

# Community-Based Forest Governance and Deforestation Dynamics

An Action Research Inquiry in the Miombo Woodlands of Iringa District, Tanzania

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## ABSTRACT

Deforestation in the Miombo woodlands of southern Tanzania presents a critical challenge to biodiversity and rural livelihoods. Community-based forest management (CBFM) is a prevalent policy response, yet its efficacy in altering deforestation dynamics requires deeper, context-specific investigation. This action research study aimed to collaboratively assess and strengthen the correlation between the operational practices of local forest governance committees and on-the-ground deforestation rates within a defined CBFM area. A cyclical action research methodology was employed, integrating participatory rural appraisal techniques, geospatial analysis of satellite-derived land cover change, and structured committee self-assessments. Researchers, community members, and district officials co-designed interventions to address identified governance gaps. The study found a complex relationship: villages with committees demonstrating high levels of transparency and inclusive patrolling exhibited 40% lower annual forest loss compared to those with weaker governance. A key emergent theme was the critical role of equitable benefit-sharing in sustaining collective action. The findings demonstrate that the institutional quality of local committees, not merely their existence, is a decisive factor in mitigating deforestation under CBFM frameworks. Policy should shift from establishing committees to investing in long-term capacity building focused on accountability systems and transparent revenue management. Donor programmes must support adaptive, community-led monitoring integrated with geospatial data. community-based forest management, deforestation, Miombo woodlands, participatory action research, governance, Tanzania This paper provides novel empirical evidence on the specific governance mechanisms linking community institutions to forest conservation outcomes, derived from a co-produced action research process in a significant yet understudied socio-ecological system.

**Keywords:** *Community-based forest management, Miombo woodlands, Deforestation, Participatory action research, Tanzania, Natural resource governance, Local institutions*

### Article Highlights

- Action research reveals institutional quality, not mere existence, dictates CBFM success.
- Transparent governance and inclusive patrolling correlate with significantly reduced deforestation.
- Equitable benefit-sharing emerges as critical for sustaining collective conservation action.
- Policy must shift from establishing committees to investing in long-term capacity building.

### Policy Imperative

Findings advocate for donor programmes to support adaptive, community-led monitoring integrated with geospatial data, focusing on accountability and revenue management.

*This study provides co-produced empirical evidence on governance mechanisms linking community institutions to conservation outcomes.*

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