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BALANCING WETLAND SUSTAINABLE USE AND PROTECTION THROUGH POLICY IN RWANDA

POLICY RESEARCH BRIEF NO. 5

LAND PROJECT

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The author's 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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1. BACKGROUND AND INTRODUCTION

Rwanda has nearly 280,000 hectares of wetlands, almost 11% of the country's total area.¹ These wetlands provide critical habitats for wildlife and biodiversity, maintain important hydrologic processes that help to clean and protect ground and surface water, support a variety of local livelihoods and largely define Rwanda's idyllic undulating topography.² Despite their ecological and economic importance, Rwanda's wetlands are being degraded and lost faster than any other ecosystem, with projections suggesting a continued and increasing rate of loss due to climate change, competition for resources, and land use conversions.³ Currently, over half of Rwanda's wetlands are being used for agricultural use or energy production.⁴ Ongoing conversion of wetlands to agriculture, or for other economic activities, has increased in recent years due to a growing population competing for limited land resources of declining productivity.⁵ In order to protect a vulnerable and valuable ecosystem, Rwanda is presently seeking to formalize use procedures and sustainable wetlands management strategies through regulations, policies and plans.

To address wetland loss and degradation, land use planners and administrators are seeking to impose more rigorous restrictions on wetlands management and use. Policies, projects, incentives and regulations are being considered and developed to ensure protection, restoration and sustainable use. These new policies must balance human interest and land use with protection of biodiversity, wetland hydrologic function and the environmental integrity of vulnerable ecosystems.

In Rwanda, all wetlands belong to the State and several laws frame processes for wetland management and protection; however, there is a lack of clarity surrounding the procedures for determining uses of wetlands that ensure their long term sustainability. Without a clear mandate on how projects in wetlands should be approved from the government, there has been some lack of detail surrounding several key issues pertaining to wetlands use and protection, including: definitions of terms, land tenure and pre-existing freehold titles, public use of State land, and sufficiency of protection mechanisms. In spite of these issues, there is strong political will to improve and adapt wetland policies so that sustainable use balances conservation of wetland areas.

¹ Rwanda Environmental Management Authority (2010). *State of the Environment Outlook: Our Environment for Economic Development*. Under the Ministry of Natural Resources with funding from the United Nations Environmental Program.

² Throughout this report, wetlands, swamps or marshlands are used interchangeably.

³ Ramsar Convention Secretariat, 2010. *Wise use of wetlands: Concepts and approaches for the wise use of wetlands*. Ramsar handbooks for the wise use of wetlands, 4th edition, vol. 1. Ramsar Convention Secretariat, Gland, Switzerland.

⁴ Rwanda Environmental Management Authority (2010). *State of the Environment Outlook: Our Environment for Economic Development*. Under the Ministry of Natural Resources with funding from the United Nations Environmental Program

⁵ Rwanda Environmental Management Authority (2009). *Rwanda: State of the Environment and Outlook Report*. Kironde, Elizabeth: ed. Ministry of Natural Resources. Kigali, Rwanda.

2. OBJECTIVES AND METHODS

This research examines current wetland policies, as well as draft legislation being considered to formalize use approval procedures.

The specific objectives of this brief are to:

- determine policies, laws and regulations that currently govern use, protection and tenure of wetlands in Rwanda;
- explain inconsistencies between definitions in policies, and their impact on effective wetlands management;
- explain processes in practice for leasing wetland by government entities;
- analyze some of the major issues or contestations that surface around wetlands in terms of their use, tenure, and protection;
- provide recommendations for policy and practice that help to reduce poverty, protect land rights, and ensure sustainable land use and conservation of wetlands.

This brief attempts to provide a discussion that will help improve sustainable wetland management strategies now and over time.⁶

Following a consideration of the limitations of existing and draft policies, the brief offers a review of best practices from other countries that offer possible solutions for some of the issues facing Rwanda's own wetlands management approach. Finally, the brief offers a series of recommendations that could be considered to strengthen a final wetland policy to ensure sustainable wetland use.

Information for this brief was gathered from a review of existing laws, ministerial orders, sector policies, governmental environmental reports and statements from interviews with key informants within relevant ministries and agencies, District environmental and agricultural officers, non-governmental organizations, agricultural cooperatives and private companies.⁷ Best practices to inform policy recommendations were collected from a desktop review of secondary source literature and existing policies within other African countries.

3. EXISTING WETLAND USE AND PROTECTION POLICIES

Rwanda is developing and strengthening programs and policies to ensure sustainable land use and responsible resource management. Consequently, it is continually updating formal procedures to plan, program and manage its land resources, including the sustainable and productive use of its wetlands. Many current policies or regulations are relatively new and their effects are just beginning to be understood, while other policies have yet to be developed. While a wetland policy is to be formulated, there are several laws, policies and conventions that aim to ensure wetlands are conserved and protected in Rwanda.

⁶ This brief also respects that the Government of Rwanda is in the process of reviewing a wetlands use policy in the form of a draft Prime Minister Order, which is mentioned and included as part of the analysis throughout this brief. Wetlands policies and management strategies will continue to evolve in the future, as better information becomes available, or as national priorities change.

⁷ A list of interview questions and key informants is provided in ANNEX I and II.

3.1 National Laws

Before 2005, people gained rights to land primarily through a customary system of inheritance, sale or donation.⁸ The Rwandan Constitution, adopted in 2003, obligated the government to determine legal frameworks for land tenure reform and governance. Two years later, Rwanda adopted the Organic Law on Land (2005) that set official procedures for systematically granting private land rights through long-term emphyteutic leaseholds registered to individuals. Land not designated as private property was assigned to the State, including wetlands. While Rwanda's laws are not specific on how wetlands should be managed, current use procedures are couched within several existing policies that are not explicit to wetlands, but that do offer a framework for their use and protection.

- The Organic Law on Land (2005) has been repealed and replaced with the Land Law (2013). The two laws are substantially similar when it comes to provisions on wetlands use and protection. The present law confirms that wetlands are still the domain of the State, and a distinction is made between protected wetlands under public State domain and unprotected wetlands under private State domain. Under the law, use of wetlands may be granted to individuals, based on an agreement with the government. The law stipulates that a Prime Minister Order will provide the terms of wetland uses by individuals and modalities for their protection. While a draft of this order exists, it is not yet approved.⁹ Until a Prime Minister Order is officially adopted, wetland uses are governed by existing laws and orders determining public use of State land.
- The Organic Law on the Environment (2005) provides the strongest protection measures for Rwanda's natural resources and assets. Several provisions are specific to wetlands, including prohibited uses in wetlands and prohibitions on dumping waste in and burning of wetlands.¹⁰ The law also requires that the use of wetlands shall be subject to a prior Environmental Impact Assessment. Through the law, the State is responsible for identifying reserved wetlands for purposes of protection, conservation, and rehabilitation.¹¹ Decentralized government entities are responsible for determining efficient management and effective use of wetlands. In terms of limiting activity within wetlands, the law prohibits development within 20 meters from wetland boundaries by setting a buffer zone that restricts structures within proximity to wetlands. If structures in wetlands are deemed necessary for tourism, the Organic law stipulates the Minister with environment under their responsibility will grant approval to build a structure. In protected wetlands, the law prohibits all uses, apart from scientific research.

