

# Engaging stakeholders in using scenarios of land use change due to agricultural commodity development in the Lake Victoria Basin

## Project summary

### Background

The Lake Victoria Basin (LVB) has been declared an "area of common economic interest" and a "regional economic growth zone" by the East African Community (EAC). The LVB is also recognized for its globally important biodiversity. Agriculture is the region's main economic sector and investments in agriculture and agricultural development are increasing. Expanding agriculture and conversion of forest into agricultural land have potential adverse implications for the region's biodiversity and the wide range of ecosystem services - including for climate change adaptation - that the agricultural sector and local livelihoods depend on for the future.

UNEP's World Conservation Monitoring Centre (UNEP-WCMC), in collaboration with the Albertine Rift Conservation Society (ARCOS), is implementing a project funded by the John D. and Catherine T. MacArthur Foundation entitled: *Engaging stakeholders in using future scenarios to analyse the potential impacts of agricultural development in the Lake Victoria Basin*. This project builds on activities carried out as part of the MacArthur Foundation funded project on *Commodities and Biodiversity* in the Great Lakes of Africa region (2013-2015, <http://www.unep-wcmc.org/featured-projects/commodities-and-biodiversity>).

The *Commodities and Biodiversity* project revealed broad scale patterns of potential impacts on biodiversity and ecosystem services (Figure 1) under various scenarios of socio-economic change developed by the CGIAR programme on Climate Change, Agriculture and Food Security (CCAFS) (Figure 2).

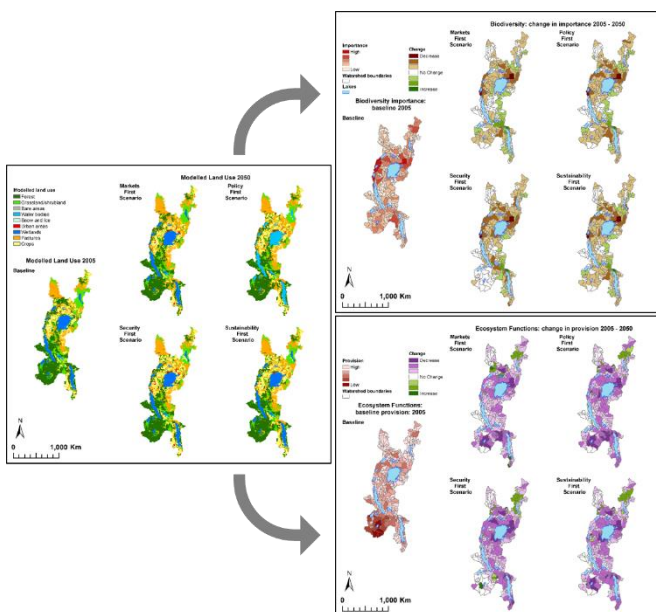


Figure 1 Impacts of scenario-driven land use change on biodiversity and ecosystem functions in the Great Lakes region (UNEP-WCMC 2014)

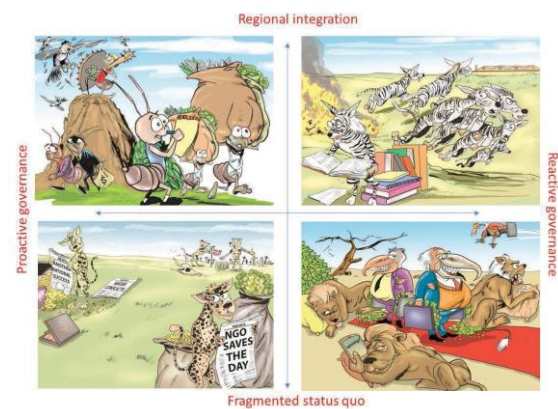


Figure 2 East African scenarios illustrated by Mauvine Were (Source: CCAFS 2013)

In an effort to maximise both the validity and the usefulness of this work for regional stakeholders, the current project builds on these results by interpreting them at the sub-regional scale within the basin, further developing the analysis and assessing how this can support decision making in relation to the current and likely future impacts of agricultural development on ecosystems, under a changing climate, in the LVB areas of Uganda, Kenya, Tanzania, Burundi and Rwanda (Figure 3).

