



INTEGRATION OF INDIGENOUS KNOWLEDGE WITH ICTs IN COPING WITH EFFECTS OF CLIMATE CHANGE ON AGRICULTURE IN KAJIADO COUNTY, KENYA

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Problem statement 1/2

- Indigenous knowledge systems were altered and disrupted in Africa during the colonial period.
- Indigenous peoples are the ones affected by climate change the most, though having contributed least to its causes.
- This is largely as a result of their historic dependence on local biological diversity, ecosystem services and cultural landscapes as a source of their sustenance, wellbeing, and resilience.
- To help cope with the negative impacts of anthropogenic climate change, local people employ traditional indigenous-knowledge based practices.
- Moreover, indigenous knowledge systems (IKS) content and development in Africa are not adequately researched and documented.
- Currently, many indigenous knowledge systems are at risk of becoming extinct because of rapidly changing natural environments and cultural changes on a global scale.

Problem statement 2/2

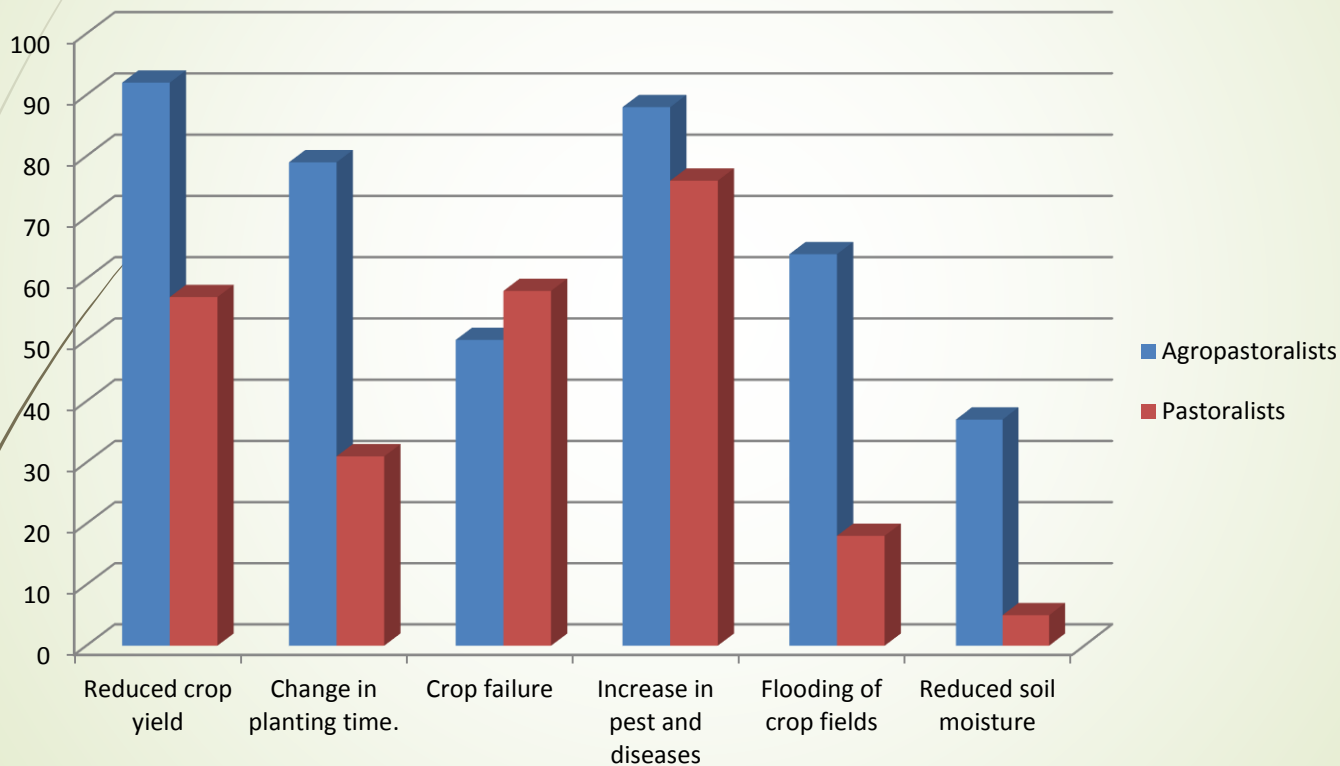
- The main reason for IK not been captured and stored in a systematic way is that it is handed down orally from generation to generation
- In the current world, oral paths are being blocked and people are no longer staying in homogenous community blocks, making it difficult to transfer information from one generation to another.
- The use of mobile phones, the Internet, community radio and participatory video are increasingly part of climate change responses.
- ICTs have the potential to foster inclusiveness and participation in the design and implementation of adaptation processes through accessing relevant information & social networking

Methods

- Data was collected in the sub locations of Rombo, Kumpa and Oloyiangalani that differ in distance from the administrative Kajiado town, in Kajiado County.
- The study integrated both qualitative and quantitative methods of data collection.
- Quantitative: Primary data was collected through structured questionnaires. Secondary data was collected from published sources such as books, journals and reports on previous studies.
- Qualitative: Focus group discussions (FGDs) and Key Informants interviews.
- A total of 200 questionnaires were administered, 100 in Kajiado South and 100 in Kajiado Central.
- The collected data were analysed using Statistical Package for Social Sciences (SPSS). Data collected through personal interviews were subjected to descriptive analysis then summarized in form of frequency tables, charts and graphs.

