

# Madagascar: National Environmental Action Plan

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## Executive Summary

**M**adagascar faces major biodiversity conservation challenges, owing to a combination of high diversity, endemism, and a high degree of natural risk threat. The impact of the December 2004 tsunami, earthquake, and tidal waves heightened public awareness of the need for more stringent coastal management systems.

The third phase of the National Environment Action Plan (NEAP) stresses seven results to be attained: (i) sustainable development activities need to be developed; (ii) forest ecosystems and water resources need to be sustainably managed; (iii) sensitive ecosystems need to be conserved and made valuable as protected areas and conservation sites; (iv) coastal and marine ecosystems need to be sustainably managed; (v) a positive change in behavior vis-à-vis the environment needs to be achieved; (vi) the financial basis for sustainable financing of the management of natural resources and the environment needs to be established; and (vii) better environmental policies and governance need to be developed.

Evidence is emerging from the M& E system that confirms the positive impact of the program on the ground, although the absence of objectively verifiable benchmarks makes it hard to discount inflated expectations that were fueled by overly ambitious targets. Thus, a key lesson learned is that results targets need to be realistic if the credibility of the program is not to be undermined. Under the first phase, the implementation of the National Environment Action Plan took the form of a number of separate donor-driven projects without obvious linkages between each other and with minimal donor coordination. In contrast, the third phase seeks to enhance coordination with other programs, in particular with the large multilateral rural development operations, but also with similar programs or projects in areas such as roads, rural infrastructure, energy, mining, and tourism.

### Protecting the World's Highest Priority in Biodiversity Conservation

Madagascar is among 17 recognized mega-biodiversity countries, which taken together represent about 80 percent of the world's total biological diversity. Due to Madagascar's extraordinary diversity, its unique species, and the level of threat, a hectare of forest lost in Madagascar has greater negative impact on global biodiversity than a hectare lost virtually anywhere else on earth. Indeed, Madagascar has often been cited as the world's single highest priority in biodiversity conservation.

Madagascar's forests are threatened by population pressure, poverty, and nonproductive agriculture. Weak environmental governance undermines the natural resource base by encouraging deforestation, unsustainable management, and environmentally destructive agriculture. Commercial timber exploitation is poorly regulated. Central policies and weak institutions exacerbate deforestation; and stakeholders, particularly those at the local and regional level, are not effectively engaged in trying to stop it. Not surprisingly, more than 80 percent of Madagascar's original forest cover is now gone.

The combination of low agricultural productivity and rapid population growth is accelerating conversion of the remaining primary forests – now covering just 15 percent of national territory – to slash-and-burn production. Watersheds and soil stability have been further undermined, compounding the economic losses through even greater loss of soil, siltation, and water shortage. The costly necessity of building, replacing, and repairing damaged infrastructure contributes to the vicious cycle. GDP (measured in 1995 dollars) has fallen from about US\$383 in 1960 to about US\$246 today.

### Objectives Pursued

In 1989 – six years prior to signing the Convention on Biological Diversity – the government of Madagascar elaborated Africa's first National Environmental Action Plan (NEAP). It has been the most ambitious and comprehensive environmental program in Africa to date. A long-term investment program was planned in three phases over 15 years. The government's steady commitment to environmental protection was also reflected in its recognition and ratification of major regional and international conventions, as well as its



continuous work with international donors to address the enormity of the environmental challenge. The Environmental Charter of 1990 reiterates the government's concern over environmental issues and sets forth its commitment to the National Environmental Action Plan.

Launched operationally in 1991, the National Environmental Action Plan has these objectives:

- To manage the national heritage of biodiversity in protected areas, in conjunction with sustainable development of surrounding areas
- To improve human living conditions through protection and better management of natural resources, emphasizing watershed protection, reforestation, agroforestry, and improved water supply and sanitation
- To promote environmental education, training, and communication
- To improve policy and management
- To establish mechanisms for research, managing data, and monitoring the environment.

