

REPUBLIC OF RWANDA  
Integrated Management of Critical Ecosystems

## Project Document

Africa Regional Office  
AFTS3

<p><b>Date:</b> November 17, 2004  <b>Sector Manager/Director:</b> Joseph Baah-Dwomoh  <b>Country Manager/Director:</b> Gerard A. Byam  <b>Project ID:</b> P070700  <b>Focal Area:</b> M - Multi-focal area</p>	<p><b>Team Leader:</b> Remi Kini  <b>Sector(s):</b> Agricultural extension and research (90%),  Central government administration (10%)  <b>Theme(s):</b> Biodiversity (P), Participation and civic  engagement (P), Environmental policies and institutions (P),  Water resource management (S), Land administration and  management (S)</p>
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### Project Financing Data

Loan       Credit       Grant       Guarantee       Other:

**For Loans/Credits/Others:**

**Amount (US\$m):**

Financing Plan (US\$m):	Source	Local	Foreign	Total
BORROWER/RECIPIENT		1.00	0.00	1.00
IDA		27.87	20.13	48.00
GLOBAL ENVIRONMENT FACILITY		3.60	0.70	4.30
<b>Total:</b>		32.47	20.83	53.30

**Borrower/Recipient:**

**Responsible agency:**

Ministry of Lands, Environment, Forests, Water and Natural Resources  
Address: Po. Box 3502 Kigali

### Estimated Disbursements ( Bank FY/US\$m):

FY	2006	2007	2008	2009	2010				
<b>Annual</b>	0.40	0.80	1.30	1.00	0.80				
<b>Cumulative</b>	0.40	1.20	2.50	3.50	4.30				

**Project implementation period:** 4 years

**Expected effectiveness date:** 04/15/2005    **Expected closing date:** 10/15/2009

## **A. Project Development Objective**

### **1. Project development objective:** (see Annex 1)

#### Specific Development Objectives of the GEF Project

1.1 The "Integrated Management of Critical Ecosystems" (IMCE) project is fully built-into the design and implementation of the first phase of the Rural Sector Support Program (RSSP), a 14-year Adaptable Lending Program (APL). The RSSP consists of six components of activities including the following: (i) Rehabilitation of Farmed Wetlands and Hill-side Areas, (ii) Promotion of Commercial and Export Agriculture, (iii) Support to Agricultural Services Delivery Systems, (iv) Small-Scale Rural Infrastructure Development, and (v) Promotion of Off-Farm Production Activities in Rural Areas. The objective of the IMCE project is to promote the adoption of integrated ecosystem management in agricultural landscapes, particularly, in the rehabilitation of farmed wetlands and hill-side areas. The IMCE project will pursue this objective by providing by providing incremental incentives (technical skills, financial support, and institutional support) to farmers and farmer organizations with the aim to induce a widespread adoption of soil and water conservation technologies, and other sustainable land and wetland management technologies on- and off-farm. By promoting these productivity-enhancing and environmentally friendly farming technologies, the IMCE will help increase food production and rural income. In addition to improving the livelihood of farming communities, the IMCE project will also help ensure a better protection of the natural resource base through the promotion of an integrated approach to land resource management that supports the rehabilitation of degraded wetlands, hill-sides, and catchment areas, and the formulation and implementation of community-based conservation plans for selected wetlands.

To some degree, the IDA resources of the RSSP and the GEF grant resources will share some of the costs associated with the transition from traditional farming practices to the proposed improved technologies. However, the IDA resources will be allocated primarily to market infrastructure development and productive on- and off-farm investments, while the GEF incremental financing will focus on activities that increase the scope of global benefits associated with the rehabilitation of farmed wetlands and hill-sides through increased (above and under-ground) carbon sequestration, and through conservation and sustainable use of wetland biodiversity resources. The IMCE project includes the following components:

- Development of a policy and regulatory framework for sustainable wetland and natural resource management (GEF);
- Capacity building and institution strengthening for decentralized integrated ecosystem management (GEF, IDA);
- Development and implementation of community-based integrated ecosystem management plans for critical ecosystems, including community-based conservation and sustainable use of biodiversity resources in and around four major wetland systems (the Mugesera/Rweru wetland system, the Kagera wetland system, the Kamiranzovu wetland, and the Rugesi wetland), (GEF, IDA); and
- Project Management and coordination (GEF, IDA).

### **2. Key performance indicators:** (see Annex 1)

2.1 The following key indicators will be used to track progress towards achieving the global objectives and the overall project performance (refinement is likely during appraisal) by the end of phase 1.

- A National Wetlands Policy/Strategy and Action Plan is prepared and approved by end of project first year, and implemented by end of project year 2;
- All the project staff (central and local) and at least 90% of beneficiary farmers (training of

trainers) are trained in integrated natural resource management, biodiversity conservation and sustainable resource use by the end of the project;

- New technological packages aiming at improving agricultural productivity and reducing resource degradation, and enhancing biodiversity conservation (on and off-farm) adopted by 80% of smallholder farmers benefiting from the project support;
- Four critical wetlands (or areas thereof) are designated as community-based biodiversity conservation and sustainable use areas, and four community-based integrated ecosystem management plans are formulated and implemented.

## **B. Strategic Context**

### **1. Sector-related Country Assistance Strategy (CAS) goal supported by the project: (see Annex 1)**

**Document number:** 24501-RW **Date of latest CAS discussion:** December 3, 2002

1.1 The proposed project is in line with the goals outlined in the country's (i) PRSP and (ii) CAS. The 2002 PRSP (Report No. 24503-RW) sets out the Government's vision and strategies for peace, national security and reconciliation, private sector-led growth and rapid poverty reduction. It identifies the transformation of agriculture and rural economy as the principal source of growth in the medium-term and as imperative for poverty reduction. More specifically, the PRSP focuses on the following six policy areas for rapid poverty reduction: (i) rural development and agricultural transformation; (ii) human development; (iii) economic infrastructure; (iv) good governance; (v) private sector development; and (vi) institutional capacity building. On areas of "agricultural transformation and rural development", and on "cross-cutting development issues", the PRSP addresses natural resource (water, land, and biomass) degradation as a key impediment to and challenge for poverty reduction. The sustainable development of marshlands, reforestation, and the rehabilitation of degraded land are considered major means to reverse the degradation of the agricultural resource base.

1.2 The main objective of the CAS (Report No. 24501-RW, November 2002) is to support the Government of Rwanda in the implementation of its Poverty Reduction Strategy (PRS). The CAS reviews the recent developments and challenges facing Rwanda, and outlines four themes for Bank support: (i) the revitalization of the rural economy; (ii) private sector development and job creation; (iii) human and social development; and (iv) the improvement of governance and the effectiveness of public sector actions. The goal supported by the proposed project is consistent with the aim of sustainable development in order to protect the productive base of the agriculture and the rural economy. The project's goal of supporting capacity building activities at sectoral, regional, and community levels is also consistent the CAS.

#### **1a. Global Operational strategy/Program objective addressed by the project:**

1a.1 The IMCE project fully conforms to OP# 12 in that it promotes the adoption of comprehensive ecosystem management interventions that integrate environmental, ecological, economic, cultural and social goals to achieve local, national and global benefits. The project also responds to GEF Strategic Priorities 1 and 2 for Integrated Ecosystem Management. In particular the project responds to the Capacity Building Priority through components focusing on institutional strengthening and on the implementation of innovative practices through support to the processes of formulation and implementation of community-based integrated ecosystem management plans (watershed management plans, wetland catchment management plans). The project will focus on the provision of the following main global benefits:

- reduced land degradation and improved water quality and quantity; and
- improved conservation of biodiversity outside protected areas (in selected wetlands, and on

agricultural lands).

1a.2 Through the introduction of improved land management techniques and other measures such as construction of terraces, agro-forestry, reforestation, land reclamation and conservation of fragile lands and protection of critical ecosystems, the project will also contribute to increase carbon sequestration.

1a.3 These goals will be achieved primarily through promoting the adoption of integrated ecosystem approaches to natural resource management and improved soil and water conservation technologies that increase productivity while protecting the resource base. GEF incremental resources will (i) support technical assistance to farmers in integrated agricultural ecosystem management; (ii) help develop, test, and disseminate adapted technologies for soil and water conservation, land reclamation, wetland restoration, and conservation and sustainable use of biodiversity; and (iii) provide finance assistance to farmers in order to help them support the capital transition cost to the improved farming technologies. This support will address the root causes of land and water degradation, and remove barriers to the adoption of sustainable natural resource management practices. By creating an enabling environment through provision of a compatible incentive scheme, awareness raising, technical and institutional capacity building, and strengthening the policy framework for wetland management (adoption of a National Wetlands Policy), the project will promote and facilitate the adoption of integrated and cross-sectoral approaches to natural resources management, especially, wetlands management.

## **2. Main sector issues and Government strategy:**

### **2.1 Natural resource degradation and persistent poverty**

#### *Land degradation*

2.1.1 Historically, Rwandan farmers settled along the upper ridges of hillsides (Rwanda is a very hilly landscape) where soils were more fertile and cultivation was an easier task than it was farther down, on the steeper slopes and in the marshy valleys. But Rwandan population has increased steadily and rapidly over the last decades; in the early 1990s, the average population density was 580 inhabitants per square kilometer of arable land, the highest in Africa. This rapid population growth brought about several changes in the traditional agricultural settlement and farming systems: (i) land holdings have become smaller due to increased land scarcity; (ii) individual holdings are more fragmented and scattered in different locations; (iii) bottom lands and lands on steep slopes previously held in pasture and woodlot have been brought into cultivation; and (iv) fallow periods have become shorter, and in some cases have disappeared.

2.1.2 The consequence of farming more intensively, and cultivating fragile lands located on steep slopes (cultivation is practiced on slopes of up to 80%) is high quantity of soil loss due to erosion, and the concomitant decline in soil fertility. Data on erosion rates are scarce, but studies conducted in the mid-1980s found that the average loss of surface soil due to erosion is 10.1 tones/ha/year. Soil losses range from a high of 21.5 tons/ha/year in the Congo-Nile divide to a low of 2.6 tons/ha/year in the Bugesera area. As a result of poor soil and water conservation, water erosion alone results in total annual losses estimated at 945,200 tones of organic matter, 41,210 tones of nitrogen, 280 tones of phosphorus, and 3.055 tones of potash for the whole country. According to recent estimates, half of the country's farmland suffers from moderate to severe erosion.

2.1.3 Thus, population pressure on land resources coupled with unsustainable land use practices (intensifying land use without sufficient investment in soil fertility and land improvement) led to a steady

decline in agricultural productivity. In a country where as much as 93% of the population live in rural areas, where virtually all rural households are engaged in smallholder farming, and where there is little employment opportunity outside agriculture, rapid population growth and declining resulted in low rural incomes, food insecurity, continued over-exploitation of natural resources, and persistent poverty. At the macro level, agricultural production per capita and crop yields in general have been declining since the mid-1980s. Aggregate production dropped to -2.0 percent by the early 1990s from 0.8 percent in the early 1980s. This deficit in production has substantial economic and social costs (foreign exchange cost of food import, increased poverty, and impairment of human capital).

#### *Degradation of watersheds and water resources*

2.1.4 High population density, steep slopes, and abundant rainfall (especially in the highlands) combine to make the task of erosion control uncommonly daunting for Rwandan smallholder farmers. In addition to agriculture, over-grazing and collection of fuelwood have contributed to high rates of deforestation particularly in the upland watersheds. The removal of trees and vegetation compounds the effect of erosion on land degradation in watersheds. Because the upper watersheds are key sources for surface and groundwater recharge, such degradation is having significant adverse impacts on water quantity and quality in waterbodies through siltation, sedimentation, and pollution (pesticides and fertilizer).

2.1.5 Watersheds and water resource degradation is having several types of adverse impacts. First, this degradation may reduce the agricultural output of some downstream farmers through reduced water quantity, and damage to crop due to floods. Second, pollution and degradation of water quality may have serious health effects as the majority of rural population get drinking water from spring catchments. Third, upland watershed degradation has caused several landslides and floods during the last years resulting in serious property damage and loss of lives. Finally, the degradation of water quantity and quality due to watershed degradation could pose a serious threat to national and international water resources. The Nile River Basin covers 67% of the national territory and drains 90% of the national waters through two major water courses: the Nyabarongo and the Akagera Rivers. Waters of the Nile River Basin flow out of Rwanda through the Akagera River into Lake Victoria (source of the White Nile). It is estimated that the Akagera contributes 8 to 10% of the total Nile waters.

#### *Loss of critical habitats, biodiversity and vital ecosystem functions*

2.1.6 The topography of Rwanda is varied and characterized by a large number of hills and mountains, with an exceptional degree of relief in which hydrological features play an important role. The country is divided into the following ecological zones (from west to east): volcanic (extreme north-west), rift valley, the western slope, the Congo-Nile Massif (dividing the Nile and Congo basins), the central plateau and the eastern penneplain. The eastern and southern parts constitute the savanna regions of the Akagera and Bugesera sub-basins containing extensive wetlands at the borders with Burundi and Tanzania. These unique ecological and topographic features have created a rich and diverse natural resource base.

2.1.7 Rwanda contains a remarkable variety of habitats and species. Some 2,000 plant species are thought to exist in the country and, while the number of endemic species is not known, it is believed to be high. Many of the continent's rare wildlife species also occur in the country among which are 16 species of primates, including the mountain gorilla (*Gorilla beringei*), small populations of elephants and black rhino, and a large number of birds. Mountain forests constitute one of Rwanda's most biologically diverse and globally important habitats. Most of the country's remaining forests are located between altitudes of 1700 to 3000 meters on the divide between the Nile and the Congo basins. One extensive forest is located within

the Volcanoes National Park. This Park, in combination with adjacent forests in Uganda and Congo, contain approximately one-half of the world's remaining population of mountain gorillas. Rwanda's other protected areas are the Akagera National Park and Nyungwe Forest Reserve. Many of the country's large wetland systems are habitats for a wide variety of migratory birds.

#### *Degradation and loss of biodiversity in protected areas*

2.1.8 The impact of the 1994 genocide, which resulted in massive population disruptions, including 3,000,000 internally displaced persons, exacerbated the problems in the agricultural sector and contributed to a sharp increase in poverty levels. The massive return of refugees in exile from Burundi, Tanzania, Uganda and Congo further increased land scarcity, and accelerated land degradation and particularly deforestation. The impact on the environment and Protected Areas and Forest Reserves was devastating. From a total pre-1994 surface area of 417,000 ha, forest resources have been reduced to approximately 226,000 ha; Gishwati Forest has all but disappeared. In order to resettle the massive influx of refugees and returnees, the Akagera National Park has been reduced to less than one-third of its original size, and the Mutara hunting reserve has completely disappeared. This destruction of important forest ecosystems and habitats has resulted in significant loss of biological diversity.

#### *Degradation of critical wetland ecosystems*

2.1.9 Wetlands are known to be the world's most productive ecosystems. They have sometimes been described as both "the kidneys of the landscape", because of the functions they perform in the hydrological and chemical cycles, and as "biological supermarkets" because of the extensive food webs and rich biodiversity they support. Some of the wetland functions that humans benefit from include nutrient cycling, sediment and pollution retention, flood mitigation and groundwater recharge. In addition to these indirect uses, wetlands are sources of wildlife, fish, wood and several non-timber products that are widely used by neighboring populations. Most importantly, wetland soils can have great agricultural potential when properly used.

2.1.10 In Rwanda where many rural households face food insecurity, poverty, and vulnerability, these goods and services make an important contribution to livelihood. In particular, the conversion of wetlands to agricultural production has increased rapidly over the last two decades due the acute scarcity of agricultural land. To a great degree, the government supports this wetland development with the aim to boost agricultural production, revitalize the rural economy and reduce poverty. An inventory carried out in 1993 found a total wetland area of 165,000 ha, of which 95,000 were being cultivated. Only 5,000 ha benefited from water control works enabling both irrigation and drainage; of the latter, 4,000 were found to be in need of rehabilitation.

2.1.11 The results of the assessment conducted during the preparation of the baseline RSSP show that the performance of these farmed wetlands was unsatisfactory. The reasons for this poor performance include (i) poor design of water control works; (ii) unclear property rights and access rights to [wet]lands; (iii) unavailability of adequate technical skills in rural engineering. One important finding of the assessment studies was that the conversion of the wetlands did not take into account the opportunity costs of developing these particular ecosystems. In other words, given the wide range of goods and services provided by some of the farmed wetlands, and their location, society (i.e., Rwanda) would have been better off letting them undeveloped. The conversion of some wetlands seems to have resulted in ecological and environmental damage that outweigh the value the agricultural output involved. The government is concerned about the drying up of the large wetland area associated with the Nyabarongo-Akagera River system, and some officials maintain that this phenomenon is linked the conversion of the wetlands in other

parts of the country.

## **2.2 Weak policy framework for environmental management**

2.2.1 Despite the severity of environmental degradation and its impact on the livelihood of the poor and on the country's economic performance, environmental management as a public policy domain is still at its early stage of development. Responsibility for environmental policy-making and partly for implementation lies with Ministry of Lands, Environment, Forests, Water and Natural Resources (MINITERE). The department of environmental management, first created in 1992 as part of the Ministry of Environment and Tourism, was later transferred to the Ministry of Agriculture and Livestock. The responsibility for environmental policy was transferred again in 1999 when the Ministry of Lands, Environment and Resettlement (MINITERE) was created, and transferred back again during the 2003 cabinet reorganization. MINITERE once again, now has the responsibility for water, forests, and natural resources management (forests used to be with the Ministry of Agriculture, and water with the former Ministry of Water, Energy and Mineral resources). This movement of the environment department between ministries has slowed up the emergence of strong professionals in the area of environmental management and the development of a coherent policy framework. MINITERE is particularly weak in policy-making, and in regulations and legislation.

## **2.3 Weak capacity in policy analysis and policy development**

2.3.1 The weakness in policy development is mainly due to the lack of adequate technical capacity. The Environment Directorate is divided into three units with the following mandates: policy and advocacy, inspection and monitoring, and environmental assessment. Given the major concern raised by the deteriorating environmental quality of the country, much is expected from these units. However, the operational capacity of these units is constrained by the lack of adequate technical skills, and manpower. Like any departments of the public sector, the Environment Directorate does not have sufficiently trained staff with adequate skills and education and in the required areas of specialization.

2.3.2 The work of the Directorate is also constrained by coordination failure among public institutions that are involved in environmental policy implementation. In particular, the lack of inter-sectoral coordination mechanisms tends to constrain the operational leverage of the Directorate in influencing the design and implementation of sectoral programs in other line ministries as well as the private sector. The new decentralization policy also raises some coordination problems related to the oversight and assistance to be provided to local governments in the area of environmental management. Finally, the Directorate lacks credible and action-oriented environmental information that is needed to assist policy-makers.

### *Weak regulatory framework*

2.3.3 There is remarkably little environmental management legislation in Rwanda. Although the Environment Directorate includes a unit responsible for inspection, monitoring, and environmental assessment, there is no statutory requirement for environmental impact assessment, and there are no statutory environmental standards at this time. This situation implies that the mandate of environmental enforcement and compliance of the Directorate is not fulfilled. Improvement is expected as the Government has prepared a comprehensive environmental law that awaits adoption by the parliament. This law includes requirements for environmental impact assessment and is expected to be adopted before the end of 2004. Then, it will still be necessary to prepare implementations decrees that provide sufficient guidelines for enforcing these requirements, and for developing and enforcing environmental standards.

## 2.4 Government Strategy

2.4.1 Rwandan policymakers have always been aware of the severe natural resource degradation and the alarming downward trends in agricultural productivity. A national agricultural commission created in 1991 to formulate a rural development and food security strategy identified the following three immediate and long-term challenges for achieving food security: (i) reverse the decline in agricultural productivity; (ii) stop and reverse land degradation; and (iii) provide off-farm income sources to farmers in order to reduce pressure on the land and increase food purchasing power. In the late 1980s when it became apparent that the performance of farmed wetlands was unsatisfactory, a national strategy for small wetlands development was prepared with the main aim of defining the necessary preconditions for successful development of these wetlands. The main recommendations were: (a) assign the responsibility for wetland development and land allocation to local governments; (b) provide wetland farmers with usufruct rights for at least seven years; (c) ensure the participation of beneficiaries, preferably organized in associations in construction works; and (iv) undertake research in hydrology, soil fertility, and conduct a national inventory of marshlands.

2.4.2 Neither the challenges identified by the national agricultural commission nor those of the national strategy for small wetlands development were met when the war broke up. The large-scale destruction of human, physical, and natural resource assets by the war and the genocide exacerbated poverty and social despair, and increased the reliance of populations on direct natural resource exploitation for livelihood. It did not take long before the post-war government's commitment to increase agricultural production as a means to improve food security and boost broad-based economic growth brought the protection of the natural resources at the core of country's economic growth and poverty reduction strategy.

2.4.3 The 2002 PRSP acknowledges the fact that the decline in soil fertility observed throughout the country is compounded by soil erosion and the reduction of the water table in some areas, particularly where wetlands have been brought into cultivation without proper management. It stressed the fact that agricultural intensification must be accompanied by appropriate environmental actions to manage water flows, control soil erosion and improve the structure of soils. The proposed actions include some of previous unmet challenges in the area of sustainable agricultural intensification, and new actions aimed at strengthening the capacity and willingness of farmers to invest in land and other natural resource conservation. These actions are contained in several public policy documents, including the **Water Policy**, the **Land Policy**, the **Biodiversity Strategy and Action Plan**, the **Agricultural Development Strategy** and the **Food Security Strategy and Action Plan**.

2.4.4 The PRSP identifies the degradation of water, biomass, and land resources as the three major environmental problems facing the country, and stresses the importance of mainstreaming the environment into sectoral policies and programs as the best way to ensure environmental protection and sustainable resource use. By supporting the creation of enabling policy conditions, and building the capacity of central and local governments, and farmers for developing and implementing integrated natural resource management plans, the proposed project becomes an important instrument for implementing the recommendations of the government's Poverty Reduction Strategy in the area of sustainable agricultural intensification and environmental management.

## 3. Sector issues to be addressed by the project and strategic choices:

### 3.1 Sector issues addressed

The project will address the following issues:



- Weak technical and institutional capacity for natural resource management;
- Lack of up-to-date ecological, and socio-economic information to guide integrated and cross-sectoral planning of land use and wetland management;
- Increasing degradation of land and water resources, and wetlands (water, land, biodiversity);
- Weak incentive framework for the adoption of improved resource management technologies by farmers;
- Lack of reliable environmental data and information system to guide policy making.

### **3.2 Strategic choice**

The project will address the above issues through the following activities: (i) to design a holistic approach that addresses the resource constraints facing farmers; (ii) to address the key policy failures in natural resource management both at the central and local levels; and (iii) help remove the technical, institutional, and financial constraints to integrating the conservation of biodiversity, water, soil fertility and the protection of watersheds into farming practices. While focusing on the most binding capacity constraints directly related to the pursuit of the objectives of sustainable agricultural intensification through the rehabilitation of wetlands, the proposed project would maintain an orientation that builds on the synergy with on-going and planned projects that include capacity building activities in environmental and natural resource management. This approach will help bridge the implementation capacity gap in government and civil society in environmental management.

## **C. Project Description Summary**

### **1. Project components** (see Annex 2 for a detailed description and Annex 3 for a detailed cost breakdown):

The objective of the proposed Integrated Management of Critical Ecosystems Project which is a component of the IDA funded baseline Rural Sector Support Program (RSSP) APL is to help the farmers to adopt sustainable agricultural intensification technologies that increase agricultural productivity and improve livelihood while protecting the natural resource base. While the IDA baseline funding support the development of market infrastructure and the productive investments in the rehabilitation of farmed wetlands and hillsides, the GEF incremental financing will be provide technical, institutional, and financial support to farmers in order to help them make the transition to traditional farming practices to improved technologies for increased food production and biodiversity conservation outside protected areas. This will be achieved through the development and implementation of community-based integrated ecosystem management plans, using the watershed and micro-catchment areas as the primary units for resource planning.