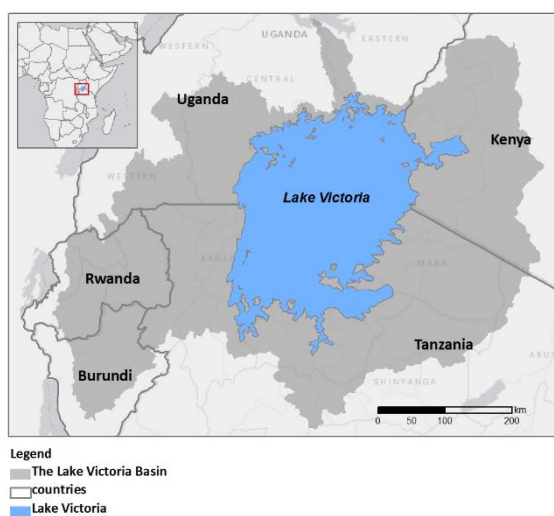


Figure 3 Lake Victoria Basin

### Objectives and approach

Using innovative methods and a multi-stakeholder approach, the project aims to 1) help increase knowledge on synergies and trade-offs that arise in balancing a growing demand for food and other commodities with conserving the biodiversity and ecosystem services upon which economies and livelihoods in the LVB depend, and 2) generate shared engagement to reduce the negative impacts of agricultural development on ecosystems. In support of its objectives, the project will carry out supporting actions under three components:

#### Component 1. Assess current status of biodiversity and ecosystem services in the LVB, identify key developments, map and assess their impacts on biodiversity and ecosystem services

The project will interpret the results from the *Commodities and Biodiversity* project (see <http://macarthur.unep-wcmc.org/>), at the sub-regional scale within the LVB. Maps and analyses of the implications of agricultural commodity developments on biodiversity and ecosystem services under different socio-economic scenarios will be refined with locally relevant data through targeted data searches and stakeholder inputs. This will result in a refined baseline of information for the LVB that can benefit existing policy and planning processes related to agricultural development in the region.



#### Component 2. Using scenarios of land use change due to agricultural development in the LVB to support policy and planning

First, policy and planning processes that can benefit from the project will be identified through stakeholder engagement for each country. Then, in a multi-stakeholder workshop, a targeted scenario-based analysis will be conducted to evaluate their performance and implications for biodiversity and ecosystem services under different potential future scenarios, and develop policy and management recommendations. Current capacity and capacity development needs for increasing the consideration of biodiversity and ecosystem services in agricultural development will also be assessed.

*Component 3. Improve capacity and collaboration for action by stakeholder groups involved in biodiversity and ecosystem management and in activities that impact them*

Based on the analyses and stakeholder inputs under project components 1 and 2, a training workshop (held twice) will be developed on using and interpreting scenario building, model results and assessments of impacts on biodiversity and ecosystem services from high impact developments. The training will seek to increase understanding on analyses and results conducted in the project as well as on how they can be used in agricultural development planning and mainstreaming using real policies and plans for each country.



### *Target audience*

The project seeks to bring together stakeholders from multiple sectors to generate shared engagement to reduce the negative impacts of agricultural development on ecosystems in the LVB. UNEP-WCMC and ARCOS therefore welcome involvement in the project's workshops and other activities from both policy makers and more technical stakeholders representing various government and non-government sectors, especially those involved in developing or supporting policy on agricultural development (including on climate change) or those working in sectors that may affect or be affected by agricultural development in the LVB.

### *Activities and outputs*

#### *Workshops*

- Inception and data gathering workshop
- Scenario-guided policy evaluation workshop
- Two training workshops

#### *Data and publications*

- Report on the impacts of key agricultural developments on ecosystem services and biodiversity under different future scenarios
- Policy and management recommendations developed by project country stakeholders
- Training and guidance materials on methods and approaches applied in the project
- Reports, data, maps and tools disseminated at regional and global scales

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