BUSITEMA UNIVERSITY

FACULTY OF NATURAL RESOURCES AND ENVIRONMENTAL SCIENCES

DEPARTMENT OF NATURAL RESOURCE ECONOMICS

ESTIMATING THE MONETARY VALUE OF DIRECT FOREST USES IN PAKANYI SUB COUNTY, MASINDI DISTRICT, UGANDA

BY

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JULY 2018

DECLARATION

I AMANYA GOVINE certify that this is my original work and has never been submitted to any University or Institution of higher learning for an academic award.

Signature.....

Date.....21st/07/2018.....

APPROVAL

I hereby certify that this research report titled **"Estimating the monetary value of direct forest uses in Pakanyi Sub County, Masindi district, Uganda"** by Amanya Govine has been done under my supervision.

Signature .....

Dr. Sowedi Masaba

(Supervisor)

Date: 21/06/18

DEDICATION

I dedicate this piece of work to my Mother Ms. Nyakato Joyce Dezi Adyeeri, and my entire family.

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LIST OF ACRONYMS

GOU Government of Uganda

NFA National Forestry Authority

UWA Uganda Wildlife Authority

UGX Uganda shillings

USD US Dollars

DUV Direct use values

SPSS Statistical Package for Social Scientists

CVM Contingent Valuation Method

FAO Food and Agricultural Organization

Kg Kilograms

DRC Democratic Republic of Congo

NFTPs Non Timber Forest Products

NEMA National Environmental Management Authority

UNEP United Nations Environmental Programme

NGO Nongovernmental Organization

GDP Gross Domestic Product

UNDP United Nations Development Programme.

ABSTRACT

The main objective of the study was to estimate the monetary value of direct use benefits of forests in Pakanyi Sub County, Masindi district. The specific objectives were to identify the direct uses of forests, quantify the direct uses of forests, and attach monetary value to the direct uses of forests. The study employed both qualitative and quantitative approaches. Data were collected using questionnaires, observation, and existing literature. Data were entered and managed in Microsoft Excel and SPSS, and analyzed using descriptive statistics.

The study findings revealed the quantity of direct forest uses as follows: 1612 pieces of timber, 235 bundles of firewood, 64kgs of local herbs, 295 sacks of charcoal, 2155 poles for construction 613 kg of game meat, 144 bundles of grass for thatching, 70 bundles of fibers, 28 and 34 basins of mushrooms and white ants respectively, and 338 liters of honey.

The study findings indicate various direct forest uses: timber, fencing posts, poles, wild foods, fibers, firewood, charcoal and local herbs. The study estimates the total monetary value of the direct forest benefits at Uganda shillings **33,886,812** annually.

CHAPTER ONE: GENERAL INTRODUCTION

1.0 Introduction

Forests are renewable and complex ecosystems capable of providing a wide range of environmental, economic, social and cultural benefits. They supply various products and services, which contribute directly to the well being of people and are vital to the economy and the environmental conditions of the country. While essential roles of forests are increasingly recognized by the Ugandan society as a whole, their benefits and functions are differently valued amongst people and society segments. Moreover, such valuation continues to modify over time, due to changing needs and expectations of society (Doðru 2001). Forests have been central to human survival for as long as we have inhabited the earth. How people use and value forests at a particular place and time, however, depends in large part on their scarcity or abundance relative to changing human needs.

Historical patterns of forest land use reflected the cumulative effect of centuries of individual or small group decisions about where to hunt, where to settle, what land to clear for agriculture and what land top reserve for religious or other purposes. The values associated with conventional forest products, such as lumber and pulp and paper, pass directly through markets. On the other hand, many benefits that are derived from forests do not pass through markets, such as hunting, fishing, or bird watching, or the value of the role that forests play in regulating weather patterns. Therefore, it is becoming increasingly important to identify and evaluate these benefits due to the increased pressures on the natural resources, the increased demand for non-market resources, and society's strong desire to preserve the natural heritage for future generations (Condon 1997).

REFERENCES

Ben C,Rebecca H,Gill S,&Daniel M,Catherine B,. Economic contributions of forests.

Booth, A. (2012). Wood fuel causes deforestation in Basin yet is potential renewable energy source. Congo .

Canadian Forest Service. (2004-2005). The State of Canada's Forests. Canada: Natural Resources.

Clarke J, Grundy IM,Lawes, M.J., Eeley, H.A.C., Shackleton, C.M. and Geach, B.G.S (Eds). (2004). . The socio-economics of forest and woodland resource use: a hidden value.In: Indigenous.

David, W.Pearce. The economic value of forest Ecosystem.

Dixon, J. A., and M. M. Hufschmid. (1986.). Economic valuation techniques for the environment: . Baltimore: Johns Hopkins University Press.

Douglas j.Krieger,phD. (2001, march). Economic Value of forest Ecosystem services. (D. Kloepfer, Ed.)

ECOE (Ed.). Eco Efficiency in Industry and Science book series (Vol. 28).

Edward B.Barbier, Sally D.Hacker, Chris K, Evamaria W.Koch, Adrian C Brian R.Silliman. The value of estuarine an coastal ecosystem services.

FAO. (2004). Project Reducing Biodiversity Loss at Selected Cross-Border Sites in East Africa.

Glenn B, Simon N, Caroline A, and Andrew P. The Value of Uganda's Forests, livelihood and ecosystem approach .

Hamed D. Economic valuation of forest goods and services.

Henk Lette Henneleen de Boo. (2002). Economic Valuation of Forests and Natures support tool for effective decision-making.

Ministry of water lands and environment.(MWLE). The Uganda forestry policy, .

Mustafa F. Türker, Atakan Öztürk and Mehmet. PakTotal economic value of forest resources in.

Sagoff, M. (1988). Some Problems with Environmental Economics.

The Economic Value of East Africa's Forests.

uganda forestry policy.

UNECE/FAO. (2009). Workshop on Current and future woody biomass for energy monitoring use and understanding technology. Rome: Riga Latvia FAO.

University of KwaZulu-Natal Press. Forests and Woodlands in South Africa: Policy, People and Practice. Scottsville,South Africa .

Wild harvests from Scottish woodlands. (2006). Emery, M., Martin, S. and Dyke, A. Great Britain: Forestry Commission.

Wu, S. (2008). Valuation of forest ecosystem goods and services and forest natural capital of the Beijing municipality, China. beinjing: Hou, Y; Yuan, G.

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