



# CONSERVATION OF WATER TOWERS

## Eastern Africa mountain ecosystems

The mountains of eastern Africa have great significance in biodiversity conservation. They support unique collections of plants and animals, including a high level of endemic species. The natural habitats that characterize these areas present multiple ecosystem, soil conservation, and watershed benefits.



Mountains are often centres of endemism—where species are prevalent and/or peculiar to a particular region. They are Pleistocene refuges, hypothesized to have high levels of diversity where patches of tropical forest persisted during periods of climate change 1.6 million years ago. They play part in influencing climatic regimes at local and regional levels, and reduce carbon dioxide levels that are known to increase global warming.

The harsh climatic conditions, fragile mountain soils, and threat of habitat fragmentation and degradation, present special conservation challenges to these mountain ecosystems. However, they present

special conservation opportunities such as understanding the linkage between mountain development and neighbouring lowlands. Well coordinated planning and management of mountain habitats can help to secure watersheds, migratory pathways and other critical ecosystem services which provide downstream benefits. Water is the most important montane resource. Mountains should be harnessed to contribute to human welfare especially as water towers.

Conservation approaches should enable utilization of these natural resources. They should promote sustainable development that recognizes the fragility of montane ecosystem.



Rwenzori Mountains and Mau Complex are critical water towers in eastern Africa.

# Regional vision, goal and objectives

## Shared Vision

Healthy and productive mountain ecosystems contributing to sustainable economic growth, peace and stability for the well being of eastern Africa and beyond.

## Goal

A regional strategic framework for managing eastern Africa mountain ecosystems as water towers developed and implemented by 2011.

## Objectives

- Establish baseline data and information for mountain ecosystems such as inventories and collaborative research.
- Harmonize existing national and regional instruments: protocol on environment and natural resource management; and regional environmental impact assessment guidelines.

- Develop capacity for planning and management for mountain ecosystem, for example, joint trans-boundary management plans.
- Establish regional network of information sharing, education and awareness for mountain ecosystems.
- Develop criteria and indicators for sustainable development such as certification of products and services (wood and non wood), economic indicators and ecosystem status indicators.
- Develop conflict-resolution mechanism for mountain ecosystem management



Maintenance of natural vegetation in forests in the water towers augurs well for biodiversity conservation, freshwater production and other ecological goods and services. Currently, these water towers face pressure from increasing human settlement that has led to unsustainable use of the forest and other natural resources.



Exotic tree plantations need to be managed properly if they are to provide products for economic development and contribute to the conservation of indigenous forests in the water towers.