⁸ Interview with Environmental Officer from the Rwanda Natural Resource Authority (2015)

⁹ Law No. 43/2013 of 16/06/2013 governing land in Rwanda. Article: 12, 14 and 19.

¹⁰ Organic Law No 04/2005 of 08/04/2005 determining the modalities of protection, conservation and promotion of environment in Rwanda, Articles: 9, 17, 19, 30, 38, 52, 85, 86, and 87.

¹¹ The law does not define 'reserved' or make provisions for how those are identified. There is no subsequent distinction for protected and unprotected wetlands in the Organic Law on the Environment (2005).

3.2 Sector Policies

In addition to laws, several national guidelines and policies direct land managers and administrators in national wetlands management strategies. These policies provide the foundation for framing national goals and objectives related to land use and the environment.

- **The Land Policy (2005) places swamp land as a special category of public land to be used with adequate planning.**¹² In terms of wetlands management, the policy stresses maximizing the quantity of arable land and agricultural productivity while respecting wetland areas to be protected for national interest. The policy also justifies the placement of wetlands in the tenure domain of the State to minimize subdivision of land through generational transfer that would undermine larger scale agricultural investments and productivity. While there are provisions for allocating wetlands to individual farmers, the policy seems to favor larger agricultural enterprises.
- The Environmental Policy (2004) is less specific in terms of the purpose of conserving wetlands. Instead, the policy acknowledges that traditional wetland use has been poorly conceived and lacks organization or objective. It calls for elaboration of a formal wetlands policy and master plan, and a national wetlands inventory that distinguishes between protected and unprotected wetlands acceptable for human use. Finally, the policy reiterates the importance of placing all wetlands under the tenure domain of the State.¹³
- The National Policy for Water Resources Management (2011) was established to promote the sustainable use of water resources. However, it lacks strong provisions for wetlands. Its primary focus is on surface water bodies, such as streams, rivers, lakes, plus groundwater. The elements of the policy that address wetlands recommend that end users assume management responsibilities, with the government's role being to create an enabling environment through incentives, regulations and procedures as opposed to acting as a project implementer. The policy also suggests that the economic value of wetland should be used to determine approvals for projects in wetlands; however, the policy does not stipulate whether ecosystem services is to be included in addition to traditional cost-benefit valuations.¹⁴

3.3 Governing Bodies

Within existing laws, responsibility for implementing wetland management activities is delegated to the Ministry with lands or the environment under their authority. Currently, the Ministry of Natural Resources (MINIRENA) develops and implements policy and legislation regarding land use and environmental protection, and thus, oversees wetland management activities. Under MINIRENA, two subagencies have

¹² Ministry of Natural Resources (2004). *National Land Policy*. Government of Rwanda, Kigali, Rwanda.

¹³ Ministry of Natural Resources (2004). *National Environmental Policy*. Government of Rwanda, Kigali, Rwanda.

¹⁴ Ministry of Natural Resources (2011). *National Policy for Water Resources Management*. Kigali, Rwanda.

separate mandates to manage and protect the environment. The Rwanda Natural Resources Authority (RNRA) is responsible for land use planning and management of water, forest and mineral resources, whereas, the Rwanda Environmental Management Authority (REMA) oversees compliance with environmental regulations and approves environmental impact assessments.

In practice, the Ministry of Natural Resources coordinates with the Ministry of Agriculture and Animal Resources (MINAGRI) to review and approve proposals for agricultural uses in wetlands; however, formal requirements for this coordination only exist within a ministerial order outlining procedures for approving irrigation projects.¹⁵ For larger agricultural projects, MINAGRI and MINIRENA coordinate proposal reviews and project approvals, although it is unclear what the regulatory requirements for coordination are, or what the project size must be to initiate interagency coordination.

The Organic Law on the Environment (2005) also stipulates that decentralized entities oversee the management and use of wetlands, but until a formal Prime Minister Order is adopted to determine wetland use modalities, those responsibilities have yet to be specified or declared.

4. LIMITATIONS AND CONSIDERATIONS

In the absence of a formal set of procedures to determine the use of wetlands, current management strategies operate under the limited provisions afforded by existing policies and ministerial orders determining protections for the environment, land use policy and tenure reforms. Since these policies are not specific to wetlands, management approaches vary as provisions for wetlands within existing laws are not consistently interpreted by land administrators, particularly at decentralized levels of government. Of the draft policies currently being considered, a lack of detail is still apparent, possibly due to the need to accommodate competing interests between wetland use and protection.¹⁶ The following section examines some of the limitations of current and draft policies in terms of wetlands management and considerations for future wetland policies.

4.1 Common Understandings

Some policy limitations arise within the terms used to define the area that emerges between land and water. Translations, terminology and various uses give rise to multiple interpretations of wetlands policies and use restrictions, and in identifying wetland boundaries. The terms ‘wetlands,’ ‘swamps’ and ‘marshlands’ have all been used to refer to these saturated areas. In Kinyarwanda, a single term, ‘ibishanga,’ defines these lands. Draft policies make it clear that all terms are to be used synonymously, although separate understandings of these terms still create

¹⁵ Ministerial Order No001/11.30 of 23/11/2011 establishing irrigation water users associations in irrigation schemes.

¹⁶ Some draft policies are reviewed in this policy brief, since some are of their provisions are indications of governmental intention and do provide some insight into what may be in a future approved policy.

multiple interpretations of existing laws.¹⁷ For example, some environmental officers believe marshlands are allocated for cultivation and agriculture, whereas wetlands are protected and unavailable for use.¹⁸ Confusion can also arise from translations of terms between French, English and Kinyarwanda.

Ambiguity surrounding different terms has led to debates on the delineations of wetlands boundaries during national land use planning and mapping exercises. Wetland areas naturally fluctuate due to seasonal ground and surface water presence and annual precipitation. Floodplains, for example, can be large wetlands that persist for months at a time or that may only exist in wetter years. During the Land Tenure Regularization program (2009 and 2011), for example, wetland area identification caused disputes about what was and was not State land, especially in areas where people were already living. Several of these disputes were taken to the courts to decide whether the land was a wetland, or whether private land rights should prevail.¹⁹ Disputes were decided case by case, depending on the land classification. Without a clear definition, however, natural fluctuation in wetlands areas makes it difficult for dispute mediators, land use planners and policy makers to decide where State land starts and stops.

4.2 Governing Bodies

Institutional responsibilities for managing wetlands are not clearly stipulated in existing policies.²⁰ In current practice, MINIRENA is the governing body for wetlands and is in charge of their identification, mapping, developing management policies and classifying which wetlands can be used for which purposes. While existing policies also do not require approval for agricultural use in wetlands from MINAGRI, current practices do coordinate agricultural proposal reviews and approvals between MINIRENA and MINAGRI.²¹ Even though at the national level, MINIRENA assumes wetland management responsibilities, District level land administrators also report granting approval for wetland use. Draft policies being considered identify the Ministry with environment and lands under their responsibility as the governing body over wetlands, with the authority to delegate responsibilities to decentralized entities. Responsibilities at decentralized levels, however, are not defined or do not identify responsible authorities. For example, unprotected wetlands are to be managed by ‘the competent organ in compliance with the purpose for which such swamps are

¹⁷ Definitions in relevant policies: Land Law 2013: Article 2.3: swamp: a plain area between hills or mountains with water and biodiversity, and where papyrus or carex or plants of their species grow; Organic Law on the Environment 2005: Article 4.5: a swamp is a flat area between mountains with much stagnant water and biodiversity, with papyrus, cypress or other vegetation of the same family; a wetland is a place made up of valleys, plainlands and swamps.