In order to help improve the broader natural resource management policy framework of the country, the project will support the development of a sound policy, regulatory and institutional framework, and strengthen human resources in technical areas needed to support the conservation and management of Rwanda's wetland resources. In particular, the project will establish effective mechanisms for inter-ministerial coordination and for integration of an ecosystem approach into sectoral policies and programs, and help the Government enact regulations for wetland resource use. Finally, it will support activities aiming at upgrading the capacity of the public sector, NGOs, private sector, and resource users in integrated ecosystem management.

The project consists of following three main components and a fourth Project Management Unit

- Development of a sound policy and regulatory framework for integrated ecosystem management;
- Capacity building and institutional strengthening for the conservation and sustainable use of wetlands resources;
- Development and implementation of community-based integrated ecosystem management plans for critical ecosystems; and
- Project management, monitoring and evaluation, and information dissemination.

These three categories of activities are interlinked, mutually reinforcing, and fully integrated into the baseline Rural Sector Support Program (RSSP) components. Although some of the activities will be implemented by different implementing government units, they complement the activities of the baseline program by contributing to achieving the objectives of conservation and sustainable use of wetlands.

***Component 1: Development of a policy and regulatory framework for sustainable wetland and natural resource management (US\$ 0.30 million)***

1.1 The objective of this component is to help develop a sound policy and institutional framework, including the development and adoption of regulations and legislation related to wetland use and protection, and the institutional arrangements required to support the integrated management of critical ecosystems. This component will promote and facilitate inter-ministerial coordination in natural resource management, and support the integration of conservation and biodiversity aspects into sectoral policies and programs. It would also support the implementation of the government decentralization policy in areas related to decentralized natural resource management. It will do so by helping to establish effective coordination and oversight mechanisms at the local government level to support the implementation of community-based integrated ecosystem management at the watershed and wetland catchment level. Finally, it will promote participation and collaboration in joint management of natural resources among a wide range of stakeholders, including the public sector, NGOs, private sector, and resource users.

The primary outputs of this component would be:

- An Inter-ministerial Committee (or other alternative coordination mechanism) to help plan and coordinate the use and management of the wetlands is created;
- A comprehensive National Wetlands Policy is adopted by the Council of Ministers;
- Appropriate wetlands legislation is prepared and adopted.

***Component 2: Capacity building and institution strengthening in decentralized integrated ecosystem management (US\$1.5 million)***

1.2 The objective of this component is to build a critical mass of trained individuals at the central, regional, and local levels. These trained individuals will help the design, implementation and monitoring of integrated resource management plans associated with the rehabilitation of wetland for agricultural production, and the protection of biodiversity in critical wetland systems. A training and capacity building needs assessment was carried out during the preparation of the project. Based on the results of this assessment, direct technical assistance, workshops, on-the-job training, and degree training, and empowerment of local communities in natural resource management through technical capacity strengthening have been identified as the ways to help the Government fill the policy development and implementation capacity gap in the area of natural resource and critical ecosystem management. The identification, planning, and implementation of these capacity building activities will be closely coordinated with those of the RSSP. Linkages and collaborative training and environmental awareness-raising activities will also be developed with the UNDP GEF Protected Areas project, and the African

Development Bank Environmental Management Institutional Support project.

An important element of strengthening the institutional and technical capacity of Rwanda in the area of integrated ecosystem management will be the development of an Environmental Information System (EIS). Such a system would facilitate the generation and the flow of environmental information and data for decision makers, resource users, the scientific community, and the wider public. Some wetland-related elements of this information system are already in place within MINAGRI. Under the proposed project, priority will be given to the development of a biodiversity module called Biodiversity Information System (BIS). The BIS will complement the information and data available at MINAGRI and will be integrated into the monitoring and evaluation system of the project.

The project will finance the costs of biodiversity assessment of the four larger wetlands earmarked for the sustainable use of biodiversity resources, and the establishment of mechanisms for the participatory monitoring of environmental management (including biodiversity resources) and change in the project sites. The knowledge and information generated from the biodiversity assessment and the monitoring of the implementation of the community-based integrated ecosystem management plans will feed into the Biodiversity Information System. Along with other ecological and biophysical data, this information will be used (i) to develop a National Strategy and Action Plan on the conservation and wise use of wetlands; and (ii) to help incorporate biodiversity considerations into the management plans of the individual watersheds and wetlands, and into sectoral investment programs.

The key outputs of this component include:

- Capacity is strengthened within MINITERE, and other sectoral ministries involved in wetland resource management through effective environmental education, information and communication activities, training, workshops, study tours, etc.;
- A core team of public sector, academics, NGOs, and resource users are equipped with technical, managerial and organizational skills to design and implement integrated ecosystem assessment plans;
- Participatory techniques in problem identification, priority setting, design of solutions, conflict resolution, and monitoring and evaluation are designed and a core group of farmers are trained as trainers;
- A Biodiversity Information System (BIS) to monitor key indicators of the biodiversity status of selected critical ecosystems is developed; and
- A National Strategy and Action Plan for the conservation, restoration and wise use of wetlands and their watersheds is adopted.

***Component 3: Development and Implementation of Community-Based Integrated Ecosystem Management Plans for Critical Ecosystems (US\$1.7 million)***

1.3 This component is crucial to the achievement of Project objectives, and it constitutes the main channel through which the benefits of the enabling conditions created under components 1 & 2 will materialize. It consists in developing and implementing community-based integrated ecosystem management plans. Such plans are primarily intended to help integrate soil, water, and biodiversity conservation into the rehabilitation of the wetlands for agricultural production. In addition to helping farmers adopt technologies that help sustain the agricultural resource base, this component will select and protect four critical ecosystems and habitats associated with major wetland systems. These critical habitats and ecosystems are selected on the basis of their global significance, and the degree of threat they are facing under the current pattern of resource use in and outside the project.

While the design of these plans will use the catchment area/watershed as the spatial unit for diagnosing ecosystem management problems and for planning interventions, it is worth mentioning the difference between the catchment/watershed management plans, and the community-based integrated ecosystem management plans. The watershed management plan will address cross-ecosystem linkages by addressing explicitly upstream-downstream interactions, and fully integrating economic and social dimensions (population density, social structure, livelihood) into the conservation plans for land, water, forest and other natural resources. Thus, it may include larger areas spanning over several communities located far apart in the watershed. The watershed management plan could also cover more than one administrative unit. The community-based integrated ecosystem management plans, on the other hand will concentrate on in situ conservation activities that take place in and around the selected sites. The development of both types of plans will follow a participatory and iterative process, and shall include the following outputs:

- Province and district level technicians are trained in integrated resource planning, and development plans include conservation and sustainable resource use goals;
- Watershed management plans are formulated;
- Community-based integrated ecosystem management plans are formulated and implemented satisfactorily;
- Areas for conservation in the four critical ecosystems of global significance are demarcated, rehabilitated and/or protected;
- Best practice resource utilization, and resource conservation technologies are developed, tested on demonstration sites, and scaled up to cover the watershed in which selected critical ecosystems of global significance are located;
- Best practice resource utilization and conservation technologies are identified/identified and adopted by farmers;
- Compatible incentive systems on- and off-farm are put in place to support implementation of watershed and community-based integrated ecosystem management plans.

It is important to mention that the community-based integrated ecosystem management plans constitute the cornerstone of the project because they are the instrument through which local communities will engage in the sustainable management of the wetland resources. These plans will define conditions and principles for using the resources of these wetland ecosystems in a way that preserves the ecological functions and the biodiversity resources of the selected wetlands. The Government found the ‘sustainable use’ approach to be more adapted to the current situation of biodiversity conservation than stricto sensu protected areas. It is the belief of Government that in the current context of very high population pressure, widespread poverty, and the on-going creation of new villages “(Imidugudu)”, the creation of new protected areas right away may not be the most effective way to protect biodiversity.

The Government proposes an innovative and participatory approach to protecting the biodiversity and critical functions of the wetlands that relies on sustainable use principles. Once these principles have been technically defined by the project implementing Unit, they will be discussed and agreed upon by the Ministry of Environment (representing the central Government), local governments, and local communities. The community-based plans will create the appropriate conditions for the collective action at the local, regional and central levels for complying with the principles of sustainable use. In addition to the project implementing unit and the steering committee, the Rwanda Environmental Agency (REMA) will help in the enforcement of these principles during and after the project.

***Component 4: Project Management and Coordination (US\$0.80 million)***

The objective of this component is threefold: (i) to ensure effective coordination of the project implementation activities; (ii) monitor and evaluate these activities; and (iii) disseminate lessons learned from targeted research, and promising ecosystem management practices. The activities of this component evolve around three pillars: coordination of the project activities, monitoring and evaluation of the project activities, and information dissemination.

In view of the lack of reliable environmental data and information, and the absence of the monitoring and evaluation (M&E) unit within MINITERE, M&E will constitute a key function of the PMU. The specific objective of the PMU M&E team will be to provide the Project management with the information required to support an efficient implementation of activities, publish timely and good quality progress reports, and bring the lessons learned to bear on the planning, design, and implementation of new activities. More specifically, the M&E unit will perform the following tasks: (i) collect the data and undertake the studies necessary to define the baseline conditions against which the accomplishments of the Project will be measured; (ii) oversee the collection of data and the studies in order to ensure consistency and reliability in the methods and approaches used in the M & E system; (iii) produce performance reports, and manage Project records and data base; and (iv) prepare and disseminate the lessons learned to inform new activities and future projects. The core technical staff of the PMU will include the following: (i) a director; (ii) a technical assistant; (iii) a financial management specialist or an accountant; (iv) a monitoring and evaluation specialist; (v) a natural resource management specialist; and (vi) a sociologist.

An important feature of the institutional arrangements of the Project implementation is its integration into the national decentralization framework. Because the community-based critical ecosystem management plans, and the management of the associated watersheds or catchment areas will need to be integrated into province or district development plans, local governments will play an important role in the implementation of the Project. In addition to participating in the design of the critical ecosystem protection and management plans, government agencies at the district level will be involved in the implementation of these plans either as technical assistance providers, or as enforcers of environmental and resource management standards, and regulations. Community Development Committees (CDCs) which are key players in the RSSP baseline project will also play an important role in the planning, implementation, and monitoring of project activities at the local level. In order to ensure close coordination with the RSSP, the Advisory Committee of the proposed project will include members of the RSSP Steering Committee.

**The table below shows the allocation of the grant proceeds among the project component. These allocations do not include the US\$ 48 million of the IDA credit to which this GEF project is partially blended.**

Component	Indicative Costs (US\$M)	% of Total	Bank financing (US\$M)	% of Bank financing	GEF financing (US\$M)	% of GEF financing
1. Development of a policy and regulatory environment for sustainable wetland and natural resource management.	0.37	7.0	0.00	0.0	0.30	7.0
2. Capacity building and institution strengthening in decentralized integrated ecosystem management.	1.70	32.1	0.00	0.0	1.50	34.9
3. Development and implementation of community-based integrated ecosystem management plans for critical ecosystems.	2.00	37.7	0.00	0.0	1.70	39.5

4. Project management and coordination.	1.23	23.2	0.00	0.0	0.80	18.6
<b>Total Project Costs</b>	5.30	100.0	0.00	0.0	4.30	100.0
<b>Total Financing Required</b>	5.30	100.0	0.00	0.0	4.30	100.0

## 2. Key policy and institutional reforms supported by the project:

The proposed project does not seek any major policy reform; instead it aims to support the Government in implementing its new policy and regulations on the exploitation of wetland resources. In the face of rising environmental damage caused by the uncontrolled development of wetlands, the Government adopted in 2001 a ministerial order related to the exploitation and management of wetlands in Rwanda. The project will help reinforce this ministerial order by helping the Government develop a comprehensive wetland policy, and by assisting in the strengthening of national capacity for the conservation and sustainable use of wetlands and their watersheds. The environmental law and the water resource strategy are important complementary policy tools that are being developed separately by the Government, also support the sustainable management of wetlands.

## 3. Benefits and target population:

The expected project benefits have been summarized in the table below:

Benefits	Local & Regional	National/Global
<b>Social and institutional</b>	<ul style="list-style-type: none"> <li>· Enhanced participation, representativeness and accountability of local communities to manage and utilize natural resources in sustainable way.</li> <li>· Necessary policy and regulatory framework and incentive mechanisms for sustainable management of natural resources in an integrated manner.</li> <li>· Improved cross-sectoral cooperation on management of critical ecosystems.</li> <li>· Empowerment and increased technical skills of CDCs and community members in sustainable natural resources management.</li> </ul>	<ul style="list-style-type: none"> <li>· Enhanced coordination, accountability, and financial commitment of NRM decision-making institutions for planning, management and sustainable utilization of natural resources in the country.</li> <li>· Enhanced local and national capacity of government institutions and NGOs to provide capacity-building services to protect critical ecosystems and globally important biodiversity and to alleviate land degradation.</li> <li>· Dissemination of best practices on integrated ecosystem management for replication and policy recommendations at national, regional and global levels.</li> <li>· National policy and legislation in conformity with international treaties promoting biodiversity conservation and alleviation of land degradation.</li> </ul>
<b>Financial</b>	<ul style="list-style-type: none"> <li>· Increased financial benefits for local community members through increased production and supply of food &amp; cash crops, fisheries, fuel and</li> </ul>	<ul style="list-style-type: none"> <li>· Improved coordination of donor assistance to ecosystems management and biodiversity conservation efforts in the country.</li> </ul>

	medicinal plants from wetlands.	
<b>Environmental</b>	<ul style="list-style-type: none"> <li>· Reduced impairment of aquatic ecosystems and reduced land degradation caused by soil erosion.</li> <li>· Reduced illicit and unsustainable use of natural resources.</li> <li>· Improvement in wetlands' physical and hydrological functions.</li> <li>· Improvement of water quality and watershed management.</li> <li>· Protection of habitat for endemic and endangered species.</li> </ul>	<ul style="list-style-type: none"> <li>· Improved policy, planning and management mechanisms for globally important ecosystems.</li> <li>· Increased carbon sequestration through improved ecosystem management and enhanced biomass.</li> <li>· Comprehensive M&amp;E system for impact and performance monitoring on (social, institutional aspects ) and globally important ecosystems/ biodiversity.</li> <li>· Protection of habitat for endemic and endangered species.</li> </ul>

**Target groups:**

3.2 The primary objective of the proposed project is to help farmers increased productivity without harming unduly and permanently the resource base and the rare biological resources of wetlands. The proposed project is in line with the RSSP objectives and will support the development and promotion of improved farming practices that will help farmers benefit from a sustained flow of increased agricultural output, while preserving the essential natural resources and ecological functions of the wetlands. Other stakeholders will also benefit from the project. The distribution of benefits among the project's main stakeholders is as follow:

- *Farmers* in project sites will benefit from improved agricultural support and natural resource management services, particularly improved and adapted farming technologies that will increase productivity while protecting the renewable resource base for long-term agricultural potential (crop, fish, etc.). This will have short, medium, and long term positive impacts in terms of improved food security, improved nutrition, higher income and reduced poverty. The technical assistance provided by the project will also increase the capacity of the farmers in the project area in natural resource management and land use planning; this capacity will improve the sustainability of livelihood in the rural areas where most of the population rely on natural resource-based economic activities for meeting their daily food intake, and other necessities;
- *Communities* living in and outside the project sites will benefit from several external positive effects including the spread of productivity-enhancing and environmentally sound farming technologies. Therefore, they will benefit to some extent from the poverty reduction effects (increased production and income) of the project. Most importantly, the implementation of the community-based ecosystem management plans through reforestation and construction of anti-erosion structures on slopes will help reduce the frequency and scale of landslides that claimed several human lives and caused considerable property and environmental damage in recent years;
- Targeted institutions including CDCs, provincial administrations, the sectoral ministries involved,

and NGOs will benefit directly from technical support and other capacity building activities that will upgrade their capacity to adopt integrate ecosystem management into sectoral and local development planning.

#### **4. Institutional and implementation arrangements:**

##### ***Institutional Arrangements for Project Implementation***

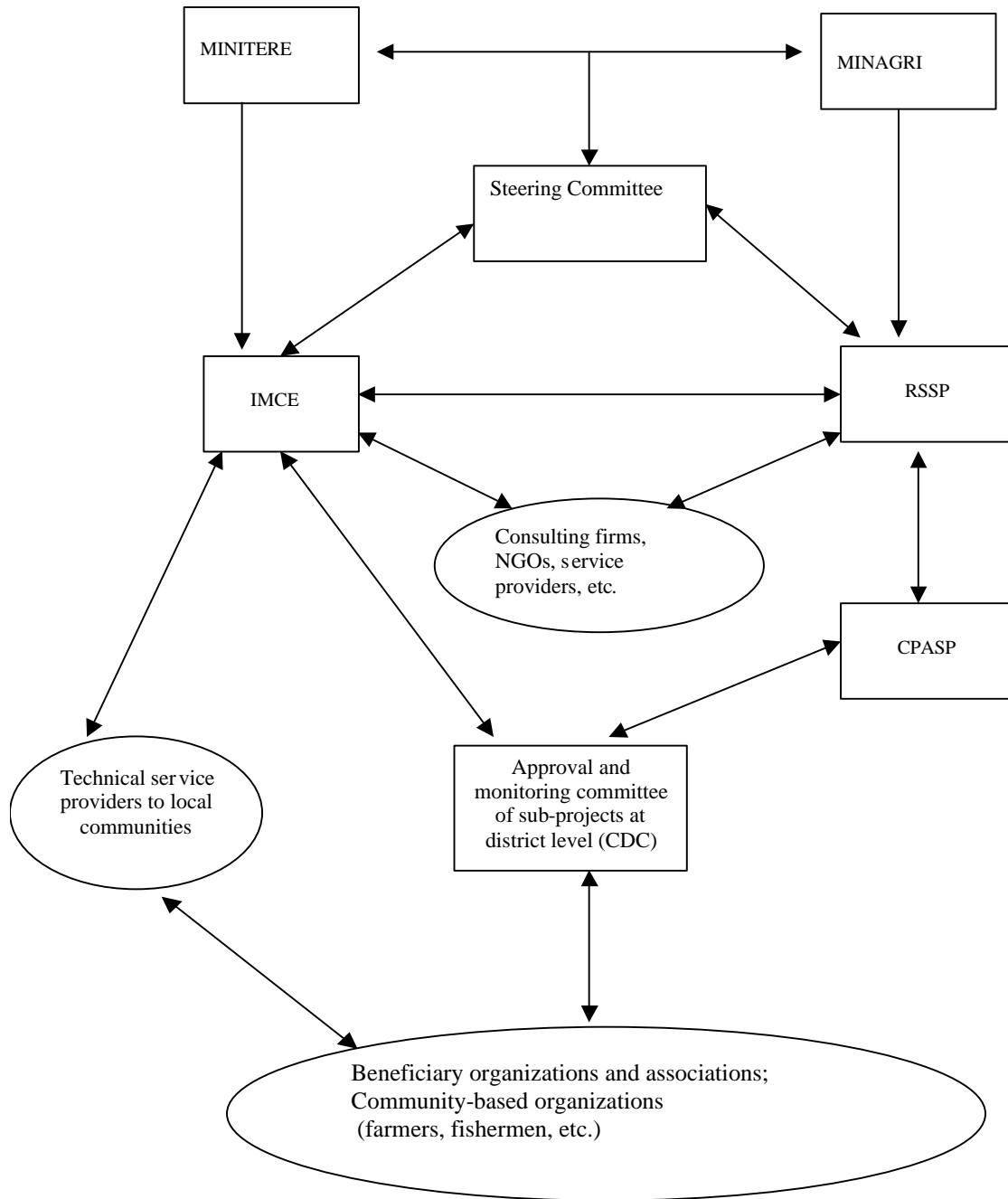
4.1 In addition to the fact that the preparation of the IMCE project started late, the implementation of the preparation of the PDF-B activities was delayed by a series of factors. As a result, the implementation of the main phase of the project will overlap with that of the baseline RSSP, instead of fully coinciding. Overall, this overlap will not create any major operational problems for two reasons. (i) most of the work in the core area of collaboration and co-financing by GEF are still at the planning stages in the RSSP; (ii) even if the baseline RSSP moves to the subsequent phase of the APL by the end of 2005 as planned, the activities initiated under the first phase will continue. This will provide the opportunity to continue support to the integrated resource management investments (soil and water conservation, promotion of improved farming, implementation of watershed management plans, etc.) to which the most part of the GEF co-financing is allocated. Consequently, the phasing and alignment of the implementation of the baseline RSSP and the IMCE project are assured.

##### *Link with the RSSP*

4.2 The overall responsibility for project implementation will rest with the Ministry of Land, Environment, Water, Forests, and Natural Resources where a Project Management Unit (PMU) will be established. The PMU headed by the Project Coordinator will be responsible for the overall implementation and coordination of the project activities. The Ministry of Agriculture and Livestock (MINAGRI) that manages the baseline RSSP through a separate PMU will play a major role in the implementation of the IMCE project. In addition to capacity building (component 2), and monitoring and evaluation (under component 4), the implementation unit of the RSSP will assume joint responsibility for developing and implementing the community-based integrated ecosystem management plans (component 3). Because of this strong link, it is important that reliable and efficient operational and collaboration channels be established between the PMUs of the RSSP and the IMCE project. In addition to sharing the same Steering Committee with the RSSP, the IMCE will use the same decentralized implementation units (i.e., Community Development Committees –CDCs) at the district level. The operational links between the IMCE project and the RSSP are depicted in the diagram shown below:



## ORGANIZATIONAL CHART FOR PROJECT IMPLEMENTATION



4.3 Most importantly, a memorandum of understanding (MOU) describing the collaboration framework between the RSSP and the IMCE project, and the respective responsibilities of each PMU is developed and will be annexed to the project implementation manual of the RSSP and the IMCE project. Among other things, the MOU emphasizes the need to:

- Undertake jointly the preparation of annual work programs;

- Prepare jointly task budgets for activities implemented jointly;
- Prepare and finance jointly integrated ecosystems management plans;
- Organize and finance jointly training sessions for modules dealing with integrated ecosystem management;
- Comply with the incremental financing principle for the GEF resources managed by the PMU of the IMCE project, and
- Share relevant information related to the implementation of both projects.

4.4 In carrying out specific activities, the implementation units of both the RSSP and the IMCE project will rely on expertise from various institutions, including state agencies, NGOs, and user/producer organizations, and on international expertise when appropriate. It will also benefit from the expertise of a full time international technical assistant.

*Links with the decentralization framework*

4.5 The Rwanda decentralization policy adopted in 2000 provides four local administrative levels: (i) the province, (ii) the district, (iii) the sector, and (iv) the cellule. While the province is a deconcentrated entity responsible for the execution of central government programs, the district as the legal decentralized government is responsible for economic and social development planning. The responsibility for the formulation of local development programs resides in the Community Development Committees (CDCs) of the cellules, sectors, and districts (with the district providing overall coordination in its five-year development plan). In the current context of limited economic base and limited economic diversification, the rehabilitation of the farmed wetlands and the associated protection of the resource base supported by the integrated resource management plans would constitute a key element of the five-year development plans of the districts where the project sites are located.

4.6 Consequently, the implementation of the proposed project is integrated into the district economic and social development planning, through the Monitoring and Approval Committee of the district CDCs. This Committee is already involved in the implementation of the RSSP sub-projects at the local level. The Committee is composed of locally elected officials, and technical staff (agriculture, environment, forestry, etc.) of the districts. This Committee will (i) review and approve the integrated management of critical ecosystems, (ii) assist in the implementation and monitoring of these plans, and (iii) ensure the consistency of these plans with the local development plans of the districts. The integration of the IMCE project implementation into the district development framework will be based on the following processes and activities: (i) bottom-up planning (of the community-based critical ecosystem protection and management plans) involving the cellules and sectors of the project sites; (ii) the establishment of a participatory M&E system that integrates the CDCs of the cellules, sectors, and districts; and (iii) the provision of capacity building to the CDCs in the areas of integrated ecosystem management and local development planning, monitoring, and evaluation. Not only would this integration provide a stronger ownership of the IMCE project by local actors and beneficiaries, but it will also strengthen the sustainability of the project by providing a development framework that is likely to take over the project responsibilities when external funding from the proposed project ends.

