

**A COMMUNITY LEVEL ECONOMIC VALUE ASSESSMENT OF NATURAL
RESOURCE: THE CASE OF SANGO BAY FOREST ECOSYSTEM, RAKAI DISTRICT
UGANDA.**

BY

KABI MAXWELL BSC. (FORESTRY) DIP. EDUC.

**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENTS OF THE
REQUIREMENTS OF THE AWARD OF THE DEGREE OF MASTER OF SCIENCE OF
MAKERERE UNIVERSITY**

2002

Abstract

Biodiversity forms the basis for survival of human kind. It is the source of economic, ecological, as well as spiritual well-being of humankind, enabling humans to adapt to many changing situations both at regional or international levels. At the different levels, there are wide ranges of interest and often conflicts among the users of resources. The decisions that are made in many of the sectors in a way, directly or indirectly, impact on biodiversity, influencing the benefits, costs and the subsequent distribution of biodiversity benefits. This, however, is constrained by deficiencies in information regarding these economic attributes. The contribution of biodiversity to human livelihood therefore, makes conservation of the resource not just a matter of science or technical concern only, but also of policy and institutional requirement.

Since conservation is really deep seated at the community level, value attributes and incentives for protected area establishment, management and protection need to be addressed at this level. This dissertation highlights the community perception of the economic value of environmental commodities as a primary prerequisite for mainstreaming biodiversity conservation at the community level. The study was undertaken in and around the Sango Bay Forest, among adjacent

communities (Rakai District). The overall objective was to ascertain the economic values and benefits of the forest resources as perceived by the communities. The specific objectives were;

1. Identify and quantifying the benefits from Sango Bay Forest Reserves to communities adjacent the forests;
2. Establishing the economic values of the different goods and services that the communities derive from the forests;
3. Examining the costs of managing Sango Bay Ecosystem; and to
4. Determine the profitability of the Sango Bay Forest Ecosystem

Market and non-market valuation methods were used to estimate the costs and benefits of biodiversity conservation, specifically, to the community. Detailed household surveys were also conducted to find the economic importance of biodiversity to their livelihoods. The concept of total economic value was used. From this perspective, the summation of direct use value from such products as timber and non-timber economic values, the economic value of non-consumptive uses e.g. ecosystem services, the option and existence value were key components in the valuation model.

The study has revealed that the welfare of the community was strongly dependent on the existence of Sango Bay. Direct use value accounted for 46% of the total benefits and was estimated at UgShs. 47.8 billion (US\$ 26.6 million) annually. Extraction of wood products accounted for only 3.3%, while the non-timber products accounted for about 42.7%. While the remaining 54% UgShs. 55.9 billion (US\$ 31million) were annual indirect benefits to the community and were basically not tangible benefits. It was observed that degradation of the forests and or loss of access to the forest would compromise the economic welfare integrity of the local community by the same magnitude in economic terms.

Continued exploitation would annually yield UgShs. 47.8 billion (U \$ D 26.7 million) only / year whereas the total annual benefits associated with conservation of the resource are UgShs. 104 billion (U\$D 57.7 million). The total cost of conserving Sango Bay have been valued at 19.5 billion (U\$D 10.9 million). Government of Uganda contributes 0.13% of the management costs and the remaining percentage is borne by the local community, as opportunity cost, UgShs. 16.3 billion (U\$D 9.1 million) or value of crop lost due to vermin UgShs. 3.2 billion (U\$D 1.8 million). From this study the following general conclusions have been made;

- (a) That the communities living in and around Sango Bay Forest Reserves are entirely dependent on them for survival irrespective of income or age.
- (b) Although the communities attach a low value to the forest products, it is established on economic grounds that, the benefits to the community are enough to justify the conservation of Sango Bay Forest Reserve.
- (c) When all the costs and benefits are considered, no single management objective would be better than conservation.
- (d) The local community incurs almost all the costs of conservation.

From this study, the following recommendations have been made:

- (a). To ensure conservation, mechanisms should be put in place to increase social benefits and revenue to the community e.g. by ensuring that the International Community as beneficiaries make a contribution towards conservation of Sango Bay Forest Reserves;
- (b). the biodiversity conservation costs that the local communities incur in staying near the resource be reduced considerably to foster conservation by the local communities; and that

(c). Strategies that reduce pressure on the forest (alternative sources of income and forest products) by the communities be instituted to ensure conservation of the forest.