



## LAKE VICTORIA BASIN SITES STATUS REPORT



AAGE V. JENSEN CHARITY FOUNDATION



## Purpose

With a surface area of 68,800 square kilometres, Lake Victoria is Africa's largest lake by area, and the largest tropical lake in the world. The swamps, forests and islands in and around Lake Victoria are important for a diversity of wildlife, and there are at least 16 Important Bird and Biodiversity Areas (IBAs) directly connected to the lake system within bordering countries Kenya, Uganda and Tanzania, and more in the wider Lake Victoria Basin (including in Rwanda and Burundi). Those IBAs provide habitat to remarkable bird species and other iconic wildlife.

The lake and its resources are economically very important to the countries in the region. For example, Lake Victoria supports Africa's largest inland fishery and resources and ecosystem services from the area support the livelihoods of millions of people. However, the Lake Victoria Basin is one of the most densely populated rural areas in the world, and high levels of poverty are a major hindrance to sustainable biodiversity management. The lake, the lakeshore and the lake basin are regarded as engines of economic growth in countries where poverty alleviation is of the highest priority. As a result of these pressures the biodiversity and ecological integrity of IBAs around Lake Victoria are threatened by a number of factors.



This report gives a summary of the threats to biodiversity, ecosystem services and livelihoods that were identified by local communities at six IBA sites, and places those within the wider context of the Lake Victoria Basin. As a discussion document, the report will contribute to the identification of *actions* which will empower local communities to actively contribute to the sustainable management of natural resources, from their local to the regional level.

## Background

BirdLife International together with its national Partners in Burundi, Kenya, Rwanda and Uganda<sup>1</sup> are implementing the project “*Conservation of the birds and biodiversity of the Lake Victoria Basin (the Greatest of Africa's 'Great Lakes) through community-led action and sustainable development*” which is funded by the Aage V. Jensen Charity Foundation<sup>2</sup>.

The overall goal of the project is “*to conserve the birds and biodiversity of the Lake Victoria Basin, and sustain the ecosystem benefits that its Important Bird and Biodiversity Areas (IBAs) provide for human well-being, by building and strengthening a network of community-based Local Conservation Groups*”.

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<sup>1</sup> Association Burundaise pour la protection de la Nature (ABN), Nature Kenya (NK), Association pour la Conservation de la Nature au Rwanda (ACNR), Nature Uganda (NU)

<sup>2</sup> [www.birdlife.org/africa/projects/empowering-local-champions-africas-great-lakes](http://www.birdlife.org/africa/projects/empowering-local-champions-africas-great-lakes)

This three-year project commenced on 1<sup>st</sup> of March 2013 and key achievements since then are:

- Six key project sites within the Lake Victoria Basin were selected:
  - Mpungwe Mountain Chain in Burundi,
  - Yala and Dunga Wetlands in Kenya,
  - Akanyaru Wetland in Rwanda, and
  - Mabamba Bay and Lutembe Bay in Uganda.All six sites are Important Bird and Biodiversity Areas.
- Local Conservation Groups (LCGs) have been identified at each site and their institutional and technical capacity for sustainable natural resource management, including in leadership, policy and advocacy, networking, and fundraising is being built.
- Participatory Rural Appraisals (PRA) have been conducted at each of the six project sites which has facilitated the systematic identification of:
  - the status and threats to the local natural resources,
  - how they have changed over time,
  - how they are used by the different groups within the community,
  - what role those natural resources have in reducing the impact of hazards and building resilience (i.e. to climate change), and
  - what actions are needed to sustainably manage those resources.
- Local-level management plans (Community Plans) on the use, conservation and sustainable use of key natural resources at 'their' IBAs have been developed by the LCGs, and implementation of policy and advocacy, networking, and fundraising activities has commenced.

The below sections summarize and analyse the main outcomes of the PRAs conducted at the six project sites, with specific attention to the threats affecting the sites and their natural resources.

## SITE DESCRIPTIONS

### Burundi

#### Mpungwe Mountain Chain

Mpungwe Mountain Chain is located at Ruyigi Province, in the East of Burundi near the Ruvubu National Park. Its elevation is approximately 1800 meters above sea level. The main habitat type within the site is tropical savannah, and is home to various smaller mammals, reptiles and birds. The site is unprotected but has the potential to help ensure connectivity with the neighboring Ruvubu National Park, an IBA hosting endangered species like the Handsome Francolin (*Francolinus nobilis*).

The local communities depend on the Mountain Chain for provision of essential ecosystem services and income generating activities such as; clean water, protection from soil erosion and maintenance of soil fertility, firewood and traditional medicine from the forest, it provides tourist attraction sites, provision of building stones, and use of clay soil to make traditional pots that the local people sell and generate income.

