



Case report

Novel governance for forest landscape restoration in Fandriana Marolambo, Madagascar

Stephanie Mansourian^{a,b,*}, Appolinaire Razafimahatratra^c, Patrick Ranjatson^d, Gérard Rambeloarisao^e

^a *Mansourian.org., 36 Mont d'Eau du Milieu, 1276 Gingins, Switzerland*

^b *Geneva University, Switzerland*

^c *WWF Madagascar, Près lot II M 85 Ter Antsakaviro, (101) Antananarivo, P.O. Box 738, Madagascar*

^d *Water and Forest Department, School of Agronomy, University of Antananarivo, B.P. 175, 101 Antananarivo, Madagascar*

^e *Madagascar Biodiversity Fund, LOT II K 44 Ankadivato, 101 Antananarivo, Madagascar*

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ABSTRACT

In 2003 forest landscape restoration (FLR) work began in Madagascar and a national working group for FLR was created. Over the course of the following years, the implementation of an FLR project in Madagascar's Fandriana-Marolambo landscape was shaped by, and in turn influenced, governance, specifically tenure rights and stakeholder engagement. This case study describes this evolution and provides an account of governance arrangements set up to facilitate project implementation and longevity. Whilst initially the forest administration was at the core of the landscape's governance, over time, recognizing the critical role of local communities, a shift has occurred which has placed communities living in the landscape at the center. Today, 13 years later, the government of Madagascar has committed to restoring 4 million hectares by 2030 under the African Forest Landscape Restoration Initiative; lessons from this project should be upscaled to support this ambitious commitment.

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1. Introduction

Madagascar's moist forests harbour a unique biodiversity with rates of endemism at approximately 80–90 percent for all taxa. However, forest loss and degradation have plagued the island for decades, leaving only about 10 percent forest cover. As such, forest restoration is a priority and forest landscape restoration (FLR) is a particularly appealing approach in a country with high poverty rates since it addresses both ecological and human dimensions as well as considering large scales.

Forest landscape restoration was defined by 30 scientists convened by WWF and IUCN in 2000 as a “planned process that aims to regain ecological integrity and enhance human wellbeing in deforested or degraded landscapes” (WWF & IUCN, 2000). In Madagascar until the beginning of this century, forest restoration efforts had been small-scale, essentially using a limited number of exotic species and the links between ecological and social dimensions were missing.

To explore options for engaging in FLR in Madagascar, WWF organized in 2003 a first workshop in Antananarivo to bring together a range of stakeholders including the government, the private sector and non-governmental organizations. One outcome of the workshop was to define and agree on socio-cultural, ecological, economic and political criteria to prioritize and select a landscape for FLR. In a next phase a researcher visited three shortlisted landscapes to discuss and apply the criteria to each. Her results were then endorsed by a multi-stakeholder national working group on restoration set up as a result of the workshop.

The selection of Fandriana-Marolambo (FM) as a priority landscape was therefore, based on extensive research and the application of nationally-agreed criteria, notably the preparedness of local communities to adopt new technologies and approaches, their level of education, their dependence on forests, as well as local political support and ecological importance of the forest. Funds were raised from the French Foreign Ministry (MAE) for an initial 4-year FLR project implemented by WWF-Madagascar with the overall objective being that “*The goods, services and authenticity of the moist forests of the landscape of Fandriana-Marolambo are restored so as to support the development of the populations and to secure the objectives of biodiversity conservation.*” A comprehensive landscape vision was thus taken to define specific restoration objectives for the landscape, improve connectivity, identify

* Corresponding author at: Mansourian.org., 36 Mont d'Eau du Milieu, 1276 Gingins, Switzerland.

E-mail addresses: Stephanie@mansourian.org (S. Mansourian), arazafimahatratra@wwf.mg (A. Razafimahatratra), pranjatson@yahoo.fr (P. Ranjatson), grambeloarisoa@fabm.org (G. Rambeloarisao).

relevant stakeholders and prioritize restoration activities at individual sites within the landscape. The founding of this project on a detailed and consultative process proved essential to its acceptance at various levels and supported its continuity. Over the course of 12 years an approximate EUR 1.6 million were invested in this project with funding from MAE followed by successive phases funded by Air France and the GoodPlanet foundation, WWF Switzerland and WWF Sweden, and involvement from other partners such as Madagascar National Parks, Durrell Wildlife Conservation Trust (DWCT) and several forest managers and community associations. During the successive phases, the importance of governance arrangements as a fundamental building block to any long term, sustainable and effective engagement in the landscape became evident. Governance arrangements are defined here as the institutional arrangements, decision-making processes, policy instruments and underlying values in the system by which multiple actors can pursue their interests in multifunctional landscapes (Kozar et al., 2014). These arrangements evolved over the course of the project from being top-down with the authorities at the center, to a more collaborative and bottom-up approach, which proved critical to ensure local-level collaboration and implication in the FLR initiative.

