

**TRANSBOUNDARY AGRO-ECOSYSTEM
MANAGEMENT PROJECT
FOR THE KAGERA RIVER BASIN**

BURUNDI

RWANDA

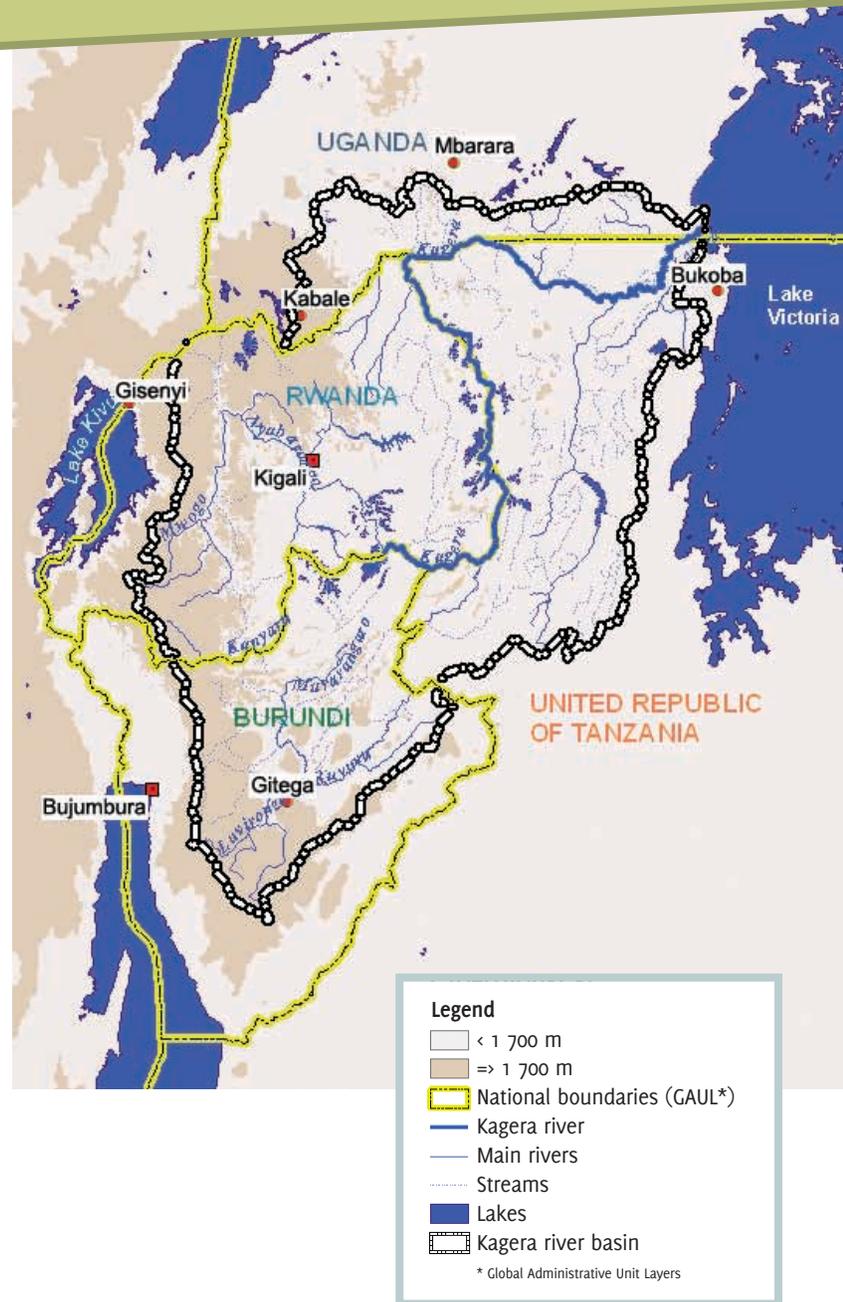
UGANDA

UNITED REPUBLIC OF TANZANIA



THE KAGERA RIVER BASIN

is located in Eastern Africa and is shared by 4 countries: Burundi¹, Rwanda², United Republic of Tanzania³ and Uganda⁴. The basin covers a surface area of 59 700 km² and occupies a strategic position, contributing to almost a fourth of the inflow into Lake Victoria (7.5 km³ of water per year); its altitude ranges from 2 500 m to 1 145 m (at Lake Victoria). The tributaries of the **Kagera** River in Rwanda and Burundi are fed by the remotest upstream sources of the River Nile: and maintenance of the **Kagera** flow regime is vital for maintaining water levels of Lake Victoria and outflow to the Nile. More than 16.5 million people (2006) live in the **Kagera** basin, the majority rural, depending directly on farming, herding and fishing activities. Land use includes a range of diverse production systems: extensive and intensive livestock systems; cropping systems – cereals associated with legumes and tubers; and mixed farming systems (agro forestry, crop-livestock, crop-fish, and systems dominated by perennial crops – bananas, coffee and tea).