***Project Monitoring and Evaluation***

4.7 A monitoring and evaluation (M&E) unit will be established under component 4 (Project Management and Coordination). The responsibility of this unit is to design and carry out result-based M&E activities that respond to the decision-making, accountability, and learning needs of the key stakeholders of the project, and the Bank. This unit will design an M&E system that includes the basic

elements of result-based monitoring and evaluation strategic objectives, activities, performance indicators, timeline and key milestones for delivering outputs, evaluation, etc.). The functioning of the system will follow the decentralized and participatory implementation framework of the project. Thus, the M&E unit of the PMU will establish functional and operational links with the Monitoring and Approval Committee of the districts, and with the beneficiaries through producer associations (or the community-based conservation committees of the four sustainable use and conservation sites).

4.8 The main tasks of the M&E unit will be to: (i) develop and put in place an effective implementation and impact monitoring work plan (based on the project LogFrame) that fits the tasks of the different monitoring and evaluation levels (i.e., central, provincial/district, and beneficiaries; (ii) undertake baseline surveys (when available, the M&E unit will use the results of the baseline surveys conducted by the RSSP) to define the benchmark conditions against which accomplishments of the Project will be measured, (iii) undertake and oversee the periodic collection and analysis of data, and conduct periodic evaluation studies in order to assess the effectiveness and impact of the project activities; (iv) produce performance reports, and manage; and (v) prepare and disseminate lessons learned to inform new activities and future projects within and outside Rwanda.

4.9 Overall, the planning worksheet of the M&E plan will derive from the project LogFrame, and will specify the plans for data collection, analysis, and use. The LogFrame will be used to identify, generate, and organize the key information needed for the M&E plan. The PMU will develop a participatory M&E plan that describes the roles and responsibilities of the key stakeholders involved in the implementation of the project. Following the project launch, an M&E workshop and stakeholder analysis will be organized by the PMU, in order to (i) ensure the highest degree of stakeholder involvement in fine tuning the M&E system and plan, (ii) to ensure that this system is an integral part of the project management structure and processes, and (iii) to generate the planning worksheet of the M&E plan. The PMU activities will include training and capacity building support for a successful implementation of the M&E plan. IN addition to the monitoring reports, and the mid-term and final evaluation studies, annual project self-assessment using stakeholder workshops and data gathered through the monitoring system will be conducted. One external review will be conducted at the end of the project.

## **D. Project Rationale**

### **1. Project alternatives considered and reasons for rejection:**

1.1 Due to high population density, there is hardly any undeveloped land outside the protected areas and wetlands, therefore, the rural population has had no choice but to cultivate increasingly larger areas of these wetlands. Several inventory and diagnostic studies have been conducted on these wetlands to provide guidance on the sustainable use of their resources, either for agriculture or for other development purposes. The hydrology, typology, and topography of these wetlands generated maps of the major wetland systems and watersheds that are now used as the basis for assessing the development potential and the likely environmental impacts of development in the country's wetlands. Furthermore, several investment options were examined along with their potential environmental impact. The environmental assessment identified a few wetlands for priority protection because of their richness in biodiversity, their importance as habitat for fish spawning and migratory birds, and the critical ecological functions they provide.

1.2 On the basis of the studies conducted, the project considered that one way of preserving the country's biodiversity and conserving the critical ecological functions of wetlands could have been to develop a traditional biodiversity conservation project aimed at delineating the areas to be protected,

adopting the necessary regulations, and formulating conservation management plans to be implemented. Experience elsewhere has shown that such an approach to conservation has limited chance of succeeding because of the eminent emphasis on command-and-control policy tools. There is a tendency for failure for such an approach because it does not provide strong incentives to local communities whose participation is vital for achieving the desired biodiversity conservation outcomes.

1.3 Another approach would have been to design a project that would link selected areas for protection with local communities through the provision of resources for financing local development initiatives. Experience shows that success with this approach has varied widely depending on local socio-economic and institutional contexts. A requirement for success being the fitness or the match between the magnitude of the economic opportunities that are lost to the local communities, on the one hand, and the benefits provided by the local development initiatives on the other hand. In fact, the difficulty with this integrated conservation-development approach resides in finding viable and sustainable alternative livelihood options that fairly compensate for the opportunity costs that an integral protection of the targeted areas impose on the local populations. In many cases, the most visible investments consist of social infrastructure (facilities and services) that provide much needed relief to local communities, but fails to provide good substitute for production, income, and consumption opportunities that are missed due to the creation and management of protected areas.

1.4 Instead of the two alternatives discussed above, the proposed IMCE project adopted an approach that would integrate the main thrust of the conservation efforts into the planning, and execution of production activities of local communities. By integrating the project activities as relevant into those of the RSSP, biodiversity conservation is mainstreamed into land use planning and agricultural activities. This approach reduces the total opportunity costs to farmers and other local resources users, provides them with sustainable livelihood opportunities to which they are accustomed, and creates a viable option to protecting biodiversity outside protected areas.

## **2. Major related projects financed by the Bank and/or other development agencies (completed, ongoing and planned).**

2.1 Rapid natural resource degradation, especially deforestation and land degradation, and the shortage of arable land have led successive Governments to initiate interventions aiming at helping farmers and other resource users adopt sustainable practices in their exploitation and use of natural resources. The World Bank and several other donors helped to sustain these efforts in a variety of interventions covering either the national or the district levels focusing on priority areas with particularly severe environmental degradation. Below are major related projects both Bank and donor supported.

Sector Issue	Project	Latest Supervision (PSR) Ratings (Bank-financed projects only)	
		Implementation Progress (IP)	Development Objective (DO)
<b>Bank-financed</b>		S	S
Pilot of low cost agricultural services delivery models in the Gitarama Prefecture, and support to monitoring and evaluation capacity of the ministry	Gitarama Agricultural Services and Institutional Development (Cr.16690-RW)		

of agriculture		S	S
Increase the availability and sustainability of water supply & sanitation services in rural areas.	Rural Water Supply & Sanitation (Cr.33680-RW).		
Agricultural commodity marketing systems.	Agricultural & Rural Markets Development project (Cr.32700- RW).	S	S
Strengthen the capacity of local communities and the communes to implement development projects.	Community Reintegration and Development project (Cr. 31380-RW).	S	HS
Natural resource management and sustainable production systems	Integrated Forestry and Livestock Development Project (Cr. 10390-RW)	S	S
<b>Other development agencies</b>			
GEF/UNDP/WCS: Protected areas management & Biodiversity conservation.	Restoration of capacity for conservation of the protected areas in Rwanda (Nyungwe Forest Reserve/Volcanoes National Park).		
GEF/UNEP/FAO : Sustainable land management & biodiversity conservation.	Alleviating Land Degradation through Biodiversity Conservation in Upper Catchment of the Akagera River Basin (Rwanda, Tanzania, Uganda).		
GEF/UNEP/ Wetlands International: Biodiversity conservation.	Enhancing Conservation of the Critical Network of Wetlands Required by Migratory Water birds on the African / Eurasian flyways.		
GEF/WB/UNDP: Water resources.	Nile Basin Initiative Shared Vision Programme.		
ADB (On-going): Marshland development.	Master Plan for the Management of the Marshlands, Watershed Protection and Soil Conservation.		
GoR, FAO, UNDP: Sustainable land management.	Soil Fertility Initiative / Soil and Water Conservation.		

IP/DO Ratings: HS (Highly Satisfactory), S (Satisfactory), U (Unsatisfactory), HU (Highly Unsatisfactory)

### 3. Lessons learned and reflected in the project design:

3.1 Bank-supported projects implemented from the mid-1980s until the early 1990s attempted to strengthen the capacity of institutions that are essential for natural resource conservation, and to develop and disseminate technological packages that would help farmers increase their productivity while sustaining the natural resource base, especially, soil fertility. Most of the projects implemented did not achieve their planned objectives. Several met with less than expected outcomes, due, mainly to inappropriate design coupled with unfavorable political and economic conditions. In particular, the design of many projects relied on the prevailing institutional structure (top down and non-participatory technology development) and failed to induce the desired changes. Also, insecure rights as well as the low investment capacity prevented a large scale adoption of the proposed technological packages. Finally, very little attention was paid to environmental protection and to biodiversity conservation, in particular.

3.2 Support from the Bank and other donors to the agricultural and natural resource management sub-sector in the post-genocide era has been relatively limited, although both social protection and emergency credits included investments for the rural economy. Such investments supported mainly the agricultural sector by addressing the serious social and labor constraints resulting from civil war and the genocide, as well as food security and farm production priority needs. Most importantly, community participation, planning, and implementation of interventions are key areas of design in the post-genocide era that projects focused on. Such a focus allowed communities to take responsibility for the management of their private and common productive assets, an approach which proved successful given the end-of-project achievements that led to the development of a second, scaled-up phases. A number of on-going donor-supported interventions followed the same participatory approach.

3.3 The design of the proposed IMCE project draws from the implementation experiences and lessons learned from Bank interventions of the pre- and post-civil war and genocide era. The experience of other donors involved in natural resource management also provided useful insight for the preparation and design of the project. The project design draws on three basic lessons learned from previous similar operations;

- **There need to adopt an integrated approach to conservation** to involves both the type and spatial scale of activities. In addition to providing support for the construction of soil and water conservation structures, the proposed project would adopt a landscape/watershed approach that will take into account the topography, water regime, and the linkages among ecosystems at various scales that affect the resilience of the resource base. This approach puts emphasis on off-farm land degradation that have a deleterious impact on agricultural productivity and on the broader resource base.
- **There is need to draw from earlier interventions** and therefore highlight the importance of developing a compatible incentive system that would induce sustained collaboration among resource users to adopt and successfully implement resource conservation technologies. In addition to linking resource conservation investments to agricultural production, the proposed project will provide direct support to farmers through cost-sharing intended to help them support the adoption cost of improved farming and sustainable resource use technologies.
- **It is necessary that the proposed project adopt a much stronger participatory approach** that relies on the beneficiary participation at the earliest stages of project preparation

#### **4. Indications of borrower and recipient commitment and ownership:**

4.1 Despite the enormous social and economic challenges associated with the 1994 genocide and the heavy burden of recovery, GoR has demonstrated significant commitment to conserving the country's biodiversity, reducing land degradation, and protecting transboundary and international water resources. The Government has ratified the Conventions on Biological Diversity and Climate Change in May 1995, and it has prepared a National Biodiversity Strategy and Action Plan. It completed its First National Report to the CBD in January 1998 and its National Report to the CCD in November 1999. Rwanda ratified, the Convention on Desertification in June 1995. The country's dwindling water resources and degradation of wetlands has raised concerns among the highest authorities. At its session of 27 October 2000, the Council of Ministers adopted the decision to provide greater environmental protection to Rwanda's marshlands and forests, and specifically highlighted the importance of protecting the Nyabarongo wetlands.

4.2 In close collaboration with the Inter-ministerial Commission, MINITERE, the GoR reviewed the use and management of the country's wetlands and developed a draft Memorandum on the Use and Management of the Wetlands of Rwanda. In September 2001, the Government adopted a ministerial order that regulates the exploitation and management of wetlands. The Government also adopted recently a new Land Law that offers secure property rights to land users as a means of encouraging investments in production and resource conservation, and a comprehensive environmental legislation. Finally, MINAGRI has developed a Soil and Water Conservation Policy that will provide the government with the technical guidance needed to develop a national soil and water conservation program.

#### **5. Value added of Bank and Global support in this project:**

5.1 The proposed GEF funded IMCE project for which the IDA funded Rural Sector Support Project (APL) serves as a baseline operation, is expected to make a significant contribution in the conservation and sustainable use of natural resources through the integrated management of critical ecosystems. The involvement of the Bank and GEF in this important policy area dealing with the imperative of increasing agricultural production preserving the resource base fills a gap that has developed when much of donor support following the civil war and the genocide focused on emergency support to social needs. While complementing the Government effort in the area of sustainable agricultural development, the Bank and GEF intervention has created the opportunity for other donors to join in the fight against poverty-induced environmental degradation.

5.2 The Government and local authorities consider GEF's role as a great opportunity to enhance the move towards broader, holistic programmatic approach based on integrated production/conservation techniques. GEF resources will support the removal of barriers and constraints to adopting a cross-sectoral approach to the management of Rwanda's natural resources, thus playing a catalytic role in linking sectoral ministries responsible for different aspects of natural resource management. This will be conducted through (i) supporting the development of an enabling policy and regulatory framework; (ii) promoting sustainable use of wetlands and conservation of biodiversity into sectoral plans, policies, and development programs; and (iii) strengthening human resource and institutional capacities at all levels, the proposed project will help remove impediments to sustainable land use.

### **E. Summary Project Analysis** (Detailed assessments are in the project file, see Annex 8)

#### **1. Economic (see Annex 4):**

- Cost benefit      NPV=US\$ million; ERR = % (see Annex 4)
- Cost effectiveness
- Incremental Cost
- Other (specify)

## 2. Financial (see Annex 4 and Annex 5):

NPV=US\$ million; FRR = % (see Annex 4)

Fiscal Impact:

## 3. Technical:

3.1 The assessment of institutional and technical capacities conducted as part of the PDF-B activities, and the lessons learned from the implementation of these preparatory activities generated valuable information on the capacity of the implementing agency and the host ministry in conducting and supervising the project implementation. The project is likely to face a number of technical challenges due to the novelty and nature of the tasks to be completed, and to the fact that technical capacity within MINITERE and the ministries involved in environmental and natural resource management is weak. There are three areas where the capacity gap will need to be filled rapidly in order to ensure successful implementation.

- **Inadequacy of skills for participatory rapid landscape appraisal:** The availability of these skills will enable technical staff to help rural communities define resource problems, prioritize them, and adopt community-based resource management plans.
- **Inadequacy of Local Community Capacity:** Communities do not have the capacity to implement long-term collaborative resource management plans, especially in the current national context where massive population displacements have taken place during recent years. These communities also lack experience with managing procurement and contract-based service delivery.
- **Weak M&E Capacity:** Especially in areas of ecosystem management, and biodiversity conservation. Both regional and central resource management institutions are in need of capacity strengthening in those areas.

3.2 During the implementation of the PDF-B activities several training workshops have been conducted. These workshops targeted both central and district technical staffs likely to be involved in the implementation of the project activities. The project will continue to support these efforts by emphasizing capacity building and training throughout its implementation. In addition, resources will be allocated to the hiring of an international technical assistant who will help develop and start the implementation of a long-term capacity strengthening plan in the area of critical ecosystem exploitation and conservation. The RSSP has also undertaken technical assistance and capacity building initiatives (through the environmental mitigation and management plan) at the beginning of the implementation of its activities. RSSP has included a natural resource/environmental specialist and a technical assistant to help develop technical guidelines for the integrating environmental concerns into the rehabilitation of the selected wetlands. The proposed IMCE project will contract a technical assistant with specific expertise in biodiversity conservation in wetlands and agricultural systems. The two projects will team up to develop a comprehensive and integrated approach towards the protection of Rwanda critical ecosystems, and conserving the resource base for agricultural production.



3.3 The Community Reintegration and Development Project (CRDP) that has piloted a decentralized approach to designing and implementing development activities has been quite successful in addressing the capacity constraints at the community level. The lessons learned from that operation, as well as from the experience of the participatory appraisal teams that were trained to carry out the poverty assessments during the preparation of Poverty Reduction Strategy paper will help the IMCE project fill the technical capacity gaps of local governments and communities involved in its implementation..

#### **4. Institutional:**

##### **4.1 Executing agencies:**

**4.1.1 The project management unit:** Given the limited capacity of MINITERE, a Project Management Unit (PMU) will be established within the Ministry and entrusted with the technical responsibility for carrying out the planned activities. The PMU headed by the project coordinator will be responsible for the overall implementation and coordination of the project operations. The functions and operations of the PMU will be overseen by a steering committee. The PMU will be responsible for the overall management and coordination of the project activities, including support to local implementing agencies and beneficiary groups. More precisely, the PMU will be responsible for (i) the preparation and implementation of annual work plans and budgets for each component; (ii) the establishment and operation of a decentralized monitoring and evaluation system; and (iii) the financial and administrative management of the project activities. The recruitment of the PMU staff will follow Bank's guidelines for the recruitment of consultants.

**4.1.2 The project steering committee:** A steering committee (SC) consisting of representatives of the Ministry of Agriculture and Livestock (MINAGRI), the Ministry of Finance and Economic Planning (MINECOFIN), the Ministry of Local Government and Social Affairs (MINALOC), and the Ministry of Education, Science, Technology, and Scientific Research (MINEDUC), and other relevant ministries will be established under MINITERE. This SC will be responsible for providing oversight and advice to the PMU, and for ensuring effective inter-ministerial coordination in specific areas of the project implementation. It will also provide assistance and guidance in resolving issues associated with the project implementation. The project coordinator will serve as the SC's secretary.

**4.1.3 The program support and coordination unit (PSCU) of the RSSP:** The activities of the baseline RSSP will be implemented by a program support and coordination unit (PSCU) established within the Ministry of Agriculture and Livestock (MINAGRI). The PSCU will be responsible for the overall management of the program activities, including (i) the coordination of the implementation of the program components; (ii) the consolidation of annual work programs and budgets; (iii) the establishment of a decentralized monitoring and evaluation system; and (iv) the financial and administrative management of the program. The plans for the integrated management of critical ecosystems will be developed jointly by the PSCU and the PMU (of the proposed project). The activities to be implemented jointly include (i) the planning of marshland and hillside rehabilitation; (ii) the zoning pertaining to the protection of critical ecosystems; (iii) the development and promotion of sustainable resource exploitation technologies; (iv) the development of community-based integrated ecosystem management (including watershed management) plans; and (v) the participatory monitoring and evaluation of these plans. The PMU will create and operate a Special Account in order to co-finance the (incremental) cost of those activities that are eligible to GEF financing.

**4.1.4 Local administrations:** The project will develop direct and effective operational linkages with local administrations. These linkages will be similar to those developed by the baseline RSSP, and the

local actors (NGOs, SLOs, farmer organizations, and deconcentrated sectoral technical units) on which the RSSP rely for its implementation will also be used for the implementation of the planned activities, when necessary. The participating districts will designate a focal point who assures the link of the planned activities with the district five-year development plan, and serves as liaison with the PMU and the beneficiaries.

#### 4.2 Project management:

Project Management Unit (PMU) will be established within the MINITERE and entrusted with the technical responsibility for carrying out the planned activities. The PMU will be staffed with a Project Coordinator in charge of the overall coordination of the project, a Technical Assistant in charge of wetlands management plans, an Environmentalist in charge of training and sensitization, a Chief Accountant, a Monitoring and Evaluation Specialist, a Procurement Specialist, an Accountant and some support staff. They will all be recruited on an open competitive basis and acceptable to the Bank.

#### 4.3 Procurement issues:

4.3.1 PMU will be responsible for procurement and financial management. The procurement procedures under the project implementation will comply with IDA requirements. The procurement capacity of the implementing agency was reviewed during the appraisal mission. Since the project did not have its own Procurement Specialist, it was judged highly risky. Therefore some appropriate recommendations were made in order to ensure that the procurement of goods and services (including consultants) comply with Bank fiduciary requirements in this area.

#### 4.4 Financial management issues:

4.4.1 The project will need to ensure that a financial management system that is compliant with OP/BP 10.02 is established by effectiveness.

### 5. Environmental: Environmental Category: B (Partial Assessment)

5.1 Summarize the steps undertaken for environmental assessment and EMP preparation (including consultation and disclosure) and the significant issues and their treatment emerging from this analysis.

5.1.1 The fact that the RSSP baseline project involves wetland rehabilitation and management played an important role in rating it a B environment category. Although the rehabilitation of wetlands will reduce environmental degradation, the implementation could have some adverse impacts if appropriate measures are not taken. In particular, inappropriate exploitation of wetlands (e.g., uncontrolled removal of vegetation, intense pesticide use, inappropriate drainage) could impair their hydrologic and edaphic characteristics, and possibly result in their drying up. This could also affect their productive functions (agriculture, fisheries, and other products), as well as their biodiversity and ecological functions (flood control). Inadequate attention to the cumulative impacts of the rehabilitation of wetlands and the development of selected rural infrastructure (feeder roads, arterial trail tracks, etc.) could also affect negatively the environment (soil erosion and downstream negative effects). Finally, the expansion of irrigation agriculture could increase the prevalence of waterborne diseases.

5.1.2 An environmental assessment of the project was prepared in order to assess the likelihood and magnitude of these potential adverse effects, and a corresponding environmental management plan (EMP) intended to mitigate these effects has been prepared. It is important to mention that the EA presented a general framework describing all the potential impacts and the recommended mitigation measures for each of these impacts. Since the edaphic, topographic, and size of the wetlands to be rehabilitated vary from one site to the next, the EA recommended that a specific EA be undertaken prior to the investing in the rehabilitation. This EA will provide more accurate and site specific recommendations for the mitigation of adverse impacts. In addition to a pest management plan, the EMP includes mitigation measures for small

rural infrastructure investments. Capacity building also constitutes an important component of the EMP. As mentioned in section 3 above, two environmental specialists have been hired by the PIU of the RSSP to oversee the implementation of the EMP, among other duties.

5.1.3 A strong link between the GEF project and the Marshland Master Plan (on which the RSSP based the selection of the wetlands to be rehabilitated) will help integrate biodiversity conservation aspects into the rehabilitation of the selected wetlands. When necessary, GEF resources will help finance the assessment of the diversity of the biological resources of particular wetlands before the rehabilitation investments start. The results of the assessment and the studies will permit the identification of hotspots and priority areas for conservation and sustainable use.

## 5.2 What are the main features of the EMP and are they adequate?

5.2.1 The terms of reference and the content of the environmental assessment study prepared for the RSSP were largely based on the exploitation of wetlands. As a result, all the interventions that would require attention in terms of their environmental and social impacts under the proposed GEF project were dealt with in this study. Indeed, the EMP of the baseline Rural Sector Support Program includes the necessary environmental mitigation plan for the potential adverse environmental and social impacts identified in the assessment. The GEF-supported interventions in the four major wetland system do not entail any adverse environmental impacts, as the aim is to undertake preventive protection measures by zoning and promoting sustainable use practices for the exploitation of various types of products. The EMP will be implemented by PMU of the RSSP and that of the proposed project.

## 5.3 For Category A and B projects, timeline and status of EA:

Date of receipt of final draft: N/A (For baseline Rural Sector Support Project, EA final draft was submitted on November 27, 2000)

## 5.4 How have stakeholders been consulted at the stage of (a) environmental screening and (b) draft EA report on the environmental impacts and proposed environment management plan? Describe mechanisms of consultation that were used and which groups were consulted?

5.4.1 The populations of the targeted project sites were involved in the preparation of the RSSP EA study that was conducted concomitantly with the social impact assessment of the planned activities. The multi-disciplinary team visited a sample of sites and communities in order to (i) assess the extent of the rehabilitation work needed on the wetlands for agricultural production, the nature of such work and its potential biophysical and social impact, (ii) discuss with the communities their expectations from the planned activities, and the organization of their involvement in these activities, and (iii) determine the best way to establish the collaboration between these communities and the project on the basis of shared responsibility. A more detail environmental assessment focused on each project site will be done before the rehabilitation investments take place. The communities associated with each site will be informed in advance in order to allow their effective participation in the conduct of the study, the discussion of the results, and the implementation of any recommended mitigation actions.

## 5.5 What mechanisms have been established to monitor and evaluate the impact of the project on the environment? Do the indicators reflect the objectives and results of the EMP?

5.5.1 As mentioned above, the realization of a site specific EA study will be done prior to undertaking the investments on each site (i.e., wetland). Like any other activity of the RSSP, this EA will part of the annual work plan of the PMU. The results of the EA and the adopted site-specific EMP will be included in the annual work plan of the following year(s), and its implementation will be monitored like any other

activity of this work plan. The monitoring of this EMP will be based on both activity, input, and outcome indicators.

