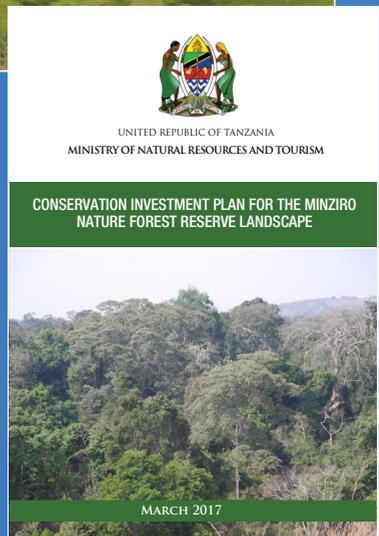
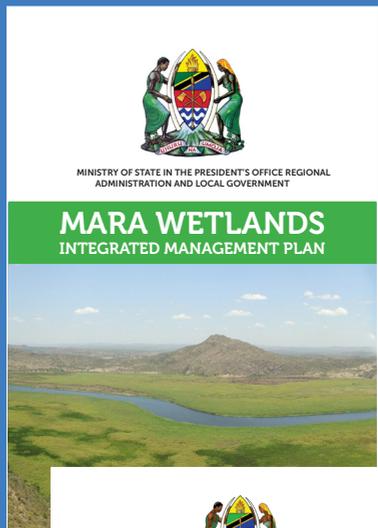
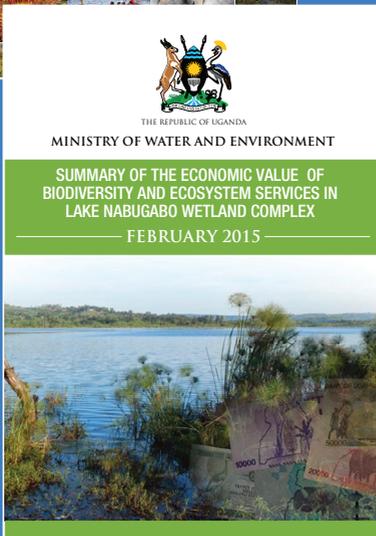
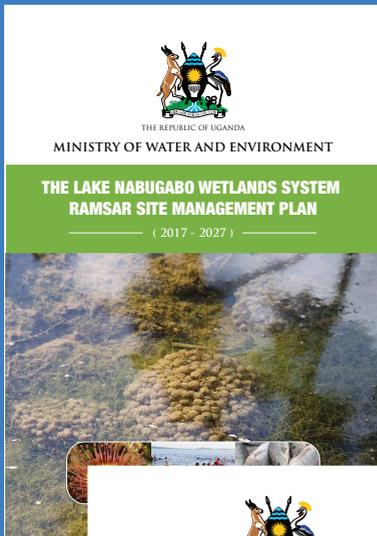




LAKE VICTORIA BASIN COMMISSION

BEST PRACTICE AND LESSONS LEARNED

HOW ECONOMIC VALUATION, MANAGEMENT PLANS AND CONSERVATION INVESTMENT PLANS CAN SUPPORT CONSERVATION IN EAST AFRICA





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FEBRUARY 2018



USAID
FROM THE AMERICAN PEOPLE

The views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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ACRONYMS

BSA	Biologically Significant Area
CIP	Conservation Investment Plan
EAC	East African Community
EPA	Ecosystem Profile Assessment
LVB	Lake Victoria Basin
LVBC	Lake Victoria Basin Commission
MEA	Millennium Ecosystem Assessment
NGO	Nongovernmental organization
PREPARED	Planning for Resilience in East Africa through Policy, Adaptation, Research, and Economic Development
TEV	Total Economic Valuation
USAID	United States Agency for International Development
WCPA	World Commission on Protected Areas

I. INTRODUCTION

The Lake Victoria Basin (LVB) encompasses the second-largest freshwater body in the world, Lake Victoria, and is home to many natural sites of high conservation value, ranging from wetlands around the lakeshores to highland forests on the outer edges in Burundi, Kenya, Rwanda, and Uganda. In support of a wider objective to raise awareness about the importance of assessing the economic value of biodiversity and ecosystem services and of ecosystem planning, the Planning for Resilience in East Africa through Policy, Adaptation, Research, and Economic Development (PREPARED) Project conducted an ecosystem profile assessment (EPA) to evaluate the threats to biodiversity in the region. The EPA prioritized biologically significant areas (BSAs) where the project would focus conservation activities.

In conjunction with the EPA, PREPARED reviewed the literature on experiences, best practices, and interventions relevant to economic valuation methods and approaches. The findings demonstrated a need to strengthen national and regional technical capacity for valuation in East African Community (EAC) countries; to build approaches and methods that can be applied where time, resources, and expertise are scarce; and to generate practical and policy-relevant information to feed into and strengthen conservation planning. To fill this need, PREPARED developed guidelines for the rapid economic valuation of biodiversity and ecosystem services in East African BSAs in 2014. Subsequently, and in response to a request by the Lake Victoria Basin Commission (LVBC) and EAC Partner States, PREPARED trained 20 government staff from the EAC on how to use the guidelines and supported participatory rapid economic valuation assessments at three BSAs in the LVB: Lake Nabugabo Ramsar Site (Uganda), Sango Bay–Minziro ecosystem (Uganda/Tanzania), and the Mara Wetlands (Tanzania).

Following completion of the valuation of ecosystem services, the LVBC Biodiversity Task Force¹ issued a directive for the project to develop Conservation Investment Plans (CIPs) for the three BSAs. The CIPs, drawing upon results of the valuations of ecosystem services and existing management plan frameworks, made a strong economic case for conservation and provided costed investment packages for prioritized conservation activities. The resulting packages and related value propositions target donors, investors, and government agencies for the purpose of attracting and mobilizing conservation funding.

The economic valuation, management planning, and CIP initiatives conducted under the PREPARED Program generated knowledge and information that can be used to solicit funding and guide management and conservation in other areas of East Africa. Experiences and lessons learned during operationalization of the initiatives can also

¹ The LVBC Biodiversity Task Force (BTF) consists of appointed government officials for the EAC Partner States. The role of the BTF is to guide and approve the Project's activities related to biodiversity conservation in the region.

be used to identify successful models for replication of similar tools and approaches in other areas. This best practice note highlights the main lessons and experiences from undertaking economic valuation, management planning, and CIPs in East Africa through the PREPARED Project as useful tools to support sustainable conservation and management of natural resources in BSAs.² The aims of this note are to:

- Introduce conservation area managers to key concepts and tools for economic valuation, management, and conservation investment planning;
- Demonstrate the potential uses of economic valuation, management planning, and conservation investment planning tools to enhance conservation and management efforts in different conservation areas; and
- Build a case for the need for investment in the management and conservation of ecosystem services in an area, based on the benefits they provide and on unfunded needs.

Lessons and experiences reported in this note are drawn mainly from work conducted in the BSAs of Lake Nabugabo Ramsar Site, Sango Bay–Minziro ecosystem, and Mara Wetlands, where the PREPARED Project developed or reviewed and consolidated new or earlier processes of economic valuation and management plans and used the information from those processes to develop CIPs. The best practice note provides information that can be used to enhance conservation and management of other conservation areas in the region.

² Several methods and tools have been developed to guide natural resource management and conservation at global, regional, and local levels (Constanza et al. 1997, WCPA 2000, Lee and Middleton 2003). The methods and tools have been successfully applied and have yielded outputs that give a positive direction toward enhanced conservation and management of the attendant ecosystem services. Despite the high investment cost for development of management and conservation tools, it is not common to follow up on their effectiveness in the form of lessons learned and experience with their use. Moreover, use of the tools and methodologies sometimes faces challenges and constraints, which can be addressed to enhance outputs, if well documented.

