



U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

Environment Project Profile



Africa

Madagascar

687-0110

Sustainable Approaches to Viable Environmental Management

The *Sustainable Approaches to Viable Environmental Management* (SAVEM) project is part of USAID's effort to support Madagascar's National Environmental Action Plan (NEAP) through sustainable community development in threatened natural areas. A seven-and-a-half year (FY 1991-98), \$40 million project, SAVEM is designed to (1) provide institutional support to the National Association for the Management of Protected Areas (ANGAP), which has the mandate to coordinate implementation of government policy for management of protected areas and development of peripheral zones, and (2) test the hypothesis that local populations will move from destruction to conservation of their environment if they see a relationship between economic and social well-being and the conserved area and if they are empowered to make decisions. To do this, the project provides grants to develop and implement plans for joint, interactive management for the development and conservation of protected areas and their peripheral zones. Using tracking and evaluation systems, the project will produce guidelines for the design of integrated conservation and development efforts.

Highlights for FY 1993-94

- Helped strengthen the capabilities of Madagascar's ANGAP, which enabled it to take on coordination of 20 protected areas in addition to the 14 already developing management plans under its guidance.
- ANGAP added a new department to collect and manage environmental and socioeconomic information using a geographic information system (GIS)-based conservation data bank.
- In Phase I, completed the collection of ecological, socioeconomic, and agricultural information in communities near protected areas and testing of methods for integrating conservation with development.
- In Phase II, supporting six conservation and development projects in varying stages of development in protected areas at Masoala, Andohahela, Andasibe/Mantadia, Zahamena, and Amber Mountain/Ankarana/Analemera, and Ranomafana.
- The small community grants program hired three field monitors to expand outreach and technical assistance to nongovernmental organizations (NGOs) in buffer zones.

Project at a Glance

Funding: Life-of-Project \$40,000,000
Biodiversity Percentage 95%

Project Duration: FY 1991-98

Implementors:
Private Agencies Collaborating Together (PACT)
Tropical Research and Development

USAID Project Officer:
Robert Hanchett/USAID/Madagascar

Background

Madagascar is an island blessed with a diversity of ecosystems, plants, animals, and people that is unique in the world. Separated from the African continent millions of years ago, the country's nonhuman inhabitants have evolved into an estimated 200,000 species, nearly 75 percent of which are found nowhere else.

The island's plants and animals fulfill many of the local population's needs, including food, medicines, forage, and fuelwood. The rosy periwinkle, found only on this island nation, provides an antidote for leukemia. Yet the intensity and scale of the destruction of the country's soils, forests, and species diversity is unprecedented. Erosion, particularly *lavaka*, extremely severe gully erosion that occurs widely in Madagascar, transports thousands of tons of topsoil downriver every year. All but the steepest slopes are expected to be deforested within the next 35 years unless significant changes are made.¹ And the people, among the world's poorest, continue to require these resources.

The government of Madagascar has historically lacked a coherent institutional and legal framework within which to address environmental problems. Its policies have provided incentives for overexploitation of resources, its natural resource staff are undertrained and overworked, and the information available to them is inadequate. To address these urgent concerns, in 1988 the government initiated a NEAP, a 15-year strategy to broaden its conservation management capacity. With the support of the World Bank, USAID, the World Wide Fund for Nature, the United Nations Development Programme, the African Development Bank, and French, Swiss, and Norwegian donors, the national plan aims to conserve and manage the country's wealth of biological diversity, promote sustainable development by better managing natural resources,

improve rural and urban conditions, and develop human resources and institutional capacity.

Project Implementation

USAID utilizes technical assistance, training, and commodity provision to support ANGAP, which aims to reduce human pressures on parks through developing alternatives to destructive agricultural practices and innovative strategies for sharing park revenues with peripheral zone residents. To do this ANGAP is engaged in several areas:

- Establishing a role for itself in planning biodiversity policy with the National Office on the Environment
- Establishing a system to coordinate protected area management and peripheral zone development
- Establishing a monitoring and evaluation system for protected area operations and for itself
- Developing its financial and administrative systems
- Setting up networks for improved environmental communications and education
- Establishing a geographic-based information system for biodiversity and socioeconomic data
- Developing the professional and technical capacity of personnel active in conservation of natural resources.

A four-year USAID contract with Tropical Research and Development, which began in 1991, is helping strengthen ANGAP's capacity to gather data, develop policy, and promote coordination among the many private voluntary organizations (PVOs) and NGOs involved in Madagascar's protected area management program.

