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Assessing the Perceptions, Practices and Role of Pastoralists' Indigenous Knowledge Systems in Managing Climate Change in the Drylands: A Case Study of Sanga Sub-county, Kiruhura District.

Climate change is not only a threat to human freedoms but also a limit to development choices (UNDP, 2007). This has been recognised by development planners and policy makers both internationally and locally, based on which an interplay of innovative and more sustainable management strategies have been suggested. One of these being the incorporation of indigenous knowledge systems among key priorities in development planning. In Uganda, there is still a need to evaluate and document the indigenous knowledge systems among dryland pastoralists. This population is known to be well adaptive to the climate variability common to these regions. In this study, I aimed at establishing local perceptions in regard to climate change; the indigenous knowledge systems employed by pastoralists and their role in managing climate change, with Sanga sub-county in Kiruhura district as the case study area. A qualitative research was done involving a total of 5 parishes selected randomly, with a total of 150 participants. These were selected purposively and they consented to participate, that is, 30 people from each parish, of which 10 were elderly. A total of 50 elderly persons were interviewed, while the remaining 100 were administered open-ended questionnaires. Data were then entered into the Statistical Package for the Social Sciences (SPSS) and MINITAB computer packages, summarised into frequencies and percentages. Among the key findings of this study is the fact that dryland pastoralists have clear understanding of the concept of climate change and the trend it has taken and as a result they have adopted mitigation and adaptation measures for climate change that they have integrated into their indigenous knowledge management systems. The majority of the pastoralists claim that climate change has been mainly human-induced through over grazing and massive deforestation among other causes. Therefore, they tend to practice re-afforestation and afforestation as key mitigation strategies in as much as a few also mentioned selective clearing of farms as one of the measures. Also, cross-breeding, dams and building of wells as well as agro-forestry were reported as some of the adaptive measures. Noteworthy, their traditional adaptation measures are now more marketbased than ecological or bio-physical. This is to help them cope with the increased costs of living mainly as a result of the effects of climate change. Although their indigenous knowledge systems have sustained them for generations through the climate variability characteristic of dry lands, the present climate change era has over-stretched these existing management systems and, thus, they acknowledge the acute necessity to adopt and integrate the science-based strategies. However, westernisation/globalisation and the present education system were reported as some of the leading threats to the sustenance of these indigenous knowledge systems. In conclusion, since pastoralists" indigenous knowledge systems are functional and dynamic in nature, with proven relevance in addressing the present climate change, they should as much as possible, and where sustainable, be integrated into science-based strategies. This will ensure and enhance practicability; acceptability, cost-effectiveness and efficiency in local contexts which if modelled up-scale can contribute to sustainable development in the long run. In this regard, documentation of pastoralists" indigenous knowledge systems as well as acknowledging the role of children and the youth as important linkages between the traditional and modern knowledge systems should be prioritised and facilitated as much as possible by development planners and policy makers.

Key Words: Perceptions, Practices, Role, Pastoralists, Indigenous Knowledge Systems, Climate Change, Dry lands, Kiruhura District.