



# Livelihoods around Lake Wamala (Mityana District) and Lake Victoria (Mukono District): A scoping study

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## Acronyms and abbreviations

BMU	Beach Management Unit
DFID	Department for International Development
EFD	Evidence for Development
FGD	Focus Group Discussions
HEA	Household Economy Approach
IHM	Individual Household Method
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
TOR	Terms of Reference

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## Introduction

The purpose of this enquiry into livelihoods in selected sites around Lake Wamala and Lake Victoria was to provide initial contextual information for more detailed household economy studies that were carried out as part of the HyCRISTAL (Integrating Hydro-Climate Science Into Policy Decisions for Climate-Resilient Infrastructure And Livelihoods In East Africa) project. HyCRISTAL is a multi-disciplinary and multi-agency FCDO (Foreign, Commonwealth and Development Office) and the UK Natural Environment Research Council (NERC) funded project under the Future Climate for Africa (FCFA) Programme. HyCRISTAL's main objective is to improve knowledge of East African climate change and its impacts to inform long-term decision-making in East Africa.

This report provided the HyCRISTAL rural livelihoods team with both an overview of livelihoods in the selected areas and information on potential sites for detailed village level assessments and is an output of the HyCRISTAL rural pilot (<https://futureclimateafrica.org/project/hycristal/>). Data from these assessments were required for the rural pilot interdisciplinary work exploring the potential impact of climate change on local livelihood systems.

The report for each site includes a brief description of climatic conditions and livelihoods, and describes in more detail the economic characteristics of households at different levels of wealth in potential village study sites. This information was collected through a participatory exercise with local government and other agency staff.

The report concludes with recommendations for the rural pilot site selection and necessary logistical information.

## Livelihood patterns around Lake Wamala

### Geography

Located in central part of Uganda, the climate around Lake Wamala in Mityana district is characterised by bimodal rainfall (peaks normally experienced in March-April and September-November). The average annual rainfall is about 1,588 mm (<https://en.climate-data.org/africa/uganda/central-region/mityana-54891/>)

The soils are predominantly deep, leached with fine texture and well drained with spotted red soils mainly in the uplands.

### Local livelihoods

The main form of agriculture is mixed farming, mostly practiced in the upland and valley that widens out to form the vast papyrus swamps, which drain towards Lake Wamala.

Vegetation is largely green and savannah characterised by elephant grass, savannah trees and spotted forest cover.

Generally, rural livelihoods around Lake Wamala are characterised by a combination of mixed subsistence and commercial farming, fishing and employment in the fishing and agricultural sectors and off farm activities such as trade (local beer brewing, bars, restaurants, retail shops etc).

The major cash and food crops grown around the lake include coffee, tea, pineapple, maize, millet, cassava, yams, beans, groundnut, potatoes, fruits (oranges, mangoes and passion etc) and vegetables (tomatoes, cabbages and onions etc).

There are fewer livestock around Lake Wamala, compared with other parts of Mityana District. The main livestock include cattle, goats and pigs. There is also dairy farming and some local poultry.

In addition, there is labour migration by local people to other areas such as Kampala and Luwero in search of construction and agricultural employment respectively.

## Fishing

Fishing is a key activity mainly within the proximity of Lake Wamala. The lake provides employment through fishing, transportation and marketing of fish in Mityana, Gomba and Mubende districts. There are 28 landing sites around Lake Wamala, among the most prominent include Katiko, Gombe, Butami, Bukanaga, Butebi, Kalyankoko, Lubajja, Kimuli, Kyandalo, Mawanga, Buzibazzi, Lusaila, Ssinga, Mamba, Lukunyu, Lunoni, Kyayi, Kymunakwili, Maseregeni, Likunyu, RuakaKonge, Lunyonyi, Namayenga, Bugolo, Bagwe, Kiraza, Kampanzi and Kalituzi. The main types of fish caught are Tilapia, Catfish and Long Fish.

Apart from fishing, Lake Wamala provides water for agricultural irrigation purposes; especially of horticultural crops, i.e. vegetables (cabbages, onions, egg plants and other green vegetables) during the dry season.