2. The Fandriana-Marolambo landscape

The Fandriana-Marolambo (FM) landscape is situated in east-central Madagascar and covers an area of approximately 200,000 ha which includes a mosaic of primary forest, degraded primary forest, secondary forest, savanna and agricultural areas. An estimated 150,000 people inhabit the landscape from three different ethnic groups: Betsileo, Vakinankaratra and Betsimisaraka, and 2730 households live directly from the use of forest and natural resources.

The project objectives followed a dual ecological and socio-economic dimension, in line with the FLR definition noted above. A landscape-wide restoration vision was developed, and within this framework specific interventions identified to help move the landscape from its current degraded state to one with more biodiversity and one that supplies more goods and services to its inhabitants. Significant efforts centered on ensuring that local communities could not only engage with the restoration actions but could also see direct benefits. This was done firstly through local level facilitators who raised awareness among communities about alternative tree species and agricultural and restoration practices, and helped to recruit some “innovators” who set an example and created a snowball effect. Because they were local, facilitators found appropriate means to engage communities in restoration, for example through restoration songs (Roelens, Vallauri, Razafimahatratra, Rambeloarisoa, & Razafy, 2010). Also, through the project, zoning and contracts were negotiated with communities promoting both active and passive restoration. These zones were based on a landscape approach and reflected the current state of the forest, including recognizing the importance of the zone around the future national park as being a priority for restoration. The project led to changes in agricultural practices such as improved crop fertilization, crop combinations and cropping system over vegetative cover to reduce the impact of slash and burn practices, improved rice cultivation techniques which did not involve the use of fire, and agroforestry. Alternative livelihood enterprises were also promoted, such as the production of essential oils, honey, and small animal and fish farming to reduce pressure on the forests while improving peoples' livelihoods. The project also provided training in nurseries of local species given the limited knowledge and experience until then working with local species. As a result, over 50 native tree species have been

actively used to restore degraded parts of the landscape, food security has improved and incomes have increased (Roelens et al., 2010).

2.1. Governance and FLR in Madagascar

Governance understood in the broadest sense, considering interventions aiming at changes in environment-related incentives, knowledge, institutions, decision making, and behaviors (Lemos & Agrawal, 2006) was first considered in this project by seeking to engage different decision-makers and policymakers through the first workshop and the creation of a national level working group on FLR. In successive phases of the project, governance took on more importance, particularly in two areas: 1) tenure and 2) multi-level decision-making.

2.1.1. Tenure

Insecure or unclear tenure has been identified as an underlying cause of deforestation in Madagascar (Wendland et al., 2010). As in most of Madagascar, the land in FM is under customary tenure arrangements with no formal deeds or titles. While the country has embarked on land reforms to improve the land rights of communities, in practice, procedures are slow, costly and complex. As the project developed, tenure became a critical issue, in three ways: 1) a protected area was due to be created inside the landscape, so the national parks authority (MNP) resisted any project involvement in this part of the landscape for fear that once communities engaged in restoration in this area they would claim it as their own; 2) overlapping tenure between traditional and legal status of lands and forests; 3) the use of exotic species (particularly eucalyptus) in restoration in Madagascar tends to facilitate land appropriation by those involved in the restoration, whilst using native species creates native forests which under Malagasy legislation belong to the State. Tenure insecurity, conflicting claims and lack of clarity were thus significant challenges affecting the course of the project. The project and its successive phases ended up investing significant time attempting to tackle these underlying structural challenges to restoration in addition to focusing on more technical forestry-related issues.

The promise of improved tenure security (through “community contracts”), access to restored ecosystem goods and services, and payments for ecosystem services have been critical incentives for local community engagement in restoration (Mansourian, Aquino, Erdmann, & Pereira, 2014). Madagascar's forestry legislation provides for co-management arrangements under the “secure local management” or “GELOSE” law (of 1996) and the 2001 law on contractual management of forests. Under these mechanisms communities organize themselves in associations (called “COBAS”) and negotiate contracts with the central government, the commune and local authorities, in collaboration in all cases with an NGO. Through this project these contracts were adapted to contain restoration aspects (see below).

