Building Consensus on Albertine Rift Climate Change Adaptation for Conservation: An Outreach Workshop to Share Results of New Modelling and Vulnerability Assessments

22-25 February 2011
La Palisse Hotel, Gashora, Rwanda

Current State of Albertine Rift Conservation: Challenges and Opportunities in face of Climate Change

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Executive Secretary, ARCOS
Plan

1. Intro: The Albertine Rift in Global Context
2. State of Conservation and Development in the AR
3. Climate Change in the Albertine Rift
4. Key Challenges and Opportunities
5. Conclusion and Recommendations
1. Introduction

DPSIR Model

- Driving Forces
- Pressures
- States
- Impacts
- Responses
The influence of Glaciations on today centres of endemism

Palynological records show that during last glaciations, the distribution of lowland rain forests was reduced due to the effects of climatic changes, many species found refuge in montane areas such as the Albertine Rift.
What the global models tell us?
Link between warming and human activities (IPCC 2001)

Comparison between model and observations of the temperature rise since 1860

- **(a) Natural forcing only**
- **(b) Anthropogenic forcing only**
- **(c) Natural + Anthropogenic forcing**
Advance in Conservation: Global biodiversity mapping (Years 1980s)

- Norman Myers in 1988 identified tropical forest ‘hotspots’ characterized both by exceptional levels of plant endemism and by serious levels of habitat loss
- WWF, Global 200 Ecoregions
- International and national site priority setting (PAs)
The Eastern Afromontane Hotspot
2. State of Conservation and Development in the Albertine Rift
From Ad-hoc Species focus to long-term research, site conservation and transboundary/landscape and Regional collaborative Action

- In the past, ad-hoc inventories and species identification
- Species focused projects
- The region has some of the oldest field research like on Montain gorilla
- Integrated Conservation and Development Programmes
- Transboundary Programmes (WWF/AWF/FFI through IGCP, LTA)
- Regional initiatives, Regional Conservation Framework, Regional NGO (ARCOS), Regional Programmes (WCS, WWF, NBI, LTA)
- Government Environmental Initiatives (LTA, GVTCS, LTA)
- CEPGL, New EAC, Secretariat for Peace and Security and Governance).
- Universities and Research Institutions
Strategic Planning Process
Progress in the 6 AR Landscapes

- North-Planning Unit 1: Strategic planning ongoing through WWF/GEF project; looking at corridors and sustainable financing (plus WCS, ARCOS).

- Greater Virungas- Planning Unit 2: transboundary strategic plan and Protocol d’accord between governments led by IGCP, UWA, RDB, GVTCS, etc.

- Itombwe-Maiko – Planning Unit 3: Surveys and landscape planning (DFGFI, WCS, CARPE). Need to protect Itombwe (6,033 km²)

- Congo Nile Divide– Planning Unit 4: strategic plan complete, looking at transboundary collaboration between Kibira and Nyungwe parks (WCS, RDB, INECN, and others)

- Greater Mahale – Planning Unit 5: Strategic plan complete for the Greater Mahale Ecosystem with TANAPA and Frankfurt Zoological Society

- Misotshi-Kabogo- Planning Unit 6: Surveys by WCS
• Regional Monitoring Vision
  – “A harmonized, participatory and cost-effective regional biodiversity monitoring framework that generates and provides information that is used by all stakeholders for biodiversity conservation and for promoting sustainable development in the Albertine Rift by 2030”

• Strategic Objectives:
  – Mechanism for coordination of the Albertine Rift biodiversity monitoring in place and operational
  – Institutional monitoring capacity enhanced
  – Mechanisms for data sharing in place and operational
  – Data collection programmes in selected areas enhanced and/or designed
  – Advocate for interventions where declines in conservation targets are observed

• The indicators at species level, habitat level and process level, using Pressure-State-Response Model
ARBMIS-Albertine Rift Biodiversity Monitoring and Information System

