

Contribution and challenges of mangrove conservation to community's well-being in eastern Tanzania

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Abstract

Contribution and challenges of mangrove conservation to community's well-being in eastern Tanzania.

Intl J Bonorowo Wetlands 13: 15-21. Several mangrove conservation programs have been implemented in Tanzania to reverse degradation of mangrove ecosystem in the country. However, after their introduction in 1990s, many small-scale farmers relying on the mangrove ecosystems lost their livelihoods. To ensure that the people's well-being and ecological integrity of the mangrove ecosystem are sustained, this study investigated the impact of nature conservation practices on financial sustainability, food security of local communities as well as ecological integrity of the mangrove ecosystem. The study employed a mixed-method approach where a survey was used to collect quantitative data from 90 household respondents selected randomly for a questionnaire survey. This was supplemented by data collected through personal observations and interviews administered to 30 local people (mainly key informants and focus group discussion). Quantitative data were analyzed through crosstab IBM SPSS version 20. Qualitative data were analyzed using content method. The results indicated that the conservation practices introduced brought a significant difference in financial stability ($p < 0.05$) by increasing incomes of the implementing households to US \$80.29 compared to US \$69.20 for the non-implementing households. However, 83% of the implementing households still faced food insecurity by having meals only twice daily, although it was slightly higher compared to 80% for the non-implementing households. The 85% of the implementing and 65% of non-implementing households perceived that the conservation practices had improved the ecological integrity of the mangrove ecosystem by increasing the vegetation cover. The results of this study suggest that conservation practices in the mangrove ecosystem have increased financial sustainability and ecological integrity but failed to enhance food security. This study recommends the integration of rights of local communities on usage of land for paddy and fish farming to achieve sustainable economic growth in the estuary.

Keywords: environment, forestry, mangrove, households, ecosystem, vegetation, Tanzania, ecology

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