¹ Burundi: Provinces of Muramya, Mwaro, Karuzi, Gitega et Kirundo.

² Rwanda: Districts of Nyagatare, Kayanza, Kirehe, Bugesera (Eastern Province), Kamonyi (Southern Province), Rulindo (Northern Province).

³ Tanzania: Districts of Bukoba, Karagwe, Ngara, and Misenye (Kagera Region).

⁴ Uganda: Districts of Kabale, Ntungamo, Isingiro and Rakai (and possibly parts of Mbarara and Kiruhura now outside the basin).

THE PROJECT

The project goal is to adopt an integrated ecosystems approach for the management of land resources in the Kagera Basin that will generate local, national and global benefits including: restoration of degraded lands, carbon sequestration and climate change adaptation and mitigation, protection of international waters, agro-biodiversity conservation and sustainable use and improved agricultural production, leading to increased food security and improved rural livelihoods.

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THE CHALLENGE

These agro-ecosystems are facing increasing pressures as a result of rapid population growth, agricultural and livestock intensification characterised by progressive reduction in farm sizes, and unsustainable land use and management practices. The basin's land and freshwater resource base, associated biodiversity and populations' livelihoods and food security, are threatened by land degradation, declining productive capacity of croplands and rangelands, deforestation and encroachment of agriculture into wetlands. Climate change and variability aggravates these threats.

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Transboundary agro-ecosystem management project for the Kagera river basin



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EXAMPLES OF INAPPROPRIATE FARMING PRACTICES

Frequent and uncontrolled burning of vegetation on rangelands and cultivated land; encroachment of cropland on marginal areas (steep slopes, fragile soils); reduction in the use of crop rotations and fallows... all contribute to the loss of protective vegetation cover and biodiversity. These processes lead to significant water losses through evaporation from hot, bare soils and substantial runoff which causes accelerated soil erosion. In turn, the eroded sediments are deposited in water courses and lakes and also in the wetlands, resulting in a reduction in their important functions of filtration and water regulation.

The impacts of these processes include a loss of productive land and a significant reduction in productivity, and negative effects on the quality of water, the hydrological regime and recharge of the water table and hence on the amount of available water. As a result, food insecurity increases, as well as vulnerability to periods of drought and floods – aspects which are already heightened by climate change. Loss of livelihoods and out-migration are among some of the consequences.

To address land-related problems, it is necessary to work with all actors at all levels because the adoption of improved practices for the management of soil, water, vegetation and the diverse ecosystems cannot be made without putting in place a suitable institutional and policy framework, including processes for planning, organization and decision making at community, provincial / district and regional / transboundary levels.



Transboundary agro-ecosystem management project for the Kagera river basin

PROJECT OBJECTIVES AND ACTIVITIES

The project has four components focusing on the Sustainable transboundary Land and Agro-ecosystems Management of the Kagera basin (SLaM); a fifth component concerns project management. The activities take into account gender issues, access to resources and conflict resolution.

1. Enhanced regional collaboration, information sharing and monitoring

- 1.1 Establish a basin-wide coordination mechanism to facilitate transboundary dialogue, basin-level policy harmonisation and coordination of (sub)national actions (workshops, a public information and awareness-raising campaign; regional committees).
- 1.2 Establish an efficient basin-wide knowledge management system to support information requirements and decision-making processes at all levels (geographic information system/remote sensing, community information centres, networks).

2. Enabling policy, planning and legislative conditions

- 2.1 Identify mechanisms and approaches for improved synergy and harmonisation among sectoral plans; introduce an inter-sectoral planning process for Sustainable Land Management (SLM) mainstreaming into policy and planning processes and for sharing knowledge and lessons learned.
- 2.2 Identify measures to improve land tenure security and application of conflict resolution measures.
- 2.3 Set up a coherent strategic land use planning and management framework that gives due attention to the range of ecosystem services, i.e. provisioning, regulation, supporting and socio-cultural.