## **6. Social:**

6.1 Summarize key social issues relevant to the project objectives, and specify the project's social development outcomes.

6.1.1 The social assessment of the RSSP identified several factors whose integration into the project could strengthen the design and effectiveness of the project activities. Such factors include:

- the existence of a strong network of traditional self-help groups, community organizations, and farmer organizations all expressing a strong willingness to contribute to project activities;
- the existence of a large number of vulnerable groups, including orphans, youth-headed households, landless farmers, widows and elders without assistance, disabled and HIV/AIDS-affected people;
- access to markets and credit are the main constraints for the participation of women, the poor and other vulnerable groups in the proposed crop intensification and commercialization of agricultural products.

6.1.2 The rapid rural appraisal that will be conducted in each site prior to the baseline RSSP intervention will provide more specific information on the social and vulnerable group profile of the targeted communities, and provide guidance as to the best way to address the priority needs of the poor and vulnerable segments of these communities. The findings of these appraisals will help prepare social guidelines that will be added to those developed for the screening of the potential environmental effects of the proposed activities. The social assessment identified that women involved in off-farm activities or marketing of farm products would need support in the following areas: appropriate technologies (production and transformation), access to credit, and organizations management (women associations).

6.1.3 Due to the crucial role of women in Rwanda's agricultural development (especially following the genocide in which most men were killed), the RSSP will provide training in farm management, improved agricultural technologies, and natural resource management that are adapted to women's daily workload and schedules. The training modules will also cover non-farm topics, such as, health and nutrition, prevention of water borne diseases, HIV/AIDS prevention, and childcare during farm operations. The RSSP will improve the access of the poor to working capital through matching grants and revolving loan mechanisms. This will improve entry into both farm and off-farm profitable activities that require financial start-up investments, and improve the livelihood of the poor.

6.2 Participatory Approach: How are key stakeholders participating in the project?

6.2.1 The Project activities will cover a wide variety of actors, including several Government agencies, academic/research institutions, NGOs, specialized local organizations (SLOs), farmers and other resource users, either as individual participants or associations of users. Two workshops were organized in early 2000 and in February 2001 to familiarize the stakeholders with the project objectives and components. Several communities have been visited during the preparation of the environment assessment and the social assessment studies. During the implementation, participatory rapid appraisal of local livelihood opportunities and their critical linkages with the wetland resources will be conducted, and awareness raising activities will be undertaken to provide the project stakeholders with a deeper knowledge of the nature of the potential long-term benefits associated with the proposed wetland rehabilitation activities. This will also help the project management unit (PMU) acquire a better knowledge of local socio-economic conditions and goals, and help clarify the expectations and responsibilities of each category of stakeholders. These participatory appraisals will also help build local ownership for the project activities, including the ecosystem management plans, and increase the efficiency of investments

by reducing transaction costs. Specific capacity-building needs will be identified in close collaboration with local communities and beneficiary groups, and the project will help meet these needs in order to empower these communities in the choice, design, implementation, and monitoring and evaluation of the site-specific project activities.

6.2.2 As mentioned above, local communities are the key actors of the proposed project. Their participation in the project that started during the preparatory activities will be sustained during the implementation, monitoring and evaluation of the activities. The monitoring and evaluation system will be based on a participatory approach by linking all the key categories of stakeholders to a framework that builds on the specificity (both in terms of the activities they implement and the sophistication of the measurement tools) of the activities undertaken by each participant. Finally, the public participation plan will focus on (i) providing the right incentive scheme based on the project intended outputs and outcome, and (ii) need-based training aimed to equip the beneficiaries with the technical skills that will help make the best of the opportunities provided by the project, and fully participate in the planned activities. In addition to gender issues, the training themes will include property rights in natural resource management, conflict resolution mechanisms, and co-management arrangements for effective collective action in resource use and conservation. These themes will be included in those already identified in the RSSP training plan.

### 6.3 How does the project involve consultations or collaboration with NGOs or other civil society organizations?

6.3.1 As indicated in section C.4 above, the PMU will rely on expertise from NGOs, SLOs, and user/producer organizations in carrying out specific activities when appropriate. A number of such organizations active in agricultural development and natural resource management have been identified during the preparation of the RSSP, and have played an important role in the implementation of the Agricultural and Rural Market Development project. Specialized local organizations (SLOs) in particular, will play a significant role in training and technical support to producer organizations. In developing collaborative arrangements, priority will be given to SLOs with strong specialization and proven track record in wetland development, natural resource management, training in processing, marketing, and storage of farm products. Beneficiary groups and associations will be closely involved in the design and delivery of these training activities.

### 6.4 What institutional arrangements have been provided to ensure the project achieves its social development outcomes?

6.4.1 The institutional arrangements for the implementation of the project are fully aligned with the Government decentralization policy. By using a fully decentralized and participatory institutional framework based on CDCs and beneficiary organizations, the project ensures the participation of the beneficiaries in the choice, design, implementation and monitoring of the planned activities. Since the key social development issues identified in the social assessment will be included in the environmental and social management plan (ESMP) of the project, and since the implementation of the ESMP is an integral part of the project yearly work program, the monitoring and evaluation system will capture the performance of the project toward the achievement of the social development goals and outcomes included in each sub-project. The M&E system will include specific social development indicators related to each project site.

### 6.5 How will the project monitor performance in terms of social development outcomes?

6.5.1 As mentioned above, the project follows a fully participatory approach in its design and implementation. In particular, the following mechanisms will ensure that the performance of the project in

terms of social development outcomes are monitored adequately:

- the mainstreaming of the social development objectives into the project activities,
- the integration of social development indicators into the performance indicators of the project M&E system,
- the training of the project beneficiaries in participatory monitoring and evaluation techniques, and
- the inclusion of a full section on performance in social development in the project annual activity monitoring report.

## 7. Safeguard Policies:

7.1 Are any of the following safeguard policies triggered by the project?

Policy	Triggered
Environmental Assessment (OP 4.01, BP 4.01, GP 4.01)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Natural Habitats (OP 4.04, BP 4.04, GP 4.04)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Forestry (OP 4.36, GP 4.36)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Pest Management (OP 4.09)	<input checked="" type="radio"/> Yes <input type="radio"/> No
Cultural Property (OPN 11.03)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Indigenous Peoples (OD 4.20)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Involuntary Resettlement (OP/BP 4.12)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Safety of Dams (OP 4.37, BP 4.37)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Projects in International Waters (OP 7.50, BP 7.50, GP 7.50)	<input type="radio"/> Yes <input checked="" type="radio"/> No
Projects in Disputed Areas (OP 7.60, BP 7.60, GP 7.60)*	<input type="radio"/> Yes <input checked="" type="radio"/> No

7.2 Describe provisions made by the project to ensure compliance with applicable safeguard policies.

7.2.1 The provisions made by the project to ensure compliance with safeguard policies include the following:

- The preparation of a screening guide that includes all the potential environmental and social aspects that are associated with the proposed activities;
- The preparation of an integrated pest management plan;
- The requirement to undertake site-specific environmental and social assessment at the time of investment planning;
- The allocation of resources to the realization of these site-specific assessments (including the hiring of three environmental specialists); and
- The integration of environment and social safeguard indicators in the M&E system, and the requirement to document the performance of the ESMP in the annual reports of the project.

## F. Sustainability and Risks

### 1. Sustainability:

1.1 The Project will support capacity building initiatives that promote the protection and preservation of indigenous knowledge and practices in local communities as they pertain to the conservation of the biological diversity of wetland and other ecosystem resources. It will also support the technical skills development at the central and local levels to help local communities implement integrated ecosystem plans that reflect national priorities while enhancing biodiversity conservation and ensuring a better protection of international waters. Finally, through targeted research, it will generate and promote innovative and best practices in sustainable use and conservation of biological diversity in critical ecosystems, in general, and in wetlands in particular. These achievements will lay the foundations for a long-term integrated ecosystem management framework that will help carry on these innovative resource management techniques in the next phases of the IDA APL. This integrated ecosystem management framework will also be very useful in guiding other donors' assistance programs as they move rapidly from emergency relief operations to long-term development interventions including agricultural development and natural resource management.

1.2 It is also anticipated that the methods and approach used to develop integrated ecosystem management plans on the four pilot sites, and on some of the rehabilitated farmed wetlands would eventually be replicated not only in other wetlands of global significance, but also in critical ecosystems in the savanna zone and in biologically rich mountain forests. This would take place in subsequent phases of the IDA-supported RSSP. Experiences gained and best practices relating to conservation and sustainable use of wetlands, improved land, water, and soil fertility management, and watershed management would be disseminated to encourage replication. Thus, the lessons learned would benefit not only Rwanda but also other countries, especially those in the East African highlands where similar agro-ecological and wetland systems exist.

### 1a. Replicability:

1a.1 It is anticipated that the methods and approach used to develop integrated ecosystem management plans on the four pilot sites, and on some of the rehabilitated farmed wetlands would eventually be replicated not only in other wetlands of global significance, but also in critical ecosystems in the savanna zone and in biologically rich mountain forests. This would take place in subsequent phases of the IDA-supported RSSP. Experiences gained and best practices relating to conservation and sustainable use of wetlands, improved land, water, and soil fertility management, and watershed management would be disseminated to encourage replication. Thus, the lessons learned would benefit not only Rwanda but also other countries, especially those in the East African highlands where similar agro-ecological and wetland systems exist.

### 2. Critical Risks (reflecting the failure of critical assumptions found in the fourth column of Annex 1):

<b>Risk</b>	<b>Risk Rating</b>	<b>Risk Mitigation Measure</b>
<b>From Outputs to Objective</b> 1. Farmers and other resource users show little interest in biodiversity conservation.	M	The project has a provision for compatible incentives for incorporating ecological and conservation objectives into resource management and farming practices.
2. Resource management conflicts (competing claims over resource rights,	M	The development and adoption of comprehensive national policy and regulatory

competition among different categories of users) inhibit effective collective action for resource conservation.		framework for natural resources management under the project is expected to resolve/reduce the emergence of resource use conflicts.
3. Ineffective decentralization of natural resource management.	M	The project recognizes that when the land law under preparation is passed, its enforcement will require significant logistical and human resources. The incentives for resource users at the local level will be commensurate with the extent of rights that the land law grants them. If these rights are not sufficient to ensure clear ownership and security it will be very difficult to induce farmers and other users of natural resources to invest in resource conservation.
<b>From Components to Outputs</b>		
1. Lack of sustained political commitment to natural resources sector reform.	M	
2. Deficient technical and institutional capacity for natural resource management and conservation is not rebuilt in time for successful implementation of project activities.	M	The capacity building activities supported under the project will pay a particular attention to the skills needed for an effective and well performing monitoring and evaluation unit.
<b>Overall Risk Rating</b>	M	

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N (Negligible or Low Risk)

### 3. Possible Controversial Aspects:

## G. Main Conditions

### 1. Effectiveness Condition

- a. Initial payment of the equivalent of \$30,000 by the Government into the Project Account opened at BNR;
- b. Establishment of the Project Management Unit (PMU) and recruitment of staff having qualifications and experience satisfactory to the Bank;
- c. Adoption by Government of a Project Implementation Manual (PIM) that is satisfactory to the Bank;
- d. Establishment of an adequate Financial Management System (FMS) that is satisfactory to the Bank;
- e. Appointment of a Project Auditor or amendment to the terms of reference of the Auditors of the main Program (RSSP) for purposes of the both the Program and the Project under terms and conditions acceptable to the Bank;
- f. The furnishing to the Bank of a satisfactory Procurement Plan for the first 18 months of the project.

### 2. Other [classify according to covenant types used in the Legal Agreements.]



## H. Readiness for Implementation

- 1. a) The engineering design documents for the first year's activities are complete and ready for the start of project implementation.
- 1. b) Not applicable.
- 2. The procurement documents for the first year's activities are complete and ready for the start of project implementation.
- 3. The Project Implementation Plan has been appraised and found to be realistic and of satisfactory quality.
- 4. The following items are lacking and are discussed under loan conditions (Section G):

## I. Compliance with Bank Policies

- 1. This project complies with all applicable Bank policies.
- 2. The following exceptions to Bank policies are recommended for approval. The project complies with all other applicable Bank policies.

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Remi Kini  
**Team Leader**

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Joseph Baah-Dwomoh  
**Sector Manager/Director**

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Gerard A. Byam  
**Country Manager/Director**

## Annex 1: Project Design Summary

### REPUBLIC OF RWANDA: Integrated Management of Critical Ecosystems

Hierarchy of Objectives	Key Performance Indicators	Data Collection Strategy	Critical Assumptions
<p><b>Sector-related CAS Goal:</b></p> <p>1. Accelerate broad-based growth and the revitalization of the rural economy through sustainable agricultural intensification that protects the land resource base and the environment.</p> <p>2. Develop the technical and institutional capacity of the central and local governments to ensure effectiveness of public sector actions.</p>	<p><b>Sector Indicators:</b></p> <p>1.1 Economic growth rate and poverty headcount in rural areas.</p> <p>2.1. Strengthened central and local governments are responsive to the needs of local populations and communities.</p>	<p><b>Sector/ country reports:</b></p> <p>a) Country economic forecasts, reports World Bank, IMF, GoR).</p> <p>b) Periodic poverty monitoring</p> <p>a) District/commune development plans PRSP progress report</p>	<p><b>(from Goal to Bank Mission)</b></p> <p>Macro-economic framework remains stable, and delivery of infrastructure services to rural areas is adequate.</p> <p>GoR support to the decentralization policy is strong and human as well as financial resources are timely channeled to local governments.</p>
<p><b>GEF Operational Program:</b></p> <p>To achieve multiple and local, national, and global benefits by promoting the widespread adoption of farming and resource exploitation practices that integrate ecological, economic, and social goals. (OP 12).</p>	<p><b>Outcome / Impact Indicators:</b></p> <p>Ecosystem stability, functions, services, as well as the livelihood and economic well-being have improved in light of the material benefits provided by integrated natural resource management.</p>	<p>Periodic poverty monitoring, National biodiversity inventories, and monitoring.</p>	<p>Biodiversity conservation and sustainable natural resource management is valued not only by project beneficiaries, but also by other public and private actors not directly involved in the project.</p>
<p><b>Global Objective:</b></p> <p>1. To promote the adoption of an integrated ecosystem approach using improved farming technologies that increase productivity and improve farmers' livelihood, while using land and water resources efficiently, and in a way that protect the resource</p>	<p><b>Outcome / Impact Indicators:</b></p> <p>1.1. An inter-sectoral/governmental coordination mechanism to support integrated ecosystem approach and protect wetlands is put in place.</p> <p>1.2. Technical and financial support is provided to farmers</p>	<p><b>Project reports:</b></p> <p>Project monitoring reports and beneficiary assessment reports.</p> <p>Project monitoring reports</p>	<p><b>(from Objective to Goal)</b></p> <p>Government shows continued commitment to sustainable natural resource management.</p> <p>Agricultural research and extension service develop technologies that are effective and adapted to local</p>

<p>base for biodiversity conservation outside protected areas, and for increased carbon sequestration.</p>	<p>to help them make the transition to productivity enhancing and environmentally friendly technologies.</p> <p>1.3. Uncontrolled conversion of wetlands to agricultural production has ceased, and improved land and water management practices are adopted in 80% of the wetlands rehabilitated by the RSSP.</p> <p>1.4. Stable or increase in two to three indicators of biodiversity (fauna, flora to be determined in baseline survey) in four major wetland ecosystems.</p>	<p>and beneficiary assessment reports.</p> <p>Project monitoring and evaluation reports. IDA/GEF supervision reports.</p> <p>Project implementation reports, and periodic participatory poverty monitoring; Biodiversity information and monitoring system</p>	<p>conditions.</p> <p>Regulations guiding wetlands development are enforced effectively.</p> <p>Market infrastructure for agricultural commodities is adequate.</p>
<p><b>Output from each Component:</b></p> <p><b>1. Development of A Policy and Regulatory Environment for Sustainable Natural Resources Management.</b></p> <p>1.1 Inter-ministerial Committee or an alternative mechanism established to plan and coordinate the use and protection the wetlands is created and operational.</p> <p>1.2 Comprehensive National Wetlands Policy formulated, widely discussed with all stakeholders, and adopted by parliament.</p>	<p><b>Output Indicators:</b></p> <p>1.1.1. The project steering committee is established at effectiveness of the project in order to oversee the implementation of the activities and provide guidance toward the creation of the Inter-ministerial mechanism for the sustainable use and protection of wetlands</p> <p>1.1.2. Inter-ministerial committee or alternative mechanism is created by end of year 2.</p> <p>1.2.1 National Wetlands Policy formulated and adopted by end of year 2.</p>	<p><b>Project reports:</b></p> <p>Project effectiveness confirmation. GEF/IDA Supervision reports.</p> <p>Project implementation reports IDA/GEF supervision reports</p> <p>a) National Wetlands Policy Document. Quarterly project progress reports. GEF/IDA supervision reports</p>	<p><b>(from Outputs to Objective)</b></p> <p>GOR commitment to enactment of policies conducive to sustainable NRM initiatives.</p> <p>Full cooperation of key sectoral ministries is secured.</p> <p>National water resource management strategy is completed .</p>

<p>1.3. National Strategy and Action Plan for the conservation and wise use of wetlands elaborated and approved.</p>	<p>1.3.1 National Strategy and Action Plan including priority actions for sustainable use approved and under implementation by year 2.</p>	<p>b) Quarterly project progress reports. IDA/GEF supervision reports.</p>	<p>Proposed changes in sectoral policies are adopted.</p>
<p><b>2. Capacity Building and Institutional Strengthening in Decentralized Integrated Natural Resources Management.</b></p>			
<p>2.1 Human resource and institutional capacities strengthened to develop, implement, monitor and evaluate integrated ecosystem management.</p>	<p>2.1.1 Institutional assessment, skills gap analysis and comprehensive capacity building plan completed by end year 1.</p>	<p>Institutional development plan, skill gap analysis report, and training program curriculum are available in project files.</p>	<p>Government priority and commitment to strengthen capacity for decentralized management of natural resources.</p>
	<p>2.1.2. 50% of the CDCs in the communes where the project operates have integrated the requirements of integrated ecosystem management into their development plans by end of year 2.</p>	<p>Quarterly project reports. IDA/GEF supervision reports</p>	<p>Human resources available for development of local capacity.</p>
	<p>2.1.3. A biodiversity information system is established by end of year 2.</p>	<p>Project implementation support.</p>	<p>Data and information available in other ministries is readily available and shared with the PMU in a timely manner.</p>
<p><b>3. Integrated Protection and Management of Critical Ecosystems.</b></p>			
<p>3.1 Local development planning takes critical ecosystems protection and watershed resource management into account.</p>	<p>3.1.1 at least 80% of District development plans (in project area) include requirements for protecting critical ecosystems and watershed resources by the end of the project.</p>	<p>Quarterly project progress reports. Project M&amp;E reports. District development plans.</p>	<p>Effective devolution of natural resource management powers to local governments, and decision makers acknowledge the economic and social value of critical ecosystem protection.</p>
	<p>3.1.2. By end of project year</p>	<p>Quarterly project progress</p>	<p>Districts have functional and</p>

<p>3.2 Wetland critical ecosystems and watershed resources are managed in a sustainable way.</p>	<p>4, the income of farmers using improved farming and resource exploitation technologies has increased by 50%.</p> <p>3.2.1 By end of project year 3, at least two watershed management plans are prepared and approved by the inter-ministerial body or the steering committee of the project.</p> <p>3.2.2 By end of project year 3, three community-based integrated ecosystem management plans are formulated and under implementation;</p> <p>3.2.3 By end of project year 3, community-based integrated ecosystem management plans, including conservation and sustainable use of resources around 3 of the 4 critical wetland systems are formulated and under implementation;</p> <p>3.3.4 By end of project year 4, the fourth community-based conservation and sustainable use plan is formulated and is under implementation.</p>	<p>reports. Beneficiary assessment, and project M&amp;E reports.</p> <p>Quarterly project reports. Watershed management plans.</p> <p>Integrated ecosystem management plans. Quarterly project progress reports.</p> <p>Project M&amp;E reports.</p>	<p>adequately staff technical teams working on local development planning.</p> <p>Farmers and other resource users are interested in biodiversity conservation and are willing to incorporate ecological considerations into productive activities.</p> <p>Collaboration between project beneficiaries farming wetlands and no beneficiaries exploiting areas in the vicinity of the wetlands is secured.</p> <p>Collaboration between project beneficiaries farming wetlands and no beneficiaries exploiting areas in the vicinity of the wetlands is secured.</p>
<p><b>4. Project Management, Monitoring and Evaluation, and Information Dissemination.</b></p> <p>4.1 Project implementation is satisfactory, and projects results are adequately monitored and reported. Management Unit (PMU) established, staffed and functional.</p>	<p>4.1.1 PMU is established, fully staffed, and operational by project effectiveness.</p> <p>4.2.1 Three months after effectiveness the participatory monitoring and evaluation</p>	<p>Project launch report. IDA/GEF supervision reports.</p> <p>Quarterly project progress reports. IDA/GEF supervision reports.</p>	<p>Availability of competent and motivated staff. Timely appointment and training of PMU staff.</p> <p>Tools and mechanisms that allow for learning, and adjustment and promote</p>

<p>4.2 Project management is satisfactory .</p>	<p>system is discussed by all stakeholders and approved.</p> <p>4.2.2 Timely preparation and transmission to the Bank of good quality progress reports, FMR and other reports is assured.</p>	<p>Review of FMRs, reviews by the steering committee, and bank supervision reports.</p>	<p>accountability and participation of all stakeholders are developed timely by PMU.</p> <p>competent staff is available.</p>
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Hierarchy of Objectives	Key Performance Indicators	Data Collection Strategy	Critical Assumptions
<p><b>Project Components / Sub-components:</b></p> <p>1. Development of A Policy and Regulatory Environment for Sustainable Natural Resources Management.</p> <p>2. Capacity Building and Institutional Strengthening in Decentralized Integrated Natural Resources Management.</p> <p>3. Integrated Protection and Management of Critical Ecosystems.</p> <p>4. Project Management, Monitoring and Evaluation, and Information Dissemination.</p>	<p><b>Inputs: (budget for each component)</b></p> <p>US\$0.30 million</p> <p>US\$1.50 million</p> <p>US\$1.70 million</p> <p>US\$0.80 million</p>	<p><b>Project reports:</b></p> <ul style="list-style-type: none"> <li>• Quarterly project progress reports.</li> <li>• Supervision reports.</li> <li>• GEF/Bank Disbursement records.</li> </ul> <ul style="list-style-type: none"> <li>• Quarterly project progress reports.</li> <li>• Supervision reports.</li> <li>• GEF/Bank Disbursement records.</li> </ul> <ul style="list-style-type: none"> <li>• Quarterly project progress reports.</li> <li>• Supervision reports.</li> <li>• GEF/Bank Disbursement records.</li> </ul> <ul style="list-style-type: none"> <li>• Quarterly project progress reports.</li> <li>• Supervision reports.</li> <li>• GEF/Bank Disbursement records.</li> </ul>	<p><b>(from Components to Outputs)</b></p> <p>Sustained political commitment to natural resources (NR) sector reform.</p> <p>GOR commitment to project remain strong.</p> <p>Adequate and timely flow of counterpart funds.</p>

## **Annex 2: Detailed Project Description**

### **REPUBLIC OF RWANDA: Integrated Management of Critical Ecosystems**

#### **By Component:**

##### **Project Component 1: Development of a Policy and Regulatory Environment for Sustainable Wetland and Natural Resource Management - US\$0.30 million**

The objective of this component is to help integrate biodiversity conservation issues into sectoral policy formulation and program implementation through (i) the development and adoption of regulations and legislation for environmental management, especially wetland use and protection, and (ii) the creation of the institutional arrangements required to support the management of critical ecosystems. This component will support the development of institutional arrangements that link central and local level institutions and organizations for the planning and implementation of integrated ecosystem management, especially at the watershed and micro-catchment levels. The outputs of this components would include:

- A comprehensive National Wetlands Policy adopted by the Council of Ministers;
- Conservation and biodiversity aspects incorporated into sectoral policies, plans and development programs, especially those affecting wetlands; and
- Appropriate wetlands legislation elaborated and adopted.

