



## **Early cultural land-use practices in North East Nigeria: Are human responses to past-climate changes evident in the soils-based record?**

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The land areas surrounding sedentary African village settlements in the Sahel region are commonly used for high-value agricultural production and are a key to understanding the stability of the settlement. Focussing on these areas, geoarchaeology methods allow the possibility of examining the impact of environmental change on settlements. This paper contrasts the soils-based evidence from settlements continuously occupied over long periods (c. 1000 BC to present) in the Kala-Balge region of North East Nigeria, with sites that have been abandoned at earlier times in the archaeologically-defined Gajiganna Culture (c.1800 BC - 400 BC) also in North East Nigeria. Both sets of sites are in the extensive lacustrine plain of Lake Chad and are set against a background of long-term paleo-climatic variation as evidenced through lake-level dynamics. Examining the impact of environmental changes over long periods reveals the need for high-resolution knowledge of paleo-climatic changes in the Sahel, thereby allowing long-term trajectories of human-responses to environmental drivers to be understood.