2. BACKGROUND

2.1 NATURAL RESOURCE CONSERVATION GLOBALLY AND IN EAST AFRICA

Globally, natural resources and their related goods and services provide critical support for livelihoods by providing nutritious foods, clean water and air, energy, employment, and a range of other ecosystem services. This “natural capital” provides assets for development, whose direct and indirect beneficiaries include both rural and urban populations. The sustainable management of these natural resources can help ensure the achievement of sustainable development and greener economies. However, clear information is lacking about the magnitude of the contribution that natural resources make to the livelihoods of people surrounding protected areas. These contributions include such on-site benefits as goods that are directly used by local populations and such off-site, public goods benefits as erosion control, water catchment services, filtration of pollutants, carbon storage, and climate moderation. Moreover, information on how much ecosystem services contribute to human well-being is critical to informing planners, policy makers, implementers, and politicians on the importance of natural resources and why they should be recognized in development planning at local, national, regional, and global levels. This should be done not only from the perspective of environmental management but also for their contributions to broader social and economic issues.

Efforts to guide sustainable use through regulatory measures have set aside protected areas that are managed to preserve biodiversity and ensure sustainable use of resources. For most areas, including those in East Africa, the traditional approach has been to focus on low human population and limited land use in designated protected areas. However, this approach denies local communities use and access to the resources in the area, which many depended on for survival. The management plans developed for these areas were completed by specialists who focused on biodiversity conservation of the protected area.

As the human population has grown, more holistic approaches have been used that consider both biodiversity conservation and the needs of the local human population. This approach provides a variety of incentives to safeguard the ecosystem services that support local communities' well-being and livelihoods. Modern management planning recommends the use of participatory approaches that involve stakeholders, providing an opportunity to gather and use evidence-based information from resource users and beneficiaries. In addition, some efforts have been made to include the economic benefits from ecosystem services that the protected area provides.

A big challenge that faces the implementation of management plans and supporting conservation activities is funding. Investors, including government and development partners, often choose to allocate resources toward traditional economic development programs and projects, because they have little understanding or appreciation for the economic value that conservation of a biologically significant landscape provides.

2.2 ASSESSMENT OF BIODIVERSITY CONSERVATION IN LAKE VICTORIA BASIN

Many assessments have been carried out to evaluate biodiversity and ecosystems at the global and regional levels, including the LVB; perhaps the most comprehensive is the Millennium Ecosystem Assessment (MEA). The MEA recognizes that humans have changed ecosystems more rapidly and extensively to meet the rapidly growing demands for food, freshwater, timber, fiber, and fuel. Although ecosystem changes have contributed to substantial net gains in human well-being and economic development, the benefits have come at high costs in the form of degradation of many ecosystem services, increased risks of non-linear changes and the likely exacerbation of poverty for some groups of people (MEA 2005).

Building on MEA assessment, the PREPARED Project carried out an EPA of LVB that aimed at providing a broad overview of biodiversity values, the causes of biodiversity loss, and current conservation investments in specific BSAs identified within the LVB.

The purpose of the EPA was to:

- Provide an overview of the key issues around biodiversity values, the threats to biodiversity, and investments in biodiversity conservation;
- Provide a baseline analysis of existing terrestrial and freshwater biodiversity resources in selected BSAs; and
- Establish an initial set of priorities for interventions in selected BSAs.

The EPA found that within the LVB, direct threats to biodiversity loss and degradation of ecosystems are like those recognized at the global level, namely:

- Habitat change through conversion to cropland, urban areas, and other human-dominated landscapes;
- Overexploitation or unsustainable harvesting of economically valuable species;
- Pollution of water, land, and air;
- Alien invasive species, pests, and disease pathogens; and
- Environmental change; including shifts in climate and increase in intensity with the size of human ecological footprints.

The EPA used three categories of criteria to select and prioritize nine BSAs:

- Biodiversity importance, endemic or endangered species, or unique regulating ecosystem service;
- Threats, loss of natural habitat, degradation of habitat, invasive species; and
- Regional or national priority for the ecosystem as identified in a recognized policy or directive.

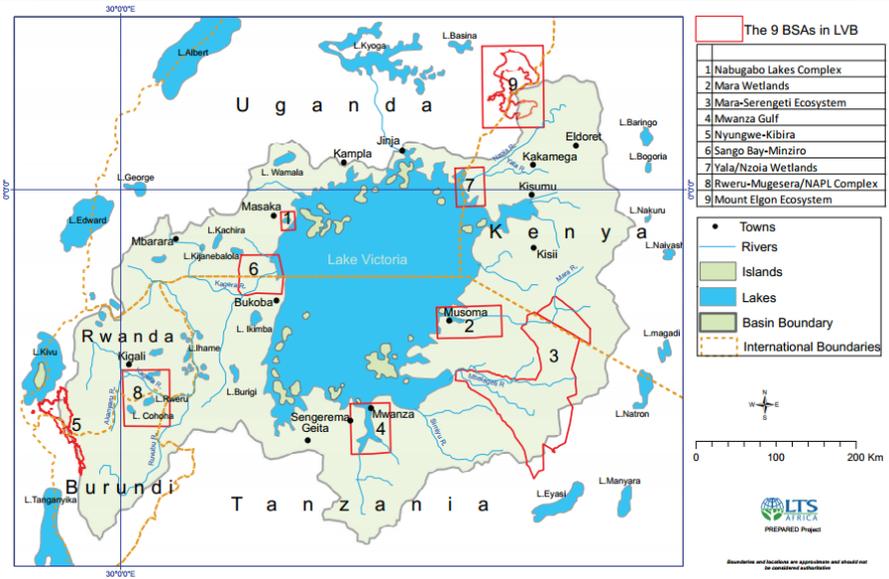
In addition to identifying the nine BSAs (Figure 1) and the most critical threats to biodiversity, the EPA provides a baseline analysis to guide future conservation planning and investment in the LVB, and a framework for selecting interventions to mitigate the root causes of biodiversity loss (USAID 2014a).

2.3 CONSERVATION INTERVENTIONS AND SUPPORTING TOOLS

The EPA identified a set of priorities for conservation interventions in the prioritized BSAs that aimed to support evidence-based decision making in the planning, development, and management of natural resources in the region. One of the broad interventions proposed by the EPA was the development and piloting of innovative conservation approaches and tools. In response, the PREPARED Project designed and implemented three tools and processes:

- A rapid economic valuation of ecosystem services tool to assign monetary values to benefits associated with biodiversity and ecosystem services and associated costs for their degradation and subsequent loss.
- Participatory management planning to identify specific threats and root causes of ecosystem degradation in the BSA and provide guidance in the management and conservation of the ecosystems.
- CIPs to support the implementation of management plans by identifying critical unfunded needs in an area and putting them together in investment packages for presentation to potential donors.

Figure I. Biologically significant areas in Lake Victoria Basin



3. ECONOMIC VALUATION OF ECOSYSTEM SERVICES

3.1 WHAT IS THE VALUE OF AN ECOSYSTEM?

The MEA (2003) defines valuation as “the process of expressing a value for a particular good or service...in terms of something that can be counted, often money, but also through methods and measures from other disciplines (sociology, ecology and so on).”

