KAGERA TAMP

Transboundary Agro-ecosystem Management Programme for the Kagera River Basin

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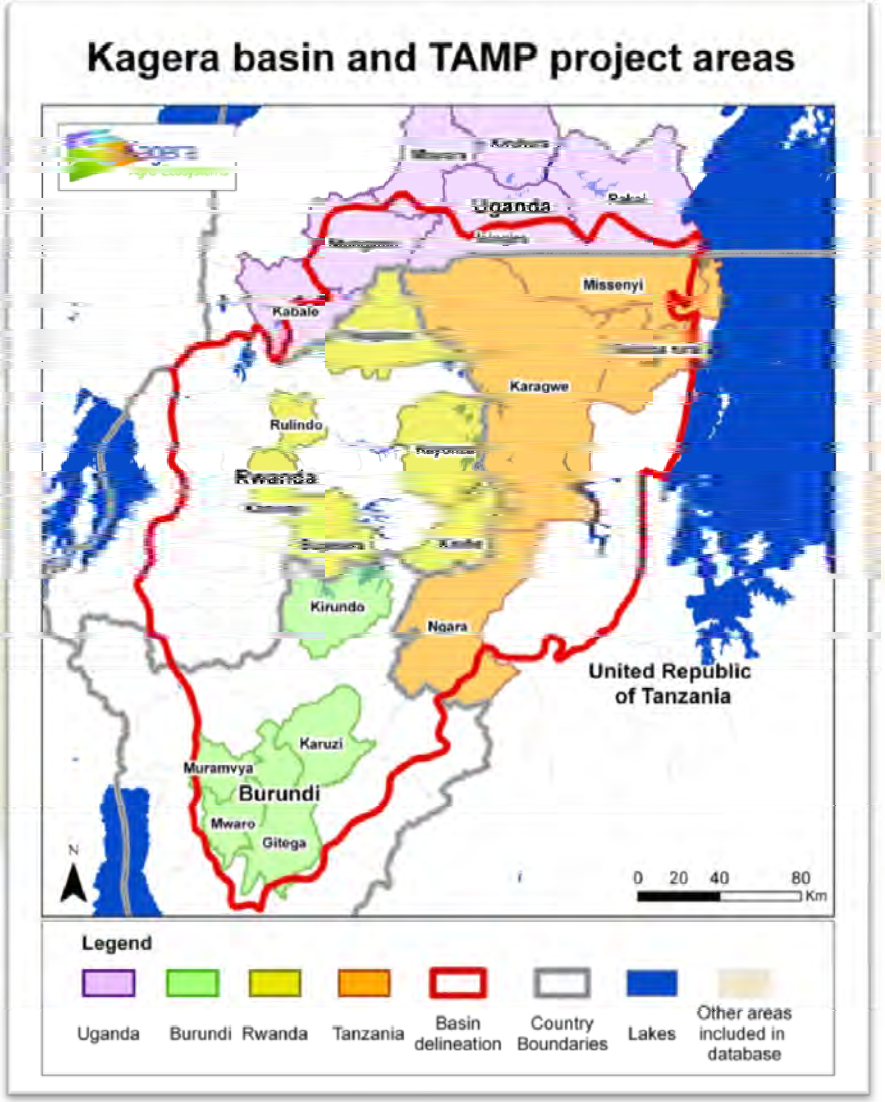
Date / Location

Kagera River Basin:

- ✓4 countries share the basin
- ✓16.5 million people (in 2006) mainly depending on agriculture
- ✓Area 59,700 km2
- ✓Av. density: (~270 persons/ km2)
- ✓24% of inflow into Lake Victoria
- ✓Most upstream tributaries of the Nile



République du Burundi

Republic of Rwanda

The United Republic of Tanzania (en)

