

Natural Resources Management and Biodiversity

The Eastern and Central Africa Sub-Region is endowed with rich natural capital, huge water resources, fertile soils, rich biodiversity, and forest ecosystems. Such rich systems are expected to support the agricultural system and enhance its competitiveness. However, the Sub-region's agricultural system is less competitive as compared to the rest of the other continents.

The region has experienced declining agricultural productivity over the last 20 years, soil fertility decline, and high rate of watershed destruction, reduced water balance within specific ecological zones and has hence become vulnerable to shocks associated with varying and changing climatic conditions. The greatest challenge faced by the sub-region is how to respond adequately to these challenges that have resulted into food insecurity.

In response to the above challenges, the Natural Resource Management and Biodiversity Programme has, in a consultative manner, identified strategic interventions to promote the use of appropriate technologies and innovations in management of the sub-region's natural capital. The key strategic interventions are:

- Improved water productivity and management in agricultural systems
- Enhancing sustainable management of forestry, agro-forestry, and biodiversity for improved livelihoods and environmental services
- Managing the productive potential of soils, institutions and governance for sustainable natural resource management
- Managing fragile and dryland ecosystems for sustainable livelihoods
- Adapting to climate variability and mitigation of climate change

Specific interventions have taken an integrated approach both at farm and landscape levels. Emerging results from the Programme's investment since 2009 include:

- Soil fertility enhancement and up-scaling approaches. This has focused on mother-baby, farmer field school and farmer groups as key methodological tools for promoting soil fertility enhancement best-bets



- Climate variability adaptation approaches particularly at down-scaled levels
- Incentive mechanisms for promoting sustainable natural resource management through specific enterprises, e.g., beekeeping, value addition for groundnuts, amaranth process and marketing
- Models for estimating below and above ground carbon sequestration potentials for forest-based ecosystems

- Innovative approaches for estimating the value, compensation and attribution of environmental services
- Integrated water management technologies with gender considerations

The Programme has also generated useful information and knowledge on the above subjects in addition to building the capacity of young scientists and farmers.