1. Facilitate Regional Priority setting and standards

2. Capacity Building in Information Management, Monitoring and Environmental Assessments

3. Facilitate Monitoring in Priority Sites (KASA Initiative)

4. Facilitate information sharing in the region
Data Management, Sharing and Reporting in the Albertine Rift

MEMORANDUM OF UNDERSTANDING
ON THE COLLABORATION IN BIODIVERSITY DATA AND INFORMATION SHARING IN THE ALBERTINE RIFT REGION

Mosa Court Apartments, Kampala, Uganda
Wednesday, 20th October 2010
Towards the implementation of a shared Vision:

1991: Initiation of the informal Transboundary Collaboration Process between protected area field staff

2004: The MoU established a transboundary core secretariat composed of the Heads of ICCN, ORTPN and UWA

Oct 2005: Tripartite Declaration on the Transboundary Natural Resource Management of the Transfrontier Protected Area Network of the Central Albertine Rift

May 2006: The 10 year Transboundary Strategic Plan agreed by the three Protected Area Authorities provides for establishment of permanent Secretariat.

July 2008: Rubavu Ministerial Declaration for Greater Virunga Transboundary Collaboration

February 2009: Agreement minute for the institutionalisation of the Transboundary Secretariat

“The Central Albertine Rift Transfrontier Protected Area Network together with the surrounding Landscape conserved sustainably”

Kanyamibwa 2010
Quite a lot happening in the AR
DFGFI Research and Monitoring
3. Climate Change in the AR

- Montain ecosystems are among the most affected by climate change
- Already increased frequency of some extreme events in some places
- Floods, droughts, landslides and increased incidences of malaria and cholera
- Decreases in run-off and water availability, affecting agriculture and hydropower systems
- Change in landscape (imisozi yanamye)
- Observed effects on some species in the region (montain gorillas, birds, phenology, etc.), even if still a lot to know...
Climate change in the AR (cont.)

4. Key Challenges We Face

1) Limited Implementation of Regional Framework
2) Population Pressure
3) Unsustainable agriculture
4) Human/wildlife Conflicts, Diseases Outbreaks, Invasive species
5) Development drivers
6) Local stakeholders capacity (Governments, NGOs)
7) Governance and Policy Framework
8) Climate Change
9) Information, data and coordination
10) Inadequate resources
### 4.1. Regional Framework in Place but limited resources for coordinated implementation

<table>
<thead>
<tr>
<th>Issues</th>
<th>Opportunities</th>
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<tbody>
<tr>
<td>• Not enough Monitoring</td>
<td>• Peace in the region</td>
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<td>• Gaps in protection and connectivity</td>
<td>• Extension of East African Community</td>
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<td>• Emerging issues need to be integrated</td>
<td>• Eastern Afromontane Hotspot Profiling (CEPF)</td>
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<tr>
<td>• Local stakeholders capacity (Governments, NGOs)</td>
<td>• Willingness to cooperate</td>
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<tr>
<td>• Government Ownership</td>
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## 4.2. Population pressure

<table>
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<tr>
<th>Issues</th>
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<tbody>
<tr>
<td>• High population density</td>
<td>• Enhance agroforestry</td>
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<tr>
<td>• Shortage of arable land</td>
<td>• Erosion and nutrient loss control (terracing, etc.)</td>
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<tr>
<td>• Decreasing soil fertility and productivity</td>
<td>• Promote species that enhance soil productivity and ecological zones</td>
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<td>• Exposure to soil erosion</td>
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<tr>
<td>• Unsustainable Agriculture</td>
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<td>• Growth of Urban areas</td>
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### 4.3 Protected Area Encroachment and other illegal activities

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<tr>
<th>Issues</th>
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<tbody>
<tr>
<td>– illegal logging</td>
<td>• Community empowerment and income generation activities</td>
</tr>
<tr>
<td>– charcoal production</td>
<td>• Development of alternatives and sustainable technology in</td>
</tr>
<tr>
<td>– Bushfires</td>
<td>charcoal making, agriculture, beekeeping, etc.</td>
</tr>
<tr>
<td>– illegal tree cutting, fishing</td>
<td>• Enhancing enforcement, including community participation</td>
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<tr>
<td>– livestock grazing</td>
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<td>– Mining</td>
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<td>– Traditional beekeeping</td>
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<td>– Poaching</td>
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<td>– Exotic species/Invasive species (Eucalyptus, Water Jacinth)</td>
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### 4.4. Agriculture