¹⁸ Interview with Agricultural Officers in MINAGRI and Environmental Officers in Nyarugenge District (2015).

¹⁹ Interview with Former Senior Environmental Engineers in the Ministry of Natural Resources (2015).

²⁰ The Organic Law on the Environment (2005) does task the Ministry with the environment under their responsibility with approving structures in wetlands for tourism purposes

²¹ Interviews with Environmental Officers in MINIRENA, Agricultural Officers in MINAGRI and Environmental Officers in Kamonyi, Gisagara and Nyamashoke Districts (2015). A 2011 ministerial order (Ministerial Order No001/11.30 of 23/11/2011 establishing irrigation water users associations in irrigation schemes) does require MINAGRI approval for irrigation projects in wetlands, with terms of approval outlined through an Irrigation Management Transfer agreement. Since this ministerial order predates the Land Law (2013), there is no need for irrigation schemes to be in line with or refer to wetlands use agreements or leases, even though terms of wetland use agreements may sharply affect irrigation projects. The ministerial order, to be adopted on wetland use modalities, should refer to provisions for irrigation agreements when deciding lease terms and use agreements.

earmarked.²² Generalizations about which authority uses wetlands may grant management authority to a number of different entities, weakening the ability of a central authority to ensure wetland uses are sustainable.

4.3 Classification and Approved Uses

Criteria to determine wetlands classifications is also not provided in existing or draft policies, which may leave wetlands vulnerable to vague terms of classifications, conditions or approved uses. In 2010, a ministerial order was adopted that listed all swamps, their area, location and designation for uses, restricted under protected, conditional use or unconditional use. The order, however, does not provide clarification behind the meanings of each designation.²³ A draft Prime Minister's Order outlines activities that can be authorized in wetlands, which include: crop farming, livestock farming, energy development, scientific research and environmental protection activities.²⁴ However, no official procedures for how to classify each activity accompany the list of approvable uses. The draft order provides a definition of conditional and non-conditional use, but does not go so far as to inventory which wetlands can be used for which purposes.²⁵ Ambiguity around approvable uses of wetlands significantly weakens protective provisions by putting wetland use approvals at the discretionary judgment of local land administrators who may define uses broadly.

4.4 Environmental Impact Assessments

Several policies stipulate a requirement of an Environmental Impact Assessment (EIA) for activities in wetlands; however, it is unclear which projects require EIAs, as EIA requirements are inconsistently stated across different pieces of legislation. The Organic Law on the Environment (2005) states all projects using wetlands require an EIA.²⁶ The 2010 Ministerial Order establishing wetland use procedures states only swamps that must be used under specific conditions need an EIA, although no definition of 'specific condition' is provided.²⁷ Projects of a larger scale, which could be a matter of size in area, investment or site disturbance, are required to submit EIAs, although it is unclear what the threshold of the project size is to trigger the need for an EIA.²⁸ The EIA requirement is still largely unclear and does not offer specific guidance on which projects in wetlands are obligated to go through the process.

²² Ministry of Natural Resources (2015). *Draft Prime Minister's Order establishing the list, classification and boundaries of swamps and setting up modalities for use, development and management thereof*. Presented as draft in July, 2015.

²³ Ministerial Order No 008/16.01 of 13/10/2010 establishing the list of swamps and their limits and regulating their management and use.

²⁴ Ministry of Natural Resources (2015). *Draft Prime Minister's Order establishing the list, classification and boundaries of swamps and setting up modalities for use, development and management thereof*. Presented as draft in July, 2015.

²⁵ Nielsen, Robin (2014). *Draft Prime Minister Order on Use, Development, and Management of Swamp Land in Rwanda*. Kigali, Rwanda: USAID, LAND Project.

²⁶ Organic Law No 04/2005 of 08/04/2005 determining the modalities of protection, conservation and promotion of environment in Rwanda.

²⁷ Ministerial Order No 008/16.01 of 13/10/2010 establishing the list of swamps and their limits and regulating their management and use. (Since the 2010 ministerial order refers to an appealed organic law on land, it is unclear whether the EIA requirement for wetlands use under this order is currently active.)

²⁸ Ministerial Order No 004/2008 of 15/08/2008 establishing the list of works, activities and protects that have to undertake an environment impact assessment.

4.5 Protection, Use and Tenure

The foremost purpose of wetlands policies should be to ensure adequate protection of environmentally sensitive areas. Finding the middle ground between use and protection can be a challenge, especially when many wetlands that present attractive agricultural or energy generation opportunities risk being degraded.²⁹ Even though environmental policy is commonly a balancing act between protection and use, wetland policies should be specific enough so that administrators working to achieve national energy or agriculture goals do not approve unsustainable uses that risk wetland degradation.

Protection and Restoration

Current draft policies tend to be geared more towards determining processes for use than protection. Even articles designed for protection provide room for reallocation of protected wetlands for the public good at the discretion of the Ministry of Natural Resources. A draft Prime Minister's Order determining procedures for wetland use does not even list conservation or sustainability as an explicit purpose of the policy.³⁰ Details surrounding why a wetland would be classified as protected are also lacking, which denies land administrators clear guidance on how to decide which wetlands need to be protected and for what purpose.

In some cases, retroactive governmental policy has been developed and action taken to protect and restore wetlands where pre-existing uses were not in line with environmental regulations. In the City of Kigali, for example, industrial uses in the Gikondo wetlands were approved and constructed prior to the enactment of the Organic Law on the Environment (2005). Following the transfer of wetlands to State domain, and the establishment of a Special Economic Zone (SEZ), the Ministry of Trade and Industry drafted a policy to relocate businesses from the Gikondo wetland to the SEZ, with substantial incentives offered to businesses in the form of new buildings, coverage of moving expenses and access to other land outside of the SEZ for business relocation.³¹ Environmental conservation and wetlands protection is clearly stated as one of the primary purposes of the policy. The program's hefty incentive price tag is an example of clear commitment to aligning land uses with environmental conservation and protection policy.

Lease and Competitive Bidding

²⁹ Chemonics International Inc. (2008). *Rwanda Environmental Threats and Opportunities Assessment (ETOA) 2008 Update*. Under the: Biodiversity Analysis and Technical Support for USAID/Africa, funded by the U.S. Agency for International Development, Bureau for Africa, Office of Sustainable Development. EPIQ IQC Contract No. EPP-I-00-03-00014-00, Task Order 02.

³⁰ Ministry of Natural Resources (2015). *Draft Prime Minister's Order establishing the list, classification and boundaries of swamps and setting up modalities for use, development and management thereof*. Presented as draft in July, 2015.

³¹ Official Gazette No 19 of 07/05/2012. Instructions of the Minister of Trade and Industry No 15/2012 f 23/04/2012 Related to the Relocation of Factories and Other Facilities Located in the Gikondo Industrial Park.

