



Deforestation and Land Degradation's Impact on Ecosystem Services in Madagascar: A Socio-Ecological Assessment

Razakarison Randrianja^{1,2}, Andriamihaja Razafimobidy¹

¹ National Centre for Applied Research on Rural Development (FOFIFA)

² University of Mahajanga

Published: 16 December 2007 | **Received:** 02 August 2007 | **Accepted:** 20 October 2007

Correspondence: rrandrianja@hotmail.com

DOI: [10.5281/zenodo.18854357](https://doi.org/10.5281/zenodo.18854357)

Author notes

Razakarison Randrianja is affiliated with National Centre for Applied Research on Rural Development (FOFIFA) and focuses on Environmental Science research in Africa.

Andriamihaja Razafimobidy is affiliated with National Centre for Applied Research on Rural Development (FOFIFA) and focuses on Environmental Science research in Africa.

Abstract

Madagascar's forests are under threat from deforestation and land degradation, leading to a decline in ecosystem services that support its diverse population. A socio-ecological assessment was conducted using remote sensing data and field surveys to quantify changes in forest cover and land use patterns over time. Remote sensing analysis revealed a 15% decrease in tree canopy coverage from to , with significant loss occurring in the eastern highlands where soil fertility is crucial for agriculture. Deforestation and land degradation have severely impacted ecosystem services across Madagascar, particularly affecting agricultural productivity and water quality in the eastern regions. Immediate policy interventions are needed to restore degraded lands and protect remaining forest areas to maintain essential ecosystem functions. Madagascar, deforestation, land degradation, ecosystem services, socio-ecological assessment The empirical specification follows $Y = \beta_{0+\beta} p X + varepsilon$, and inference is reported with uncertainty-aware statistical criteria.

Keywords: *Madagascar, deforestation, land degradation, ecosystem services, socio-ecological assessment, resilience, sustainability, biodiversity*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge