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**Abstract**

Traditional African communities have continued to rely heavily on indigenous knowledge to conserve the environment and deal with climate change effects in their agricultural practices (United Nations Environment Programme, 2008). Climate change generates extreme weather events such as drought and disaster threats to agriculture in developing countries (Yap, 2011). Uganda has been hit with more than unusual rainfall recorded in 1961/62, 1997/98 and 2007 and severe drought in 1993/94 (Hisali et al., 2011). Empirical evidence on effective use of indigenous traditional knowledge in enhancing resilience to disasters is scanty in Africa (Mavhura et al., 2013). Studies show that little has been done to incorporate indigenous knowledge into formal climate change mitigation and adaptation strategies (Nyong et al., 2007). The critics have branded indigenous knowledge to be backward and barbaric.

**Map of Uganda with study district: Mukono**



**Goal and Significance of the Study**

This study seeks to develop a framework that will integrate indigenous traditional knowledge (ITK) with formal science knowledge for better disaster and risk management planning in climate change adaptation in Mukono district, Uganda.

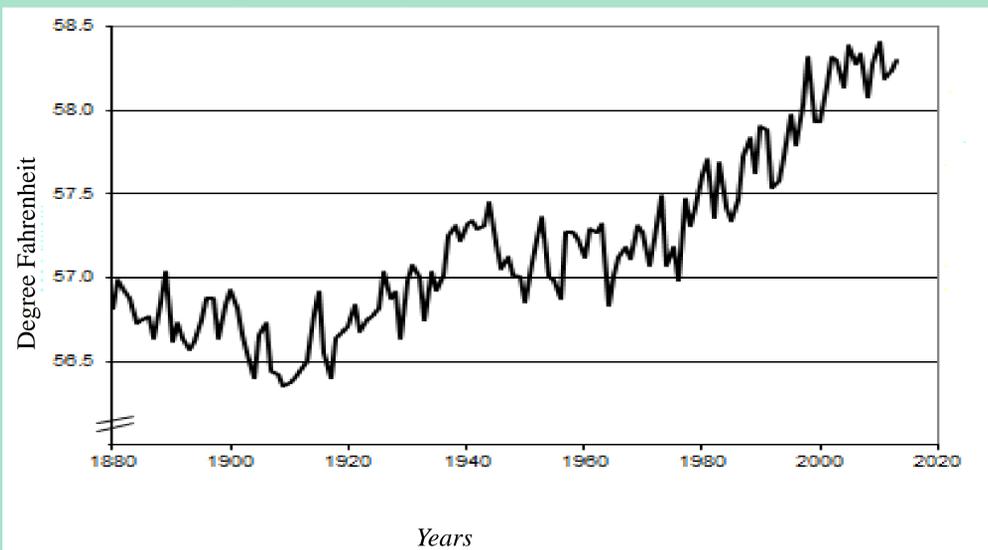
**Methodology**

Case study methodology will be used from one district in Uganda. The district represents diverse farming systems ranging from mixed crop-livestock to pastoral systems. Data collected from 32 households will be complemented with information from focus group discussions, key informant interviews and oral history.

**ITK parameters**

1. Meteorological parameters
2. Biological (plants & animals) parameters
3. Astronomical parameters
4. Soil characteristics
5. Traditional farming practices – cropping, water management

**Average Global Temperatures, 1880 - 2020**

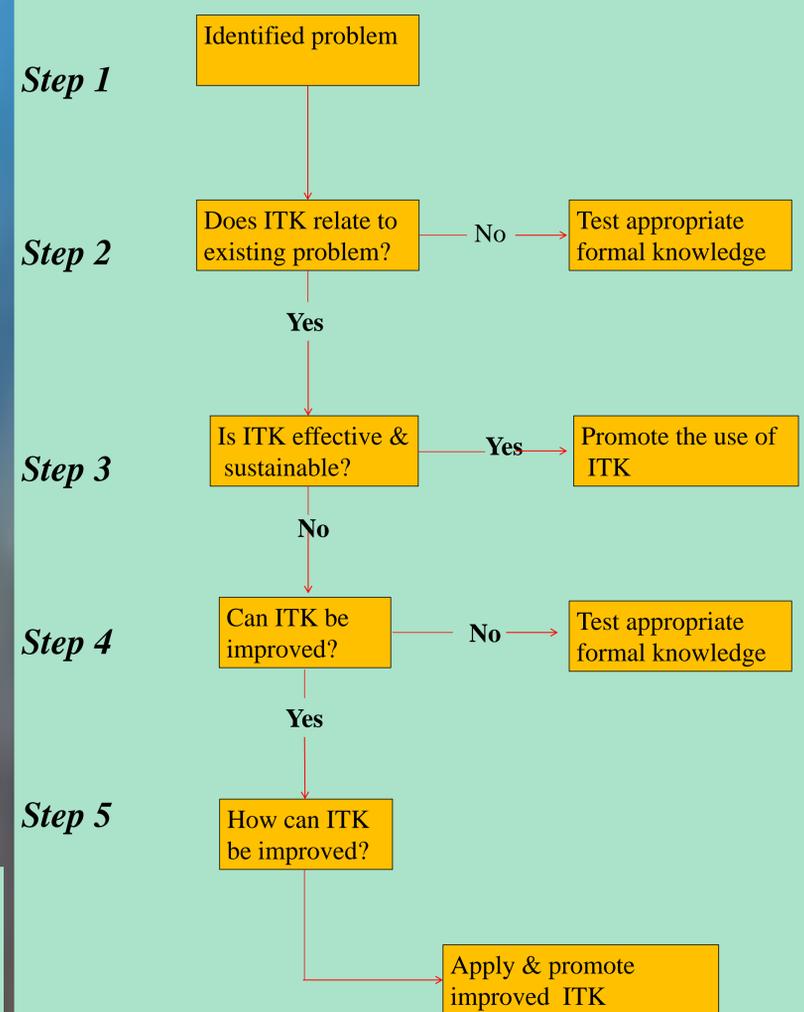


Source: NASA GISS

**Climate Conditions in Uganda**

- Annual average high temperature: 26.6 °C
- Annual average low temperature: 17.2 °C
- Average temperature: 21.9 °C
- Average annual precipitation: 1224 mm

**Anticipated Decisions on ITK Use**



**References**

Yap, Nonita (2011). Disaster Management, Developing Country Communities & Climate Change: The Role of ICTs. *University of Guelph*.  
 Nyong, A., Adesina, F., & Elasha, B. (2007) The value of indigenous knowledge in climate change mitigation and adaptation strategies in the African Sahel. *Mitig Adapt Strateg Glob Change* 12: 787-797.

**Related Literature on Indigenous Knowledge**

- Onset of rains is predicted by the appearance and colour of the clouds, the direction and strength of the wind, temperature and humidity, lightning and thunder, and appearance of less dew on the grass
- Sprouting of young shoots of the *Mvule* tree indicates onset of the rainy season in Uganda
- Use of ash, granaries and mud silos for seed preservation
- Practice of shifting cultivation, scarecrows and mulching for crop production and management
- The Voi community in Kenya predict drought when there is an absence of flamingos, and when certain trees shed their leaves



Indicates that the next main rainy season will be normal



Occurrence of a halo moon (moon surrounded by yellow ring) indicates high likelihood of heavy rain during the main and short seasons in Lushoto.

Source: <http://www.slideshare.net/guarclimate/indigenous-knowledge-poster-for-maren?related=2>