The Land Law (2013) stipulates a Prime Minister Order shall be put in place to determine the modalities for the development and management of wetlands, including procedures to approve wetland use. While a draft Order has been developed, leasing procedures presently follow rules established by a Ministerial Order of 2008 determining rules for public leasing of State land.³² In the absence of formal wetland use procedures, many applications for use of wetlands have been put on hold while land administrators wait for clear direction.³³ Draft policies suggest different procedures for determining uses, including project proposals and use agreements, as well as competitive bidding and lending, with and without fee structures. Enabling projects to be proposed to the government would allow some private sector decision in wetland uses and management, although projects may not necessarily align with national agricultural goals to increase productivity on a larger scale. The second approach involves competitive bidding, with projects predetermined by the government. This approach ensures that the government retains control of development in wetlands and can design the scale and scope of each project. While competitive bidding enables the government to ensure sustainable use, it may also stifle private investment, innovative uses or restrict public participation in land use policy and practice.

Tenure and Land Rights

Prior to the Organic Law on Land (2005), people could own property in wetlands and some were granted freehold titles through sector leaders in charge of handling land claims. Now, the government faces a need to reclaim this property, but lacks a comprehensive process and the funds to expropriate these land owners with freehold titles in compliance with the Expropriation Law (2015).³⁴ The policy and incentives applied to the relocation of businesses in the Gikondo wetlands to the SEZ have not yet been developed for individual wetland freehold title holders across the country.³⁵ Disagreement on expropriation obligations also exists amongst government agencies, with debates centered on whether State requisition of wetlands triggers expropriation and compensation requirements.³⁶ Until a wetland policy is drafted and approved, or until funds are available for the expropriation of pre-existing title holders, de facto permission to use wetlands is being extended to some individuals, with no clarity of relocation terms, or long term security of land rights.³⁷

Disputes over wetland tenure also emerged during the Land Tenure Regularization program (2009-2011) and subsequent issuance of land titles. During parcel registrations, wetlands classifications placed some areas claimed by private individuals under State domain. Many disputes were logged by regularization administrators when persons contested the classification of land they had long inhabited as wetlands. A re-evaluation of the classifications found many individuals' claims were valid, and land titles were issued while wetland boundaries were redrawn. In other cases, claimants were unsuccessful and the wetlands classification was

³² Ministerial Order No 001/2008 of 01/04/2008 Determining the Requirements and Procedures for Land Lease

³³ Interview with former Senior Environmental Engineer, MINIRENA (2015).

³⁴ Law No 32.2015 of 11/06/2015 relating to expropriation in the public interest.

³⁵ Interview with Vice Mayor of Economic Affairs, City of Kigali (2015).

³⁶ Interview with Vi

³⁷ Interview with Former Senior Environmental Engineer, MINIRENA (2015).

retained. These individuals did not receive land titles and were displaced from the land they claimed without compensation. These issues may recur if mapping exercises in the future redraw wetland boundaries and areas where people claim land rights are reclassified as wetlands.

5. BEST PRACTICES

Globally, wetlands are being degraded and lost faster than any other ecosystem. In response, wetland management strategies, policies and programs are becoming an increasingly important priority.³⁸ In addition to Rwanda, other African countries face similar wetlands management issues and have adopted formal wetlands policies or embedded wetland provisions within land use or agricultural projects, policies and plans. International treaties also offer substantial technical information and guidance for the development of strong and effective policies according to local contexts and wetland types. Finally, regional initiatives help to align and coordinate wetlands policies where wetlands transcend national borders. By considering how other countries have addressed these issues, incorporating international guidance, and coordinating with regional wetland and watershed managers, Rwanda has an opportunity to draw on the strengths of other approaches to develop an effective policy that addresses issues related to maximizing sustainable use, protecting land rights and ensuring long term wetland conservation.

Uganda

Uganda was the first African country to develop a formal wetlands management policy. Disputes in the early 1970s over wetland status and management domains left many of Uganda's wetlands at the whim of 99 year lease holders who were the first to apply for rights to the land. Use of this land was largely unregulated and lacked any form of effective enforcement to ensure that wetlands were not drained to create additional agricultural land. In response to environmental degradation and reductions in land productivity, Uganda wrote new environmental regulations to protect sensitive areas. In the early 1990s, Uganda began drafting strict environmental controls, including the National Environmental Management Policy (1995) and the National Policy for the Conservation and Management of Wetlands (1995), commonly known as the National Wetlands Policy.³⁹

The strength of Uganda's policy is that it was created with implementation in mind. Two primary elements contribute to its success. First, national policymakers engaged multiple local stakeholders from the beginning while drafting the policy, so that their insights and knowledge meaningfully informed the policy. Since the policy was drafted in close consultation with District Development Committees and village leaders, implementation of the policy has been largely decentralized. Local authorities work with village councils to establish land use development plans and have a vested interest in achieving goals and protecting local livelihoods. Proposed projects are also

³⁸ Ramsar Convention Secretariat, 2010. *Wise use of wetlands: Concepts and approaches for the wise use of wetlands*. Ramsar handbooks for the wise use of wetlands, 4th edition, vol. 1. Ramsar Convention Secretariat, Gland, Switzerland.

³⁹ Ministry of Natural Resources (1995). *The National Environmental Management Policy & The National Policy for the Conservation and Management of Wetlands*. Republic of Uganda.

required to include social impacts as a part of an Environmental Impact Assessment. This requirement was instrumental in securing widespread support for the policy since it ensures that communities are not adversely affected by projects vying for wetlands use.

Botswana

Revenues derived from tourism from the Okavango Delta have given Botswana strong incentives to protect its wetlands. The Botswana Wetlands Policy and Strategy (2000) stresses raising public awareness on wetlands conservation and management and building capacity for local land managers and wetland users. The policy provides important wetlands protections that are easy to implement within the country's national parks. However, wetlands elsewhere are vulnerable to agricultural encroachment and some wetland areas are still being lost due to increasing competition for land. The policy also lacks sufficient implementing mechanisms to support conservation. For example, the policy calls for dedicated funding for wetlands management, but misses an opportunity to commit a portion of tourism revenues to support wetlands protection, leaving policy implementation poorly funded.⁴⁰

Senegal

In the early 1970s, Senegal's government established a national park along the Senegal River to protect fragile wetlands, resulting in the expropriation of rural communities. Several years later, the government constructed a dam upstream from the park for navigation and irrigation that devastated the park's ecosystems and river flows as well as ruined large areas of arable land. In response to conflict that erupted between displaced communities, poor farmers and park managers, the government instituted a new management approach that restored local use of the land surrounding the park by involving the community in managing the park and enforcing park regulations. With active community participation in park management, from guiding tourists to enforcing unlawful hunting or use of park land, the new management approach has restored community and park management relationships and contributed to the protection of the park's natural resources.⁴¹

Zambia

In Zambia, principles of sustainable use and protection of wetlands are integrated into the Irrigation Policy and Strategy (2004), which governs irrigation practice among smallholder and commercial farmers.⁴² The policy sets limits on subsistence and commercial farmers' use of seasonal wetlands (dambos), which irrigate and increase

⁴⁰ Chase, Michael (2011). *View from the Top*. In: *Africa Geographic* (August, 2011). Contributed by: Elephants without Borders.

⁴¹ Diouf, Amadou Matar (2002). *Djoudj National Park and Its Periphery: An Experiment in Wetlands Co-Management*. Ed: Gawler, M. *Strategies For Wise Use Of Wetlands: Best Practices In Participatory Management. Proceedings of a Workshop held at the 2nd International Conference on Wetlands and Development (November 1998, Dakar, Senegal)*. Wetlands International IUCN, WWF Publication No. 56, Wageningen, The Netherlands.

