



# BEST PRACTICES in SCALING UP CASE STUDY

## MADAGASCAR

### Scaling Up Across Sectors: The Growth of the Population–Health–Environment Program

#### INTRODUCTION

While Madagascar is one of the world's poorest countries, it is rich in biodiversity. Unfortunately, the population growth rate of 2.8% stresses both the human population and the environment. More than 80% of the island's flora and fauna are endemic, and much of it threatened. Human activities and other related factors affect protected areas and forest corridors, and have led to the degradation of the forests, soil erosion, and lowered soil fertility and water quality. According to estimates,<sup>1</sup> over-exploitation of natural resources will likely destroy most forest cover within the next 20 years if major changes are not initiated.

More than 70% of the population of Madagascar lives below the poverty level,<sup>2</sup> life expectancy is low, and poor health is the norm. Over the last decade, however, some major health indicators have improved, including infant mortality (58 per 1000 live births in 2003/4<sup>3</sup>), and maternal mortality (469 per 100,000 live births in 2003/4<sup>3</sup>—still unacceptably high, but down from 500-600 in 1992). Children under five still suffer from preventable diseases such as malaria (59%), acute respiratory illness (39%), and regular episodes of diarrhea (10%)<sup>3</sup>. Malnutrition levels also remain high among children under five; according to DHS, in 2003/4, 45% of children under-three years old were

stunted, while 14% suffer from malnutrition. Reproductive health indicators have improved significantly: Use of modern family planning methods has increased to 18%, but sexually transmitted infections and HIV continue to threaten people of reproductive age.

#### Why It Mattered

Before the late 1990s, rural inhabitants in ecologically threatened areas of Madagascar had little access to basic primary care, and environmental or agricultural extension services. Since then, JSI and various partners have worked closely together to strengthen development efforts, including health, population, and environmental interventions. By 2005, a number of local, nongovernmental organizations (NGOs) with funding from a variety of sources were supporting development in communities along the forest corridors. A national consortium with 29 member groups had been formed to link population, health, and environmental (PHE) efforts. As a result, key health indicators and land use practices have improved. There is also evidence suggesting gains in efficiency and cost-effectiveness from an integrated PHE approach. The Madagascar PHE experience now serves as a model for other countries interested in linking the health and environmental sectors.

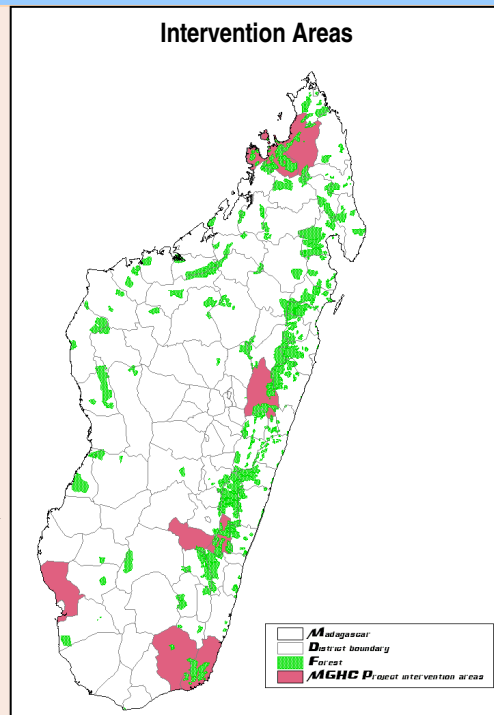
In response to the lack of access to both health and environmental/agricultural extension services and the lack of family planning services in conservation zones, donors began experimenting with joint population, health, and environmental initiatives in the early 1990s. Ini-

tially, the primary leader was the U.S. Agency for International Development (USAID) and its implementing agencies—including John Snow, Inc., and JSI Research & Training Institute, Inc.

By the late 1990s, specific PHE interventions had been established in a few villages in fragile environmental zones, building on the expertise of local health and environmental NGOs and government institutions. Implementation strategies from both the environmental and health sectors

were used to support these activities, which included participatory rural appraisal, community contracts, behavior change communications strategies and materials, and social marketing. By focusing on small, do-able actions at the community level, the PHE movement began to grow.

