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SOCIO-ECONOMIC SPECIAL STUDY
Report No. 21

KABYOLWE & KAPOKO

**Socio-economic study of Kabyolwe and Kapoko
villages, Mpulungu District, Zambia**

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**Pollution control and other measures to protect biodiversity
in Lake Tanganyika (RAF/92/G32)**

**Lutte contre la pollution et autres mesures visant à protéger
la biodiversité du lac Tanganyika (RAF/92/G32)**

The Lake Tanganyika Biodiversity Project has been formulated to help the four riparian states (Burundi, Congo, Tanzania and Zambia) produce an effective and sustainable system for managing and conserving the biodiversity of Lake Tanganyika into the foreseeable future. It is funded by the Global Environmental Facility through the United Nations Development Programme.

Le Projet sur la Biodiversité du Lac Tanganyika a été formulé pour aider les quatre états riverains (Burundi, Congo, Tanzanie et Zambie) à élaborer un système efficace et durable pour gérer et conserver la diversité biologique du lac Tanganyika dans un avenir prévisible. Il est financé par le FEM (Fonds pour l'Environnement Mondial) par le biais du Programme des Nations Unies pour le Développement (PNUD)

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BACKGROUND

This report is a compendium of two short reports of survey work undertaken in lakeshore villages in Mpulungu District in February and March 2000. Kabyolwe is covered first, and then Kapoko.

KABYOLWE

1 INTRODUCTION

The survey was conducted in Kabyolwe village on the mouth of Lufubu River on the shore of Lake Tanganyika from 12 to 16 February 2000. It could not be done in Fundiamali, as earlier planned, on the upper banks of Lufubu River, because the area was impassable due to flooding.

2 METHODS

The prevailing conditions during the time of the survey were the major determinant of the approach used. However, the team ensured that standard Participatory Rural Appraisal techniques were adapted. The idea was to ensure that information was collected in the most effective and efficient manner.

The chronology of events in the conduct of the survey in Kabyolwe village took the form presented below:

- Transect walk and mapping
- Introductory community meeting
- Focused group discussions
- Household interviews
- Wrap up community meeting

3 RESULTS

3.1 Transect walk and mapping

This was done in the afternoon of the first day and morning of the second day. The team members took a transect walk and identified vital landmarks of the village. A preliminary map was then drawn that was used to plan the household interviews.

3.2 Introductory community meeting

At least 30 community members attended the meeting. The meeting was delayed because people went out for work in their gardens in the morning. Instead, the meeting was rescheduled to the afternoon of the second day. This is the reason why team members undertook a transect walk without the community members. The following issues were discussed:

- Partial history of the village
- fisheries issues
- farming milestones, and
- gender and women issues

As time was of essence, the community meeting rapidly broke into groups and discussed these issues further (see below).

3.3 Focussed group discussions

3.3.1 Village history

During time immemorial, the Lungu people inhabited the area presently called Kabyolwe. It was a place full of wild animals as it bounds the present Sumbu National Park. Led by a man called Mukanda, and fleeing from especially destructive elephants, the people migrated to the nearby Iyendwe area in the Lufubu catchment area.

The present Kabyolwe village started as a fishing camp. People from all over the lakeshore came to the area for fishing. In its time as a fishing camp, the village saw several persons who acted as village leaders. One of them was a Mr. Henry Sinyangwe, elder brother to the current headman.

Although the dates are not exactly clear, the village became a permanent settlement when the chief, Chief Chitimbwa decided¹ to appoint someone to head the village as village headman. Some people think this was done in 1964 while other contend it was in 1974. There was no general agreement on when this was. Whatever the date, the chief's decision led to enthronement of Timothy Mumbati, a Zairian immigrant, as village headman.

Exactly when the reign of Mumbati ended is not clear. The indisputable fact is that the end of his reign came about when he moved to Mpulungu. After his reign, some quarters of the community believe that there were three other persons who reigned as headmen before the current headman Kalumbi. These were Goodwell Chishimba, Stephen Chipeta and Kabaye *Salikeni* Mazimba. Other quarters believe that the three gentlemen were not headmen but just caretakers before the substantive headman could be found.

Mr. Evenson Kalumbi became the headman succeeding Timothy Mumbati in 1988. Some people think it was much earlier than 1988. Chief Chitimbwa dethroned Kalumbi as village headman in 1999. During the time he appointed John Chipeta who acted as headman until January 2000 when Kalumbi was brought back.