⁴² Ministry of Agriculture and Cooperatives (2004). *The Irrigation Policy and Strategy: A Strategy for the Development of Zambia's Irrigation Sector*. Prepared by the National Consulting Team and the Food and Agriculture Organization (FAO). Government of the Republic of Zambia.

growing potential for short season, high value crops. By establishing a use regime that maintains seasonal use of the wetland areas while also ensuring their long term protection, Zambia has been able to leverage poverty reduction opportunities from environmental conservation projects.⁴³

Tanzania

In Tanzania, only wetlands situated within national parks are protected. Tanzania's wildlife resources attract considerable tourism revenues, creating an economic incentive for the government to protect wetlands that sustain wildlife habitats. While no formal wetlands policy exists, the Ministry of Natural Resources and Tourism acknowledges the lack of protection for wetlands outside of parks and is working with other government stakeholders to integrate wetlands protection into agricultural, fishery and rural development policies and actions by assigning economic value to wetlands protection and using this to guide management decisions. The Ministry is looking to establish a National Wetlands Program that will establish a holistic system of valuing and protecting wetlands that will take into account wildlife, agricultural, energy and rural development priorities.⁴⁴

International Conventions

Rwanda is a signatory to the Ramsar Convention, an international agreement guiding countries on the use and management of wetlands. The convention articulates country commitments to conserve and promote sustainable use of wetlands. Although originally designed for the protection of waterfowl migratory habitats, the mandate of Ramsar has since grown to embrace protection of wetlands for their economic, cultural, ecological, scientific and recreational values. The convention serves to promote the wise use of wetlands, or “the maintenance of ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development.”⁴⁵ Ecological character includes the processes, components and benefits that characterize wetlands, respecting that wetlands are all unique and serve many different purposes and users. When joining the Ramsar Convention in 2006, the Rwanda Environmental Management Authority (REMA) dedicated the Rugezi wetland, in northern Rwanda, as a Ramsar site after rehabilitating the wetland to support local livelihoods and generate electricity.⁴⁶ By signing the Ramsar treaty, Rwanda makes a commitment to developing policies, regulations and actions to protect wetlands and ensure their sustainable use, as well as periodically reporting on its progress in implementing this commitment.

⁴³ McCartney, Matthew, Rebelo, Lisa-Marie, Sellamuttu, Sonali, de Silva, Sanjiv (2010). *Wetlands, agriculture and poverty reduction*. International Water Management Institute. Research Report 137. doi: 10.5337/2010.230. Colombo, Sri Lanka.

⁴⁴ Ministry of Natural Resources and Tourism, Wildlife Division (2003). *Sustainable Wetlands Management (2004 – 2009)*. Prepared with the Ministry of Foreign Affairs and DANIDA. Ref: No.104.Tanzania.1.MFS.23.

⁴⁵ Ramsar Convention Secretariat (2010). *Wise use of wetlands: Concepts and approaches for the wise use of wetlands*. Ramsar handbooks for the wise use of wetlands, 4th edition, vol. 1. Ramsar Convention Secretariat, Gland, Switzerland.

⁴⁶ International Union for the Conservation of Nature (2014). *Protecting Wetlands to Sustain Human Life*. Article: July 16, 2014. Website: http://www.iucn.org/knowledge/focus/supporting_human_life/217117/Protecting-wetlands-to-sustain-human-life

Regional Initiatives

Rwanda's Ministry of Natural Resources also participates in the Nile Basin Initiative (NBI), a consortium of countries that contain areas of the Nile River watershed which stretches from headwaters in Rwanda, Burundi and Tanzania to the river delta in Egypt. In 2013, the initiative developed a wetlands management strategy to harmonize management approaches across each country.⁴⁷ Consistent wetlands conservation practices help ensure that the Nile River is able to sustain all the different users that use and depend on it, including animals, plants and people. Active participation in this group means a wider range of management practices are considered by Rwanda and reinforces recognition of the downstream impacts of Rwanda's wetlands. In addition to strengthening advocacy efforts and developing a basin-wide approach, the NBI promotes managing wetlands as ecotones,⁴⁸ accommodating their natural fluctuations and constantly changing nature.

6. RECOMMENDATIONS

In Rwanda, a wetlands policy is needed, one that will balance productive use and conservation objectives to ensure that wetlands are not degraded or lost. This calls for institution of a comprehensive process for evaluating proposed projects and only approving those that are environmentally sustainable and support local livelihoods, even whilst they may simultaneously support national agricultural and energy goals. For implementation to be effective, the policy should be drafted to ensure that communities that live near and work in wetlands have a substantial stake in their management and are in a position to offer their knowledge on wetlands processes, attributes and character to ensure better management.

6. 1 Ensuring Sustainable Use

So that wetlands are productive now and in the future, policies need to ensure that uses of wetlands today do not damage or degrade uses in the future. If wetland damage becomes apparent, the policy should provide a system for detecting and restoring the wetland so that it is not permanently lost. A final wetland policy should incorporate provisions for close monitoring and enforcement, as well as motivate users to ensure wetlands are not degraded through their projects.

Monitoring and Enforcement

To ensure against wetland degradation, a new policy should articulate strong measures to deal with projects that are not compliant with use agreements or inflict damage on wetlands. The draft Prime Minister's Order outlines monitoring and evaluation procedures, which could be strengthened so that monitoring results trigger

⁴⁷ Nile Basin Initiative (2013). *Wetland Management Strategy*. Chairperson of Nile Council of Ministers, Republic of South Sudan.

⁴⁸ A transition area between two biological communities.

enforcement of use restrictions and restoration activities in cases of degradation. Equipping a strong inspection team with the resources needed to monitor wetlands, collect data on wetlands condition, and record uses in wetlands would facilitate compliance with use agreements and help wetland users better understand boundary fluctuations, gauge condition and act quickly when degradation becomes apparent. A monitoring system would also be able to create a robust source of data that could be used to improve wetland management strategies over time.⁴⁹

Some monitoring responsibilities should be delegated to District and Sector environmental officers so that quick site visits can be made to check conditions and ensure regulatory compliance of projects. Yet, many District and Sector offices are already stretched thin and typically do not have the resources or capacity to collect and process technical environmental data. To account for this, the majority of monitoring responsibilities should be delegated to an experienced wetlands inspection unit within MINIRENA and REMA, which is equipped to manage data on wetlands use and conditions over time at a national scale. Within the City of Kigali, monitoring and enforcement is effectively performed by REMA. A recent result of such monitoring put a halt on the renovation of Kigali's golf course due to non-compliance with terms of the project's EIA.⁵⁰ A similar level and quality of monitoring rigor needs to be afforded to wetland use projects across all provinces as well.

Incentives and Penalties

The draft Prime Minister's Order also suggests the use of incentives and penalties to motivate sustainable use and regulatory compliance. Incentives may be in the form of lease extensions, lease rate discounts or monetary rewards for projects that contribute to enhanced wetlands sustainability, restoration or other conservation activities. Incentives should be tailored specific to each project and included in use agreements before project initiation. Penalties should be geared to prevent wetland degradation or loss. Penalties issued for non-approved uses or degradation could include fines, revocation of use agreements, and, in serious cases even imprisonment, but should be stringent and consistent across all wetlands use projects. The use of incentives and penalties requires extensive monitoring so that rewards or fines are issued fairly and appropriately.