## Potential village study sites for the rural pilot and characteristics of wealth groups

### Nkonya village

This village is closely located to Lake Wamala and approximately 15 Kilometres from Mityana Municipality. It has an estimated population of about 600 people and 78 households.

The economy of this village is mainly dependent on mixed farming comprised of crop production and livestock rearing, especially cattle, goats, pigs and poultry.

Local employment in the agricultural sector includes on-farm work (land preparation, planting, weeding and harvesting). Fishing is also a major economic activity, which provides household income through direct sales of fish, employment as fishermen, transportation and to an extent in the boat construction industry. Other forms of livelihood include non-farm income activities like sand extraction, brick making, retail trade (local beer brewing, bars and restaurants) with local cottage industries like bakery.

During the Focus Group Discussion (FGDs), it was estimated that approximately 40 percent of households are fishers, and 60 percent are non-fishing.

General perceptions in Nkonya village also indicate that agricultural work is more important than fishing around Lake Wamala. This has been caused by overfishing over the last 10 years, which has significantly reduced cash income derived from sale of fish/ fishing related employment. As such majority of the local population have opted to practice agriculture rather than fishing in the village.

#### Rapid Wealth Breakdown in Nkonya Village

The major local determinants of wealth among households in Nkonya village, as identified by the community were size of land, size of household and level of engagement in fishing activities.

Three categories of wealth groups were identified by the FGD, and these are described in Table 1 below.

*Table 1. Determinants of Focus Group Discussion (FGD) defined wealth groups in Lake Wamala*

Determinants of wealth		Poor	Middle	Better-off
<b>Median Household size</b>		(4-6)=5 people	(8-12)=10 people	(8-10)=9 people
<b>Prevalence</b>		30%	68%	2%
<b>Land owned/hired</b>		¼ acre (hired)	¼-3 acres (owned)	3-10 acres (owned)
<b>Food crops produced</b>		Maize, beans, cassava, sweet potatoes, groundnuts, vegetables	Maize, beans, cassava, sweet potatoes, groundnuts, vegetables	Maize, beans, cassava, sweet potatoes, groundnut, vegetables
<b>Cash crops produced</b>		None	Coffee, maize	Coffee, pineapple, maize
<b>Livestock owned</b>	Cattle	0	0	1
	Goats	0	1	0
	Pigs	0	2	(2-5)
	Poultry	0	3	(5-15)
<b>Other assets</b>		None	Fishing hooks (200), nets (20-30) and boats (1-2) Bicycle/motorcycle	Motorcycle (1-2) Motor vehicle (1)
<b>Sources of cash income</b>		Sale of labour-agricultural workers, fishermen and non-farm activities i.e. sand extraction, stone quarries and brick making	Sale of crops (coffee, maize and beans), fish. Formal employment salaries Local brewing, retail trade (local bars, restaurants, shops), local transport services.	Sale of crops (coffee, pineapple maize and beans), fish and livestock products especially milk.

Fishing in Lake Wamala is seasonal with higher incomes during specific months of the year. As of November 2015, the average incomes from the sale of fish are as follows:

- **High peak season** (January to March) =960,000 UGX  
4 days x 4 weeks per months x 3 months x 20,000 UGX =960,000 UGX
- **Start of the low peak season** (April to May) - there isn't significant cash income and most fish is consumed at household level due to the floating islands.
- **Low peak season** (June to December) = 560,000 UGX  
2 days x 4 weeks per month x 7 months x 10,000 UGX = 560,000 UGX.

Overall labour payment in the fishing sector depends on the quantity of fish caught on a particular day. This is normally based on a 50:50 ratio between the owner of the fishing equipment and the fishermen. The main fishing markets in this area are Mityana, Mubende, Gomba and Mpigi. The Long Fish and Catfish are more marketable around Busega one of the suburbs of Kampala, compared with Tilapia which can easily be sold in Mubende, Kassanda and Namma areas of Mityana district.

