

# POLICY BRIEF

## PLANNING FOR RESILIENCE IN EAST AFRICA THROUGH POLICY, ADAPTATION, RESEARCH, AND ECONOMIC DEVELOPMENT (PREPARED) PROJECT; LAKE NABUGABO WETLANDS SYSTEM RAMSAR SITE

### Problem statement

Lake Nabugabo was listed as a Ramsar site in 2004 under the jurisdiction of Masaka District Local Government due to high biodiversity, and provision of ecological services in addition to supporting livelihoods of a large population. However, unregulated resource harvesting, unplanned infrastructure development, inadequate enforcement of laws, upsurge of invasive species, and poor agricultural practices may lead to degradation of the wetlands. Rapid biodiversity assessments carried out in 2016 by the Ministry of water and environment with support from USAID; indicate that the wetlands in Nabugabo Ramsar site still have high species diversity but increased destruction of the habits through clearing of natural vegetation for agricultural activities and resource harvesting are a threat to the ecological integrity of the wetlands. In addition an increasing population size and the need for more resources have lead to degradation of the wetlands adjacent to the Ramsar site in the districts of Kalungu, Mpigi, Gomba and Butambala yet these wetlands are ecologically interconnected. Because of their importance and the emerging threats, a number of steps have been taken to ensure that the biodiversity resources of the wetlands are well managed and conserved.



(f) Large scale irrigation on Lake Birinzi (one of the satellite lakes)

(g) Large scale rice growing in one of the wetlands (Lwera in Kalungu and Mpigi)



## EXTENSION OF L.NABUGABO BOUNDARIES

In order to offer better protection of the Lake Nabugabo wetlands, it has been considered prudent to extend the boundaries from the current 22,200 hectares to 77,700 hectares which extend to wetlands of five districts of Masaka, Kalungu, Mpigi, Gomba, and Butambala. The justification for this expansion is as illustrated below:

### RICH BIODIVERSITY

The Ramsar site boasts of over 300 plant species, 14 of which are not found anywhere else within Uganda, and two that are endemic to the site. It is home to 281 bird species, including 15% of the world's population of the Blue Swallow. The proposed expanded area supports more biodiversity, comprised of rare and threatened plants and animals, including internationally important bird populations, a range of mammals, invertebrates, reptiles, and amphibians

## ECOSYSTEM SERVICES

The expanded conserved area offers a number of ecosystem services most notably: flood alleviation, ground water recharge, and water quality improvement. A rapid economic assessment of biodiversity and ecosystem services provided by the Nabugabo Ramsar site was conducted in 2014 and estimated the site to be worth USD 4.6 million/year, with an average of USD 333/ha/yr of wetland habitat (USAID, 2015).

According to the assessment, an extended Ramsar site would increase and secure economic value of the wetland to more than USD 44 million or USD 566/ha/yr (Table 1).

### SOCIO- ECONOMIC BENEFITS

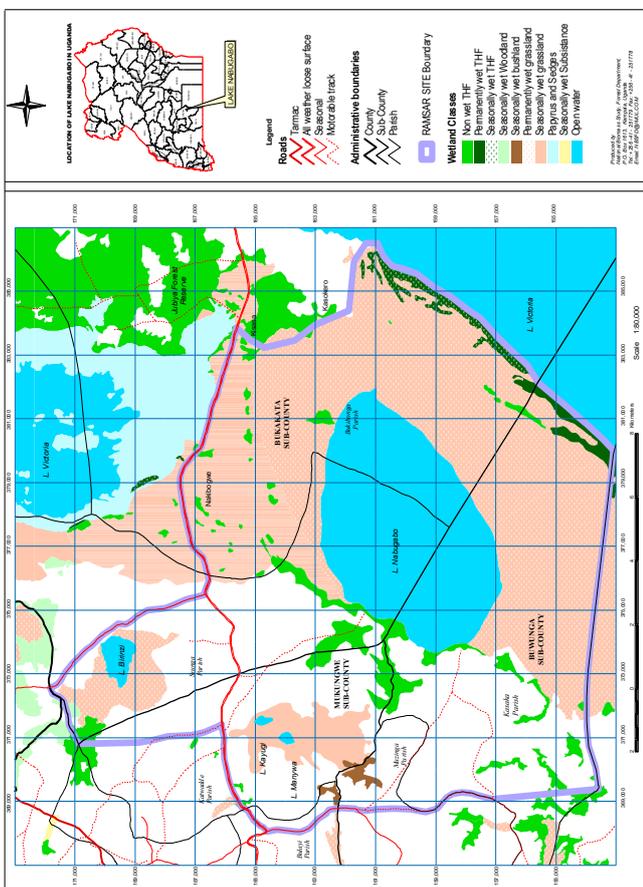
The Nabugabo wetland system Ramsar site currently provides a source of products for subsistence and income for a large proportion estimated at 25,000.