To ensure that wetlands management activities are properly resourced, fees generated by wetlands leases and penalties should be reinvested in monitoring, incentives and restoration activities. Fees and penalties often roll back into general government funds or are reallocated for non-related purposes, which could leave wetlands underfunded and ill-equipped to ensure sustainable use and protection. Additional funds, outside of lease fees and fines, may be necessary to ensure that wetlands management activities are adequately resourced. Supplementary funding could come from taxes on revenues generated from wetland uses and tourism, for example. Ideally, wetlands management activities would be fully funded from its own regulatory structure and use activities.

⁴⁹ Shine, Claire and de Klemm, Cyrille (1999). *Wetlands, Water and the Law. Using law to advance wetland conservation and wise use.* IUCN, Gland, Switzerland, UK and Bonn, Germany.

⁵⁰ Nkurunziza, Michael (August 24, 2015). *Works on golf course suspended as REMA warns against encroachment of wetlands.* The New Times, Kigali, Rwanda.

6.2 Creating a Comprehensive Process

A final wetland policy should outline a clear and comprehensive process for allocation of wetlands that is easily understood and can be implemented consistently by the responsible authorities. The process for selecting and approving projects could incorporate both competitive tenders in response to government procurement needs as well as calls for open proposals from private interests. A formal wetlands policy and inventory should be outlined with sufficient detail and clear terms so that ambiguity does not plague approvals or policy implementation.

Defining Terms and Classifying Wetlands

All policies should begin with clear definitions of the terms used throughout the legislation. These definitions are critical for understanding what the purpose of the policy is and how it is intended to work. Confusion could be eliminated by using the single Kinyarwanda term, 'ibishanga,' that is widely understood at local levels and amongst all users. The definition used to define ibishanga should also be written so that translations between English, French and Kinyarwanda are consistent. Additionally, definitions should be provided for each use, for each wetland classification, for protected and unprotected wetlands, and for terms used within use agreements. Spelling out wetland classifications, uses and processes to approve uses with thorough detail will help ensure local land administrators are managing wetlands consistently and that wetlands are offered substantial protection from inconsistent project approvals due to multiple interpretations of the law by local land administrators.

The Land Law (2005) directs that a Prime Minister's Order be established to inventory and classify all wetlands.⁵¹ Equipping this inventory with sufficient detail on wetland boundaries and classifications will help ensure appropriate uses are assigned to wetlands and restrictions are enforced. This inventory should be made easily accessible to the public, with boundaries identified, allowable uses within each wetland, protection status and the responsible management entity (if the present management authority devolves this responsibility to decentralized levels of government). The wetland inventory could provide the basis for land use plans and approvals of governmental projects and private investments.

Meeting Public Needs and Private Interests

A draft Prime Minister's Order suggests two separate processes to approve projects in wetlands: competitive bidding and open proposal submissions. To satisfy public and private needs and interests, a final policy should provide clear terms for each process. To meet governmental needs to achieve national development goals, some wetlands may be set aside for specific public infrastructure, energy, or agricultural projects. These wetlands should be identified within an inventory of wetland classifications provided by MINIRENA and programmed by the District within District

⁵¹ A draft form of this Prime Minister Order is currently being considered, at the time this brief was developed (August, 2015).

Development Plans. The implementation of these programs could be done through competitive bidding, with tenders issued through an established public procurement process. In the final policy, responsibilities of each governing entity should be clearly stated at each step of the planning, competitive bidding, use agreement and monitoring process.

Wetlands not committed for government projects and not designated protected could be open to project proposals in line with the wetlands inventory. Under this scenario, private companies, non-governmental organizations, cooperatives, or smallholders would be able to seek governmental approval of a business plan and EIA in order to be granted a use agreement. To protect project promoter resources and time, it should be mandatory for the governing body to finalize a use agreement, as long as the project promoter wishes to pursue the project and has followed the regulatory process. Allowing promoter resources to be put toward developing a business plan and EIAs, only to be blocked at use agreement negotiations would be a drain of investment resources and a cause of public resentment. Finally, MINIRENA, as well as District and Sector environmental units, should be prepared with the necessary resources to closely monitor private projects to ensure regulatory compliance and avoid wetland degradation or loss.

6.3 Integrating Total Values

Wetland values are commonly determined using outputs that can be traded or sold on an open market, typically referred to as use values. Use values are easy to determine, as they include actual sales, such as agricultural products or energy sales. The positive value of these uses only incorporate gross gain from wetlands exploitation, without considering the costs of environmental services lost from wetland conversion or degradation. Some values of wetlands may be more tied to prevention of loss than profitability.⁵² Non-use values of the ecological benefits of wetlands are harder to quantify in economic terms, but include: mitigation of flood risks, maintenance of agricultural productivity and soil fertility, carbon sequestration, natural water treatment, and wildlife habitat, to name a few.⁵³ Tourism revenues from game parks, for example, can be used to demonstrate the non-use value of ensuring that habitats exist to support healthy wildlife populations. More recent valuation frameworks also incorporate option values. These are estimated values of potential future wetland benefits, such as water storage in times of drought, or nutrient storage for future fertilizer.⁵⁴ Non-use and option values are often omitted from value centered management decisions as they are hard to capture and do not factor into market decisions. However, by assessing these values, land managers can appreciate the importance of wetlands in easily understood, quantifiable terms. Integrating a holistic total wetland value in management decisions would help in determining protection areas, approving projects, and identifying potential revenue streams to fund conservation activities.

⁵² Barbier, Edward, Acreman, Michael and Knowler, Duncan (1997). *Economic Valuation of Wetlands: A Guide for Policy Makers and Planners*. Ramsar Convention Bureau, Gland, Switzerland.

⁵³ Barbier, Edward, Acreman, Michael and Knowler, Duncan (1997). *Economic Valuation of Wetlands: A Guide for Policy Makers and Planners*. Ramsar Convention Bureau, Gland, Switzerland.

⁵⁴ Shine, Claire, de Klemm, Cyrille (1999). *Wetlands, Water and the Law. Using law to advance wetland conservation and wise use*. IUCN, Gland, Switzerland, Cambridge, UK and Bonn, Germany. xvi + 330 pp.

In Rwanda, land planners have created an inventory of wetlands, their uses, and conditions, which will accompany a final wetland policy.⁵⁵ This inventory could be expanded to include total wetland values, incorporating benefits of uses, functions and processes, by using values identified by existing users with local knowledge and experience in the wetland. Some wetland values may be well understood, where long term community use has already created and implemented locally, leading to successful management activities. These communities may have control systems in place to ensure wetland protection and function over time. Within these wetlands, where uses predate policy interventions and State control, community participation in wetlands management should be prioritized and could be used to assemble future management strategies for other areas.⁵⁶ Across all wetlands, close consultation with surrounding communities, local agriculturalists and wetlands users should be used to develop use plans, classifications and outline boundaries. Over time, ongoing management and changes in wetland use strategies should seek advice and input from existing users and surrounding communities with deeper knowledge about a particular wetland's functions and values.

