

SUSTAINABLE LAND MANAGEMENT IN RAKAI AND MUBENDE DISTRICTS IN THE KATONGA RIVER BASIN, UGANDA

Uganda Coalition Sustainable Development (UCSD), 2013



Fishermen at Sango bay landing site with their merchandise (Photo: UCSD)

INTRODUCTION

The Katonga wetland basin is formed from River Katonga, which follows the borderline between Kalungu and Gomba Districts and drains into Lake Victoria. The wetland is located between latitude 32°02' - 30°29'E and longitude 0°08'S - 0°10'N and covers an area of about 2,478 km². The wetland can be classified as a permanent peat forming freshwater swamp. A tributary system of the river Katonga receives effluent from Masaka Municipality and Lukaya town. The predominant vegetation of the wetlands consists of *Cyprus papyrus*. Livestock grazing is also an important activity during the dry season, while fishing activities are carried out throughout the year. The communities living around the wetland mainly comprises of the Baganda but there are also Barundi, Banyankole, Banyarwanda and Bakiga, all from the Bantu group (Nature Uganda, 2009).

Most of the area of Katonga river basin is under intensive agriculture with little care of land. With increased environmental degradation up stream of River Katonga and human interference of the wetlands, the existence of the river is threatened which will have adverse effects on Lake Victoria. Already some consequences like reduced water levels, increased silt levels and reduced fish are already being experienced in Lake Victoria. Conservation and proper management of the catchment of River Katonga and all the other rivers draining into

Lake Victoria are important for Lake Victoria Environmental Management Project phase two (LVEMP II).

Poor land management and unsustainable land uses have been reported as the key contributing factors to the poverty of farmers in LVB, while the rapid population growth has been associated with the massive land degradation, and declining human health and water quality. Due to the high population growth, there has been increased pressure on land and some small scale farmers have resorted to cultivating in areas with steep slopes, riverbanks, forests, and wetlands. Overgrazing has also contributed significantly to soil erosion around the LVB.

In order to address the above challenges, Lake Victoria Environmental Management (LVEMP) Project was developed as a comprehensive regional development program that covers the whole of Lake Victoria and its Catchment areas. The project was initiated as a response by original partner states of East African Community (EAC) and Donors to deteriorating conditions of Lake Victoria and its catchment to promote sustainable utilization and conservation of Lake Victoria Basin Natural Resources. LVEMP aimed at:

- Generating information and data necessary to improve the management of the lake ecosystem
- Establishing mechanisms for joint management of LVB resources by the three (original) EAC partner states (Uganda, Kenya and Tanzania)
- Identifying and demonstrate practical, self sustaining remedies to environmental challenges.
- Building capacity for Ecosystem management

The first phase of LVEMP (LVEMP I) was implemented 1997-2005 during which the following achievements were made:

- Improved understanding of the lake ecosystem through research.
- Operationalisation of the Lake Victoria Fisheries Organization.
- At the national level, technical skills, facilities and equipment for water and fisheries management / research institutions built /upgraded.
- Water hyacinth infestation reduced to non-nuisance levels.
- Successful piloting of community based catchment rehabilitation subprojects

The second phase of LVEMP (LVEMP II) is an 8 years (2009 - 2017) regional project implemented in the 5 East Africa Community partner states of the Republics of Kenya, Burundi, Rwanda, Uganda and the United Republic of Tanzania. LVEMP II has been designed to address major environmental concerns in Lake Victoria Basin which have had adverse impacts on the LVB ecosystem, as well as the region's economy and livelihoods. The project intends:

- To improve collaborative management of the trans-boundary management of the Lake Victoria Basin

- To reduce environmental stress in targeted pollution hotspots and selected degraded sub-catchments to improve the livelihoods of communities who depend on the natural resources of the Lake Victoria Basin.

LVEMP II is largely expected to be implemented through community driven projects in which communities fully participate. These sub projects are intended to ensure improvement in beneficiaries' livelihoods while preserving the environment around them.

Livelihood intervention is one of the Community Driven Development (CDD) sub project components that facilitate the fulfillment of the LVEMP II objectives. It focuses on among others; household based interventions (private benefits), percentage of land utilized for production, reduced exploitation of fisheries and wetlands and provision of incentives to implement soil and water conservation.

The Uganda Coalition for Sustainable Development (UCSD) as part of The East African Sustainability (Suswatch) Network¹ conducted a baseline survey in 2 selected districts within the Katonga River catchment area; Rakai and Mubende districts in Uganda, covered by LVEMP II. In Rakai, the survey covered 4 LVEMP II sub counties; Kifamba, Kagamba, Kabira, and Kyebe, while in Mubende district, the survey covered 5 LVEMP II sub counties; Kitenga, Bageza, Myanzi, Kigando, and Manyogaseka. The purpose of the baseline survey is to establish the current state of environment and the Land Management practices around the LVB – River Katonga Catchment area in Mubende and Rakai districts. It was therefore expected to provide benchmark information on key variables and indicators for periodic assessment of LVEMP II implementation.

The survey employed both qualitative and quantitative approaches. The quantitative approach was used to describe the state of affairs in the respective communities and clarify the benchmarks while the qualitative approach. Both male and female respondents were interviewed. The baseline survey was premised on the prime role of East African Sustainable Watch Network (SusWatch) to monitor, assess, lobby and document community beneficiary experiences, capacity, knowledge and level of adoption of Sustainable environment and livelihood practices under LVEMP II in selected areas in River and River Katonga (Uganda). Four hundred (400) households were studied, 200 from each district. The results are presented below:

Environment Pollution

Lake and river pollution were dominant in Myanzi and Kigando sub counties in Mubende district, while Rakai district reported Kagamba and Kyebe. The key specific pollution aspects included waste dumping from fish, human waste (feaces), and sedimentation.

