

FACT SHEET

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

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VALUING ECOSYSTEM SERVICES OF MARA WETLANDS, TANZANIA

KEY FACTS

The Mara Wetlands is in northern Tanzania and covers an area of 390 km² to 517 km², with seasonal flooding. The Wetlands is inextricably linked with the wider Mara catchment, as it is fed from the Mara River and then drains into Lake Victoria.

The Wetlands lies within four districts- Butiama, Rorya, Serengeti, and Tarime-with overall management responsibility falling to the Regional Administrative Secretary.

The Mara Wetlands is an important source of natural resources and habitat for fauna, flora, and local communities. Although it has no formal protected status, the Wetlands has been designated part of the worldwide network of "Important Bird and Biodiversity Areas" in recognition of its global biodiversity significance.

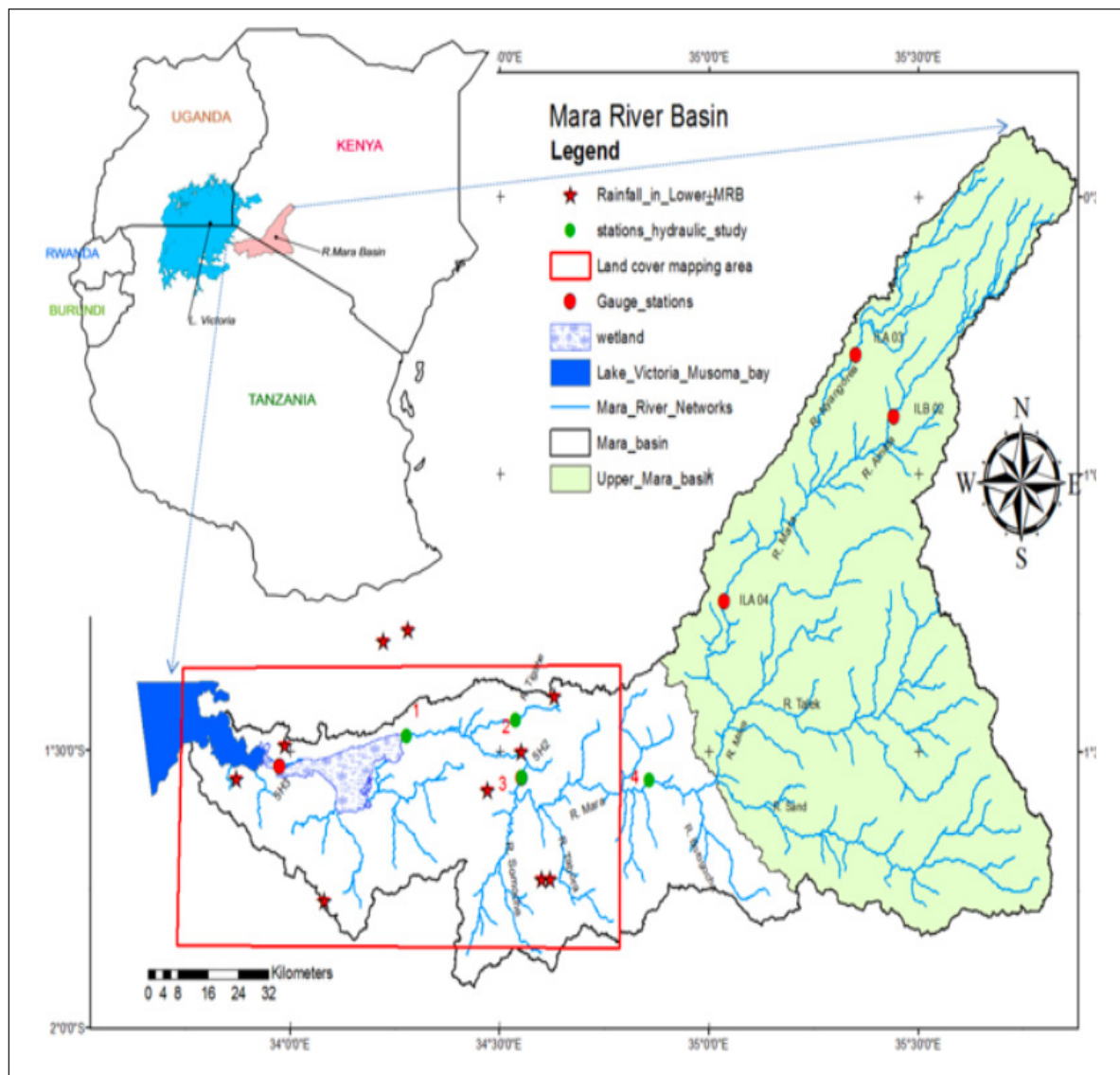
The Wetlands has 226 bird species, including the **critically endangered** white-backed vulture and the **vulnerable** white-winged black tern and the shoebill.