Republic of Uganda

Project development process

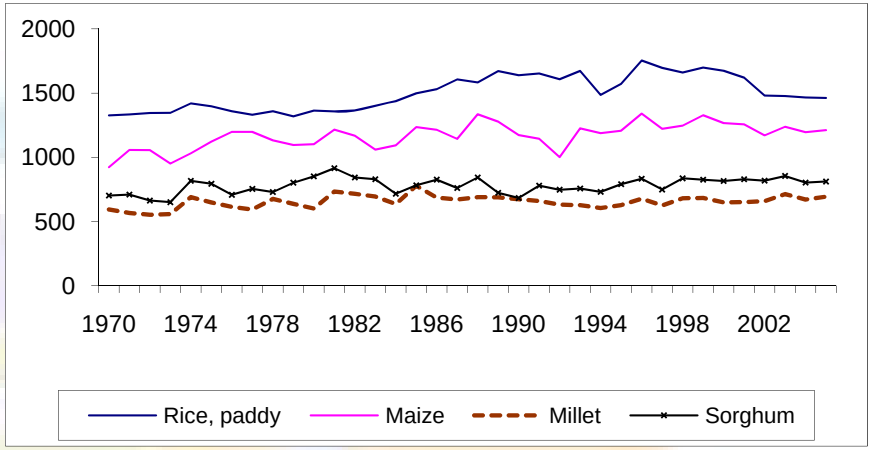
- ✓ **GEF (UNEP/FAO): Two year Project development phase (USD 725,000) in countries sharing the basin (Uganda, Tanzania, Rwanda)**
- ✓ **Full project initially submitted September 2006 (no fund left under GEF-3)**
- ✓ **TerrAfrica/SIP (Strategic Investment programme) for sustainable land management in Sub-Saharan Africa was developed for GEF-4 (LD portfolio USD150 million)**
- ✓ **Kagera Project was resubmitted, for FAO implementation (direct access) and execution, and approved by GEFSec in June 2009**
  - ✓ **Project budget GEF funds US$6,363,000**
  - ✓ **Co-funding USD 24M (Govts. $18.7M & FAO + basin partners $5.5M)**
- ✓ **Project was translated in French for Burundi and submitted to countries for signature and started once signed by all 4 countries by mid April 2010**

The Challenge: Resource base and ecosystems facing increasing pressures as a result of

- ✓ rapid population growth,
- ✓ agricultural and livestock intensification >>> progressive reduction in farm sizes and
- ✓ unsustainable land use and management practices.

Severe socio-economic Impacts of LD in SSA

- ✓ Reduced ecosystem services -provisioning & sociocultural
- ✓ Economic losses (1989-2000)
  - ✓ Productivity / agricultural worker: -16%
  - ✓ Cereal availability/capita: -15%
  - ✓ Agricultural GDP loss: US$ 3-5 billion/ year
- ✓ Abandonment and migration
  - ✓ 7.3% land area non-reclaimable. By 2015: est. 65 million people migrate



Average crop yield in SS Africa (kg/ha)

Land degradation + Poor management practices →Stagnant yields

Severe environmental impacts of LD

- ✓ **Reduced ecosystem services- regulating & supporting**
- ✓ **Degraded land and water resources- quality and quantity**
  - ✓ ***Erosion, nutrient mining, pollution***
  - ✓ ***Reduced rainfall use efficiency and drought***
  - ✓ ***Loss of wetlands and sedimentation/eutrophication of aquatic systems***
  - ✓ **Reduced ground and surface water supply**

- ✓ **Climate change and variability**
  - ✓ **Reduced carbon stocks/GHG emissions: - 5 billion tonnes (1990-2005) from deforestation.**
  - ✓ **Variability ;extreme events→ flood, drought, storms**
  - ✓ **Reduced resilience *(e.g. deforestation; droughts)***
- ✓ **Loss of biodiversity**
  - ✓ **animal species: *126 extinct in the wild; 2,018 threatened, domestic animals***
  - ✓ **plant species 125 extinct; 1,771 threatened.**

Project goal

To adopt an integrated ecosystems approach for the management of land resources

→ to generate local, national and global benefits :

- ✓ restoration of degraded lands and improved productivity
- ✓ carbon sequestration and climate change adaptation / mitigation
- ✓ agro-biodiversity conservation and sustainable use
- ✓ increased food security and improved rural livelihoods and thereby,
- ✓ contribute to the protection of international waters

Kagera TAMP programme

How can land resources management help address the critical development challenges of Kagera basin countries and contribute to global environmental benefits?