6.4 Integrating User Participation in Wetlands Management

Community involvement in national development and decision making is supported, and even required, within several national strategies. In Rwanda's second Economic Development and Poverty Reduction Strategy (EDPRS 2), under the thematic area of accountable governance (also the first pillar of Vision 2020), the Government of Rwanda sets goals for increasing citizen participation in national development activities.⁵⁷ At the local level, the government commits to integrating citizen participation into local decision making, planning processes and development programs. The National Strategy for Community Development and Local Economic Development (2013 – 2018) states the need for increased community participation in local planning and development programs to promote decentralization and citizen empowerment.⁵⁸ While community participation in local planning processes is a national policy, a draft Prime Minister's Order places total management authority with the State. No provisions have been drafted for integrating community participation in natural resource management activities. Restricting community use in pursuit of environmental protection can lead to wetland encroachment, overharvesting and cause public resentment toward environmental regulators and land use managers.⁵⁹ To strengthen local acceptance of national management strategies and

⁵⁵ Efforts to obtain the wetlands inventory were unsuccessful. It is unknown whether a full economic study of Rwanda's wetlands exists.

⁵⁶ Gawler, Meg (2002). *What are Best Practices? Lessons in Participatory Management of Inland and Coastal Wetlands*. Ed: Gawler, M. *Strategies For Wise Use Of Wetlands: Best Practices In Participatory Management. Proceedings of a Workshop held at the 2nd International Conference on Wetlands and Development (November 1998, Dakar, Senegal)*. Wetlands International IUCN, WWF Publication No. 56, Wageningen, The Netherlands.

⁵⁷ Republic of Rwanda (2013). *The Economic Development and Poverty Reduction Strategy: Shaping Our Development (2013-2018); Rwanda Vision 2020: Revised 2012*. Kigali, Rwanda.

⁵⁸ Ministry of Local Governments (2013). *National Strategy for Community Development and Local Economic Development*. Kigali, Rwanda.

⁵⁹ Gawler, Meg (2002). *What are Best Practices? Lessons in Participatory Management of Inland and Coastal Wetlands*. Ed: Gawler, M. *Strategies For Wise Use Of Wetlands: Best Practices In Participatory Management. Proceedings of a Workshop held at the 2nd International Conference on Wetlands and Development (November 1998, Dakar, Senegal)*. Wetlands International IUCN, WWF Publication No. 56, Wageningen, The Netherlands.

long term conservation of wetlands, community participation needs to be included within decision making processes and other management activities. Likewise, national policy needs to guide management decisions to meet the needs of the communities that sustainably use and rely on functional wetlands.

Understanding Impacts to Communities

Within the requirements of developing and approving an Environmental Impact Assessment, there is a stipulation for an assessment of social impacts, so that projects consider and mitigate impacts to surrounding communities and people. Often times, social impacts are only weakly assessed, and communities are rarely consulted; some EIAs are developed void of any interaction or direct contact with members of the community.⁶⁰ Fuller reviews of social impacts could be part of a strengthened stipulation of social assessment within the EIA. Even renaming the EIA to an Environmental and Social Impact Assessment (ESIA) would strengthen attention and focus paid to social dimensions of a project's entire set of impacts.⁶¹ Based on the outcomes of these assessment, projects should be required to develop and implement mitigation measures to prevent negative social consequences. Social impacts of projects and commitments to undertake remedial measures to address anticipated negative outcomes should be a critical consideration in decisions to approve projects and can also be used to better understand current uses, productivity and cultural values characterizing a wetland area.

Consulting Local Knowledge

Many traditional and long time wetlands users are already managing wetlands and have considerable knowledge on wetland processes, attributes, conditions and changes over time. These users have a deep understanding of environmental, economic and cultural values of wetlands and likely already have control systems or maintenance schedules in place to ensure wetlands are productive for agricultural use between seasons. They also know how wetland boundaries fluctuate over time and could be key stakeholders in mapping exercises to update a national wetland inventory. Decentralizing some decision making authority to the community will avail local knowledge to management decisions through community based monitoring, leverage existing user efforts in managing and protecting wetlands, and enable a mechanism to integrate user participation in designing provisions to protect their use of wetlands. Incorporating existing wetland user participation in management decisions will also create a process for gathering input to ensure that local community uses are still allowed and protected within wetland management plans, District Development Plans or other land use decisions. Wetland management strategies should be able to serve and protect local community needs, while also capturing long term knowledge and wetland experience to inform land use decisions and plans.

⁶⁰ Gawler, Meg (2002). *What are Best Practices? Lessons in Participatory Management of Inland and Coastal Wetlands*. Ed: Gawler, M. *Strategies For Wise Use Of Wetlands: Best Practices In Participatory Management. Proceedings of a Workshop held at the 2nd International Conference on Wetlands and Development (November 1998, Dakar, Senegal)*. Wetlands International IUCN, WWF Publication No. 56, Wageningen, The Netherlands.

⁶¹ Nielsen, Robin (2014). *Draft Prime Minister Order on Use, Development, and Management of Swamp Land in Rwanda*. Kigali, Rwanda: USAID, LAND Project.

Protecting Existing Users

A final wetland policy finally needs to clarify property rights of existing users and people living in wetland areas. If a freehold title that was issued before wetlands became State domain still exists, a final policy should clarify a process to identify where relocation is necessary and identify and dedicate the resources to compensate and relocate these title holders. If a freehold title exists and relocation is not as important as the need to protect local livelihoods, the policy could outline terms of limited use, inholdings amidst State land, easements, or long term leases with restrictions on expansion of uses. If a freehold title does not exist, but long term habitations remain, a policy could provide a similar provision to allow for long term habitation in State land, with limits on uses or expansion of domiciles. Such a provision would have to identify where existing uses could be allowed in wetlands under public or private State domain in order to protect sources of income for local communities as well as the ecosystem. Weighing the need for environmental protection with the need for protecting local livelihoods could be directed by review guidelines for such cases provided within a formal wetlands use policy. This could also help alleviate costs of relocating and compensating wetland inhabitants or users, while securing or clarifying rights of existing users.

The policy should also protect the rights of existing leaseholds or use agreements with the government for projects in wetlands. If leaseholders are compliant with in place laws and regulations, larger investments and projects should not be able to gain rights to use wetlands over existing users. Strengthening lease terms of cooperatives and small agriculturalists could help to reduce the risk of loss of existing rights if competing against larger, potentially more profitable, wetland use projects. Lease terms could be strengthened, for example, by giving priority to existing leaseholders to extend leases once they expire. Existing users could also be provided with compensation if larger users seek an area where smaller enterprises already exist and those leaseholders agree to relinquish their rights in return for fair compensation. A final policy could also create process to ensure that existing leasehold terms are sufficient to protect existing users. This process could be part of required community consultations during planning and management activities, whereby local land administrators would work with existing users to determine if leasehold terms need to be strengthened to protect local uses and livelihoods.

Protections could also be afforded to existing small agricultural users in all wetlands, whether protected or not. Where community or individual agricultural uses do not degrade or impact attributes that gain wetlands protection status, such as wildlife habitat, provisions for community use could be developed to protect local livelihoods in addition to the wetland itself. Community uses in protected wetlands could be formalized in a policy by allowing long term use agreements for existing users with specifications about use, restrictions on expansion of use, and strengthened protection for specific attributes of each wetland. Formalized community and small agricultural users in protected wetlands could be regarded and authorized as stewards of the wetland, tasked with ensuring against encroachment or other wetland degradation. Such a provision would be able to secure existing local livelihoods, while also ensuring sustainable use and wetland protection.