USAID's cooperative agreement with the U.S.-based Private Agencies

Collaborating Together (PACT) supports activities in protected areas and peripheral zones through the establishment and administration of a grants management unit. The unit uses two primary tools, grants and institutional development assistance. A limited number of large (\$2 million to \$3 million) protected area development grants are given to local or international NGOs for the management of major integrated conservation and development projects in priority parks or reserves. Small conservation action grants (\$2,000-\$25,000) are given to local, government, and grassroots groups for community initiatives in peripheral zones. PACT is also working with ANGAP to develop the internal structures for taking over management of the grants portfolio and is providing technical assistance and training to strengthen local grassroots organizations.

Project Progress

Human resource development. An internal assessment of the project in 1993 noted that ANGAP had made great progress in institutional development yet still faced strained relations with its collaborators, for example, the operators of most integrated conservation and development projects. Improving these relations requires further investment in interagency collaboration. ANGAP also undertook in 1993 the coordination of 20 "category II" protected areas, in addition to its role in coordinating the 14 "category I" areas that are further along in developing management plans.² Lastly, ANGAP has recently added on a new Department of Biodiversity Information and ValORIZATION that will focus on environmental information management and monitoring. A GIS-based, conservation data bank will hold information and generate reports on Madagascar's existing wildlife and plant species as well as on the socioeconomic status of people in communities surrounding

protected areas. This effort is supported by Tropical Research and Development and the U.S. Geological Survey. Immediate plans call for assessments of its mandate, audience, and the resources available for initial data collection.

Integrated conservation and development. Phase I activities, the initial research and proposal design period, neared completion by the end of 1993. In most cases these activities involved collecting information on the ecological, social, economic, and agricultural situation and the potential of each integrated conservation and development site and the testing of certain methods for balancing conservation with development for local communities. Greater emphasis is being given in Phase II, which is just beginning, to development at human population pressure points near protected areas. Specific hypotheses are being developed for all key activities to test and monitor the impacts of those activities on local behavior and on sustainable, protected area management.

Six specific conservation and development projects are receiving USAID support in widely varying stages of development. In Masoala, for instance, CARE has taken over from the Missouri Botanical Garden as the primary managing agency. Its \$2.7 million contract provides for establishing a national park and defining the park's buffer zones. In support of this effort, project organizers will also set up a biodiversity data bank, test environmentally sound agricultural and forest techniques for use with local farmers, survey marine resources and design a subcomponent of the project to address their conservation, and strengthen community groups' efforts aimed at alternative agriculture practices and wildlife conservation.

In Andohahela Reserve, managed by World Wildlife Fund (WWF), Phase I entailed studies of reserve ecosystems, which range from moist tropical forest

to spiny desert to mountain climates, all in one category I reserve. Andohahela's buffer-zone development activities are important to protecting its unique resources, so WWF's Phase II proposal was revised this spring to include a heavier emphasis on such development activities as livestock raising.

Volunteers in Technical Assistance (VITA) will be managing Andasibe/Mantadia with a \$2.7 million grant approved in May 1994. With expertise from Clark University, Sampan'Asa Momba ny Fampanandrosoana (SAF/FJKM) (a Malagasy NGO), and the Tropical Forestry Management Trust, VITA has developed small income-generating project proposals for peripheral zone communities through a participatory rural appraisal process. Next steps include redemarcating the park's boundaries and initiating community action plans.

Ranomafana National Park, where revenues from tourism have increased significantly during the life of the project, is being managed for Phase II by the State University of New York at Stony Brook under a \$2.7 million grant. Cornell University and the Malagasy NGO Tefy Saina will contribute with improved agriculture activities. Zahamena Strict National Reserve is being overseen by Conservation International with a \$2.7 million USAID grant and an additional debt swap. Organizers expect these efforts to feed into ANGAP's efforts to reform resource policy, especially on the question of recognition of communal land tenure rights. At Amber Mountain/Ankarana/Analemera, WWF, with CARE International and Veterinarians without Borders, is managing the \$2.7 million Phase II to build on conservation efforts from Phase I and integrate sustainable agriculture and livestock raising to offset threats from slash-and-burn farming.

Conservation action grants. A lack of Malagasy NGO capacity has constrained this component of the project.

Following an internal evaluation, PACT has increased its emphasis on assisting NGOs with project design, financial management, and participatory development for community action grants. An example of a new action grant activity is an agroforestry project near the Betampona reserve. Run by SAF/FJKM, the project aims to help local farmers, who selected the activity themselves, move from *tavy*, or slash-and-burn agriculture, to more sustainable techniques. The project has established two village-based tree nurseries with pine, eucalyptus, and papaya and plans to train villagers in hillside agroforestry techniques. Three field monitors have been hired by the action grant program to expand outreach and technical assistance to nongovernmental groups in buffer zones.

