The changing wetland use and its implications in Mumias Division, Kakamega district, Kenya

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Abstract:

This study examines the changing wetland use and its environmental implications in Mumias division, Kakamega district. The aim is to highlight the changing use of wetlands and its environmental implications to the community in particular and environment at large. The study specifically investigates the changes in wetland acquisition, ownership and use with respect to its conservation. It determines the socio-economic patterns influencing wetland’s changing use and shows how the process of increasing wetland human encroachment relates to the environment by pinpointing the impact that this practice has to the environment and the community. Archival records, oral interviews, questionnaires and repertory grid were the methods used in the collection of various kinds of information relating to wetland use in the study area. The data from archival records and oral interviews were qualitatively reported, while data collected using the other methods were subjected to various statistical interpretation and analyzed both quantitatively and qualitatively. The study indicates that wetlands in the pre-colonial times were a shared resource that received both individual and communal protection hence being sustainably used. Colonial rule brought with it individualization of wetlands and changes in their use which influenced wetland loss. The number of years that the wetland has been under utilization were found to be associated with the percentage of wetland cultivated. There is a linear relationship between family size and the percentage of wetland cultivated. Land-demographic background of the wetland farmer and financial gains from the wetland produce were seen as factors influencing wetland loss in the area under study. Fuelwood, water in wells, construction materials and forage are wetland resources of importance whose unavailability is affecting the community significantly. Changes in soil acidity, reduction in biodiversity, loss of river bank protection, downstream flooding and increased sedimentation are inferred to be some of the ecological problems resulting from wetlands' changing use. The study points to the facts that; to reach certain policy decisions regarding the use of a resource; it is necessary to understand people's way of life by looking at trends of the resource use, the socio-economic push factors behind the change in use and the impacts of the changed use. It's after this that appropriate resource use innovations can be advocated. Consequently, it is suggested in the study that the approach and methodology used can be valuable to a holistic analysis and understanding of imposing preconceived notions of them. The study also shows that the government agricultural policies have tended to favour economic goals in the farming pursuits with less consideration of other needs that an individual may have from the same resource. It is therefore recommended that the government should involve the local people as participants in the planning and development of wetlands. The government also needs to adopt a strategy of integrated wetland management.