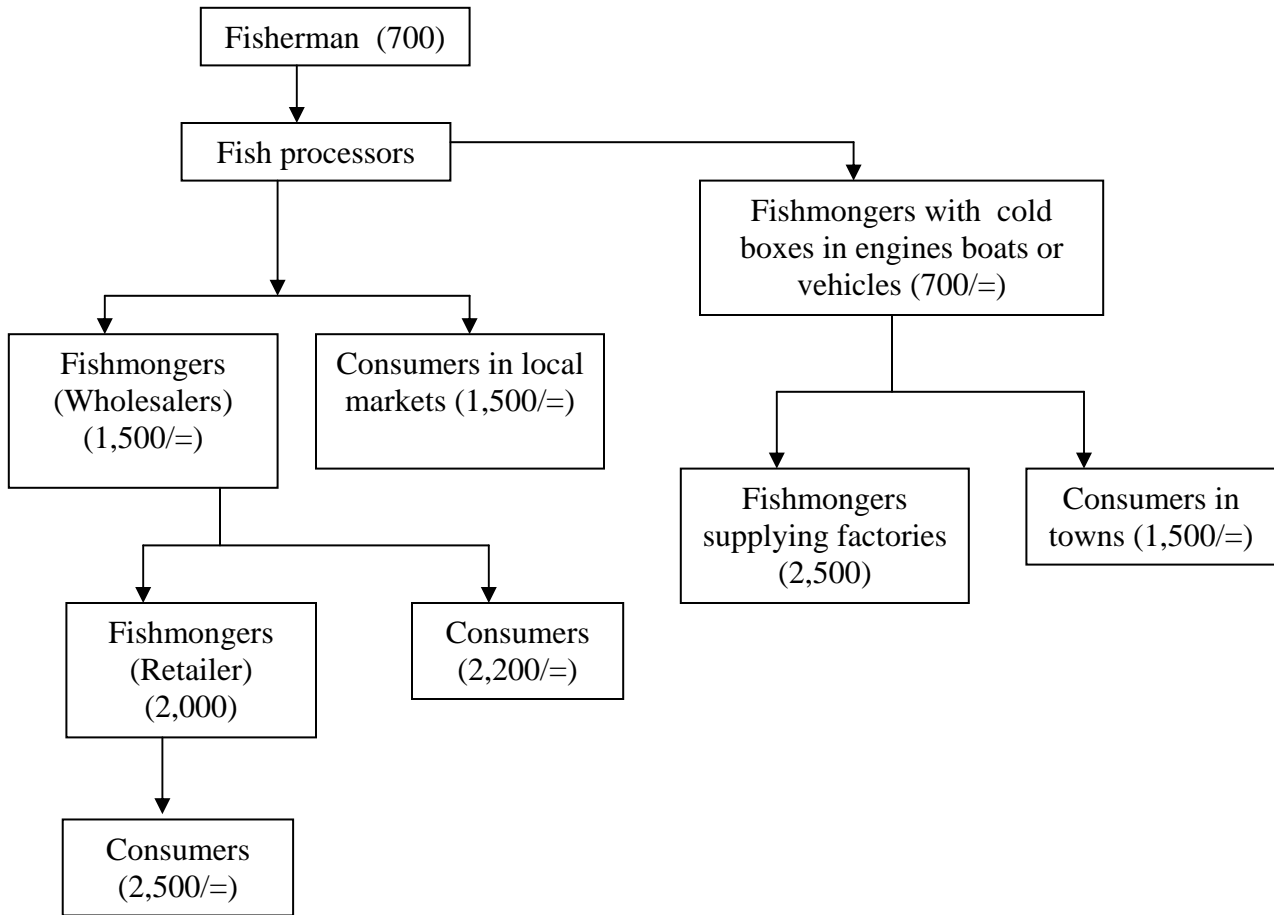
The small ones are normally sold to the processors at the landing site like mostly women who go to smoke and sundry after which they also sell to fishmongers who come from other neighbouring towns.

Abuse of the fish like throwing it down or sitting on fish is normally avoided by those involved. This is because there is a very strict law put on this by the fisheries department.

Product flow



FINANCIAL FLOW (HOW RETURNS ARE SHARED) (Tilapia species)



Landing Sites on Lake Albert

14. Abok, Nebbi District

1.0 Location

Abok Landing site is located in Panyimur sub-sub-county, Joriam county in Nebbi District. It is 36 miles East of Nebbi Town, but south of Pakwach township (24miles) and the site is on Lake Albert.

1.1 Size

It covers about 1km² with a population of 150 inhabitants at the landing site.

1.2 Infrastructure

The site is accessed by a community road from Singular (Panyimur) Township to Pakwach Township and linked to by a path.

1.3 Hygiene

The landing site has 2 Pit latrines and a bore hole. Both are properly maintained.

1.4 Fish handling techniques

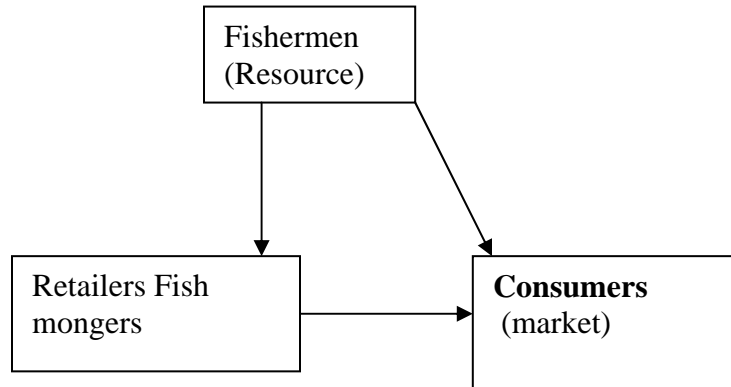
Fish at the landing site is handled with much care immediately fish are landed, they are transported to the drying racks for sales. “No fish is dropped on the sand” said the counter Master. Scaling and splitting is done at the side of the racks in containers for easy disposal.

2.0 Product flow and financial flow

2.1 Product flow

Fish caught from the Lake are sold sometimes straight to the consumers or the Retailer (Fish mongers) who later take to Paidha and Nebbi markets. This is attributed to by the small population at the landing site.

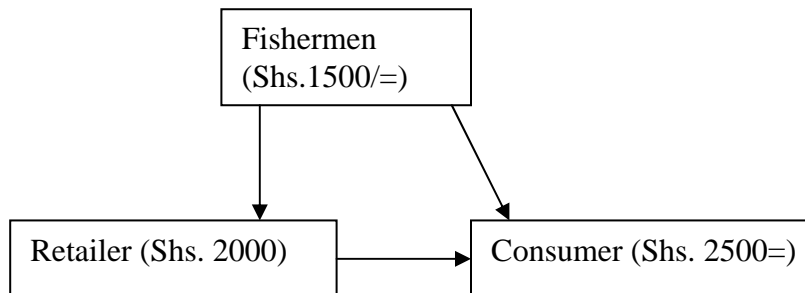
PRODUCT FLOW



2.2 Financial flow

At this landing site, return are shared unequally. The consumer pays the highest price for a fish to the Retailer but cheaply when supplied directly by the fishermen see below flow.

FINANCIAL FLOW



15. Dei, Nebbi District

1:1 LOCATION

Dei landing sit is found in Panyimur sub-county, Jonam county in Nebbi District. It is located 40 miles South East of Nebbi Town, 28 miles South of Pakwach Town and 4 miles South of Singular (Panyimur) township.

1:2 SIZE

It covers an area of 3km² and has a population of 550 people of which 10.9% are females.

1:3 INFRASTRUCTURE

The landing site is accessible by paths which are connected to a community road from Singular – Panyimur to Mahagi Port in D.R. Congo.

1:4 HYGIENE

It has only one pit latrine for centre offices. The rest of the community use individual pit latrines. There are 5 (five) garbage disposal sites. The area is served by 4 (four) bore holes.