#### ***1.1 Development of a comprehensive National Wetlands Policy***

1. At its session of 27 October 2000, the Council of Ministers adopted the decision to provide greater environmental protection to Rwanda's marshlands and forests, and specifically highlighted the importance of protecting the Nyabarongo wetlands. In response, MINITERE, in close collaboration with the Inter-ministerial Commission charged with reviewing the use and management of Rwanda's wetlands (which was established by the Council of Ministers at its 27 July 2000 session), developed a draft Memorandum on the Use and Management of the Wetlands of Rwanda (February 2001). In the absence of a National Wetlands Policy and appropriate wetlands regulations, draft instructions regarding the management and use of the wetlands were included as Annex I of the Memorandum.

2. While providing a strong political signal for the protection and sustainable use of wetland resources, the 2001 Memorandum does not cover all the aspects of wetland resources use. Also, it does not provide sufficient guidance for the management options available to communities and local government for the protection of these vital natural resources. The development of a National Wetland Policy will provide the comprehensive framework needed to support the Government commitment and will promote the sustainable use and conservation of Rwanda's critical and vulnerable natural resources. Thus, the key output of this component will be an adopted wetland policy. This policy will provide a comprehensive analysis of wetland use and misuse of wetlands, and provide practical guidance for the exploitation of wetlands resources for both public and private interests. The formulation of this policy would follow a participatory process including consultation with a large range of stakeholders, and review and discussion of the draft policy in regional workshops. The preparation work would include the following activities: (i) review of existing policies and legislation which impact on wetlands, either positively or negatively; (ii) review of existing information regarding wetlands and identification of gaps for further study; (iii) review current institutional and administrative practices and propose new coordination mechanisms, clearly delineating institutional and administrative responsibility; (iv) propose preparation of an issues paper based on existing information which would serve as a basis for a broad consultative process; and (v) carrying out extensive consultations, through workshops and participatory appraisals, at national, Prefecture, Commune and Cell levels to allow an exchange of views of the various stakeholders and interest groups.



## ***1.2 Development of a National Strategy and Action Plan for the conservation and sustainable use of wetlands and their watersheds***

3. GEF resources will be used to develop a regulatory framework to support the protection and sustainable use of wetlands, including their genetic stock and biological diversity. A number of old laws exist relating to the status of the marshlands (State ownership), and in 1988 FAO assisted Rwanda in the preparation of a draft law regarding the use of the marshlands. This law was never adopted and was related primarily to the exploitation of wetlands for agricultural purposes. Conservation and protection measures were apparently not provided for in the draft law. Insecurity of land tenure, the absence of a land law and environmental legislation, environmental assessment requirements and guidelines, and enforcement measures are major constraints to ensuring the conservation and sustainable management of Rwanda's critical ecosystems. Some of these regulations are in draft form, and the Government is committed to ensuring their finalization and adoption (the land law is ready for adoption). When necessary, GEF resources will support the work needed to finalize these regulatory instruments.

### **Project Component 2: Capacity Building and Institutional Strengthening in Decentralized Integrated Ecosystem Management - US\$1.50 million**

4. Environmental management as a public policy domain is still at its early stage of development. The department of environmental management, first created in 1992 as part of the Ministry of Environment and Tourism, was later transferred to the Ministry of Agriculture and Livestock. The responsibility for environmental policy was transferred again in 1999 when the Ministry of Lands, Environment and Resettlement (MINITERE) was created, and transferred back again during the 2003 cabinet reorganization. MINITERE once again, now has the responsibility for water, forests, and natural resources management (forests used to be with the Ministry of Agriculture, and water with the former Ministry of Water, Energy and Mineral resources). This movement of the environment department between ministries has slowed up the emergence of strong professionals in the area of environmental management and the development of a coherent policy framework. MINITERE is particularly weak in policy-making, and in regulations and legislation.

5. A training and capacity building needs assessment was carried out with PDF Block B resources, and the "Training Needs Assessment for Water Resources Management in Rwanda" (September 1999), which was carried out under the Nile Basin Water Resources Project (GCP/RAF/286/ITA) provide detailed information on existing capacities (breakdown by field of study and degree/diploma level of all professional and technical staff) and training/staffing requirements in key public institutions responsible for water resources management). Based on the results of the assessment, this component aims at developing the skills of a critical mass of technicians and natural resource management professionals who could lead good policy development and policy analysis work, and help implement sound natural resource and environmental management programs. These capacity building activities that will consist of workshops, seminars, short-term training in specialized institutions in Rwanda or in the sub-region will be conducted jointly with the RSSP in many areas. Collaboration with other projects, including the local chapter of the Nile Basin Initiative, the UNDP/GEF Capacity Restoration for Protected Area Management will also be established during the planning and implementation of these capacity building activities.

6. The objective of this component is therefore to build a critical mass of trained individuals (at the central and local levels) who could lead good policy development and policy analysis work, and help implement sound natural resource and environmental management programs, especially, integrated

ecosystem management programs. Technical skills of the central agencies would be supported with a view to transferring technical, managerial and organizational skills and knowledge to local and community-level organizations in the area of integrated natural resource management. Activities at the local level will focus on developing skills (through training) in, inter alia, soil and water conservation, and integrated soil fertility management, conflict resolution, as well as supporting institutional and organizational changes that create strong incentives for better natural resource management and conservation. A training program would be designed in participatory natural resource management, watershed management, conflict management, and biodiversity conservation. Training in these techniques would be provided to a core group of trainers and extension workers. In turn, these trainers will expand the training to local resource users and farmers in their areas. A training tool kit covering these themes and tailored to Rwanda's specific needs will be developed to support these training activities. In addition to these training activities, this component will support awareness raising activities in integrated resource management and biodiversity conservation outside protected areas. It will also help create a biodiversity information system that will contribute to better knowledge and management of the genetic stock and biodiversity of Rwanda.

### ***2.1 Environmental education and biodiversity conservation awareness-raising***

7. A program on environmental education and awareness raising will be designed. This activity would organize courses, workshops, and meetings at the community level on themes such as wetlands values and uses, biodiversity and conservation issues, agricultural biodiversity, sustainable development, conflict resolution, and community participation techniques. Through raising increasing knowledge and awareness of conservation and biodiversity issues, this training program aims to raise the profile of project activities in local communities, enhance sustainability, empower the local population to take a more proactive role in decision-making, and prepare the various stakeholders to resolve conflicts over resource use. The environmental education and biodiversity awareness-raising program would be developed in collaboration with the UNDP-GEF Protected Areas project.

### ***2.2 Creation of a Biodiversity Information System (BIS)***

8. Many sources of environmental information and data were lost or destroyed during the war. When environmental and, more specifically, biodiversity data do exist, they are distributed over a wide range of institutions and not readily accessible. As a result, planning and management of the country's environment and natural resources is largely dependent on the institutional memory and knowledge of a few people. In addition to the lack of data and/or difficulty in gaining access to data, other major environmental information constraints include:

- Lack of an integrated environmental information system with the capacity to provide current and reliable data required to support informed planning and decision-making for a wide range of users;
- absence of a coordinating body to manage access and disseminate environmental information to interested users both within Rwanda and beyond its borders;
- lack of Information Technology (IT), infrastructure, and qualified personnel in information system management; and
- weakness and/or absence of an enabling institutional framework, such as inter-agency collaboration, regulations needed to govern access, development, dissemination and use of environmental information.

9. The objective of this sub-component is to create an integrated biodiversity information system (BIS) that would facilitate the assembling and flow of information in both within Rwanda. The data base

developed under this component would support informed and effective management decisions on a wide range of environmental and natural resource issues related to the conservation and management of biodiversity in and outside the protected areas of Rwanda. Potential users include ministries concerned with agricultural development, environmental and natural resources management, regional and local decision-makers, universities, research institutions, NGOs, donor community, and the general public. Support for this component would also enable Rwanda to meet its reporting and information access commitments under Agenda 21 and the UN Convention on Biological Diversity (CBD) through the latter's Clearing-house Mechanism (CHM). The component would likely support the following activities to be defined further using PDF Block B resources:

- One or more expert workshops designed to reach consensus on biodiversity data parameters and indicators which will provide the technical basis for the design of the database;
- Establishment of collaborative agreements between MINITERE and other participating national institutions (government agencies, universities, NGOs) leading to data sharing;
- Establishment of data nodes in participating institutions where collaborative agreements have been reached;
- Acquisition of hardware and software required for the management of the BIS;
- Capacity-building and institutional support; and
- Establishment of internet-based project home page providing access to the data base.

The indicative outputs of this component include:

- A critical mass of trained individuals (at the central and local levels) from central and local governments local are trained in integrated resource management;
- Through environmental education and awareness-raising activities, knowledge increased at the central, regional & local levels;
- Local community organizations, NGOS, district CDCs, and resource are equipped with technical, managerial and organizational skills to design and implement integrated ecosystem management plans, and participatory techniques in problem identification and solving, conflict resolution;
- Local community groups are trained in sustainable natural resources management, including technical skills in landscape/watershed problems diagnostic, and; participatory monitoring & evaluation;
- A Biodiversity Information System (BIS) to monitor key indicators of the status of selected critical ecosystems is developed.

### **Project Component 3: Development and Implementation of Community-Based Integrated Ecosystem Management Plans for Critical Ecosystems - US\$ 1.70 million**

10. The objective of this component is to help local populations to adopt an ecosystem-based approach that takes into account the linkages and interactions among natural systems as well as with people in land use planning, particularly in the rehabilitation of farmed wetlands and hillsides. More precisely, this component will help (i) develop and implement community-based integrated ecosystem management plans, and (ii) establish community-based conservation and sustainable use plans for selected wetlands. Activities under these plans will include technical and financial assistance to the project beneficiaries to promote the adoption of farming systems that increase productivity while using land and water resources efficiently and in a way that conserves the resource base. These activities will promote the adoption of adapted soil and water conservation technologies, the restoration of degraded land and wetlands, and the conservation and use of biodiversity resources in key wetlands outside protected areas.

11. The integrated ecosystem management plans will consist of productive and sustainable land use systems and management practices that optimize the ecological, economic, and social benefits of productive

activities, and help counter the increasing degradation of land, water, and biological resources in and around the farmed wetlands. The integration of economic and social goals in the approach acknowledges the importance of meeting the basic consumption and income needs of the project beneficiaries through productive and sustainable management of the limited and fragile ecosystems of the wetlands. The ecological goals stress the importance of safeguarding the properties and functions of the wetlands that support the productions of goods and services with crucial local, national, and global values which include (i) increased agricultural production and income, (ii) food security and poverty reduction) and (iii) biodiversity conservation and carbon sequestration.

12. The functioning of wetlands is driven by hydrological processes. Therefore, the various responses from the wetlands ecosystems to these processes, as well as the water management activities of people within the wetlands, and their catchments may have immediate impacts on the wetland functions, attributes, and products. In this light, the integrated ecosystem approach would require working across a variety of spatial scales within the broader landscape, and will cover three different scales: (i) the farmed wetland, (ii) the catchment area in the vicinity of the farmed wetland, and (iii) the watershed. Under this approach, the catchment is defined as the area of land from which rainwater drains via a specific stream or river system to a common outlet, that is, wetland or the associated irrigated system; and the watershed is defined as the land unit that forms the upper areas of one or more catchments, with the hydrological linkages to lower parts of the catchment.

13. While the baseline RSSP supports productive investments on farmed wetlands, this component will help the farmers and local communities to expand soil fertility and natural resource conservation activities beyond the farms' boundaries. Thus, in addition to providing incremental incentives to farmers for the adoption conservation farming (e.g., soil and water conservation), this component will help farmers and local communities mobilize invest resources in land rehabilitation, and erosion control structures in degraded and fragile hill-sides, and in biodiversity conservation activities. These activities will address the linkages between the wetlands, their catchment areas, and watersheds, as well as the sources of human-induced threats throughout this landscape. These activities that will ultimately help reverse the degradation of land, water, and wetland resources will consist three types: (i) developing, testing, and disseminating locally adapted and profitable technologies for sustainable resource management, including soil and water conservation on- and off-farm, (ii) building capacity to support the widespread adoption of tested and improved farming technologies, and sustainable use of wetland resources, and (iii) helping to establish coordination and participatory mechanisms across social and spatial scales in order to ensure the emergence of effective collective action for successful integrated resource management. These activities will help deliver three tools for integrated ecosystem management:

- Watershed management plans;
- Community-based integrated ecosystem management plans that focus on the wetlands and their immediate catchment area; and
- Biodiversity conservation and sustainable use plans for four wetland systems.

### ***3.1 Development of Watershed Management plans***

14. A watershed in this context is conceived as the higher-order spatial unit from which water drains toward one or several catchments downstream. From a hydrological perspective, the watershed appears to be the ideal unit of operation and analysis because it facilitates an ecosystem approach to land and water management in interconnected upstream and downstream areas. It provides the optimal spatial scale where positive and negative externalities of resource use decisions can be analyzed, visualized and linked to the specific actions that generate or mitigate them. In fact, interventions in sustainable land and water

management initiated in the framework of the watershed would tend to maximize the mix of ecological and socio-economic benefits derived not only from wetlands, but also from other ecosystems across the landscape.

15. However, successful watershed management operations is often a very difficult task because watersheds are multiple-use areas *par excellence*, and therefore attract a large number of stakeholders, and interest groups. In addition to environmental conservation, crop and livestock production issues, infrastructure planning, rural-urban linkages, and a wide range of social, cultural, institutional, and administrative issues come into play in the management of watersheds. In the specific case of Rwanda, a greater challenge in planning and coordination will result from high population pressure, on-going resettlement of populations, and highly fragmented individual farmland holdings.

16. This sub-component will not attempt to develop and implement comprehensive land, water, and biological resource management schemes at the watershed level. Rather, it will help formulate watershed management plans that will serve as a guide and a biophysical framework for the preparation and implementation of resource management interventions at the lower level of catchments. Among other things, the watershed management plan will include the following:

- Biophysical conditions and resource constraints;
- Administrative, demographic, and socio-economic conditions;
- Major human settlements and infrastructure;
- Major patterns of natural resource use, planned infrastructure and major donor-supported development interventions;
- Analysis of threats to the resource base and the environment, and identification of current land and water degradation hot spots; and
- Analysis of formal and informal local institutions for natural resource management, and resource use conflict resolution mechanisms; and
- Guidelines for development interventions that safeguard the resource base of the watershed.

17. The preparation of these plans will follow a participatory process that includes representatives of (i) producer associations, (ii) CDCs of the jurisdictions covered by the watershed, (iii) local private sector actors, and (iv) selected sectoral ministries. The plan be prepared in full collaboration with the local coordination unit of the Nile Basin Initiative for any plan that will be located in this Basin. In addition to serving as a guiding document for the formulation of the catchment management schemes, the watershed management plan will be used by the local governments and the central government as a planning tool for sustainable development. Except in cases where a specific degradation hot spot requires immediate attention, the primary use of the GEF incremental resources during this first phase of the baseline APL will only support the preparation of these plans and their dissemination, but not their implementation.

### ***3.2 Formulation and implementation of community-based integrated ecosystems management plans***

18. This sub-component will support community-based integrated ecosystem management that focuses on the management of land and water in catchment areas, that is, the lower parts of the watershed. Because catchment areas are only a portion of the larger watershed, the ecological processes affecting the movement of water, soil and pollution loads, on the one hand, and the links between these processes and human interventions, on the other hand tend to be easier to apprehend. This advantage in turn makes it easier to mobilize resources and collective action to design and implement any activities that aim to reverse resource degradation processes or suppress sources of threats to the resilience of the resource base. The GEF

incremental resources will support two set of activities under this sub-component: (i) preparation of community-based integrated ecosystems management plans, and (ii) the implementation of these plans.

### Preparation of plans

19. The preparation of the community-based integrated ecosystem management plans will follow a participatory process based on intensive involvement of communities of a given catchment area. The preparation process will also bring together local development planners, technicians from sectoral ministries and the province, local NGOs, and researchers. In addition to village-level diagnosis, the preparation of these plans will rely on participatory landscape appraisals in order to help identify the key resource management problems of the catchment, identify their causes and consequences in and outside the catchment, and evaluate alternative ways for addressing these problems. A limited number of diagnostic studies may be conducted during this preparation phase in order to shed light on the biophysical or socio-economic characteristics of a given catchment area.

20. The output of this participatory preparatory process would be a community-based integrated ecosystem management plan that includes:

- Definition of needs, goals, and objectives of the plan;
- Socio-demographic data (population size, and settlement pattern in the catchment area);
- Diagnostic surveys and local needs assessments related socio-economic conditions;
- Identification/inventory of resource uses, and associated category of users;
- Inventory of technologies used in the exploitation of land and water, and other resources;
- Assessment of the extent of land and water degradation problems, and loss of critical ecosystems, and identification of priority areas for corrective actions;
- Description of the catchment hydrology, erosion and soil movement, and the potential impacts on wetlands (farmed or non-farmed wetlands);
- Description of envisaged solutions for reversing of halting land, water, and biological resource degradation;
- Description of the means (technical, financial, institutional, administrative, etc.) needed to address current resource degradation problems;
- Stakeholder analysis;
- Preparation of an investment plan;
- Implementation of the plan (including planning of annual work programs); and
- A participatory M&E framework and plan.

### Implementation of Plans

21. While the local communities will lead the implementation of their integrated ecosystem management plans, many stakeholders will play an active supportive role. The implementation of these plans will consist of two series of activities: (i) technical assistance, and (ii) investment.

#### *Technical assistance*

22. Technical assistance activities will focus on filling the capacity gap that has been identified in the plan of each catchment area. Broadly, all the activities required to empower the respective communities to assume full and successful implementation will be supported under this heading. These activities include:

- Ecological, economic, and sociological surveys to provide additional information needed to guide integrated ecosystem management planning and implementation;

- Creation of catchment integrated ecosystem management committees, and training of these committees in integrated ecosystem management;
- Development of coordination mechanisms across catchments areas, and across jurisdictions ;
- Development of mechanisms for conflict resolution among resource users, as well as with other stakeholders of competing interests; and
- Development of public/private/community partnership for integrated ecosystem management planning and implementation.

### *Investment*

23. The investment funds of the integrated ecosystem management plan aim at financing the resource gap that would prevent the communities to tackle successfully the environmental degradation (e.g., land degradation, deforestation), and to control the sources of negative externalities that reduce the total economic and ecological of resource users economic activities. In order to maximize impact, these resources will focus on priority natural resource degradation areas. The strategic choice and planning of these investments will be based on the critical interactions between natural and human factors in the landscape.

24. Ecosystems generate a natural movement of water, soil, organisms and substances that are carried in the water flow. From an ecological point of view, such lateral flows exist whether or not there are people in the system; but without people, these flows do not result in negative externalities. In other words, adverse externalities are associated with these lateral flows only where there are people in the system who can deliberately or incidentally interact with these natural flows by engaging in land use practices that magnify these flows and compound their effects. The investments funds will be allocated primarily to those areas where population pressure is the highest on the resource base, and where the intensity of land use and the technology used are having noticeable negative externalities. The investments will support the following activities:

- Developing, testing, and disseminating sustainable land and water use technologies that are adapted to local conditions;
- Rehabilitating degraded areas of the catchment area, including wetlands, and establishing sustainable management systems that improve land and water management in order to achieve multiple benefits in the forms of increased agricultural output, flood control, minimization of sedimentation, increased below and above ground carbon sequestration, and conservation of aquatic biodiversity.
- Targeted research to assist in developing integrated natural management systems that are adapted to high population density areas, and the effects of such systems on wetland ecosystem attributes and functions;
- Sharing (with the farming community and the baseline RSSP) the initial capital cost associated with certain types of integrated ecosystem management technologies promoted by the project with the aim to reduce perceived economic risk to farmers.

### **3.3 Protection of Ecosystems of Global Significance**

25. As discussed in the section on “main sector issues”, the war and the movement and resettlement of population that followed have caused noticeable damage to the national parks and reserves system of Rwanda. A UNDP/GEF project is currently helping the Government to rehabilitate the country’s globally valuable biodiversity assets in protected areas. Despite these and other ongoing efforts, it is fair to say that even in the face of fast growing population, much of Rwanda’s biodiversity will be found outside protected

areas. Therefore national efforts to protect biodiversity must find ways to manage the genetic stock and the biological diversity of ecosystems that are outside the protected area system.

26. Based on the review of the current situation of the projected areas and their management status, the Government found a 'sustainable use' approach to be more appropriate than stricto sensu protected areas to the current situation of biodiversity conservation in the country. It is the belief of Government that in the current context of very high population pressure, widespread poverty, and the on-going creation of new villages "(Imidugudu)", the creation of new protected areas may not be the most effective way to protect biodiversity. The Government proposes an innovative and participatory approach to protecting the biodiversity and critical functions of the wetlands that relies on sustainable use principles. Once these principles have been technically defined by the project implementing Unit, they will be discussed and agreed upon by the Ministry of Environment (representing the central Government), local governments, and local communities.

27. The community-based integrated ecosystem management plans will create the necessary conditions for successful collective action in complying with these sustainable use principles at the local level. Compliance with these agreed principles, and the use of effective monitoring tools developed by the project implementation unit will help preserve the critical functions and biodiversity resources (migratory birds, fish, medicinal plants, endangered wildlife species) of the four selected wetlands, namely, (i) the Mugesera/Rweru wetland, (ii) the Kagera wetland, (iii) the Kamiranzovu wetland, and (iv) the Rugezi wetland. In addition to the project implementing Unit and the steering committee, the newly established Rwanda Environmental Management Authority (REMA) will help ensure compliance with these mechanisms and principles during and after the project.

28. This approach will help initiate and experiment an innovative approach to conserving biodiversity effectively outside protected areas, not only in the selected wetlands, but also in the other wetlands where agricultural development is planned (as opposed to the four selected wetlands where agricultural development will not be allowed). The Government agreed that this approach could pave the way for the establishment of some type of jointly-managed protected areas in the selected wetlands towards the end of the project. The social and political feasibility of the creation of such protected areas would be facilitated by the successful collaboration (between the Government and the local communities) that would have taken place in the previous years.

29. In the Rwandan context where there is intense pressure on dwindling natural environments, and where land use is dominated by agriculture and urban needs, sustainable conservation of biodiversity will largely depend on the capacity to creatively conserve species within cultural and agricultural environments. Under this sub-component the project will initiate this conservation approach that aims at protecting biodiversity outside protected areas. The activities will focus on the conservation of four wetlands that have been selected on the basis of the global importance of their biodiversity resources, and the imminent threats that they face under current patterns of land use.

30. These four wetland systems (i) the Mugesera/Rweru lake swamp system, (ii) the Kagera lakes swamp system, (iii) the Kamiranzovu swamp, and (iv) the Rugezi swamp. An assessment study conducted during the preparation phase confirmed the potential of unique biodiversity of these wetlands, but further and more details studies are needed in order to acquire a better knowledge of their genes, species, and functioning of their ecosystems. These wetlands are not included in the list of wetlands to be rehabilitated by the RSSP because they are not farmed at this time. However, neighboring communities use these wetlands for the provision of a variety of edible and non-edible products. The aim of the conservation is not the establishment of any kind of protected area or any prohibitions for harvesting products. It is to help



local communities use components of the resources of these wetlands in a way and at the rate that do not deplete the biodiversity asset or lead to its long-term decline. This aim is pursued through the following activities:

- Socio-economic surveys to identify and quantify the full range of products harvested from these wetland systems, and the period of year during which the harvest takes place;
- Targeted research to determine the sustainable use level of harvest for the most used products, and monitor the impact of use on the quality of habitats;
- Rehabilitation of degraded land adjacent to these wetland ecosystems;
- Creation of community conservation and sustainable use committees in neighboring communities; and
- Zoning of land use to safeguard fragile and critical ecosystems from conversion to farming or grazing lands.

