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The Integration Imperative: How to Improve Development Programs by Linking Population, Health, and Environment

By Roger-Mark De Souza

As globalization continues to strengthen the interactions among population dynamics, human health, environmental management, economics, politics, and culture, we must refine our development programs to address these complexities. Since the early 1990s, a few small-scale community programs in developing countries have been using integrated approaches that address population-health-environment (PHE) links in ecologically fragile areas, such as biodiversity hotspots, urbanizing regions, and coastal zones. The key objective of these projects has been to increase access to family planning and health services, while simultaneously helping communities manage their natural resources in ways that improve their health and livelihoods, as well as conserve critical ecosystems. In this article, I provide some observations from my decade-long experience with emerging PHE projects around the world, and offer recommendations for future directions in this promising field.

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Why Integrate Population, Health, and Environment Programs?

Integrating PHE provides multiple benefits. An assessment of projects in Madagascar and the Philippines supported by the U.S. Agency for International Development (USAID) and the David and Lucile Packard Foundation found that integrating environment into reproductive health and family planning programs encourages men and adolescent boys to get involved, while integrating health into natural resource management projects prompts greater participation by women and adolescent girls (Pielemeier, 2005; Pielemeier et al., 2007).

Recent operations research tested the effectiveness of synergies among reproductive health, natural resource management, and food security programs (Castro & D'Agnes, 2008). In this instance, an integrated approach improved both reproductive health and coastal resource management more than single-sector programs—strongly suggesting that the integrated approach adds value.

The PHE approach also helps build trust with community members because it usually addresses issues they consider important, such as health services, thus providing an entry point that otherwise might be difficult to secure. Some community members come to believe in the PHE approach so strongly that they work hard to sustain the program after outside funding stops.

Additionally, PHE programs offer some common ground with family-planning opponents, who appreciate the environmental benefits and livelihood opportunities these programs deliver. Policymakers and local NGOs like that the integrated approach addresses a community's core needs, such as poverty alleviation, disaster mitigation, and food security. The PHE approach also builds grassroots movements, which can have lasting effects, such as greater community cohesion.

Finally, the PHE approach enables projects to increase their efficiency through economies of scale that allow for pooling expertise from three fields, leveraging efforts across programs, and merging funds from different streams. NGOs can save money by sharing transport, training, and personnel, and can reach a larger audience with less effort and expenditure. And community members save time spent participating in or managing different programs.

Dancers from a local village perform for visitors at Nyungwe National Park in Rwanda. Destination Nyungwe Project, an integrated development project in the park, seeks to ensure that eco-tourism benefits local communities so that they have a stake in protecting the park (Photo courtesy Rachel Weisshaar).

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Critical Links: Population, Health, and the Environment by Roger-Mark De Souza, John S. Williams, and Frederick A. B. Meyerson, seeks to answer three critical questions: What is the nature of PHE relationships? How do they affect human well-being and the environment? What can we do to address these impacts?:
www.prb.org/Source/58.3CriticalLinksPHE_Eng.pdf

In *Scaling Up Integrated Population, Health and Environment Approaches in the Philippines: A Review of Early Experiences*, De Souza reviews the early PHE projects in the Philippines and looks at the constraints on and opportunities for scaling them up:
www.worldwildlife.org/what/whowehelp/community/WWFBinaryitem8788.pdf

Population, Health, and Environment Basics, a free online course, explores the ways in which population, health, and the environment interact in people's lives:
www.globalhealthlearning.org/login.cfm

Integrating Population, Health, and Environment Projects: A Programming Manual gathers evidence from programs in Madagascar, the Philippines, and other countries where integrated approaches to development have been explored and brought to scale over the past decade:
www.ehproject.org/PDF/phe/phe-usaid_programming_manual2007.pdf

A Guide for Monitoring and Evaluating Population-Health-Environment Programs by MEASURE provides a series of established, evidence-based indicators for measuring progress and promoting evaluation of PHE programs in the field:
www.cpc.unc.edu/measure/tools/other-health-related-programs/me-of-phe-programs

A volunteer peer educator speaks about the consequences of dynamite fishing at a family planning action session in a small fishing community in Roxas District, the Philippines (Photo courtesy Meaghan Parker).

