

# Non-local cattle breed farmers' perception of climate variability and adaptation strategies in Benin

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## Background

- Increased introduction of zebu breeds from semi-arid zones into the sub-humid and humid zones of Benin, the belt of West African shorthorn taurine breeds (Fig. 1).
- Environmental and anthropogenic challenges are hindering the full expression of their potential for milk and meat production.



Fig. 1 Non-local and local cattle breeds raised in Benin.

- ❖ **Aim of the study:** document the perception and adaptation strategies of non-local cattle breed herders under climate change (CC).

## Material and Methods

- Ten municipalities in three vegetation zones (Fig. 2).
- Semi-structured questionnaire.
- 305 randomly selected non-local cattle herders were interviewed.

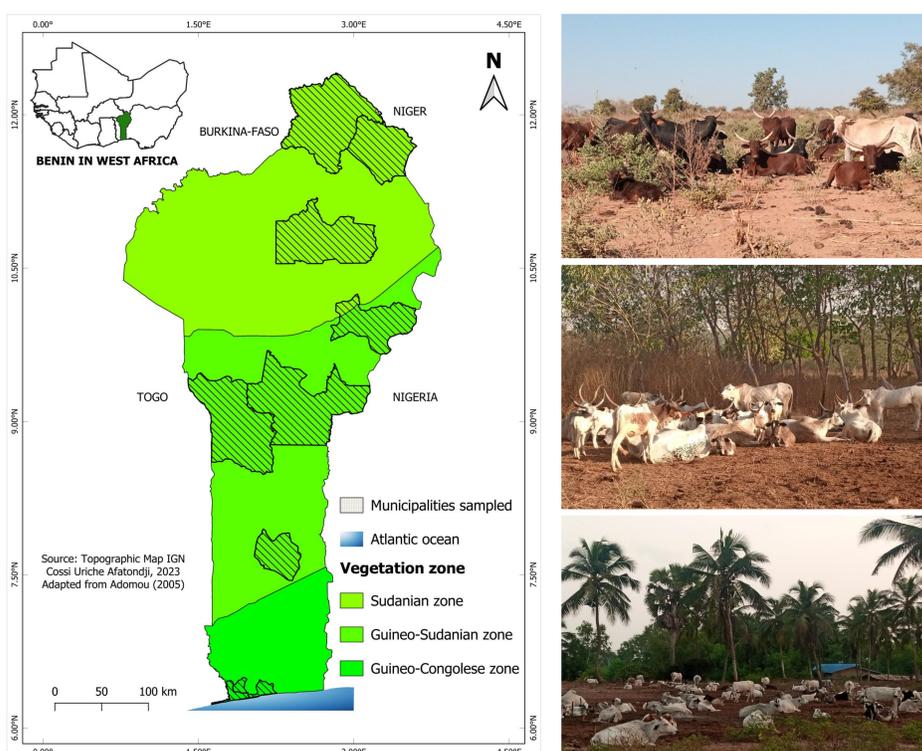


Fig. 2 Map of the study locations.

## Results

- Majority of herders was aware of decrease in rainfall pattern (74.4%) and increase in temperature (88.2%), (Fig. 3).
- Climatic changes impact negatively milk yields (99.7%), herd reproduction (97.0%), herd size (74.1%), and threaten livestock productivity (92.5%).

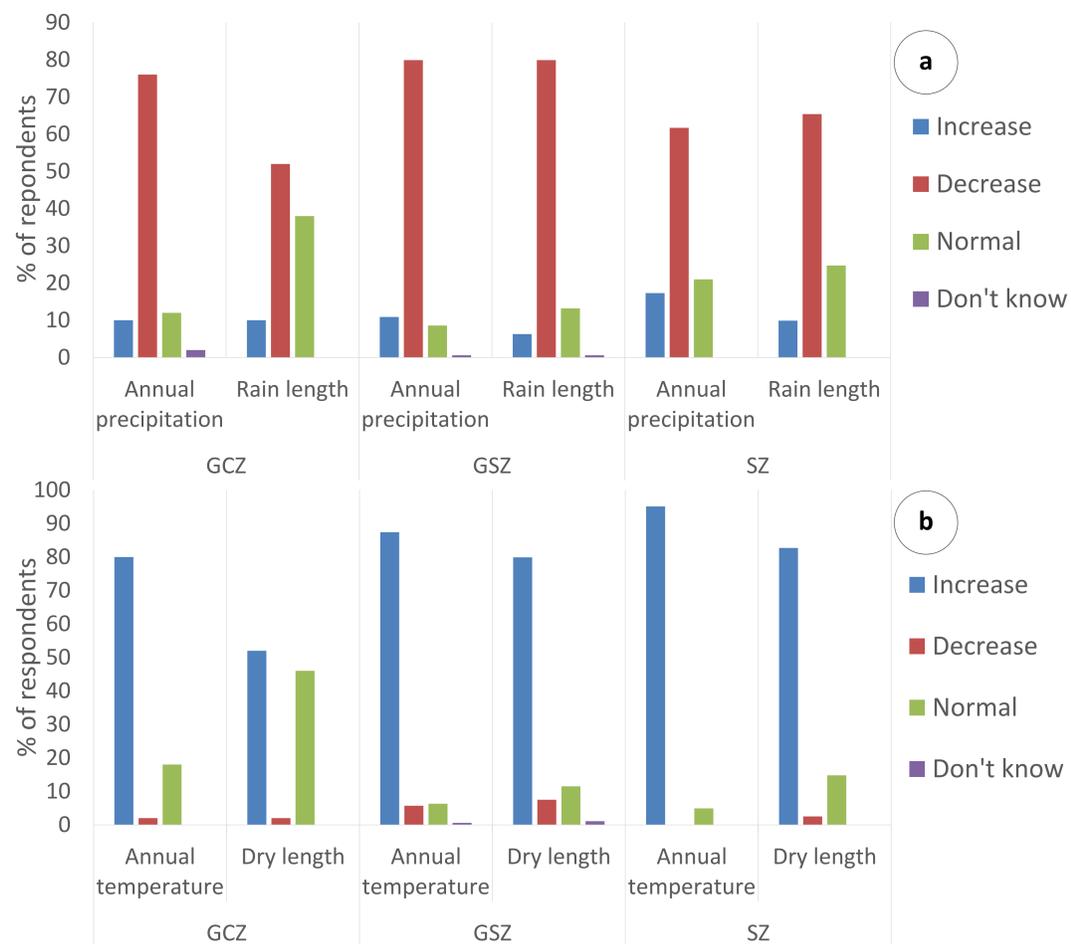


Fig. 3 Herders' perception of precipitation (a) and temperature (b) face CC.

- Some adaptation strategies: crop residue feeding (80.7%), long-distance mobility (20.0%), and shift to local taurine breeds (14.1%).
- Vegetation zone and breed composition of the herd were the most important variables affecting cattle herders' choice of long-distance mobility.
- Herders in Guineo-Congolese zone did not report long-distance mobility as an adaptive strategy.
- Herders whose herds were composed of more than 60% White Fulani cattle were 23 times more likely than others to practice long-distance mobility.

## Conclusion

- Long-distance mobility has been disrupted and is restrained to areas spared from rising insecurity.
- In addition to CC, the decline in performance of non-local breeds could be linked to the reduced access of mobile herds to available pasture due to insecurity.

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