31. The integrated management plans of critical ecosystems constitute the foundation of all the subprojects. The preparation of these plans will follow a participatory process that will include local CDC members, the authorities of the participating Districts, primary resource users at the local level, producer organizations, the PMU, and the PCMU of the RSSP. The internationally recruited technical assistant, local consultants, and specialized NGOs will provide technical inputs into the preparation process of these plans.

32. On the basis of integrated management plans of critical ecosystems, the local communities will submit their requests for financing of subprojects to the Comité d'Approbation et de Suivi des Sous-Projets du District (CASPD), an entity already existing inside the Comité de Développement Communautaire (CDC) of the District. The CASPD will be in charge of (i) reviewing and approving the ecosystem management plans that include collective initiatives for the protection of the wetland resources, and micro-projects aiming at improving production and living conditions of the populations, (ii) supporting the implementation and following upon the ecosystem management plans, (iii) and insuring coherence between the ecosystem management plans and the local development plans of the Districts.

33. The local communities (consisting of farmers, cattle breeders, fishermen, and other local producers who are the beneficiaries of the subprojects) will submit their requests for financing either individually or in group for the review and approval of the CASPD. When approved, the requests will be transferred to the PMU for financing through the GEF funds in form of grants. Practically, the PMU will either disburse directly the amount requested in favor of the beneficiaries or recruit service providers to assist the beneficiaries. No subproject grant shall be in excess of US\$2,000 for individual applications, and US\$5,000 for collective requests. The requesting communities will be required to contribute in form of labor, kind or cash.

#### **Project Component 4: Project Management and Coordination - US\$0.80 million**

34. The objective of this component is threefold: (i) to ensure an effective implementation and coordination of the project activities, (ii) monitor and evaluate these activities, and (iii) disseminate the lesson learned from pilot activities and other innovative resource management practices. The overall responsibility for project implementation will rest with the Ministry of Land, Environment, Forests, Water and Natural Resources (MINITERE). However, given the very limited capacity of MINITERE, a Project Management Unit (PMU) headed by the project coordinator will be established within the Ministry and entrusted with the technical and fiduciary responsibility for carrying out the planned activities. In addition to the project coordinator, the staff of the PMU will include an international technical assistant (wetland

management), an M&E specialist, an accountant, a procurement specialist, and a specialist in information, education and communication, and training, and support staff.

More precisely, the PMU is responsible for:

- Acquiring (vehicles and equipment, computer and software, office supplies, etc.) and managing the project assets in a way that is consistent with the project development objectives, and in compliance with national and Bank procedures;
- Covering operating costs (including salaries of the project staff);
- Preparing annual work programs and budgets, and assuring joint activity planning and implementation with the RSSP;
- Contracting consultant services and supervising the work of consultants, and other services providers;
- Ensuring that disbursements are handled in accordance with Bank guidelines
- Putting in place a financial management system that allow for the monitoring of expenditure by component and by activity;
- Preparing the project annual financial statements in accordance with the Bank requirements,
- Preparing timely periodic reports on implementation progress; and
- Assuring coordination between the Government and the Bank, on the one hand, and between the project, the RSSP, and the decentralized implementation units at the district level, on the other hand.

#### ***4.1 Project Monitoring and Evaluation***

35. The objective of this sub-component is to make M&E a real management and decision-making tool for the project managers and for all the stakeholders. This objective will be pursued through the design and implementation of result-based M&E activities that respond to the decision-making, accountability, and learning needs of the key stakeholders of the project, and the Bank. Under this sub-component, the M&E team will design an M&E system that fits the needs of the key decision-makers of the projects, and provides objective and reliable means for tracking the progress of the components towards their objectives. This system will include the basic elements of result-based monitoring and evaluation framework, that is, agreed upon performance indicators for each category of stakeholders, inputs and activities, timeline and key milestones for delivering outputs, impact indicators, methods and tools for impact evaluation, etc.). The mission of the sub-component will consist of implementation monitoring, and impact measurement (evaluation).. These activities include the following:

- Putting in place an M&E system that actively involve the beneficiaries, and district level stakeholders, and that allows for learning, correction, and follow-up activities during implementation;
- Collecting data and assessment studies in order to establish the baseline situation of the project;
- Refining the logFrame indicators in order to adapt them to the need of each category of stakeholders, and to promote effective participation and accountability for results;
- Determining methods, tools for collecting data on indicators, and on implementation and management issues, and routinely collecting such data;
- Assessing the extent to which results are or are not achieved, and assessing causal relations of activities to results;
- Reporting progress to project stakeholders, and the Bank; and
- Highlighting significant achievements or failure, and recommending actions for improvement.

#### ***4.2 Information Dissemination***

36. In addition to its direct achievements and impacts, the project can make a significant contribution to the operational learning and knowledge base through the lessons learned from the implementation of the integrated ecosystem management activities at the central and local level. This expended learning and knowledge base will yield valuable global benefits through catalytic effects and replication in other areas in Rwanda, and in other countries. The M&E team of the PMU will draw and disseminate the lessons learned from the participatory preparation and implementation of integrated ecosystem management plan and community-based sustainable use and conservation plans in productive environments. Valuable lessons can also be learned from the combination of science-based and traditional knowledge in addressing resource degradation issues. Disseminating these lessons and best practices will provide practical first-hand knowledge on the resource exploitation technology, social organization, and ecological sustainability of wetland use under the conditions of high demographic pressure. These lessons will guide the replication of the interventions during the following phases of the baseline program during which the protection of critical habitats will cover mountain and savanna ecosystems, in addition to wetlands. The lessons learned will also be very helpful in replicating the activities in other parts of the East African highlands, and in other developing countries with similar physical and socio-economic conditions.

**Annex 3: Estimated Project Costs**  
**REPUBLIC OF RWANDA: Integrated Management of Critical Ecosystems**

<b>Project Cost By Component</b>	<b>Local US \$million</b>	<b>Foreign US \$million</b>	<b>Total US \$million</b>
Development of a Policy and Regulatory Environment for Sustainable Natural Resources Management	0.18	0.19	0.37
Capacity Building and Institution Strengthening in Decentralized Integrated Ecosystems Management	1.00	0.11	1.11
Development and Implementation of Community-Based Integrated Ecosystem Management Plans for Critical Ecosystems	1.86	0.14	2.00
Project Management and Coordination	0.80	0.18	0.98
<b>Total Baseline Cost</b>	3.84	0.62	4.46
<b>Physical Contingencies</b>	0.29	0.05	0.34
<b>Price Contingencies</b>	0.47	0.03	0.50
<b>Total Project Costs<sup>1</sup></b>	4.60	0.70	5.30
<b>Total Financing Required</b>	4.60	0.70	5.30

<b>Project Cost By Category</b>	<b>Local US \$million</b>	<b>Foreign US \$million</b>	<b>Total US \$million</b>
<b>Civil Works</b>	0.37	0.00	0.37
<b>Goods</b>	0.09	0.22	0.31
<b>Consultant Services, Studies, Surveys, Trainings and Audits</b>	2.52	0.48	3.00
<b>Grants for sub-projects</b>	0.65	0.00	0.65
<b>Beneficiaries Contribution</b>	0.05	0.00	0.05
<b>Operating Costs</b>	0.42	0.00	0.42
<b>Unallocated</b>	0.50	0.00	0.50
<b>Total Project Costs<sup>1</sup></b>	4.60	0.70	5.30
<b>Total Financing Required</b>	4.60	0.70	5.30

<sup>1</sup> Identifiable taxes and duties are 0.55 (US\$m) and the total project cost, net of taxes, is 52.75 (US\$m). Therefore, the project cost sharing ratio is 99.15% of total project cost net of taxes.

## **Annex 4 Incremental Cost Analysis**

### **REPUBLIC OF RWANDA: Integrated Management of Critical Ecosystems**

#### **I. Broad Development Goals**

1. Since October 1990, Rwanda has experienced serious ethnic conflict, protracted socio-political crisis and civil war, culminating in a genocide in April 1994. These catastrophic events have resulted in severe damage to the human, social, and natural capital. After this economic and social devastation, the Government has focused its efforts on two priorities: (i) rebuilding the institutions that would foster reconciliation and good governance, and (ii) eliminating human misery and poverty by raising productivity and employment of resources that the poor own and depend on, i.e., land and labor.

2. Given the fact that 92% of the population of the country live in rural areas and depend almost entirely on farming for their livelihoods, the Government development strategy has emphasized agriculture as the main engine for growth and poverty reduction. This strategy has two pillars. The first one encompasses the modernization of tea and coffee production (the two major export products of the country), and the promotion of new export crops, hides and skins, etc. The second pillar is the generation of growth in the rural economy by boosting agricultural incomes. The 1996 national food security paper emphasized the following objectives: (i) increasing food crop production, (ii) modernizing and intensifying agriculture, (iii) increasing livestock production, (iv) developing agricultural commodity markets, and (v) developing small-scale agribusiness.

3. These objectives are to be pursued through three categories of investments: (i) community-based land (terroir) management, (ii) farming system improvement, and (iii) development of market-oriented agricultural production. The community land management component consists of several sub-components investments, including wetland management. The IDA RSSP (baseline program) is helping the Government to achieve these objectives through the proposed activities organized around six components, including (i) rehabilitation of farmed marshlands and hill-sides, (ii) promotion of commercial and export agriculture, (iii) support to agriculture services delivery systems, (iv) development of small-scale infrastructure, (v) promotion of off-farm productive activities, and (vi) project coordination and management.

#### **II. "Business-As-Usual" Scenario**

4. The Government agricultural and food security strategy does include some environmental considerations. Indeed, watershed management, rehabilitation of forested lands (tree plantation, agro-forestry), and protection of national parks are important sub-components of the strategy, though lack of financing constitutes a significant hurdle for their implementation. In the without project scenario, i.e., 'business-as-usual', the promotion of agricultural development using wetlands as the new frontier would lead to increased degradation of the rare and unique biological resources of these ecosystems. This 'business as usual' conversion of wetlands would also lead to reduced water quality in key international waterways within the Great Lakes region. Indeed, the 1996 Food Security paper mentions, that the increase in the output of the food crop will be achieved by (among other things): (i) increasing the cultivated area by converting non-drained and unexploited wetlands, (ii) converting parts of nature reserves to agricultural production, and (iii) reclaiming degraded forest lands. If anything, this shows that without the intervention of the IDA Rural Sector Support Program (RSSP), and the investments it supports for a sustainable use of land and water resources, environmental degradation would accelerate in many parts of the country.

#### **III. Sustainable Baseline: Sustainable Farming of Wetlands**

5. The IDA Adaptable Lending Program (RSSP) has integrated the land resource scarcity into its design. In its initial phase, the RSSP has addressed the land resource constraint in two ways. First, indirectly through the development and support of non-farm productive activities (Project component 6) in rural areas. These alternative livelihoods may provide livelihood opportunities other than land clearing for agriculture, and the encroachment of protected areas. Indeed, the component will support the preparation and piloting of local off-farm development strategies, the financing of R&D for selected off-farm activities, training in enterprise development and management, and provision of seed-funding and facilitation of access to investment credit. The development of these activities could relieve the pressure on wetlands and other areas harboring unique biological resources.

6. The second and more direct way through which the RSSP addresses the land resource scarcity constraint is through component 1: Rehabilitation of farmed marshland and hill-side areas. This component aims to (i) facilitate farmers' adoption of efficient and sustainable technologies and practices to profitably manage marshlands and hill-side crops, and (ii) to encourage and develop the skills of private operators to intervene in land and water infrastructure construction and development. These objectives would be achieved through the financing of the following activities:

- Small-scale drainage and irrigation infrastructure on already farmed marshlands;
- Soil and water conservation R&D and infrastructure on marshlands and hill-sides;
- Advisory services on cropping and water management technologies;
- Training of farmer groups and other target private operators in construction, management, and maintenance of land and water conservation infrastructure; and
- Institutional support to producer organizations and community groups.

7. As is apparent, the baseline RSSP in its first phase has integrated several safeguards that would allow the project to avoid unnecessary degradation of the land resource base, and reverse previous degradation on farmed wetlands. The key objective here is the sustainability of the farming practices, that is, ensuring the long-term viability of the productive base of the land in farmed wetlands and on hill-sides. Since the baseline project will also improve farmers' access to modern agricultural inputs, the end result will be higher productivity achieved on better conserved lands. While the baseline RSSP integrates conservation objectives into its design, it does so only through a productivity lens. Indeed, the technologies and associated activities supported aim at protecting the productive and carrying capacity of the land resource base, thus delaying resource degradation through additional land clearing and over-exploitation of farmed lands.

8. These activities are key not only in avoiding the degradation of the land resource base, but also in achieving production levels that improve food security and generate higher income for farmers. Although they do not aim specifically at conserving rare or unique resources of global importance, they may yield some global environmental benefits. As mentioned above, they yield indirect global benefits through the promotion of off-farm activities. Directly, they may contribute to carbon sequestration through the financing of soil and water conservation activities.

#### **IV. Alternative with GEF Resources: Sustainable Farming of Wetlands and Conservation**

9. The GEF alternative will focus on activities that explicitly address the aforementioned underlying causes of biodiversity loss. Such activities aiming at mainstreaming conservation in the baseline operations, go beyond protecting the physical sites of the selected wetlands. Mostly, these activities would tend to supplement and scale up those proposed under the Marshland Rehabilitation and Hill-side Farming component of the baseline RSSP; for example, soil and water conservation, training, promoting off-farm

productive activities, support to farmer organizations and community groups. The supplemental activities will focus on the conservation of resources that yield multiple global benefits. Such issues as, the formulation of a national wetland policy, the devolution of resource access and use rights to local governments and to communities, the biodiversity assessment of wetlands, and the establishment of an inter-ministerial committee for overseeing wetland use, fall under this category.

## **V. Incremental Costs and Benefits**

### **10. Benefits**

Wetlands are very valuable natural resources which have multiple ecosystem functions and provide both domestic and global benefits. Given their multiform linkages with the natural resources surrounding them, the full assessment of their benefits requires, at minimum, a catchment-wide approach.

#### *10.1. Domestic benefits*

(a) At the national level, three major types of benefits are to be considered. The first category consists of benefits which are of direct use value to populations (rural and urban). These benefits that make a direct contribution to livelihood, especially for the poor, are many types. In addition to their agricultural production (food and cash crops), wetlands provide a wide variety of products to local communities, including fuel, fisheries, medicinal plants, and many products for home use and sale. It is also important to mention that wetlands are a significant source of water supply to rural populations. Indeed, the majority of the populations depend on spring catchments, 17,000 in total (the rest of the rural population is supplied by 6,800 standpipes and 2,200 private connections). Wetlands play a key role (e.g., recharging of aquifers) in the sustainability of water flow and supply to these catchments.

(b) The second category of domestic benefits consists of indirect use values resulting from wetland physical and hydrological functions. These include protection against floods, pollution sediment trapping, pollution trapping, and waste processing, to mention a few. Finally, the richness of the biological resources in Rwanda's wetlands, and the many linkages between their hydrological processes and international water resources provide important educational and scientific value that can enhance learning experiences in the country. The knowledge that the unique biological resources of these wetlands can be sustained for future generations of Rwandans may add a significant value to the country's natural heritage.

#### *10.2 Global benefits*

(a) The additional objective that the GEF alternative pursues is the conservation of globally important biological diversity. These global benefits, however, will not be realized through the conservation of biological resources alone but rather through the integrated management of catchments as a whole. The proposed activities, under the GEF alternative will yield two other types of global benefits on each of the selected sites. Indeed, widespread adoption of technologies that prevent, control, or reverse land and water resource degradation will (i) reduce carbon emission by increasing below and above ground sequestration of carbon, and (ii) ensure better protection of international waters by reducing losses of productivity and impairment of aquatic ecosystems (less sedimentation due to less sediments removed from uplands, less pollution, ). The project will also complement the Burundi Agricultural Rehabilitation and Support Program funded by the World Bank and GEF. The Burundi project will also improve wetland management in watersheds feeding into Lake Tanganyika.

### **11. Scope and Costs**

11.1 The GEF alternative would provide the resources (above and beyond the baseline scenario) for meeting the proposed project's global development goals. The total investment cost of US\$4.3 million will finance the following activities included in four main categories of activities:

- Development of a policy and regulatory framework for sustainable wetland management; cost: US\$ 0.30 million;
- Capacity-building and institutional strengthening in decentralized integrated natural resource management; cost: US\$ 1.50 million;
- Integrated protection of critical ecosystems in and around four wetlands; cost: US\$ 1.70 million;
- Project management and coordination to ensure monitoring and evaluation, awareness raising, and develop a strategy for replication of project; cost: US\$ 0.80 million.

11.2 Because the interventions financed by GEF resources are fully blended into the baseline operation, the above resources have been allocated in such a way that they support activities implemented under the complement the IDA resources of the baseline. Insofar as the greatest challenge is the capacity constraint, the resources allocated to the capacity building and institutional strengthening component will complement the baseline resources in developing capacity for integrated ecosystem management. The table below shows how the GEF resources complement the baseline financing, whereas, the incremental cost matrix provides the rationale for the cost allocation.

#### Cost Sharing Between IDA and GEF Resources

COMPONENTS RSSP	COSTS (US\$ million) IDA	COMPONENTS GEF/IMCE	COSTS (US\$ million) GEF
1. Rehabilitation of farmed marshlands and hill-sides	13.97	3. Development and Implementation of Community Based Integrated Ecosystem management plans	1.7
		2. Capacity building and institution strengthening in decentralized integrated ecosystem management	1.5
3. Promotion of commercial agriculture	10.53	-	
4. Support to agricultural services	9.59	-	
5. Development of small-scale infrastructure	9.80	-	
6. Promotion of off-farm productive activities in rural areas	0.34	-	
	-	1. Development of policy and regulatory framework	0.3
7. Project coordination and Management	3.77	4. Project management and coordination	0.8
<b>TOTAL</b>	<b>48.00</b>	<b>TOTAL</b>	<b>4.30</b>



## Incremental Cost Matrix

COMPONENTS		COSTS (US\$) mi	DOMESTIC BENEFITS	GLOBAL BENEFITS
Rehabilitation of farmed marshlands & hill-sides- RSSP	Baseline	13.97	<ol style="list-style-type: none"> <li>1.Increased Agricultural Production</li> <li>2.Food security</li> <li>3.Foreign exchange</li> <li>4.Reduced poverty</li> </ol>	Integrated management of marshlands and hill-sides results in better protection of international waters, increased sequestration of carbon (S&W conservation investments, and lower propensity to encroach protected areas (sustained production on farmed land)
GEF resources to finance (i) the development and implementation of community-based integrated ecosystem management plans for four critical wetlands, (ii) capacity building and institution strengthening for integrated ecosystem management at central and local levels, and (iii) targeted alternative livelihood activities.	Alternative	17.17	<p>Better protection of land &amp; water on hillsides and wetlands will increase:</p> <ol style="list-style-type: none"> <li>1.food security</li> <li>2.farm income</li> <li>3.availability of medicinal plants</li> <li>4.educational and scientific value of biological resources, and ecological functions.</li> </ol>	The adoption of a catchment/watershed approach, and the demarcation of wetland areas for protection optimize the positive biophysical, ecological, and environmental benefits in terms of increased carbon sequestration, better protection of international waters, and preservation of diverse genetic and biological resources.
	Incremental Costs	3.2		
Promotion of export and commercial agriculture- -RSSP	Baseline	10.53	<p>Reforms, technical and institutional support will increase:</p> <ol style="list-style-type: none"> <li>1.competitiveness and access to foreign markets</li> <li>2.foreign exchange</li> <li>3.living standards</li> </ol>	
	Alternative	0.0	.	
	Incremental Costs	0.0		
Support to agricultural service delivery systems	Baseline	9.59	<ol style="list-style-type: none"> <li>1.Increased capacity of research, extension service, and farmers</li> <li>2.Availability of a wider range of improved technologies</li> </ol>	

			3.Increased productivity and food security	
	Alternative	0.0		
	Incremental Costs	0.0		
Development of small-scale infrastructure	Baseline	9.8	1.Expanded community infrastructure and equipment 2. Increased capacity of private operators and local populations to construct and maintain productive infrastructure 3.Increased agricultural output due to construction of soil & water conservation infrastructure	Increased carbon sequestration in soil and crop vegetative cover
	Incremental Costs	0.0		
Promotion of off-farm productive activities	Baseline	0.34	1.Increased employment opportunities 2.Increased income sources 3.Increased capacity of communities in business management	Lower propensity to encroach upon wetlands and protected areas, thereby protecting biodiversity and genetic stock
	Alternative	0.0		
	Incremental Costs	0.0		
Development of policy and regulatory framework	Baseline	0.0		
	Alternative	0.3		
Project coordination and management	Baseline	3.77	1 Availability of high quality M&E reports 2 Availability of reliable (input, output, outcome) indicators	
GEF resources to finance creation of coordination body for conservation issues in wetlands development, and to develop biodiversity indicators for M&E	Alternative	4.57	1 Availability of high quality M&E reports 2 Availability of reliable (input, output, outcome) indicators	1 Availability of a reliable biodiversity information system 2 Availability of reliable action-oriented indicators for biodiversity monitoring 3 Publication of materials for best

				practice in biodiversity conservation	
	Incremental Costs	0.8			
<b>TOTAL</b>	Baseline	<b>48.0</b>			
	Alternative	<b>52.3</b>			
	Contribution of Government and local populations	<b>1.0</b>			
	Incremental Costs	<b>4.30</b>			

**Annex 5: Financial Summary**  
**REPUBLIC OF RWANDA: Integrated Management of Critical Ecosystems**  
**Years Ending**

	IMPLEMENTATION PERIOD						
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
<b>Total Financing Required</b>							
<b>Project Costs</b>							
<b>Investment Costs</b>	0.4	0.9	1.4	1.4	0.8	0.0	0.0
<b>Recurrent Costs</b>	0.1	0.1	0.1	0.1	0.0	0.0	0.0
<b>Total Project Costs</b>	0.5	1.0	1.5	1.5	0.8	0.0	0.0
<b>Total Financing</b>	0.5	1.0	1.5	1.5	0.8	0.0	0.0
<b>Financing</b>							
<b>IBRD/IDA</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Government</b>	0.1	0.2	0.2	0.5	0.0	0.0	0.0
<b>Central</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Provincial</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Co-financiers</b>	0.4	0.8	1.3	1.0	0.8	0.0	0.0
<b>GEF</b>							
<b>Beneficiaries</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Other</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Project Financing</b>	0.5	1.0	1.5	1.5	0.8	0.0	0.0

**Main assumptions:**

**Annex 6(A): Procurement Arrangements**  
**REPUBLIC OF RWANDA: Integrated Management of Critical Ecosystems**

**Procurement**

**A. General**

Procurement for the proposed project would be carried out in accordance with the World Bank's “*Guidelines: Procurement Under IBRD Loans and IDA Credits*” dated May 2004; and “*Guidelines: Selection and Employment of Consultants by World Bank Borrowers*” dated May 2004, and the provisions stipulated in the Legal Agreement. The general description of various items under different expenditure category are described below. For each contract to be financed by the GEF grant , the different procurement methods or consultant selection methods, the estimated costs, prior review requirements, and time frame are agreed between the Borrower and the Bank in the Procurement Plan. The Procurement Plan will be updated annually, or as required to reflect the actual project implementation needs and improvements in institutional capacity.

**Procurement of Works:** The total cost of works under the project is estimated at US\$ 0.37 million equivalent. No major works would be financed under the GEF grant. However, small works consisting of minor rehabilitation and prevention of degradation of critical ecosystem, estimated to cost up to US\$50,000 would be procured under lump sum, fixed-price contracts awarded on the basis of quotation obtained from at least three qualified contractors in response to a written invitation. A standard bidding document spelling out all the requirements under this procurement method will be furnished in the Project Implementation Manual (PIM). The contract shall be awarded to the contractor who offers the lowest price quotation provided his bid is substantially responsive to the conditions specified in the written invitation. Works estimated to cost more than the equivalent of US\$ 50,000 would be procured through National Competitive Bidding in accordance with procedures described in the PIM and acceptable to IDA.

