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# PARADISE LOST?

## LESSONS FROM 25 YEARS OF ENVIRONMENT PROGRAMS IN MADAGASCAR



### EXECUTIVE SUMMARY

The U.S. Agency for International Development (USAID) opened its Madagascar Mission in 1984 and rapidly became one of the principal actors in developing and implementing the three Environmental Programs (EPs) that operationalized the 1990 National Environmental Action Plan (NEAP). This retrospective is written 25 years later (with the Environmental Program suspended due to the 2009 coup d'état) to take stock of where we have come in efforts to save Madagascar's threatened natural resources and to set the stage for discussions regarding future program directions. The paper focuses specifically on USAID's environmental programs, while recognizing that USAID interventions took place in a context that involved many different partners.

When USAID opened its doors in Madagascar, the country was coming out of a decade of serious economic stagnation and environmental decline (some 400,000 hectares (ha) of forest were lost each year). The NEAP sought to protect Madagascar's biodiversity heritage (which meant, in practice, saving the forests on which the biodiversity depended) and to improve the living conditions of the population.

Slash-and-burn agriculture by very poor farmers is one of the primary threats to Madagascar's forests. As such, it was recognized early on that there was little hope of protecting forests without also addressing (1) fundamental economic issues that maintain rural people in abject poverty and (2) rapid population growth (close to 3% a year) that has caused Madagascar's population to more than double in the roughly 25 years covered by this paper. Consequently, USAID's program has consistently promoted synergies between the health and environment sectors. (The Madagascar population-environment program is a worldwide model for this approach.)

USAID's programs have, in principle, mirrored the NEAP emphasis on linking environmental conservation and improved livelihoods. In the first decade (1984 to 1994), USAID had robust funding and strong economic and agricultural programs that complemented work on the environment and social services. In 1994, after Madagascar failed to meet its structural adjustment commitments, the Mission was demoted and suffered major funding cuts to nearly all programs except health and population.

Environmental programs in Madagascar were spared only because of the Congressional biodiversity earmark. The earmark has been instrumental in assuring continued funding for the environment but has at the same time reinforced a relatively narrow biodiversity focus. In the absence of other funds, the Madagascar program has faced consistent difficulties in addressing complementary issues such as agriculture and economic growth. While transformation of Madagascar's economy might well have been impossible even with more robust agricultural and economic development funding, there can be no doubt that success on the environment front has been constrained by broader economic development failure, particularly in Madagascar's rural areas.

USAID's environment programs in Madagascar roughly followed the three phases of the national Environment Programs. EP I (1991-1996) funding totaled some \$49 million. Programs focused on (1) making the newly established Protected Areas (PAs) work and (2) establishing the foundations for environmental management through institutional strengthening and human resource development. The key national environment sector institutions (The National Environment Office, or ONE, and National Association for the Management of Protected Areas, or ANGAP) were established and closely mentored during this phase. The largest project was an Integrated Conservation and Development Project (ICDP) that funded social and economic development activities in communities adjacent to seven national parks.

Evaluations highlighting the limitations of the ICDP approach (both in Madagascar and elsewhere in the world) led to a paradigm shift in thinking toward the eco-regional approach that characterized project interventions in EP II (1997-2002) and EP III (2003-2008). These projects focused on identifying systemic threats to natural resources over larger landscapes (specifically focusing on alternatives to slash-and-burn agriculture), while policy interventions continued to address institutional weaknesses and the legal framework needed to implement sustainable resource management. Throughout the program's history, there have been efforts to increase civil society capacity and improve governance.

This paper reviews progress and challenges in four domains: Policy and Institutions, Protected Areas, Reducing Pressures on Resources by Surrounding Communities, and Economic Valorization of Natural Resources.

On the **Policy and Institutions** front, there has been major progress in promulgating legislation needed to improve management of natural resources, and developing the tools needed to operationalize improved management. Legal frameworks for forest management, environmental impact assessment, and co-management of forest resources are among the notable advances in the policy domain. Similarly, semi-autonomous institutions to manage the national parks and coordinate environmental activities were established and trained. Much effort has gone into assuring sustainable financing for the national park system and local environment interventions through the creation of two endowed foundations. The endowments are not yet fully funded, but they are well on the way.

While the legal framework and the toolkit to implement the environmental laws are now relatively complete, the effective use of these tools continues to be hampered by notoriously weak and corrupt government structures.

**Protected Areas.** Madagascar has had an ambitious national park system since colonial times but at the start of EP I, there were only two publicly accessible parks. Lack of capacity at the Water and Forestry Service (DEF) had created a de facto open access situation and many protected areas were being deforested at an alarming rate. The creation of ANGAP (later renamed Madagascar National Parks) and partnerships with international operators reestablished an effective park system. By EP II, day-to-day park management responsibilities had largely been transferred to Madagascar National Parks.

In 2003, President Marc Ravalomanana announced at the International Union for Conservation of Nature (IUCN) conference in Durban that 6 million hectares would be put under protected area status. This dramatic move – known as the Durban Vision – spearheaded by the international conservation organizations, increased the area under protection from 3% to 10% of the country's land. While this program is still being implemented, there is widespread concern that the speed of implementation and belated attention to concerns of local communities has created a backlash of resentments that will be difficult to overcome.