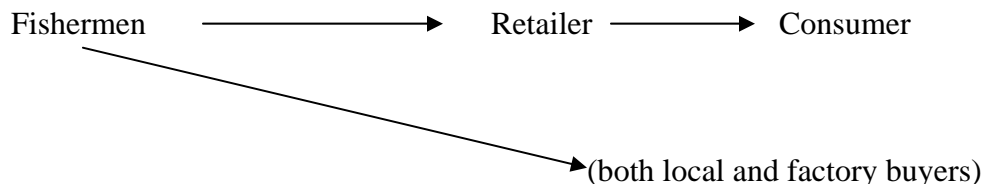
1:5 FISH HANDLING TECHNIQUES

Since the landing site have factory buyers, fishermen have all the techniques or knowledge to handle fish to maintain fish quality.

2:0 PRODUCT FLOW AND FINANCIAL FLOW

Fishermen sell fish either directly to the consumers which include both local consumers and factory buyers or through retailers to consumers.

2:1 PRODUCT FLOW



‘While with financial flow, the factory buyers shares the highest returns of 1,000/=, the retailers takes 800/= (eight hundred shillings only) and the fishermen stands for 700/= (seven hundred shillings only). See below.

2:2 Financial flow

Fishermen (700/=)	Retailer (800/=)	Consumers both local and factory buyers (1,000/=)
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Further Comments

A population of about 550 with 380 males and 170 females, and 304 households. 106 boats operate on this landing 7,420 kgs. of fish weekly.

Access to the landing is by a community road (wide) used by pick ups (3) and bicycles. There are 15 supply shops for domestic utilizes and 3 drug shops.

Lake water and borehole (4) are the main sources of water. There is no electrification and source of fuel are firewood and solar plates.

One boat building yard. There are two churches and 1 mosque.

- Community based organizations that have credit services include – WAD’DONG CEN WOMEN GROUP, Nyodoben Association, and Umoja Group.
- Fisheries and Health Workers provide extension services on fish handling and sanitation and hygiene education respectively. No research services were reported.
- Fisheries management activities include sensitization and mobilization of community, Fish Inspection and data collection, fishing gear inspection by Fisheries Department.
- Development programs/projects include construction of Primary School, pit latrine and fish handling facilities.
- Alurs are the main tribes constituting 95% others are Acholi, Lugbara and Banyoro respectively.
- Leadership structure: Fishers consist of centre master (Gabunga) a Deputy/Vice, Secretary, Treasurer, Committee Members and Fishers.
- Local administration – LC. System.
- Decision making it top down with centre master, LC.1/Chairman and Religious Leaders considered as option leaders deciding for the community meetings, sign post, posters, designed by centre mater are means of dissemination of information.
- Main income activities are fishing, trading, agriculture and prostitution respectively. Fishing and agriculture are however, the major employment providers to the community respectively.
- Income/.....categories of residents are as follows. High class earn 60,000/= and above and constitute 2.7% middle class earn 20,000/= to 60,000/= constitute 5.5% lowest class less 2.000/= and majority 92%.

Main diseases are first diarrhea, water borne disease, malaria and TB respectively.

PHC services are Immunization and Nutrition and Early Child Project.

There are 106 operating large type boats and 10 non operating gillnets 1,166 are the main gear type.

Alestes landed by 89 boats the most economically important fishery followed by Nile perch landed by 17 boats.

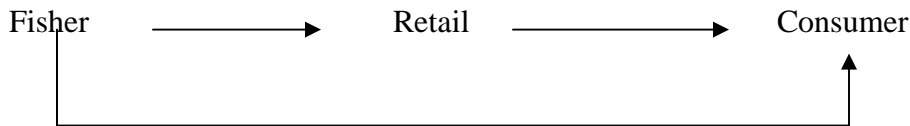
Annual catches for Alestes = 149,040 kg. and 171,360kg. for Nile perch.

Facilities for processing/handling include working shade, 30 drying racks and 2 weighing facilities.

Alestes is mainly processed traditionally with 1200kg smoked, 1750kg. sun-dried and a total of 2950 kgs. weekly. Nile perch is processed weekly with 200 kgs. smoked and 80 kgs. sun-dried.

Alestes and Hydrocynous are sold to Nebbi, Paidha, Arua, Parombo as fresh and processed. Nile perch, wet fish is sold to Jinja and Kampala, the processed goes to West Nile region.

PRODUCT FLOW



FINANCIAL FLOW

Fisher sells at 700/= to retailer who sells at 800/= to local traders sells 1,000/= to consumers.

- Garbage disposal sites are 5 and 1 public pit latrine
- Polythenes and plastics are dumped together with rubbish.
- A culprit caught misusing community latrines is made to clean them or dig another pit latrine.

DISCUSSION WITH A GROUP OF WOMEN LEADER

“CAC OPE IKWO WOMEN ASSOCIATION

Under the leadership of Mrs. Acanda Aisha, Mrs. Ongiera Alphosnia, and Mr. Manano dealers in fisheries business, various narrations and recommendations on the development of fisheries overtime have been discussed though the export business and factory buyers have just joined Dei landing site.

Catches have never been affected by the export business because the factory buyers have just joined the local consumers/community. But the decline in catches is mainly attributed to by unreliable rainfall and lack of finance to purchase more fishing gears to develop fishing efforts.

Before the factory buyers joined the fishers, the opportunities were limited to the local people of West Nile region, but as they continue to purchase fish, more opportunities are opened to other parts of the country especially Jinja and Kampala plants. This have now increased the returns of the people which was low.

Generally, development of Dei landing site have been fair and no effect have noticed as export business has just started.

The likely reasons for the above trend is the low fishing effort attributed to by lack of finance and no Government assistance in terms of loans to the fishing communities.

The export business within a short time have increased the income of the fishermen because of the ready market established. But the disadvantage are that, the local communities have no employment opportunities. The factory buyers have their own workers from Jinja and Kampala. They also buy fish at a low price set by them (factory buyers). Only big fish are bought. The rest are left.

The women leaders, therefore, recommended that; price should be set by the centre master and his cabinet on behalf of fishermen. The factory buyers should employ the locals and buy through agents at the site. Some sexes (percentages) should be changed and paid to the centre for development programmes such sanitation and hygiene programme.

Fish export business at moment have no advantages at hand but only disadvantageous to the women and children welfare since no employment is offered to women and children. The presence of factory buyers instead have reduced the consumption rate by the venerable group since most fish are sold to the factory buyers. This have brought competition no buying fish with the local consumers – women and children all alike!

The women leaders therefore, recommended that, women should be employed as buying agents and factory buyers should buy fish alone 5 kg per fishermen and any fishermen with less than 5 kg fish should sell to the local women to add on their business and consumption rate.

Generally, the export business have not affected the fisheries ecology and the environment at the landing site since the factory buyers are hardly 3 months at Dei landing site. However, law enforcement and regulations should be put in place in order to avoid future pollution at the landing site, the leader recommended.

15. Kabolwa, Masindi District

This landing is about 20 mile before Wanseko, on the Masindi – Wanseko road.

It's situated on an area of about 0.5km² found with a shore line of about 150m. The population of the area is around 800 people and the main fish species here are Nile perch, *Alestes*, Tilapia and *Clarias*.

There is a primary school and a church. There are few permanent houses. The majority are semi-permanent grass thatched houses.

The 8km road from the Masind-Wanseko road, is very poor and impassable during rainy season. Transport is mainly by bicycles and water transport.

The hygienic of the landing is very poor, there is hardly and public latrine or urinal, and the private pit latrines are in a sale state.

There is no rubbish disposal sites, rubbish is just thrown any where. Water used is normally from the lake, the above hole broke down and there is no hope of repairing it.

Fish handling techniques are very poor, no shades, splitting tables, fish is put on the sand during sorting and auctioning. Fish is washed within the lake and the offals are sometimes thrown in the lake.

