KAGERA TRANSBOUNDARY AGROECOSYSTEMS MANAGEMENT PROJECT (Kagera TAMP)

IPROMO - Promoting Sustainable Farming in Mountain Regions
8 – 18th July 2014, Ormea (Italy)

OUTLINE

I. Background
II. Land Use Challenges in the Kagera basin
III. Objectives & Expected results
IV. Implementation approach
V. Implementation progress – an example

BACKGROUND

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

Policy Context

Country commitments to Global Environment Conventions

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

Regional Policy context

- EAC – framework for extensive political cooperation and integration
- NBI-NELSAP – KTIWRM
- Lake Victoria Basin Commission (LVBC) – 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, bilateral donors ...

National Policy context:

- National Environment Action Plans (NEAPs),
- National Agricultural and Livestock Strategies and related plans/programmes
- Poverty Reduction Strategies and Programmes (PRSPs)

Other linkages:

Land Law, National Environment Law, National Forest Policy, Forestry Action Plan, Action Plan on Soil Fertility, National Policy for the Conservation and Management of Wetland Resources, etc

Land Use Challenges

Increasing pressures on **Resource base** and **ecosystems** resulting from:

- Rapid population growth,
- Agricultural and livestock intensification;
- Progressive reduction in farm sizes and;
- Unsustainable land use and management practices

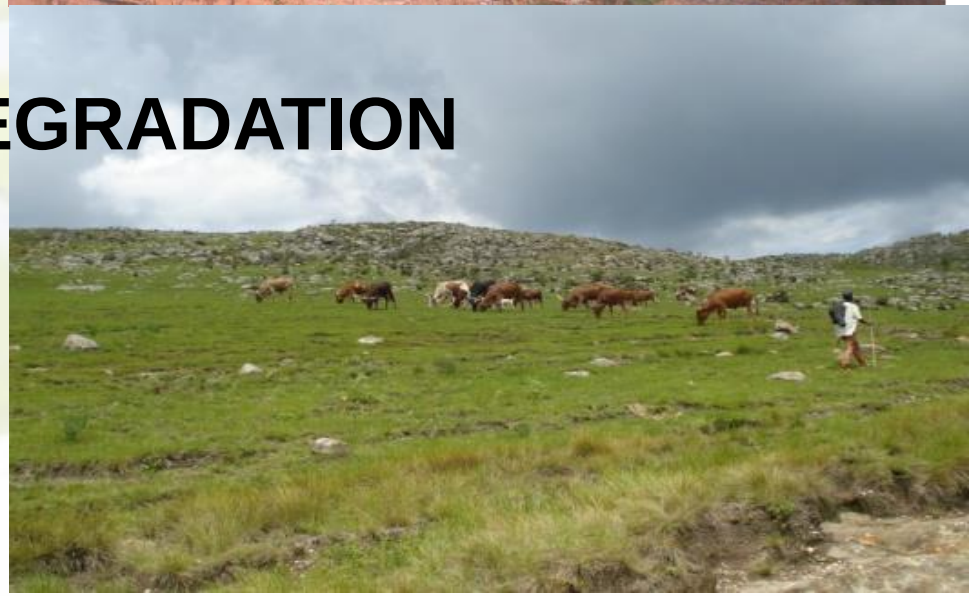
Typical effects of land degradation

- Soil erosion
- Nutrient mining and declining soil quality affecting land potential and productivity of crop, pasture/range and forest lands
- Loss of agricultural biodiversity
- Pervasive biomass burning, through bush fires, burning of crop residues, cooking with firewood, reducing vegetative cover and soil organic matter

Effects.....Cont.

- Siltation of rivers and lakes, with large sediment and nutrient loads entering Lake Victoria and invasion of water hyacinth (eutrophication and effects on aquatic life);
- Sedimentation of wetlands resulting in loss of their important regulatory and buffer functions;
- Loss of other vital ecological services (e.g. nutrient cycling, carbon sequestration, biological control of pests and diseases and maintenance of the hydrological regime).

CASES OF LAND DEGRADATION



Overgrazing

Kagera Agro-Ecosystems Objectives & Expected results

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

- **Project Goal:** To adopt an integrated ecosystems approach for the management of land resources in the Kagera basin thus to generate local, national and global benefits :
- Restoration of degraded lands
- Carbon sequestration and climate change adaptation & mitigation
- Agro-biodiversity conservation and sustainable use
- contribute to the protection of international waters
- Increased food security and improved rural livelihoods

Approaches

Community-based 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)

- **Payment for Ecosystem Services (PES)**

  Incentives to rural communities for preserving eco-system services

Field-level SLM practices

- **Conservation Agriculture**
  - soil cover (residues or cover crops); crop rotation; minimal soil tillage/no tillage.
- **IPM**
- **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
- **Forestry & Agroforestry systems**
- **Rangeland management and livestock management**

Support services & extension

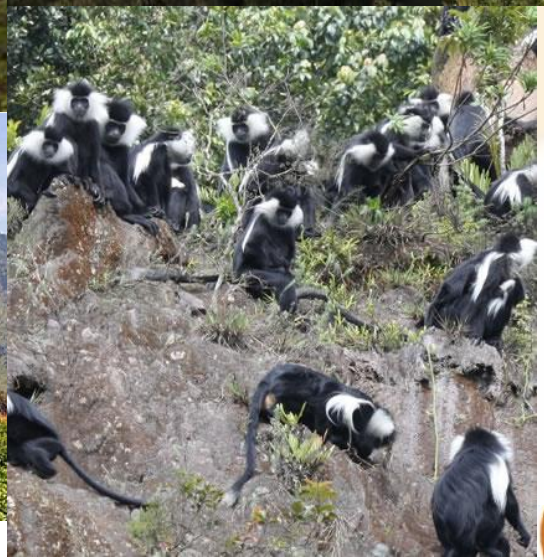
- Participatory R&D and extension: From top-down commodity-driven to bottom-up demand-driven process.

- 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

Mountains - uses

Kagera
Agro-Ecosystems



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KARAMBO Site

- **Activities**

Start-Up activities

- **Ground Preparation**

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- **Animals for manure**

Implementation

- **Irish potatoes**

Season 2012A

- **Yields on 500m^2**
  - On terraces with fertilizer application and planting in lines: 1,504 Kg. *(18th Jan 2013)*.
  - On terraces without fertilizer application and planting in the usual disorderly manner: 1,024 Kg. *(25th Jan 2013).*
  - On the plot without terraces or fertilizer application and planting in the usual disorderly manner:600 Kg. *(30th Jan 2013).*

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- **Season 2012 B**

Thank you for your attention