Burundi, 5 Provinces, Muramvya, Mwaro, Karuzi, Gitega et Kirundo

Rwanda, 6 Districts, Nyagatare, Kayonza, Kirehe, Bugesera, Kamonyi,Rulindo

Tanzania, 4 Districts Bukoba, Karagwe, Ngara, and Missenye

Uganda, 4+2 Districts Kabale, Ntungamo, Isingiro and Rakai (and possibly parts of Mbarara and Kiruhura now outside the basin)

Objectives

Environmental objective :

- ✓ to address causes of land degradation and restore ecosystem through introduction of adapted agro-ecosystem management approaches

Development objective :

- ✓ to improve livelihoods → contribute to reduced poverty of rural communities through more productive and sustainable resource management practices

GEF

GEF 4 Strategic Programmes:

1 - Supporting Sustainable Agriculture and Rangeland Management

3 - Investing in New and Innovative Approaches for Sustainable Land Management

GEF umbrella programme "Strategic investment programme for sustainable land management in sub-Saharan Africa" (TerrAfrica/SIP) / activities integrated in NEPAD action programme

In accordance with UN Conventions and National agricultural + environmental strategies/ programmes and NEPADs CAADP and Environmental Plan and the Millennium Development Goals :

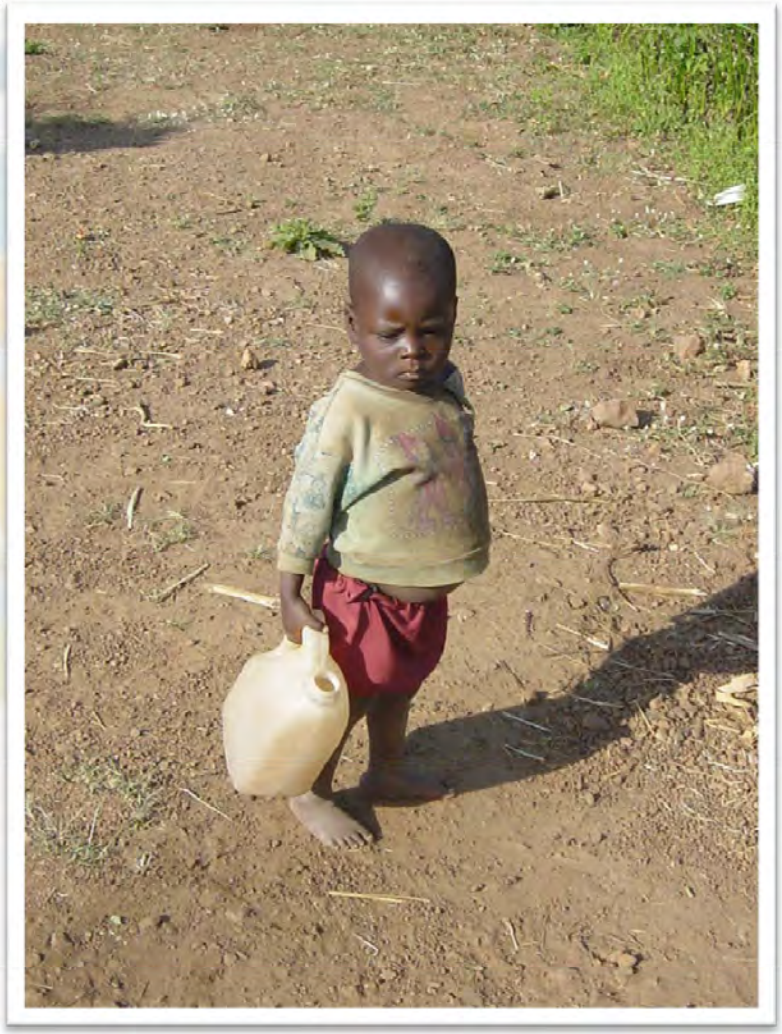
- **#1 eradicate extreme poverty and hunger**
- **#7 ensure environmental sustainability**

Outcomes

1. Transboundary coordination, information sharing and monitoring and evaluation
2. Enabling policy, planning, and legislative conditions
3. Enhanced capacity and knowledge (all levels) for promotion of and technical support to sustainable land and agro-ecosystem management (SLaM)
4. Improved land management practices implemented and benefiting land users

also

5. Project management structures operational and effective.



Project approach

- ✓ **Improved information base** on natural resources status and trends (land degradation, biodiversity loss), human pressures and impacts (vulnerability - food insecurity, climate change) and responses (current uptake of SLM practices in the basin for monitoring)
- ✓ **Improved land use and agro-ecosystem management practices** tested and adapted through Farmer Field School approaches
- ✓ **Participatory land management plans** developed and implemented in target communities, micro-catchments and wider land units (to address issues of tenure, access to resources, conflicts, etc).
- ✓ **Capacities built** on improved SLaM practices through farmer-farmer exchange visits, communications, training materials and workshops etc.
- ✓ **Market opportunities and other cost-benefit sharing mechanisms** for provision of environmental services (financial, non) identified, demonstrated and promoted for SLaM scaling up

→ leading to wide adoption/replication by farmers and herders.