**Procurement of Goods:** The total cost of goods to be financed under the GEF grant is estimated at US\$ 0.31 million. Goods to be financed under the GEF grant include computers, printers, office equipment, office supplies, and a few vehicles for the Agency involved in the implementation of project's activities including non governmental organizations. Since no contract estimated to cost more than US\$ 150,000 equivalent is foreseen, no ICB is therefore planned. Goods estimated to cost more than US\$ 30,000 equivalent would be purchased under National Competitive Bidding. Goods locally available and estimated to cost less than US\$ 30,000 equivalent per contract may be procured under contract awarded on the basis of shopping procedures and in accordance with the provisions of paragraph 3.5 of the Guidelines.

**Community-Based Procurement:** Contracts for acquisition of goods, execution of works, and delivery of services to be financed under the grant will be awarded on the basis of simplified procurement procedures referred in paragraph 3.17 of the Guidelines, and in accordance with the procedures set forth in the PIM.

**Procurement of non-consulting services:** Services that are not of an intellectual and advisory nature, such as demarcation of the protected areas, logistics for workshop and training, reproduction of document and printing will be procured through price quotation in accordance with the provisions of paragraphs 3.1 and 3.5 of the Procurement Guidelines.

**Selection of Consultants:** The total cost of consulting service financed by the GEF is estimated at US\$3.0 million. It would mainly consist of: (i) specialized advisory services, technical assistance, legal services pertaining to the development and the updating of the policy and institutional and regulatory framework ; (ii) advisory services, participatory assessment and technical support to local communities toward integrated ecosystem management plan for critical ecosystems; (iii) training through skills gap analysis, skills development and training staff of central, decentralized institutions and member of community based organization; and (iv) computerized information system pertaining to the biodiversity.

As a rule all contracts for firms estimated to cost the equivalent of US\$ 100,000 or more would be procured using *Quality and Cost Based Selection* method. As spelled out by the new Consultant Guidelines, the short-list shall include six consulting firms, the weight factors to be used for the technical proposal shall be 80 percent and 20 percent for the financial proposal.

Contracts for services estimated to cost less than the equivalent of US\$ 100,000 per contract may be procured under contracts based on *Consultants' Qualifications* in accordance with the provisions of paragraphs 3.1 and 3.7 of the Consultant Guidelines. Financial and technical audit estimated to cost less than the equivalent of US\$ 100,000 may be procured under *Least Cost Selection (LCS)* in accordance with the provisions of 3.1 and 3.6 of the Consultant Guidelines.

Short list for contracts estimated to cost less than US\$ 100,000 may be comprised entirely of national firms, provided that sufficient number of qualified national firms are available in the country and that foreign firms willing to participate are not excluded from consideration.

*Single-source selection* may exceptionally with IDA's prior agreement be used for (i) training, (ii) advisory services related to activities of the technical support agencies, (iii) consulting assignment provided by NGOs to assist provinces, districts and community based associations, in accordance with the provisions of paragraph 3.9-3.13 of the Consultant Guidelines.

Consultant for services meeting the requirements of section V of the consultant guidelines, may be selected under the provisions for the *Selection of Individual Consultants*, i.e. through the comparison of the curriculum vitae of at least 3 qualified individuals, and in accordance with the provisions of paragraphs 5.2 through 5.3 of the Consultant Guidelines. Some individual consulting services may, with IDA's prior agreement , be selected under single-source basis in accordance with the provisions of paragraph 5.4 of the Consultant Guidelines. Government officials and civil servant may be hired under consulting contract provided their recruitment meets the requirement of the provisions 1.11 (d) of the Consultant Guidelines.

Training, workshops, study tours, conference attendance would be carried out on the basis of approved annual work programs that would identify the general framework of training or similar activities for the year, including the nature of training/study tours/workshops, number of participants and cost estimates.

**Operational Costs:** Sundry items, office rental and utilities would be procured using administrative procedures acceptable to IDA.

## **B. Assessment of the agency's capacity to implement procurement**

An assessment of the project's capacity to implement procurement was carried out during appraisal in

May 2004. The Project Management Unit (PMU) was not in place and the Procurement Specialist has yet to be hired. Therefore, the project is judged as being at high risk mainly because of the lack of previously trained personnel in procurement. The main recommendation is to develop an action plan to mitigate the procurement risk associated with the project. The PMU should be established before credit effectiveness. To build the procurement capacity of PMU, the following measures will be taken: (i) the recruitment of the Procurement Specialist before credit effectiveness; (ii) a Project Implementation Manual with detailed procedures and standard bidding documents to be used for NCB and community-driven investments will be adopted and disseminated before credit effectiveness; (iii) a three-day procurement training session program focused on procurement planning and contract management issues will be delivered as soon as the key staff is in place; (iv) setting-up of an acceptable procurement record keeping and filing system within six months of implementation; and (v) during the first year of project implementation, the annual work program of the PMU will comprise at least 3 days procurement training for all the person involved in the procurement process without relevant experience and training.

### **C. Procurement Plan**

The Borrower, at appraisal, developed a procurement plan for project implementation which provides the basis for the procurement methods. This plan has been agreed upon by both the World Bank and the Borrower during negotiations. Copy of the plan is available at the Ministry of Land and Environmental Protection. It will be posted in the Project's database and in the Bank's external website. The procurement plan will be updated annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

For subprojects to be implemented by NGOs, civil society organizations, private sector entities, producer organizations, and local communities, their demand driven nature makes it difficult to finalize procurement plan for this component at this stage. However, the appraisal document of each approved subproject will include a procurement schedule detailing what is to be procured and the milestone of the procurement process .

### **D. Frequency of Procurement Supervision**

In addition to post procurement reviews to be carried out by the Bank Country offices, it has been recommended that at least two full procurement supervision missions per year to assess procurement results on the ground and provide implementation support.

## **Procurement methods (Table A)**

### **Attachment 1**

#### **Details of the Procurement Arrangement involving International Competition**

This initial procurement plan will cover the first 18 months of the project and updated annually or earlier as necessary.

### **I. General**

## Project Information

1. Country: **Rwanda**
2. Borrower: **Government of the Republic of Rwanda**
3. Project Name: **Integrated Management of Critical Ecosystems; Trust Fund No. ....**
4. Project Implementing Agency: **Integrated Management of Critical Ecosystems (IMCE)**
5. Bank's approval date of the procurement plan: **November 2004**
6. General Procurement Notice: **to be published after Board approval**

## II. Goods and Works and non-consulting services.

### 1. Prior Review Threshold:

	Procurement Method	Prior Review Threshold	Comments
1.	ICB (Goods)	US\$ 150,000	
2.	NCB (Goods)	The first three contracts	
3.	ICB (Works)	US\$ 200 000	
4.	NCB (Works)	The first three contracts	

### 2. Procurement Packages with Methods and Time Schedule

1	2	3	4	5	6	7	8	9
Ref. No.	Contract (Description)	Estimated Cost	Procurement Method	Prequalification (yes/no)	Domestic Preference (yes/no)	Review by Bank (Prior / Post)	Expected Bid-Opening Date	Comment
1	Supply of office furniture	20,000	NCB	No	no	Prior	June.2005	All the procurement is expected to start after the PIU has been put in place
2	Supply of computers and related equipment to the IMCE	28,000	NCB	No	no	Prior	June 2005	
3	Supply of vehicles to the IMCE	150,000	ICB	No	no	Prior	August 2005	
4	Acquisition of office supplies ( stationery, etc...)	5,000	Shopping	No	NA	Post	June 2005	
5	Acquisition of different software and other technical equipment for the IMCE	35,000	NCB	No	NA	Prior	August 2005	

## III. Selection of Consultants



**1. Prior Review Threshold:** Selection decisions subject to Prior Review by Bank as stated in Appendix 1 to the Guidelines Selection and Employment of Consultants:

	<b>Selection Method</b>	<b>Prior Review Threshold</b>	<b>Comments</b>
1.	Competitive Methods (Firms)	US\$ 100,000	
2.	Single Source (Firms)	All	
3.	Individual Consultant	US\$ 50,000	

**2. Short list comprising entirely of national consultants:** Short list of consultants for services, estimated to cost less than \$ 100 000 Equivalent per contract, may comprise entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

**3. For Consultants Services contract estimated to cost more than US\$ 100,000,** an Expression of Interest shall be published in accordance with the provisions of paragraphs 2.9 and 2.10 of the Guidelines.

#### **4. Consultancy Assignments with Selection Methods and Time Schedule**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	
<b>Ref. No.</b>	<b>Description of Assignment</b>	<b>Estimated Cost US\$</b>	<b>Selection Method</b>	<b>Review by Bank (Prior / Post)</b>	<b>Expected Proposals Submission Date</b>	<b>Execution Period</b>	<b>Comment</b>
1	To work out the strategy and its action plan Including the priority actions	150,000	QCBS	Prior	March 2005	1 month	
2	To evaluate the need for reinforcement of the institutional capacity and the development and the execution of the plan for their reinforcement.	200 ,000	QCBS	Prior	June 2005	1 month	
3	To train the members of the CDC, the producers in and around the marshes which are in rehabilitation by RSSP and around 4 complexes priority marshlands in the integrated management of water resources, planning techniques for the use of the land and protection of the critical ecosystems.	100,000	QCBS	Prior	March 2006	2 months	
4	To set up a computerized system on Biodiversity	300,000	QCBS	Prior	June 2005	1 month	
5	To prepare and approve the plans for participative development of sloping valleys	100,000	QCBS	Prior	June 2006	Continuing until end of Project	
6	To prepare and discuss with the beneficiaries about the Community plans for conservation which specify the durable conditions of use of the 4 Complexes marshlands	180,000	QCBS	Prior	September 2005	3 months	
7	To set up the structures of coordination and management of the	520,000	IC	Prior	April 2005	2 Years (renewable)	

	project (Recruitment of the personnel of the project, recruitment of the Technical Assistant)						
8	To finalize and adopt an adequate policy On the wetlands after a broad consultation of beneficiaries.	40,000	IC	Post	July 2005	2 months	
9	Develop and set-up 7 community plans for integrated development of ecosystems	150 000	QCBS	Prior	July 2008	3 months	

#### **IV. Implementing Agency Capacity Building Activities with Time Schedule**

**In this section the agreed Capacity Building Activities (some items could be from CPAR recommendation) are listed with time schedule**

<b>No.</b>	<b>Expected outcome / Activity Description</b>	<b>Estimated Cost US\$ million</b>	<b>Estimated Duration</b>	<b>Start Date</b>	<b>Comments</b>
	Capacity building in procurement for the key staff	0.80	2 weeks	March 2005	

## **Annex 6(B): Financial Management and Disbursement Arrangements REPUBLIC OF RWANDA: Integrated Management of Critical Ecosystems**

### **Financial Management**

#### **1. Summary of the Financial Management Assessment**

##### **1.1 Project Management Unit Structure**

The main implementing agency for the project will be the Ministry of Lands, Environment, Forest, Water and Natural Resources(MINITERE) through the Project Management Unit (PMU). There is a link with the Ministry of Agriculture and Animal Resources(MINAGRI) through the baseline RSSP managed by a separate Program Support and Coordination Unit (PSCU). A common steering committee has been established for both projects. The Committee will define policy and strategy for the modalities of their execution.

A Memorandum of Understanding (MOU) between the RSSP and the IMCE project will be established.

The PMU of IMCE is a new structure. It will be responsible for the technical and financial implementation of the project.

The daily supervision of accounting activities will be carried out by the Accountant who will be assisted by an Assistant Accountant.

##### **1.2 Planning, Budgeting & Budgetary Control**

The project will ensure the existence of suitable work plans prepared jointly with the RSSP. Planning will be done within the guidelines issued in the Project Implementation Manuals (PIM).

A well defined budgeting and budgetary control system will be put in place. Annual budgets will be prepared based on specific guidelines contained in the project implementation manual and on annual work plans. The Project Appraisal Document and the Project Implementation Manual will include a disbursement schedule. They will be used as the basis for the preparation of annual budgets. The plan will be updated as part of project implementation.

The budget format will be based on project components and will be integrated into the project accounting system. The budget will be used as a management tool. Expenditures will be authorized in accordance with agreed budgets.

##### **1.3 Accounting System**

###### *Financial Management Manual*

The accounting system of the project will be based on well documented Manual of Financial and Accounting Procedures. Proper books of accounts will be kept on double entry principle using the cash based system.

Written job descriptions with defined duties, responsibilities, lines of supervision and approval limits will be established. Definition of responsibilities should ensure segregation of duties for proper accountability.

### *Staff and Transaction Recording*

The project will be under the responsibility of the Project Management Unit(PMU) who reports to MINITERE. A Project Coordinator will be appointed on Terms of Reference acceptable to Bank. The accounting unit will be under the control of the Accountant. He will be assisted by the Assistant Accountant. The Accountant and the Assistant Accountant will be recruited on Terms of Reference acceptable to Bank.

An accounting software will be purchased to manage the accounting function. The project chart of accounts will be established. Accounting staff will be trained to maintain the system. Appropriate controls will be instituted to safeguard the confidentiality, integrity and availability of the data.

### *Books of Accounts*

A well defined filing system will be put in place. The system allows authorized users easy access to accounting and supporting documents on a permanent basis,.

## **1.4 Reporting Arrangements**

### *Integrated Financial Management System*

The project will put in place an Integrated Financial Management System. The system should integrate the Budgeting, Operating and Accounting Systems to facilitate monitoring and reporting. System generated formats for periodic reports will be developed and agreed with Project Management Unit. An action plan will be reached with the Recipient.

### *Financial Monitoring Reports(FMRs)*

Consolidated quarterly FMRs will be produced to include:

- Sources and Uses of Funds by project Categories and Components
- Output Monitoring Report
- Procurement Monitoring Reports

### *Financial Statements*

In compliance with International Accounting Standards(IAS) and World Bank requirements, the project will produce annual project financial statements. Financial Statements will include:

- A Statement of Cash Receipts and Payments.
- A Balance sheet that shows Assets and Liabilities of the entity.
- A Statement of Sources and Uses of Funds.
- Notes to the financial statements including accounting policies underlying the preparation of financial statements.
- A Management Assertion that Bank funds have been expended in accordance with the intended purposes as specified in the World Bank legal agreement.

## **2. Audit Arrangements**

## **2.1 External Audit**

Due to the direct link with the RSSP, qualified independent auditors will be appointed by RSSP. The selected auditors will be acceptable by Bank in terms of independence, qualifications and experience. The audit will be based on terms of reference agreed with Bank. The external audit work will include all GEF funds, Government funds and other funds managed by RSSP and IMCE.

In addition to the audit report, the auditor will be required to prepare a Management Letter where internal control weaknesses and recommendations for improvements, are highlighted.

A single audit opinion will be issued on project income and expenditures, special accounts and statement of expenditure. The audit reports along with Management Letters will be sent to Bank and all other financing partners not later than six months after the end of each financial year.

## **2.2 Supervision**

Financial Management Supervision will be done by the project Financial Management Specialist over the project life to ensure the implementation of strong financial management systems. Regular Statement Of Expenditure(SOE) reviews will be undertaken where necessary, in compliance with World Bank requirements. The Project Status Report(PSR) will include a financial management rating.

## **3. Disbursement Arrangements**

### **3.1 Banking Arrangements**

The following Bank accounts will be maintained for project funds:

- Special Account: Denominated in US dollars. This is the main project account into which are deposited project implementation funds from GEF.
- Project Account: This is denominated in Local currency. Counterpart funds from the Government of Rwanda, may be deposited in this account.

These accounts will be maintained in the Central Bank of Rwanda.

Furthermore, every participating district shall open a separate bank account for the project to be used exclusively for project funds in accordance with Local Administration regulations.

### **3.2 Disbursement of GEF Funds to Project Management Unit**

GEF funds will be disbursed to Project Management Unit for activities based on traditional disbursement procedures (transaction-based disbursements) i.e, reimbursements, direct payments and the use of certified statements of expenditure. The project will be eligible to use report-based disbursements after providing Financial Monitoring Reports(FMRs) satisfactory to Bank and maintaining a satisfactory project rating. FMRs that are required under FMR-based disbursements will be prepared by Project Management Unit. They will be used to assess progress towards meeting the requirements of FMR-based methods of disbursement. At the time of conversion, the project will prepare a reconciliation of project expenditures, disbursements received, and Special Account movements up to the proposed date of the conversion. Other details for the conversion will be worked out closer to the time of conversion between the project team and Bank.



## Allocation of grant proceeds (Table C)

**Table C: Allocation of Grant Proceeds**

<b>Expenditure Category</b>	<b>Amount in US\$million</b>	<b>Financing Percentage</b>
(1) Civil Works	0.31	95%
(2) Goods	0.28	100% of foreign and 95% of local expenditures
(3) Consultants' services, Studies, and Audits	1.50	100% of foreign and 85 % of local expenditures
(4) Trainings, Workshops, Seminars and Surveys	0.80	100%
(5) Grants	0.55	100% of amount disbursed
(6) Operating costs	0.36	85%
(7) Unallocated	0.50	-
<b>Total Project Costs with Bank Financing</b>	4.30	
<b>Total</b>	4.30	

### Use of statements of expenditures (SOEs):

4. Disbursements for all expenditures should be against full documentation except for items of expenditures under contracts of less than: a) US\$ 100,000 for goods; b) US\$ 100,000 for consulting firms, c) US\$ 50,000 for individual consultants. All civil works, sub-grants, goods and operating costs should be reported on SOEs.

### Special account:

5. Under transaction-based disbursements, the authorized allocation of the special account will be \$350 000, based on the average of 4 months of eligible expenditures expected to be made from the account. Replenishment applications will be submitted monthly, accompanied by copies of reconciled bank statements.

Under report-based disbursements, the advance to the special account will be based on a forecast of expenditures for a period not exceeding 6 months. Replenishments will be made quarterly on the basis of FMRs showing expenditures made during the previous quarter, together with a forecast of expenditures for the upcoming 6 month period and reconciled bank statements.

#### 5.1 Disbursement of funds from the Special Account to Local Governments

Funds will be disbursed from the Special Account to the Districts for activities to be implemented at the local administration level. The CDC accounts maintained by the districts into which these transfers will be deposited will be separate from the accounts of the district administration and will receive funds from the GEF Special Account only.

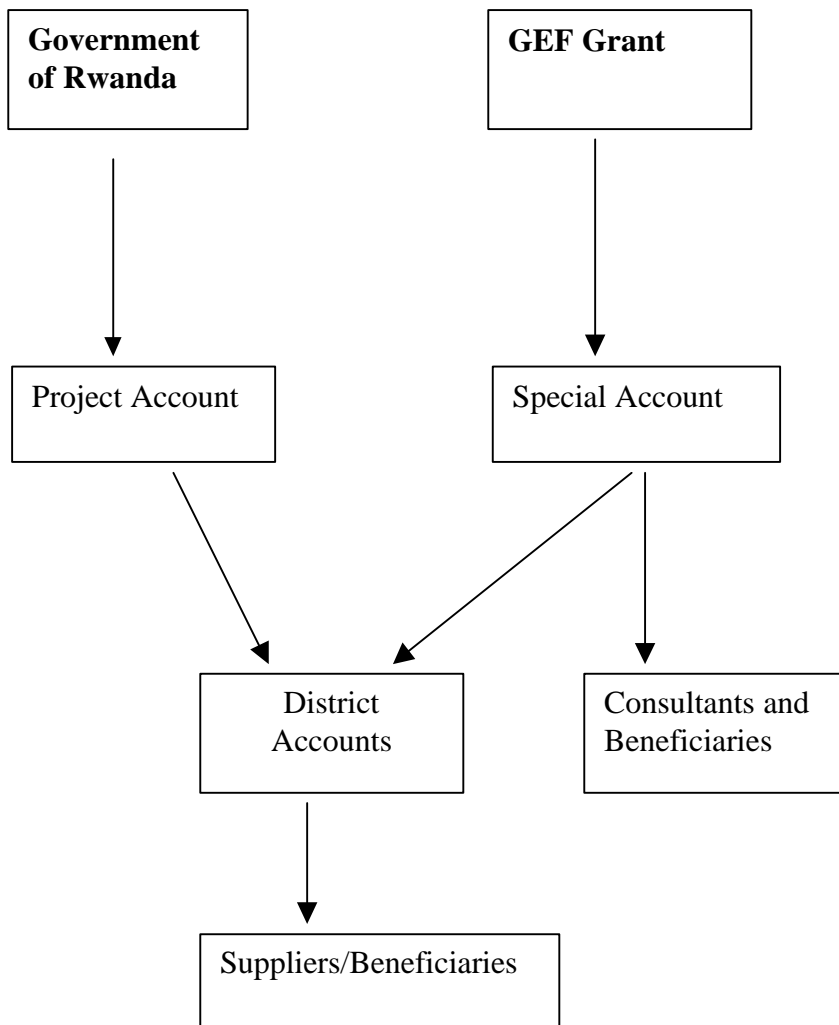
Districts will be financed on an imprest basis, with an advance given once workplans are approved. Subsequent replenishments being made upon periodic submission of accountability to the PMU. Initially, the CDC will approve an annual workplan and budget for activities to be financed under the project. The CDC will then submit a cash request in respect of the workplan to the PMU for an amount of estimated expenditures for a period covering no more than 90 days. In making disbursements to, and payments on behalf of, the CDCs, the PMU will ensure that such amounts do not at any time exceed those indicated in the approved annual workplans.

The PMU will prepare guidelines for CDCs that will include the format and proposed content of these periodic reports. Payments for sub-project expenditures will be made by the CDC according to a predetermined payment schedule.

## 5.2 Flow of Funds

The diagram below illustrates the Funds Flow arrangements:

### **FUNDS FLOW ARRANGEMENTS**





## **CONCLUSION**

Financial Management risks will be reduced through the proper implementation of Financial Management arrangements.

### **Financial Management Action Plan**

<b>Issues</b>	<b>Recommended Action</b>	<b>Due Date</b>
An Accountant has been recruited	An Accountant should be recruited on Terms and conditions acceptable to the World Bank.	Grant Negotiations
Reporting formats agreed	The Formats of Financial Monitoring Reports(FMRs) should be determined and agreed with Bank.	Before Negotiations
Documentation of Financial and Accounting Procedures	Financial and Accounting Procedures to be used, should be properly documented.	Grant Effectiveness
Establish an Integrated Accounting system	An Integrated Accounting System will be established	Grant Effectiveness

**Annex 7: Project Processing Schedule**  
**REPUBLIC OF RWANDA: Integrated Management of Critical Ecosystems**

<b>Project Schedule</b>	<b>Planned</b>	<b>Actual</b>
<b>Time taken to prepare the project (months)</b>		
<b>First Bank mission (identification)</b>		
<b>Appraisal mission departure</b>		05/30/2004
<b>Negotiations</b>	10/12/2004	11/03/2004
<b>Planned Date of Effectiveness</b>	04/15/2005	

**Prepared by:**

Ministry of Lands, Environment, Forest, Water and Natural Resources (MINITERE)

**Preparation assistance:**

**Bank staff who worked on the project included:**

<b>Name</b>	<b>Speciality</b>
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Marie-Claudine Fundi	Language Program Assistant, AFTS3
Desiré Coquillat	Consultant, AFTS3
Remileku Rakey Cole	Consultant, AFTS3
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Emmanuel Tchoukou	Financial Management Specialist, AFTFM
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<b>QUALITY ASSURANCE:</b>	
Joseph Baah-Dwomoh	Sector Manager, AFTS3
Christophe Crepin	Program Manager, AFTS4
Enos E. Esikuri	Technical Specialist, ENV
Thomas E. Walton	Lead Regional Coordinator, AFTSD

**Annex 8: Documents in the Project File\***  
**REPUBLIC OF RWANDA: Integrated Management of Critical Ecosystems**

**A. Project Implementation Plan**

Draft Project Implementation Manual (PIM)

**B. Bank Staff Assessments**

Emmanuel Tchoukou, Financial Management Specialist (AFTFM) - Financial Management

Prosper Nindorera, Procurement Specialist (AFTPC) - Procurement

Michael Fowler, Senior Finance Officer (LOAG2) - Disbursement

Christophe Crepin, Program Manager (AFTS4) - GEF

Remi Kini, Senior Environmental Economist (AFTS3) - Environment

**C. Other**

(1) A. Dachraoui: RAPPORT TECHNIQUE (Technical report on marshland and hillside rehabilitation)

(2) FAO/CP: GLOBAL ENVIRONMENT FACILITY - PROPOSAL FOR PROJECT DEVELOPMENT FUNDS (PDF) BLOCK B GRANT

(3) FAO/CP: ENVIRONMENTAL ASSESSMENT

(4) B. Cooney: GLOBAL ENVIRONMENT FACILITY PROPOSAL FOR PROJECT DEVELOPMENT FUNDS (PDF) BLOCK B GRANT

(5) J. Ngendahayo: SEMINAIRE-ATELIER SUR LA CONCEPTION DU PROJET D'APPUI AU SECTEUR RURAL AU RWANDA

\*Including electronic files

**Annex 9: Statement of Loans and Credits**  
**RWANDA: Integrated Management of Critical Ecosystems**

Project ID	FY	Purpose	Original Amount in US\$ Millions				Cancel.	Undisb.	Difference between expected and actual disbursements <sup>a</sup>	
			IBRD	IDA	SF	GEF			Orig	Frm Rev'd
Total:										

RWANDA  
STATEMENT OF IFC's  
Held and Disbursed Portfolio

In Millions US Dollars

		<b>Committed</b>				<b>Disbursed</b>			
		<b>IFC</b>				<b>IFC</b>			
FY Approval	Company	Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
Total Portfolio:									
		Approvals Pending Commitment							
FY Approval	Company	Loan	Equity	Quasi	Partic				
Total Pending Commitment:									

## Annex 10: Country at a Glance

### REPUBLIC OF RWANDA: Integrated Management of Critical Ecosystems

POVERTY and SOCIAL	Rwanda	Sub-Saharan Africa	Low-income		
<b>2002</b>					
Population, mid-year (millions)	8.2	688	2,495		
GNI per capita (Atlas method, US\$)	230	450	430		
GNI (Atlas method, US\$ billions)	1.9	306	1,072		
<b>Average annual growth, 1996-02</b>					
Population (%)	6.0	2.4	1.9		
Labor force (%)	5.0	2.5	2.3		
<b>Most recent estimate (latest year available, 1996-02)</b>					
Poverty (% of population below national poverty line)	..	..	..		
Urban population (% of total population)	6	33	30		
Life expectancy at birth (years)	40	46	59		
Infant mortality (per 1,000 live births)	99	105	81		
Child malnutrition (% of children under 5)	24	..	..		
Access to an improved water source (% of population)	41	58	76		
Illiteracy (% of population age 15+)	31	37	37		
Gross primary enrollment (% of school-age population)	119	86	95		
Male	119	92	103		
Female	118	80	87		
<b>KEY ECONOMIC RATIOS and LONG-TERM TRENDS</b>					
	<b>1982</b>	<b>1992</b>	<b>2001</b>	<b>2002</b>	
GDP (US\$ billions)	1.4	2.0	1.7	1.7	
Gross domestic investment/GDP	17.8	15.6	18.4	18.8	
Exports of goods and services/GDP	11.6	5.6	9.3	8.1	
Gross domestic savings/GDP	5.2	2.9	1.9	1.9	
Gross national savings/GDP	13.8	7.9	11.8	7.9	
Current account balance/GDP	-5.7	-7.7	-6.5	-11.5	
Interest payments/GDP	0.1	0.3	0.5	0.6	
Total debt/GDP	15.5	42.1	75.4	..	
Total debt service/exports	5.2	17.3	24.6	..	
Present value of debt/GDP	..	..	39.3	..	
Present value of debt/exports	..	..	386.6	..	
	<b>1982-92</b>	<b>1992-02</b>	<b>2001</b>	<b>2002</b>	<b>2002-06</b>
<i>(average annual growth)</i>					
GDP	1.4	4.2	6.7	9.4	..
GDP per capita	-1.5	1.8	3.7	6.3	..

**Development diamond\***

Life expectancy

GNI per capita

Gross primary enrollment

Access to improved water source

— Rwanda

— Low-income group

**Economic ratios\***

Trade

Domestic savings

Investment

Indebtedness

— Rwanda

— Low-income group

STRUCTURE of the ECONOMY	1982	1992	2001	2002
<i>(% of GDP)</i>				
Agriculture	39.8	33.2	40.5	41.6
Industry	21.7	18.7	21.6	21.8
Manufacturing	13.5	12.1	9.8	10.4
Services	38.5	48.1	37.9	36.6
Private consumption	81.9	82.6	86.4	86.1
General government consumption	12.9	14.5	11.7	12.1
Imports of goods and services	24.2	18.3	25.8	25.0
	<b>1982-92</b>	<b>1992-02</b>	<b>2001</b>	<b>2002</b>
<i>(average annual growth)</i>				
Agriculture	0.4	6.4	8.3	10.4
Industry	-0.4	2.6	7.6	7.9
Manufacturing	0.0	-0.2	7.8	9.0
Services	3.7	2.9	4.4	8.8
Private consumption	2.2	3.3	2.3	9.5
General government consumption	7.2	2.4	18.2	11.2
Gross domestic investment	-2.7	5.8	3.0	5.1
Imports of goods and services	3.2	1.3	4.0	-0.3

**Growth of investment and GDP (%)**

40

20

0

-20

97 98 99 00 01 02

— GDI — GDP

**Growth of exports and imports (%)**

50

40

30

20

10

0

-10

-20

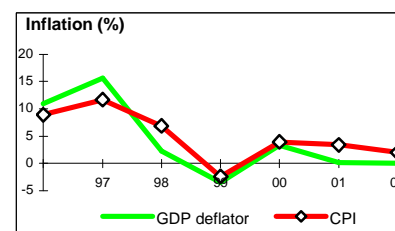
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— Exports — Imports

\* The diamonds show four key indicators in the country (in bold) compared with its income-group average. If data are missing, the diamond will be incomplete.

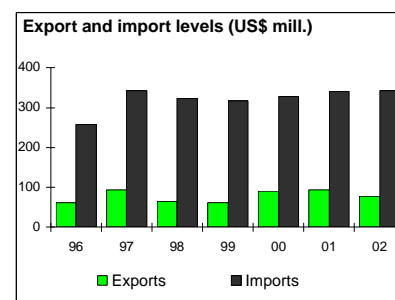
## PRICES and GOVERNMENT FINANCE

	1982	1992	2001	2002
<b>Domestic prices</b>				
<i>(% change)</i>				
Consumer prices	12.6	9.6	3.4	2.0
Implicit GDP deflator	4.9	7.3	0.2	0.0
<b>Government finance</b>				
<i>(% of GDP, includes current grants)</i>				
Current revenue	..	16.3	19.8	21.0
Current budget balance	..	-0.5	5.6	5.8
Overall surplus/deficit	..	-8.1	-1.1	-1.1



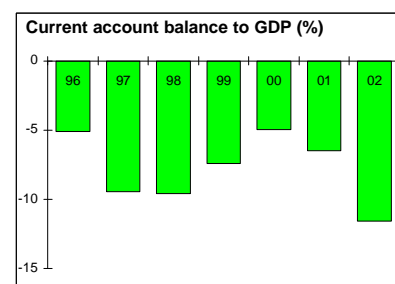
## TRADE

	1982	1992	2001	2002
<i>(US\$ millions)</i>				
Total exports (fob)	88	69	93	78
Coffee	..	35	19	23
Tea	..	21	23	24
Manufactures	..	2	48	27
Total imports (cif)	..	319	340	342
Food	..	29	52	55
Fuel and energy	..	37	73	74
Capital goods	..	69	51	53
Export price index (1995=100)	..	57	70	67
Import price index (1995=100)	..	98	96	97
Terms of trade (1995=100)	..	58	73	69



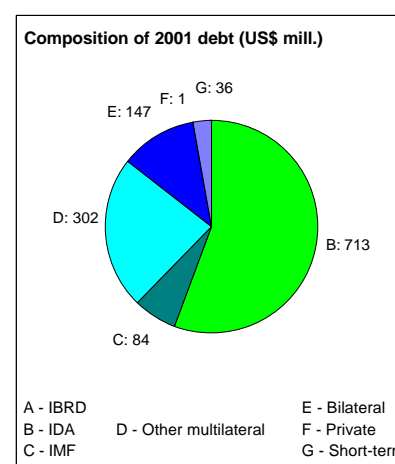
## BALANCE of PAYMENTS

	1982	1992	2001	2002
<i>(US\$ millions)</i>				
Exports of goods and services	122	114	159	143
Imports of goods and services	324	372	440	443
Resource balance	-202	-259	-281	-300
Net income	11	-10	-20	-25
Net current transfers	110	112	191	124
Current account balance	-81	-157	-110	-200
Financing items (net)	14	116	121	205
Changes in net reserves	67	41	-11	-5
<b>Memo:</b>				
Reserves including gold (US\$ millions)	..	..	..	..
Conversion rate (DEC, local/US\$)	92.8	133.4	443.0	475.4



## EXTERNAL DEBT and RESOURCE FLOWS

	1982	1992	2001	2002
<i>(US\$ millions)</i>				
Total debt outstanding and disbursed	218	857	1,283	..
IBRD	0	0	0	..
IDA	77	408	713	..
Total debt service	7	21	43	..
IBRD	0	0	0	..
IDA	1	5	18	..
Composition of net resource flows				
Official grants	70	190	160	..
Official creditors	26	72	43	..
Private creditors	3	-1	0	..
Foreign direct investment	21	2	5	..
Portfolio equity	0	0	0	..
World Bank program				
Commitments	56	19	119	..
Disbursements	12	32	53	..
Principal repayments	0	2	11	..
Net flows	12	30	42	..
Interest payments	1	3	7	..
Net transfers	11	27	35	..



Note: This table was produced from the Development Economics central database.

8/20/03

**Additional Annex 11: STAP Roster Technical Review**  
**REPUBLIC OF RWANDA: Integrated Management of Critical Ecosystems**

Country: **Rwanda**  
Project Name: **Integrated Protection and Management of Critical Ecosystems**  
STAP Reviewer: Dr. J. Michael Halderman, Independent Consultant, Berkeley, California  
Date: September 19, 2001

**Key Issues**

**1) Scientific and technical soundness of the project.** The project has been carefully and thoroughly designed following sound scientific and technical principles. Scientific aspects relating to protecting and managing wetlands, protecting international waters, mitigating or reversing land degradation, increasing carbon sequestration, and conserving biodiversity are consistent with current scientific thinking and practice. The project design represents a particularly appropriate approach to dealing with the enormous, multi-faceted problems (including very high population density, acute shortage of agricultural land, and ethnic conflict) that have led to severe environmental and natural resource degradation in Rwanda (see Attachment 1 of the project document regarding the sharp decline in Rwanda's protected areas after 1994). Without effective policies, institutions and actions, the degradation will inevitably increase. The GEF project represents an integrated, comprehensive response based on four components: (1) development of a sound policy and regulatory environment for sustainable NRM, (2) capacity building and institutional strengthening in decentralized integrated NRM, (3) development of community-based integrated ecosystem management (IEM) plans for critical ecosystems, (4) project management and coordination. Each of the components is necessary and there is an appropriate balance in terms of financing between the components: 20%, 26%, 44%, 10%. (The terms used to describe the four components vary between pages and sections of the project brief. It would be useful to standardize the terms.)

**2) Identification of the global environmental benefits and/or drawbacks of the project.** The baseline IDA-funded Rural Sector Support Program (RSSP) will focus on productive issues. During the first phase of the IDA program, the "fully blended" GEF project will be directly linked to the Marshland Rehabilitation and Hill-side Farming component of the RSSP. The GEF project will complement the IDA project in an effort to ensure the integration of local, national and global environmental objectives. The anticipated global environmental benefits of the GEF project include: more effective biodiversity conservation and genetic stock preservation, better protection of international waters, increased carbon sequestration, and production of a reliable biodiversity information system (BIS) with action-oriented indicators for biodiversity monitoring. These points are convincingly argued in the project brief.

**3) Project fit within the context of GEF goals, operational strategies, programme priorities and relevant conventions.** The project fits well with these criteria. It is a well designed project that incorporates the principles (and is clearly directed toward achieving the potential benefits) of integrated ecosystem management (Operational Program 12). Economic and social factors are integrated into ecosystem management, and the management systems at various levels are intended to be flexible and to incorporate lessons learned into on-going and future activities. Participatory approaches are central to this project's approach to ecosystem management and sustainable development. The project addresses, in line with national priorities, and is intended to bring synergy between three GEF focal areas (biodiversity, climate change, international waters) and land degradation. The project will help develop an enabling policy environment, strengthen relevant institutions, and make investments based on integrated ecosystem approaches. It also addresses existing constraints limiting the adoption of IEM. In addition, the project



accords with the Convention on Biological Diversity, the UN Framework Convention on Climate Change, and GEF operational guidance relevant to international waters.

**4) Regional context.** Located in the Great Lakes region of east-central Africa, Rwanda's environmental situation affects nearby countries. Although Rwanda is a small country, its hydrological network has considerable influence on regional and international waters. Most of the national waters enter the Nile River basin, which covers two-thirds of the country, while the balance enter the Congo River basin. The Kagera lakes/swamps system, one of the four sites selected for project activities, is situated on the Rwanda/Tanzania border. Less than half of this wetland system within Rwanda is "protected" by Akagera National Park. The Kagera River forms the border between Rwanda and Tanzania for over 100 kms and is estimated to contribute 8-10% of total Nile waters. The Rugezi swamp, another project site, is located in the northwest near Uganda and Congo. For better or worse, the future of Rwanda's wetlands will have considerable impact on neighboring and distant countries.

**5) Replicability of the project.** If the project is successful, particularly in regard to developing effective and potentially sustainable community-based IEM plans, there would be clear scope to replicate the approach in other parts of Rwanda and in neighboring countries. If the comprehensive approach of the project in general (the four components) is successful it could also serve as a model for replication. Such replication could have considerable global environmental benefits if carried out in the biologically rich mountain forests and other critical ecosystems in Rwanda and the region. Experiences gained and best practices will be disseminated by the project to encourage replication.

**6) (Anticipated Effectiveness and) Sustainability of the project.** Before addressing sustainability, it is useful to assess the likelihood of the project performing effectively. Achieving the objectives of Component 1 (developing an appropriate policy and regulatory environment) by year one and two as planned will be essential to achieving overall project goals. The approach, intended outputs and performance indicators of this "stand alone" component are sound. Effective devolution of the responsibility for NRM to local governments and communities will be necessary for the project to function as planned, but decentralization and devolution can be tricky processes. Developing community-based integrated ecosystem management plans (Component 3) is critical to the success of the project, and this component receives the largest share (44%) of project funds. The development and implementation of sound and effective IEM plans may well be the greatest challenge facing the project. A systematic approach to achieving integrated protection and management of critical ecosystems is provided in an annex. Given existing conditions, there might be a risk that what is now intended as a community-based approach to NRM could be subverted, and the development of the plans could become a top down exercise. The participation of communities in the design, implementation and monitoring of key project activities is correctly viewed as critical to project success and sustainability. The project is headed in the right direction (see "Issues requiring special attention" and "Risks") and it is not necessary to provide more detailed information than that already contained in the project brief. However, special efforts need to be taken in the future development and implementation of the project, particularly concerning Component 3. Two key points: (a) highly skilled, well trained individuals will be needed at the interface with communities, (b) efforts should be taken to identify communities with real (if latent) potential to successfully carry out community-based activities. Elite capture at all levels is a real possibility of such a project. Given the dire conditions in rural areas of Rwanda, more emphasis might be given to developing off-farm activities and/or alternative livelihoods in order to obtain the participation of the poor and contribute to the effective implementation and sustainability of the IEM plans.

### **Secondary Issues**

7) **Linkages to other focal areas.** This project is multi-focal, covering biodiversity conservation, international waters, climate change and land degradation.

8) **Linkages to other programmes and action plans.** The GEF project is intended to provide a critical link between the baseline IDA-funded RSSP and the ADB-funded Master Plan for the Management of the Marshlands, Watershed Protection and Soil Conservation project. GEF resources will be used to integrate biodiversity assessments and conservation aspects into the Master Plan. The GEF project will provide guidance to the Master Plan on environmental and conservation aspects, and it will undertake studies in large wetland areas of global significance not covered by the Master Plan. (The results of the Master Plan are expected to guide RSSP activities.) There will be linkages to other relevant projects including the Bank-financed Community Reintegration and Development Project, the GTZ-funded PRORENA Natural Resources Protection Project, the GEF/WB/UNDP Nile Basin Shared Vision Program, the GEF/UNDP Restoration of Conservation Capacity for Biodiversity Values of the Protected Areas in Rwanda project, and the GOR/FAO/UNDP Soil Fertility Initiative / Soil and Water Conservation project. The last two projects are currently being prepared.

9) **Other beneficial or damaging environmental effects.** The rationale for this GEF project is that it will complement the IDA-funded baseline Rural Sector Support Program (RSSP) in order to ensure local, national and global environmental benefits. The rationale is sound.

10) **Stakeholder involvement.** The project will affect a wide variety of actors and a workshop was held in early 2000 to familiarize stakeholders with project objectives and components. Several communities have already been visited, and additional stakeholder consultations (including participatory rapid appraisal of local livelihood opportunities and their critical linkages with ecological conditions) will take place in the near future. It is intended that the participation of stakeholders will be sustained during the implementation, monitoring and evaluation of activities. A public participation plan will be developed; it will give particular attention to the project's incentive scheme. In regard to the project's approach to tackling problems of natural resource degradation, the choice of the watershed as the most appropriate spatial scale is appropriate. The number of issues, stakeholders and activities involved at the watershed level is large and therefore effective NRM at this level will be a challenge. It is not clear how effectively local communities will be involved in the development of integrated watershed resource management plans at the prefecture/regional level. In addition, as indicated in the project brief, passing appropriate legislation that provides security of land tenure will be necessary if the cooperation of local resource users is to be obtained.

11) **Capacity building.** Under Component 2 the project aims to carry out considerable capacity building and institutional strengthening as this is recognized as critical to project success. The needs are enormous as Rwanda has little technical capacity in environmental and natural resource management, decentralization is in an early stage, and there has been little experience with community-based NRM, participation or stakeholder consultation. The project's approach is sound in regard to activities to be undertaken within ministries and in regard to environmental education, development of thematic groups, and the development of participatory techniques (including, significantly, conflict resolution). While community members will receive training in a variety of areas there is no mention of training in organizational and managerial skills (including financial management) that are necessary to genuinely empower communities. Training in these skills, however, is provided to other actors. The output indicators of this component focus almost exclusively on the numbers of people trained, activities carried out, etc. While basic quantitative indicators are necessary, even more important will be assessments of the relevance, quality and impact of training and other activities if the project is to (a) really learn from its experiences and (b) be successful. In particular, the quality of the people involved and the techniques used to promote participation will be critical to achieving overall project objectives.

**12) Innovativeness of the project.** This project is an innovative, comprehensive and multi-sectoral approach that well reflects the spirit and intentions of the GEF's recently established (April 2000) Operational Program #12.

## **Additional Annex 12: Response to STAP Technical Review REPUBLIC OF RWANDA: Integrated Management of Critical Ecosystems**

The STAP Review is generally supportive of the project rationale, design and approach to dealing with the multi-faceted problems that have led to severe environmental degradation in Rwanda. However, the STAP Review raised three issues that will need special attention. Additional insights and ways to handling these issues are provided below.

### Risk of subverting the community-based approach to NRM by imposing a top-down approach

Community development initiatives are often subverted by elites at the regional/local levels in countries with differing socio-political characteristics and levels of development. The probability of experiencing this subversion would have been very high in pre-1994 Rwanda where the political and administrative apparatus was highly centralized. The social and political situation has changed in a significant way since 1994. First, in the immediate aftermath of the tragic events of 1994 several self-organizations emerged to become default organizations for local development. These self-help organizations were further strengthened and provided direct support by the Government which in many instances lacked the capacity to supply the public work force required to oversee development efforts at the local level. The process of strengthening the organizational structure of these organizations relied strongly on local resources.

In this process of strengthening, the self-help associations/organizations evolved to become community development committees (CDCs). For a several years, the CDCs were the only organizations with elected executive members in Rwanda. These members are elected by lower level ward organizations called cellules, the representatives of which are elected by a group of families/households. The accountability and responsibility lines between these organizations, one the one hand, and between them and Government entities, on the other, are very clear. The implementation of the political and administrative decentralization policy that culminated with the organization of local elections in early 2001 strengthened the trend toward more transparency and more devolution of responsibility and power to local organizations.

The World Bank-financed Community Reintegration and Development Project (CRDP) used the CDCs as the main vehicle for its implementation. As mentioned in the proposed project Brief, the experience of the CRDP shows that these organizations are highly capable of carrying out local development operations in an effective and efficient way if they are provided with the technical support required. This is the reason why the proposed project emphasizes capacity building at the local level. Also, the interaction of the local communities with outside service providers, be they government experts, NGOs, consulting firms, or private sector operators will be provided to target communities. During supervision much attention will be paid to the quality and nature of the interaction between the communities and other stakeholders of the project, in order to help control abuses by of all kinds actors (elite or else).

### How effectively will the participation of local communities be in the development of integrated watershed management plans at the prefecture/regional level

Effective participation of local communities in the development of watershed management plans can be hampered by two main kinds of factors, namely bureaucratic and other hindrances created by local administration, and/or unwillingness of communities to participate for a variety of reasons. The first category of hindrance is addressed through the policy and regulatory framework, as well as the creation of inter-ministerial committee that will oversee the implementation of the project. Current Government policy

pronouncements make a strong reference to population participation in NRM. This orientation will be strengthened in the national wetland policy. There will be a project launching workshop where the overall principles that guide the planning of project activities will be discussed with all the stakeholders (Government - central and local, NGOs, private sector operators, consulting firms, farmers representatives, etc.).

These principles will emphasize local communities' crucial role in the ultimate success of the operations. The project implementation unit will ensure that the preparation of annual work plans involve the beneficiary communities. As mentioned in the Brief, prefecture/regional level technical and administrative units will play an important role in the implementation of the project. Their role will be defined more clearly in each annual work plan, with verifiable outputs. Because the design of the integrated ecosystem management plans rely overwhelmingly on local communities for their implementation, the prefecture/regional outputs would be achieved only if they follow a participatory approach. These operational mechanisms and procedures will be included in the project implementation manual that will be distributed to all the key stakeholders of the project, including prefectures and regional administrations involved in the implementation of the project. Ultimately, it would in the best interest of the prefecture/regional level institutions to include local communities in the development of the NRM plans.

In order for local communities to participate, they must have a vested interest in the objectives pursued by the project, thus the issue of incentives. The attractiveness (financial and social) of the proposed program featuring a strong baseline and an integrated approach including security of land tenure, affordability of capital and labour cost of proposed technologies are the key issues that would need particular attention in attracting farmers to participate in the proposed activities.

No mention of training in organizational and management skills necessary to genuinely empower communities

Capacity building in all areas associated with the success of the project is an overriding objectives of the both the alternative and the baseline operations. Indeed, the baseline program includes in its first phase mechanisms (i.e., the local infrastructure facility, the rural investment facility, and the rural technology facility) to finance community-driven sub-projects. These mechanisms would provide financing to support group of beneficiaries, including farmers and private sector operators. Financial and business management constitute one of the areas targeted for capacity building because such capacity will be needed to maximize the benefits of the investments. Similarly, upgrading the organizational capacity of local community organizations will be key in mobilizing collective resources to ensure co-financing, and assuring high quality interaction with business partners and outsiders providing assistance to community members. In addition to these areas of interest for capacity strengthening, beneficiaries could identify other capacity development needs that the project may support. The relevance of these requests would be assessed against the development objectives of the projects. The performance of the capacity building activities would be measured both in terms of the quantitative achievements and the relevance of the themes covered by the training sessions.

