

Water Scarcity as a Barrier to Food Security and Climate Change Adaptation for Women Farmers in Semi-Arid Ghana

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INTRODUCTION

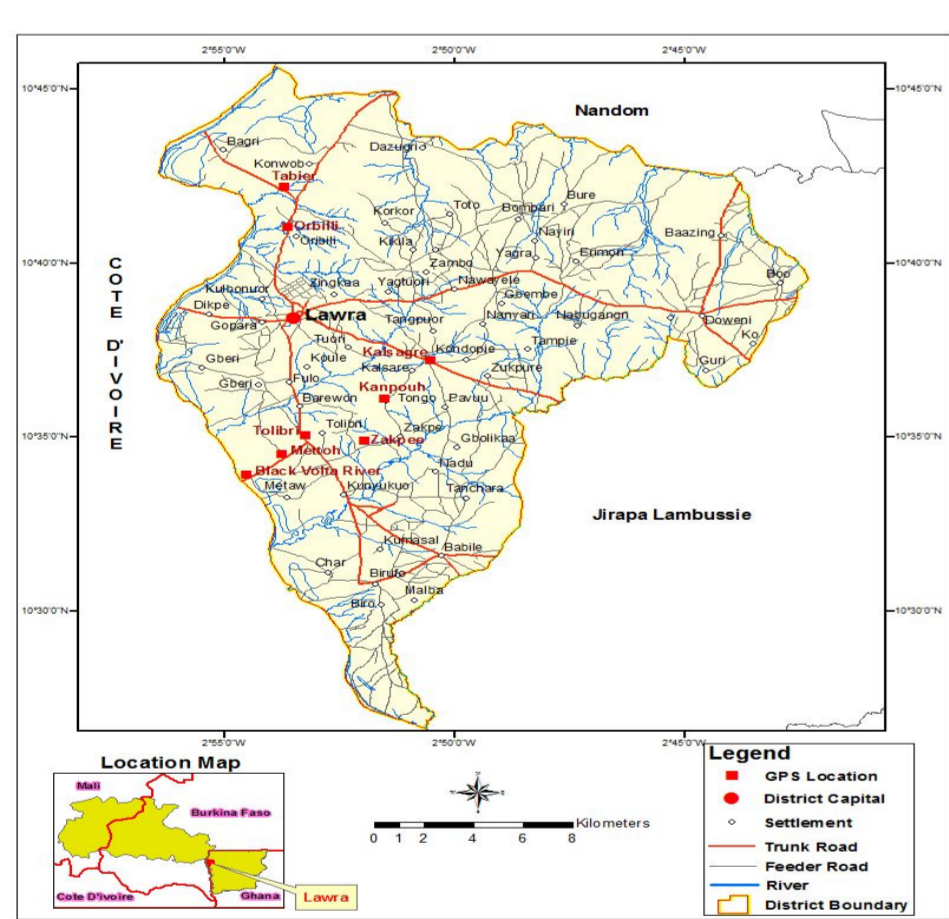
Food security among vulnerable households in semi-arid Ghana is being challenged by water scarcity and exacerbated by climate variability and change. The issues these create interact with pre-existing social, economic, cultural and political inequalities to shape vulnerability, with limited adaptive capacity. Women farmers are estimated to be among the most vulnerable due to their multifaceted roles and limited access to land and credit for commercial production. Focusing on groundnut farmers, majority of whom are women, this study isolated the drivers of vulnerability and the adaptive responses adopted in a water scarce landscape.