## Kenya

### Yala Swamp

Yala Swamp is located along the North eastern shores of Lake Victoria of Siaya Bondo and Busia districts in Kenya. It is one of the most important riparian and floodplain wetlands around the lake since it acts as a filter for waters that flow into Lake Victoria from two major rivers, and one of the largest in Kenya covering an area of approx. 17,500 ha at an altitude of approximately 1,145 above sea level. It contains three peripheral freshwater lakes: Kanyaboli (10.5 km<sup>2</sup>), Sare (5.0 km<sup>2</sup>) and Namboyo (2.0 km<sup>2</sup>).

The wetland forms the mouth of both River Nzoia and Yala and is a freshwater deltaic wetland arising from overflowing water from Lake Victoria as well as the rivers' floodwaters. It provides habitat for various wildlife including the endangered Sitatunga antelope (*Tragelaphus spekii*) which is a threatened species in Kenya.

The Swamp is an important resource for communities, where they derive their livelihoods and obtain ecosystem services. It provides raw materials for roof construction and baskets, grass for livestock, and fish as food for the residents and also for selling to other communities, fuel wood for cooking. In addition, the residents cultivate in areas next to the swamp since they are rich in nutrients as compared to other areas.

### Dunga Beach

Dunga Beach is a wetland situated about 10 kilometers south of Kisumu town on the shores of Lake Victoria in Winam Gulf. The wetland covers an area of approximately 500 ha and lies at an altitude of 1130 meters above sea level. The beach is used as a major fish landing site. A number of streams drain their water into the lake through the wetland, the main one being Tako River. The site is one of the most reliable sites in Kenya to observe the rare and threatened Papyrus Yellow Warbler (*Chloropeta gracilirostris*).

Dunga Beach ecosystem is very important to the local communities since it provides essential services that contribute to their livelihoods. These services include; fresh water for both industrial and domestic use, traditional medicines, grazing grounds for livestock, control of flooding, fish for their consumption and for selling, water purification, and papyrus reeds that are used as raw materials for mat and baskets making industries. The beach also acts as a tourist site due to the presences of the wild animals and birds which attract tourists, and is thus a source of income. Local communities also use the beach as transportation hubs.

## Rwanda

### Akanyaru Wetlands

Akanyaru wetlands are located in the south of Rwanda on the international border with Burundi and lie at an altitude of 1350 meters above sea level. The wetland's vegetation consists largely of papyrus and other shrubby vegetation. The Akanyaru wetlands are home to more than 100 bird species including threatened bird species such as Papyrus Yellow Warbler (*Chloropeta gracilirostris*) and Madagascar Pond Heron



Akanyaru Wetlands

(*Ardeola idea*). Mammals include Sitatunga (*Tragelaphus spekeii*), Blue Monkey (*Cercopithecus mitis dogetii*) and Hippopotamus.

The communities depend on the Akanyaru wetland ecosystem for provision of services such as; fertile land suitable for subsistence farming, fresh water, bees and birds that help in pollination; the forest provides firewood and herbal medicines; fodder for livestock; papyrus and water hyacinth are used for art and crafts. The communities also participate in fishing activities that in addition contributes to their total income.

## Uganda

### Lutembe Bay Wetland

Lutembe Bay is located 25 km south of Kampala, the Capital City of Uganda. Its elevation is approximately 1,155 meters above sea level. It is at the mouth of Lake Victoria's Murchison Bay. Lutembe Bay is globally, nationally and locally important for its biodiversity and ecological services. It is one of the 34 Important Bird Areas (IBAs) and 12 Ramsar sites in Uganda. The Bay supports various globally threatened species of birds, endangered cichlid fish, and rare butterfly species. It supports Palearctic and Afrotropical migrant birds, and provides a breeding ground for catfishes and lungfish.

Lutembe Bay provides important services to the local communities namely; fish, income from tourism, firewood from the bush, fresh water, raw materials for crafting of baskets and mats.

### Mabamba Bay Wetland

Mabamba Bay Wetland is located west of Entebbe International Airport along the Lake Victoria shores and south of central Uganda at an altitude of 1,150 meters above sea level. The Bay, which is also an IBA and a Ramsar Site, is an extensive marsh of over 17,000 ha stretching through a narrow and long bay fringed with papyrus opening into the northern side of the main body of Lake Victoria. The marsh is dominated by *Cyperus papyrus* and *Miscanthus* species occasioned with *Loudetia phragmatoides*. The wetland system is home to over 300 bird species including the globally threatened Blue Swallow (*Hirundo atrocaerulea*), Papyrus Gonolek (*Laniarius mufumbiri*) and the Papyrus Yellow Warbler (*Chloropeta gracilirostris*).



