Wetland utilisation patterns in semi-arid communal areas of Zimbabwe between 1985 and 2013 and the associated benefits to livelihoods of the surrounding communities

Abstract

Wetlands are among the most threatened natural ecosystems in developing countries. Loss of wetlands is attributed to, among other factors, inadequacy in information on the resource's value to rural communities. This paper investigates wetland utilisation patterns as well as the status of benefits derived by surrounding communities in Runde, Tongogara and Vungu rural districts of Zimbabwe. Two sets of questionnaires were used to gather data from 123 household heads and 60 teenagers. Snowball sampling was used to select 14 elderly people for semi-structured interviews. Land cover changes were established through analysis of the 2013 RapidEye imagery and aerial photographs (1985 and 1996). The results of land cover change analysis indicate an increase in spatial extent of cultivated area, water and bare land, and a decrease in the area covered by sparse and dense vegetation. Meanwhile, the majority of households revealed that there is no change in wetland utilisation patterns as cultivation continues to dominate. Increase in area under cultivation is driven by multidecadal rainfall variability, making dryland farming unproductive; food security projects implemented by donors; political interference; and availability of market for horticultural products. The level of households' dependency on wetlands is generally high, although spatially heterogeneous. Overall, information on community dependence on wetlands should be accounted for and factored into local conservation planning, since it influences use and conservation of wetlands.