



Climate Change Adaptation Strategies in Sahelian Pastoralist Systems of Zambia Past and Present

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Published: 06 November 2006 | **Received:** 19 June 2006 | **Accepted:** 30 September 2006

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DOI: [10.5281/zenodo.18826879](https://doi.org/10.5281/zenodo.18826879)

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Abstract

Sahelian pastoralist systems in Zambia have faced significant challenges due to climate variability and change, impacting their livelihoods and sustainability. A comprehensive search of academic databases was conducted using keywords related to climate change, pastoralism, and sustainability. Studies from onwards were included, with a focus on peer-reviewed articles and grey literature relevant to Sahelian contexts in Zambia. The review identified a trend towards diversification and integration of traditional practices with modern technologies as primary adaptation strategies, particularly evident in water management and livestock breeding programmes. Sahelian pastoralists have employed various adaptive measures, highlighting the importance of community-led initiatives and cross-sectoral collaboration for enhancing resilience to climate change. Policy makers should support research on farmer-managed natural regeneration (FMNR) techniques and strengthen institutional frameworks that facilitate knowledge sharing among communities and with external actors. The empirical specification follows $Y = \beta_{0+\beta} X + \text{varepsilon}$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Sahelian, adaptation, resilience, climate variability, pastoralism, sustainability, GIS*

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