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"Filling gaps and removing traps
for sustainable resource management"

A Decision Tree for Reconciling Human Needs with Conservation in East-African Wetlands

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Abstract

Hunger and undernourishment are still widespread in Africa and demographic growth is currently the highest in the history of the continent thereby drastically increasing food demand in the coming decades. Inappropriate agricultural practices have lead to degradation of upland soils and farmers are seeking alternative areas for crop production. African wetlands have therefore been encroached and converted to farmland in recent years. This is due to their favourable ecological production conditions in spite of environmental legislation that actually aims at preventing agricultural use. Large wetland areas of Africa will be destroyed if that trend continues in the future. Land-use planning and policy action should be adapted to prevent further destructions of wetlands. Decisions to protect or use wetlands for agriculture must necessarily be knowledge-driven. A collaborative research project GlobE Wetlands (wetlands-africa.de) developed an integrated understanding of wetland characteristics, functions and importance across East-Africa during the past five years. A decision tree has been developed in cooperation with environmental and agricultural policy makers across East-Africa to take informed decisions about future wetland uses in this region. They include assessments of general country-wide conservation issues (Level 1), identification of wetlands located in hotspots of hunger, negative food supply-demand synchrony and poverty (Level 2), exploration of alternative livelihood options making wetland use unnecessary (Level 3), a method for building a wetland typology for protecting fragile wetlands and selecting those which are potential candidates for usage (Level 4), comprehensive ecosystem-services assessments for each identified wetland-type (Level 5) and planning guidelines for defining use and protection zones for wetlands which may be considered for agricultural protection (Level 6). The tree supports the identification of socio-ecological niches in East-African wetlands.

Keywords: Agricultural policy, agriculture, conservation, decision tree, East-Africa, environmental policy, food-demand, hunger, socio-ecological niches, wetlands

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