2.2. Multi-level decision-making

At the **national** level, the working group on FLR was established with the aim to support FLR implementation in the country. In particular it was meant to prioritize work on FLR and support landscape-level implementation. In practice, while meetings of the FLR national working group took place over several years, they eventually died down - although, with recent interest in restoration, Madagascar has now re-established such a working group.

At the **landscape** level, three phases of governance arrangements can be identified: one prior to the project and two that developed over the course of the project.

Prior to the FLR project, exclusive governance by the forest administration was the norm in the FM landscape. To promote new settlements in the area, during the 1970s and 1980s, the government issued permits to farmers to allow them to remove forests in favour of agriculture. The massive forest loss that plagued the whole country, led to significant outside interest and funding for conservation in the 1990s and by a reversal of government policy, punishing instead of promoting forest clearance. Understandably, conflict and mistrust between communities and forest authorities ensued.

As a result of this legacy, during the first 5 years of FLR implementation in FM, the project faced the mistrust of local communities and had to engage in lengthy and detailed negotiations with community leaders and local authorities to work on the underlying tensions related to distrust and poor tenure security. Meetings were organized to better understand communities' needs and desires from their landscape and forest. Local facilitators were hired to gain the communities' trust. Land use compromises and trade-offs were discussed in order to meet the ecological and socio-economic dimensions of FLR. This involved adapting the project – notably hiring more local facilitators – to take account of governance realities on the ground.

Contracts (or “community conventions”) were negotiated between the communities and forest areas and cultivation areas allocated to different community groups. In this new governance model (which took 4 years to reach) communities were placed at the center of decision-making (see Fig. 1) whereas before the forestry authorities were the central players.

As a result, 48 village communities across the landscape were able to negotiate contracts delimiting restoration zones.

“Community forest management contracts” (“*contrats de gestion communautaire des forêts*”) cover an area of 22,239 ha in the landscape within which 6786 ha were identified for active or passive restoration. The contracts provide the communities with the necessary authority to restore the forested area, and also commit them to engage in specific restoration activities. For example, in the Ezaka community in Ambatodidy, a 20 ha degraded zone was delimited for active and passive restoration.

Since 2011, a core part of the landscape totalling 95,257 ha was delimited as a national park. The Marolambo National Park is co-managed by the Madagascar National Park (MNP), the COSAP (Committee and support for the Protected Area) and CLP (Local Park Committee) which is present in 61 surrounding provinces (or “Fokontany”). A detailed zoning process helped to further legitimize this process and ensure that communities accepted to relinquish some agricultural areas in favour of forest restoration and

forest protection. In exchange, communities were allocated other areas for farming and other activities. In a third phase, and as a result of the creation of the park, a change in governance arrangements can be seen, as per Fig. 2.

The central body of the landscape governance is made up of three bodies for the protected area (MNP, COSAP and the local park committee (CLP)), and community forest management (CFM) outside of the protected area. These two broader groups in turn have direct links with other stakeholders including the forest administration, the private sector and local authorities. While the COSAP/MNP focus on the national park, they also consider the opinions of CLPs and communities. Under the CFM, contracts describe modalities of forest use, including restoration. Importantly, customary rights on the traditional use of land and social conventions were recognized and developed under the umbrella of the CFM.

3. Conclusions – Implications for policy and practice

Governance challenges for restoration in Madagascar emerged when FLR was first introduced in the country in 2003. Some were addressed in the process of developing the project (e.g. setting up a national working group on FLR, engaging stakeholders in the selection of a priority landscape for FLR), others emerged in the course of implementation and required adaptation of the project.

This is the only long term (10 + years) FLR programme in Madagascar and it provides a unique perspective on how landscape-level governance realities influenced the course of such a project and forced the consideration of the root causes of forest loss, such as tenure conflicts, decision-making processes and engagement of communities.

Over the duration of the project, governance arrangements and processes evolved, from a more top-down approach with the authorities at the center, to a more collaborative and bottom-up approach reconciling different priorities and stakeholder interests within the landscape.

This project highlights the underlying tensions caused by unclear (and contested) tenure arrangement in successfully engaging in forest restoration, and the importance of placing communities at the center, in this case through local level facilitation and negotiated community contracts.

