



Adaptation to Climate Change: The Case of Pastoral Communities in Selected Districts along the Cattle Corridor of Uganda



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Background

Climate is the basis of the existence of all flora and fauna. Whereas climate influences human activity, the reverse is equally true and thus the need to give it attention. Uganda as a whole is portrayed to be vulnerable to climate change (Thornton *et al.*, 2006) and the most vulnerable sector is agriculture, the backbone of Uganda's economy. Because agriculture is largely rain fed in Uganda, climate affects its production. Pastoralists however, have adapted to the effects of climate change in a number of ways. This study therefore examined the major climatic shocks in the past three decades and the adaptation strategies that have been employed by the pastoralists in the cattle corridor of Uganda.

Methodology

This study was conducted among selected pastoral communities in Kiruhura and Luwero districts located along the cattle corridor of Uganda. Qualitative and quantitative data was collected using direct observations, discussions, interviews (Individual and group based) as well as through conversations. SPSS was used to analyze quantitative data and qualitative data was analyzed by development of emerging themes.

Findings

Frequent and prolonged dry spells and increased cattle disease outbreaks were the major shocks that pastoralists experienced. The intensity of the shocks reportedly increased over time (reflecting on the last thirty years). The abnormally longer periods of absence of rain from November through March, coupled with high atmospheric temperature did not only affect cattle production but also rendered water and grasses or pastures unavailable for the cattle. During the months of July to October, there are very minimal rains, often drizzles yet scanty. The swamps, which are known to be the major animal water points, dry up (Fig 1). Competition between herds and wild game, agricultural activities like irrigation and inadequate management of the water source also contributed to the drying. As a consequence of wild game and cattle sharing same water points, the frequency of Contagious Bovine Pleuro-pneumonia (CBPP) and Foot & mouth diseases (FMD) has reportedly increased - FMD is more frequent than CBPP.

Pastoralists have learnt to co-exist with the situation for their benefit. They have developed ways (strategies) to minimize the intensity of the effects of adapting to the major shocks (Table 1). The most common strategy to water scarcity was/is construction of water dams (Fig 2), which are still used communally.



Fig 1: A dried up swamp in Kiruhura district due to drought



Fig 2: A communal dam in Kiruhura

Table 1: Adaptation strategies employed by the pastoralist against the major shocks

Climatic Shocks	Adaptation strategies	%
Prolonged droughts	Digging and construction of wells and dams	29
	Movement of cattle in search of water and pastures. In Kiruhura, towards L. Kacheera and in Luwero, towards the L. Kyoga tributaries	24
	Migration to areas with water and pastures	23
	Buying and hiring of water and pasture lands	12
	Resorting to raring hybrids and exotics especially in Kiruhura	8
	Selling of some cattle to reduce on the stocks that are manageable	4
Animal diseases (CBPP & FMD)	Vaccination	41
	Quarantine	26
	Treatment using of Veterinary doctors	22
	Treatment by pastoralists them selves	4
	Use of local herbs for example: "mululuza", "ganja", Animal urine	4
Selling off cattle	3	

Recommendation

The ability of pastoralists to harvest, store and efficiently use water as they minimize disease spread needs to be enhanced.

Reference

Thornton *et al.* (2006). Mapping Climate Vulnerability and Poverty in Africa.

Acknowledgements

RUFORUM for the funding, Makerere University, and the pastoral communities in the study area