In 2000, a major milestone was reached with the founding of *Voahary Salama*, then a consortium of 29 partners including funders, USAID-funded projects, including the Environmental Health Project (EHP), and key local NGOs. *Voahary Salama* served as a platform for partners to exchange lessons, examine existing PHE initiatives throughout the country, identify effective approaches, and document results. Many local NGO members were also interested in finding mechanisms to enable more secure funding for their ongoing PHE activities or in expanding activities into new zones. As a result, a major Packard Foundation grant for expanding PHE work was awarded to JSI and several local environmental sector partners in 2001. The Packard Foundation project was funded through 2006, although some activities are still being implemented by local NGO partners throughout the country.



By 2002, *Voahary Salama* members had adopted a strategy from the Malagasy health sector known as **Champion Communities**, adding environmental messages and sustainable land-use practices to the health package. The Champion Community strategy encourages and assists communities to achieve specific objectives and then enables them to celebrate their collective success. By 2005, PHE initiatives were operating in key fragile areas in four of six provinces.

JSI and its partners played a major role in this PHE expansion, invest-

ing significantly in local health and environmental NGOs in the mid-1990s. JSI contributed significantly to PHE scale up by improving institutional governance and organization and by reinforcing the technical and managerial capacity of local health and environment NGOs.

JSI also assisted local NGO partners to identify and pursue new or alternative financial partners. International partners such as the Summit Foundation, the Environmental Health Project (in which JSI was also a subcontractor), and USAID's University of Michigan Health-Population-Environment Fellows Program all contributed technical support, new initiatives and models, financing, and collaborative energy to the exciting atmosphere in which PHE expanded.

## RESULTS

### *Measuring progress and determining impact*

JSI officially launched the Packard Foundation-funded Madagascar Green Healthy Communities' (MGHC) Project in 2001. In MGHC zones, progress was measured by local monitoring and recordkeeping that tracked the increased use of essential health services and new

agricultural and environmental harm-mitigation techniques. During 2002, a simple, locally appropriate, integrated monitoring tool was developed for community use that solidified MGHC commitment to local ownership of all parts of the project. In addition, DHS III results were used to gauge improvements in larger areas that included PHE activities.

#### **Process-Level Results**

- ◆ Geographical coverage of PHE activities increased between 2001-2003 from 17 villages of 7,000 inhabitants and about 1,141 households, to 33 communes involving 32,000 inhabitants and some 6,400 households.<sup>5</sup>
- ◆ Local farmer/fishing organizations emerged that are more organized and functional than ever before. One example is a Farmers' Association with 1,620 members that has become a large-scale ecological ginger farm producing in 2004 300 tons of ginger on 205 hectares, financially benefiting 12,960 households.<sup>5</sup>

#### **Six Goals of PHE Champion Communities**

1. 80% vaccine coverage rate for children under one
2. 65% use rate of health cards for children under 3
3. 2% annual increase of family planning use
4. 5 new management systems applied to farming
5. 10% cultivated surface using improved agriculture techniques
6. 500 or more plants reforested in 9 months

**OR**

6. A minimum of 5 households participate in income-generating activities.

- ◆ The consortium *Voahary Salama* grows each year, bringing in new members and diversifying funding for PHE initiatives.
- ◆ Problems were identified during open forums and smaller meetings in every community and at the county level as well, creating local monitoring of bottlenecks to desired changes. This enabled all stakeholders to engage in the monitoring and

evaluation process—not only those at regional and national levels.

- ◆ The Champion Community approach was successfully expanded to marine and coastal zone management from forest areas after 2003, in collaboration with FAO/UNDP.
- ◆ 88% of participating villages met their PHE objectives and intend to continue implementation with or without funding.
- ◆ Overall, 83% of the 2015 national objectives already have been reached.<sup>5</sup>
- ◆ An advocacy video was developed to disseminate the PHE community approach at regional, provincial, and national-level workshops. The video shows how communities set and met their PHE objectives.

#### **Impact-Level Results**

According to a survey done by EHP and *Voahary Salama*,<sup>6</sup> the community-centered and integrated PHE program achieved significant results over a three-year period. Twenty-nine key PHE indicators were higher among integration versus non-integration communities. The non-integration sites saw improvements as well, but these lagged behind the integration sites for most indicators. Use of preventive health services such as vaccination and modern family planning increased in PHE project zones, surpassing national norms. Home-based prevention measures, including use of treated bed nets, increased, as did participation in reforestation efforts. In addition, malnutrition prevalence dropped, and access to safe water improved.

