

IMPACT OF SEASONAL FLOODING ON THE LIVELIHOODS OF URBAN DWELLERS OF KISENYI IN KAMPALA CENTRAL DIVISION KAMPALA CAPITAL CITY, UGANDA

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### A RESEARCH DISSERTATION SUBMITTED TO THE FACULTY OF NATURAL RESOURCES AND ENVIRONMENTAL SCIENCES IN PARTIAL FULFILLMENT FOR THE AWARD OF BACHELOR'S DEGREE IN NATURAL RESOURCES ECONOMICS OF BUSITEMA UNIVERSITY.

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## DECLARATION

I **BOONABAANA PHIONAH** solemnly declare that that this research report is my original work and has never been submitted to Busitema University or any other institution of learning for any academic award.

## APPROVAL

This is to certify that this research report has been submitted with my approval.

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Signature:

**Date:** April 29<sup>th</sup>, 2023.

### **DEDICATION**

I dedicate this research to my beloved parents of **Mr. Mugisha M Robert** and **Mrs. Joyce Mugisha** and my family at large for the tremendous financial support rendered to me during the study. I also dedicate this research to my beloved aunt Ms. Aidah K Busingye for the moral and spiritual support plus transportation to the field during data collection. And definitely my friends Akankunda Desire, Turyamusiima Emily, Ainamani Douglas, Byaruhanga Valence and the NRE class of 2023.

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## LIST OF ACRONYMS AND ABBREVIATIONS

NEMA:	National Environment Management Authority
KCCA:	Kampala Capital City Authority
KCD:	Kampala Central Division
MWE:	Ministry of Water and Environment
OPM:	Office of the Prime Minister
GoU:	Government of Uganda
IFRC:	International Federation of Red cross and Red Crescent Societies
UNFCCC:	United Nations Framework Convention for Climate Change
NGO:	Non-Governmental Organizations
WBG:	World Bank Group
WHO:	World Health Organization
FAO:	Food Agriculture Organization
IWA:	International Water Association
OCHA:	Office for the Coordination of Humanitarian Affairs
UN:	United Nations
IPCC:	Intergovernmental Panel on Climate Change

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### ABSTRACT

Seasonal floods are in recent times being experienced with increased frequency and devastating impact in urban ecosystem of Kisenyi area of Kampala Central Division in Kampala City. The floods are associated with increased climate variability, most probably accounted for more by the increased anthropogenic induced global warming than natural effects. Floodings pose significant threats to urban ecosystems and the safety of inhabitants therein. Despite impacts caused by the floodings, people have continued to inhabit the affected areas and periodically impacted by the flooding hazards. The study assessed the adaptation measures dwellers in urban ecosystem are relying on in response to seasonal flooding and how they are able to cope up after the disaster. The study sampled fifty-five (55) respondents who were randomly and purposively selected. Data was collected through direct interviews and questionnaire aided surveys. The collected primary data were analyzed using STATA computer software programme, which generated descriptive statistics of the views and perspectives of Kisenyi dwellers on flooding, flood management, and climate change. The adaptation measures to seasonal flooding dwellers in urban ecosystem of Kisenvi are relying on to respond to seasonal flooding or adapt to the situation include; manual removal of flood waters; raising of the foundations of their houses and elevating doorsteps; and clearing drainage channels prior to the rains. The findings revealed that most of the respondents (34%) had no measure and could not provide any solution during the occurrence of the flooding; 24% were manually removing the flood waters; another 24% of the respondents indicated they had raised the foundations of their houses and elevated the doorsteps, and at same time improved and cleared the drainage channels; while 6% of the respondents indicated planting trees and short grass in reducing the impacts of flooding. Another 4% of the respondents also indicated that there was widening of the drainage channels by local and city authorities. However, despite those measures residents indicated that they still faced losses and impediments during the rainy season due to excessive flooding. The study therefore concluded that the urban ecosystem of Kisenyi parish, Kampala Central Division had no adequate adaptational measures in response to seasonal flooding and is not resilient enough to adapt to the disaster and that seasonal flooding is a major concern in urban ecosystems and it occurs at least twice every year.

#### **1.0 INTRODUCTION**

#### **1.1 Background**

Globally, disasters are said to have devastating effects on economic development, livelihoods, agriculture, health, social and human life (Musah & Oloruntoba, 2013). They are sudden, accidental events that may cause deaths or injuries. According to (Olajuyigbe et al., 2012), floods arise from a large volume of water which arrives at and occupy the stream channel and its flood plain in a time too short to prevent damage to economic activities including settlements. It is a natural hazard like drought and desertification which occurs as an extreme hydrological (run off) event (Nwafor, 2006). It could also be seen as the inundation of an area not normally covered with water, through a temporary rise in level of stream, river, lake or sea (Emodi, 2012). Prolonged rainfall events are the most common causes of flooding worldwide. Floods are generally regarded as extreme hydrological events, where there is excess of water which may have devastating effects. According to (Ayode, 2018), flooding in the tropics is regarded as partly or wholly climatological in nature as they result from torrential rainfall.

In Africa, devastating floods have claimed hundreds of lives in countries from Senegal to Somalia, Sudan to South Sudan AccuWeather reported(Di Baldassarre et al., 2010) . According to the International Federation of Red Cross and Red Crescent Societies (IFRC), more than 1.21 million people were affected by floods in 12 different countries from August to September. Sudanese Security and Defense Council declared a three-month state of emergency after heavy rains destroyed 100,000 homes (Reuters Staff, 2020). According to the IFRC(Office of the Prime minister (OPM), 2010), at least 99 people were affected by the floods. The Blue Nile, a tributary of the Nile, rose to 17.58 meters after several weeks of unrelenting rainfall, surpassing the records set in 1946 and 1988. In Sudan, the ancient pyramids in Bajrawiya, located just 500 meters from the Nile, are under the threat of flooding (Suleiman, 2020). The authorities ordered the construction of sandbag walls and pumping out water to protect cultural monuments that are more than 2.3 thousand years old. This UNESCO World Heritage Site, listed by the United Nations, is located about 200 km northeast of the capital Khartoum(Hall, 2011). Floods have never previously affected the area. The situation is currently under control, but if the Nile level continues to rise,

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