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**FACULTY OF NATURAL RESOURCES AND ENVIRONMENTAL SCIENCES**

**TOTAL MONETARY VALUE OF WETLAND LOSS IN SOROTI TOWN**

**BY**

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## DECLARATION

I ENGUR ISAAC hereby declare that this dissertation is my own work except where acknowledged and has never been submitted to any University or Institution of higher learning for any award.

Signed by.....

Date.....09/07/2016

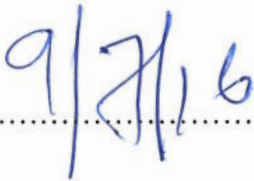
**APPROVAL**

This dissertation has been done and completed under my supervision.



Signed by.....

Sowedhi Masaba (Supervisor)



Date.....

## DEDICATION

To the almighty God for His protection, care and all provisions that helped me complete my research. Glory be to Him.

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## LIST OF ACCRONYMS

EBI	Ecosystem Benefit Indicator
FAO	Food and Agricultural Organisation
GoU	Government of Uganda
HPM	Hedonic Pricing Method
IPCC	Intergovernmental Panel on Climate Change
MEA	Millennium Ecosystem Assessment
MFPEd	Ministry of Finance, Planning and Economic Development
MNDNR	Minnesota Department of Natural Resources
MWE	Ministry of Water and Environment
MWLE	Ministry of Water, Lands and Environment
NEMA	National Environment Management Authority
SPSS	Statistical Package for Social Sciences
TCM	Travel Cost Method
TEV	Total Economic Value
UBOS	Uganda Bureau Of Statistics
UNEP	United Nations Environmental Program
USD	US Dollar
UGX	Uganda Shillings
WTP	Willingness to Pay

## ABSTRACT

Wetlands are important ecosystems globally. However, due to the rapid increase in the world's population, their ecosystem services are being lost due to conversion to other uses. This study aimed at determining the economic value of wetlands loss in Soroti Town. The objectives of the study were to; determine the lost wetlands benefits due to conversion quantify the lost wetland benefits and determine the economic value of wetlands loss due to conversion. The study adopted a survey design, employing both qualitative and quantitative approaches. The study was conducted using questionnaires, direct observations and interviews. Simple random sampling and systematic sampling techniques applied. The valuation techniques used was market pricing. The data was entered and managed using SPSS and Excel, and analysed using descriptive statistics. The study findings reveal that wetland benefits worth 8,356,738,385 Shillings which is 2,461,484 USD have been lost due to conversion to other uses. From the research findings, it is mostly the human activities that have caused a significant loss of wetlands around Soroti town and they include fresh water, foods such as fish, herbs, poles, sand, and firewood, wild fruits, flood control and local climate regulation with the major benefits lost being fresh water implying water shortage in the area in the nearby future. Finally, there is need to create awareness to the communities adjacent to wetlands, setting up clear and strong laws governing use of wetlands, ensuring community compliance to set laws, implementation and monitoring of wetlands by NEMA.

Key words: *ecosystem, ecosystem services, economic value, wetland, wetland conversion.*

# CHAPTER ONE

## INTRODUCTION

### 1.1 Introduction

This chapter includes the background to the study, problem statement, justification, research objectives and questions, conceptual frame work and scope of the study.

### 1.2 Background

In order to make better decisions regarding the use and management of wetland ecosystem services and their importance to human beings, the economic value must be determined. The importance or “value” of wetland ecosystems is viewed and expressed differently by different disciplines, cultural conceptions and different philosophical views. In Uganda wetlands make a significant contribution to the Gross Domestic Product, at Uganda Shillings 6.5 to 7.0 billion (Turyahabwe et al, GoU, 2002). In addition, these wetlands provide direct income opportunities to both urban and rural communities and indirect benefits in form of environmental goods and services such as purification of water, control of floods and water storage that improves the livelihoods of the people.

However, in Uganda, conversion of wetlands to other land uses is increasingly becoming evident and hence affecting the wetland dependent communities in both urban and rural areas. Poor land use practices around the wetlands have negatively affected the functions and socio-economic value of wetlands that are crucial to the livelihoods of neighbouring local communities. Urban wetlands way back in the early 1990’s were seen to be properly managed with major activities being only fishing grazing and resource extraction such as papyrus. However, with time, the change in land use practices such as farming, construction and brick making. As a result of this

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