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Economic Valuation of the Benefits of Conserving Kakamega Forest, Kenya

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Abstract

The main purpose of this study is to measure the magnitude, in monetary terms, of the indirect and non-use benefits associated with the conservation of Kakamega forest, Kenya. This is part of an organised attempt by BIOTA East Africa to estimate the Total Economic Value (TEV) of the forest to the communities residing around the forest. Such an attempt is important in order to demonstrate the economic benefits of conserving the forest and compare them with the opportunity cost of conservation. TEV encompasses direct use values (timber, and non-timber forest products), indirect use values (water regulation, soil erosion prevention, etc.) as well as non-use values (existence value, bequest value).

In order to estimate indirect use values, as well as non-use values, the use of stated preference (SP) techniques was deemed appropriate. This was justified on the grounds that there are very limited data on the ecological services of the forest that would facilitate the use of revealed preference methods. Furthermore, SP methods are better suited to estimate non-use values.

The chosen methods for measuring the values that the local population attaches to the services of the forest are Contingent Valuation (CV) and the Choice Modelling technique (CM). The reason for choosing to employ CM on top of CV is the additional information that will be obtained with regard to the values of specific attributes/services of the forest. The concurrent use of those techniques may also help to test for convergence between the values obtained from each of them, and potentially shed light on the existence or non-existence of systematic differences between these two closely related methods. Following the pretesting of the questionnaire, the survey was administered to 320 respondents in face-to-face interviews. Due to size of the sampling population, the respondents were picked using a stratified random sample.

Keywords: Economic Valuation