#### [Katiko A and B Villages](#)

This is one of the largest villages, and comprises Katiko A and B with close proximity to Lake Wamala. Fishing is regarded more importantly than agriculture in areas closer to the Lake. According to the key informant-FGDs, approximately 60 percent of households in Katiko village are fishing whilst 40 percent are non-fishing communities.

The Baguye Island within Lake Wamala provides food items traded outside the Lake catchment area, including Mityana municipality. It is a relatively rural and agricultural-based economy. Farming is more important than fishing in this area. The main marketing area in the island is a small trading center, within which all agricultural produce is gathered prior to transportation to mainland including Katiko A and B villages. This island is also a major investment area for people residing in Kampala, who have purchased land in the area for construction of residential houses.

Overall, there is also a **seasonal variation in cash income** derived from fishing activities. The following months indicate the peak and low cash income seasons of the year:

- **High peak season** (January-March) = 1,620,000UGX  
6 days x 4 weeks x 3 months @ 20,000-25,000 UGX per day =1,620,000UGX.
- **Low peak season** (April to December) = 1,512,000 UGX  
6 days x 4 weeks x 9 months x 4,000-10,000 UGX per day) = 1,512,000 UGX.
- There is also boat construction industry which fetches about 100,000UGX for a small boat, and up to 25,000,000 UGX for very large boat provided by the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF).

Other important sources of income include the sale of crops and non- farm income i.e transport services such as "bodaboda" motorcycles and vehicle taxes, retail shops and livestock products (milk and meat).

Similar to Nkonya, there are three wealth groups in Katiko, described as “Poor”, “Middle” and “Better-off” group with a prevalence of 40, 40 and 20 percent respectively. The majority of fishermen were identified to be in the middle wealth category.

## Livelihood patterns around Lake Victoria, Mukono District

### Geography

Located in south central Uganda, the climate of Lake Victoria is also characterised by two peaks of rainfall, i.e. normally in March-April and October-November with an average annual rainfall of 2015 mm per year ( <https://en.climate-data.org/africa/uganda/central-region/mukono-214664/>) The main type of vegetation is medium altitude moist evergreen forest.

### Local Livelihoods

The main economic activities around the lake include agriculture (mainly crop production), floriculture, horticulture, food crops such as bananas and cassava, and other cash crops such as coffee, tea, sugarcane, vanilla, moringa and Aloe Vera. There is also an element of livestock production including cattle, goats, sheep, rabbits, pigs and some poultry.

The main natural resources include Lake Victoria, quarrying rocks, sand for construction and forest cover.

The primary sources of livelihood around the proposed study area (Katosi, Bulebi -Sango and Katchanga) include employment by fishermen; trade in fish, boat construction and fish transportation/processing. Other sources of livelihood include brick making, arts and crafts, trade and industry among others.

The main markets of fish from Katosi and Bulebi-Sango areas include Mukono, Lugazi, Kayunga, Kampala, Jinja and Busia as well across the lake into Ggaba, Kampala, West Nile region and the Democratic Republic of Congo (DRC).

The major economic risks include the theft of fishing equipment, overfishing, bad fishing gears, HIV and AIDs, and storms.

### Potential village study sites for the rural pilot and characteristics of wealth groups

#### Katosi landing site

The first potential pilot site is Katosi. This is one of the largest landing sites in the Mukono district and around Lake Victoria. It is an urbanised area with regular transport services to Mukono and a significant volume of trade. It is not an appropriate site for a pilot Individual Household Method (IHM) study, due to its urban characteristics and the large number of households given the limited time available for the study.

#### Bulebi-Sango Villages

The second village visited was Bulebi-Sango landing site in Mbazi parish of Mpunge Sub County. Bulebi village has various landing sites such as Kachanga, Soroti and Gogo among others. The local

economy of the area is characterised firstly by fishing, especially within the closest proximity of Lake Victoria, and secondly, by fishing and mixed farming slightly outside the Lake area. There is also a purely agricultural-based economy in parts of Bulebi village located further from the lake shore.

The types of fish caught in this part of the lake include Tilapia, Nile Perch and tiny fish called “Engeje”.