### BENEFITS OF EXPANDING THE RAMSAR SITE

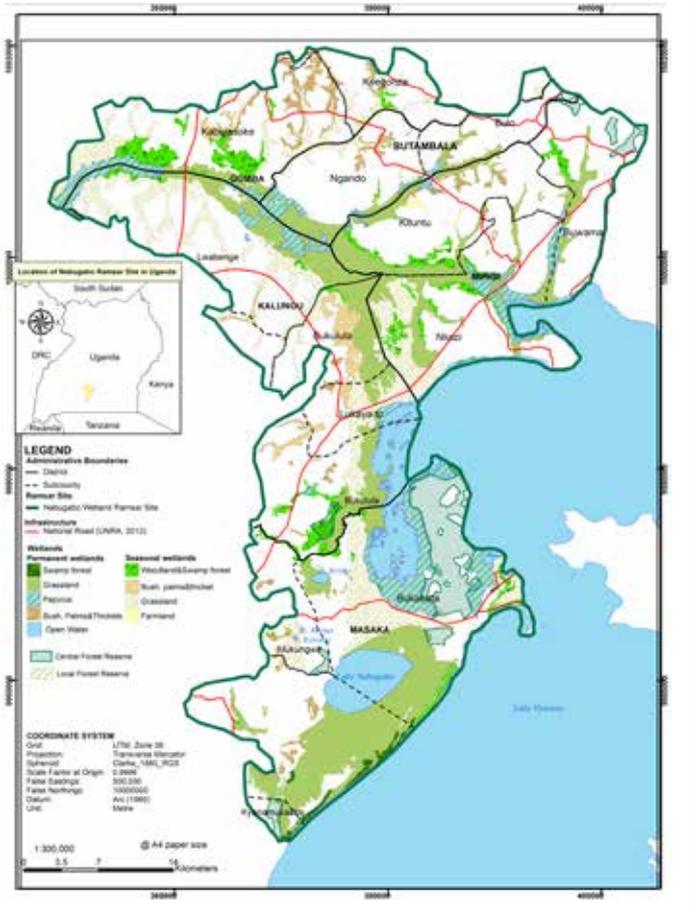
An extended Ramsar Site:

- Would increase and secure economic value of the wetland from the current USD 4.55 million or USD 333/ha/year to more than USD 44 million or USD 566/ha/year;
- Would help secure economically important wetland resources for an additional 167,000 local stakeholders; and
- Stands to safeguard more than USD 281 million of ecosystem service values over the next 25 years if appropriate conservation measures and activities are implemented. These economic benefits will remain available if wetland resources and habitats are not further degraded, but would be lost if action is not undertaken to maintain and enhance wetland conservation and wise use.

### Original Boundaries



### Proposed Extended Boundaries



### EMERGENT THREATS

Threats result from changes in agricultural practices, increased drainage (digging of deep drainage channels), use of fertilizers and herbicides, conversion of wetlands to other land uses, over-grazing, commercial sand mining and settlement, over-fishing, and inadequately planned tourism infrastructure. These threats all result in deterioration of the ecological integrity of the ecosystem. An increasing population size and the need for more resources, coupled with the lack of delineation of the Ramsar boundary will accelerate habitat degradation. This could lead to low or unpredictable river flows and groundwater levels, shrinking flood zones, eutrophication, and habitat fragmentation.



(L) Some members of the Task Force at one of the district consultative meetings  
(R) One of the district consultative meetings with the Task Force in attendance

## WHAT HAS BEEN SO FAR DONE BETWEEN MARCH 2016 TO JUNE 2017 ?

The Ministry of Water and Environment and Nature Uganda with technical and financial support from Resilience in East Africa through Policy, Adaptation, Research, and Economic Development (PREPARED) Project have so far carried out several activities with the following outputs:

- i. A Stakeholder map developed through which multiple stakeholders were identified with their interests, resource use and influence.
- ii. Awareness on importance of Lake Nabugabo Ramsar site and management planning among stakeholders raised.
- iii. Extended Lake Nabugabo Wetland system Ramsar site boundaries delineated and included the riparian wetlands of the Five Districts of Masaka, Kalungu, Mpigi, Gomba and Butambala.
- iv. A Rapid Biodiversity Assessment Report on Lake Nabugabo wetland system Ramsar site with information about the expanded site produced.
- v. Updated and reviewed the map of the Lake Nabugabo wetlands system Ramsar site.
- vi. A management plan of Lake Nabugabo wetland system Ramsar site (2017 - 2027) developed in a consultative process. The plan is linked to Lake Nabugabo wetland system Ramsar site Conservation Investment Plan (CIP), Lake Nabugabo wetland system Ramsar site Handbook and Lake Nabugabo wetland system Ramsar site Conservation Investment Plan (CIP), Lake Nabugabo wetland system Ramsar site Handbook and Lake Nabugabo wetland system Ramsar site Management Plan Popular Version, all produced within this period in a consultative manner with an aim of raising awareness and mobilizing financial resources. .
- vii. Updated the Ramsar Information Sheet.