Table PHE Project Models

PHE Models	Examples of Integrated Project Approaches
Pilot projects that test PHE integration as a solution to a problem	To reduce poverty, villagers increase their understanding of population pressures on fragile ecosystems and voluntarily use reproductive health services, mangrove reforestation methodologies, and community mobilization programs.
Demonstration projects that raise awareness of the PHE integration model	National Park rangers implement strategies to manage population movements into ecologically sensitive areas, while providing local populations with economic livelihood opportunities and respecting land rights and land-use concerns.
Service-delivery projects that provide services not offered by the government	Local NGOs work with municipal health offices and village service providers to implement a comprehensive, voluntary reproductive health program in urbanized coastal villages.
Capacity-building projects that create institutions, skills, and physical infrastructure or systems	Program staff provide training materials and workshops on PHE operational models and associated skills (including communications/advocacy planning; GIS/spatial analysis; and monitoring and evaluation).
Policy projects that use advocacy and research to change policy on PHE integration	Communities work together to build coalitions of members of the media, policymakers, technical experts, and program managers to inform policy decisions at community, regional, and national scales.

PHE Programs: Yesterday and Today

The first generation of PHE projects from the 1990s comprised mainly pilot, demonstration, and service-delivery projects (see table). Today, many of these projects are helping institutions that would like to learn PHE methodology and approaches, and are collectively building a PHE knowledge base, skill set, and operational systems. Additionally, many current PHE projects are seeking to change policy, using advocacy and evidence to inform deliberations at the local and national levels (Hernandez, 2006; Orians & Skumanich, 1995; PFPI, 2006).

Current PHE programs include:

- In Uganda, on the perimeter of Bwindi Impenetrable National Park, program managers are exploring how population pressures affect endangered mountain gorillas, offering family planning services, and examining the links between animal and human health (Kalema-Zikusoka & Gaffikin, 2008);
- In Nepal, family planning is part of a community forest management program that is working to reduce human-wildlife conflict in rural areas (D'Agnes et al., 2009);
- In Zimbabwe, the faith-based NGO Catholic Relief Services and two community organizations are working together to improve the sustainable-livelihood and food-production skills of rural children vulnerable to HIV/AIDS (De Souza et al., 2008); and
- In East Africa, the Population Reference Bureau is working with partners in Ethiopia, Kenya, Rwanda, and Uganda to create national PHE coalitions and regional networks that help build capacity and teach PHE methodologies (Yin, 2008).

Bilingual reproductive health educator Cony Chub invites women to a meeting to discuss family planning and the possibility of having a volunteer promoter in their community in Jobompiche, Petén, Guatemala (© 2005 Ericka L. Moerkerken, courtesy of Photoshare).

Organizational Models: From Staggered to Bridge

PHE programs can either start as separate activities that are gradually integrated or can be fully integrated from inception. One model, the "staggered" approach, introduces interventions first in one sector and then in another. For example, in Petén National Park in Guatemala, local partners first provided health services and subsequently introduced organic farming in collaboration with midwives and reproductive health promoters. The project staff of ProPetén, the local implementing NGO, provided materials and supplies, helped develop a model organic farm, and worked with agricultural promoters to incorporate natural pesticide use into existing practices (Grandia, 2005).

A volunteer drama group, the Rutendere Health Promoters, perform a skit demonstrating the dangers of zoonotic diseases and the benefits of gorilla eco-tourism on the outskirts of Uganda's Bwindi Impenetrable National Park (Photo courtesy Conservation Through Public Health).

On the other end of the spectrum, the "bridge" approach relies on fully interdependent activities. For instance, Save the Children's PHE projects in the Philippines provided both family planning and mangrove reforestation (Chan-Pongan, 2006). After meeting to discuss reproductive health with community educators, the attendees would then plant mangroves together. Village residents increased their use of family planning products and improved their environmental practices; in one study, after Save the Children's education efforts, only 19 percent of the project's villagers used dynamite to fish, compared to 60 percent of a control group (ECSP, 2003).

Both the staggered and bridge models can be implemented by one organization or by a partnership of two or more organizations. Some project staff report that that the organizational model is less important than other factors such as local leadership and community acceptance of the PHE concept (Pielemeier, 2005). Others disagree, arguing that more integrated models lead to greater buy-in from program staff, which leads to greater sustainability and the development of spin-off community projects (De Souza, 2008).

Working at Different Scales

Many of the early PHE projects operated at vastly different scales. The Champion Communities projects in Madagascar, for example, started in small communities that set and achieved tangible goals in health, family planning, agriculture, environmental sanitation, and conservation over a defined period of time. These projects are now being scaled up to the regional level (Mogelgaard & Patterson, 2006).