The following events represent historical milestones of Kabyolwe village:

1962	Flooding occurred. Hippos invaded crops and homes were destroyed
1978	Floods destroyed fields and houses First major cholera out break
1987	Fishers began to experience dwindling fish catches.
1989/90	Floods destroyed fields and houses
1998	Second major cholera outbreak

3.3.2 Farming

The farmers chose to divide the period into three categories. These are long ago to just before 1970, the time from 1970 to 1979 and the period from 1980 to date.

Long ago farming was specifically for subsistence producing cassava, rice, pumpkins sweet potatoes and yams. The field were in the forest thickets called *amateshi*. Farmers usually bartered their cassava and rice for fish as a way of acquiring protein supplements for their diets. The limitations with farming then were largely due to destruction by wild animals.

¹ It is believed that Chief Chitimbwa did not favour the idea of fishing camp but favoured permanent settlement. It is for this reason that he welcomed anyone that came to stay.

Monkeys, wild pigs and mice were major pests of cassava and while hippos were destructive to rice. There were no known problems with soil fertility. The soils were very fertile.

During the middle times before the 1980s, the farming pattern had not changed. The only change was the introduction of maize production in some households on a very small scale. The expansion of maize production was not feasible for the reason that, it is even more prone to monkey destruction as it is more palatable than any other crop.

Farming to day has not changed so much. Cassava and rice are still the major crops. However, there are more people engaged in the production of other crops such as sugar cane. Problems associated with wild animals are now much less as most animals have become extinct.

The farmers' group also identified other activities such as fishing, carpentry and bush crafts but stated they are of minor importance compared with farming.

3.3.3 Fishing

Fishers started by observing that early catches were good with minimum effort² spent. All fish types could be caught just on the shores using very basic gear such as fibre gill nets. It was not until after 1970 when the catches started going down. Small fishers attribute this to an increase in commercial fishing activities³ in the lake.

Fishers bemoaned lack of adequate fishing gear and support to promote the industry. This is in effect one reason why fishers are unable to stand above winds that become threat to human life during fishing due to heavy tides. Their other complaint is that there is currently no clear demarcation between the national parks and other fishing grounds. Many are times, they claim, when fishers face unjustified wrath of the park managers even when they fish outside the national parks.

3.3.4 Gender and women's issues

Women raised issues of child and maternal nature and daily routines. They complained about lack of health facilities and personnel in the area. This causes a lot of hardship especially during pregnancy. As mothers they find it extremely difficult to tend for their sick children given the circumstances.

The area from which they draw firewood from is far away in the hills, and they spend quite a lot of time to collect it. The problem of distance was also cited for drinking water. Many of them draw water from the banks of the Lufubu River because the Lake water is dirty.

Loss of fertility in early marriage is one complaint the women raised. They suspect this is an act of witchcraft.

² Even now Kabyolwe is one of the most productive fisheries on Lake Tanganyika. It rarely runs dry in any part of the year.

³ Information obtained from the Department of Fisheries at Mpulungu indicates that in the 1970s there were four fishing companies (Sopelac, Mpulungu Fisheries, Samaki and Lakes Fisheries) with 15 fishing boats. This number has increased to six fishing companies with 29 fishing boats.

3.4 Household interviews

3.4.1 Population data

There are approximately 200 households in the village. Only 30% of household heads interviewed were born in the village. The rest of the people either immigrated from nearby villages within Mpulungu district or neighbouring Kaputa and Mbala districts. The Lungu are the dominant ethnic group in this village, being more than 80% of all the interviewed households. Others are the Tabwa speaking people from Kaputa district. The minority are the Congolese who have been living in the area since 1964.

3.4.2 Household composition

The majority of households are male headed. Only 10% of the sample households were female headed. And all female heads of households were widows. The average size of households is six and is represented by 70% of the sample. Approximately 12% of the male heads of households are bigamists. These normally maintain two homes. Men constitute the majority of major bread-earners except for households headed by women. However, in 35% of the sample, women are the major bread-earners. In majority of the households, the heads make decisions on expenditure and management of households. In this regard in 70% of the households men make decisions. In 30% of the cases, decisions are jointly made. Most joint decisions are on expenditure and not general household management regulations.

There is a high level of gender differentiation of roles. Generally speaking, women and girls attend to all household chores, which include collection of water, firewood, house-cleaning, cooking and washing. It was observed that some husbands assist in the collection of firewood and water.