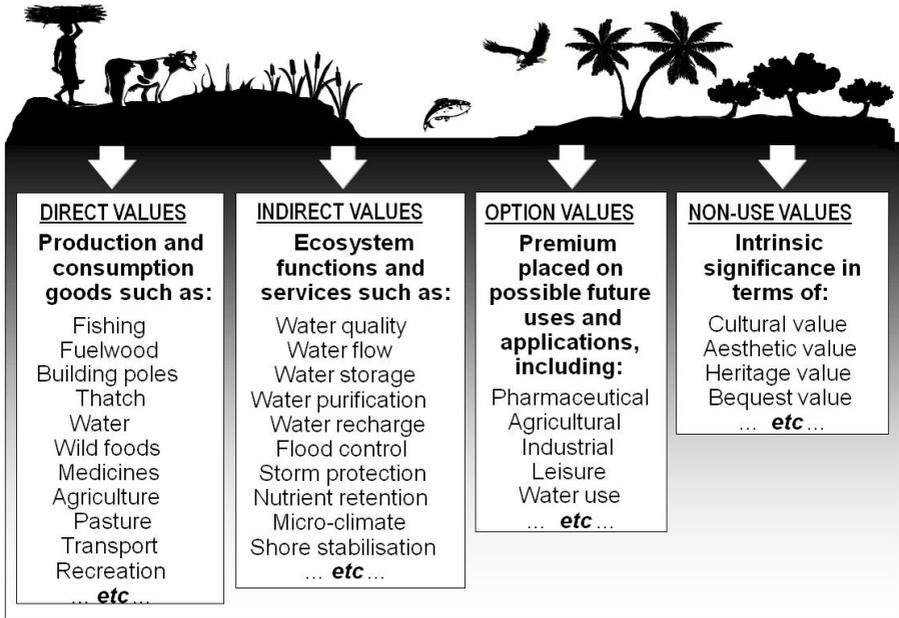
Economic valuation traditionally has focused on the value of the natural resources directly extracted from the ecosystem, such as timber, fish, or firewood. But limiting the value of the ecosystem to these provisioning resources, fails to account for the non-tangible benefits the ecosystem provides to human well-being. Examples of non-tangible benefits include water catchment protection, pollination and seed dispersal, carbon storage, and soil fertility. The economic benefits provided by these “regulating and supporting services” often outweigh the benefits from the resources extracted.

The emphasis on tangible goods with limited focus on non-tangible ecosystem services leads to undervaluation of natural resources and fails to strongly justify allocating resources for their management and conservation. Even where some resources and services are recognized, focus is mostly given to those that are traded in formal markets. This perception of biodiversity value is not only incomplete but also leads to the danger that natural resource management systems will focus only on the commercial extraction of resources, often at the expense of other, less-tangible values. There is consensus that the underestimation of the value of the numerous goods and services provided by ecosystems has led to a lack of sustainable protection and management of natural resources. The concept of Total Economic Valuation (TEV) helps to solve the problem by providing guidance on how to comprehensively attach monetary values to natural resources.

TEV includes consideration of the broader benefits associated with ecosystem services beyond direct and commercial uses, by including non-market values, ecological functions, and non-use benefits (Figure 2). The TEV concept also presents a more complete picture of the economic importance of biodiversity and clearly demonstrates the high and wide-ranging economic costs associated with the loss or degradation of biodiversity and its components, which extend far beyond the loss of direct-use values. This further justifies investment in the management and conservation of ecosystem services on the premise that they provide natural capital, which if well managed can yield, in perpetuity, a wide range of direct and indirect economic benefits to human populations. TEV identifies the goods and services or “products” protected areas generate, and which ones are suitable for capturing

revenues for the protected area. With proper management, the “products and services” on offer can be sold over and over without diminishing their value, and revenues generated can be used to maintain the protected area.

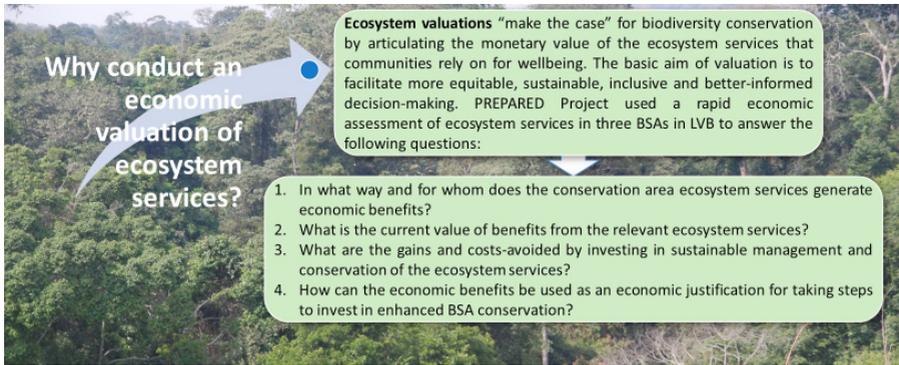
Figure 2. A wide range of environmental benefits for society and livelihoods



Source: Emerton & Muramira (1999)

Under the PREPARED Project, economic valuation was conducted with an overall objective of providing information that can be used to economically justify the improved management of BSAs and their attendant ecosystem services. Figure 3 provides the main reasons why economic valuation of biodiversity and ecosystems services is important and the key questions addressed by the PREPARED Project in LVB.

Figure 3. Importance of economic valuation and key questions addressed by the PREPARED Project in LVB



3.2 RAPID ECONOMIC VALUATION OF BIODIVERSITY AND ECOSYSTEM SERVICES IN THE LVB

The technical capacity of most conservation planners and managers in the EAC region to undertake biodiversity and ecosystem valuation is underdeveloped. At the same time, many of the methods that are commonly used to value biodiversity and ecosystem services have complex data and analytical requirements and are primarily geared toward academic users, rather than supporting real-world conservation planning processes. To address these issues, there was a clear need for PREPARED to develop a simple rapid economic valuation methodology for biodiversity and ecosystem services that can be used and replicated throughout the EAC region. There was also a need to strengthen national and regional technical capacity; to build approaches and methods that can be applied in situations where time, resources, and expertise are scarce; and to generate practical and policy-relevant information to feed into and strengthen conservation planning.

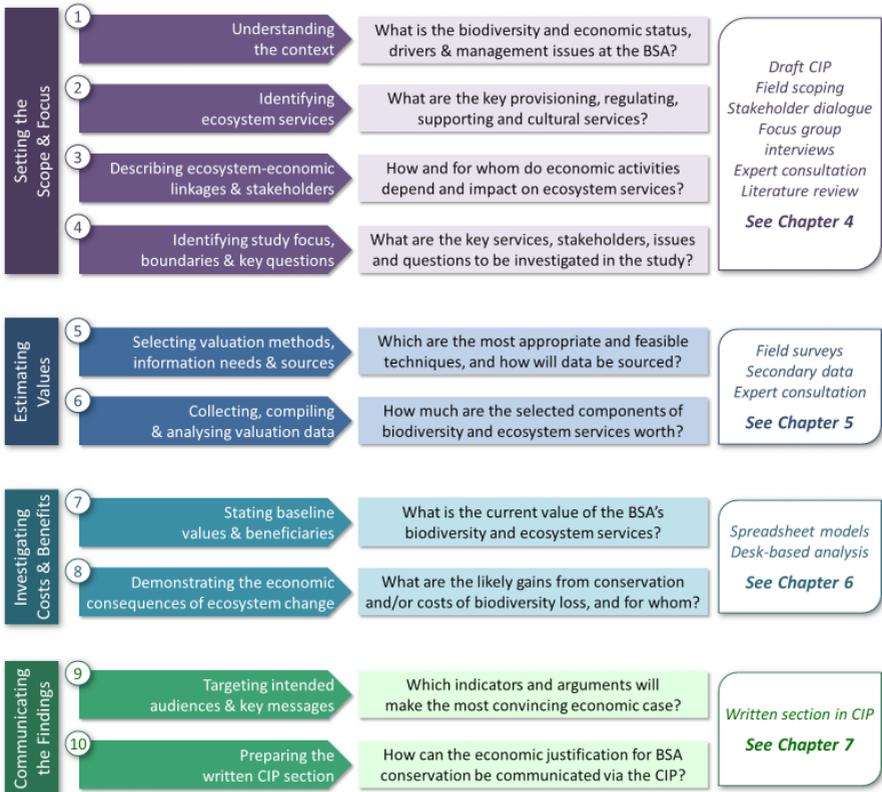
The methodology adopted involved:

- Developing guidelines for the rapid economic valuation of biodiversity and ecosystem services;
- Technical training on the application of the rapid guidelines on economic valuation; and
- Piloting rapid economic valuation guidelines in three BSAs.