## **STEPS IN THE SCALE-UP PROCESS**

The most important steps in the scale up of integrated PHE activities were as follows:

**STEP 1. Recognize and reinforce the connection between health and the environment:** During the 1990s, various local and international groups working in Mada-

gascar recognized the specific and critical link between human health and the environment. USAID's PHE initiative supported innovative programs that introduced family planning and child survival interventions into the conservation arena as a response to poor community

health and demographic pressure in endangered biodiversity areas. Local Malagasy NGOs working in both sectors also recognized health and environmental issues as closely linked. JSI worked with international and national partners, donors, and ministries to increase

### 29 Key PHE Indicators used in Voahary Salama Areas

<b><u>Impact Level Results</u></b>	<b>Baseline Survey 2001</b>	<b>Final Survey 2004</b>	<b>National Survey 2003-4</b>
<b><i>Use of Modern Contraception (%)</i></b>			
Contraceptive prevalence rate of women of reproductive age (WRA) :			
All modern methods	11.7	16.8	14
Injectibles	5.9	9	7.5
Oral contraceptives	4.8	6.4	2.9
WRA knowing a modern contraception method	76.9	78.9	82
<b><i>Infant Health (%)</i></b>			
Children 12-23 months fully immunized by age 1	51.2	58.7	47.3
Vitamin A coverage (past 6 months)	41.2	59.8	76.2
Moderate and severe malnutrition prevalence (z < 2SD)	52.4	46.9	45
Prevalence of diarrhea of children under 5 (past 2 weeks)	14.1	7.9	9.8
Access to safe water	19.1	24.6	34.7
<b><i>Infectious Disease Prevention Promotion and Hygiene (%)</i></b>			
Access to safe water	19.1	24.6	34.7
Access to appropriate sanitation facilities	52.1	50.2	3
WRA using treated bednets (last night before survey)		48	31.5
<b><i>Maternal Health (%)</i></b>			
WRA heard of sexually transmitted infections (STIs)	63.2	77.5	51.8
Source of information in STI in village (volunteer/ health worker)		41.4	
WRA heard of HIV/AIDS	84.8	82.9	79
Source of information in AIDS in village (volunteer/ health worker)		41.8	
WRA knowing "abstinence" as a mean of STI prevention	3.2	7.4	52.9
WRA knowing "behavior" as a mean of STI prevention	46.9	66.1	60.4
WRA knowing condoms as a mean of STI prevention	31.6	56.4	50.8
WRA having a health card	76.4	83.7	
WRA having made 4 or more prenatal visits (last pregnancy, past 5 years)	30.9	48.3	39.9
Last delivery assisted by a health worker	51.7	61	79.9
<b><i>Improved Management of Natural Resources (%)</i></b>			
Household knowing that slash and burn causes soil degradation	61.8	68.4	
Household knowing slash and burn causes biodiversity loss	17.8	15.4	
Household knowing fire protection measurements	65.5	69.6	
Household knowing the law on forest use	63.6	63	
Household involved in reforestation of eucalyptus	58.4	70.2	
Household trained in improved agricultural techniques	26.7	37	
<b><i>Gender (%)</i></b>			
Women participating in community associations	29.5	33.2	

Sources: Operational Results – Integrated Approach in PHE, Madagascar, 2001 - 2004; DHS, 2003 - 2004

awareness about PHE connections. JSI also encouraged donors to support integrated approaches.

**STEP 2. Create partnerships between the MOH and other ministries, donors, USAID partners, and local NGOs:** The creation of the consortium *Voahary Salama* in 2000 was the culmination of partnership efforts in conjunction with a strategic infusion of technical support from USAID projects. PHE partners use this forum to learn about and expand the use of successful approaches and results. Other venues are also used to create or encourage partnerships for increasing PHE program activities.

**STEP 3. Integrate lessons learned from prior health projects:** Beginning in 1999, the USAID-funded *Jereo Salama Isika* project launched the Champion Community approach in 20 health districts in two provinces. This effort scaled up and broadened previous work under the BASICS Child Survival Project. Reproductive health was added into the child survival framework, expanding its technical and geographic reach. *Jereo Salama Isika* also worked with local organizations (both for-profit and not-for-profit), which expanded coverage among specific groups including factory workers, rural populations, and students in sensitive environmental areas.