RELEVANCE

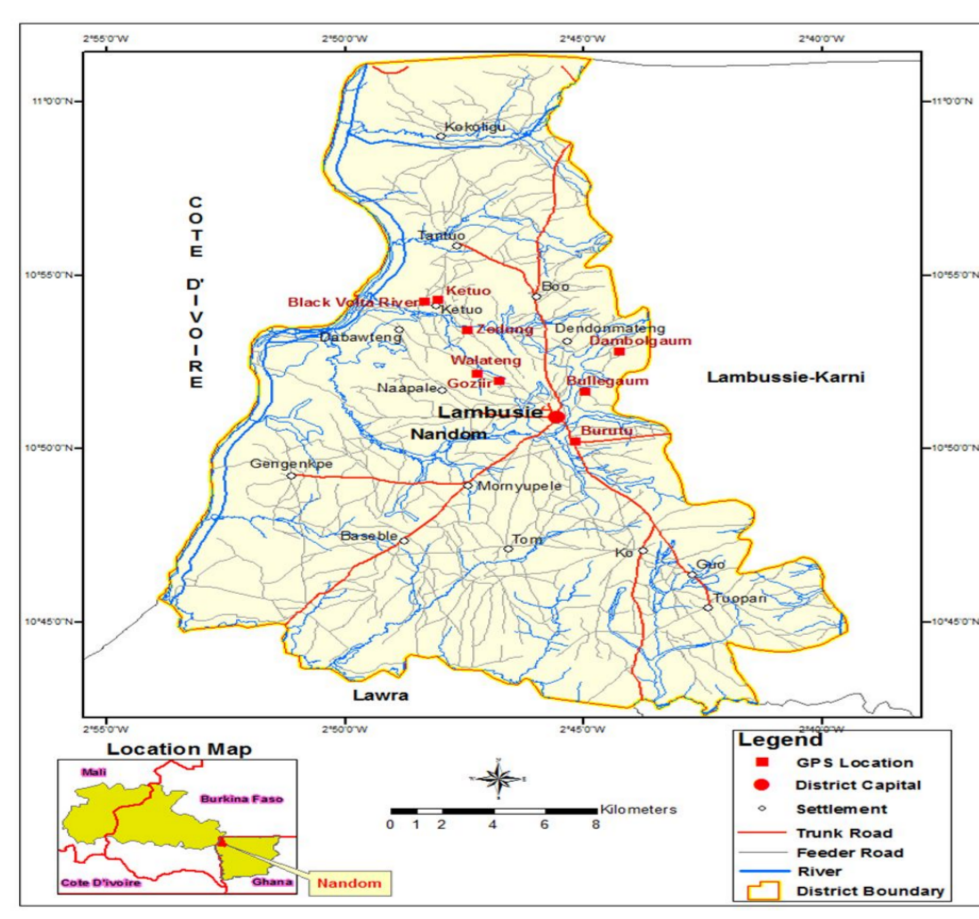
The study aimed at contributing to the emerging literature on vulnerability, adaptive capacity, intersectionality and social differentiation, particularly in resource-poor and climate-sensitive societies. From a development perspective, the study is at the interface of multiple Sustainable Development Goals (SDGs) but specifically, it contributes to SDG 13 (climate action) by providing a scientific basis of catalyzing actions to improve adaptation strategies in climate induced changes to water resources in semi-arid Ghana.

METHODOLOGY

The study involved a total of 103 groundnut farmers from four communities in the Upper West Region of Ghana: Kalsagre, Tolibiri, Goziri and Ketuo. Primary data was obtained from focus group discussions, key informant interviews and semi-structured questionnaires.