Houses are built of grass or pole and mud/brick 2:8. Grass thatched houses are temporal and used by fishermen during fishing periods. Mud and brick and pole and mud houses are permanent structures. All the houses in the village have grass-thatched roofs. All the grass houses have loose ground as floor and all the brick houses have mud ground as floor. Only 45% of the households have kitchen structures separate from the main houses. The rest either cook on the corridors of the main houses or just outside. There are only 50% of households that have pit or other forms of latrine.

3.4.3 Household economies

The staple food in this village is cassava which is consumed in 92% of the households. Cassava is first processed into cassava meal before it could be used for making *nshima*. The other foods consumed in this village are rice and maize. Before it could be used rice is first polished while maize is eaten as roast maize or mealie meal. Most of the maize and rice eaten in this area are brought in from Iyendwe and the mealie meal from Mpulungu. The major source of protein in most households in the village is fish. The next import dish are beans, they are consumed in 45% of the households. Cassava leaves form the major part of the vegetable diet. The consumption ratio is 5:3:2 for fish, beans and other relishes.

Although most trading activities are money centred, there is a great proportion of bartering taking place. Bartering is largely a women's activity and it is practised by 70% of the households. Commodities that are bartered are fish, kapenta, cassava and rice. Others are agricultural produce (such as sugar canes, green maize and vegetables) from the nearby Iyendwe area.

Clothes, groceries and food are the major expenditure lines most households experience. Others are re-investment, school and health. Ranking the frequency of expenditure reveals that 88% household spend on clothes, 72% spend on food, 72% on groceries and other items, 22% on re-investment, 10% on schools and only 10% on health. The majority of households wish to invest in procurement of productive assets if they had a little more money to spare.

Ownership of productive assets is low. Land is the most commonly owned productive asset in the village. Almost all households with desire have access to land on traditional land tenure system. Only a few people in the village own fishing equipment such as boats, out board engines, lamps and fishing nets and lines. Ownership of luxury items such as radios, etc. is estimated at less than one in ten households. Radios are the most owned luxury consumption items.

3.4.4. Economic activities

3.4.4.1 Farming

At least 88% of the households sampled are engaged in one or the other form of farming. Farming is done for both subsistence and income generation. However, the primary aim is purely subsistence. In most cases only the surplus is sold either through cash or barter transactions. Cassava and rice are the major crops grown. Others are pumpkins, sweet potatoes, yams and green maize.

Major threats to successful farming are crop destruction by animals. Considered to be of great nuisance are hippos that devastate rice fields and monkeys on maize. There are also isolated cases of damage to cassava by wild pigs.

3.4.4.2 Trading

Trading is the second most popular activity in this village. It is practised by 72% of the sampled household. Trading is a secondary activity in that it derives its existence on other activities. The most important of these are fisheries and agricultural activities. Common items traded are fish, agricultural produce, groceries and local beers.

Major problems hampering trade include lack of market infrastructure including but not exclusively roads, water transport facilities and markets.

3.4.4.3 Fishing and fish processing

Fishing and fish processing are very popular occupations in the village. About 68% of the people are involved in fishing. They catch various fish types, among which are *Inkupi*, *Pamba*, *Sokonto*, *Imbasa Imbanse*, *Kapenta* and *Chang`ongo*. Most fishers sell the fish fresh to traders⁴. The traders who constitute 69% of the total households are the ones that process the fish and sell it dry. Dry fish is largely sold in Mpulungu. Common methods of fish processing are smoking and sun drying.

Problems threatening the fishing industry are strong winds, which cause heavy tides on the lake. Crocodiles are a menace when they get entangled in the nets. They damage the nets. Fishers also have problems with the National Park managers. There are no clearly defined boundaries between national parks and other fishing grounds. Many a time they get in trouble when they encroach the parks.

⁴ In this regard the term trader also refers to households that buy fish for purposes of reselling.

3.4.5 Natural resource use

Firewood is the most commonly exploited natural resource, used by all households for domestic use that includes cooking and smoking fish. There is no household that exploits firewood for sale. Firewood collection is an activity dominated by women. Only 10% of the households collect firewood with the involvement of men. Firewood is collected some distance away from the village and it takes one an average of four hours for a round trip.