Simultaneously, USAID's environmental sector projects worked on biodiversity and community awareness approaches in many of the same communities. Successful approaches were documented and disseminated. It is hypothesized that the presence of proven and well-accepted interventions in each sector was the key reasons why scaling up and integration were successful in such a short period.

**STEP 4. Identify and obtain additional resources:** JSI recognized and acted on the need to find additional resources for scaling up, and generated support among potential partners to approach the Packard Foundation

for funds. Over the course of the project, JSI continued to encourage *Voahary Salama* to diversify its funding base and to seek additional funding.

**STEP 5. Involve local communities to ensure that scale up meets their needs:** In 2002, *Voahary Salama* adopted an integrated approach to health, environment, and agricultural activities. This tactic was believed to better respond to community needs than a more sectoral approach, as it included activities that addressed not only health care, but also the alleviation of poverty. Additionally, the method offered alternatives to local



Village Gravity Water Supply System: Villages involved in PHE projects had improved access to safe drinking water and less diarrheal disease.

populations in the preservation of the environment. In this integrated approach, the local community ensures the availability of health services and organizes itself to best manage natural resources and/or the water supply. Communities also provide volunteers and sell subsidized social marketing products, including seeds, in local supply centers. While some donors and national governments can endlessly debate the relative merits of focused versus integrated programs, communities almost always identify, express, and seek solutions to their needs in an integrated way.

**STEP 6. Invest in building local skills:** Working with communities to identify needs, plan actions, and manage implementation is an enormous undertaking and

investment. It often takes more time and resources than the implementation of the technical actions. However, the time spent leads to more sustainable results and more proactive communities. Efforts include locally generated initiatives to harmonize development approaches, seek complementary funding, and add new activities, such as those to improve food security, construct housing for medical personnel, begin community-based ecotourism, and rehabilitate health centers.

**STEP 7. Identify and scale up successful methodologies:** Since the Champion Community approach was successful in villages, it was scaled up to selected counties (communes), committing local authorities to develop effective ownership through local participation in all stages of implementation, including:

- ◆ Formally signing contract,
- ◆ determining PHE objectives based on local needs,
- ◆ establishing local monitoring committees,
- ◆ implementing and evaluating results,
- ◆ organizing festivals,
- ◆ Making decisions for local development actions,
- ◆ integrating PHE into the Commune Development Plans to benefit more households and to ensure sustainable development.

## WHAT WORKED

PHE efforts in Madagascar straddled several ministries, a number of donors, and many local partners and thus gained support, technical resources, and recognition from a variety of sources. Often discussed at length among *Voahary Salama* members, clear concepts enabled a coordinated scale up to take place. These concepts include:

- ◆ **Supporting community involvement** at each step of the process, from the initial identification of linked PHE problems, priority setting, preparation and signature of contracts, skill building, implementation and monitoring, evaluation of results, and celebration of success.

- ◆ **Closely involving local authorities** ensured long-term continuation of activities in each Champion Community; extension agents, health officials, and others were actively involved in planning and implementation.
- ◆ **Seeking and supporting synergies among stakeholders and partners** helped create whole groups of concerned players working toward community development in a new way.
- ◆ **Working within the existing Communal Development Plan**, the PHE program benefited from its **alignment with national goals** in several sectors and supported existing leadership's stated objectives.
- ◆ **Focusing on small, do-able actions** that communities and households could understand, implement, and monitor themselves.
- ◆ **Selecting high-visibility activities** in the areas of reforestation, income generation, child health, potable water, malaria prevention, and family planning produced tangible results for communities and motivated them to meet additional goals.
- ◆ **Creating an amiable, competitive environment** among communities to achieve Champion Community status led to shared vision for broad improvements and community members' behavior change.
- ◆ **Nurturing public-private partnerships** and leveraging funding for scale up yielded greater results.



Community members all benefit from improved agricultural practices and better health.