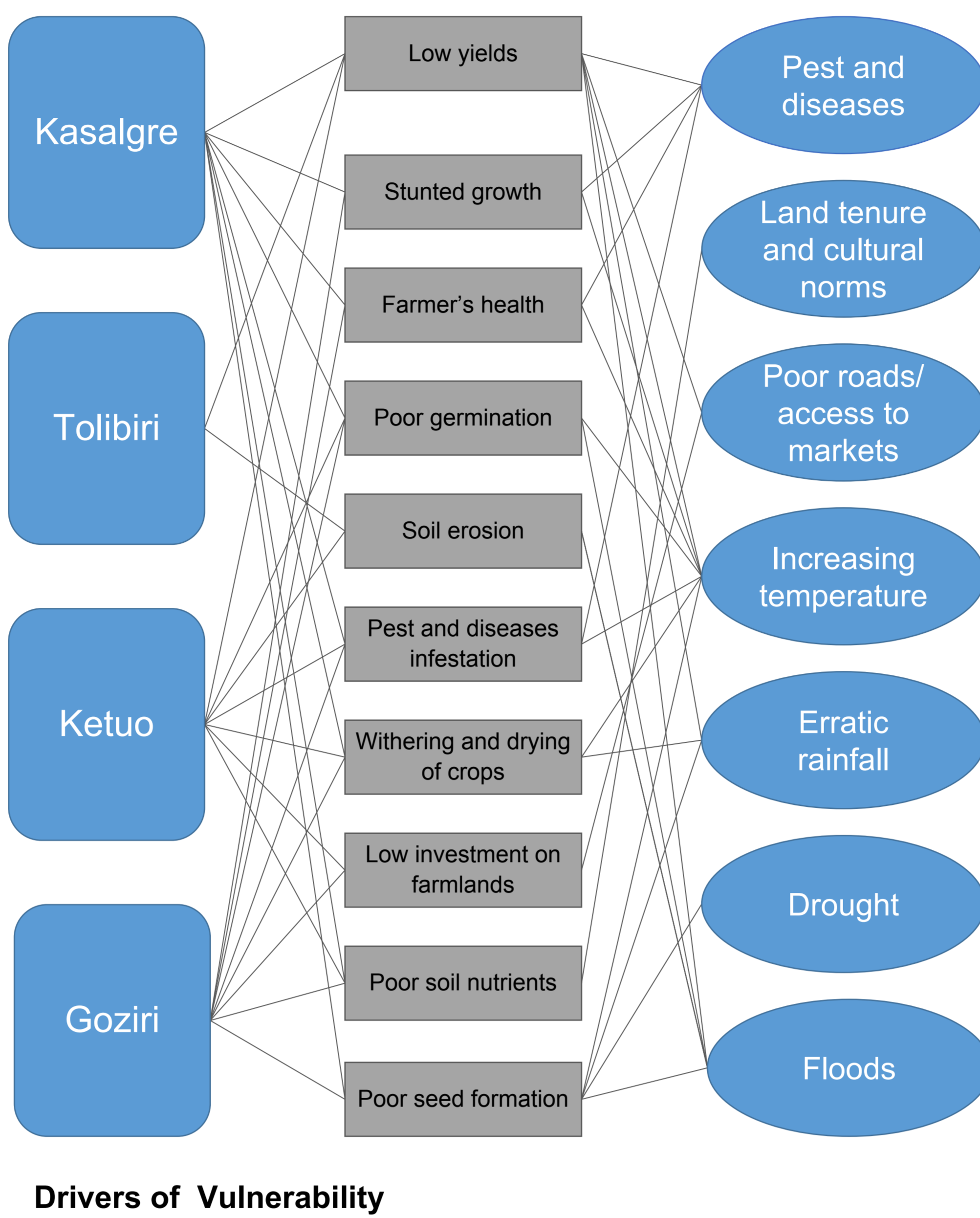


Map of Lawra District, Ghana

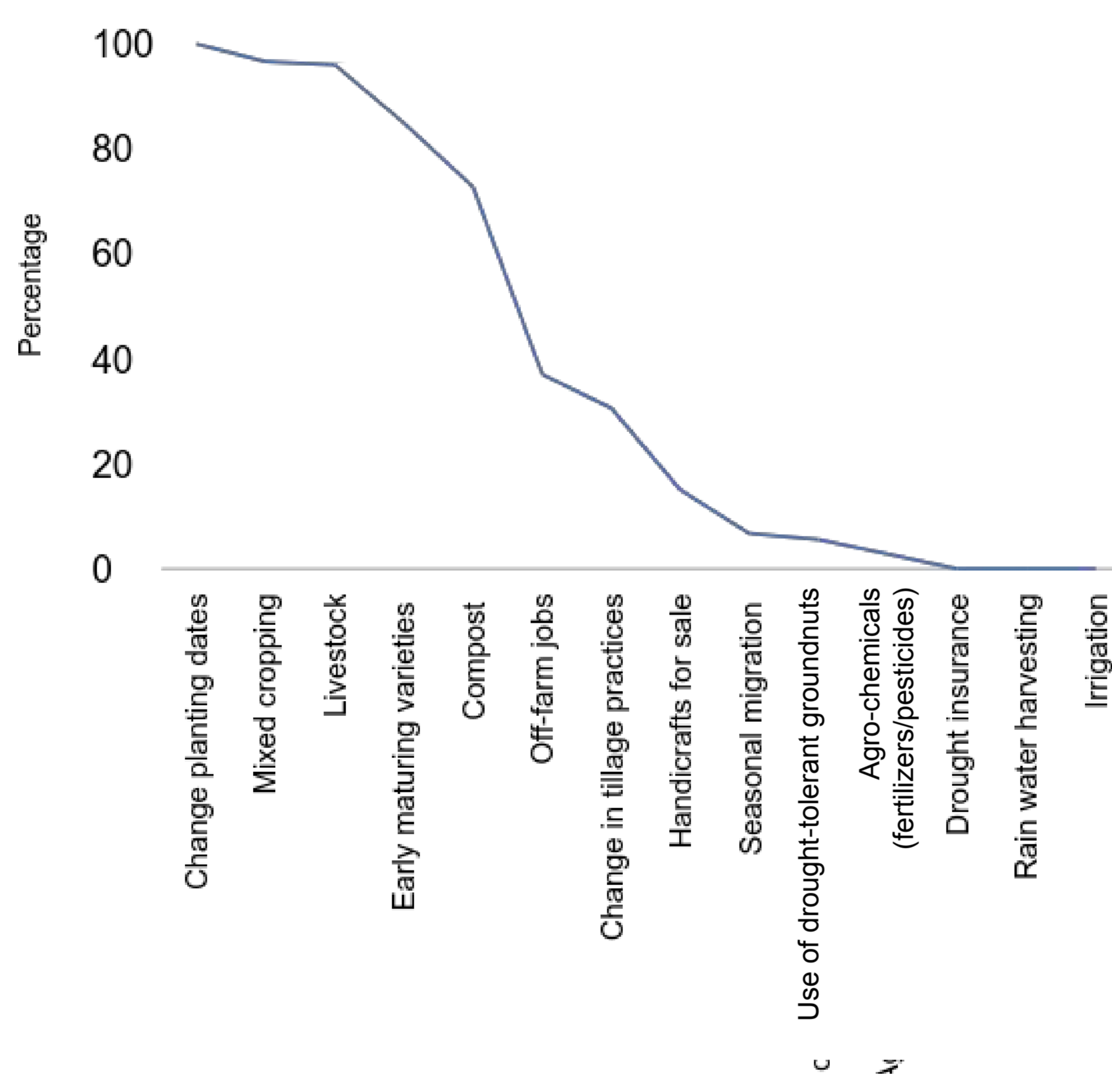


Map of Nandom District, Ghana

RESULTS



Drivers of Vulnerability



Adaptation strategies by groundnut farmers

DISCUSSION

- Climatic drivers as well social, economic and political conditions contribute to intensifying vulnerability and shaping the ability of women farmers to adapt to current and future climate change.
- An intersection between climatic and non-climatic factors shape adaptation strategies adopted by women farmers.
- On-farm strategies include sustainable land management practices with less emphasis on water management strategies, despite erratic rainfall patterns.
- Off-farm strategies such as *pito* brewing and Shea butter processing have become important means of increasing livelihood resilience and wellbeing of women farmers.
- Achieving water security is one of the major challenges faced by communities in semi-arid areas and this study recommends among others:
 - Building long-term resilience through stronger institutions.
 - Investing in cost-effective and adaptive water management.
 - Promoting technology transfer among women.
 - Improving adaptive capacity and responding to changes in water demands through sustainable management of water resources.



Groundnut farmers preparing the land for planting

KEY REFERENCES

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