The product flow and financial flow is similar to that at Wanseko landing.

FOCUS GROUP DISCUSSION AT KABOLWA LANDING SITE

Women fish processors, retailers and fishers at Kabolwa landing formed an organisation called Agaterana group.

Below are some women who are involved in the discussion

	Name	Age
1.	Grace Bujuni	35
2.	Achan Ann	38
3.	Night Oyen Both	31
4.	Kamenyire Aringo	40
5.	Akumu Peter	32
6.	Florence Arinaitwe	28

1. Development of fisheries over time

Catches :

Before export Boom - The catches were high, and people lacked market for fish.

When export had just started. - Catches started reducing, up to now.
Now - Catches are very low especially Nile perch which is most valuable.

Marketing opportunities

Before export boom - Markets were only limited to local, and smoked fish to Masindi, Arua, Nebbi.

When export has just started - Marketing opportunities gradually reduced due to scarcity of fish.

Now - Markets are limited to nearby areas, due to lack of enough quantity of fish to supply to other areas.

Returns;

Before export boom - For women returns were high.

When export has just started. - Returns started decreasing.

Now - Very little is earned and some women are unemployed.

General development of the area

So far no development has been recognised.

Likely reason

This is mainly due to;

- ◆ Scarcity of fish.
- ◆ Competition of flesh Nile perch with the factory agents.

2. How export business has affected fisheries in this area.

- ◆ People have increased in the area.
- ◆ There is market for flesh Nile perch unlike in the past.

Disadvantages

- ◆ Many people have formed fishing
- ◆ Many undersized nets are now used.
- ◆ Competition for flesh Nile perch, which is now really consumed at home.

Recommendation for improved performance.

- ◆ Control number of fishermen in the lake
- ◆ Regulate the number of factory agents at the landing, so as the local to compete favourably in the Nile perch market.

3. how export business has affected women and children welfare.

Positive

- ◆ Women fill they have not actually benefited from the fish export business.
- ◆ Accessibility and availability of fish reduce, and many women were left unemployed.

Negative

- ◆ Many women were left unemployed (no Nile perch for smoking)
- ◆ Children are badly affected since mothers no longer get enough money to support them.
- ◆ Flesh Nile perch is now scarce in homes, if there its regarded as rejected.
- ◆ Many fishermen now fish Nile perch therefore other species are no longer available for consumption.

Recommendations to increase benefits to women and children

Provision of loans so as the women can engage in other income generating activities.

4. How the export business has affected the fisheries ecology and the environment.

Positive

The population have increased in the area.

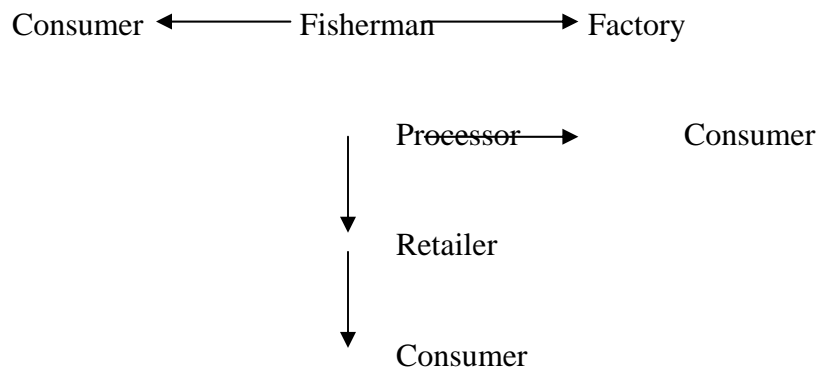
Negative

Immature fish is caught, therefore fish will get finished from the lake.
Sanitary conditions around the landing have generally reduced.

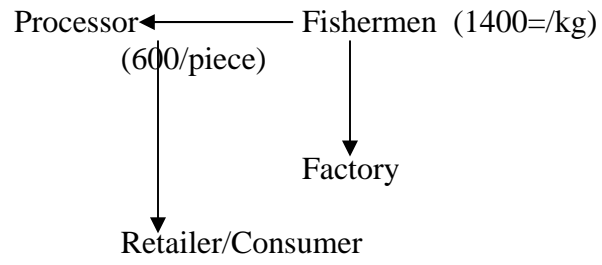
Recommendations

- ◆ Construct some public latrines around the lake.
- ◆ Review and inforce the fishing regulations in proper ways.

5. PRODUCT FLOW



6. FINANCIAL FLOW (Nile perch)



16. Wanseko, Masindi District

It is one of the best landing sites on L. Albert. It is located on the North-Eastern shores of L. Albert, 75 miles North-West of Masindi town.

It is situated on an area of approximately 1km² of land, with a shore line of about 156m.

The population of the area is over 1500 people, but it varies from time to time depending on the catches.

Wanseko is a commercial area with many shops (both retail and wholesale). It acts as a gate way to Panyamur in West Nile. There is a daily ferry that operates between Payamur and Wanseko.

There is a primary school, a church, a mosque and a police station. Many residential houses are grasshatched and a few semi-permanent and permanent house.

The road from Masindi to Wanseko is a good murrum road. Transport being mainly by buses and taxis to Hoima, Para and Masindi. Water transport is mainly to DRC, Panyamur, Butiaba, Bogoma and Ntoroko.

Hygiene is mainly below average. There is one public latrine and urinal with no proper rubbish disposal sites. The used water is not properly disposed off but recycled to the lake.

Fish handling techniques are poor, fish is just dragged in sand on the beach, washed in the lake or just thrown any how. However, it is as quickly as possible taken to refrigerated vehicles, which are over there waiting for fish.

2. Product flow.

Generally, fish move between, the fisherman, consumer, factory, processor and retailer.

However, since now Nile perch is very expensive, the processors were eliminated though there are some few who can compete with factory buyers.

There is little consumption of flesh Nile perch at the landing, therefore local consumers receive low quality fish regarded as rejected fish by the factory buyers.

FINANCIAL FLOW

The price of fish generally depends on the availability of fish.

On average fishermen sell their catches at:

Nile perch	-	1400/= per kg.
Tilapia	-	800/= per kg.

Or (1500/= an average size Tilapia)

Processors do not sell in kilograms but in pieces. A piece of Nile perch is at Shs.700/= and Tilapia at 600/=.

Focus group discussion at Wanseko

Katwekambe Women group is an organisation of women at the landing who deal in fish processing, fish retailing and fishing.

Five women and two of their leaders were involved in the discussion. They include:

	Name	Age
1.	Nsekanabo K	28
2.	Ahura M.	25
3.	Kaimukiro M.	38
4.	Nyabitaka Muda	37
5.	Nyamunaba Elbas	30
6.	Ngasirwaki B.	32
7.	Agaba Gertrude	64

1. Comments on development of fisheries over time

a) Catches

(i) Before export boom

The catches were very high, except Nile perch which had no great commercial value. Fish like Barbus Bagrus, Tilapia Hydrocynus were caught in large quantities.

(ii) When export had just started

Many people joined fishing, catches reduced of all species, except Nile perch. Many people turned to fishing Nile perch which had value.

(iii) Now

Catches have greatly reduced, even that of Nile perch, many boats have entered the lake to exploit it.

b) Marketing opportunities

(i) Before export boom

Market was available since, processors (smoking, salting) had enough fish to take to market both local and other parts of the country e.g. Panyamur, Masindi, Gulue, and Arua.

(ii) When export had just began

Market opportunities steadily began decreasing, since catches reduced and the little Nile perch we used to process is now taken by factories

(iii) Now

We hardly have any market now, since catches have reduced and due to competition with factories, the little we process is just consumed locally.

c) Returns

(i) Before export boom

We used to get a lot of money, because fish was available, and over business was going on well.

(ii) When export had just began

Our returns started decreasing steadily.

(iii) Now

Very little income, we nearly have nothing to sell. Our major work was mainly smoking, especially Nile perch, which is now taken to Kampala fresh, so now no money.

