

ABSTRACT

Combating land degradation in the semi-arid rangeland of sub-Saharan Africa is essential to ensure long-term productivity of these environments. In the Lake Baringo Basin in Kenya, communities and individual farmers restored indigenous vegetation inside enclosures in an effort to combat severe land degradation and address their livelihood problems. This study quantified the benefits of rangeland rehabilitation using yearly communal enclosures' utilisation data compiled by Rehabilitation of Arid Environments (RAE) Trust over a 6 year period (2005–2010). Results showed that communal enclosures provide a source of income through the sale of fattened livestock, harvested grass seeds, hay, honey and charcoal, among other products. Regression analysis showed an increasing total enclosure income with time. The enclosures also provide grasses for thatching, livestock feed and dry season grazing. Indirect products like milk, blood and meat are essential for household nutrition and food security. These benefits reinforce the management through incentive to maintain existing enclosures and establishing new ones, and therefore, the increasing trend in rangeland enclosure. Increased soil and biomass carbon storage could come with other indirect environmental benefits including improvement in soil quality, land productivity for pasture production and food security, and prevention of land degradation, thus leading to economic, environmental and social benefit for the local agro-pastoralist communities.