Local women weaving baskets for sale in Mabamba community

Local communities rely on Mabamba Bay ecosystem for the provision of essential services that improve their livelihoods. These include; fishing and selling the fish while consuming some, tourism, crafting mats and baskets from the papyrus for sale, provision of water and firewood.

In addition to the benefits mentioned under the six site descriptions, other benefits include locally less obvious but equally important services for example, purification of water and air, carbon sequestration and climate regulation.

## Threats and causes

Through the PRA exercises, the six communities identified a set of main threats that negatively impact the natural resources at their sites (and thereby the long-term, sustainable delivery of ecosystem goods and services).

The table below summarizes the threats as identified at the six sites.

Threats	Mpungwe Mountain	Dunga Beach	Yala Swamp	Akanyaru Wetlands	Lutembe Bay	Mabamba Bay	Total
Flooding							5
Drought							5
Illegal hunting of wild animals							4
Agricultural expansion by local communities							4
Water pollution							3
Deforestation							3
Illegal bush fires							3
Over fishing							3
Human settlement (encroachment)							3
Invasive species, i.e. water hyacinth							2
Overharvesting of papyrus							2
Soil erosion							2
Solid waste							1
Sand harvesting							1

## Causes of the identified threats at the six sites

The communities also identified general (root) causes that lead directly or indirectly to the threats at their sites. Those include:

- High levels of poverty among the communities which is leading to increased and unsustainable harvesting and use of wetland resources such as papyrus, wild animals (Sitatunga and fish), fuel wood, and wood for charcoal burning, as a means to support their livelihoods.
- Increase in human population living in and around the area, has been mentioned for Mpungwe Mountains as leading deforestation, agriculture encroachment and over use of natural resources such as trees and water. This probably equally applies to the other five sites.
- Climate change is reported to be causing droughts and floods and to affect weather patterns at all the six sites. This has been indicated to affect the livelihoods of the local community who depend on farming and fishing as they are



*Women collecting firewood at Mpungwe Mountains*

less and less able to accurately predict the best moment to plant their crops or to go fishing. This in turn increases food security and poverty levels.

- Communal ownership of resources such as papyrus and fish stock in the lake, and ownership and inadequate stewardship of the wetlands by governments on behalf of the (local) people, is leading to overharvesting and overfishing. This is experienced particularly at Lutembe Bay, Yala and Dunga wetlands.
- In Uganda, it has been reported that cases of corruption are negatively affecting the natural resources of the lake through allowing illegal, irresponsible and unsustainable harvesting of those natural resources.
- Human-wildlife conflict is reported as leading to the killing of wild animals that destroy community crops. This is caused by animals such as wild pigs and monkeys in Yala swamp and Mpungwe Mountains.

The above listed threats and causes, as emerged from the discussions with the communities at the six sites, match to a remarkably large extent the threats and drivers that have been identified for the region by other studies such as the BirdLife International Great Lakes Region Strategy<sup>3</sup>. Additional threats and causes mentioned in the Strategy are eutrophication, poor land use practices, diversion of natural systems such as rivers for irrigation, and soil erosion leading to siltation as threats, and high local market demand. The project aims to address these threats through a combination of institutional capacity building, participatory community planning, policy-advocacy and some small-scale actions at the sites.

## Conclusion

The threats to biodiversity, ecosystem services and livelihoods throughout the Lake Victoria Basin experienced by local communities at site level, and their causes, appear to have many common elements. Although threats and causes, and their relative importance will have site specific elements, this general commonality provides important opportunities. This commonality suggests that:

- Joint strategies across the region can have impact;
- Policy-level approaches (regional, national, district) can impact on multiple sites;
- There are opportunities for exchange of experience, lessons and good-practice within the region.

Local communities are the chief stewards of the world's ecosystems, and the vast majority of daily environmental management decisions depends on their local knowledge and is determined by how they use land and other natural resources. This also applies to the communities in the Lake Victoria Basin. Local communities know what the issues are and are therefore critical to addressing those issues. Local communities, as key stakeholders, can and should be empowered to sustainably manage their natural resources.

BirdLife International and its national Partners are keen to engage with all stakeholders, i.e. governments, civil society, local communities and private sector, towards the sustainable use of our common natural resources.

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<sup>3</sup> See for the Conservation Strategy for the Great Lakes Region of East and Central Africa and appendices: [www.birdlife.org/africa/partnership/publications](http://www.birdlife.org/africa/partnership/publications)