A participatory process introduced key principles from the environmental action plan into other major initiatives, including Madagascar's Poverty Reduction Strategy Paper (2000) and the Rural Development Action Plan (2001). As amply demonstrated in these strategic documents, the government clearly recognizes the linkage between the environment and sustainable development.

### Design and Implementation of Action Plan

The first phase of the NEAP (1991–97) aimed at creating a proper policy, regulatory, and institutional framework. It sought to generate conditions for ownership of the environmental agenda by the country rather than donors. The second phase (1997–2003) consolidated first-phase programs, putting national institutions more firmly in the driver's seat. The third phase (2003–08) aims at mainstreaming environmental thinking more broadly into macroeconomic management and sector programs, including mechanisms for sustainable environmental financing.

A broad donor coalition is providing support – bilateral donors (the United States, Germany, France, Switzerland, and Japan), multilateral donors (the Global Environment Facility, the World Bank and International Development Association, and the UN Development Program), and NGOs (the World Wildlife Federation, Conservation International, and the Wildlife Conservation Society). The national action plan has supported the government in taking the environmental agenda into its own hands. This led to a shift from a strictly conservationist approach to

greater emphasis on the link between rural poverty and environmental degradation.

Building on lessons from the first phase, the second phase aimed at expanding conservation and development beyond national parks and reserves, adopting a regionalized landscape approach. The goal of the third phase, starting in 2003, was to ensure that “the importance and the quality of natural resources are conserved and developed in support of sustainable economic growth and a better quality of life.”

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### An Ecoregional Approach to Conservation

Madagascar adapted a broad regionalized landscape approach to conservation, which emphasizes conservation of critical resources, such as watersheds, through varying levels of land use management. A “systems approach” takes on multisectoral analysis and multilevel planning. In this broadened view, regional economic development and poverty reduction are emphasized. Alternative agricultural practices are identified as the key to reducing slash-and-burn practices and improving natural resources management.

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### Problems Encountered

Each phase of the national action plan has confronted its own practical and conceptual problems:

**Environment Program 1 (1991–97)** In relation to the overall issues of environmental degradation in Madagascar, the zone of intervention during the first phase – protected areas with peripheral zones – was too narrowly defined. Analyses identified underlying causes of the continued environmental deterioration, making it clear that the issue of protection needed to be addressed nationally as well as regionally. Despite an obvious agrarian crisis – so clearly linked to environmental degradation – the first phase paid far too little attention to the improvement of agriculture, including virtual exclusion of the private sector as a partner.

**Environment Program 2 (1997–2003)** The second phase of the action plan was a more complex operation implemented on a nationwide basis. Its stated development objective, to reverse environmental degradation, was admirably ambitious – indeed, probably too ambitious within the time frame. The spectrum of activities included improved management; biological inventories; planning and analysis; introduction of new technologies and input supplies; marketing research; geographic information systems; transfer of management to local communities; and land tenure action at the local, regional, and national levels. Several of the seven implementing agencies were new, while others needed serious capacity building, and the agenda reached beyond their mandate and abilities.



Moreover, collaboration with other sectoral programs was weak, which undermined collaboration in providing alternatives to destructive practices in rural areas.

**Environment Program 3 (2003–08)** The third phase, currently under way, aims at mainstreaming the environment into macroeconomic management and sectoral programs that focus on *results* at the regional and field levels. For the most part, Madagascar now has pro-environmental policies and a regulatory framework in place. Yet policies and regulations, no matter how “right” they are, may not make a great deal of difference if implemented through weak institutions riddled with governance problems (as is the case with the forestry sector).

Overall, the 15-year environmental action program must be understood as a long-term initiative to endow the country with capacity to own and internalize management of its own natural resources. However, environmental degradation will not be stopped, much less reversed, if poverty-reducing development strategies do not also succeed. The “right” actions and policies need to be coordinated broadly across sectors, so that development and environmental protection go hand-in-hand. In particular, this means economic intensification of land use and continued development of non-agricultural sources of income to meet human needs.

