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Future African Savannas

POLICY BRIEF

Silvopastoral system in the mountainous landscape of Méri – Credits for all images: Author

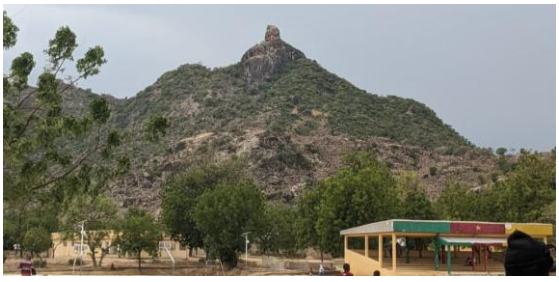
TRADITIONAL ECOLOGICAL KNOWLEDGE AND PRACTICES FOR DROUGHT RESILIENCE IN SEMI-ARID AFRICAN SAVANNAS

Agricultural drought is a climate-related hazard that greatly affects smallholder farming communities in the semi-arid savannas of Sub-Saharan Africa, where people rely on agriculture for their livelihoods. Efforts have been made at the international level to achieve drought resilience and sustainable development in these areas. This policy brief aligns with these efforts by providing an evidence-based approach for the effective inclusion of traditional ecological knowledge in policymaking and scientific advancements.

Silvopastoral system in a mountainous semi-arid savanna landscape: the integration of trees, shrubs and grazing area to support drought resilience.

OVERVIEW

The research was conducted to show the potential of traditional knowledge in building climate resilience in the farming community of Méri, a subdivision of the semi-arid Far North Cameroon. About **75%** of the surface area here is part of the Mandara mountain belt, making it a **mountainous agroecosystem.**



Smallholder farmland in a drought-prone and sloppy terrain illustrating the use of stone bunds to enhance soil conservation and water retention.

POLICY RECOMMENDATIONS

1. **To promote traditional knowledge**, **community leaders or members should be included in governmental planning and decision-making**. Their contribution is important when designing climate change adaptation and mitigation strategies as they are the ones who stand to benefit from the implementation. Community members should also engage in partnerships to promote knowledge sharing.
2. **Governments should recognize and respect the land rights of communities.** This can enhance the sustainable implementation of indigenous practices.

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KEY FINDINGS

- **Communities rely on their traditional ecological knowledge** to recognize climate change and manage agricultural droughts. They use reliable soil and water management practices passed down from generation to generation, including farming techniques such as stone bunds, terraces, and traditional ridges.
- The average resilience capacity index in Méri is **26.1%**, representing the percentage at which a household can maintain progress after a shock, such as an extreme weather event. This resilience score is quite important, considering the reliance of communities on traditional knowledge. As such, the latter should not be neglected in decision-making.
- Male-headed households are more resilient to agricultural drought and food insecurity than female-headed ones – a result the non-uniform access to agricultural resources born of a patriarchal society. The variables driving this resilience are **association** and **access to agricultural markets** for women, and **social networks**, **seeds**, **livestock, feed,** and **fertilizer** for men.

NOTE

The outputs of this research have been obtained through climate and remote sensing analysis, gender segregated focus group discussions, and interviews coupled with field observation. This triangulation of data is important for a holistic **understanding of the socio-ecological context** in semi-arid savannas. At the same time, the purpose of the gender lens is to recognize the non-uniform impacts of drought faced by women and men in order to provide more **inclusive** recommendations.

CONCLUSION

Smallholder farming communities depend on traditional ecological knowledge to manage extreme weather events. It is vital to recognize this dependance in decision-making in order to achieve climate resilience in African savannas and the sustainable development goals (SDGs). The targeted SDGs in this policy brief are:

SDG 2: Zero Hunger

SDG 5: Gender Equality

SDG 10: Reduced Inequalities

SDG11: Sustainable Cities and Communities

SDG 13: Climate Action

SDG 15: Life on Land

SDG 17: Partnerships for the Goals.

REFERENCES

- FAO. (2019). *Analyzing Resilience for better targeting and action – Resilience Analysis in Borno State*. https://openknowledge.fao.org/handle/20.500.14283/ca3732en
- Taponfack, M.Y.M. (2025). Traditional knowledge and practices for drought management in the semi-arid savannah of Méri, Far North Cameroon. Master's thesis, Université Félix Houphouët-Boigny.

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