3. Increased stakeholder capacity and knowledge at all levels for promoting integrated agro-ecosystems management

- 3.1 Promote the adoption of SLM practices using extension and learning-action-research approaches through Farmer Field School (FFS); production and dissemination of varied information/training materials.
- 3.2 Enhance quality of training services through practical training workshops, learning by doing, exchange visits, collaboration among researchers, service providers and land users.

4. Adoption of improved land use systems and management practices generating improved livelihoods and ecosystem services

- 4.1 Build participatory SLM plans with 68 pilot communities selected in the 4 countries and in 16 micro-catchments / agro-ecological zones, particular attention to transboundary management of land resources (soil, water, biodiversity).
- 4.2 Implement these SLM plans successfully through increasing productivity and identifying new possibilities to add value to agriculture and hence stimulate immediate adoption.
- 4.3 Identify and promote market opportunities and other cost-benefit sharing mechanisms, such as Payment of Environmental Services (PES) which will provide financial and non financial benefits.

5. Project management structures operational and effective

EXPECTED RESULTS

Sustainable management of shared land and ecosystems of the Kagera Basin and revitalised farm-livelihood systems will generate significant environmental benefits through restoration of well functioning ecosystems and maintenance of their goods and services. These expected results / benefits will be monitored through use of existing tools such as LADA – Land Degradation Assessment in Drylands; WOCAT – World Overview of Conservation Approaches and Technologies; SLM technologies and approaches assessment; remote sensing tools; and questionnaires.

Project outputs include:

- ▣ Sustainable Land and agro-ecosystem Management (SLaM) on 100 000 hectares;
- ▣ 10% increase in crop, livestock and other products by trained farmers/herders contributing to improved livelihoods – income, food security, reduced vulnerability;
- ▣ 20% increase in carbon stores on 30 500 ha (organic matter management; reduced burning);
- ▣ Control of soil erosion demonstrated in farmers plots and micro basins through improved soil, vegetation, biodiversity and water resources;
- ▣ Effects of SLaM on reducing sediment loads assessed in 4 micro-catchments, with partner support for hydrological monitoring;
- ▣ SLM Training / Upscaling capacity across the river basin: 120 000 community members and decision makers sensitized; 3 600 FFS members trained and adopting SLM, 300 technical staff and 200–250 policy makers upscaling SLM and widely available training materials.
- ▣ An enabling environment for regional cooperation supporting joint SLM action plans and best practices (collaborative arrangements among institutions; incentive mechanisms, such as PES; district funds, micro-grants, investments).



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PROJECT PARTNERS

The Transboundary Agro-ecosystem Management Project for the Kagera River Basin (Kagera TAMP) was approved by the Global Environment Facility (GEF) in June 2009. Activities started in April 2010 after signatory endorsement by the 4 beneficiary countries. GEF funds contribute 6 363 000 US Dollars, through TerrAfrica/PSI. With co-funding by governments, partner organisations in the basin, and by FAO (GEF executing and implementing agency), total funds may reach more than 21 million US Dollars.

The project is one of the 39 projects on land degradation that are integrated in the GEF umbrella programme “Strategic investment programme for sustainable land management in sub-Saharan Africa” (TerrAfrica/SIP) whose activities are integrated in the action program of NEPAD (New Partnership for African Development) and whose funds attain the sum of 150 million US Dollars.

The 4 Governments are major project partners – they guide it through the regional and national steering committees and co-fund activities. At national level, project coordination is assured by the following structures which each designate national project focal points and will facilitate agro-environmental cooperation:

- Ministry of Agriculture and Livestock (MINAGRIE) in Burundi;
- Ministry of Agriculture and Animal Resources (MINAGRI) in Rwanda;
- Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) in Uganda;
- Division of the Environment, Vice President’s Office (DOE/VPO) in the United Republic of Tanzania.

The beneficiary communities, farmers and herders, and NGOs/CSOs in the basin are key stakeholders of the project.

STRATEGIC CONTEXT

The recent entry of Burundi and Rwanda into the East African Community (EAC) provides a framework for a strong collaboration with Tanzania and Uganda (and also with Kenya as regards Lake Victoria). In the framework of the Environmental Action Plan of NEPAD, the sustainable management of natural resources is a major theme. The Comprehensive African Agriculture Development Programme (CAADP) of NEPAD is also an important entry point for integration of land management in agricultural and natural resource management.