The SAVEM project, which underwent its midterm evaluation in summer 1994, has laid the groundwork for the newer *Knowledge and Effective Policies for Environmental Management* (KEPEM), which will focus on strengthening the policy framework for sustainable environmental management (see separate project profile on KEPEM).

—Kara Page, *Datex*
6/6/94

¹ World Resources Institute, *The 1994 Information Please Environmental Almanac*, (Boston: Houghton Mifflin Co., 1994), p. 420.

² The World Conservation Union (IUCN) designates natural areas as Category I when public access needs to be severely restricted because of the delicate and representative nature of the ecosystem. Category II is used for national parks and areas open for visitors. (World Resources Institute, *World Resources 1994-95* [New York, New York: Oxford University Press, 1994], pp. 247-50.)

Conservation Areas with SAVEM Project Activities



- 1 Ankarana
- 2 Amber Mountain
- 3 Analemera
- 4 Masoala
- 5 Zahamena
- 6 Mantadia
- 7 Ranomafana
- 8 Andohahela

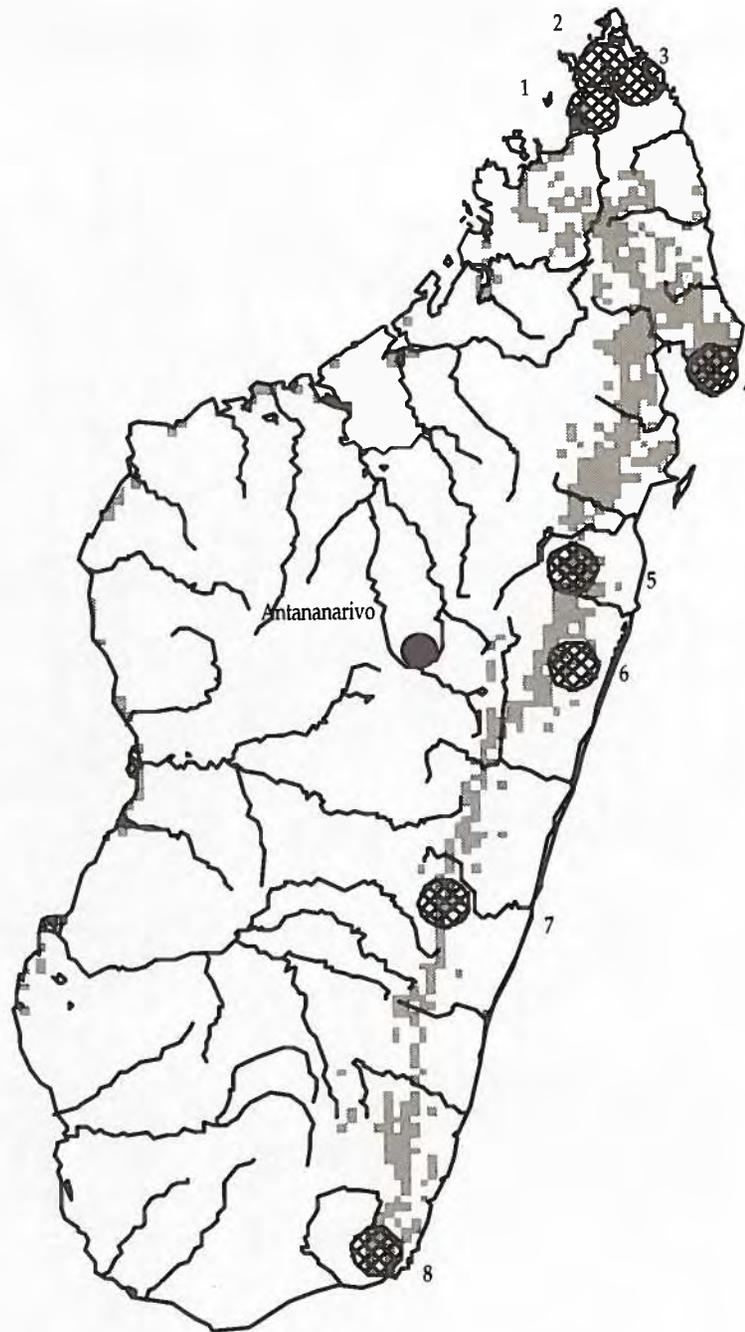
Closed Tropical Forest



Rivers



Produced for USAID by the Environment and Natural Resources Information Center (ENRIC).
Map compiled and generated by David Neufeld (ENRIC Program Analyst). Sources of data: closed tropical forest cover and conservation areas - World Conservation Monitoring Centre; country boundary and hydrography - Environmental Systems Research Inc. (ESRI); USAID project activity sites based on research conducted by Kara Page (ENRIC Researcher).



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