#### Kachanga landing site

Kachanga landing site is located within close proximity of Lake Victoria. It has approximately 104 households who are directly dependent on the lake economy through employment as fishermen, through transportation and the sale of fish in distant markets.

The main local determinant of wealth, as identified by the community, is through ownership of fishing equipment, i.e. hooks, nets, boats and transport equipment such as motor vehicle and cycles. In the FGD three categories of wealth groups were characterised and are described in Table 2 below.

*Table 2. Determinants of Focus Group Discussion (FGD)-defined wealth groups in Lake Victoria*

Determinants of wealth	“Poor”	“Middle”	“Better-Off”
<b>Prevalence</b>	75%	15%	10%
<b>Role in fishing industry</b>		Owners of fishing equipment (hooks, nets and motorboat owners).	Capitalists working as middlemen, who own capital and transport equipment (vehicles, motorcycles and boats) for fish transportation.
<b>Ownership of productive assets</b>	No productive assets	Fishing hooks Fishing nets (70-80) Motorboats (2-5)	Financial capital for fish trade Motor vehicle (1) Motorcycle (1-2) Motorboats (2-5)
<b>Sources of income</b>	Labourers (fishermen working as labourers)	Rental income from fishing equipment (hooks, nets and motorboats) Retail trade (bars, restaurants, shops)	Fish transportation Fish trade (middle-men) Construction of boats

The overall fish catch is shared based on a 50:50 percent ratio between owners of fishing equipment and fishermen who provide the labour. In most cases there are normally two labourers per boat.

Approximate average annual incomes derived from fishing along Lake Victoria are as follows:

- **High peak season** (July to August) - *owner of boat* = 4,200,000 UGX  
6 days x 4 weeks x 2 months x 87,500 UGX per day =4,200,000 UGX
- **High peak season** (July to August) – *labourers* = 2,100,000 UGX



6 days x 4 weeks x 2 months x 43,750 UGX per day = 2,100,000 UGX

- **Low peak season** (September to June) - *owner of boat* = 10,500,000 UGX ( 6 days x 4 weeks x 10 months x 43,750 UGX per day = 10,500,000 UGX
- **Low peak season** (September to June) – *labourers* = 5,250,000 UGX  
6 days x 4 weeks x 10 months x 21,875 UGX per day = 5,250,000 UGX

NB: The price of a boat is about 250,000 UGX and the engine is about 7,000,000-10,000,000 UGX. The license is provided by the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF) and costs about 112,600 UGX per year.

## Recommendations: sites for detailed village study

- Nkonya village is the most appropriate site for the detailed village pilot study around Lake Wamala in Mityana district, Central Uganda. This rural village is about 10 km and physically accessible from Mityana Municipality. Primarily an agricultural-based economy, there are significant number of households engaged in fishing and other forms of non-farm income activities. With a total of approximately 78 households, the IHM training and pilot study can be managed easily.
- Bulebi-Sango Village, and particularly Kachanga landing site, is an appropriate study village around Lake Victoria in Mukono District. This site is approximately 42 km from Mukono Municipality and physically accessible, although roads may deteriorate in the rainy seasons. Kachanga has approximately 104 households concentrated in a particular location, and is primarily a fishing-based economy. There are also alternative options available if there is a need to increase and/or diversify the sample to non-fishing and agricultural-based economies. However, the most appropriate site in terms of exploring different economies is the Bulebi/Sango Village around Lake Victoria.
- The communities at these sites will require good introductions and sensitisation regarding the purpose/importance of the HyCRISTAL pilot research work. Any fears regarding enforcement of fishing regulations should be addressed by following the correct procedural notification with district, sub county and village level authorities including the Beach Management Units (BMUs).
- The following accommodation and catering services are proposed for the field teams. The Enro Hotel in Mityana and Collin/other Hotels in Mukono Municipality. The Enro hotel is approximately 10 km from Lake Wamala and Collin Hotel is exactly 42 km from the Bulebi/Sango village and Kachanga landing site.

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