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# A REVIEW OF POLICIES TO COMBAT DEFORESTATION IN MADAGASCAR

ASHLEY CLAYTON

## SUMMARY

- From 1960 to 2000, more than half of Madagascar's forests have vanished as a result of unsustainable agricultural and agroforestry practices. A high population growth rate is also exacerbating deforestation with severe consequences for populations who depend on forests for livelihoods.
- Further research on deforestation in Madagascar is needed to better understand the impact of past policies designed to curb deforestation and also to establish holistic policies that incorporate input from people who rely on forests for livelihoods.

Across the globe, forests are disappearing at an alarming rate. Estimates suggest that over the past decade, 13 to 16 million hectares of forests have vanished, mostly in tropical countries (Food and Agricultural Organization of the United Nations et al., 2008; University of Michigan Global Change Program, 2010).

In Madagascar, an island nation off the coast of Africa, deforestation has become an issue of concern to policy makers and civil society. Today, less than 10 percent of Madagascar's original forest cover exists (Conservation International, 2011). Unsustainable agricultural and agroforestry practices, along with a high population growth rate of 0.57 percent, have been identified as some of the main drivers of deforestation. Experts warn that addressing these factors through concerted efforts is critical; if not, Madagascar could lose its forests by 2025 (Green and Sussman, 1990).

The loss of forest cover severely affects the majority of the population who directly depend on forests for a livelihood. To contextualize the negative impact of forest loss, it is important to note that 80 percent of Madagascar's 19 million people live in rural areas and rely on forests for food, shelter, energy, and

# ABOUT THE AUTHOR

## Ashley Clayton

Ashley Clayton is an M.A. student in International Development Studies, St. Mary's University in Halifax, Canada, and an intern with the Initiatives in Critical Agrarian Studies, International Institute of Social Studies of Erasmus University Rotterdam, The Hague. Her research covers the themes of rural development, land grabbing, and food security in Madagascar. She is one of the recipients of CIGI's 2011 African Initiative Graduate Research Grant.

income. Deforestation exacerbates soil erosion, which leads to soil infertility and poor agricultural production. In the past 30 years or so, the productivity of rice—Madagascar's staple crop—has slumped considerably to not more than 2 to 2.5 tons per hectare per year (Ministry of Agriculture in the Republic of Madagascar and Coalition of African Rice Development, 2010). Low productivity has made the country a net importer of rice – a fairly recent phenomenon compared to when Madagascar was a substantial exporter of rice during the 1960s (Dorosh et. al., 2003). Low agricultural productivity also undermines food security by fostering dependence on imports, reducing incomes of small-scale farmers who represent 81 percent of the population (Seagle, 2010; National Institute for Statistics in Madagascar, 2011).

Furthermore, forest loss will increase vulnerability to adverse weather systems. An estimated 14 percent of the population is vulnerable to cyclones, drought, and flooding. As the country's forests continue to diminish, experts warn that this figure will likely increase (United Nations International Strategy for Disaster Reduction, 2009). This paper examines the impact of deforestation in Madagascar and efforts taken by government and civil society to combat it.

## THE HISTORY OF DEFORESTATION IN MADAGASCAR

Large-scale deforestation in Madagascar started during the colonial era (1895-1960) when French colonizers cleared vast tracts of land for plantations. Between 1895 and 1925, approximately 70 percent of the island's primary<sup>1</sup> forests were destroyed (Hornac, 1943 cited in Jarosz, 1999: 375). Following independence in 1960, Madagascar witnessed an upward trend in the rate of deforestation. It is estimated that between 1960 and 2000 more than half of the island's forests disappeared (Bergeron, 2002). While deforestation rates have recently declined from 0.83 (1990) to 0.57 (2008) (Government of Madagascar, 2010; Food and Agricultural Organization of the United Nations, 2011), a staggering 1.5 million hectares have been lost between 1990 and 2005 (Ministry of Environment and Forests, 2008).

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1 Intact forests of native tree species that have not been disturbed by human activity.

## DEFORESTATION CAUSES AND CONTRIBUTORS

Agricultural land expansion has been identified as one of the main causes of deforestation. In particular, traditional practices, such as *tavy*<sup>2</sup>, employed by small-scale farmers, have been identified as a major threat to the island's forests. While *tavy* practitioners contribute immensely to deforestation, the practice is just one aspect of a more complex dynamic that involves other activities (Pollini, 2007). For example, mining, charcoal production, and logging have also been identified as activities that contribute to deforestation.

## PAST EFFORTS AND LESSONS LEARNED

Government and civil society efforts to reduce deforestation in Madagascar began in the mid and late 1980s as the international community and national actors began to take notice of the alarming rate of environmental degradation. Under the tutelage of the International Monetary Fund and the World Bank, the central government began addressing the problem by linking conservation and development goals. By the early 1990s, two policy documents, the Environmental Charter and the National Environmental Plan were created, formalizing the government's dedication to halting environmental degradation, especially soil degradation and deforestation (government of Madagascar, 2010).

The Environmental Plan created Integrated Conservation and Development Projects (ICDPs) and the Malagasy National Parks Association, which were funded by the World Bank and the United States Agency for International Development (Marcus, 2001). The ICPDs were created specifically to improve the socio-economic status of people living close to forests, the assumption being that people would be less likely to cut down forests if their living standards improved (Seagle, 2010).

