

# BUSITEMA UNIVERSITY

COMMUNITY ADAPTATION TO CLIMATE VARIATION EFFECTS: THE CASE OF  
FLOODS IN ACOWA SUB-COUNTY, AMURIA DISTRICT, EASTERN UGANDA

BY

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JUNE 2014

**DECLARATION**

I, OKELLO SIMON do here by declare that this is my original special project report and has not been published and /or submitted for any other degree award to any University.


Signed  ..... Date 12/06/2014 .....

## APPROVAL

This is to certify that, this special project report by Okello Simon has been successfully completed under my supervision and I recommend it for submission to the Faculty of Natural Resources and Environmental Sciences of Busitema University with my approval

Taako Edema George

Signed.....



Date.....

12/06/2014

## **DEDICATION**

I dedicate this report to my beloved parents Ms Anoso Jennifer and Mr. Opama Kokas, my fiancé Acanit Edisa Mary, my sisters Alapo Salume, Aguti Rose, Anino Sarah and Brothers Engemu Patrick, Opama Brian, Atagal Gabriel and our entire family.

I thank you all for your prayers, support and courage you have constantly showed me to deliver this special project report for the enhancement of my career. May the Almighty God reward you abundantly.

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## ACRONYMS/ABBREVIATIONS

- IPCC : Intergovernmental Panel on Climate Change
- ACCS : Advisory Consortium on Conflict Sensitivity
- URCS : Uganda Red Cross Society
- VCA : Vulnerable Capacity Assessment
- PRDP : Poverty Reduction Development Plan
- DRR : Disaster Risk Reduction
- DRM : Disaster Risk Management
- OPM : Office of the Prime Minister
- NGO : None Government Organizations
- CRWRC : Christian Reform World Relief Committee
- CRED : Center for Reform on the Epidemiology of Disaster
- MWE : Ministry of Water and Environment
- DFID : Department of International Development
- MAAIF : Ministry of Agriculture, Animal Industry and Fisheries
- SPSS : Statistical Package for Social Sciences
- PAG : Pentecostal Assemblies of God

## DEFINITIONS OF THE KEY TERMS

### **Community**

For this study, 'community' is a group of people who perceive themselves as living together with some interactive relationship.

**Adaptation:** The ways people have assimilated to adverse impacts of floods.

**Climate change:** Refers to alteration in the normal average environmental conditions of a place.

**Impacts:** The negative consequences of floods to the people of Amuria District.

**Floods:** Is an overflow of water that submerges land which is normally dry.

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## ABSTRACT

The study examined community adaptation to climate variation effects: the case of floods in Acowa sub county, Amuria district, eastern Uganda. The main objective was to analyse the ways in which people have adapted to flood conditions in Amuria district specifically; to identify the major causes of floods in Amuria District; to evaluate the Socio-economic effects of floods to the community in Amuria district; to assess the different ways of community adaptation to floods in Acowa sub-county in Amuria district. Research questions included; What are the major causes of floods in Acowa sub-county, Amuria district?, What are the effects of floods to the community living in Acowa sub-county, Amuria district?, How has the community in Acowa sub-county, Amuria district adapted to flood conditions?, How effective are the community adaptation mechanisms in coping with the problem of floods in the study area?, What are the national, local government interventions and the effectiveness on mitigating the socio-economic effects of floods?

Methods of the data collection used were oral interviews and questionnaires. The data collected from a sample of 60 respondents was analyzed using excel and SPSS (version 16).

Local causes of floods in the area were wetland cultivation 43.3%, cutting down of trees 25% heavy rains 23.3% and constructing in wetlands 8.3 %. Human factors were fueled by mainly poverty. The most sever effect due to floods included, food insecurity which was at 95% according to the respondents followed by diseases, contamination of water points, damage of homesteads and infrastructure. Government intervention to curb socio-economic effects of floods included food supply, mosquito nets, tents, tree seedlings, and sensitization according to the respondents.

Adaptations included shifting to areas less prone to floods, opening the water channels, planting trees, permanent houses and food store.

A prominent and urgent response is to relocate vulnerable populations according to the findings from the main stream of floods mainly those adjacent to the wetland to areas quite safe from the attack of floods.

Findings clearly shows that, While the farmers of Amelo parish have already come a long way in trying to adapting to the changing climate, their level of innovativeness, knowledge and skills, as well as external support is still very low therefore more efforts by mainly government, NGOs and research institutions is needed to boost their adaptive capacities.

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# CHAPTER ONE

## 1.1 Introduction

This chapter introduces the study topic, the background of the study, the problem statement to the study, objectives, research question of the study, conceptual frame work, significance of the study, justification of the study, the scope of the study, limitations of the study, operational definitions of the key terms and organisation of the study.

## 1.2 Background

Floods are the most common natural disaster and the leading cause of natural disaster fatalities worldwide. Risk of catastrophic losses due to flooding is significant given deforestation and the increasing proximity of large populations to coastal areas, river basins and lake-shores.

Uganda is a country in East Africa with a population of about 34 million people.

A large part of the population is dependent on agricultural production (food crops, cash crops, and livestock) or on businesses related to agriculture. March to May/June and September to November are the rainy seasons in the largest part of the country. The north-east of the country (Karamoja region) is substantially drier, with only one rainy season per year, and an agro-pastoral livelihood system. Due to climate change rain patterns have changed: rains are unpredictable and unreliable and/or shorter but heavier. As a result floods, incidences of landslides, soil erosion, droughts and heat waves occur. Those climate changes have an impact on the livelihood of the people, affecting the health of people and livestock and affecting peoples agricultural and livestock production.

The eastern part of Uganda has been experiencing unusually heavy rainfall since July 2007, resulting in massive flooding and landslides. Thousands of people have been affected, with mass displacements occurring. Houses, sanitation systems, roads and bridges have been destroyed while farm fields have not been spared; food crops have either been damaged or washed away. According to findings of assessments conducted by the Uganda Red Cross Society (URCS), it is estimated that over 10,000 households have so far been affected by the flooding in eastern Uganda and parts of west Nile, with the number expected to rise as the rains continue. The affected areas include Amuria, Bududa, Bukedea, Katakwi, Kumi, Nebbi and Sironko districts in Mbale and Teso sub-regions. Some deaths have also been reported; the most recent occurred in Amuria district on 13 August 2007 when a man was swept away

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