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<tbody>
<tr>
<td>Limited land and population increasing</td>
<td>• Training and extension programmes to assist communities</td>
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<tr>
<td>Poor traditional technology</td>
<td>• Research and technology development for adapted crops</td>
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<tr>
<td>Rwanda alone: 1.4 million tonnes of soil lost every year due to erosion</td>
<td>• Soil conservation programmes</td>
</tr>
<tr>
<td>Tendency towards agrochemical products (harmful consequences on human and ecosystem health)</td>
<td>• National policy in agriculture, and different sectors</td>
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### 4.5. Economic Development Drivers

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</table>
| • Urbanisation  
• Pollution  
• Oil and Gas  
• increased water use (domestic, agriculture, hydro-power generation, etc.) | • EIA and SEA  
• The Cleaner Production and Corporate Environmental Responsibility  
• Environmental integration in government investment policy |
Albertine Rift as one of the top strategic areas for oil exploration by Tullow Oil (http://www.tullowoil.com/files/pdf/capital_markets/)
### 4.6. Governance

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<tbody>
<tr>
<td>• Shared vision</td>
<td>• Participation in decentralisation process</td>
</tr>
<tr>
<td>• Participation in NRM decision-making</td>
<td>• Mainstreaming environment into local development plans</td>
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<tr>
<td>• Accountability</td>
<td>• Research and documentation of best practices</td>
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<tr>
<td>• Legal framework and rule of law</td>
<td>• Increased recognition of role of civil society in promoting pro-poor and pro-environment stance in policy-making, planning and budgeting.</td>
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<td>• Inter-linkages of policies</td>
<td>• National strategies and policies, including NAPAs</td>
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<td>• Performance and capacity</td>
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### 4.7. Energy

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<tbody>
<tr>
<td>• Enormous use of biomass in the region</td>
<td>• Energy Conservation programmes, awareness</td>
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<tr>
<td>• Forest degradation</td>
<td>• Promotion of renewable energy alternatives: micro-dams, cooking stoves, solar, biogas)</td>
</tr>
<tr>
<td>• Effect on human health</td>
<td>• Environmental and social requirements in energy projects (Methane gas in Lake Kivu, opportunity for social, ecological and economic impact if done well).</td>
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5. Conclusions and Recommendations

Le réchauffement de la planète, ça a du bon ! Les glaciers fondent... les eaux montent...

... et plus besoin de prendre la voiture pour aller à la mer !
From Pressure to State and Response

- The human impact in the AR is driving accelerated change affecting landscapes, habitats, species and ecosystem services.
- We should recognise efforts done by our governments, different conservation practitioners to reduce the speed of destruction and environmental degradation.
- Accelerated dimension of climate change and development needs require special attention, otherwise the degradation of the environment and natural resources will undermine our countries’ ability to sustain economic growth that is vital to the goals of development.
- If the international community is aware of climate change today, it is because of lengthy work of IPCC. We need also high science in the AR, to guide decision-making.
Recommendations

- Dealing with climate change requires a multidisciplinary approach. Collaborative scientific community and interface with decision makers need more attention.
- Traditional knowledge and practices in dealing with extreme weather conditions need to be captured and shared.
- We need integrated environmental management, good governance, innovative technology and enabling policy conditions in climate change adaptation to bring lasting win-win solutions (sustainable adaptation strategies).
- Climate change adaptation should be integrated within the broader sectors of sustainable development, including budgeting.
ARCOS Plan Ahead

ARCOS Strategic Areas 2011-2015

Core Approaches
- Collaborative Action
- ARBMIS
- Regional NGO Network

Priority Areas
- Biodiversity & Ecosystem Services
- Climate Change
- Governance & Threats

Collaborative Action

Regional NGO Network

Biodiversity & Ecosystem Services

Climate Change

Governance & Threats
Friends of The Albertine Rift
Les Amis du Rift Albertin
www.arcosnetwork.org
Murakoze, Thank you, Merci, Asanteni
skanyamibwa@arcosnetwork.org