About US\$400-450 million was spent on the Environmental Plan, which succeeded in creating 2.65 million hectares of protected areas and reduced deforestation by 75 percent (Government of Madagascar, 2010). These figures are contested, however, with some experts arguing that they have been exaggerated. Critics also point out that activities initiated under the

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<sup>2</sup> Tavy is the Malagasy word for 'slash and burn' cultivation which "implies vegetation regrowth on the cleared land, after one or two years of cultivation. This secondary vegetation can be cleared again and the system can sustain itself, at least when the population density is low and stable" (Pollini 2007).

Environmental Plan adversely affected communities living near forests, as conservation projects exerted more pressure on livelihoods (Pollini, 2007).

In the late 1990s, government and civil society changed their course of action by decentralizing the management of forests. A new course of action stipulated that input from people whose livelihoods depended on forests was crucial to achieving long-term sustainability (Horning, 2003 cited in Seagle, 2010). In 1996 the Madagascar government introduced the GELOSE<sup>3</sup> law, which provided a legal framework to transfer natural resources management rights to local communities (Pollini and Lassoie, 2011). Two years later, the Forest Policy was created, which in essence sought to empower local actors in managing forest resources (Government of Madagascar, 2010).

### **SAME STRATEGY, DIFFERENT TITLE?**

More recently, government and civil society strategies and actions for reducing deforestation have focused on two fronts: improving the socio-economic status of the population that depends on forests for livelihood; and including local populations in conservation projects.

This logic led to the adoption of the Durban Vision and the Reduction of Emissions from Deforestation and Forest Degradation (REDD) strategy.<sup>4</sup> The Durban Vision was embraced by Madagascar's president at the World Congress of Protected Areas held in Durban, South Africa in 2003 (Pollini, 2007).

To ensure that 10 percent of Madagascar's land was reserved for conservation purposes and to comply with recommendations from the International Union for Conservation of Nature, the former president called for an expansion of protected forest areas, from 1.7 million hectares to six million hectares—representing an increase of almost 200 percent (Ibid). Since the Durban Vision was adopted, protected areas have increased, but the extent of the increase is still a matter of contention. The government claims that an additional 2.65 million hectares of protected areas have been created, which means that the country is halfway to meeting its goal of 4.35

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3 GELOSE stands for the Gestion Locale Sécurisée, translated in English as Secured Local Management.

4 REDD refers to the Reduction of Emissions from Deforestation and Forest Degradation.

million hectares (government of Madagascar, 2010). However, critics argue that 50,000 hectares of forests are lost every year, indicating that this policy has not been embraced by all (Ferguson, 2009).

Regarding REDD, government and civil society have moved on to implementing it. Simply defined, REDD provides payments to developing countries working to prevent deforestation or degradation through effective forest management (International Institute for Environment and Development, 2011). Under REDD local people who depend on forests for cultivation and firewood, receive economic incentives and the means to finance conservation initiatives.

Many poor, but resource-rich countries have adopted this approach. In Madagascar, since 2001, five REDD pilot projects have been implemented and funded by non-state actors, such as Air France, BioCarbon Fund, Conservation International, German Technical Cooperation, World Wildlife Fund, Wildlife Conservation Society, Good Planet and Inter-Cooperation, and the United States Agency for International Development (Ferguson, 2009). A REDD Readiness Preparation Proposal drafted by the government states that future REDD projects may cost US\$5.5 million (Government of Madagascar, 2010).

## WHAT NEEDS TO CHANGE?

Given the severity of the deforestation problem in Madagascar, it is important to reflect on past and present strategies in order to make necessary improvements and to stem the tide of environmental degradation. The conservation agenda is fairly new in Madagascar and efforts to roll back deforestation have come up short and failed to get to the roots of the problem. The weaknesses of conservation strategies are in part due to how people who depend on forests are often misperceived as the perpetrators of deforestation (Seagle, 2009), a move which delegitimizes their input in policies and programs designed to tackle the country's deforestation problems. Researchers have observed that development policies in Madagascar do not address the various *causes* of impoverishment and deforestation effectively; this is partly due to the lack of understanding of local peoples' challenges within a historical and cultural context (Green and Sussman, 1990). Thus, for policies to be effective it is necessary for local, national, and international stakeholders to understand the situations of

those most affected by deforestation and include them in future conservation efforts.

Likewise, it is also essential to collect accurate and up-to-date data on deforestation and its trends, as well as to acquire in-depth information about the impact of past policies designed to combat deforestation. For instance, while deforestation has declined in the past two decades, the reason behind the decline remains unclear. Similarly, the impacts of the increase in protected areas and REDD programming are also unclear. If deforestation has in fact declined, it would be useful to know the factors that led to this decline. If certain policies are found to have led to the reduction in forest loss, then it may not necessarily be worth adopting new approaches, such as REDD. In sum, further research on local traditions, customs, and practices in forest-dependent communities, as well as on the impacts of past policies, could provide the knowledge needed to adjust or create policies which may contribute to curbing deforestation.

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The Centre for International Governance Innovation  
57 Erb Street West  
Waterloo, Ontario N2L 6C2, Canada  
[www.cigionline.org](http://www.cigionline.org)



57 Erb Street West  
Waterloo, Ontario N2L 6C2, Canada  
tel +1 519 885 2444 fax +1 519 885 5450  
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