3.2.1 Rapid Economic Valuation Guidelines

Based on a comprehensive literature review, PREPARED developed a set of guidelines to conduct rapid valuation of biodiversity and ecosystem services in BSAs, tailored to the East African context. The guidelines proposed a 10-step approach, starting with defining the scope and focus, estimating values, investigating costs and benefits, and communicating the findings to decision makers to make the case for conservation (USAID 2014b). A summary of these steps is presented in Figure 4. The guidelines include an annex presenting a reference list of selected toolkits and manuals. Approaches and methods presented in the guidelines can be used to generate practical and policy-relevant information to feed into and strengthen conservation planning.

Figure 4. Steps in the rapid valuation of biodiversity and ecosystem services



Source: USAID, 2014b. Guidelines for the rapid economic valuation of biodiversity and ecosystem services. Produced under the USAID funded PREPARED Project.

3.2.1 Technical Training on the Rapid Economic Valuation Guidelines

The valuations were used as an opportunity to strengthen national and regional technical capacity for valuation in EAC countries. PREPARED conducted a training that used classroom and field-based learning. Twenty government officers from ministries and agencies involved in natural resource management from the five LVB countries, as well as two LVBC staff, attended the training. The training had four objectives:

- To enhance participants' technical knowledge and understanding of ecosystem valuation methods and techniques;
- To facilitate learning and exchange of experiences, lessons learned, and best practices in integrating economic tools and instruments into conservation planning, inside and outside the EAC;
- To familiarize participants with the step-wise approach to the rapid economic valuation of biodiversity and ecosystem services developed under the PREPARED Project; and
- To carry out preliminary planning for the BSA valuation studies.

Participants were taught how to apply the principles of economic valuation and relevant methods for field data collection and analysis to strengthen biodiversity and ecosystem conservation and planning. The participants generated inventories of ecosystem services that can be found in their respective landscapes and conducted a field visit to practice collecting information first hand.

3.2.1 Piloting of the Rapid Economic Valuation Guidelines

The guidelines for rapid economic valuation of biodiversity and ecosystem services were piloted in three ecosystems, Lake Nabugabo Ramsar Site (Uganda), Mara Wetlands (Tanzania), and Sango Bay–Minziro (Uganda/Tanzania). In each ecosystem, the valuation was carried out by a team of experts comprised of relevant government institutions, which had developed an inventory of the key ecosystem services to be valued. This was used as the basis for the data collection plan, which identified the sites to visit. The study sites were selected by a sampling method, which included criteria such as where specific resources or ecosystem services are commonly used and where some materials or products are harvested, processed, or marketed.

During the valuations, a series of techniques were employed to gather and analyze information about ecosystem services. Researchers first conducted desk studies to review existing reports at the national and local level, such as census data, natural resource inventories, agricultural and commodity reports, and socioeconomic

surveys. They also conducted key informant interviews and focus group discussions with various members of the community, including farmers, fishermen, business people, and community leaders. To value the identified ecosystem services, the researchers collected information on the following:

- **Market price of the ecosystem service:** the price people buy and sell the ecosystem resource/service in the market. This is theoretically the easiest way to collect information. However, for some environmental goods and services, such as firewood and water, there are no direct market prices to be the basis for valuation. PREPARED used a range of market and non-market based methods to value ecosystem services. Standard methods that were used are based on similar economic valuation studies, such as Adamowicz (1994), Constanza et al. (1997), Emerton (1999), Emerton and Muramira (1999), Karanja et al. (2001), Kiwazi et al. (2004), Kakuru et al. (2013), Kateyo et al. (2014), and Emerton (2014). For some data and information, direct observations were made to supplement information provided from interviews.
- **Market price of substitutes for environmental products:** the price of alternative or substitute goods to the environmental services. Products, such as firewood and grass, are collected from the ecosystem and are sometimes used without being sold or purchased from formal markets. However, if they were not freely available, their substitute would have to be purchased in the market. Examples coming from the PREPARED study included the cost of iron sheets instead of thatching grass, the cost of kerosene instead of fuelwood or charcoal, and the cost of sugar instead of honey. Looking at the price of market alternatives is a good way of valuing environmental products, which have no market but have close substitutes that people use when these products are not available.
- **Effort or price of labor:** the cost of time and labor to travel and collect relevant resources of goods and services. Family members collect firewood from forests and woodlands, or water from streams, wetlands, and the lake. The labor and effort invested in traveling and collecting the relevant resource can be estimated using the local wage equivalent that would have been paid to local communities for providing common services such as working on farms.
- **Damage avoided:** when environmental benefits themselves have no value but they affect market-based activities, the values of these ecosystem services can be assessed to estimate their contribution to livelihoods. For example, if a forest provides watershed catchment protection, it

prevents downstream siltation and flooding. The value of losses resulting from landslides and flooding to properties, livestock, farm production, and loss of fish catches can be estimated and calculated. Looking at the effect on production of environmental benefits is a good way of valuing environmental benefits, which have no market or substitutes, but upon which other market-based outputs depend.

- **Replacement value:** the value of what it would cost to replace an ecosystem service if it was no longer provided by the environment or to avert the resulting negative impact if the service was no longer provided. For example, the cost of ex-situ preservation of wild forest species, a replacement cost for the benefits forests provide in terms of natural habitat can be estimated by using the cost of instituting downstream flood control structures and carrying out reforestation in degraded forest lands. Looking at replacement costs or averse expenditure attached to environmental benefits is a good way of valuing non-market benefits, which could at least be partially replaced by human-made or technological means.
- **Value transfers:** the use of estimated values in one context to estimate the value in a different context. For example, an estimate of the benefit obtained by people using an environmental resource in one area might be used to estimate the benefit obtained from using the same environmental resources in a different area. The main advantage of the value transfer method is that it provides a low-cost way of estimating values when time or resources do not allow complete valuation studies, or when the goods or services to be valued have not yet been created so that there are no users to survey. However, the value transfer approach has some limits. For example, estimates derived in one situation may not necessarily be appropriate for all situations. A consensus seems to be emerging that value transfer can provide a valid and reliable order-of-magnitude estimate under certain conditions.

