



Practices of assisted natural regeneration in agroforestry parklands among three major ethnic groups in western Burkina Faso

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ABSTRACT

Objective: Burkina Faso's agroforestry parklands are losing woody species due to climate change and population growth. Farmers increasingly adopt Assisted Natural Regeneration (ANR), more documented in the country's arid north but under-researched in western regions. This study addresses that gap.

Methodology and results: The study was conducted in three rural communes of Burkina Faso's southern Sudanese region. In each commune, 42 farm managers per ethnic group were surveyed on ANR knowledge, his constraints, spared species, and ecosystem services. Despite lacking formal training, 97% of farmers protect woody species. Legal restrictions discourage 70% in the practice. Commonly spared species are *Parkia biglobosa* (African locust bean), *Vitellaria paradoxa* (shea tree) cited by all farmers, *Borassus akeassi* (African fan palm) (cited by 74%). These species provide food, medicine, timber, fuel, regulate ecosystems, and hold socio-cultural value.

Conclusion and application of results: This study suggests that policymakers review the legal status of woody plants from the Assisted Natural Regeneration (ANR). Indeed, the current protected status is perceived by producers as restrictive, as it limits certain traditional or commercial uses, which can reduce their motivation to maintain the regeneration of "protected" species in their fields. Encouraging awareness and supporting local initiatives would amplify the ecological, agricultural, and cultural benefits of this practice. This could contribute to strengthening the resilience of rural communities in the face of climate and environmental challenges

Keywords: Cultural importance index; Ecosystem services; protected trees