2. Effects of the export fishery in general

Disadvantages

- ◆ Many fishermen, boats and nets have joined fishing.
- ◆ Many illegal gears are now used in fishing.
- ◆ Fish has reduced.
- ◆ Flesh fish (Nile perch) for home consumption is very expensive as a result people in this area get fish regarded as rejected.

Recommendations for improved performance

- ◆ The government should provide loans to women groups or individuals.
- ◆ Should provide the required nets at an affordable price.
- ◆ The number of factory agents buying fish at the landing should be regulated.

3. How fish export business has affected women and children welfare

Positively

Family welfare has been improved, since those men involved in Nile perch fishery can get enough money to sustain the family.

Negatively

Women and children no longer have good access to Nile perch. Its only available in the home when it is rejected.

The main work of women was to smoke fish mainly Nile perch, since they can favourably compete with factories they have been left unemployed.

General development of the area.

(i) Before export boom

The area was less developed, the income of people was very low. No infrastructure were built.

(ii) When export had just started

Development improved.

(iii) Now

Other people are getting money, especially those selling fresh Nile perch, Hotel owners, and lodges.

Reasons for this trend

This is mainly due to the scarcity of fish, species have generally reduced and the women processors are out compete by the factory agents.

How export has affected the fisheries in the area.

Advantages:

- ◆ Income of people increased.
- ◆ Market for fresh fish was widened

Recommendation to increase benefits to women and children.

- ◆ Provision of loans to women or set up income generating activities for the women.

4. How the export business has affected the fisheries ecology and the environment at the landing site in general.

Positively

No positive effect to the ecology of fisheries recognised.
The population has increased.

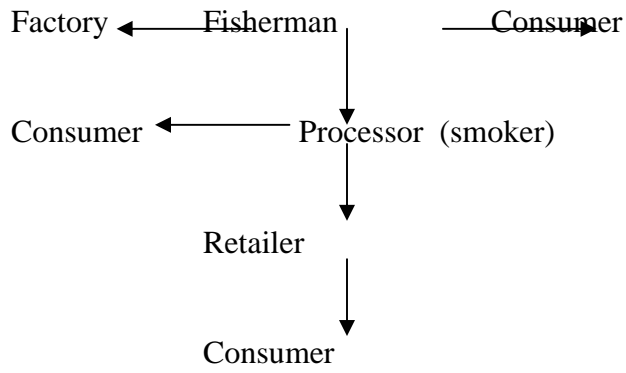
Negative

- ◆ There is over-fishing in the lake.
- ◆ Fish is scarce now.
- ◆ Due to population increase, there is congestion in lodges, and houses for rent.
- ◆ Sanitary conditions have also reduced.

Recommendation to increase benefits to the environment

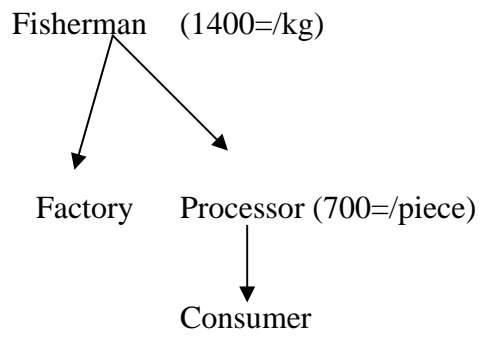
- ◆ More public latrines should be built.
- ◆ Disposal sites should be well constructed and maintained clean.
- ◆ General cleaning of the landing by all residents at least once a week.

PRODUCT FLOW

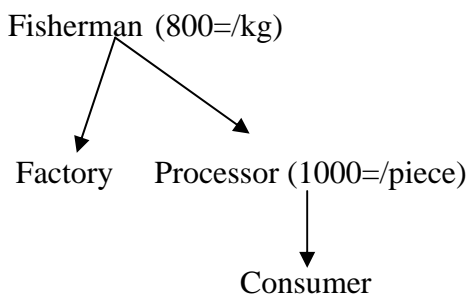


FINANCIAL FLOW

Nile perch



Tilapia



Landing Sites on Lakes George and Edward

18. Kashaka, Bushenyi District

BACKGROUND: LOCATION, SIZE, INFRASTRUCTURE, HYGIENE AND GENERAL FISH HANDLING TECHNIQUES.

The only village within the boundaries of the reserve is the fish landing of Kashaka.

Kashaka landing site is situated on the southern bank of L. George and its people are the only ones who are allowed to take anything from the reserve. These people are licensed to fish only that.

No food can be grown in the village. The only livestock allowed a few goats, ducks and chickens for meat and eggs.

There are 48 licensed fishing boats and the remaining 12 boats do fishing illegally.

Fishing is done from self owned boats or from the boats of the ricer villagers. Usually the older men and Women own the boats and the young men do the work. They will then halve the catch.

Fish mongers travel outside the reserve to sell the catch and also transport all the necessities for the village when they return there is only one pick-up to take fish monger.

The road is a feeder one and is impassable during the rainy seasons.

There is also import/export carried out by boat to and from Kasese on the other side of the lake.

There are a few shops selling whatever commodities they can get hold of which in reality is very little but beer, soda flour, cigarettes, sugar limited varieties of vegetables and fruits are usually available.

Women are usually employed during the day making mats, baskets, fish nets and various food items.

There are a few other people in the village, a health worker is based here but he has three other villages to look after.

The main duties of the health worker are to immunise children at the age of 5 years against whooping cough, measles polio and diphtheria compulsory for children to advice about disease prevention and treat any illness for which he has medicine. All the treatment must be paid for by the patient. Nothing is free although there are government subsidies to help with the treatment of children and immunisation programmes.

2 – 3 teachers manage a primary school in the village. Not all the children in the village attend school as the fees can prove unattainable.

There is no secondary school available. Children after the primary school are taken away to the areas of Bunyaruguru like in Lugazi for secondary Education.

Buildings are mainly constructed of traditional materials, rocks available locally and timber which is imported.

Latrines are dug in the hard earth and are covered as are the most of the other buildings.

Some buildings double as homes and pubs selling Waragi or Tonto both alcoholic derivatives of the Matooke banana and both very potent if taken in any quantity.

Many of the fishermen spend all the afternoon drinking and some of the women also indulge as there is nothing to occupy them a lot of the time.

There are places of worship catholic church, Protestants and Mungumwema and a mosque. All the worshipping places total up to five.

The area covers an area of 2sq km within the National park of Kyambura game reserve and the park authorities have put up boundaries which no body is supposed to put up any structure or cultivate.

Hygiene

The hygiene of the place is relatively fair at least 75% of the homesteads have their pit latrines though structurally poor and some garbage disposals. Though there is always litter of polythene papers which the authorities have to instruct the residents to collect and burn them.

General fish handling techniques

The handling techniques are still poor. The landing site is lacking all the handling facilities such as:

- Washing tables
- Landing slabs
- Weighing shade
- Drying racks.

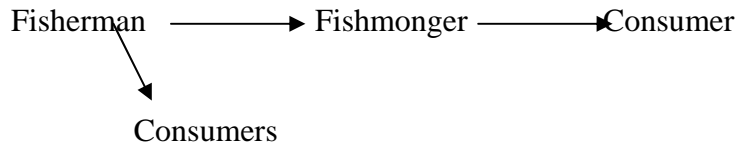
Therefore lack of these structures at the landing site contribute to poor fish handling.

As fish lands, fish is put in sacks and then taken to weighing scale from where fish is then loaded in the locally made baskets of approximately 400kgs and then loaded on pick-ups or bicycles and taken away by the fish mongers.

One major drawback is that the place lacks Ice or Refrigerated trucks to keep the fish chilled and as such fish spoils quickly.

There are traditional smoking process at the landing site and there are about 7 kilns made by the CARE Uganda. However there is no salting processes at the site.

