

Can wetlands, agriculture co-exist?

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A man makes bricks in Rakai wetland. Human activities, at both small and large scale, including farming, carried out in wetlands are a threat to their existence. COURTESY Photo

By Richard Kimbowa

Initially, human settlements primarily occurred in fertile areas along rivers and from the early beginning of agricultural activities, riverine wetlands have been recognised as valuable land areas for food and fodder production, because they have fertile soils.

However, increase in human population and extensive farming over time has changed the situation as wetlands, forests and other natural habitats become stressed.

In line with the UN's designation of 2014 as the International Year of Family Farming, the Ramsar Convention chose Wetlands and Agriculture as the theme for 2014.

Although wetland protection is officially a priority for the 168 nations (as of 2013) under this convention, wetlands continue to be under threat of being drained and reclaimed.

Main pillars

In East Africa, the theme triggers varied discussions and standpoints in line with the current situation of wetlands.

This is because wetlands have remained to be seen as reclaimable land for growing crops even in the dry spells, can be a source of water for irrigation and watering animals, but also as a moderator of climate, crop and animal diseases as well as a source of medicine for both humans and domestic animals.

This is in light of the Ramsar Convention's main pillars of wise use, designating and managing more wetlands of international importance (Ramsar Sites), and international cooperation to which all the five East African countries (Burundi, Kenya, Rwanda, Tanzania and Uganda) are signatory.

Wetlands and agriculture link?

Agriculture has been carried out in several types of (former) wetlands, with crop fields on river floodplain soils and rice fields as major examples. However, intensive agricultural use of drained/reclaimed peat lands has been shown to lead to major problems.

This does not only lead to severe carbon dioxide emissions, but also results in low-lying land, which needs to be protected against flooding.

Extensive use of wetlands without drastic reclamation measures and without fertiliser and pesticides might result in combinations of food production with other wetland services, with biodiversity remaining more or less intact. But there is a need for research by agronomists and environmental scientists to optimise such solutions.

Wetlands coverage and challenges

There are serious threats to wetlands in East Africa arising from the need to meet the growing water, food, energy and other livelihood needs.

In Uganda, wetlands cover has now been reduced to 26,308 square kilometres, or 11 per cent of the total land area. Wetlands in Uganda have come under considerable pressure and most of them are on the brink of total degradation due to the uneven nature of activities there.

Ahead of the World Wetlands Day in February 2013, Minister of State for Water, Betty Bigombe, highlighted a number of challenges that Uganda is facing in wetland management including enforcement of the wetland policy and related legislation.

The downward spiral in wetlands loss is appalling. A Nema State of Environment Report estimated that Jinja District has lost over 80 per cent of its original wetland area.

On one hand, communities that access these wetlands and use them for agriculture and extraction of various raw materials and fishing have greatly contributed to their degradation.

The limited wetland areas are under considerable pressure from a growing population and industrial development. Poor natural resource management, coupled with poorly planned or executed development activities have, and are continuing to deplete the limited renewable natural resource base of the country.

On the other hand, mega projects have greatly contributed to the decimation of wetlands. For instance in Kampala, an increased number of Industrial establishments that have encroached on the wetlands have affected the ecological functions of Kinawataka and Nakivubo swamps.

Similarly, increased private agricultural interests in the stressed wetlands are threatening their existence.

editorial@ug.nationmedia.com