



Background: A Brief History of Wetlands Management in Uganda

The economic and ecological wealth represented by Uganda's wetlands, which cover 15 percent (31,406 sq km) of its land area and are found in almost every subcounty, is well recognized by both its people and its leaders. Wetlands provide no less than 37 valuable services and products, and contribute hundreds of millions of dollars per year to the national economy (WID, 2001). Over 70 percent of all wetlands in Uganda are used for three purposes simultaneously: water collection, livestock grazing, and natural tree harvesting. In addition, they play a key role in filtering pollutants and in regulating water flows, which in turn influence groundwater recharge, flood impacts, and water availability during the dry season.

Uganda's policy-makers have acknowledged the importance of wetlands in the country's Constitution (1995), which commits the government to hold them, along with other natural resources, in trust for the common good of all citizens. Over the past 15 years, innovations including Uganda's Wetland Policy and decentralized wetlands management have established a firm foundation for more sustainable wetland management. Environmental and wetland concerns are also integrated into several of the government's other primary policies, including the Poverty Eradication Action Plan, Plan for Modernization of Agriculture, and District Development Plans. The ten-year Wetlands Sector Strategic Plan, launched in 2001, identifies eight key strategies to achieve sustainable wetlands management.

Between 1995 and 2005, the Wetlands Inspection Division spent about \$US 2 million to carry out wetland inventories for 30 Districts and build the National Wetlands Information System (WID and IUCN, 2005). The system tracks 13 main uses of wetlands: beekeeping, cultivation of food and fiber, fishing, harvesting of natural herbaceous vegetation, human settlement, hunting, livestock grazing, mineral excavation, natural tree harvesting, tree plantations, tourism, wastewater treatment, and water collection. It also classifies each wetland use according to its level of impact on the individual grassland, swamp forest, or other wetland system. This information can then be converted into an index that classifies each wetland according to the combined impacts of all uses, thus helping to manage wetland resources more optimally.

The result is a rich baseline of wetland data, which in its coverage and detail is unique in Africa. At the same time, the Uganda Bureau of Statistics has expanded its technical expertise to produce poverty maps for small administrative areas, which in turn relies on regular investments in high quality and geographically referenced censuses and household surveys.

BALANCING HUMAN AND ECOSYSTEM NEEDS

Poor people, especially those in rural areas, generally rely directly on the benefits of nature—referred to as ecosystem services—for subsistence and income-generating activities or to obtain water and medicines because of lack of affordable alternatives. Wetlands are also an important source of cash income, especially in emergencies. High dependence on ecosystem services combined with few assets and capabilities makes poor people particularly vulnerable to ecosystem degradation. Consequently, the condition of wetlands and the way they are managed can have a disproportionate impact on the well-being of poor families.

Both Uganda's Poverty Eradication Action Plan and the Wetlands Sector Strategic Plan have emphasized balancing poverty reduction efforts and wetlands management interventions.

However, frequent media reports of wetlands under threat from human activities such as agriculture and settlements indicate that implementing these goals, policies, and laws is far from easy. Achieving them requires strong political will, considerable human and financial resources, vigilant monitoring, and detailed knowledge of poverty and wetland issues. Too often, at present, short-term gains from wetland use are obtained at the cost of the long-term benefits to be had from keeping wetland services intact, benefits such as water purification or the regulation of water flow. Such long-term benefits are easy to overlook since they are not fully valued economically. To safeguard their wetlands patrimony, Uganda's decision-makers need information and analytical tools that capture these trade-offs and support more evidence-based efforts to manage wetlands and reduce poverty.

Today, decision-makers have access to a growing body of work about Uganda's wetlands. Some of this consists of local case studies determining the economic value of the multiple benefits they provide. These include, for example,

a study of the rural wetlands in Pallisa District (Karanja et al., 2001) and another on the urban Nakivubo wetland in Kampala District (Emerton et al., 1999). However, knowledge about the intricate inter-relationships between wetlands and poverty is still limited. Only a few local case studies, such as one focusing on wetlands around Lake Bunyonyi in Kabale District (Maclean et al., 2003), have examined this relationship. Moreover, information that provides a national view of poverty levels and wetland use has been absent. Specifically, decision-makers have faced two key barriers: a lack of subnational data about poverty and wetlands; and a lack of analytical approaches to integrate these datasets.

FILLING THE DATA GAP

Over the past years, two relevant but uncoordinated efforts have begun to fill this data gap. The first has been the production of poverty maps by the Uganda Bureau of Statistics and its collaborators. The second has been the collection of wetland data by the Wetlands Inspection Division (upgraded to the Wetlands Management Department in 2007). Since 1997, the Department has led the efforts to compile detailed data on wetlands, including their ecological attributes, main uses, human-induced threats, and land tenure regimes. Information from approximately 5,000 sample points covering most of Uganda's districts has been integrated into a single, geographically referenced database, the National Wetlands Information System. To date, these data have not been analyzed to support national and local wetland planning efforts.

This publication, for the first time, combines these two datasets and demonstrates how to produce maps and interpret spatial overlays of the information they contain. The goal is to motivate analysts and planners to develop their own maps to fill an analytical gap with new information in order to align wetland management and poverty reduction strategies. By integrating more detailed wetland and poverty data, planners can then design and target wetland management interventions so that the benefits reach a greater proportion of poor communities and the costs associated with land-use changes or new restrictions on wetland use do not disproportionately affect the poor.

Differentiating subcounties by their poverty and wetland profiles is a first step to formulate questions and hypotheses to better integrate environmental and development objectives into planning. That said, this report is not intended to explain causal relationships between poverty and specific wetland uses. For that, other factors need to be examined that reflect different poverty dimensions and measure poverty not just at the subcounty level but also at other scales such as parish, village, and household levels.

AUDIENCE

The geographic approach used in this publication will help Ugandan decision-makers “see” their wetlands in a new light, and visualize ways to manage and use them more optimally to alleviate poverty. Moreover, better and more detailed spatial analyses of poverty-wetland relationships can then be used to scrutinize existing government priorities and examine whether current policies and programs target crucial issues and localities.

The maps, analytical examples, and ideas for future analyses are intended to be of value to a variety of audiences for the following purposes:

- *Ministry of Finance, Planning, and Economic Development and decision-makers at all levels of government:* to change budgeting and planning so that it reflects the importance of wetlands in livelihoods and the national economy, and to support investments that boost the benefits of wetlands such as water filtration and flood control.
- *Budget Monitoring and Accountability Unit:* to recognize the important role wetlands play in the livelihoods of poor households and to monitor performance in implementing the Poverty Eradication Action Plan (and the upcoming National Development Plan) through sustainable use of wetlands.
- *Uganda Bureau of Statistics:* to account for the many products and services provided by wetlands in future environmental data collection.
- *Wetlands Management Department and all levels of government involved in wetland management (National Wetlands Advisory Group, Environment and Natural Resource Sector Working Group, wetland officers in local governments, community-based wetland resource user groups):* to help plan more sustainable use of wetlands that optimizes poverty reduction, and to leverage increased funding that targets subcounties with specific poverty and wetland use profiles.
- *Analysts and planning experts:* to provide decision-makers with more integrated analyses of wetland uses and poverty indicators.
- *Civil society and nongovernmental organizations:* to hold decision-makers accountable for wetland conservation and poverty reduction efforts.