

Drought and Food Security in Bukomansimbi District, Uganda

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INTRODUCTION

Food security is a situation that exists when all people at all times, have physical, social and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food performances for an active and healthy life (United Nations Development Programme, 1994; World Food Programme, 2009). This means that people should have quality and healthier food for their wellbeing and communities should fight against droughts' effects to food security dimensions like food availability, food access, and food utilization (Badolo & Kinda, 2015). By definition, food availability relates to physical presence of food through cultivation, importation, manufacturing and transporting to a desired region (IFRC, 2006). Food access refers the ability to obtain food for consumption through purchase, own production or aid for a nutritious diet (Badolo & Kinda, 2015). Food utilization is the means through which households prepare, store and physically use food in relation to nutritional knowledge and individuals' health status (IFRC, 2006). Food security dimensions are negatively affected by weather shocks hence, vicious cycle of deceases, hunger and death (Krishnamurthy *et al.*, n.d). Thus, the disadvantaged would sacrifice their income to buy food to meet nutritional requirements. Therefore, chapter is key to addressing drought impacts as it recommends appropriate mechanisms for sustainable food security.

BACKGROUND

Globally, 800 million people are food insecure and 180 million in Sub Saharan Africa (FAO, 2016). The phenomenon is paralyzed by droughts' impacts on food security and threatens global vulnerable populations with food insecurity food (Food and Agriculture Organization [FAO], 2016; World Food Programme [WF], 2009; Khalafallah, 2016). This meant that people should have quality and healthier food for their wellbeing. Thus, communities/countries should fight against drought, which might affect food security and its dimensions like food availability, food access, and food utilization (Badolo & Kinda, 2015).

Notably, Africa has over 300 million hungry people but 235 million are in Sub Saharan Africa (SSA) and disadvantaged populations are affected most from food insecurity (Kabasa and Sage, 2009). Findings reveal that Horn of Africa has increased acute malnutrition and deaths due to food insecurity emanating from drought (Kabasa and Sage, 2009; FAO, 2011).

Further, majority of East Africans are faced with food insecurity (Reid, 2018) hence malnutrition, starvation and death. Mbowa *et al.* (2020) add that, hunger and starvation worsened in East Africa region, a call for emergence assistance. Such suffering is due to the recurring drought events, which deter farmers to access animal fodder for example South Sudan, Somalia and Kenya's Rift Valley regions

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hence violence between pastoralists and farmers (www.africanarguments.com). Regrettably, in those countries, over fifteen million children struggle to access food and 6.9 million are malnourished (Reid, 2018). Word Vision (2018) adds that strong winds affected East Africa leaving 50 million people food insecure of which 15 million children were threatened.

In Uganda, 4.4 million out of 5.3 million food insecure people are in Karamoja (35%), East Central (17%), Acholi (16%), and Central 2 (16%) (IPC, 2017). Such acute food insecurity was caused by prolonged dry spells, erratic rainfall patterns and La Niña event – variability in farming seasons (Uganda IPC Technical Working Group [IPC], 2017; Republic of Uganda, 2017). Thus, extreme weather shocks resulted into emergency of Fall Army Worms, which extensively affected cereal crop fields posing threats to food security (Bindhi, 2016; Sekweyama, 2014).

Regrettably, there is increased food insecurity in Bukomansimbi due drought impacts like erratic rainfall, prolonged dry-spells and fall armyworms – poor agricultural production (Nabunya, 2017). Poor agricultural yields resulted into increased food prices that is, posho costed 4000/- (Ugx)/kilogram and water costed 3000/- per jerrycan (IPC, 2017; Nabunya, 2017). Further, starvation, malnutrition and deaths were eminent (Reid, 2018) and affected the disadvantaged population. Further, women and children traversed longer distances to collect water and would wake up as early as 3:00am (GOU, n.d; Nabunya, 2017). This risked girls to teenage pregnancies and hindered them attending school (IPC, 2017). The chapter establishes the relationship between drought and food security in Bukomansimbi district and recommends strategies for sustainable food security.

Specific objectives

- i. To examine the extent to which temperature affect food security in Bukomansimbi district
- ii. To establish the influence of precipitation on food security in Bukomansimbi district

FOCUS OF THE CHAPTER

The chapter focuses on a review of literature as guided by stated objectives namely; to examine the extent to which temperature affects food security and establish the influence of precipitation on food security in Bukomansimbi district as detailed below:

Extent to Which Temperature Affects Food Security

The world's temperature has been on increase resulting to gradual warming of more than 3° C and affected land suitability (FAO, 2008). The intensity and magnitude of rainfall influenced changes in seasons, agricultural activities and ability to produce the required food for the population (Ibid). FAO adds that dry and cold weather conditions affect grains with moisture content (12%-14%) without dry infrastructure during low temperatures.

FAO (2008) states that by 2030, crop production will lower due to climatic variability and deteriorate food quality. MAF (2016) adds that during emergencies, access to food is a menace, and households prepare and eat a single meal per day. In addition, temperature variability caused emergency of pests like Furry Armyworms, which affected cereal crop fields and pressurized food security (FAO, 2016).

Further, warmer temperatures have changed rainfall patterns, melted snow and ice, heavy downpour hence floods and landslides in Kabale and Bududa districts (Climate Sense, 2011; GOU, 2017) disadvantaged 300,000 people as they lost property and food (GOU, 2017). This implies that, high tempera-

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