3.4.6 Health and sanitation

Diarrhoea and malaria are major illnesses in the village and effect more than 90% of the households. Other diseases are headaches, stomach-aches and coughing. People often buy medicines from local sellers⁵ once they are sick. They go to the nearest health centre (approximately 15 kilometres away) when the situation cannot be contained by bought medicines. In this village there are no health workers to assist the people in times of need. 94% had their children vaccinated against preventable diseases. Infant mortality has been experienced in 73% of the households having children below the age of five. This represents the majority of deaths taking place in the village.

Water is collected by women. The Lufubu River is the major source of drinking water. The lake is the major source of water for other uses (washing kitchen utensils and clothes, bathing, etc.). However, there are some households that draw even drinking water from the lake. Only 23% of households reported that they treat their drinking water, either by boiling or with chemicals; the rest drink it untreated.

3.5 Wrap up community meeting

The wrap up community meeting was held with a group of twenty elders. The meeting concurred with the team on major findings, ranked development priorities as follows:

- Health centre for primary health care
- Primary school
- Source of clean drinking water (wells)
- Loans to develop fishing
- Access road to Mpulungu
- Grinding mill
- Drugs for poultry (ranked by those who keep poultry)

⁵ The local medicine sellers do not have pharmaceutical licences and are themselves not qualified to handle medicines. Yet they do it even without assistance of medical personnel.

KAPOKO

Methods

The survey was conducted between 12 and 17 March 2000. A combination of techniques and approaches were used to attain the desired results in the most effective and efficient manner. Participatory Rapid Appraisal concepts formed the major basis of the methodology. Following is an outline of the approaches and techniques:

Start up Community Meeting

Seventy-five people attended the meeting. The purpose was to identify major community issues using participatory methods. Major outputs from the start up community meeting included the following:

- Writing the history of the village starting from time of establishment
- Drawing of a village map that is presented as an annex to this report.
- Identification of social/occupational groups in the village, and
- Identifications of pressing issues affecting the village.

Focussed Group discussions

Discussions were held with four occupational and social groups identified in the community meetings. The groups were for:

- Women
- Elders
- Farmers and
- Fishermen

Household interviews

Thirty-one households, representing approximately 25% of total households in the village were interviewed. A structured question guide was administered to all the households interviewed.

Wrap up Community Meeting

The meeting was conducted in the afternoon of the last day. Twenty persons including four women and 16 men were present. The meeting could have been well attended had it not been for torrential rainfall on the material day and time.

Results

Village History

When, Enock Kasumba, a court clerk at the Senior Chief Tafuna's palace, was near his retirement, he requested the chief for farming land. Chief Tafuna granted Enock authority to establish a village near *Umushitu*⁶, the traditional burial place for the Chiefs. Because he was still in employment, Enock could not immediately go to establish the village. Instead he invited his brother Alamon Kasomba, then a resident of Sondwa, to head the village on his behalf. Alamon, accompanied by a group of other persons from Sondwa, went ahead and established a village called Kapoko on 17/08/1954. Alamon therefore became the first

⁶ *Umushitu* is the Mbete forest area. The purpose for establishing of the village in this forest was twofold. For the people it was to secure farming land. To the Chief, it was the desire to have on the spot custodian of area.

Headman until after his death when on 3/3/83 his brother, Moses Kasikila ascended to the throne as Village Headman. Moses reigned for only six months. He was removed due to his involvement in sorcery. He was replaced with his sister, Helen Kasikila on 6/8/1983. Helen could only reign for three months up to December 1983. Then on 2/1/84, James Kasikila, the reigning headman became Village Headman.

Key dates are:

- 1961/2: Flooding of village. Destruction of crops and houses.
- 1964: A primary school was opened operating from the now United Church building. Construction of a classroom block and teachers houses for the school on selfhelp
- 1965: The classroom block was completed and became functional. All pupils were transferred to the school
- 1967: Fisheries feeder road connecting Kapoko to Mpulungu and Mwela was constructed. Pit sawing of timber commenced in the area
- 1968: *Akashululu*, a very strong whirlwind carrying along a tower of water several metres high swept through the village. It destroyed houses, killed one person, injured four people, uprooted trees and destroyed crops.
- 1974/5: Second school block with three teacher's houses constructed
- 1978: Cassava pest that caused leaves to crinkle and tubers to rot invaded cassava fields.
- 1980s: There was an influx of traders for agricultural produce of all kinds including rice, bananas and sugarcanes.
- 1997: Out break of cholera. Fishing was banned in Lake Tanganyika for six months.
- 1998: Flooding of the village. Houses, toilets and crops were washed away.