- It is home to 30 species of terrestrial and semi-aquatic mammals, among them hippopotamus, olive baboon and vervet monkey.
- It serves an important ecological and hydrological role by providing suitable breeding habitat for fish, increasing soil fertility, and sediment trapping.



- It has 14 known fish species, three of which-catfish, African lungfish, and Nile tilapia-are of great socioeconomic significance to the local communities.
- It has more than 20 plant families, but it is dominated by papyrus, which is harvested for crafts and making furniture.

Figure 1: Map of the Mara River Basin, Mara Wetland is designated in purple



ECONOMIC VALUE STATISTICS

In 2015 the USAID-funded Planning for Resilience in East Africa through Policy, Adaptation, Research, and Economic Development (PREPARED) Project completed an economic valuation of ecosystem services provided by the Mara Wetlands.

The assessment responded to a Government of the United Republic of Tanzania request to assist in putting monetary value on the benefits they are receiving from Mara Wetlands.

A 10-step approach was used to complete the ecosystem service assessment. It started with scoping and designing the study, followed by collecting and analyzing data, and finally communicating the findings to decision makers to make the case for conservation.

The basic aim of valuation is to facilitate more equitable, sustainable, inclusive and better-informed decision-making.

The assessment **valued 10 ecosystem services** that represent the products, raw materials, primary productivity, and vital life support services that are critical to human well-being and a functioning economy.

The study focused only on “wise use of resources,” and therefore excluded resource uses that are illegal or known to be biologically and ecologically unsustainable. The values of the services are summarized below.

Figure 2: Results of Economic Values from the Mara Wetlands (2015)

Ecosystem service	Tanzania Shilling (TZS) per year	USD per year
Provisioning services: supplies goods, such as food, water, timber, and fiber		
Crop production	TZS 1,771,000,000	\$ 1,390,000
Water for livestock	TZS 854,000,000	\$ 670,000
Water for domestic use	TZS 706,000,000	\$ 560,000
Capture fishery	TZS 527,000,000	\$ 410,000
Wood and non-timber products	TZS 708,000,000	\$ 570,000
Grass for fodder	TZS 503,000,000	\$ 400,000
Honey production	TZS 14,000,000	\$ 10,000
Regulating & supporting services: governs climate, rainfall, and soil formation that underpin growth and production		
Other wetland products	TZS 170,000,000	\$ 130,000
Carbon sequestration	TZS 1,063,000,000	\$ 840,000
Cultural services: covers the beauty, inspiration, and recreation that contribute to spiritual welfare		
Cultural tourism	TZS 25,000,000	\$ 20,000
GRAND TOTAL	TZS 6,341,000,000	\$ 5,000,000

JUSTIFICATION FOR CONSERVATION

The rapid economic valuation shows that the Mara Wetlands makes a substantial contribution to local, national, and even global economies. The 48,600 people living in and around the Mara Wetlands (2012 Census) depend on its resources and services to sustain their livelihoods and local economy. The communities rely on the Wetlands' regulatory services, such as pollination, seed dispersal, and pest control, to support agricultural production.

