

IM4DC

Action Research Report

SUMMARY

Researchers:

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School/Centre:

Institute of Environmental Studies

University/Institutions:

University of New South Wales

Key themes:

Community and Environmental Sustainability

Key countries:

Madagascar

Completion:

April 2014

Research aims:

The objective of this research was to:

- Quantify key ecosystem components linked to ecosystem services in different community forest zones and savannah zones
- Measure the condition of key ecosystem components through time
- Investigate relationships between maintenance or degradation of ecosystem components and social factors

For further information on this action research:

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Final report available on request from:

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Mapping and Developing a Landscape-Scale Ecosystem Services Metric for Promoting Sustainable Mining In Southwest Madagascar

The goal of this study was to contribute towards a better understanding of ecosystem services and the current and future impacts of current conservation and mining policies on these services in southwest Madagascar. Overall, it appears that the highly biodiverse forested sites are being put under park management or community forest management in this region. This has reduced the provisioning ecosystem services that communities derive from forest resources. At the same time, less biodiverse sites such as savannahs are being increasingly put under mining concessions, reducing livestock potential for local communities. Thus, both mining and conservation policies are seriously affecting ecosystem provisioning for local communities. Both policies, intended to balance national interest for conservation and economic development, have not taken into consideration sustainability of their policies in terms of livelihood impacts from changes in ecosystem provisioning.

Social surveys indicated that people traditionally acquired wealth, if not inherited, in the form of cattle though the sale of agricultural crops. New agricultural land was acquired when forest was burned, a practice that is not possible now, given that most of the forests are under forest management. In times of climatic stress, most people lost their cattle and have not been able to recover them now through rapid sale of crops with the practice of slash-and-burn agriculture. Although savannah lands are currently only under exploration concession licenses that have not yet been converted to mining, any impact on these savannahs has the potential to impact livestock management. Reduction in livestock productivity would make people more reliant on slash-and-burn agriculture. Thus savannah and forest resources, connected respectively to livestock and crop productivity and to each other, are intricately linked, so that the ecosystem health of both systems is critical for human well-being.

Both mining and conservation policies should take better account of this linkage and address ways to compensate for the reduction in ecosystem provisioning to local communities.