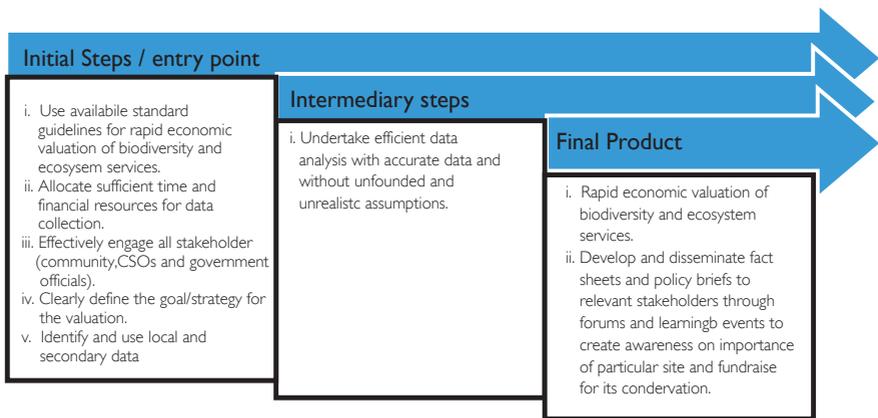
3.3 BEST PRACTICES AND LESSONS FROM THE PREPARED ECONOMIC VALUATION EXPERIENCE

- i. Ecosystems have been undervalued not only by communities but also by policy makers. Land, resource, and investment decisions have traditionally been based on a very narrow view of environmental values by communities, resource managers, and policy makers, primarily based on the commercial earnings associated with extractive use of natural resources and conversion of wild habitats to “productive” land uses.

- ii. Standardized methodologies are crucial in economic valuation studies. The rapid economic valuation guidelines were a good compromise between a “back of the envelope snapshot” and a more detailed research exercise. They enabled the generation of relatively credible estimates under imperfect conditions where data, time, human capacity, and resources were scarce.
- iii. Understanding the end goal is critical in economic valuation studies. Quite often economic valuation studies are undertaken without a clear picture of how the information generated will be used, beyond helping to justify the conservation activities being proposed. A key lesson was that it is important to formulate a clear strategy and objectives before undertaking valuation studies to give the studies a clear focus and aim.
- iv. Robust results can be achieved through a participatory economic valuation process that involves a wide range of stakeholders across different sectors, including resource users.
- v. When involving stakeholders in rapid economic valuation studies it is important to allocate reasonable time and financial resources to facilitate data collection, allow for more detailed engagement and discussion on the importance and use of the data, and create a conducive environment to gather information.
- vi. Local datasets can complement secondary sources of information and enhance the robustness of results. This was a critical lesson that facilitated the data collection process and provided robust data for use in economic valuation studies.
- vii. Consensus among stakeholders on critical assumptions in economic valuation is needed. Unfounded or unrealistic assumptions should not be made based on weak data. Likewise, one should not extrapolate estimates that have been generated elsewhere for a different purpose.
- viii. Creating champions and promoting buy-in is vital. The economic valuation process required the involvement of people from different sectors due to the diverse nature of ecosystem services and transboundary nature of some of the BSAs. The project included national government technical staff from the in-country/BSA teams to support the valuation process.
- ix. Building local capacity enhances the ownership of results. The PREPARED Project actively promoted capacity building on valuation for the country teams. This included face-to-face training sessions on valuation methods and field work that included data collection and review of completed valuation reports.

- x. Results from economic valuation assessment, if well packaged, can be appreciated and used by different stakeholders, including scientists and researchers for conservation planning; planners to allocate adequate resources; policy makers to support appropriate policy; local communities to enable them to protect their natural capital and assets; financiers to provide logistical support; and other decision makers to support management and conservation efforts. A summary of the main recommendations for those planning to undertake economic valuation of biodiversity and ecosystem services is provided in Figure 5.

Figure 5. Summarized step-by-step process for undertaking an economic valuation based on lessons learned



4. MANAGEMENT PLANNING

4.1 WHAT IS A MANAGEMENT PLAN?

Natural resources management planning is a set of processes that will help achieve mutually agreed upon objectives in the management of a resource, in a specified area (WCPA 2000). A management plan guides the use and management of resources and specifies activities that should or should not be carried out by various interested parties in specified zones of the management planning area, including roles and responsibilities of all stakeholders in the management processes, and the resources needed to implement different actions. A management plan therefore identifies threats and challenges in an ecosystem; actions and activities to address the threats; appropriate management needs; and approaches for implementation of different forms of interventions. To assess impact of the management and conservation interventions, a management plan also stipulates ecological and impact monitoring for the different actions and activities.

Traditionally, management planning was undertaken by a group of planning experts, who would be instructed by an institution to review relevant information, interpret it, and devise the best possible plan based on their professional experience. The main challenge to this approach was that the planners would rely on secondary information and data to propose management actions for a conservation area, without having to visit or at least interact with key stakeholders and resource users for the site. In some instances the approach would lead to farfetched and impractical management action. The approach worked best for conservation areas where use of most resources was restricted and stakeholder views were not considered of significant value to management planning or resource use.

Over the years, protected area management and conservation approaches have come to appreciate the need for sustainable resource use, which justifies involvement of resource users and other stakeholders in the development and implementation of management plans. The need for stakeholder involvement has been fulfilled by ensuring optimum consultations with different actors to guide the development of robust management objectives that can be agreed upon and adhered to.

4.2 PARTICIPATORY MANAGEMENT PLANNING IN THE LVB

The PREPARED Project facilitated the development of two ecosystem management plans: the extended Lake Nabugabo Ramsar Site in Uganda, a protected area, and the Mara Wetlands in Tanzania, which does not have protection status. PREPARED

adopted the general framework for preparing management plan outlined below with slight modification for each site.

The general steps are:

- Step 1.** Identification of the planning area and formation of a management planning team: Under this step, the planning area is identified and a management plan team to oversee the process is identified.
- Step 2.** Reconnaissance and information gathering: This involves visiting the planning area, meeting local leaders, resource user group representatives, and other key stakeholders and explaining the management planning process and agreeing on a schedule for the management plan process. Socioeconomic and ecological information on the area from national and local institutions, such as forestry and wildlife institutions (if the area is a wildlife or forest protected area), is also gathered under this step.
- Step 3.** Stakeholder analysis, mobilization, and sensitization: Under this step, local communities, resource user groups, and other stakeholders in the area are mobilized and informed of the goal of management planning and outputs/benefits. Stakeholder roles, interests, mandates, and conflicts are analyzed and information on resource use is gathered.
- Step 4.** Participatory resource analysis: Under this step available resources, key uses of the resources, users, and benefits are identified and analyzed. Key conservation threats and challenges and possible interventions and actions to address them are also identified.
- Step 5.** Participatory management plan drafting: In this step, a participatory process is used to formulate the management plan vision, mission, objectives, and management activities or actions. A budget for the identified activities is also developed.
- Step 6.** Implementation strategy and monitoring plan: In this step, a management plan implementation strategy and structure, and a monitoring plan, are developed.
- Step 7.** Management plan presentation to stakeholders, institutions, and policy makers: This step includes integration of gathered information into a draft management plan and presentation of the draft management plan to stakeholders, technical institutions, and policy makers. A series of meetings can be organized to ensure that views from the wider group of stakeholders are included.
- Step 8.** Launching of the plan for implementation: Depending on financial resources, the last step is the launching of the plan to create awareness of its existence, enhance ownership, and initiate resource mobilization activities.

The approach used for Lake Nabugabo Ramsar Site is presented in Table 1.

Table 1. Summary of activities undertaken during the formulation of the Lake Nabugabo Ramsar Site Management Plan

Activity	Outputs
Formation of Lake Nabugabo Ramsar Site task force and technical working group	Management planning team and their roles and responsibilities were defined. Data collection tools, mobilization of stakeholders, and schedules for subsequent activities were agreed.
Creation of awareness about the management plan process	Awareness of the management planning process was created among stakeholders in five districts: Butambala, Gomba, Kalungu, Masaka, and Mpigi.
Training of district resource persons	District resource persons from natural resources, community development, production, and human resource government departments were trained on the data collection process.
District consultations	The following people were consulted at the district level: district chairpersons, chief administrative officers, secretaries for production, natural resource officers, wetland/environment officers, district planners, and district production officers. Civil society organization representatives, chairpersons of land boards, secretaries of land boards, land officers, community development officers, and physical planners. In all, more than 140 officers at district level were consulted.

