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## Valuation of the Economic Role of NTFPs Consumption by Rural Households Living Around Kakamega Forest, Western Kenya

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### Abstract

Rural households greatly depend on non-timber forest products (NTFPs) to sustain livelihoods, more so in meeting household basic daily needs. Specifically in Kakamega forest households depend on NTFPs such as firewood to meet household energy needs, herbal medicines for ailment treatment, pastures to feed household stock, thatch grass to maintain shelters, and fruits and vegetables for food. Since these direct products are obtained from the forest free of charge and have no efficient market, their economic contribution to rural household economy remains unknown yet their role is factually immense. Establishing the economic value of NTFPs consumed by households therefore becomes very necessary in understanding the actual contribution NTFPs make in the sustenance of rural livelihoods. This study estimated and compared economic value of NTFPs consumed by rural households living around Kakamega forest using three valuation approaches namely: substitutes' prices method direct prices method and opportunity cost of time method. Socioeconomic, institutional and geophysical data that included household characteristics such as age, gender, household sizes, occupations, land and livestock ownership, NTFPs consumption quantities (and that of corresponding substitutes), time expended on extraction, time values, prices of NTFPs (and the substitutes) on local retail markets, distances to the forests and forest management regimes were collected in the areas surrounding Kakamega forest using a semi-structured questionnaire. Results show that the substitute value is highest followed by directly priced value and lastly by the value generated through the opportunity cost of time, with an annual average consumption of US \$120, US\$92 and US\$78, respectively, per household. The paper concludes with important policy recommendations for conservation of Kakamega forest.

**Keywords:** Economic value, non timber forest products, rural households