

Efforts to enhance climate change resilience in the Lake Kivu and Rusizi River Basins

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Sedimentation in Lake Kivu, fish breeding sites are threatened ©ACNR

The transboundary Lake Kivu and Rusizi River basins between Rwanda, Burundi and the DRC are very important for biodiversity and for ecosystem services that they provide; they cover the whole or parts of at least 15 Key Biodiversity Areas (KBAs) of which 12 are terrestrial and three are freshwater KBAs, hosting at least 55 Red-Listed species. These basins provide ecosystem services such as supply of freshwater, food from fishing and agriculture, pollination, soil fertility and erosion control, carbon sequestering, the provision of non-timber forest products, as well as providing aesthetic and recreation experiences. Please find more details about the sites [here](#).

These landscapes are currently facing a multitude of threats arising from unsustainable practices and poor land and catchment management. Many of these threats, such as erosion, landslides and sedimentation in the rivers and lakes are expected to worsen under climate change.

Impact of climate change:

In the context of climate change, it is expected that the basins will suffer from extreme weather events, changes in water levels, the increase in temperature of the water surface, accelerating rates of soil erosion and sedimentation and the loss of biodiversity. These impacts are already happening in most areas of the basins, see photos and more details in related news article on these issues [here](#).



Landslides in Bujumbura rural, Burundi. © Théodomir Rishirumuhirwa

Resilience to Climate Change:

CRAG (Climate Resilient Altitudinal Gradient) concept was developed in the [MacArthur Foundation](#) Great Lakes Conservation Strategy. It was later funded by the same donor to build climate resilience within altitudinal gradients that have high biodiversity and ecosystem values in Lake Kivu and Risizi River basins.

In order to achieve the climate resilience, CRAG project is applying various conservation approaches and activities, such as integrated water management; ecosystem-based adaptation to climate change; soil erosion, pollution and forest management; and community livelihoods, which have impact across a landscape gradient in ways that directly benefit human wellbeing and the biodiversity.

CRAG Intervention Plan:

Based on the work funded by MacArthur Foundation, the [Critical Ecosystem Partnership Fund](#) (CEPF) has provided more funds to [Association pour la Conservation de la Nature au Rwanda](#)-ACNR (BirdLife Partner in Rwanda) to support further activities which include sediment fingerprinting (innovative technique to determine erosion and sedimentation hotspots within the basin) and to organise an expert workshop to develop site-specific interventions under the [CRAG Intervention Plan](#) (PDF- 6MB) to build climate change resilience within Lake Kivu and Risizi River basins.

Read more about the work on sediment fingerprinting [here](#).

A regional expert workshop was organised by ACNR in collaboration with BirdLife Africa Secretariat and the Lake Basin Authorities for Lakes Kivu and Tanganyika. The workshop took place in Kigali from 06 to 08 July of 2016 and brought together expert practitioners from the region to identify, define, quantify and prioritize interventions that will enhance climate change resilience in the Kivu-Rusizi basins. 25 participants from government agencies, Lake Basin Authorities and various CSOs attended this workshop. The main focus of the discussions was on

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climate change related threats to resilience such as erosion, sedimentation, landslides, pollution, crop failure, etc. For each threat, the experts identified and described three sites in Rwanda, Burundi and the DRC at which the threat is severe, and they provided information on how to obtain measureable baseline at these sites, They also designed an intervention plan that will decrease the threat at the site, proposed a monitoring protocol that will track the effectiveness of the intervention and proposed an indicative costing of the intervention and its monitoring at that site over a three year period.



Regional expert workshop to develop the CRAG Intervention Plan ©ACNR

As a way forward, participants agreed to share information on the CRAG approach within their professional networks to facilitate buy-in and subsequent implementation of the finalized [CRAG Intervention Plan](#).

See the interactive map of all projects implemented under the CEPF Eastern Afromontane hotspot programme [here](#).

The Critical Ecosystem Partnership Fund (CEPF) is a joint initiative of l'Agence Française de Développement, Conservation International, the European Union, the Global Environment Facility (GEF), the Government of Japan, the MacArthur Foundation, and the World Bank. A fundamental goal is to ensure civil society is engaged in biodiversity conservation. More information on CEPF can be found at www.cepf.net.

BirdLife International, together with the [International Union for the Conservation of Nature \(IUCN\)](#) and the [Ethiopian Wildlife and Natural History Society](#) (BirdLife in Ethiopia) form the [Regional Implementation Team \(RIT\)](#) for the Critical Ecosystem Partnership Fund (CEPF) investment in the Eastern Afromontane Hotspot (2012-2017). The investment will support civil society in applying innovative approaches to conservation in under-capacitated and underfunded protected areas, Key Biodiversity Areas (KBA) and priority corridors in the region.

For more news about CRAGs, please visit our CRAG news page [here](#).