Ecosystem approach

To optimise goods and services provided through land use management in the basin

- ✓ **Provisioning services: food, fodder, energy, fiber...**
- ✓ **Regulating services: water regulation and purification, carbon and nutrient cycling, climate regulation, pollination, disease regulation,...**
- ✓ **Socio cultural services: landscape (shade, etc.), recreation, ecotourism, spiritual, heritage...**
- ✓ **Supporting services: necessary for the production of all other ecosystem services such as soil formation, primary production (photosynthesis)...**
- ✓ ***Biodiversity contributes to all 4 services***

(Millennium Ecosystem Assessment, 2005)

Mechanisms for Rewards/ PES

Payments for Ecosystem Services (usually not paid for though farmers/herders expected to conserve /safeguard resources and try to do so to protect their livelihoods)

- ✓ **Public funds: government programmes /grants for watershed management, biodiversity conservation etc.**
- ✓ **Markets: cap and trade markets for carbon sequestration (biomass, soil); biodiversity offsets (compensation); voluntary markets for upstream land and downstream water quality and supply (watershed), certified quality products (Bio, Fair Trade geographical indication, etc.).**
- ✓ **Non monetary payments: users' rights (tenure, water consumption); tax exemption / facilities ~ capacity building**

✓ District land use planning

Land degradation and SLM evaluation (LADA) → priority setting
SLM best practices documented (WOCAT technologies and approaches databases)
Regulations/ bye laws and conflict resolution

Community-based land /NR management

- ✓ **Decentralized participatory land planning, land tenure and resource management**
- ✓ **Participatory Catchment Approaches to Soil and Water Conservation**
- ✓ **Community Investment** (grants, micro-credit, income generating activities and improved livelihoods).
- ✓ **PES: Incentives to rural communities for preserving environmental services** (e.g. forestry/pasture management → carbon sequestration, agrobiodiversity management, upstream land-downstream water management).

Support services & extension

- ✓ **Participatory R&D and extension: From top-down commodity-driven to bottom-up demand-driven process, empowerment**
- ✓ **Farmer Field Schools (FFS) - Test field is the learning venue, facilitator plans training with the farmers, demand driven**
- ✓ **FFS field guide on land and water management**

Field-level SLM practices

- ✓ **Conservation Agriculture**
  - ✓ soil cover (residues or cover crops); crop rotation; minimal traffic.
  - ✓ area expanding in South Africa, Zambia, Uganda, Tanzania, Kenya,
- ✓ **Integrated Plant and Nutrient Management (IPNM)**
  - ✓ Rehabilitate soils of low fertility: rock phosphate, manure, crop residues, leguminous plants, agroforestry, etc.

- ✓ **Integrated crop-livestock farming systems**
  - ✓ Crop-livestock integration: crop or residues used by animals which fertilise fields in return (Most developed in the Sahel).
- ✓ **Agroforestry systems**
- ✓ **Rangeland management and livestock management (herds of Ankole cattle)**

Concrete cases of payment in the region

Watershed management in Uluguru Mountains, to improve water provision to Dar es Salam* (supported by CARE, PRESA, city of Dar, brewery)

- ✓ **Wildlife protected by Maasai people around Tarangire National park* , paid by 5 tourism companies**
- ✓ **Improved livelihoods of 3,000 Fair Trade coffee producers in Mbale district****
- ✓ **Ecotrust / PRESA: Carbon farming ****
- ✓ **IFAD / ICRAF PRESA programme in Kenya, Uganda, Tanzania*****
- ✓ **Agroforestry programme in Rwanda by Vi Swedish NGO******