Sub-county consultations	The following categories of people were consulted at the sub-county level: sub-county chiefs, environment focal persons, secretaries for production, lower local government chairpersons, parish chiefs, farmers, community-based organizations, and projects from 14 sub-counties/42 parishes. The selection of key persons ensured participation of all gender categories (youth, men, women, and elders) and wetland user groups (farmers, cattle keepers, craft producers, and herbalists). Consultations also involved community leaders from the 42 parishes. In all, 418 people were consulted.
Combined district and sub-county consultations	Data from all the five districts and 14 sub-counties were validated and views on stakeholders, resources from wetlands, problems affecting the wetlands, and strategies to manage challenges were harmonized.
Data compilation and analysis	Stakeholder matrices on wetland resource use were validated; problems affecting wetlands identified; and vision, mission, objectives, and strategies for wetland management formulated.
Biodiversity studies (plants, mammals, insects, herpetofauna, and fish) undertaken by the technical working groups from Makerere University	New information was collected and added onto the available literature.
Validation meeting of baseline studies by the technical working group	Validation of the study findings was done and agreed.

Literature review and synthesis of information from consultations	Collation of information from stakeholder consultations and biodiversity surveys into a zero draft management plan working document.
Presentation of the zero draft management plan working document to the task force, together with the technical working group	The management plan principles and the schedule for the review process was agreed on.
Drafting of the management plan with inputs from the task force	Management plan document was drafted.
Review of the draft management plan by the task force, representatives of the technical working group, and PREPARED	The draft management plan was approved.
Approval and launch	Central government and district local governments signed and approved the management plan and the plan was launched for implementation.

The development of the Mara Wetlands Integrated Management Plan also adopted an inclusive process that engaged key stakeholders as far as possible in the planning process, including national and regional government, districts, ward and village councils, local communities, and civil society organizations in the three districts (Butiama, Rorya, and Tarime). Resource users, including farmers, charcoal burners, papyrus harvesters, and livestock keepers, were also involved.

4.3 BEST PRACTICES AND LESSONS FROM THE PREPARED MANAGEMENT PLANNING PROCESS

- i. Establish a multisectoral management planning task force or committee that includes representatives from relevant government ministries, departments, and agencies; nongovernmental organizations; and the private sector to provide technical inputs and policy oversight. A task force or committee also

brings dynamic experience and diverse skills, as well as broad stakeholder representation, and is useful in providing quick spot-on decisions in planning processes.

For the Lake Nabugabo Ramsar Site, a management planning task force provided oversight functions on behalf of core government ministries and agencies, while for the Mara Wetlands, a technical committee was formed to play this role.³ In the two sites, the role of the management planning task force and technical committee was to guide the process and ensure that the process was credible, legal, and inclusive at all levels

- ii. A participatory process that fully engages local communities, who are often the primary beneficiaries and key resource users in a conservation area, is important for various reasons:
 - Local communities sometimes use resources in uncoordinated ways, and if they are not involved in planning and well guided, they can misuse the same resources;
 - Local communities have detailed knowledge on the key issues and problems associated with various resources and their use;
 - Local communities are very knowledgeable about the natural resources they use, the pertinent conflicts, and associated problems in their areas;
 - Local communities are custodians of natural resources and can be devoted to sustainable management and conservation of the conservation areas, if they appreciate the relevant benefits and the need for sustainable management and conservation of the areas.
- iii. Training and engaging local technical officers in data collecting and planning facilitates and builds a sense of local ownership and ensures that the management plan is developed on time.
- iv. The bottom-up approach that was used to collect and collate information from the sub-counties in Uganda (which are the lowest level of implementation of local government plans) and districts allowed linkages to be established between sub-counties and offered an opportunity to consider priority activities and district strategies in the management planning process.
- v. The use of both primary and secondary data to review and update the Nabugabo Ramsar Site Management Plan provided a very comprehensive baseline upon which concrete actions were developed.

³ The Lake Nabugabo Ramsar Site management planning task force consisted of Ministry of Tourism Wildlife and Antiquities; National Forestry Authority; Uganda Wildlife Authority; Wetlands Management Department; Forestry Sector Support Department; Ministry of East African Affairs and Nature Uganda. The Mara Wetlands Interagency Technical Committee consisted of the National Environment Management Council, Lake Zone Regional Office; Mara Regional Administration Secretary; Mara Regional Community Development Office; Mara Regional Land Planning office; National Land Use Planning Commission; Lake Victoria Basin Water Board; district councils; North and South Mara local community representatives; the World Wide Fund for Nature (WWF); and the Nile Equatorial Lakes Subsidiary Action Program of the Nile Basin Initiative.

- vi. Targeting resource user groups during consultation meetings using simplified management planning approaches at community level provided opportunities for the user groups to raise issues that affect them and the resources they depend on.

- vii. Developing a strong “government–civil society organization–private sector” partnership is important if conservation values of Lake Nabugabo Ramsar Site, and probably other conservation areas, are to be upheld and livelihood gains realized by all stakeholders.

- viii. Convening relevant ministries, district, political, and technical leaders in one forum to endorse management plans is the best model as opposed to a one-on-one approach.

- ix. Strategic marketing is required if the aspirations of the management plan are to be achieved.

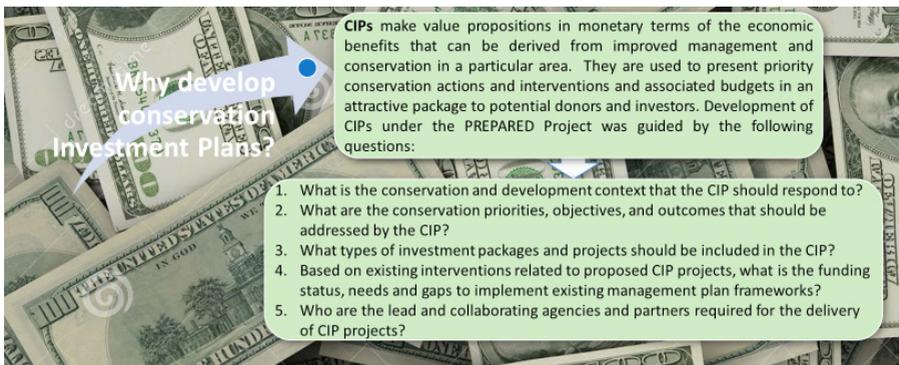
- x. An effective institutional setting and good governance are essential for the adoption and implementation of management plans. Without this, the objectives of management plans are unlikely to be achieved. This can be more challenging in a non-protected area, where mandates may be spread out in many institutions sometimes with limited capacity in conservation as learned and experienced by PREPARED in Mara Wetlands, Tanzania, where the lead agency is Mara Regional Administration Secretary, with district councils leading the implementation on the ground, yet this is not their core mandate.

5. CONSERVATION INVESTMENT PLANNING

5.1 WHAT IS A CONSERVATION INVESTMENT PLAN?

Conservation investment planning enhances the implementation of management plans and helps to generate adequate finances for biodiversity and ecosystem management with a focus on unfunded priorities. The conservation investment planning process involves turning existing conservation and sustainable development plans into concrete planning and fundraising documents. During the CIP development, information from management plans and other planning documents is synthesized and packaged in a form that clearly articulates benefits from the conservation efforts in the form of ecosystem services and justifies committing financial resources to sustainable conservation and management of natural resources. A summary of the main reasons why CIPs should be developed and the key questions that guided CIPs development under the PREPARED Project in LVB are illustrated in Figure 6.