At the national level, the Population Reference Bureau partnered with local NGOs in the Philippines to build a coalition that is implementing a country-wide campaign for PHE integration. The campaign incorporates evidence and data on PHE links into policy documents; uses advocacy and communications to inform and mobilize key stakeholders; and works with journalists to increase reporting on and public discussion of PHE issues, particularly among policymakers (De Souza, 2004b, 2008).

At an even broader scale, the World Conservation Union (IUCN) worked with all of the ministries of environment in the Meso-American biological corridor for eight years to implement gender-equity policies and action plans. These policies helped link reproductive health and family planning to environmental concerns. IUCN collaborated with regional policymaking bodies to develop strategic and operational plans; provide training in gender methodologies; refine gender indicators; and mainstream gender into environmental laws and policies (De Souza, 2004a).

Modern family planning is provided by a mobile clinic in Mkokoni, Kiunga Marine National Reserve, Kenya. The clinic provides regular access to basic health care and family planning (© Cara Honzak/ WWF-US).

About the Author

Roger-Mark De Souza is the director of foundation and corporate relations at the Sierra Club, the largest and oldest grassroots environmental NGO in the United States. Prior to working at the Sierra Club, De Souza served for 10 years as technical director for population, health, and environment at the Population Reference Bureau, where he provided strategic planning, technical oversight, and outreach for programs in Africa, Southeast Asia, and Latin America and the Caribbean. The author would like to thank Judy Oglethorpe (WWF), Janet Edmund (Conservation International), and Meaghan Parker (ECSP) for their review of an early draft of this article.

Scaling Up PHE Projects: Opportunities and Challenges

PHE programs have been successful at the community level, but will they be successful at the regional and national scales? Efforts to scale up programs in Madagascar and the Philippines has been relatively successful, due to the following factors (De Souza, 2006, 2008; Gaffikin, 2007):

- Early and continued recognition by the conservation community of how family planning contributes to environmental goals;
- Recognition by family-planning advocates and other health partners of the benefits of partnering with conservation organizations;
- Well-developed public-private partnerships among government agencies, NGOs, and local communities;
- Supportive national policies that PHE advocates can use as platforms to drive integration at the local level; and
- Devolution of power to local government (particularly in the Philippines), which allowed for community action, strong NGO involvement, and budget allocations for PHE interventions.

Illiterate women and girls learn about family planning and PHE connections in non-formal education classes in Nepal's Khata corridor (Photo courtesy Heather D'Agnes).

Despite these success stories, significant challenges remain, including insufficient funding and the lack of a common definition of "scaling up." This nascent field is just beginning to develop scientific evidence to support the case for successful PHE impacts at scales beyond the community level (De Souza, 2004a; Pielemeier et al., 2007; UNFPA, 2001).

The field continues to depend on outside donor support, even as local governments in the Philippines and Madagascar are increasing their contributions. PHE programs need to continue working to build local expertise to contribute to policy decisions, support expert networks, and increase understanding of PHE linkages.

More researchers should compare operational results from integrated programs to sectoral interventions in control populations to quantify PHE's effectiveness, as demonstrated by recent research from the IPOPCORM program in the Philippines (Castro & D'Agnes, 2008). Others should build on their efforts by systematically gathering data, incorporating such experiments into their programs, and seeking greater engagement with academics and technical experts.

Finally, we need evidence that not only reaffirms the value of the PHE approach at small scales, but also makes the case for its broader application. We must outline both the costs of bringing this approach to scale and the concrete

benefits it offers over single-sector programs. PHE advocates should use concrete indicators to prove to other NGOs and funders that the PHE concept is a good way to achieve development goals at scale. Using benchmarks could help future interventions identify both where to start and how to gauge their accomplishments. The PHE monitoring and evaluation guide developed by MEASURE Evaluation offers a foundation for developing benchmarks, but more programs and policy activities need to use it to develop detailed, prospective monitoring and evaluation plans (Finn, 2007).

Conclusion

The PHE approach can be an effective long-term strategy for alleviating poverty, managing natural resources, improving health, and supporting gender equality. PHE projects should explore opportunities for scaling up and deepening ties to key development priorities. PHE offers a step in the right direction—a flexible, innovative way for policies and programs to keep pace with today's rapidly changing world—and lays the foundation for empowering our children to manage these changes for generations to come.

Seaweed farmers in a small fishing community in Roxas district, the Philippines (Photo courtesy Meaghan Parker).

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In Laikipia and Samburu, Kenya, the Nomadic Communities Trust operates clinics by vehicle and camel to reach remote communities (© Shanni Wreford-Smith/ NCT and CHAT).

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