PRODUCT FLOW



None of the landing sites export fish beyond the borders of Uganda at the moment as revealed by the Respondents . This is attributed to reduced catch and the closure of the fish processing factories of PELICAN and TUFMAC. Therefore the questions on the export were based on the past experience when people used to take the fish to Congo and in the days when the days when the industries of TUFMAC and PELICAN questions were phased basing on the past experience, the questions received positive response from all the respondents questioned.

FOCUS GROUP DISCUSSION

(4 PEOPLE)

1. The development of fisheries overtime:

Before export boom, when exports had just started and now is traced back when there were fish processing factories of TUFMAC and PELICAN which however declined in early days. The factor that contributed to the decline of these factories was due to decline in fish catches of L. George due to poor fishing methods that became rampant on the lake.

However the marketing opportunities were high during those days when the factories were still operating and general returns of the people were high and there was general development of the area. People was able to put up some permanent structure.

The decline of these factories meant poor returns for the people, and marketing opportunities thus became poor. People started carrying out local smoking of the fish an such fish could/is still marketed in the neighbour hood of Kasese, Bunyaruguru, Bwera and some is consumed locally.

It should therefore be noted that at Lake George of presently there is no factory operating and as such fish is processed locally using smoking kilns.

2. The export fish business affected the fisheries in this area in the following instances.

In days of export boom when there used to be the fish processing factories of TUFMAC and PELICAN, there were employment opportunities created for the people. People used to work in factories and the return were high.

From what the respondents revealed they used to get high returns and the factories used to give them fishing gears at subsidised price and there was general development of the area.

However, the disadvantage was that there was massive destruction of the fishery due to us of poor fishing methods or techniques leading to poor catches.

Recommendations for improved performance

- ◆ Government should look for adequate market to the poor fishers around Lake George more specifically Kashaka Landing site market.
- ◆ Loans to be given to people more specifically women to diversify their economies and increase their income household levels.

3. The export fish business has affected women and children welfare particularly in access to the employment opportunities by increase to the income level of the households.

- Children were able to go to school
- Children were also able to access medical care and be able to get some other necessities such as dressing.

Recommendation to increase benefits to women and children

Giving loans to women to engage in other income generating projects such as Bee-keeping, and Cotton growing which seem to be viable projects in the area.

Putting up more primary schools to have more children accessing primary education.

Putting up more primary health Centres so that people can access primary medical care services especially children and pregnant mothers.

4. The export business has affected the fisheries ecology and environment at the landing site negatively because the development of the export industry led to use of poor fishing methods/techniques that has destroyed the lake environment leading to poor catches in the area.

However, on other hand, the area has somehow developed.

- People were able to establish permanent structures in the area.
- There was establishment of a primary school.
- There was also establishment of a health centre.
- Two water tanks were also built.

Recommendations to increase Benefits to the environment

- ◆ There should be proper lake management. The fishing community and the Fisheries Department should work hand in hand to ensure proper lake management so as to ensure high output.
- ◆ There should be proper use of fishing methods/techniques to ensure sustainable harvesting of the resource.

19. Katunguru, Bushenyi District

THE LOCATION OF THE LANDING SITE

Katunguru fish Landing site is located along Bushenyi – Kasese high way. It covers an area of 6 square miles.

Infrastructure

The landing site is on a high way (main road). There are permanent structures and some semi-permanent structures with some few pit latrines.

People use Buses, Pick-ups and Minibuses since the landing site is on the main road. There are about 10 supply shops and one health unit and sub-county headquarters of Katunguru.

People here usually use lake water and there is no piped water; there was only one borehole which is non-functioning at the moment. There is only one primary school at a level of P.5 and 2 Churches and 1 mosque as worshipping places.

Hygiene

The hygiene of the place is not to standard. The landing site has 2 pit latrines and 1 garbage disposal implying that hygiene is not good however there are regularities put in place for the misuse of public pit latrines and garbage disposal.

Fish handling techniques

Generally the handling techniques at the landing site are poor. The handling facilities are lacking at the site such as:

- ◆ Working shade
- ◆ Working tables
- ◆ Drying racks
- ◆ Washing slabs and as fish lands it is directly put in sacks weighed and taken away by fish mongers.

20. Katwe, Kasese District

FOCUS GROUP DISCUSSION

1. DEVELOPMENT OF FISHERIES OVER TIME (BEFORE EXPORT BOOM, WHEN EXPORT HAD JUST STARTED AND NOW)

CATCHES

The catches before the export boom were great. Just very few nets (about 10 to 15) would be enough for each boat and fish was really in abundance and each boat would get an average weight of 50kg. per the few gillnets (10 – 15) nets per boat. Some fish species like the Ningo and Barbus were really in abundance. Fish was also processed by this time.

When the export boom just started, the catches seemed to be enough despite of the fact that they were decreasing slowly by slowly. When the marketing pattern was increased, there was high demand for fish on our local markets. Fish was at this time being processed e.g. salting and smoking was still carrying on and exportation was still possible. This processing sector would provide employment opportunities to those who were un-able to go fishing in the waters. Here development was high.

Now the catches have really decreased. Due high returns a lot of people got involved in the fishing business. this area received very many fishermen from Nyakiyumbu and Bwera sub-county who are leaving the area now one by one because of lack of employment opportunities. Catches have totally reduced and each boat now contains about 50 – 60 nets of which the catch is 25 kg/boat (daily catch) compared to 50kg for 15 gillnets.

MARKETING OPPORTUNITIES

Before the export boom, markets were local and fish was even being received in Bwera and other far distant places at some cheapest prices. When this started, fish was not so costly and would be afforded by very many households and hence malnutrition problems were un heard of. The demand and the supply were at an equilibrium.

When the export business started the market for fish changed having a lightly higher demand compared to the supply of the fish on the local market. The demand therefore involved many women in the business and they were able to sell fish and get very good profits. The cost of a kg. of fish also increased compared to the former periods.

Now the demand is so high however the fish is not abundant and the quantities purchased for resale by each woman has decreased because the catches are very low. However, the little quantities they get are easily sold off but the amount received is not enough compared to when the export business had just started.

RETURNS

Before, the returns were not to much because fish was sold at the local markets and “not” a lot of money was attained from this business of fish.

Fishers. Generally the incomes were very low.

During the export booms take over, revenue was collected and due to very great sales of fish with high quantities, the returns became too much and the high quantities, the returns became too much and the area was developing at a very fast rate. It was during these days that a “COMMERCIAL BANK” was opened at Katwe Kabatoro Town Council. Incomes steadily increased.

Now there are no much returns and because the catches have decreased from Lake Edward. The incomes of the people are generally decreasing despite of the fact that the demand for fish is steadily increasing on the local markets.

2. DEVELOPMENT OF THIS AREA (GENERAL)

Before, the development was very low because the area was not readily getting enough returns. However the Salt Mining Factory (Lake Katwe Factory) is believed to have contributed to too much development of Katwe Fish Landing. Road (Tarmac and Marram roads were also made). This (the factory) ceased to work some years ago. Development became at a standstill.

When the export business had just started, a lot of rehabilitations were done because people’s incomes were generally becoming good. Also the other Industries like the trade in merchandise and other good stuffs was booming. This provided some employment to most of the women because they were very much involved in these other minor businesses.

Now the development is not really as such because they are few employment opportunities. No further good buildings are being constructed and those who were involved in the processing sector some of the fishermen and some of those who used to be employed in the minor industries have been left jobless.

This therefore implies that there are high outcomes and developments brought about by the fish export industry but however this must be controlled by Government.

In any case the Fisheries Industry can be motorized compared to the number of engines at Katwe which are non operational, because of the low catches.

The most likely reason for this trend is that there is over fishing on the Ugandan waters due to the boom and the Government has not put in more effort to control the export and fishing techniques.

ADVANTAGES OF FISH EXPORT BUSINESS

Really the incomes have increased due to the boom. People are able to support their families and have been able to support other businesses from the money obtained.

