



Population Health Environment Programmes: An Integrated Approach to Development Post-2015

A PSDA Panel Presentation and Paper for the 2nd International Conference on Sustainable Development Practice, 17-18 September 2014, NYC

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Abstract

The drivers of extreme poverty, poor health, gender inequality, food insecurity, population pressures, unsustainable natural resource use and biodiversity loss are interconnected and often coexist, acting synergistically to adversely affect one another. Attempts to address these issues are likely to be more effective if they acknowledge this interconnectedness, and take a whole system approach to the challenge of sustainable development, by harmonising social, economic and environmental concerns.

Integrated Population, Health and Environment (PHE) programmes attempt to do just this. By taking a more holistic approach to address biodiversity conservation, livelihoods and health needs, including sexual and reproductive health and rights and lack of access to modern contraceptives, in an integrated way, PHE programmes are able to reverse this vicious cycle. This multi sectoral integrated approach can yield cost efficiencies through the sharing of resources, information and opportunities, and lead to more effective and sustained outcomes than traditional single sector approaches. The inclusion of reproductive health and

rights-based family planning components in PHE programmes has led to much needed improvements in women's health, with resulting advancements in gender equity, greater participation of women in natural resource management, greater involvement of men in family planning, strengthened livelihoods and increased community resilience.

This paper seeks to increase understanding of the potential role of this approach to drive progress towards a number of sustainable development related goals and issues, including in relation to biodiversity conservation, poverty alleviation, population dynamics, reproductive health, youth and community empowerment and gender equity. Coordinated by the Population and Sustainable Development Alliance, the conference panel and paper brings together PHE opinion leaders from policy through to implementation, featuring both new, and some of the world's most well established, PHE programmes. The first four sections of this paper showcase implementation of the PHE approach in a variety of environments and ecosystems around the world, including in coastal/marine areas, around freshwater lakes, in protected areas and in forests. The far-reaching benefits these interventions have brought to the health of communities and the ecosystems upon which they depend in the Philippines, Malawi, Madagascar and Ethiopia are set out, with discussion of how these programmes have been implemented and scaled up. This diversity of programmes demonstrates the breadth of settings in which PHE can be applied, and the potential that exists for wider replication. The final section provides a global overview of PHE, what the evidence tells us, and sets out both the challenges and opportunities that remain for replication. The Population and Sustainable Development Alliance believes that integrated PHE approaches have an essential role to play in driving progress towards Sustainable Development Goals. Within the context of the Post-2015 international development agenda policy makers, donors, academic institutions and other stakeholders must seize the opportunities and synergies that this approach offers to advance sustainable development through addressing the critical interrelationships between population dynamics, human health and the environment.

Key words:

Population Health Environment

SDSN thematic areas

This paper will be presented under the theme *Challenges of Social Inclusion: Gender, Inequalities, and Human Rights*.

PHE (Population Health Environment) is an integrated, cross cutting approach for sustainable development, therefore this paper is also relevant to a number of other thematic areas including:

- Macroeconomics, Population Dynamics, and Planetary Boundaries
- Poverty Reduction and Peace-Building in Fragile Regions
- Health for All
- Forests, Oceans, Biodiversity, and Ecosystem Services
- Sustainable Agriculture and Food Systems

Introduction

The Population-Health-Environment approach (PHE), is an interdisciplinary model of programme design which responds to the interconnected challenges faced by ecosystems and the communities dependent on them. These challenges include poor health, unmet family planning needs, environmental degradation, food insecurity, gender inequality and vulnerability to climate change. In PHE programmes, key work strands are identified – addressing biodiversity conservation, natural resource management, health needs and livelihood diversification – and implemented in an integrated way, with shared infrastructure, resources and goals. PHE programmes encompass a range of health interventions, typically including family planning services within a rights-based framework but also maternal and child health, nutrition, and water and sanitation interventions. Where possible, work across different sectors is integrated, such as in the development of messages to the community about the relationships between sexual and reproductive health and rights, family size, natural resource management and food and livelihood security. Efficiencies and synergies are created by addressing issues in this integrated way, leading to cost savings and better outcomes than if these activities were carried out in isolation.^{1,2,3,4}

This paper will enable readers to understand the potential role of this approach, in relation to biodiversity conservation, poverty alleviation, population dynamics, reproductive health, youth and community empowerment and gender equality. Coordinated by the Population and Sustainable Development Alliance, the paper incorporates contributions from key PHE opinion leaders, from policy through to implementation, featuring both new, and some of the world's most well established, PHE programmes. The implementation of the PHE approach in a variety of locations around the world will be illustrated, with examples from coastal/marine areas, around freshwater lakes, in protected areas and in forests. Each project will illustrate why this holistic approach has been taken, how these integrated programmes have been implemented and scaled up, and the impact they are having. This diversity of programmes will enable readers to appreciate the breadth of settings in which PHE can be applied, as well as tease out recurring themes on the value and impact of integrated programming. This will be followed by a more global overview on PHE, what the emerging themes are, what the evidence tells us and how the approach can contribute to the achievement of a range of sustainable development goals. The challenges and opportunities for this approach in the Post-2015 Sustainable Development Agenda will also be discussed.