While current forest legislation and policy in Madagascar provide limited national government interest in forest landscape restoration and long-term management of forests, Madagascar's commitment to restore 4,000,000 ha by 2030 under the African Forest Landscape Restoration Initiative represents an opportunity to scale up some of the lessons emerging from this case study.

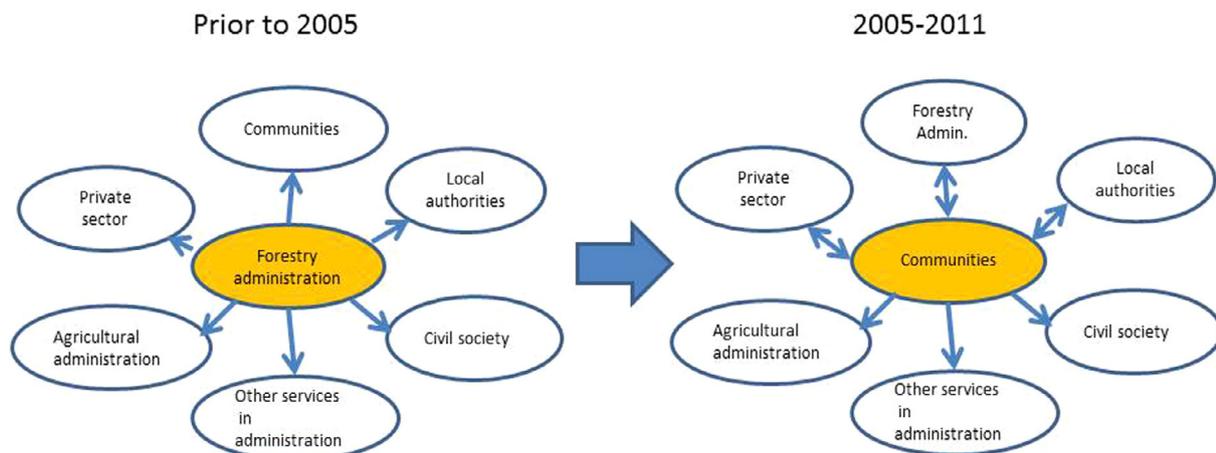


Fig. 1. Governance arrangements: from being centered in the forestry administration to being centered in the communities.

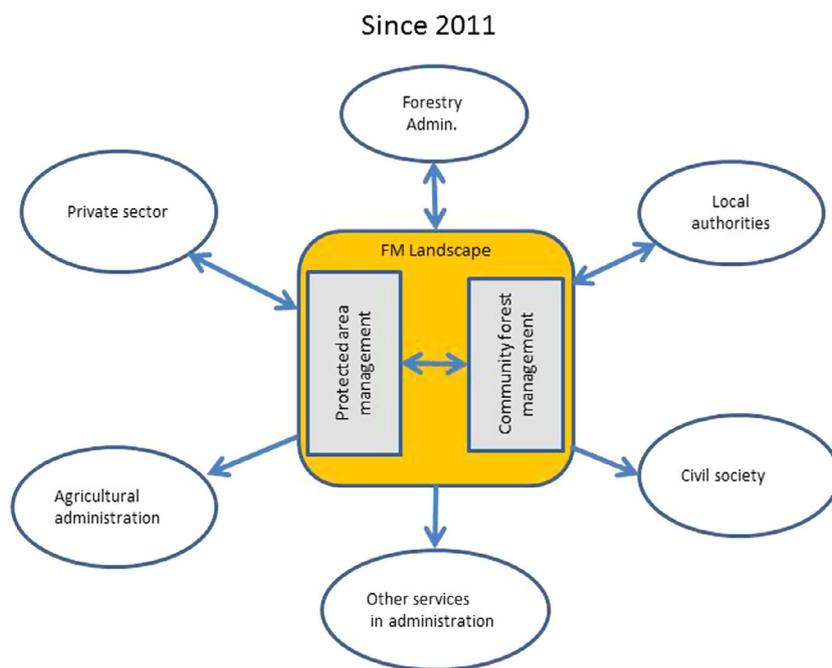


Fig. 2. Present governance arrangement in the landscape.

Setting up and engaging in governance and specifically governance arrangements, has helped to ensure a solid foundation for future work in the landscape. Local partners are also now in a better position to continue working on restoration in the landscape as WWF phases out its engagement.

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