Key Findings

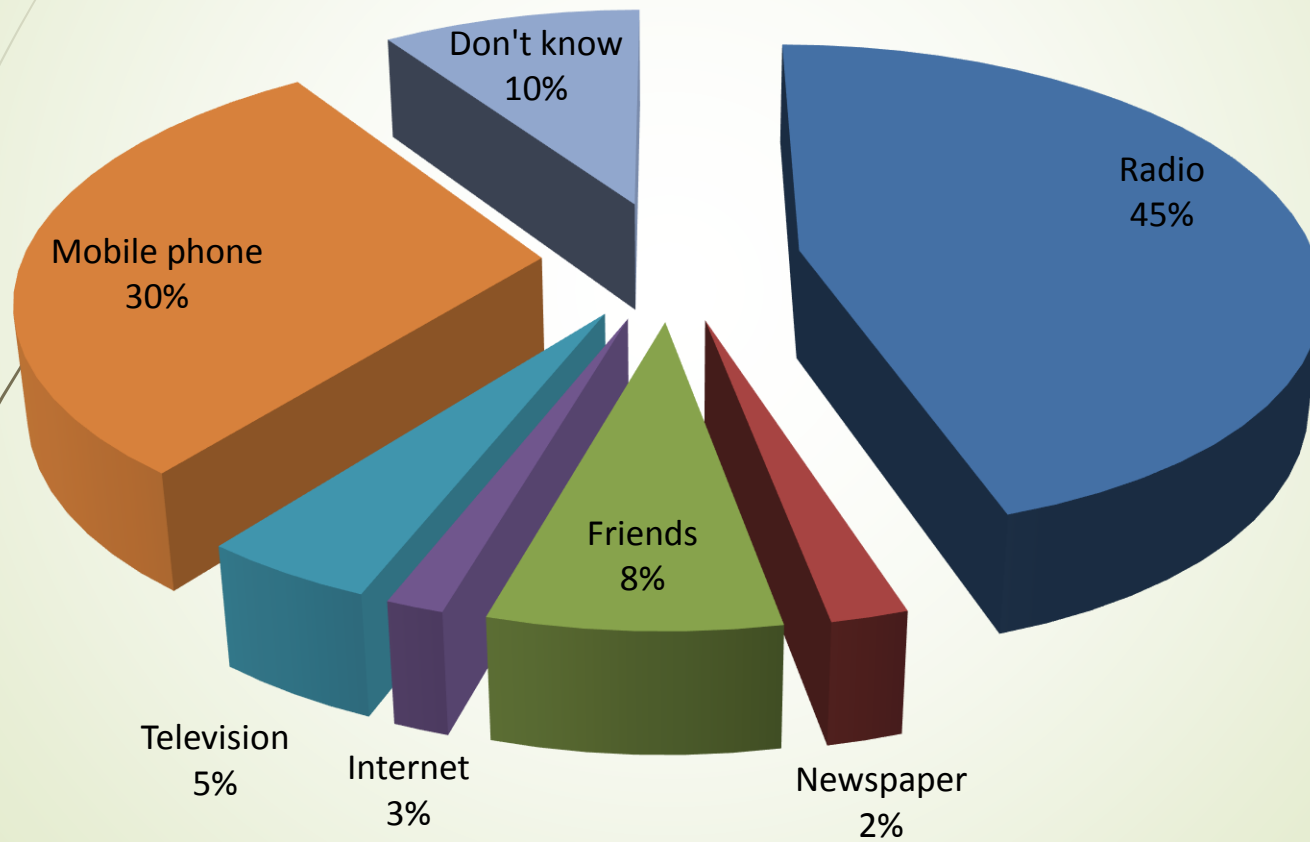
Impact of climate change at the farm level



Main IK strategies practiced by farmers

- ✓ Planting drought-tolerant and pest-resistant varieties.
- ✓ Water conservation techniques to improve water retention in fragile soils.
- ✓ Food preservation techniques such as fermentation, sun drying, use of herbal plants, ash, honey, and smoke to ensure food security.
- ✓ Seed selection to avoid the risks of drought.
- ✓ Mixed- and or intercropping and diversification.
- ✓ Soil conservation through no tillage and other techniques.
- ✓ Use of early warning systems to predict short, medium and long term climate changes.
- ✓ Transhumance to avoid draught and risk loss of livestock.
- ✓ Use of supplementary feed for livestock; reserving pasture for use by young, sick and lactating animals in case of drought; disease control in livestock and grain preservation.
- ✓ Use of indigenous techniques in the management of pests and diseases.
- ✓ Culling of weak livestock for food.
- ✓ Multi-species composition of herds to survive climate extremes.

Key sources of information for farmers



Conclusions/Recommendations

- Ways of integrating the rich indigenous knowledge with formal knowledge should be the new way to go for adaptation of climate change and variability.
- The study reported high usage of some ICTs such as Radio and mobile phones as the main sources of information for farmers. Integration of Indigenous knowledge with such ICTs can really help in the dissemination of indigenous strategies useful for coping and adapting to climate change impacts.
- However, it should be noted that Indigenous knowledge should not be documented to compete with scientific knowledge but rather should be used to compliment the modern/formal knowledge