### Adaptations in Implementation

Periodic reviews of progress toward the goals of the national action plan have been undertaken jointly by the government and donors. The implementation process has evolved and adapted accordingly.

**Shift toward the ecoregional approach.** In 1995, scientific workshop and priority-setting exercises demonstrated the extent to which conservation priorities were located *outside* the protected area network, reinforcing the need for a broad ecoregional approach to replace the prevailing focus on biodiversity conservation in protected areas.

**Multilevel consultative planning on a broader scale.** The refocus toward ecoregional thinking was instrumental in fostering multilevel consultative planning and implementation of a landscape approach for the second phase. A common approach to community-centered conservation and development activities was seen as absolutely essential to improve natural resource management and agricultural intensification.

**Scaling back overly ambitious objectives.** A multi-donor–government review in February 2001 signaled the problem of overly ambitious objectives. It pointed to desirable objectives that would require complementary interventions beyond the scope and resources of the national action plan – especially land use intensifi-

cation, the development of nonagricultural sources of incomes, more suitable and better enforced logging and timber export policies, and general economic development. As such, the development objectives of the second phase were revised in 2001 to reduce (though not reverse) environmental degradation trends at the national level.

**Creating a strategic, results-oriented logical framework.** A revised planning and implementation framework was developed. This helped to make the second and third phases less complex. As a result of this restructuring, the development objectives became more realistic; implementation less complex; and interventions better targeted to priority zones. Expected impact and results – translated as target and monitoring indicators – became more reasonable, better formulated, and easier to measure. In turn, the common framework reinforced ownership. A more coherent vision evolved that conceptually links development and conservation, and that promotes multisectoral action, multiple actors, and a more inclusive model for collaboration. A results-based program approach was supported with better instruments and tools for planning, management, coordination, and decision making.

**Simplifying the programming and budgeting model.** The third phase continues the program approach, but builds upon key lessons from the first and second phases – for example, replacing the programming and budgeting model of the second phase with a much lighter and qualitative annual planning and coordination exercise.

**Institutionalizing an M&E system.** A comprehensive M&E system has been established to organize information flows to capture the various project outcomes that together comprise the third phase. It is based on a common set of indicators. These are being tracked by the Coordination Unit (CELCO) under the Ministry of Environment, Water and Forests. This system was upgraded to take into account the following elements: standardization in view of the heterogeneity of systems being used by various institutions, capacity for spatial analysis, integration of different data types, more results-based institutional culture, better data quality, and increased accessibility of M&E reports to decision makers and stakeholders. The key to this standard M&E system is a corresponding donor agreement to track their inputs by the common indicators and outputs rather than financial inputs.



## Results Achieved

**Positive impact on the ground.** Evidence emerging from NEAP's monitoring and evaluation system confirms the positive impact of the program on the ground, despite the need for more objectively verifiable benchmarks to discount inflated expectations fueled by overly ambitious targets. Intermediate outcomes show evidence that:

- The rate of deforestation in protected areas (0.7 percent per year) and classified forests (1.0 percent per year) is now significantly lower than in non-classified forests (1.5 percent)
- Degradation of critical habitats has slowed down significantly, from about 1.7 percent per year to 0.62 percent per year.
- Quality of biodiversity in protected areas, as measured on a composite endemism index, has improved from 0.61 to 0.74.
- More than 370,000 rural households have benefited from investments that enhanced soil and water conservation and productivity. These households averaged a 10 percent income benefit per year during the project period as compared to a control group.
- Tourist revenues associated with national park visits grew to about US\$50 million in 2000, accounting for about 40 percent of all expenditures by visiting nonresidents. Increasingly, these rapidly rising expenditures are benefiting local communities.
- The principle of Let the Polluter Pay has been internalized into investment decisions through the application of Environmental Impact Assessments.