## ACTIVITIES THAT WERE CARRIED OUT TO REALIZE THE OUTPUTS

- i. **Formation of a National Task Force**  
whose responsibility was to play oversight functions on behalf of the core agencies and Ministries. The Task Force members were from the following ministries and institutions;  
- Ministry of Water and Environment  
- Ministry of Tourism Wild life and Antiquities  
- Ministry of East African Affairs  
- National Forestry Authority  
- Uganda Wild Life Authority  
- Nature Uganda
- ii. **Consultations**  
The consultations were carried out at National, District and subcounty levels with the following purposes:
  - a. Collect and collate information from the lowest planning unit of government.
  - b. Create awareness on Lake Nabugabo wetlands system Ramsar site.
  - c. Raise awareness on the processes and importance of management planning for wetlands.
  - d. Create awareness on the justification for extension of the boundaries and management plan of Lake Nabugabo Wetlands system Ramsar site from 22,000 hectares to 77,700 hectares where it incorporates five districts of Masaka, Kalungu, Mpigi, Gomba and Butambala.
  - e. Solicit for support and buy-in of the local leaders and technocrats to the management plan processes.
  - f. Ensure that the priorities picked in the plan are relevant to the local communities and conditions.

**National Level consultations** targeted core ministries and agencies. One of the key outputs of these consultations was setting up of the National Task Force mentioned above.

**District level consultations** targeted Resident District Commissioners, District Chairpersons, Chief Administrative Officers, Secretaries for production, Natural Resource Officers, Wetland/Environment Officers, District planners, District production officers, Civil Society Organization representatives, chair persons of land boards, Secretaries to Land Boards, Lands Officers, Community Development Officers and Physical planners. In all 137 officers at District level were consulted of whom 36 were females and 108 were males.

**Sub county level consultations** targeted Local Council 3 Chairpersons, Sub County Chiefs, Community Development Officers, Environment Focal persons, Secretaries for production, Local Council 2 Chairpersons, Parish Chiefs, Farmers, and Community Based Organizations from 14 sub counties and 42 parishes. The selection of the key persons ensured participation of all gender categories (youth, men, women and elders) and wetland user groups (farmers, cattle keepers, crafts, herbalist etc) and the

community leaders from the 42 parishes. In all, 428 people were consulted and of these 93 were females and 325 were males.

- iii. **Biodiversity studies;**  
The following taxa were assessed: Plants – vascular plants; Mammals – small mammals; Birds – resident / migrants; Herps – frogs, toads, snakes; Insects – butterflies and dragonflies and Fish – all types.
- iv. **Mapping;**  
The boundaries of the new boundaries were delineated using GPS.
- v. **Reviewing the management plan;**  
The information collected from the consultations and rapid biodiversity assessments was used to review the 2004 - 2009 Lake Nabugabo Ramsar Site management Plan. The first step was to put all the information together and through reviews at different levels the draft was developed and eventually consensus reached on the final management plan. The plan will be implemented over a ten year period (2017/2018 - 2026/2027), with a mid-term review after five years (2021/2022).

## HIGH LIGHTS OF THE MANAGEMENT PLAN

### Vision

*“A well-managed Lake Nabugabo wetland system Ramsar site for people’s well- being and environment”.*

This vision is in line with the Ramsar Convention (1971), the Constitution of Uganda 1995, Vision 2040, and the National Development Plan II, all of which provide for a healthy and clean environment through “the wise use” of natural resources. In line with these policy frameworks, the goal of the management plan is “to promote wise use of Lake Nabugabo wetland resources for improved livelihoods of the stakeholders at local, national and international levels”. In order to achieve the goal and vision of the plan, a number of interventions have been set. These are guided by the following five objectives of the management plan:

- a. To promote conservation of Lake Nabugabo wetland and its catchment area;
- b. To enhance public awareness about the importance of Lake Nabugabo ecosystem;
- c. To reduce pressure on wetland resources by promoting and supporting alternative sources of livelihood for all stakeholders by 2027;
- d. To enhance the ability of all people and Nabugabo ecosystem to adapt and build resilience to impacts of climate change by 2027; and
- e. To strengthen coordination mechanisms of all conservation efforts by end of 2022.