# Strategic framework for the conservation of eastern Africa mountain ecosystems

## Rwenzori Mountains Water Tower

### Objectives

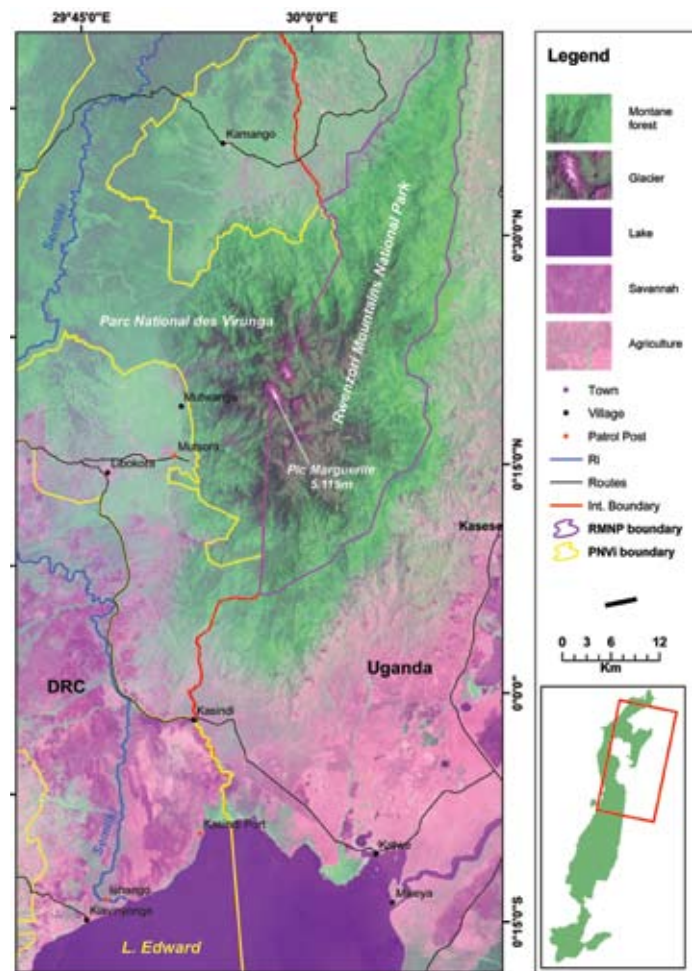
- Develop institutional framework for collaborative management and conflict resolution.
- Develop and support implementation of ecosystem management plans as integral elements of the district development plans.
- Identify and promote local enterprises for improved livelihoods and ecosystems conservation.
- Develop capacity and gather, manage and disseminate information.
- Carry out education and advocacy for sustainable ecosystem management.
- Strengthen managerial and infrastructural capacities at community, local government and national levels.



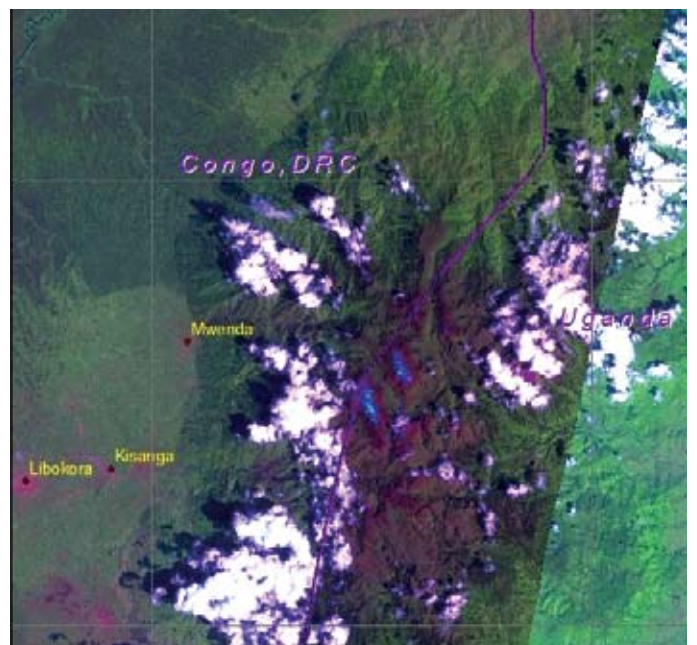
Afro-alpine vegetation found in the Rwenzori Mountains.



The Rwenzori Mountains are an important source of many rivers that provide freshwater critical for the sustenance of biodiversity and people.



Aster Image of the Rwenzori Massif.



Forest degradation at the foot of the Rwenzori Mountains.