Figure 6. Importance of CIPs and key questions addressed by the PREPARED Project in LVB



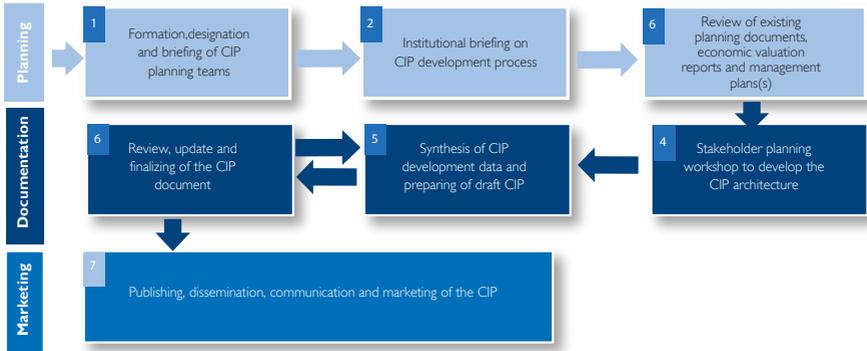
The CIP document focuses on giving a clear picture of the financial needs for unfunded priorities that must be met to optimally implement the proposed management plan activities. The CIPs are therefore intended to communicate and market the need to mobilize resources from key stakeholders, partners, and potential donors.

5.2 CONSERVATION INVESTMENT PLANNING IN LVB

The PREPARED Project formulated a guideline for developing CIPs. The guideline was based on PREPARED experiences in development of CIPs in Lake Nabugabo Ramsar Site, Minziro Nature Forest Reserve, Sango Bay swamp forests, and Mara

Wetlands. The seven-step approach presented in the guidelines can be used to prepare CIPs in conservation areas (Figure 7).

Figure 7. Key steps for development of a Conservation Investment Plan



Source: USAID, 2017. Guidelines on how to develop Conservation Investment Plans (CIPs). Produced under the USAID funded Planning for Resilience in East Africa Through Policy, Adaptation, Research and Economic Development (PREPARED) Project.

The seven steps are consolidated into planning, documentation, and marketing stages. At the planning stage, a CIP development team of stakeholders from multiple sectors is formed to guide the process; institutional briefing is conducted to share knowledge about CIP in institutions; and documents to support the CIP are reviewed.

The documentation stage involves organizing a planning meeting to review management arrangements and frameworks for the area, with a special focus on the existing management plan; identification of unfunded priorities for the management plan; formulation and definition of relevant investment packages; formulation of appropriate projects and activities to be implemented; costing of investment packages and development of implementation arrangements for proposed projects.

Information from the planning meeting is then synthesized and a draft CIP prepared. This draft is then reviewed and finalized. The last stage on marketing is very important as it provides the mechanism for raising funds for implementation of proposed investment packages. Under the EAC/PREPARED Project, a regional Learning Event and Donor Round Table was organized in Arusha, Tanzania, where the four CIPs developed were exhibited and presented to potential donors. The resource mobilization platform for the PREPARED Project was coordinated at the EAC regional level because of the nature of facilitation of the processes, which were spearheaded by LVBC (Box 1). However, the resource mobilization forum for country-facilitated processes can be customized to national circumstances.

Box 1: Facilitation of CIP development process under PREPARED

The LVBC led the coordination of the CIP process, mainly because it was an LVB regional project implemented through the EAC. However, the custodians of the CIPs were the government ministries and agencies involved in the coordination and management of conservation of important biodiversity sites in the LVB. The CIP country/development team members were drawn from staff of government institutions in Burundi, Kenya, Rwanda, and Uganda, which are responsible for leading and “championing” the CIPs (formerly referred to as the “country Project Idea Note teams,” now termed the “country CIP teams”); representatives of nongovernmental and community organizations; and a representative from the LVBC.

5.3 BEST PRACTICES AND LESSONS FROM THE PREPARED CIP EXPERIENCE

- i. The CIP development process provided useful information that was required to document the priority conservation investment packages in selected BSAs. The CIP provided potential donors, investors, and government partners with bankable and costed projects that would realize the management objectives of various conservation strategies and plans in conservation areas. The CIPs provide avenues to raise funds for conservation of locally, regionally, and globally threatened biodiversity.
- ii. Regional capacity among government ministries and conservation investment planning was built. Additional capacity will be built once the guidelines on CIP development are operationalized.
- iii. The signing of CIPs by government ministries (Permanent Secretary in the Ministry of Natural Resources and Tourism–Tanzania and Permanent Secretary in the Ministry of Water and Environment–Uganda) demonstrates the enthusiasm and commitment by governments to implement the CIPs.
- iv. During the CIP development process, it is important to consider bringing in varied expertise and experiences on management of natural resources, agricultural development, and community development, to identify priority conservation interventions that provide benefits and incentives for sustainable management and conservation of the planning area. It is also useful to include representatives from the private sector who are engaged in biodiversity-based enterprises or who are key players in conservation and development activities at the local level. This was an important lesson learned from the PREPARED experience.

6. INSIGHTS AND LESSONS LEARNED FOR THE WIDER APPLICABILITY OF ECONOMIC VALUATION, MANAGEMENT PLANNING, AND CIP

While carrying out economic valuation assessments, management planning, and CIP development, PREPARED learned lessons that should be considered for wider applicability.

Validity and usefulness of economic valuation and management planning techniques and customizing the methods and tools to the local context

One of the key lessons learned was that most of the economic valuation and management planning techniques commonly used in other parts of the world were valid and useful in East Africa. As a best practice during application of the methods, some methodological innovations were made to customize the standard methods and tools to the East Africa context.

Appreciation of the importance of economic valuation data as a management tool

Feedback from the central government and local government teams indicated appreciation for the use of economic valuation data to justify the need for sustainable management of ecosystem services. This was also demonstrated by the enthusiasm and commitment shown by state and non-state actors, as well as by representatives of resource user groups involved in economic valuation studies during data collection.

Increased interest in use of economic valuation data for decision making by planners, conservation managers, and the private sector

The use of economic valuation data to guide planning and decision making is appreciated by stakeholders. The use of such data also can help change the traditional paradigm that valuation studies are only meant for academic and research audiences as stakeholders too have an important role in advocating for improved management and conservation of ecosystem services and conservation areas. A practical case that demonstrated use of economic valuation data was a government of Uganda reversal of a decision to degazette part of a protected area for sugarcane growing (Box 2). Without that reversal, people would have continued to degrade and deplete biodiversity through their activities because they deemed it

more profitable and economically desirable to get short-term benefits, as long as the consequences of what can be lost for future beneficiaries are not well articulated.

Committed use of economic valuation data to guide conservation decisions and stimulate resource allocation would have multiplier effects of attracting interest from participation by protected area managers and other stakeholders if they know that their findings were of paramount importance in the planning, conservation, and private sector and can have an impact on biodiversity and ecosystem services conservation.

Investments in effective management planning provide sustainable benefits to on-site and off-site beneficiaries of ecosystem services from the conservation area

Benefits from effective management planning may not be realized in the short run. However, it is appreciated that investment in management planning will pay dividends later through efficient and effectively planned conservation and management of ecosystems. The indirect returns from investment in management planning are therefore expected to benefit people who directly and indirectly depend on the ecosystem services from a conservation area.

