



## Linking Health, Population, and the Environment in Madagascar

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**E**nvironmental Change and Health Outcomes (ECHO) is one of the broad program areas of the Environmental Health Project (EHP). An important component of ECHO is to assist nongovernmental organizations (NGOs) and other groups implementing field projects that combine natural resource management with interventions to improve health. Under this Integrated Programs component (ECHO/IP), EHP partners with organizations that have experience and expertise in environmental conservation, including managing watershed, forest, arable lands, and maritime environments in communities surrounding parks and protected areas as well as in general settings.

EHP is implementing a four-year program in Madagascar linking and integrating activities among projects in health, population, and environment (natural resource management). The central hypothesis of this activity is that integrating natural resource management with population and health will make these projects more effective and sustainable. EHP's support will concentrate in biologically diverse ecosystems in two of Madagascar's priority conservation zones, Moramanga and Fianarantsoa. Funding is provided by the U.S. Agency for International Development Global Bureau's Population, Health, and Nutrition Center.

*Voahary Salama* or Integrated Programs Initiative (VS/IPI), a consortium of 20 partners in Madagascar that EHP helped to set up, implements the program. The partnership includes USAID/Madagascar, 7 NGOs, a Malagasy foundation funded by the Summit Foundation, and 12 other organizations,

including several USAID-funded projects, which provide funding, technical assistance, and implementation support. For example, the University of Michigan Population-Environment Fellows Program and its Impact Assessment Project (IAP) support participatory action research. VS/IPI aims to strengthen the capacity of NGO partner organizations in management and coordination, developing and testing, modeling approaches for integration, evaluating effectiveness and synergies created by different integration models, disseminating lessons learned, and replicating best practices in integrated approaches locally, nationally, and internationally.

The link between environmental degradation and declining health is complex, and effects become concrete only in the long run. However, interventions have to be simple and effective in the short term to be meaningful to households and feasible for communities. Based on health and environmental data and national priorities, four themes for integration with natural resource management have been identified: (1) household food security; (2) smaller, healthier families; (3) sustainable agriculture and use of natural resources (land, water, forest); and (4) healthy communities that can support household well-being.

Within the household food security context, the program addresses market gardens for cash income as well as improved nutrition of children and women, including year-round food for the family. Smaller and healthier families are essential to support household livelihood and economic well-being, which depend on the ability to plan



family size and to protect children from preventable diseases.

The links among poor land use practices, the environment, and health are also obvious. Deleterious agriculture practices, such as slash-and-burn, lead to deforestation and environmental problems, such as soil erosion. Sustainable agriculture and use of natural resources are important to protect watersheds and to maintain the quality of water and reduce the risk of diarrheal diseases. Environmental management techniques, such as altered irrigation schemes in rice fields, can reduce diseases transmitted by mosquitoes, such as malaria, and by other vectors. Intensification of land use helps to absorb more labor and produces higher yields closer to home, and the management of communal resources, such as forests, can provide reliable benefits to all households. Finally, healthy communities are vital to achieve sustainable development, because they provide the human resources and structures for family planning services, schools and educational opportunities, and community groups that take full ownership of development activities.

VS/IPI takes a practical approach and addresses links among sectors to increase access to health, family planning, and environmental interventions by relying mainly on existing program resources. Synergies are expected in several ways, for example, supporting communities and groups in a consistent manner, explicit linkages between messages and services by partners' learning from one another's best practices, sharing resources for fieldwork and evaluation, and cross-training field agents from other sectors. The VS/IPI approach incorporates lessons learned from integrated rural development projects and integrated conservation and

development projects as well as principles developed for cross-sectoral approaches in the democracy and governance context.

EHP is playing four principal roles in the initiative:

1. To support **monitoring, evaluation, and operations research** activities, including the development and testing of new indicators and data collection instruments to measure integration
2. To improve **management** of integrated approaches at the grassroots level
3. To ensure national-level **coordination** of activities
4. To **disseminate** lessons learned

To date, NGO partners have conducted participatory rapid assessments following training provided by the University of Michigan IAP. EHP has designed a new integrated health, population, and environment household survey instrument and collected baseline data in intervention and control communities. The combination of household and community data will inform the selection and implementation of integrated health, population, and environment interventions.

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