Women Issues

The women discussed issues concerning:

- Work such as cultivation of crops and household routines
- Family and maternal health
- Business and trade, and
- Others including funerals, clubs, hammer-mills, adult literacy and nursery school

Farming

The discussion was structured to three periods based on crops grown and problems faced.

Early farming, 1954 to 1969.

Crops grown during the time were cassava, rice, sugar canes, bananas, groundnuts, millet, mangoes, sweet potatoes and papaws. Early farmers had problems with animal pests such as monkeys, hippos and rodents. Birds were a menace in rice.

During the time cassava meal, sugar canes, rice and bananas were transported to Mpulungu for sale.

Middle Farming, 1970 to 1980

Additional crops to those in the early farming category were maize, oranges and oil palms. One problem faced during the time was that of an outbreak of the cassava mealy bug in 1978. People called it an attack by people looking like insects. The problems with wild animals had greatly reduced.

In addition, mangoes were being sold.

Farming from 1990 to date

Tomatoes, sorghum, rape, sunflower and soybeans were the additional crops of the 1990s. Problems have now changed to lack of seeds, chemicals for control of pests and diseases compounded with bad weather, roads and lack of capital resources.

All crops grown have potential to be sold. Sorghum. Sunflower and soybeans, although cash crops else were have not reached that proportion as cash crops.

Elders discussions

The elders of the village opted to discuss the issues they considered to be crucial before anything else. The following were the crucial issues:

- Heath problems compounded by lack of proper transport on the lake and bad roads on the land.
- Lack of adequate marketing infrastructure including a road to the market in Mpulungu leads to below-economic pricing for crops sold in the village.
- Lack of teachers at school.

Further on, elders stated that Kapoko village had never been a fishing village at all. It has always been an agricultural village. Fishing is only done on a small scale. Further more it can only be done by younger persons as it has to be done offshore demanding a lot of effort.

The village is a traditional village. It keeps and maintains the burial grounds for the chief. The Senior Chief Tafuna does not enter the village. This would be a taboo. Other chiefs do enter the village. To date there are only three chief's buried in the chief's graveyard.

Fishery issues

The fishery group composed of youngsters was quite sceptical and we felt they felt they were being investigated. However, finally they opened up to a discussion and the following things came out.

- Fishing has always been an activity for subsistence and not commercial purposes. If excess fish is caught it is sold locally in the village. It is usually done in the dry season as the wet season is for agriculture.
- The major fish types caught in June and July is Mpande. It is sold in Mpulungu.
- Early in their fishing practice, they used the following gear for catching fish:
 - Gill nets and
 - Fibre beach seines. These are nets sawn locally using fibre from the forest.
 - Major fish caught included Pamba, Insonga, Mpande, Inshinga and Imbaza.
- More sophisticated gear was introduced in 1959 when the first industrial sewn seine nets were used.
- Early fishing was easy. Even commercial fishing companies were fishing onshore catching Kapenta, Pamba and Inshinga.
- Fishers have seen an increase not only in fishing vessels but also fishing gear. They attribute this to the rapidly dwindling stocks of fish in the lake.⁷
- Fishers strongly believe that this pressure, beach seines, use of sacks and mosquito nets destroy habitats and breeding sites. Unsustainable gear tends to take all.
- Fishers considered the following as possible solutions that can bring about restocking of the lake:
 - Restricting fishing by commercial companies to specific periods. Gill netters (i.e., the majority of subsistence fishermen) could be allowed to fish throughout since they are not damaging.
 - Ensure that adequate legislation that allows only for use of acceptable gear is put in place.
 - Fishers suffer some thefts of gear.

Household dynamics

General

Household interviews were conducted with 31 households representing approximately 20% of the village total. In these interviews, 25% of the cases were with heads of households while the rest were with other members of the family. These circumstances arose as some household heads were out of the village for business or were visiting friends within the village. In data analysis the validity of data collected was dictated by the parameter being considered. As an example only 22 data cases were valid for analysing child immunisation. This is because it is this number of households that had children in vaccination age group.

⁷ In 1970, there were only four commercial fishing companies in Mpulungu with a total of 15 fishing vessels. To day there are six fishing companies with a total of 30 fishing vessels.