In some way the fisheries boom thus supports the boom of other local industries and employment opportunities for example in the farming related, cottage craft (making carpets and papyrus mats) and trading in other goods.

Also the fishing methods have greatly advanced because the more fish is being looked for the more the technology used.

There is also general improvement in the infrastructure e.g. rehabilitation of road from Bwera to Kabatoro – Katunguru and houses have been constructed.

The water facilities have been improved for example there is a water tap system which has been constructed. Up grading the water system has also improved on the health and the ways of fish handling at the landing.

There is general improvement of the landing and the fishers have now received a general knowledge and education on how they should manage their resource. In this case, some boats have been stopped from operating because they are too many and encourage over fishing.

DISADVANTAGES OF THE EXPORT INDUSTRY

There are now every many illegal methods and gears used while fishing. This is because of the fishers want to catch more in order to earn more.

Also some boats, nets and engines have been rendered un-operational and thus are now wasted resources.

The fish processors and some fishermen have been stopped from performing their duty because a few of the boats go working and the small catches caught is processed.;

RECOMMENDATIONS FOR IMPROVED PERFORMANCE

It is recommended that communities should be encouraged to participate in limiting the number of people who may fish, and controlling certain fishing techniques including control of mesh sizes and maintaining the fish habitats.

Government should also develop appropriate legislations to effectively control over fishing and also introduce closed areas and seasons for particular fisheries.

Systematic fishing regulations and export rules should be emphasized. The economy and the people at Katwe Fish Landing have generally obtained something from the fishing industry.

Certain fish ratios should be reserved for the local consumption and others for the export industry.

3. HOW EXPORT BUSINESS HAS AFFECTED WOMEN

Formerly, women and children were not involved in very many activities, but now due to the fish export business, these people are able to work in the processing sector and in the food and beverage and other commodities sales.

The standards of living have also improved because some incomes are attained from this work and thus support for families is not very hard.

Some children have learnt how to fish but this is however not practiced at a large scale because they are not continuously allowed to do so.

Women group associations have been formed and women are able to attain knowledge pertaining different works from these groups. The groups also give some credit to people for example the “Katwe Women Association”.

However, the boom in the export business has increased school drop outs because the children want to involve themselves very much in the fishing activity.

Women at times also don't care about their husbands because they feel they have enough and can not be undermined by their men.

RECOMMENDATION

There should be sensitization on gender equality and bi-laws should be made in order to stop early school drop-outs of children.

4. HOW THE FISH EXPORT BUSINESS HAS AFFECTED FISHERIES ECOLOGY AND THE ENVIRONMENT

Due to high demand of fish that has brought about over fishing, the ecological habitats and breeding areas of fish have been tempered with. This has been brought about by the various fishing techniques which are illegal and destructive. Reduced mesh sizes of 4.5” and 5” (inches) no longer get fish because they grow old at very fast rates. Also some fish species have started disappearing in the waters of Lake Edward e.g. Salmon and Ningo.

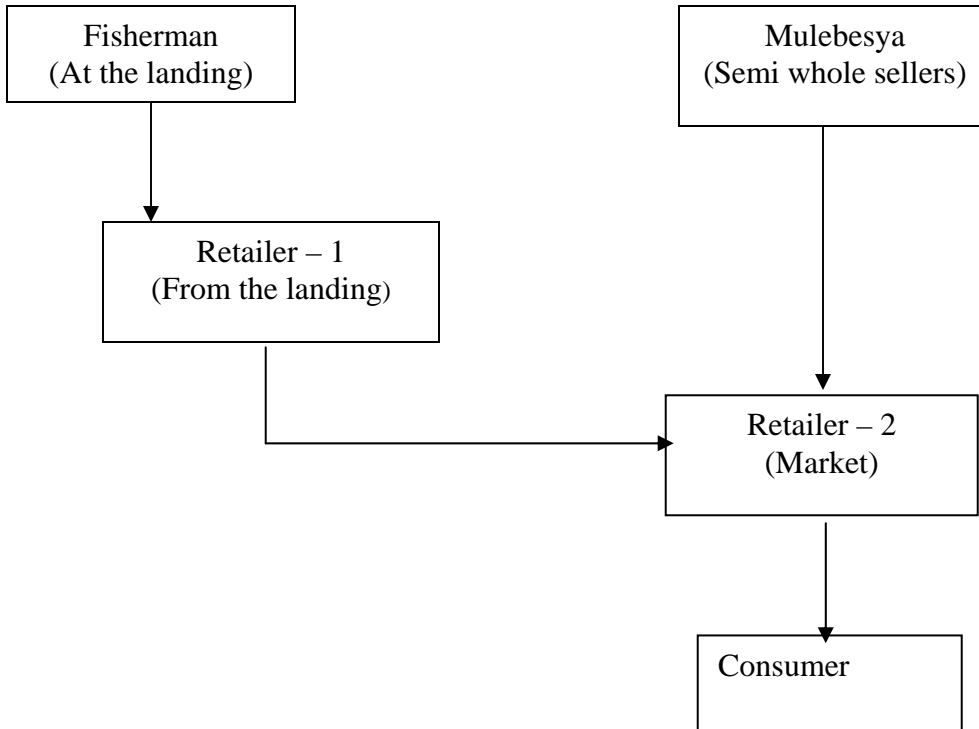
Fishers thus must look forward to conserve their resource. Some educational training about the methods of resource conservation and sustainability are being offered to the fishermen.

RECOMMENDATIONS

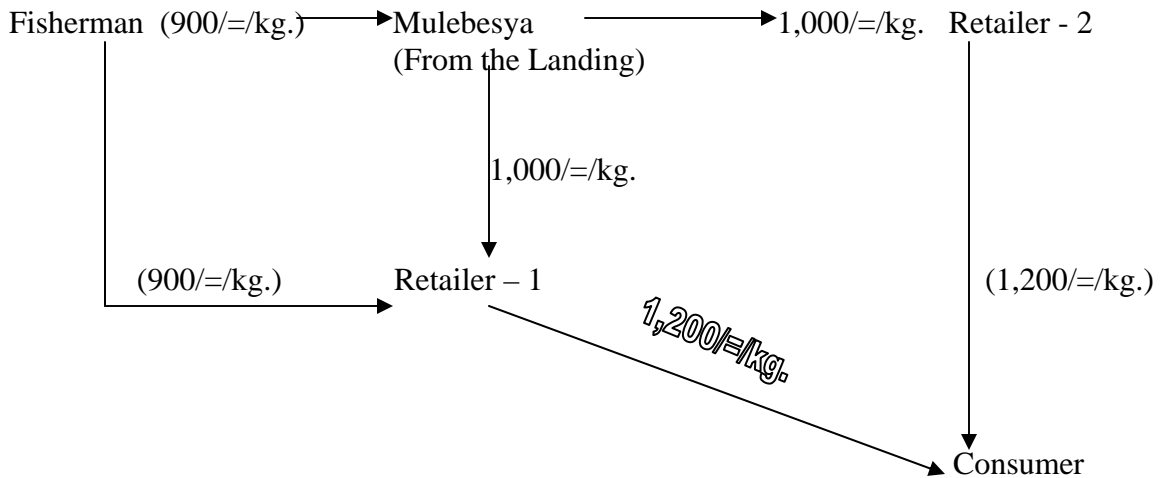
In order to increase benefits to the environment, the community (fishing community) must realize that fishing is a way in which one can earn a livelihood and therefore must be sustained.

Also some areas should be gazetted such as the breeding areas of fish to allow their multiplication. The lake should also be re-stocked with another species which is able to survive and breed in the shortest time with a high growth rate.

PRODUCT FLOW



Financial Flow



GENERAL OBSERVATIONS

1. The catches were not very poor despite of the high demand.
2. the handling practices here were quite fair, and processing facilities were not very bad.
3. Disposal of garbage and polyethene was better and the public latrines were properly utilized.
4. No illegal fishing methods were realized.
5. Women at this landing were more organized and were easy to communicate to.
6. The place is highly developed compared to other fish landings.
7. A warning bell is rank to call the fishermen (usually at 8.00 a.m.) and working time is at night.