The 4 countries are also members of the Convention to Combat Desertification (UNCCD); the Convention on Biological Diversity (CBD); the Framework Convention on Climate Change (UNFCCC) and the Ramsar Convention. Kagera TAMP could help to reinforce and make the national plan of actions operational and thereby contribute to effective and harmonised implementation of these conventions across the basin and in the 21 beneficiary districts.

A framework for institutional cooperation is already in place with the Lake Victoria Environmental Management Program (LVEMP-II) and the Nile Equatorial Lakes Subsidiary Action Program (NELSAP) of the Nile Basin Initiative (NBI). These programmes are also supported by GEF. Another very important partner is the Kagera Transboundary Integrated Water Resource Management Project (financed by the Swedish and Norwegian governments and the European Union) which supports hydro-meteorological monitoring and the development of investment projects for efficient water resources management among the different sectors (agriculture, energy, industry and municipalities...).

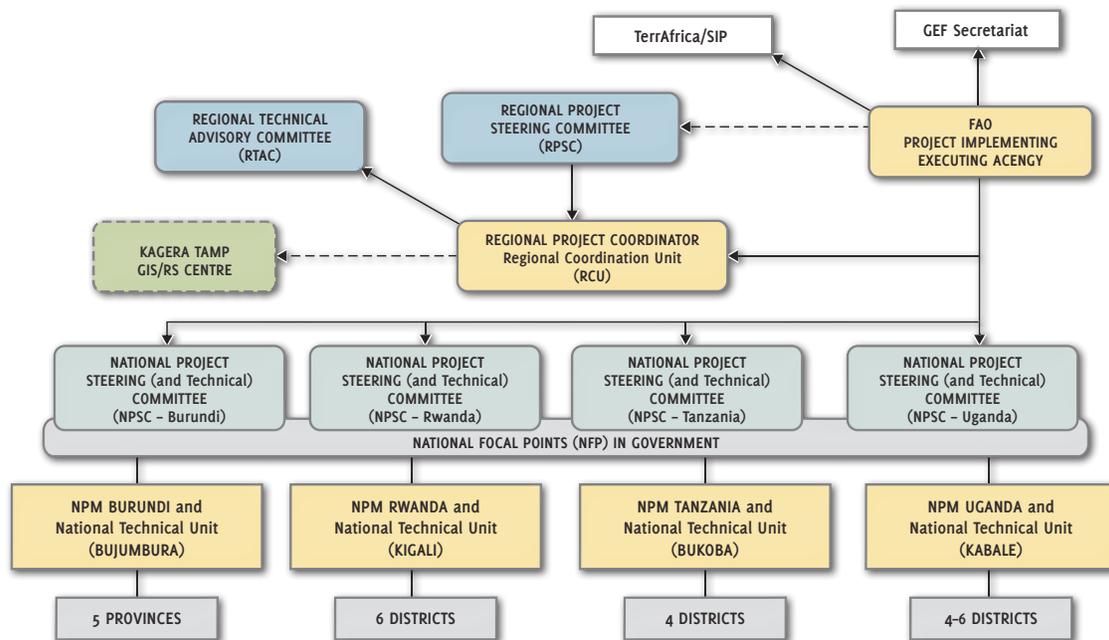
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PROJECT MANAGEMENT

The project is supervised at basin level by a Regional Project Steering Committee assisted by a Regional Technical Advisory Committee. It is managed in each country by the Ministries/agencies of agriculture and environmental sectors, by National Project Steering Committees, composed of various sectors and key players (Joint management is to be facilitated by the rotation of the chair of the committees between agriculture and environment). The Regional Project Coordinator is based in Kigali, and a National Project Manager is based in the basin in each country: Kabale in Uganda, Bukoba in Tanzania, Bujumbura in Burundi, and Kigali in Rwanda. These

five experts are recruited by FAO. Finally, in each of 21 target districts, facilitators will be identified to support the implementation of project activities with the communities and partners. See project organizational chart below. Farmers and target communities will be major players through FFS and community action plans.



COMMUNICATION

The website <http://www.fao.org/nr/kagera>, in English and French, provides supplementary information on project progress, documentation and useful links.



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