The Wetlands acts as a sink for waste and residue, diluting and purifying wastewater and other effluent discharge from the upper agriculturally productive regions and mining areas. It also plays a significant role in carbon sequestration.

The rich biodiversity in the Mara Wetlands is under increasing pressure. Upstream land use exerts a strong influence over the Wetlands, which depends on the quality, timing, and flow of water from the Mara River. Upper catchment degradation and deforestation, coupled with agricultural intensification and expanding human settlement, have increased silt, sediment, nutrient, and pollution loads reaching the Mara Wetlands. Meanwhile, water extraction for irrigation, energy,

and industrial, and domestic supplies has reduced the flow of water into the Wetlands and interfered with biannual flooding patterns. If appropriate measures and activities to conserve the area are not undertaken, many of the goods and services provided by the Wetlands will not be available in the future.

Planning for Resilience in East Africa through Policy, Adaptation, Research, and Economic Development (PREPARED) Project completed an economic valuation of ecosystem services provided by the Mara Wetlands.



African Lungfish

CONSERVATION INVESTMENT PACKAGES FOR THE MARA WETLANDS

1. **Wetland wise use and sustainable management.** This investment package aims to restore, rehabilitate, and conserve wetland biodiversity and ecosystem services. It consists of five projects at a combined cost of TZS 2.2 billion or USD 990,000.
2. **Conservation awareness, capacity, and governance.** This investment package aims to build effective, inclusive, and sustainable systems for wetland management and use. It consists of three projects at a combined cost of TZS 0.5 billion or USD 230,000.
3. **Sustainable and climate-resilient local livelihoods.** This investment package aims to strengthen local economic prospects and reduce pressure on wetland resources. It consists of seven projects at a combined cost of TZS 2.1 billion or USD 960,000.
4. **Community water, sanitation, and hygiene.** This investment package aims to improve water quality and sustain a healthy wetland-adjacent population. It consists of four projects at a combined cost of TZS 5.6 billion or USD 2.46 million.

ACTIONS NEEDED TO CONSERVE THE WETLANDS

The economic value of the Mara Wetlands (**USD 5,000,000 per year**) provides a strong justification to design, finance, and implement plans and activities that ensure the conservation and sustainable management of the landscape. To this end, the PREPARED Project worked with BirdLife International and other key stakeholders in Uganda and Tanzania to develop an Integrated Management Plan (IMP) and Conservation Investment Plan (CIP) for the Wetlands.

The goal of the 2017/18–2021/22 Mara Wetlands IMP is “to improve the conservation and sustainable management of Mara Wetlands ecosystem for the purpose of securing community livelihoods and building resilience to climate change.” The IMP is organized around five management actions: land use and wetland management; awareness raising, capacity building, and governance; sustainable alternative livelihoods; water sanitation and hygiene; and research information and data needs.

The Mara Wetlands CIP is a resource mobilization document that the government of Tanzania can use to solicit funds for the IMP. The CIP prioritizes four bankable investment packages. The total cost of the CIP is USD 4,640,000 (see left table). The cost of implementing the CIP is significantly less than the value of the ecosystem services that are reaped from Mara Wetlands, clearly demonstrating that it pays to conserve.

PHOTO: PREPARED/TEDDY CHENYA



UNITED REPUBLIC OF TANZANIA



EAST AFRICAN COMMUNITY



USAID
FROM THE AMERICAN PEOPLE

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The rapid economic assessment of the Mara Wetlands was conducted by LTS Africa Ltd. through the USAID Kenya and East Africa (KEA) PREPARED Project. The rapid economic assessment was completed through a participatory process involving the Office of the Vice President of Tanzania, the Tanzanian Ministry of Natural Resources and Tourism, the Tanzanian Forest Service, and other key regional, national and local stakeholders. The contents of this fact sheet are the sole responsibility of its authors and do not necessarily reflect the views of USAID or the United States government.