Observations

The village is generally clean with nicely maintained surroundings. There are two water springs that supply the village with drinking water. Approximately 77% of the sample had pit latrines. This figure is by the standards in these lakeshore villages high. But only 42% of the households had garbage pits. The team observed that in this village 20% of the households had wooden drying racks for dishes and other kitchen utensils. There was no evidence of food or grain storage facilities either at household or community level. All houses are made of un-burnt brick, have grass thatched roofs and wooden doors. The majority of houses have and wooden windowpanes while the rest only open air vents with approximately 15 cm opening. The vents are either triangular or square. There were 84% of the households with separate structures serving as kitchens.

The people

The majority of people in this village are Lungu speaking which constitutes approximately 86% of the sample. Although only 3% of the heads of households were born in this village, over 90% originate from the villages within Mpulungu. Some of these are Kasakalawe, Sondwa and Iyendwe. The people do not intend to migrate to other areas but intend to continue staying in the village.

The Family

More than 95% of the households are male headed. Household headed by ladies arise when the male head passes away. Extended family ties are strong in the village. Nephews, brothers, nieces, the in-laws could all be found being kept by relatives. The majority of households, 64%, have an average size of 7 members. Approximately 32% have families with less than five members. Only 8% of the households have family sizes of more than 8 members. Polygyny is common in the village. About 59% of men are polygynous. Polygynous men normally maintain two homes, one for each wife and her family

Food

The major staple food is cassava that is consumed as nshima in 100% of the households. Rice, and maize and sweet potatoes are the second and third staple foods respectively. Rice is eaten more during the harvest and after period about August to October. The sweet potato time is during the wet season and two to three months after. Fish, beans and vegetables are major relishes consumed along with nshima in the village. All households eat fish throughout the year. Beans are consumed by over 89% of the households. All households desire to eat vegetables but this restricted to periods of production in, in the wet season, as vegetables are perishable. However, over 70% of the households supplement the diets with vegetables taken along with fish. The food eaten in the household is through the joint efforts of the spouses. Only in 38% of the cases is food brought in by men. This figure also includes those households in which the female spouse has passed away. Perhaps the normal practice is that both spouses contribute to the household food basket and this represented by about 56% of the cases in this village. The remaining 6% of the cases are those headed by ladies who fend for their households alone. The scenario for labour and money contributions to the household economy is the same as for food.

Decision making

On the other hand decision making on home management is more a preserve of the men. In about 55% of the households, men decide on how the home should be managed. It is only in 45% cases that decisions are made jointly. There is a democratic approach in making decisions on expenditures favours. Most decisions are jointly made up to the level of 83% of the households. It is noted that the 6% of female heads of households make decisions alone. The remaining 11% represents a situation where men make decisions without an input from their spouses.

The responsibility of vesting decision making on men is purely on the understanding that man is the head of the household.

Ownership of assets

The land is the commonest asset that the people of the village have access to under customary land tenure system. Negligible numbers of people own luxury consumption goods such as radios and bicycles. About 5% own productive assets for fishing.

All the people live in their own houses in this village.

Agriculture

The underpinning occupation in this village is farming. All households are involved in farming. Both animals (chickens) and crops are grown. However, the major thrust of agriculture in this village is crop production. Major crops grown in order of their importance are, cassava, rice, bananas, sweet potatoes, sugar cans and vegetables.

Cassava is also the most important cash crop and source of income. It is either sold raw or processed into meal. Others are rice, sugarcans, bananas and sweet potatoes.

Almost every household has planted trees for food in their yard. Common among those seen are Mangoes, Oil palms, Oranges and Kiwi fruit (*mankangala*). Others are guavas and paw paws.

The table below indicates the annual earnings derived from these crops by four farmers.

Crop	Farmer 1	Farmer 2	Farmer 3	Farmer 4	Total
Cassava	20,000.00	500,000.00	1,500,000.00	400,000.00	2,420,000.00
Rice	0.00	400,000.00	0.00	600,000.00	1,000,000.00
Sugar canes	1,000,000.00	0.00	0.00	0.00	1,000,000.00
Bananas	0.00	144,000.00	312,000.00	200,000.00	656,000.00
Sweet potatoes	0.00	0.00	0.00	200,000.00	200,000.00
Other	30,000.00	0.00	0.00	0.00	30,000.00
Total	1,050,000.00	1,044,000.00	1,812,000.00	1,400,000.00	5,306,000.00

Trading

Trading is the second most important occupation of Kapoko village. All households interviewed are involved in one form of trading or other. However, trading is based on agriculture to a great extent. Raw or processed agricultural produce are sold for cash or simply bartered. In addition to the list of crops in the previous table, mangoes and fish are commonly traded items.