Fishers (Both men and women) have been affected by the boom in the fish export industry.

21. Kayanja, Kasese District

FOCUS GROUP DISCUSSION

1. DEVELOPMENT OF FISHERIES OVER TIME

(Before Export boom, when Export had just started and now)

CATCHES

Before the export boom, the catches were marvelous. One was able to get a big tilapia of 3kgs and Protopterus of about 10kg – 15kg. A six inches net was able to get (catch) enough fish because fish was so abundant. Very few boats and net were involved in the fishing business. Some fish would even be processed and they were so many species which include the Barbus. Some fish catches were at times considered as big catch due to their abundance.

As the fish export boom started, the trend started changing slowly by slowly in the fish catches. Very many people had just come to realize that the fishing business is a prosperous one. The demand for fish products on the local markets had raised exponentially. A lot of gears were used to get the fish using the various methods (both recommended and the illegal).

Now, the catches are greatly reduced. When a lot of people get involved and very many illegal methods and gears are used, there is a marked loss that can now be realized. The heaviest Tilapia now obtained at Kayanja fish landing can be 1kg and the species caught include Tilapia, Bagrus, Protopterus and Clarias. Barbus can also be caught once in a blue moon.

MARKETING OPPORTUNITIES

In this sphere, the local markets played the greatest role. Bwere – Mpondwe market, Karambi and Nyakiyumbu markets consumed the fish locally. The costs of fish were very low and the demand was low.

The trend changed as the fish export market boom popped in and there was high demand created for fish and fish products. The costs of the fish thus started increasing rapidly.

Now the marketing opportunity is very good because there is an increased demand despite of the fact that the supply is not enough. There is monopolistic competition now.

RETURN

The returns were very low before the export boom. There was little money (currency) circulating with in the rural (indigenous) fishers and the incomes were not up to date.

During the export boom take over the returns steadily increased and the revenue collected was high. Thus, there was increased circulation of currency in the citizens especially among the fishing communities. Women and children had a share on these returns.

Now the returns are not properly shared because just because of limited fish catches. Some households are even failing to sponsor their own children in schools. Returns are basically consumed by very few figures whereby the rich are becoming richer while the poor are becoming poorer.

DEVELOPMENT OF THIS AREA

The area was developing at a very slow pace. Lack of access to the hydro elastic power has also led to the backwardness of the area. The infrastructure was generally poor with a loamy soil muddy road.

When the export fish business just began, the area started developing. The muddy seasonal road was constructed into an all weather marrum road. Some infrastructure like the house had been repaired and new iron roofed houses have been renovated and constructed.

Due to circulation of the currency among the people some developments are still being made. However, the incomes have not increased at a fast rate as it was expected before. The catches are lowering and there are few people traveling to the area therefore the transport industry is also lacking jobs.

There is some education of the fishers, on the low best they can sustain their resource and also there is transmission of health programs on HIV/AIDS awareness in order to improve the welfare of the people.

2. EFFECTS OF THE FISH EXPORT BUSINESS

ADVANTAGES OF FISH EXPORT BUSINESS

The methods of catching and handling fish are somehow improving. This can be referred to as improvement in the fish technology hence controlling post harvest losses.

There are increased incomes due to the fish export boom and hence people are able to support their families.

There is improvement in other businesses like the transportation (boda boda and taxi operations).

Dissemination of education through programs and some research about the fisheries are carrying on.

DISADVANTAGES OF FISH EXPORT BUSINESS

Some fishers have been rendered jobless because the fish catches sustain a very big number of them.

Fish processing is something unheard of because all the fish is sold while still fresh.

Illegal fishing methods have increased and breeding areas are being tampered with.

RECOMMENDATION

The Fisheries Department should set fishing regulations which should cater for both the local markets and export markets. There should be co-management and proper sustainability of the fisheries resource.

3. HOW THE EXPORT BUSINESS HAS AFFECTED WOMEN

Women are now able to support their families because they can perform in small income generating activities like sale of foods.

Women have been educated on how they can work by teaching them the way in which they should do during the fish retailing businesses.

There are credit facilities formed and these provide and support women by giving them “entandikwa” of starting business.

However, some women have proved to be better than their husbands and hence over look them.

RECOMMENDATIONS

Laws governing women behaviours and roles women are supposed to play in society, should be put in place.

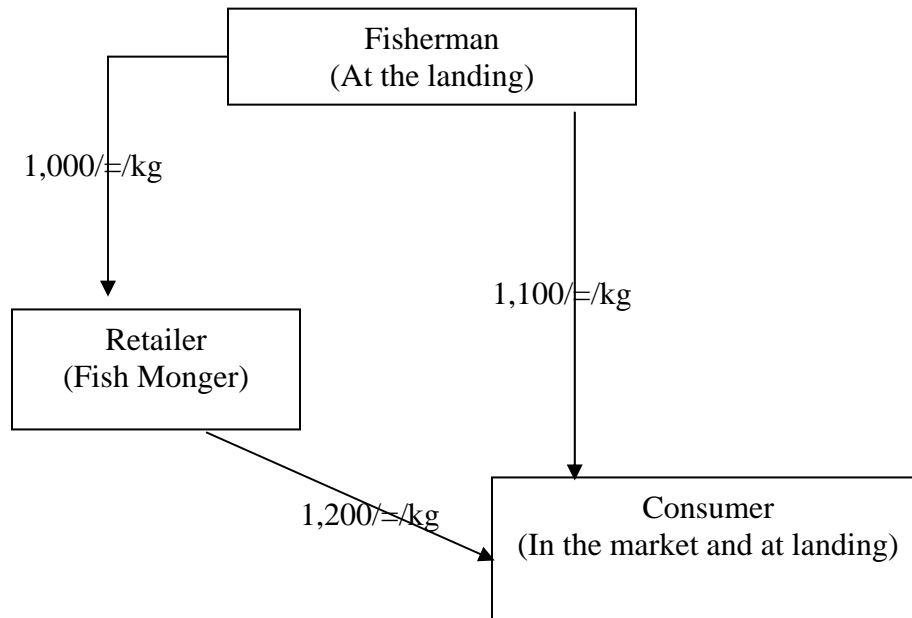
4. HOW FISH EXPORT HAS AFFECTED FISHERIES ECOLOGY AND THE ENVIRONMENT

Fish is over fished and breeding areas are being destroyed. In the future fish might have to migrate to other areas or might cease to appear in Lake Edward with time unless there are preventive measures on that.

RECOMMENDATIONS

Fishermen must therefore look forward to manage their resources. They must realize that a fisheries resource is a future of the next generation and therefore it must be used sustainably.

PRODUCT FLOW/FINANCIAL FLOW



OBSERVATIONS

- 1) There were no recommended fish processing facilities at this landing.
- 2) The sewerage and polyethylene disposal sites are not clearly identified.
- 3) Fish handling was generally poor.
- 4) Fishermen were not catered for on safety precautions while at sea.
- 5) Some illegal fishing was realized in hidden places.
- 6) The place was generally developed.
- 7) Low catches were obtained each morning (working hours – 5.30 p.m. – 8.00 a.m.)
- 8) The fisheries staff were not really facilitated and there is no patrol boat.
- 9) Some good number of people is highly employed in the transportation and Fisheries Industry.
- 10) People were generally educated on what is supposed to be done.
- 11) The lake needs some re-stocking because the catches were unpleasing.

Annex. Selected Comments

See Section 3.1. of the main report.