### **Improved capacity to assess results at multiple levels.**

Over the coming years, progress will be measured against the strategic objectives framework for the third phase, which presents multiple objectives and indicators at different levels. These include output, performance and impact level indicators based on global, strategic, and specific objectives. The impact level indicators serve to demonstrate the overall impact of the multiactor approach and are linked to indicators used in the Poverty Reduction Strategy Paper.

**Improved capacity to measure performance.** New performance indicators serve to monitor the impact of the program activities being implemented by the different actors, including environmental institutions, international and national NGOs, and specific donor programs.

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### **Examples of Impact-level Indicators Related to Strategic Objectives**

- Area of forest, coastal, and marine ecosystems maintained
  - Decrease in incidence of slash and burn practices
  - The number of hectares of protected areas
  - Proportion of operational costs of protected areas covered by new financing mechanisms
  - Number of sectoral, regional and communal development plans effectively incorporating environmental dimension into planning and decision making
  - Number of communes in critical ecoregions actively and effectively managing natural resources and genuinely sharing economic benefits generated by the provision of environmental services and other alternative sources of income
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### **Performance Indicators**

- Percentage of terrestrial and marine protected areas and forest ecosystems managed in accordance with agreed sustainable management and zoning plans
  - Number of certified green communes
  - Number of hectares protected through natural resources management
  - Number of households adopting new practices or new crops increased
  - Number and value of contractual agreements between producers, processors, and buyers
  - Number of environmental advocacy actions
  - Number of public and private investments carried out in line with environmental safeguards and mitigation measures as specified in corresponding environmental impact assessments
  - Percentage of nonbudgetary sources providing a significant share of the operating costs of public environmental institutions
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## Lessons Learned

Considerable efforts were invested during the third phase to assess performance and distill lessons from the first two phases – among them:

***Adopt and streamline a program approach among multiple donors, using uniform indicators.*** Implementation of the action plan during the first phase consisted of disparate donor-driven projects that were minimally linked and poorly coordinated. The second phase was largely driven by ideas and proposals coming from the implementing agencies involved in the first phase – from multidonor appraisal and negotiation processes, and from a donor coordination mechanism in the form of a donor secretariat. In retrospect, the system benefited from the collaboration, particularly among multilateral donors, but it also proved overly time-consuming, and was poorly adapted as a mechanism for working with bilateral donors.

***Build linkages between financing sources and results expected on the ground.*** Building on lessons learned from the second phase, a government–donor results framework was developed to lay out expected outputs translated as results. This creates direct links between financing sources and results expected on the ground, but avoids the need for donor coordination at the level of activity and input, which proved difficult in the second phase. The participating donors included: the World Bank, the UN Development Program, the Global Environment Facility; bilateral programs of the United States, France, Germany, Switzerland and Japan; Conservation International, the World Wildlife Federation, and the Wildlife Conservation Society. This significant donor group has agreed to accept the common M&E system as the basis for accountability in their individual investments.

***Coordination with other national programs is essential, especially those active in rural development.*** To better integrate the environmental program within the country's overall development, the third phase seeks enhanced coordination with other programs. This includes the large multilateral rural development operations, but also includes similar programs or projects in the areas of rural roads, rural infrastructure, energy, mining, and tourism. Within the government and donor community, a strong focus on rural development and a new ministerial structure take a more holistic view of sustainable rural development at the regional and communal levels. The key changes include: integration of economic programs, land use planning, transport, and public works into a single super-ministry under the Vice Prime Minister; combination of agriculture with livestock and fisheries into a single ministry; combination of waters and forests with environment into a single ministry; and the recent estab-

lishment of 22 regions with responsibility for the development of regional development plans as a framework for better coordination among sectoral programs.

***Adapt performance-based implementation mechanisms that can serve a broader array of agencies.*** The first and second phases were implemented by an array of mostly government agencies and institutions established by the program. The third phase is being implemented by a broader array of institutions, local governments, communities, NGOs, service providers, and the private sector – linked by a system of performance-based and results-based contracts.