Initial experiences with co-management (local communities and the State) of natural forests were already underway, but the Durban Vision announcement accelerated the transfer of management responsibilities from the State (which lacks capacity to carry out the task) to local communities. Somewhat less than half the 6 million ha under protected area status will be under the authority of Madagascar National Parks, while the rest will be under some sort of co-management agreement with either local communities or the private sector. While State management of these huge protected areas is clearly not feasible under current Malagasy conditions, co-management has also proved to be problematic, especially when economic benefits turn out to be less than what the community expects or are perceived to be insufficient compensation for foregoing traditional slash-and-burn agriculture.

**Reducing Pressures on Resources by Surrounding Communities.** While logging and harvesting for fuelwood continue to motivate serious deforestation in some areas of the country, slash-and-burn agriculture remains the biggest source of forest transformation nationwide. USAID programs have invested significant efforts to reduce these pressures in selected biodiversity conservation areas. A range of alternative agricultural practices have been proposed and, while there has been significant variation in adoption rates, deforestation rates in the areas where project activities have been most intense have declined. Nevertheless, these projects recognize that farm level interventions are insufficient to effectuate changes in production practices at the scale needed to save Madagascar's forests. Without improved infrastructures (transport and irrigation) and national economic policies that promote rural development, there is little chance of persuading farmers to abandon unsustainable subsistence agriculture practices.

Several USAID initiatives have focused on **valorizing natural resources**. Some efforts have been devoted to improving eco-tourism ventures and markets for natural products. While both show potential, the magnitude of benefits will ultimately depend on larger economic factors and the State's ability to control negative impacts. USAID projects have also worked with the government to designate significant forest areas as sustainable production zones, usually under private (sometimes community) management. It is estimated that at least 2 million ha are needed to assure domestic requirements for fuel and building wood (to date, about a third of this area has been so designated by the Ministry of Environment). While there have been major advances in preparing the technical and administrative approaches to implementing sustainable production zones, actual contracting has been slow and only a tiny proportion of the sites have actually been tendered. It is thus too early to assess the success of this approach.

This retrospective concludes that in spite of numerous project successes, Madagascar's environment is in significantly worse shape now than it was 25 years ago. In 1990, Madagascar had about 11 million ha of forest and 11 million people. Today the country has about 9 million ha of forest and 20 million people. Forest clearing has slowed (from about 0.83% annually between 1990-2000 to 0.53% annually since 2000) but more than a million hectares of forest were lost in the 15 years between 1990 and 2005. Furthermore, the remaining forests have become increasingly vulnerable: 80% of Madagascar's forests are now located within 1 km of a non-forest edge.

The reasons for this are humbling in their magnitude and complexity. (Anyone who tells you that they have an easy answer to Madagascar's environmental problems should be immediately suspect, a caution necessary because Madagascar seems to be a magnet for people who think they have the "magic bullet.") **Not-good-enough governance** is without doubt a factor that underlies all others. Systemic corruption, crises that have become a normal part of the political landscape, and short-term resource management strategies that benefit transient leaders but not the population at large are pernicious characteristics that persist through changes of government. These governance issues have insidious effects that make it difficult, if not impossible, to create the economic conditions necessary to scale up promising environmental interventions (e.g. sustainable improvements in infrastructure, implementation of rice pricing, and other policies favorable to the rural economy). In the end, environmental preservation is hostage to economic development and economic development is hostage to good governance.

We are now at a point where time is running out for the prized biodiversity Madagascar holds in its charge. This report's final section lays out three broad options – scenarios – for future interventions. It is purposefully provocative in an attempt to open up the debate and lay out issues that may otherwise be neglected in a more conventional "stay-the-course" strategy.

**Scenario 1: Forget it; it's already too late and nothing we can realistically do will save Madagascar's remaining forest resources.** This scenario proposes that USAID invest its scarce resources somewhere else where the context is more favorable to a positive and sustainable outcome.

**Scenario 2: Keep on track – Do more of the same, but do it better.** This scenario proposes reprioritizing USAID intervention areas to identify those where we anticipate having the greatest impact, adding significantly more resources with assurances that funding will continue for at least another 20 years, and developing a program around the best practices that have been identified up until now (but with more sustained attention to economic growth and the promotion of civil society institutions).

**Scenario 3: Madagascar's biodiversity ends justify the means – Break all the rules and go for it.** This scenario essentially recognizes that the international community values Madagascar's biodiversity far more highly than do its government and its people. We must therefore be prepared to pay for its protection. This approach would require a massive commitment of international aid into the distant future. Funds would be used for direct payments to communities that forego activities harmful to the environment and to fund infrastructure, education, and other structural factors as needed to help the economy transform and develop. The demands of this approach would far surpass USAID's capacity, but the agency might play a useful role in conceptualizing the approach and, perhaps, implementing a discrete set of activities as needed to maintain its presence at the table.

## LEARN MORE

The retrospective summarized in this document is available in hard copy format from:

International Resources Group  
1211 Connecticut Avenue NW  
Washington, DC 20036 USA  
+1.202.289.0100 / info@irgltd.com

USAID Bureau for Africa  
AFR/SD/EGEA 4.06.104  
1300 Pennsylvania Avenue NW  
Washington, DC 20523 USA

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