3.1.1. Fish stocks, fishing methods and regulations

- Community participation in making rules, (Kikaraganya, Nakasongola District, Lake Kyoga)
- Community and department should manage fish together - sustainable use of gears etc, (Kashaka, Bushenyi District, Lake George) Note that the Integrated Lake Management project had been active on Lake George for some time by the date of our survey)
- Co-management for sustainability, (Kayanja, Kasese District, Lake Edward)
- Full time patrol on lake, especially at night, (Kigungu, Mpigi District, Lake Victoria)
- Stop use of illegal gears, (Masese, Jinja District, Lake Victoria)
- Protect breeding grounds, (Kasensero, Rakkai District, Lake Victoria)
- Government to prevent use of bad fishing methods, (Masese, Jinja District, Lake Victoria)
- Collaboration between Districts to enforce fisheries regulations, (Kikaraganya, Nakasongola District, Lake Kyoga)
- Abolish illegal gears and undersize nets manufactured in the factories, (Kigungu, Mpigi District, Lake Victoria)
- Manufacture of illegal gears should be stopped, (Masese, Jinja District, Lake Victoria)
- Fishermen should keep small fish instead of throwing back, (Kigungu, Mpigi District, Lake Victoria)
- Lower mesh size for tilapia to 4" to capture small but mature fish, (Kigungu, Mpigi District, Lake Victoria)
- Control number of fishermen, (Kabolwa, Masindi District, Lake Albert)
- Make community aware of sustainable fishing, (Katwe, Lake Edward).
- No favouritism in application of fishing regulations, (Kigungu, Lake Victoria)

3.1.2. Manage the operation of the market for fresh fish

- DFR regulations should cater for both local and export markets , (Kayanja, Lake Edward)
- Check and control the export market, (Ssenyi, Lake Victoria)
- Price of fish at first sale should be set by cabinet, (Dei, Nebbi District, Lake Albert)
- Factory agents should not buy more than 5kg from a fisherman, rest sold to local women, (Dei, Lake Albert)
- Prices (especially tilapia) should be fixed [i.e. a maximum price] so women can buy fish, (Maese, Jinja District, Lake Victoria)
- Number of factory agents at landing should be regulated, (Wanseko, Masindi District, Lake Albert)

- Regulate number of factory agents at landing to locals can complete, (Kabolwa, Masindi District, Lake Albert)
- Specify (limit on) quantities taken by factories (v Important) , (Masese, Jinja District, Lake Victoria)
- Reserve proportion of fish for local consumption , (Katwe, Lake Edward).
- Big traders restricted to specified landing sites, (Wairaka, Jinja District, Lake Victoria).
- Government should reduce number of factories, (Masese, Jinja District, Lake Victoria)
- Exporting should be stopped or controlled, (Wairaka, Jinja District, Lake Victoria).
- Limit capacity of factories (Dimmo, Rakkai District, Lake Victoria; Kasenyi, Wakiso District?, Lake Victoria)
- Curb buying of fish on the lake (Kasenyi, Wakiso District?, Lake Victoria)
- Authorities should set size limits [larger?] for factories (Kasenyi, Wakiso District?, Lake Victoria)
- Tilapia exports should not be permitted (Kasenyi, Wakiso District?, Lake Victoria)

3.1.3. Financial changes – taxation and government expenditure

Reduction of taxes/fees on fisherfolk

- Reduction on taxes on fishermen (Kikaraganya, Nakasongola District, Lake Kyoga)
- Taxes on the [artisanal] industry should be relieved (Masese, Jinja District, Lake Victoria)
- Reduce taxes, licenses etc (Masese, Jinja District, Lake Victoria)
- Reduce tax on fishing equipment - women [retailers] may leave the business (Katosi, Mukono District, Lake Victoria)
- Taxes and licenses should be reduced - should be related to catches (Kigungu, Mpigi District, Lake Victoria)
- Roadblocks banned or fishermen provided with right documents (Kikaraganya, Nakasongola District, Lake Kyoga).

Introduce subsidies

- Government should subsidise life jackets for fishermen (Katosi, Mukono District, Lake Victoria)
- Subsidy on gear for fishermen (Kikaraganya, Nakasongola District, Lake Kyoga)
- Government should supply nets at affordable price (Wanseko, Masindi District, Lake Albert)

Introduce loan schemes

- Widowed/single women should be provided with loans for small businesses (Lwampanga, Nakasongola District, Lake Kyoga)
- Government loans to women's groups or individual women (Wanseko, Masindi District, Lake Albert)
- Women fish processors should be provided with money to compete with industrial processors (Lwampanga, Nakasongola District, Lake Kyoga)

- Government should supply entandikwa to fish traders (Kikaraganya, Nakasongola District, Lake Kyoga)
- Loans for people especially women to diversify income generating activities and increase incomes (Ssenyi, Mukono District, Lake Victoria)
- Improved loan schemes – previous government schemes not effective (Masese, Jinja District, Lake Victoria)
- Loan schemes targeting women (Masese, Jinja District, Lake Victoria)
- Loan schemes for women can obtain capital to buy equipment and boats (Kigungu, Mpigi District, Lake Victoria)
- Loans for people, especially women, to diversify income generating activities and increase incomes (Kashaka, Bushenyi District, Lake George)

3.1.4. Improve infrastructure and operation of landing sites

- Government should construct permanent market structure at landing – for women to display products instead of traveling to distant markets (Kigungu, Mpigi District, Lake Victoria)
- More public latrines (Wanseko, Masindi District, Lake Albert)
- Well built and maintained disposal sites (Wanseko, Masindi District, Lake Albert)
- Weekly cleaning of landing by residents (Wanseko, Masindi District, Lake Albert)
- A levy/tax should be charged to implement improvements in sanitation, hygiene and garbage disposal (Dei, Nebbi District, Lake Albert).

3.1.5. Fish farming

- Encourage fish farming (Lwampanga, Nakasongola District, Lake Kyoga)
- Fish farming units - women can monitor (Kikaraganya, Nakasongola District, Lake Kyoga).

3.1.6. Processing/marketing equipment

- Construction of metal drying racks instead of wood/papyrus (Kikaraganya, Nakasongola District, Lake Kyoga)
- Plastic instead of papyrus baskets for fish transport (Kikaraganya, Nakasongola District, Lake Kyoga)

3.1.7. New markets

- Export market for smoked fish (Ssenyi, Mukono District, Lake Victoria)
- Government should look for adequate market for poor fishers (Kashaka, Bushenyi District, Lake George).

3.1.8. Trading business procedures

- Factory purchasers should issue receipts to fishermen and fish traders (Katosi, Mukono District, Lake Victoria)

3.1.9. Restock lake

- Stock lake with new species (Lwampanga, Nakasongola District, Lake Kyoga)

- Restock lake with species not attractive to export (Kasensero, Rakkai District, Lake Victoria)

3.1.10. Broader concerns

The environment in general

- Electricity should be provided to minimise use of firewood (Kikaraganya, Lake Kyoga)
- Preserve wet lands (Katosi, Lake Victoria)
- Stop cultivation on lake shore (Katosi, Lake Victoria)
- Stop tree-felling near shore - shelter, breeding grounds etc (Katosi, Lake Victoria)
- Burn polythene (Katosi, Lake Victoria)
- Construct garbage disposal (Katosi, Lake Victoria)
- Education on environmental issues (Kikaraganya, Lake Kyoga)
- Purification of wastes (Lwampanga, Lake Kyoga)
- Laws against pollution (Dei, Lake Albert)
- Sensitisation about afforestation (Dei, Lake Albert)

Social considerations

- More primary schools (Kashaka, Bushenyi District, Lake George)
- More PHCs (Kashaka, Bushenyi District, Lake George)
- Stop early drop out from school (Katwe, Kasese District, Lake Edward)

Position of women

- Employment of women increased
- Gender equality training (Katwe, Bushenyi District, Lake Edward)
- Laws governing women's behaviours and roles (Kayanja, Kasese District, Lake Edward)
- Factory buyers should employ locals - women (Dei, Nebbi District, Lake Albert)
- Women participation in business should be forced from taxes (Lwampanga, Nakasongola District, Lake Kyoga)