¹ The East African Sustainability (SusWatch) Network is a network of NGOs from Kenya, Uganda and Tanzania spearheaded by Uganda Coalition for Sustainable Development (UCSD), Sustainable Environmental Development Watch Network (SusWatch Kenya), and Tanzania Coalition for Sustainable Development (TCSD). EA SusWatch Regional Secretariat is hosted by UCSD in Kampala, Uganda.

Majority of respondents were knowledgeable about pollution except in Rakai district in Kagamba, Kabira and Kifamba sub counties.

Majority of respondents, 89% have never been sensitized about the dangers of pollution.

Human waste (faeces) disposal represented by 51% was reported to be a major lake and river pollutant in both districts.

Farmers and fishermen represented by 40% and 37% respectively were reported to be the major perpetrators of pollution in the lakes and rivers. They were blamed for sedimentation through their agricultural practices and fish waste dumping respectively.

Water Hyacinth and Papyrus were reported to be the major weeds in Katonga river catchment represented by about 70% and 31% respectively.

The existence of community bi-laws was mostly reported in Kitenga, Kigando, Myanzi and Manyogaseka sub counties in Mubende district.

Despite the existence of these bi- laws, poor fishing methods like indiscriminate fishing that is dominant at Bugolo fishing site in Myanzi sub county and lake pollution still remains a big challenge and this therefore poses a question on how effectively these bi- laws are enforced.

Forests Depletion

Deforestation emerged as the key environment degradation issue represented by 53% of total respondents, followed by wetlands encroachment represented by 33% of the total respondents.

Majority of respondents representing 38% agreed that forests have been cut down.

The youths have been majorly blamed for deforestation followed by the farmers and the grazers.

Agriculture was reported to be the major cause of deforestation represented by 42% of respondents followed by charcoal burning represented by 35% of the respondents.

Leading charcoal selling sub counties and villages in Mubende district include; Butayunja, Busooba, and Kitenga, while in Rakai, Katambogo, Kasensero, Kyebe and Kifamba were reported.

Most Preferred trees cut down for construction include Eucalyptus represented by 49%, followed by Murkhamia Lutea locally known as “Mukamia” and Musizi trees (Maesopsis Eminii).

Most preferred trees for charcoal production included Combretum locally known as “Ndagi” and the “bark cloth tree” (*Ficus natalensis*) locally known as *Mutuba* in Luganda. This was followed by the palm tree locally known as *Lukoma* tree. Palm tree is the most preferred by the youth’s brick makers of Myanzi Sub County, Kitama village.

Most preferred trees for firewood and timber selling included the *Acacia Hockii* locally known as “Kasaana tree”, *Eucalyptus*, and *Graveria*.

Majority of respondents, 75% reported that there are no community bi- laws to discourage deforestation.

Majority of respondents, 79% reported that they have majorly planted commercial trees for re- afforestation to include *Grevellea*, *Eucalyptus*, and Pine trees.

Recommended tree species by community members include; *Ficus nantalensis* locally known as the “Mutuba tree” and *Musizi (Maesopsis Eminii)* because they are friendly for agro- forestry.

Climate Change Manifestations

Frequency of drought, change in rainfall seasons, change in cropping seasons, and reduced rainfall were the major climate change manifestations in both Mubende and Rakai districts.

About, 69% of respondents reported that they have never been sensitized on Climate Change.

Majority of respondents recommended use of improved seeds and planting more trees for climate change mitigation and adaptation.

Wetlands Depletion

Majority of respondents, 51% utilize wetlands for farming, while 42% utilize them for fishing. Brick making is also a major activity done in the wetlands.

About, 71% of respondents have never been sensitized on wetlands use and management.

Majority of respondents suggested formulation of community bi- laws and sensitization of communities for effective wetlands protection.

Land use and Management

Majority of respondents, representing 95% use their land for agricultural activities. Maize represented by 73% followed by vegetable production 45%, while 35% of respondents engage in Banana growing.

Average size of land cultivated per household per season is between 1-4 acres.

Approximately, 74% of women indicated that it is their husbands that own land. Only 10% of wives own land.

In terms of access and utilization, children representing 39% and women representing 34% cultivate the land for food production.

Majority of respondents 55% indicated that their land is customary, while 32% reported their land to be free hold.

Majority of respondents, 54% farm on sloppy land.

Majority of the land the respondents own is located near swamps/ wetlands, and lakes.

Majority of respondents, 74% engage in livestock rearing, while 48% graze their animals near the swamps.

Majority of respondents, 31% attributed the decline in agricultural production to frequent droughts and climate change, followed by poor soil texture, soil erosion, and monoculture.

Majority of respondents, 38% use organic manure to maintain soil fertility.

Majority of respondents, 63% reported not to have frequent access to agricultural extension services.

Majority of community members recommended training and advisory services to improve their land use and management practices plus food production.

Poor farming methods were mainly noted in Kitenga, Kigando, Kagamba, Kabira and Kyebe sub-counties.

Majority (80%) of the respondents in Mubende and Rakai districts indicated that they do not own the land on which they cultivate.

Conclusion

Environmental degradation has become a global reality. The findings in this report point to the environmental degradation in the Katonga River catchment area of Rakai and Mubende. It is evident that environmental degradation not only compromises the ecosystem but also affects livelihoods luring communities to encroach on the environment. Overcoming the environmental challenges in the Lake Victoria Basin (LVB) requires concerted efforts to widen livelihood opportunities for communities within the region. Implementation of LVEMP II through Community Driven Development (CDD) sub projects is timely but should preferably be actualized in collaboration with other stakeholders for better results to ensure sustainability. The findings in this report are a benchmark essential for assessing the project and to inform subsequent planning.