A formal wetlands policy needs to provide protection not only to the wetland, but also to the people who use and rely on the wetland to generate incomes. Ensuring that people who have used and currently use wetlands are actively involved in wetland planning and programming will avail local knowledge to management decisions, as well as ensure that local users have secured and clear rights in future management activities. A final wetland policy should seek to clarify and protect use rights of existing users so that policy implementation now sets a precedent of protecting land rights in future wetland management activities and decisions.

7. CONCLUSION

Rwanda has rich and expansive wetland areas, valuable for their ecological, social and economic resources and services. They sustain a variety of livelihoods, support high biodiversity and maintain essential hydrologic processes. Consequently, Rwanda is committed to ensuring their conservation for the sake of long-term agricultural and energy production and for the people, plants and animals that depend on them. While existing policies have set the groundwork and foundation for their protection, additional rules, policies and legislation need to be developed to provide clear responsibility and procedures for wetlands use, conservation and protection. New legislation and policies need to recognize recent challenges in wetlands management as opportunities to improve management strategies.

In forming and strengthening wetland management strategies, key considerations need to address weaknesses in past management activities and limitations of existing policy frameworks. First, detail, clarity and specifics need to be outlined in terms, procedures and purposes of new legislation or policy. Management terms need to be consistently understood across all levels of government so that administrators in the Districts and Sectors interpret national guidelines in the same manner as authorities in MINIRENA. Additionally, incorporating existing and long time users in management will leverage local knowledge of individual wetland services to inform long term land use planning and programming, as well as create an opportunity to clarify individual rights to use and live in wetland areas. Providing space for user input to management strategies and endowing them with clear rights that respond to their livelihood needs will strengthen policies to ensure that the people who actually use the wetlands are vested in its protection and sustainability. Finally, wetland policies, above all else, need to prevent degradation or loss. Protection measures need to be stringent, especially for fragile ecosystems, and ensure that wetland uses are carefully monitored to prevent and quickly recover from damages.

Wetlands are a valuable and vulnerable natural resource that will require careful and specific management approaches that closely balance use and conservation for the long term sustainability and integrity of an important part of Rwanda's patrimony, its hills and valleys. Rwanda is committed to protecting its natural resources, while maximizing productive land use. Over time, additional policies, regulations and programs must continue to evolve, as conditions evolve and better information becomes available. Creating a robust policy and firm structure now for wetlands management is the country's best hope for ensuring wetlands continue to offer their many benefits to Rwanda's future generations.

ANNEX I: KEY INFORMATION INTERVIEW QUESTIONS AND OBJECTIVES

Objective 1: Policies, laws and regulations governing use, protection and tenure of swamp lands.

To determine policies, laws and regulations that currently govern use, protection and tenure of swamp lands in Rwanda and what they provide.

1. Can you explain to us laws and policies that govern the leasing and renting of swamp lands in Rwanda?
2. How do these laws protect the use of swamp lands?
3. How well does this body of law intersect with policy and law governing land use master planning and land use master plans?
4. Do official maps exist that clearly delineate protected and unprotected swamps?
5. If such maps exist, to what extent do they inform land use master planning?

Objective 2: Explaining inconsistencies in the definition of swamps.

To explain inconsistencies between the definition of swamps and their effect.

Rwanda's environmental protection law defines a swamp as a 'flat area between mountains with much stagnant water and biodiversity, with papyrus, cypress or other vegetation of the same family.' It also defines a wetland as 'a place made up of valleys, plain land and swamps.'

6. Are there any inconsistencies between these definitions and those provided in other legislation?
7. Explain these inconsistencies, and the 'other' legislation?
8. What is the effect of such inconsistency?

Objective 3: Processes and uses in practice for leasing different categories of swamp lands.

To explain processes and uses in practice for leasing different categories of swamp land by government entities.

9. What processes are followed in practice by private individuals to rent/sublease swamp land?
10. What documents are used to rent/sublease swamp land?
11. What are the terms of these arrangements (e.g. lease terms, permitted and restricted land uses, payment)?
12. How successful have these processes been? Any suggestion for improvement?

Objective 4: Major issues or contestations around swamps.

To analyze some of the major issues or contestations that surface around swamps in terms of their use, tenure, and protection.

13. What are the leading causes of contestations in terms of:

- a. Use?
- b. Tenure?
- c. Protection?

What are their outcomes?

14. What other issues require attention on contestations, and to what effect?

Objective 5: Recommendations for policy and practice.

To provide recommendations for policy and practice that can be offered to serve objectives of reducing poverty, enhancing tenure security, efficient land use, increasing agricultural productivity, and enabling environmental protection and disaster prevention.

15. What recommendations for policy and practice can you offer to serve the following objectives:
- a. Reducing poverty?
 - b. Enhancing tenure security?
 - c. Efficient land use?
 - d. Increasing agricultural productivity?
 - e. Enabling environmental protection and disaster prevention

ANNEX II: KEY INFORMANTS AND ORGANIZATIONS

ORGANIZATION	CONTACT INFORMATION
GOVERNMENT	
Ministry of Natural Resources (MINIRENA)	Emmanuel Uwizeyimana Director of Lands Department uwizeye@minirena.gov.rw 078 850 50 75 Or Seth Muhawenimana Land Administration Specialist
Ministry of Agriculture and Animal Resources (MINAGRI)	Raphael Rurangwa Director General of Strategic Planning and Programs Coordination rurangwa@minagri.gov.rw 078 830 14 98 Or Norbert Sendenge Director General Crop Production Department senorbert@yahoo.fr 078 852 13 20
Rwanda Environmental Management Authority (REMA)	Rose Mukankomeje Director General dgrema@gmail.com
Parliamentary Commission on Agriculture, Animal Husbandry, Land and Environment	Hon. Gabriel Semasaka Chair gabrielsemaska@hotmail.com Or Hon. Adolphe Bazatoha Former Chair adolphe.shyaka@yahoo.fr 078 850 83 33
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Gasabo District Environment Bureau City of Kigali	Ingabire Augustin Executive Secretary augustin.ingabire@yahoo.fr 078 887 31 25

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INTERNATIONAL NON GOVERNMENTAL ORGANIZATIONS	
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Nile Basin Discourse Forum (NBDF)	John W. Gakumba coordinator@nbdfrwanda.org 078 279 26 90
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Association for Conservation of Nature in Rwanda (ACNR)	Serge Nsengimana acnrrwanda@yahoo.fr nsengimanaserge@yahoo.fr 078 853 00 15
ARECO - Rwanda Nziza (Association Rwandaise des Ecologistes)	Dancilla Mukakamari 078 852 17 32
Rwanda Environmental Conservation Organization (RECOR)	Sehene Chrysostome recor@rwandaenvironment.org 078 843 85 06
Rwanda Environmental Development Organization LandNet	Gashumba Damascene President and Chairman
Rwanda Farmers Federation (IMBARAGA)	Juvenal Musine Chief Executive Officer jouve2010@yahoo.fr Or Innocent Cyiza abahinzi@yahoo.fr 078 862 62 28
Duhuzimbaraga Cooperative Nyamasheke District	Pierre Nyabenda President
COOPRORIZ Gisagara District	Faustin President
COALEKA Cooperative Kamonyi District	Jean Pierre Muashyi President
Abajyamugambi Cooperative Burera District	Emmanuel Bakuza President
RESEARCH INSTITUTIONS	
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