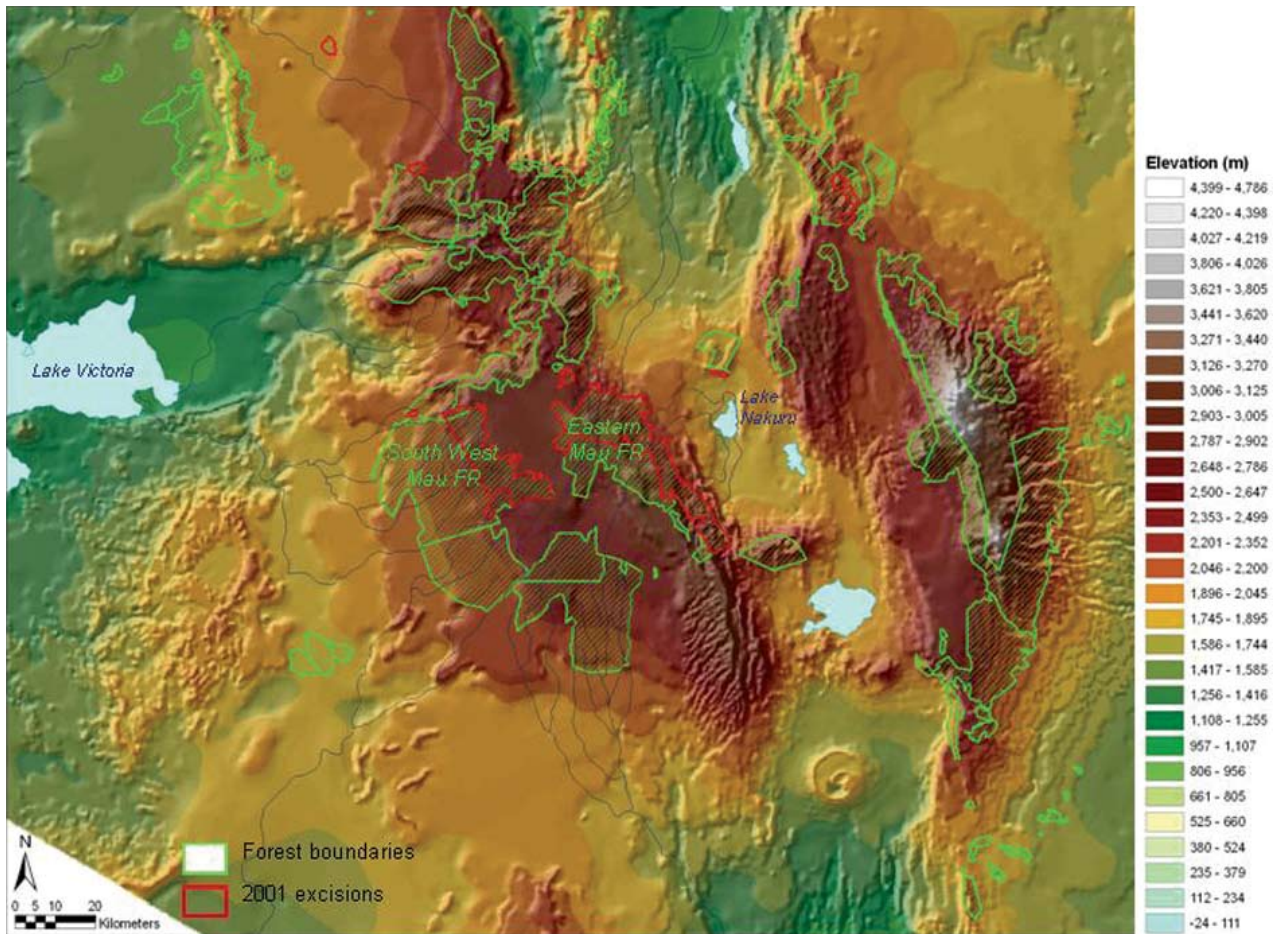
# Mau Complex Water Tower

## Vision

Well managed Mau Complex ecosystem providing goods and services for sustainable livelihoods to the communities and contributing to local, national and regional economic growth.

## Objectives

- Develop a framework for multi-stakeholder forum.
- Secure boundaries of the catchment areas and resolve conflicts.
- Develop an ecosystem management plan and institutional arrangements for its implementation.
- Enhance capacity for integrated and participatory ecosystem management.
- Restore the degraded ecosystem.
- Identify and promote activities for improved—and sustainable—livelihoods.
- Enhance knowledge on the ecosystem functioning for planning and management such as ecosystems assessments (research, monitoring and evaluation and socio-economic surveys).



Source: UNEP/KFWG

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by:

- conserving the world's biological diversity
- ensuring that the use of renewable natural resources is sustainable
- promoting the reduction of pollution and wasteful consumption



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