

**EFFECTS OF CLIMATE VARIABILITY ON PEOPLE'S LIVELIHOODS
IN PALLISA DISTRICT**

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SEPTEMBER 2019

DECLARATION

I declare this is my original work and that it has never been used by any other person neither submitted to any University or institution for any award.

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DEDICATION

I extend my dedication to my dear wife Lois Mutambuli, my parents and siblings for their support and encouragement.

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LIST OF ACRONYMS

- AMCEN - African Ministerial Conference on Environment
- DJF - December, January, and February
- FAO - Food and Agricultural Organization
- GHG - Green House Gasses
- GIS - Geography information systems
- GPS - Global Positioning Systems
- HIV/AIDS - Acquired immunodeficiency syndrome / Human immunodeficiency virus
- IPCC - Inter Governmental Panel on Climate Change
- ITCZ - Inter Tropical Convergence Zone
- NASAC - Network of African Science Academies
- NGO - Non Government Organization
- NEMA - National Environmental Management Authority
- OPM - Office of the Prime Minister
- PACCA - Policy Action for Climate Change Adaptation
- USGS - United Nations Geological Survey
- UNESCO - United Nations Educational, Scientific and Cultural Organization
- UNEP - United Nations Environment Program
- UNFCCC - United Nations Framework Convention on Climate Change
- RCP - Representative Concentration Pathways
- NAPA - National Action Plan for Adaptation

ABSTRACT

The purpose of this study is to assess the effects of climate variability on people's livelihoods in Pallisa district, Gogonyo Sub – county. The study sought to assess rainfall and temperature trends in the district in the last 3 decades, establish the causes and effects of climate variability on people's livelihoods and mitigation measures being undertaken to cope with the changing climatic conditions. In order to achieve the objectives set, rainfall and temperature data for the last 3 decades was obtained from Uganda national meteorological authority. Appropriate primary data was collected from the 3 sub-counties of Gogonyo, Agule and Apopong which were selected through purposive and multistage cluster sampling. 3 focus group discussions were conducted comprising of 8 individuals from different social-economic status. Key informant interviews were conducted for district officials, other relevant officials and local leaders who were selected through expert sampling.

The findings of the study indicate that in the last 3 decades, temperatures have increased, the rainfall seasons are unpredictable and the area has experienced frequent droughts, floods, pests and diseases. Since majority of the local population depend on rain fed agriculture, this has indeed negatively affected the livelihoods of people in Pallisa district. Mitigation measures being undertaken include; wetlands restoration, planting of trees, planting of improved seed varieties and involving in other forms of livelihoods. Basing on the findings of the study, recommendations made include: sensitizing the local population about climate variability, promotion of modern farming methods, promote alternative livelihoods like tourism and increase funding for climate change related activities in the district.

CHAPTER ONE

INTRODUCTION

1.1 Background

Global warming is currently the most serious environmental threat worldwide leading to climate change/variability. The best estimates indicate that the Earth could warm by 3° C by 2100 (UNFCCC, 2007). Climate variability as defined by the IPCC refers to variations in the mean state and other statistics (such as standard deviations, the occurrence of extremes, etc.) of the climate on all spatial and temporal scales beyond that of individual weather events. Variability may be due to natural internal processes within the climate system (internal variability), or to variations in natural or anthropogenic external forcing (external variability) (IPCC, 2014b). It is reported that climate change is expected to increase the surface temperature of the Earth and the oceans, raise sea levels, alter the global distribution of rainfall, affect the direction of ocean currents and major airstreams, and increase the intensity and frequency of extreme weather events (Open WASH, 2016).

Africa is one of the most vulnerable continents to climate change and climate variability, a situation aggravated by the interaction of 'multiple stresses', occurring at various levels, and low adaptive capacity (IPCC, 2014b). Africa's major economic sectors are vulnerable to current climate sensitivity, with huge economic impacts, and this vulnerability is exacerbated by existing developmental challenges such as endemic poverty, complex governance and institutional dimensions; limited access to capital, including markets, infrastructure and technology; ecosystem degradation; and complex disasters and conflicts. These in turn have contributed to Africa's weak adaptive capacity, increasing the continent's vulnerability to projected climate

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