## Factors for Success

Reinforcing and building upon accomplishments and lessons from the previous phases, some essential factors for success are apparent:

***The indispensable need for political will and commitment.*** Madagascar's National Environmental Action Plan – the first in Africa – demonstrates the government's willingness to commit to sustainable development for the benefit of its people. The plan has served as the strategic framework for all who are involved in implementing the program. This already strong commitment was further enhanced at the fifth World Parks Congress (September 2003) in which President Ravalomanana announced that the area of the protected-area network would be tripled, entailing a five-year increase in the coverage of terrestrial, wetlands, and marine ecosystems from 1.7 million to 6 million hectares.

***The need for a viable environmental policy framework.*** Madagascar has been able to mainstream the environment into many of its sector policies, and has developed institutions capable of dealing with important aspects of environmental management and governance. The legal and policy framework is well established. The environmental impact assessment law, the new forestry policy, the recently adopted protected areas code, and the foundation law provide a solid foundation for sustainable environment management. Furthermore, the first law promoting the management transfer of renewable natural resources to local communities (known as GELOSE) was promulgated in September 1996.

***The need for institutions.*** Madagascar has the key environmental institutions on the ground to promote good stewardship of its natural resource base.

Upon launching of the National Environmental Action Plan, a new National Environment Office (ONE) was created as the lead agency to establish environmental policy and ensure application of environment impact



assessment. Subsequently, a Ministry of Environment was created that became the overarching authority on environmental affairs and to which ONE became attached. The National Association for the Management of Protected Areas was set up in 1991 with the mandate to develop and manage the national protected areas network. The Forestry Department was responsible for the remaining forest ecosystems which will be reformed and revitalized during the EP3. Other institutions that play important roles are two nongovernmental organizations, the National Association for Environment Actions (ANAE) and the Environmental Management Support Service (SAGE), and the first environmental foundation, Tany Meva.

## Conclusion

Madagascar's National Environmental Action Plan is seen as a model national program for ensuring dialogue and partnership between government and donors. The relationship is based on an agreed-on set of objectives, results, and indicators. The "Politique Générale de l'Etat 2005", presented by the government in December 2004, proposes to develop 11 national programs related to the Poverty Reduction Strategy Paper – its vision: *Madagascar, Naturellement*. These programs are to be based on underlying principles integral to the third phase of the National Environment Action Plan: strategic and operational orientation shared by all actors; performance-based programming with clear objectives, results and indicators; coherence among donor interventions; and a clear call to all stakeholders, including local communities and the private sector.

## Summary: How the Madagascar NEAP Embodies MfDR Principles

*1. At all phases – from strategic planning through implementation to completion and beyond – focus the dialogue on results for partner countries, development agencies, and other stakeholders.*

- The strategic framework for the third phase focuses on common objectives and results, facilitates the ownership of a common vision that links development and conservation; promotes a multisectoral, multi-actor and multilevel model for collaboration; and implements a results-based program approach with instruments and tools for planning, management, coordination and decision making.

*2. Align actual programming, monitoring, and evaluation activities with the agreed expected results*

- A joint government–donor results framework for the third phase lays out expected outputs/results. The joint steering committee for the third phase

ensures that government and donor investments are defined and implemented in close relation to the results framework and agreed-on indicators; monitors progress toward agreed-on results; and provides strategic orientation and guidance for overall program implementation and coordination with other sectoral and development programs.

*3. Keep the results reporting system as simple, cost-effective, and user-friendly as possible.*

- Participating donors (such as the Bank, UNDP, GEF; US, French, German, Swiss, and Japanese bilateral programs; Conservation International, World Wildlife Federation, and Wildlife Conservation Society) have agreed to be held accountable for the contribution of their investment to the expected results by measuring progress against the monitoring and evaluation system developed for the third phase. The M&E system with common indicators enables a more direct linkage between financial sources and results on the ground, while avoiding the need for donor coordination at the activity and input level.
- This system takes into account the following elements: standardization in view of the heterogeneity of systems being used by various institutions, capacity for spatial analysis, integration of different data types, more results based institutional culture, better data quality, and increased accessibility of M&E reports to decision makers and other relevant stakeholders.

