Climate change and migratory practices of pastoralists: challenges and implications for planning in Nigeria

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Abstract

The study explores climate change and migratory practices of pastoralists, their challenges, and implications in selected rural communities of Okeogun, Oyo State, Nigeria, using focus group discussions of Indigenes and Interviews with Pastoralists. The study also explored and showed the need for planning intervention in climate change/variability induced migratory practices of pastoralism by specifically emphasizing the need for a shift from the traditional migratory practice of pastoralism to a modernized ranching method.

Keywords: *Climate variability, Pastoralist, Migration, Planning, Nigeria*

Introduction

Climate change and variability is consistently on the increase and its impact constitutes major challenges in many communities in Nigeria. In Nigeria, several studies have shown and confirmed the increase in climate change/variability and resultant impacts as major problems in many of the communities in the country (Agbola and Fayiga, 2016; Ozor et al, 2015; Odjugo, 2010and Nwafor, 2007). For instance, studies by Odjugo (2010) and Adefolalu (2007) revealed that there is an increase in temperature and decrease in rainfall in the semi-arid region of Nigeria. In addition,research confirmed decreasing rainfall in Nigeria especially in the northern region of the country (Odjugo2005;Odjugo, 2009). Pastoralism is one of the many livelihood activities that is being seriously affected by climate change and variability in Nigeria. This is because of reduction in rangeland productivity, forage quality and rainfall in the Sahel region, which increases the vulnerability of livelihoods of pastoralists, and therefore triggers their southwards movement towards Guinea Savannah region (Basset and Turner, 2007).

Olabode and Ajibade (2010) explained that during the dry season, when there is scarcity of pasture for livestock to feed on, the herders move their animals to places where they can get enough pasture and migrate back once rainy season sets in. Pastoralism is discovered to be a good adaptive strategy because it enables sufficient access to pastures and water resources under dry land conditions. Arilesere (2014) explained that for cattle to have any chances of survival as the grazing regions become hotter and drier, herders will have to migrate southward. In other words, declining rainfall and reduced rangeland productivity contribute to the migratory practices of pastoralists in the country and this has its challenges and also implications for planning in the country. Based on this, a study became necessary to assist planners in developing the direction to which initiatives could be

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tailored in order to manage climate change and migratory practices of pastoralists in Nigeria. Using focus group discussions of Indigenes and Interviews with selected Pastoralists, the study explored the indigenes' and pastoralists' perspectives of climate change and pastoralism, their challenges, and climate impacts in selected rural communities of Oke-ogun, Oyo State Nigeria. The study explored and made recommendations for planning implications/interventions to manage climate change and migratory practices of pastoralists in the country.

Methodology

The research was undertaken by using a multistage sampling technique. The first stage was identification of Areas where pastoral activities were dominant in Oyo State. Okeogun area of Oyo State was selected. Three Local government areas (LGAs) were purposively selected because of the predominant activities of pastoralist in the areas. These LGAs are Saki-East, Oorelope and Atisbo Local Government Areas (LGAs). The third stage involved the selection of four rural settlements from each of the LGAs where pastoralism is practiced by local communities. The fourth stage was the identification of the compounds where the pastoralists reside. This was done using snow balling approach. A household head representing the household in the selected houses were respondents to the interview. Focus Group Discussions (FGDs) were also organised for Indigenes in selected households in each community.

Findings

The study revealed the indigenes' and pastoralists' perspectives of climate variability and pastoralism that recently, there has been rainfall variability (delayed rainfall, reduced rainfall and early stoppage of rainfall), high wind and high temperature, affecting the availability of pastures and water for animals. The study also discovered that the major reason for migratory practices among the pastoralist in Nigeria were due to climate change induced drought and desertification, affecting the availability of water and pasture, as well as the Boko-haram Insurgence in the Northern part of the country.

The study also revealed the challenges and implications of climate change induced migratory practices of pastoralists to include conflict between herders and farmers due to competition for water and arable land, pastoralists invasion and aggressive claims of land, epidemiological risk-contact and spread of contagious diseases, and degradation and overexploitation of the natural resources needed for pastoralism. Based on these findings, it was evident that challenges - and effects - of climate variability induced migratory practices are enormous, and therefore have far-reaching implications; hence, the need for planning interventions to be undertaken in the country to reduce the impacts. The study explained the planning implications of climate change and pastoralism by suggesting the need for a paradigm shift from the usual traditional migratory practice of pastoralism to a modernized ranching method.

According to Paul, Mathew, Eliahman and Zephaniah (2014), modern ranching method is a better option compared to the traditional migratory pastoralism because ranching method due to its fencing is able to control the transfer of livestock diseases from one zone to another. Also cross border migration and inter-clan territorial conflict is reduced. Finally, paddocks within the fenced ranches make livestock and rangeland management easy to undertake. There are evidences of

countries where modernised ranching method has been successful. For instance, Argentina is an example of country where cattle ranching has been successful. Cattle ranching has persisted in Argentina for years despite strong challenges like political, economic (market shift) and environmental forces (climate change issues like drought). However, they have reduced their vulnerability to stresses and increased their resilience to climate change through maintaining small herds, professionalising (modernising) ranching activities through a more intensive use of land, and in some cases, diversification to non- ranching activities (Benjamin, 2012). Another case of successful ranching method is Wajir in Somali. Here pastoralists adapted to the changing climate by using hay and corn to feed the ranched livestock during the dry and drought spells; truck water to access pasture areas far away from watering point during drought; introducing Cushitic breeds, as well as harnessing technical assistance from livestock extension workers and NGOs; breeding improved (and smaller) herds; and growing fodder for use during drought (Fat- ha, 2016). Bostwana is also another country where modern ranching was successful. This fencing model was used to control degradation in the rangelands, through better range management and to reduce grazing pressure, enhance the quality and quantity of livestock production (Paul et al, 2014).

Based on these evidences, there is therefore the need for a paradigm shift from the usual traditional migratory practice of pastoralism to a modernized ranching method. This can be done by planners by doing inventory of land to ascertain the quantity, quality and suitability of land to be used for the modernized ranching, and identifying and locating accessible surface and groundwater sources in the ranch zones. Acceptability of this ranching method by pastoralists who have maintained their traditional migratory method, may require further insight from learnings from where ranching methods have been accepted by pastoralists, established and successfully implemented. Also vulnerable pastoral communities should be informed of weather and climate information including all the other stakeholders. Finally, there is need to embrace participatory planning approach by involving all the stakeholders in every stage of the planning process.

Conclusion

The study concluded by conversing the need for urgent planning intervention in climate change/variability induced migratory practices of pastoralism by suggesting: the need for a shift from the traditional migratory practice of pastoralism to a modernised ranching method; creating awareness on the implications of climate change and pastoralists migratory practices; and the need for pastoral communities to be considered in all the various interventions and decision making that are organised for them by planners in the country. This can be made effective by embracing participatory planning approach by involving all the stakeholders in every stage of the planning process; and finally the need to inform and distribute weather and climate information to vulnerable pastoral communities and all the other stakeholders.

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