Linkages between economic valuation, management and conservation investment planning

The rapid economic valuation undertaken in Lake Nabugabo Ramsar Site and Mara Wetlands provided an opportunity to assess the value of ecosystem services in these sites and reinforced the need to strengthen management practices through management plans. CIPs, on the other hand, identified unfunded needs in the management plans and priority investment packages that should be targeted to enhance conservation. These linkages can be used to strengthen biodiversity conservation to achieve local, national, and regional natural resource management policy objectives as well as meet the regional and global obligations and commitments of the EAC countries.

7. Early Results Attributed to Implementation of Best Practices for Economic Valuation, Management Planning, and CIP in Lake Nabugabo Ramsar Site (Uganda)

A CIP in place guiding resource mobilization

The Uganda Wetlands Management Department has used the CIP to define fund allocation priorities within programs and projects that are being developed through the Ministry of Water and Environment. Nature Uganda has also used the CIP to redefine its partnership areas with the communities of Kalungu and Masaka. Although still early, reports by district technical teams in Butambala, Gomba, Kalungu, Masaka, and Mpigi indicate that the CIP is being used to guide implementation of conservation activities and is also being used to mobilize resources from donors for priority activities. This is because the CIP is viewed as an important reference document that identifies activities that are unfunded and yet well costed.

Increased resource allocation to the districts through conditional grants

The district local governments use funding under the Environment and Natural Resources District Conditional Grants that are disbursed quarterly by the Ministry of Finance, Planning, and Economic Development directly to districts to implement environmental conservation. The districts with approved management plans are provided with a fund increase of 10 percent while those without plans do not receive this increment. The Districts of Butambala, Gomba, Kalungu, Masaka, and Mpigi will therefore qualify for this increase since both the political and technical wings of the districts approved the plan and the plan is recognized by the Ministry of Water and Environment. The direct investments on interventions on wetland resource will improve the quality of both the wetland and the water resources of the BSA. Other interventions conducted will ensure the integrity of environment in the respective local governments are secured and maintained.

Box 2: Economic valuation of forest goods and services in the Mabira Central Forest Reserve

In 2007 the government of Uganda proposed to degazette part of the Mabira Central Forest Reserve for sugarcane production. The proposal was politically contentious, with community and conservation groups aligned against the proponents of agro-industry. To inform the debate, a TEV framework was applied to assess and compare the implications of the competing land use options. The biophysical attributes of the Mabira reserve and its area of impact were reviewed. The value of forest products and ecosystem services to the local population was assessed and compared to the economics of sugarcane production. The evaluation found that keeping the Mabira reserve under the existing land use of biodiversity conservation was a better option than sugarcane production.

The TEV framework applied to this well-defined local situation facilitated an informed decision-making process. It also brought to light important issues of compensation and subsidization. In the absence of the TEV framework, stakeholders were unaware of what they were losing and their entitlement to compensation for that loss, and the government was unaware of the implicit subsidies that it was offering to agro-industry.

Mainstreamed Nabugabo conservation priorities into District Development Plans

During management planning, the sub-county and district development plans were reviewed. The information generated from the management planning process was used by local governments to harmonize the sub-county plans with the District Development Plan and the Ramsar Management Plan. This kind of integration has ensured that district and sub-county priorities and budgets address resource allocation and sustainable use of the wetland resources.

Increased recognition of Lake Nabugabo Ramsar Site due to additional information

The management plan for the Lake Nabugabo Ramsar Site has added to the knowledge available on the site. For example, the plant studies found species with limited distribution in Uganda. These include *Leersia friesii*, in the Lake Nabugabo area and Wakiso district; *Brasenia schreberi* in Lake Nabugabo and Lake Bisina; and *Panicum brazzavillense*, *Heteranthoecia guineensis*, and *Andropogon laxatus*, which are found only in Lake Nabugabo. More areas with *Leersia friesii* were found within the extended Ramsar Site, increasing the known distribution range for the species. *Grewia woodsiana*, a species that has been known from Malawi, Mozambique, Tanzania, Zambia, and Zimbabwe, was found in an area surveyed and is a new species to Uganda. Only one specimen of this species was seen, yet it was growing in an area that is highly disturbed by clearing for cultivation and tree cutting for fuel wood. This provides valuable information and more recognition of the importance of the Lake Nabugabo Ramsar Site as a BSA.

Increased capacity of the district technical staff to lead on management planning

The approach to the planning process was inclusive, involving a “training of trainers.” The planning technical team at the Wetlands Management Department and Nature Uganda organized training sessions for the district technical teams on management planning. After the training, the trained technical teams were tasked to lead consultations at both district and sub-county levels. The capacity of the teams was built, and subsequent plan reviews will benefit from this capacity. Furthermore, the wetlands being of a transboundary nature (across different districts) and therefore managed by many district local governments, the management plan validation process helped the technical teams to understand concerns from other areas. This helped in fostering a sense of shared responsibility, with broader views and common management strategies for wetland management.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1 CONCLUSION

The potential uses of economic valuation, management planning, and CIPs by conservation area managers and other stakeholders to guide aspects of decision making and actions have a huge potential in East Africa and other regions, as demonstrated by early results from applying the tools in the Lake Nabugabo Ramsar Site. Application of the rapid economic valuation guidelines can be used to justify the monetary value of natural capital and the need to invest in conservation. The three studies contributed economic valuation data that justified the need for investing in the management and conservation of these sites because of their immense natural capital and their contribution to livelihoods through CIPs. This best practice note has highlighted the best approaches and tools and provided information needed to use them in BSAs.

As has been made explicit throughout this note, these tools must be designed and used with a specific purpose in mind. Application of the tools will be most useful, effective, and efficient when a clearly defined purpose for securing funding for management and conservation of ecosystem services is articulated based on an economic rationale for the benefits accrued to local, national, regional, and global communities.

8.2 RECOMMENDATIONS

The proposed recommendations can be used at national and regional levels by the LVBC and its partners to develop programs and projects with interventions that consolidate lessons and experiences from the economic valuation assessments, management planning, and CIPs to enhance the management and conservation of natural resources. The recommendations are as follows:

- Generate information and evidence supporting case studies on biodiversity and ecosystem values in biodiversity hotspots and fragile ecosystems and use this information to support management and conservation planning, building on the work carried out by the PREPARED Project.
- Develop an East Africa regional database of value estimates for key sites, services, and habitats, starting with LVB and rolling out to East Africa.
- Identify concrete incentives and financing mechanisms for enhancing conservation and management of the natural capital as articulated in economic assessment in different ecosystems in East Africa.
- Integrate valuation approaches and information into other policies, strategies, and plans that are being used to guide land, resource, and investment decisions.
- Develop and roll out a strategy to communicate information on economic values, management planning, and CIPs.

- Prepare policy briefs and fact sheets on economic assessments, management planning, and CIPs to provide guidance for enhancing conservation efforts in different ecosystems in East Africa.
- Strengthen technical capacity and awareness on the application of economic valuation assessments, management planning, and CIPs to conservation area decision making, management, and resource mobilization. This should include in-country training by the LVBC and other institutions on application of tools prepared under the PREPARED Project, such as the guidelines for rapid economic valuation of biodiversity and ecosystem and the guidelines on how to develop CIPs. A “training of trainers” approach could also have a significant impact on conservation in East Africa. Offer additional short courses that incorporate economic valuation techniques and management and conservation investment planning tools and make full use of the individual and institutional expertise and experience in biodiversity and ecosystem valuation and planning that already exists in the East Africa region to boost these capacity building efforts.

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LAKE VICTORIA BASIN COMMISSION

BEST PRACTICE AND LESSONS LEARNED

HOW ECONOMIC VALUATION, MANAGEMENT PLANS AND CONSERVATION INVESTMENT PLANS CAN SUPPORT CONSERVATION IN EAST AFRICA

