

ABSTRACT

Mangrove forests are among the most threatened ecosystems on earth. Some of these forests traverse national boundaries complicating their management due to differences in governance structures between countries. To improve the management of transboundary species regular monitoring is essential. Remotely sensed data were used to estimate forest cover and analyze conditions of mangroves in the proposed transboundary conservation area (TBCA) between Kenya and Tanzania. Image analysis was performed using unsupervised and supervised classification methods. The transboundary mangroves cover an estimated 11,906 ha; 55% being in Kenya, 45% in Tanzania. *Ceriops tagal*, *Avicennia marina*, and *Rhizophora mucronata* species co-dominate the mangroves of the transboundary area. The hotspot for loss and degradation of mangrove in the TBCA is Vanga in Kenya with a loss of 27 ha/yr. Harvesting of mangrove wood products have contributed to the loss of mangroves in the transboundary area. TBCA formation could play a critical role in ensuring sustainable mangrove resources utilization.