*4. Manage for, not by, results, by arranging resources to achieve outcomes.*

- Progress is measured against the strategic framework which presents multiple objectives, results and indicators at different levels. These include output, performance, and impact level indicators based on global, strategic, and specific objectives. The impact level indicators serve to demonstrate the overall impact of the multiactor approach and are linked to PRSP indicators. The performance indicators serve to monitor the impact of the program activities being implemented by the different actors, including environmental institutions, international and national NGOs, and specific donor programs.

*5. Use results information for management learning and decision making, as well as for reporting and accountability.*

- The results-based monitoring and evaluation system organizes information flows to capture the outcome of the various projects that make up the third phase. Development objectives are more realistic, implementation less complex, interventions



more targeted (to selected priority zones), and expected impact and results (target and monitoring indicators) more reasonable, better formulated, and easier to measure.

### **Update on Implementation of the Results Framework – Lisa Gaylord, USAID, Madagascar, November 2005**

#### **GOM Commitment to the Paris Declaration**

The Government of Madagascar has fully endorsed the Principles of the Paris Declaration across its overall Government policy. The President of the Madagascar referred to the declaration in the remarks that he made to the newly appointed Chefs des Regions during a leadership training. The 22 Chefs des Regions have the responsibility for overall coordination of activities at the regional level. In order to accomplish this task, one of their principal tasks is to ensure that donor programs are aligned and harmonized in relation to the regional development plans that were developed through a participatory process over the last year.

Under the Malagasy "Politique General de l'Etat", the President has also requested the development of 10 national programs (e. g. Health, Rural Development, Decentralization, etc) this year. Donor programs will then need to also be aligned and harmonized with these national level programs. This demonstrates the importance of Madagascar as a partner country to take the leadership role in ensuring better coordination and harmonization of donors programs in relation to government priorities and policies at both the national and regional levels.

#### **How well has the Results Reporting system of the Madagascar National Environmental Action Plan (NEAP) continued to operate in practice in 2005?**

The results reporting system that was presented at the Implementation Forum in February continues to be the basis of all reporting under the Environment Program. During this past year, however, the NEAP/EP3 reporting system and the M&E system for the Medium Term Expenditure plan (CDMT) were integrated into one common results-based reporting system. This has proved to be a very useful exercise in allowing the Ministry of Environment, Water, and Forests to move toward one common strategic framework.

#### **Have there been any new innovations introduced as a result of the lessons learned?**

One of the innovations that has been introduced based on lessons learned has been the need to ensure better coordination through the alignment and harmonization

of donor programs at the regional level based on regional development plans.

The original system was developed with over 75 common indicators. This has proved to be unrealistic for the bilateral donors and international organizations that do not transfer their funding directly through GOM institutions. As such, these common indicators have been reduced to a total of 20 which will serve as the key indicators for reporting to the GOM and other donors on the overall impact of the Environment Program.

#### **What would the policymakers and/or technical specialists have done differently, if anything, in formulating and implementing the system?**

Madagascar's experience has demonstrated the importance of establishing an M&E system to monitor a national level program in relation to common indicators. It has also been important to ensure that environmental and social safeguards are integrated into any monitoring and evaluation system. This will require further refinement of present indicators to ensure that this element is being taken into consideration and that there are no negative environment risks.

Another important aspect is that the donor group has agreed to accept the common M&E system for accountability in their individual investments. It will be important to assess where the common M&E system does in fact give the results measurement capacity that the donors seek. Most importantly, the M&E system should be useful to the Government of Madagascar in managing its environment sector and demonstrating progress.

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