## WHAT WE LEARNED ALONG THE WAY

- ◆ **Integrated multisectoral programs**, focusing on health—and in this case environment and livelihood—**can produce simultaneous measurable results in all concerned sectors.** The results are based on scientifically valid and practical (i.e., small, do-able) interventions in every sector.
- ◆ **Approaches, materials, community volunteer networks, and technical support need to be carefully coordinated and integrated.** This does not diminish results in any one sector (e.g., health), but may make those results more sustainable in the long-run if other development indicators at the community and county also improve.
- ◆ Continuous availability and use of information for decisionmaking by volunteer community workers is essential. However, **volunteers tend to be effective at performing this service only for a limited period** (approximately two years). Unpaid volunteers, while initially motivated by training and increased community status, often move on to paid work or experience major life changes (marriage, child-bearing) and can no longer participate in volunteer work. Some volunteers receive minimum compensation from social marketing sales but it is not clear if this increases the longevity of their activity.
- ◆ **It is necessary to either develop a system to continue to motivate the volunteers**, to ensure the progressive institutionalization of the volunteer system within the national framework itself, **or to replace/reinforce volunteers with other channels of information** such as radio. While mass media cannot replace human communications, it has a longer active life than the average volunteer.
- ◆ **Plans are often too ambitious.** A limited number of objectives that are achievable within a pre-determined period should be set by the commune and the community. Objectives must be clearly adapted to each community's priorities, their technical capabilities, and management abilities (e.g., number of active NGOs or high literacy rates).
- ◆ **It is important to involve local and regional development officials in planning and periodic reviews in order to integrate interventions** and implementation strategies fully into overall development planning. This adds to effectiveness and the viability of PHE as part of local development programs.
- ◆ **More practical research is needed** to understand the “intersection of success” among different sectors and the long-term impact on health, population, and the environment. For example, what are the factors that enable communities to improve both



Awareness building sessions helped engage communities in the process and build community support.

health and environmental indicators in challenging field situations? Why are some communities more successful than others? How important is the support of locally elected officials? How can the improvements become fully sustainable after the close of the projects?

## EXTERNAL PROGRAM REVIEW

In mid-2005, an external review of PHE programs in several countries was jointly commissioned by the David and Lucille Packard Foundation and USAID. Specific program initiatives reviewed included the MGHC Project and the Environmental Health Project's

assistance to the *Voahary Salama* consortium. Many of the conclusions of the review were similar or the same as the results documented by JSI and its partners. In addition, a few of the external review's conclusions support assumptions that JSI had but was not able to confirm. The larger, cross-country comparative review<sup>2</sup> concluded that:

- ◆ “The *Champion Community approach* used in Madagascar is an excellent model that has proven ability to mobilize strong community participation to achieve clearly defined, multisectoral targets within a one-year period.”
- ◆ “Although OR [operations research] results have not always been statistically significant, the ‘on-the-ground’ results have been significant enough to convince most PE [population/environment] and PHE practitioners that integrated programs have better results than single-sector programs and are more programmatically efficient.”
- ◆ “The inclusion of a micro-credit (livelihood) component as part of PE program appears to encourage even stronger community involvement in Coastal Resource Management and Natural Resource Management activities and may bring greater impact.”
- ◆ “In programmatic terms, PE projects are often both cost-efficient and effective. A large number of NGOs have demonstrated that they can successfully implement integrated programs with the positive effects of expanding target audiences, reducing operating expenses, and fostering community goodwill and trust.”

## RESOURCES

<sup>1</sup> Madagascar National Environment Office, UNESCO, and USAID, 2004-2006.

<sup>2</sup> Pielemeier, John. Review of Population-Health-Environment Programs Supported by the Packard Foundation and USAID. Population Reference Bureau and CEDPA, August 2005.

<sup>3</sup> Demographic and Health Surveys (DHS) have been carried out in 1992, 1997 and 2003-2004; statistics cited are from these DHS surveys unless otherwise noted.

<sup>4</sup>DHS 2003-2004, diarrhea prevalence within last 2 weeks.

<sup>5</sup>Madagascar Green Health Community Project, Final Report (January 2002- September 2005) for Packard Foundation Grant # 2001-18055. JSI Research & Training Institute, Inc., 2005.

<sup>6</sup>“Healthy People in a Healthy Environment: Impact of an Integrated Population, Health, Environment Program – Madagascar,” revised final report, Environmental Health Project, USAID, May 2005.

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