The other form of trade is barter of goods that is primarily a ladies job. More than 86% of households barter goods. Common barter goods are cassava and rice in exchange for salt, beans and fish. Some of the items obtained through barter are thus sold for cash.

Fishing and fish processing

These are not important occupations in this village. Only 31% and 10% of the households are involved in fishing and fish processing respectively. Most of the fish is sold locally and only the surplus is processed and sold away. Many people actually go to buy fish in Mpulungu.

Other Jobs

Evidence of carpentry works, backyard brewing, woodcrafts were abound but at a negligible scale in this village. However, people did not talk about these activities.

Limitations

Both farming and trading are hampered poor transport. The road becomes impassable in the rain season and is in bad state most of the dry season. The lake has storms which that make paddling risky. Therefore, farmers are unable to take their merchandise to Mpulungu for sell. As such traders come for the produce for which they offer **below economic prices**. Lack of capitalisation hampers the expansion of agriculture. And generally, information on the production technology is not available to farmers. Extension workers of the Ministry of Agriculture, Food and Fisheries have not visited this place in memorable time.

Major expenditure areas

The greater portion of the income is spent on food and household items. Included in the category of household items are clothes. The other areas of popular expenditure are schools, re-investment in farming and health. All the households spend on food, 21% spend on schools, 17% spend on agriculture while 10% spend on health.

Natural resource use and household chores

The following natural resources are exploited for obvious reasons. Mushrooms are exploited by 59% of the household for food. Grass and poles are exploited by over 83% of households for construction purposes while firewood is by all households.

The collection of firewood and water are ladies jobs. In 86% and 100% of the households the women collect firewood and water respectively. This is also true to cleaning of the house, surrounding, cooking and other domestic works that are carried out by women in 90% of the households.

Health and Sanitation

Generally speaking, the village is clean. Almost each household has a grass thatched toilet structure with clean surroundings. And majority of them also have drying racks for dishes and pots. However, there are very few garbage pits in the village. Garbage is normally thrown in the back yard for composting as manure. The only source of water is the spring **Kafukauke** about 2km on the south of the lake. The water is used for all domestic purposes as it is drawn without treatment. Major health problems in the village are malaria, headaches, diarrhoea, and coughs. Minor ailments are numerous and include measles, body pains, tooth aces and swelling of legs. The village has had no health facilities since its inception in 1954. The commonest option for sick people is to use traditional medicines⁸. Those who can afford buy medicines from a village drug store, but these are very basic and are manned by people with no qualifications in handling and administering drugs. This is done without health worker's prescription. There is one community health worker who does literary everything a qualified medicine man is supposed to. Patients go the nearest hospital in Mpulungu when they do not get better by use of traditional or bought medicines from village drug stores.

⁸ For example, fever, headaches, and haemorrhoids (*ilonda*).

Even in the absence of health facilities, most households recognise the importance of child immunisation. During their regular monthly visits to the village health workers hold talks about child immunisation and gynaecological issues. At the time of the survey some 95% of the households had their children vaccinated against some preventable diseases among which are polio, TB, Measles, Whooping Cough and Tetanus. However, a number of mothers could not specifically what diseases their children were vaccinated against.

The majority of deaths in this village are for children below the age of five years. They die of fever, diarrhoea and others due to miscarriages. And 74% of the households have experienced death of children below the age of five. Deaths arising out of fever and diarrhoea causes alone have been experienced in 41% of the households. Water sourced from the water springs is used raw. People strongly believe that it is safe and there is no need for treatment. Indeed only 24% of the households bother to treat the water.

Development priorities

The following issues emerged as priorities for development:

- Health centre and protection of water springs
- Improvement to the road to Mpulungu
- More teaching staff at the school
- An outboard engine to facilitate transportation and handling of emergence cases
- Hammer mill for processing cassava

APPENDIX 1: Survey team members

- Munshimbwe Chitalu as Team Leader and National Socio-economics Co-ordinator;
- Frighton Ng'andu as Field Co-ordinator, Socio-economics;
- Aliani Mulagala as a researcher assistant;
- Lillian M. Mofya a research assistant and Community Development Officer;
- Joseph Chimanga as a research assistant; and
- Mrs Mulutula as an assistant.

Not in Kapoko