## DEVELOPMENT OF THE HAND BOOK:

The management plan and information collected from the studies studies and consultations provided input in development of the Lake Nabugabo wetland system Ramsar site handbook. The hand book like the management plan was developed in a consultative manner. The hand book is a collection of simplified information on Lake Nabugabo Ramsar site with facts for quick and easy referencing.

It is written in simple English for easy understanding to a wide range of stakeholders including but not limited to: students, local leaders, policy makers, communities, tourists, investors and researchers. It is linked to Lake Nabugabo wetland system Ramsar site management plan (2017/2018-2026/2017) and and Lake Nabugabo wetland system Ramsar site C.I.P.

## LESSONS LEARNT

- i. Engagement of stakeholders is key for successful planning.
- ii. The degradation of Lake Nabugabo wetland is going on at a very high rate.
- iii. The Rapid assessment studies undertaken confirmed that species diversity is still high but is threatened by increased human activities.
- iv. The biggest portion of the wetlands is on private land with registered land titles despite the fact that wetlands are owned in trust by Government.
- v. Land use in Lake Nabugabo Ramsar site is a mixture of traditional uses and large investments that involve extraction of large amounts of wetland resources. These investments promote local economic development but are also a threat to ecological integrity of the ecosystem.
- vi. There is low knowledge and awareness about the ecological benefits of the biodiversity and uniqueness of Nabugabo wetlands.
- vii. There is uncertainty on the impacts of climate change and how the communities can respond to the impacts.

## POLICY RECOMMENDATIONS.

- a. Continuous awareness rising of all stakeholders so that they appreciate the ecological importance of Lake Nabugabo Ramsar site wetlands.
- b. Strengthen the inspection and monitoring of Lake Nabugabo Wetlands to ensure compliance to policy frame work.
- c. Continuous research and dissemination of research findings through training and sensitization of the population, local leaders and all wetland resource users.
- d. Mainstream climate change and biodiversity into Government plans and private sector especially those with investment in the Ramsar site.
- e. Putting in place of policy guidelines for wetland resource harvesting in order to ensure sustainable utilization of these resources.
- f. Put in place interdistrict Ramsar and investment committees to ensure harmony in conservation of Lake Nabugabo Ramsar site.
- g. Strengthen community structures to spearhead conservation of Lake Nabugabo wetlands
- h. Popularize the management plan and mobilize resources for conservation.
- i. Promote eco friendly investments in the Ramsar site that are also beneficial to the communities.



## ABOUT PLANNING FOR RESILIENCE IN EAST AFRICA THROUGH POLICY, ADAPTATION, RESEARCH, AND ECONOMIC DEVELOPMENT (PREPARED)

The PREPARED Program is funded by the U.S. Agency for International Development's Kenya and East Africa Regional Mission (USAID/KEA). The PREPARED Program is a five-year, multi-organization, comprehensive program aimed at mainstreaming climate-resilient development planning and program implementation into the East African Community (EAC) and its Partner States' development agendas.

The PREPARED Project supports climate change adaptation; biodiversity conservation; and water supply, sanitation, and hygiene (WASH). PREPARED Project under the biodiversity component is cognizant of the fact that the inland waters of East Africa are internationally recognized for their high levels of species richness, diversity and endemism, especially those in Lake Victoria basin which is recognized globally for high biodiversity.

In this connection, the PREPARED Project extended financial and technical support to Nature Uganda to undertake the project of extending the boundaries of Lake Nabugabo Ramsar site and management plan on behalf of the Ministry of Water and Environment (Wetlands Management Department).

## ABOUT NATURE UGANDA

NatureUganda, the East African Natural History society is the oldest conservation organization in East Africa having been set up in 1909 as a scientific organization with the primary aim of documenting the diversity of wildlife in East Africa. Although the Activities of the society were disrupted by the political instability in Uganda in 1970s-1980s, the activities were rejuvenated in early 1990s with the identification of Key Biodiversity Areas (KBAs) and Ramsar sites. Over the past 20 years, the activities of the organization have diversified to embrace biodiversity conservation and sustainable Natural Resource management.

The organization implements research, conservation and advocacy programs with particular focus on priority species, sites and habitats across the country. This is achieved through conservation projects, environmental education together with government lead agencies, local government and local communities, and membership programs activities such as public talks, excursions, and nature walks that are key advocacy and public awareness tools. Our mission is to promote the understanding, appreciation and conservation of nature.

In pursuing this mission NatureUganda strives to;

- Create a nature friendly public
- Enhance knowledge of Uganda's natural history
- Advocate for policies favorable to the environment
- Take Action to conserve priority species sites and habitats

*NatureUganda is the Birdlife International partner in Uganda and a member of IUCN.*



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