PRESA
Pro-poor Rewards for Environmental Services in Africa

Expected results

- ✓ **SLaM on 100,000 hectares.**
- ✓ **10% increase in crop, livestock and other products by trained farmers/ herders (→ thereby improved nutrition, income, food security)**
- ✓ **20% increase in carbon stores on 30,500 ha through organic matter and vegetation management (biomass) → improved soil health and nutrient and water cycles)**

- ✓ **Control of soil erosion demonstrated (target micro-catchments and farmer plots) and Reduced sediment loads assessed in 4 micro-catchments**
- ✓ **Capacity developed**
  - ✓ 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
- ✓ **Enabling environment for regional cooperation supporting joint SLM action plans**

Policy context

Global Policy Context and country commitments

- ✓ Convention to Combat Desertification (UNCCD) & its National Action Programmes (NAPs)
- ✓Convention on Biological Diversity (UNCBD) and its National Biodiversity Strategies and Action Plans (NBSAPs)
- ✓Convention on Climate Change (UNFCCC) and its Kyoto protocol and national Mitigation and Adaptation plans NAMAs and NAPAs
- ✓ Ramsar Convention

Regional Policy context

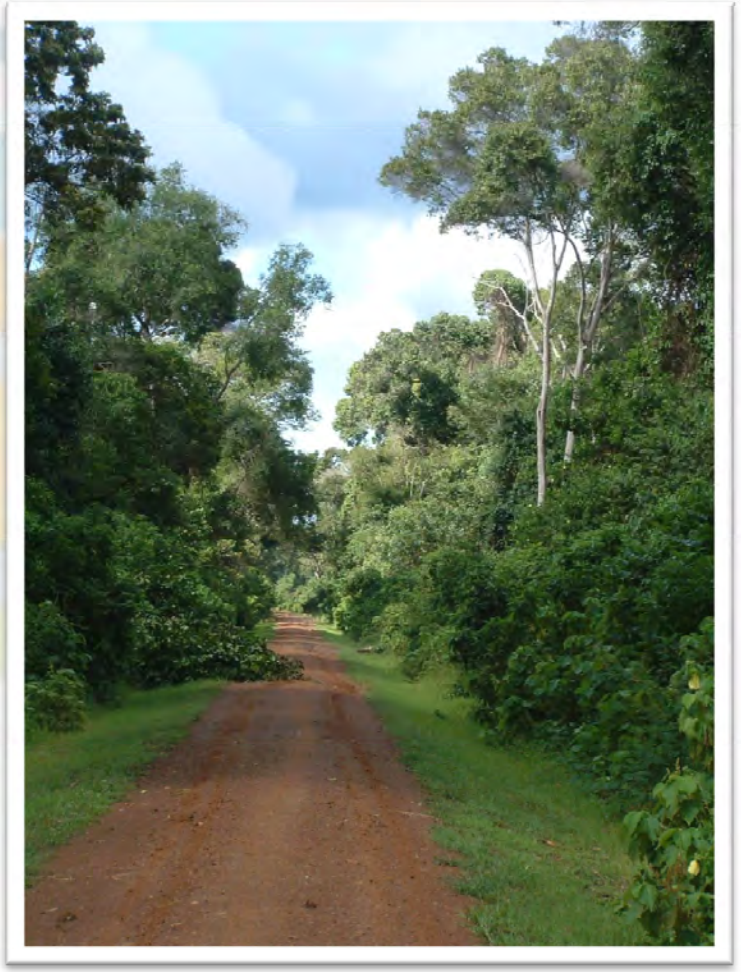
(Kagera river basin)

- ✓East African Community (EAC) strong framework for extensive political cooperation and integration
- ✓ Nile Basin Initiative - Nile Equatorial Lakes Subsidiary Action Programme (NBI-NELSAP) and its Transboundary Integrated Water Resources Management Project of the Kagera River Basin (TIWRM)
- ✓ Lake Victoria Basin Commission (LVBC) manages the entire basin area, including the Kagera and L.V. Environmental management plan (LVEMP-II)
- ✓ NEPAD's Environment Programme and Action Plan
- ✓ NEPAD's Comprehensive Africa Agriculture Development Programme (CAADP): pillar on SLM
- ✓ Other Regional programmes supported by GEF, World Bank, FAO, donors...

