

**THE EFFECT OF WETLAND DEGRADATION ON FOOD SECURITY: A CASE OF
NALWENKOMBA WETLAND, NAMASAGALI SUB-COUNTY**

BY

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DECLARATION

I hereby declare to the best of my knowledge and belief that am the sole author of this dissertation. The work presented in this dissertation has never been submitted to Busitema University for the award of a degree of Bachelor of Science in Natural Resource Economics or any Higher Institution of Learning for any academic award. Thus, the work is original, a result of my own research, and where other people’s research was used, the authors have been dully acknowledge.

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APPROVAL.

This serves to certify that this work has been truly through the efforts of MACHELI MOSES towards partial of the requirements for the award of a Bachelor of Science in Natural Resource Economics of Busitema University under my guidance and supervision.

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DEDICATION.

I dedicate this dissertation report to my family especially to my dear mother Becky Mary, siblings, beloved ones say Olivia, Irene, Bernard, Rogers, Ngwee and mama faith and many others in appreciation of the care and support offered to me. May the good Lord reward you abundantly.

I also dedicated to all the fellow researcher, readers and others academicians who may want to use this dissertation for their study.

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LIST OF ACRONYMS AND ABBREVIATIONS

FAO	Food and agricultural organization
NEMA	National environmental management authority
UBOS	Uganda bureau of statistics
MWE	Ministry of water and environment
MAAFI	Ministry of Agriculture, Animal Industry and Fisheries
EIA	Environmental Impact Assessment
WMD	Wetland management department
UNDP	the United Nation Development Programme
EPF	Environmental Protection Force.
NWSC	National Water and Sewerage Corporation.
SPSS	Statistical Package for Social Science.
WMP	Wetland Management Plan.
NGOs	Non-governmental Organizations.

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ABSTRACT

Wetland degradation is a severe environmental problem in the world. The main drivers of wetland degradation identified was agricultural activities, overharvesting of wetland resources and infrastructure development. The available literature indicated that both countries are taking wetland restoration issues seriously. The priorities for restoration included biodiversity conservation, the need to reverse the effects of climate change and to curtail natural disasters. The study revealed that collaborative wetland resource management backed with public sensitisation and awareness are essential for policy and legal framework implementation. Both countries need to increase information on wetlands, update wetland inventories, and effectively monitor wetland degradation and restoration activities. This research study investigates the effects of wetland degradation on food security. In Uganda, wetland degradation has been going since 1940's on a small scale; it was not until in the 1980's that wetlands become a subject of large scale interventions, most notably for crop cultivation. In the Namasagali sub-county, wetland degradation started in the 2000's. The study was carried out in Namasagali sub-county where a sample of 50 people was selected randomly as respondents and interviewed. The sample was based on purposeful and multi stage random sampling designs enhanced by the inclusion of key respondents. The data was collected using questionnaires, interview techniques reinforced by field observations, photography and informal discussions with local people. Data collected was there after analysed both qualitatively and quantitatively (using descriptive statistics and by computation of Chi square tests). Data was captured using Microsoft excel and exported to SPSS (statistical package for the social sciences) for analysis which descriptive statistics and inferential statistics was employed. In addition data was analysed according to the section / objective of study.

The research was a survey research aimed at examining the effect of wetland degradation on food security and crop yields. The study was to find out the causes of wetland degradation, people's attitude towards the wetland and the prospect of Nalwenkomba wetland as a resource in Namasagali. The research was based on a cross sectional survey design. Information about the effects of wetland degradation on people's access to food, causes of degradation, people's attitudes and level of education will be obtained from a cross section of the population of Namasagali. Data was collected using questionnaires, and interview schedules supplemented by direct objection and photographic interpretation. Under these circumstances the researcher was able to focus on questions to enable respondents understand them and therefore minimizing errors in responses. Secondary data was obtained from other published literature in textbooks, articles, journals, magazines, Newspapers and the internet. Conclusions was made after summarizing the data and analyzing it.

Key words: The effect of wetland degradation, food security, food accessibility, availability, and stability.

1.0 CHAPTER ONE: INTRODUCTION.

1.1 Back ground of the study

Wetland degradation has been a severe environmental problem since the 1970s despite the multiple values wetlands provide. Wetlands are a source of clean water, fodder, construction materials, and they sustain biodiversity ((Turyahabwe *et al.*, 2013a)). The natural resources obtained from wetlands enhance human health, livelihood and survival, and provide important economic, social and ecological benefits to present and future generations. However, the increasing demand for wetland services has led to overexploitation and degradation of these resources. (Cerdà *et al.*, 2012) defines degradation as “any process in the loss of biological or economic productivity from the soil-vegetation-water systems” (p. 61). Wetland degradation is becoming a major environmental problem in the world, moreover, with unsustainable utilisation of limited natural resources, population increase, desertification, soil erosion and decline in agricultural land productivity (Reed & Stringer 2016).

Wetlands are characterised by “areas of marsh, fen, peat land or water whether natural or artificial, permanent or seasonal with water that is static or flowing, fresh, brackish or salty, including areas of marine water, the depth of which at low tide does not exceed six metres” (Ramsar 1971, p. 7). In the 20th century, there was an estimated global decline in wetlands of 64-71%, both due to natural and human factors (Sidle *et al.*, 2013). Degradation and loss of wetlands has deprived many human communities of important ecosystem services ((Gardner *et al.*, 2015)). The continuation of this trend means that the world will face a very serious struggle to meet the global goals on water and sanitation, food security, climate change action, life on land and affordable and clean energy (FAO 2015).

Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (FAO, 2006). The notion of food security has expanded in recent years from a relatively static focus on food availability to one that recognizes long-term concerns about access and resources. FAO (2008) outlines the four main components of food security as food availability, food accessibility, food utilization, and food system stability – which implies affordability. (Hendrix, 2011) reports that in the recent past, rising world food prices and the global economic downturn increased the ranks of the world’s food insecure persons from 848 million to 925 million by September 2010, reversing decades of slow yet steady progress in reducing hunger (WFP and FAO, 2010). Yet despite the myriad benefits they provide, wetlands are among the ecosystems with the highest rates of decline, loss, and degradation. Wetlands are disappearing three times faster than forests and are Earth’s most threatened ecosystem.

In Uganda, wetlands have declined from an estimated 13% of the total land area in 1994 to 10.9% in 2008 (Nsubuga *et al.* 2014). Out of a population of 34.6 million, 80% of Ugandans are involved in agriculture and 69% rely on subsistence farming and are heavily dependent on wetlands (UBOS 2016). The benefits obtained from wetlands in Uganda range from water and food supply to

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