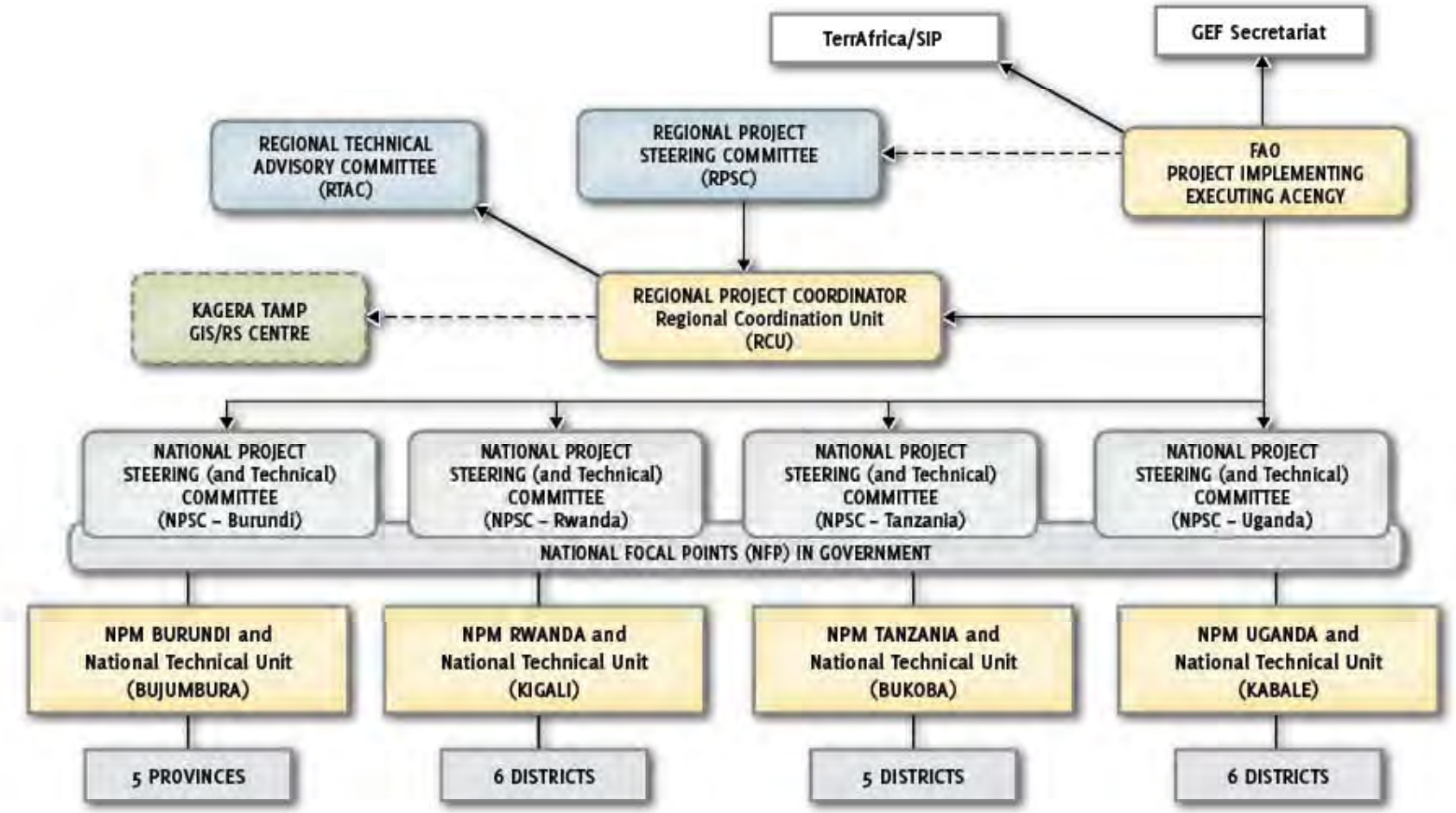
National policy context

National Policy context:

- ✓ National Environment Action Plans (NEAPs),
- ✓ National Agricultural and Livestock Strategies and related plans/programmes
- ✓ Poverty Reduction Strategies and Programmes (PRSPs)
- ✓ Burundi: Land Law, National Environment Law, National Forest Policy (draft) etc.
- ✓ Tanzania: Forestry Action Plan, Action Plan on Soil Fertility etc.
- ✓ Uganda: National Policy for the Conservation and Management of Wetland Resources etc
- ✓ Rwanda.....



Project organizational chart



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