Integrating Population, Health and Environment Approach For Human and Ecosystems Health in the Philippines and Beyond: Experiences from the South

By Joan Castro PATH Foundation Philippines Inc.

Context

Appreciating the complex nexus between sexual reproductive health and rights (SRHR), population dynamics, health, and environment is key to addressing food security, poverty, sustainable development, effects of global warming and disasters. This is particularly true in developing countries like the Philippines, an archipelago composed of 7,100 islands and islets and with a population of over 92.3 million⁵ of which 62% live in the coastal areas. While the Philippines is considered the center of marine biodiversity in the world with biologically rich species and diversity, it is also the most threatened, making it a key priority hotspot for global conservation. For more than five decades, fisheries and the state of natural resources have been in decline^{6,7} attributed to anthropogenic pressures. The inter-related human and ecologic challenges have exacerbated food insecurity and poverty remains high due to inequality across income brackets, regions, and sectors, as well as unsustainable levels of population growth and associated pressures.⁸

During 2000-2007, PATH Foundation Philippines Inc. (PFPI) designed and implemented the Integrated Population and Coastal Resource Management (IPOPCORM) initiative in priority marine conservation areas

in the Philippines with high levels of population growth. Food security from the sea served as the central theme of the project and provided a symbiotic strategy to link sectors. A mix of interventions implemented included improving sexual and reproductive health rights of women, young adults, and fisher folks to address lack of access to family planning and reproductive health information and services in remote coastal areas. Coastal resource management (CRM) actions focused on addressing factors related to overfishing, destructive fishing, and declining productivity of fisheries, coral reefs, sea grasses, and mangroves. Advocacy efforts were geared towards increasing awareness of the inter-linkages between SRHR and coastal resource management links and to gain the support of policymakers for sustainability of the integrated approach. IPOPCORM also embarked on a quasi-experimental evaluation design to test the central hypothesis that there will be a significant improvement in CRM and reproductive health outcomes by delivering these services in an integrated manner as opposed to delivering either intervention in isolation.¹

Building on lessons learned from IPOPCORM, the integrated PHE approach was replicated and scaled up in a global PHE project called the Building Actors and Leaders for Community Excellence and Development (BALANCED) from 2008-2013. The BALANCED Project adapted the community based PHE approach from the experience of the Philippines and integrated the provision of SRHR information and services into on-going conservation projects in six focus countries in East Africa and Asia. Other components of the project included improving community and organizational capacities using state of the art PHE tools and materials. South-to-South technical and organizational management support and mentoring were also applied for advocacy and sustainability purposes.⁹

Results

The provision of synergistic SRHR and CRM services in the integrated PHE approach led to human-ecosystems health in the IPOPCORM project areas. This was achieved with greater involvement of women in conservation actions and greater access to and involvement of men and adolescent boys in family planning and reproductive health initiatives.³ From a conservation perspective, the integrated approach directly derived socio-economic benefits of CRM from the investments and improvements in SRHR, which are needed to address population pressures, prevent sexual diseases and improve health in coastal communities.¹⁰ In addition, results of the operations research showed that the integrated coastal resource management and SRHR intervention generated significant impacts on human health and food security compared to the sectoral management approaches. Findings also showed a significant reduction in income-poverty particularly among young adults.¹

At the global level, replicating and scaling up the lessons learned and experiences from the South to twenty one organizations in eight focus countries during the BALANCED Project has affirmed the importance of advancing and integrating SRHR into a global agenda for sustainable development, resilience to climate change and Post-2015 development goals. The community of advocates, practitioners, and leaders actively promoting and advocating for the integrated approach has grown globally, strengthening the belief that the integrated PHE approach provides a practical solution to interrelated issues, with value added results and improvements to the lives of the communities living in the various biozones on earth. One of these champions is the Population and Sustainable Development Alliance, a global alliance of civil society organizations which believes that PHE.

Integrated Development in a Fragile Ecosystem; The Case of Lake Chilwa Basin, Malawi

By Deepa Pullanikkatil, Leadership for Environment and Development Southern & Eastern Africa (LEADSEA)

Context

Lake Chilwa Basin, located in Southern Malawi, is a fragile ecosystem, important for biodiversity and livelihoods. The ecosystem was declared a UNESCO Biodiversity Reserve in 1996 and a Ramsar Site in 1998^{11,12} and 1.5 million people living in the Basin depend on this ecosystem for their livelihoods.¹³ The Basin is important for fisheries, however is threatened by; change in land cover due to increased cultivation, over extraction of natural resources including over fishing, and increasing competition for natural resources due to increasing population density and migration into the basin.¹² Furthermore, the Basin is prone to environmental shocks due to climate variability and climate change. The Lake has completely dried up 9 times in the past 100 years.¹² resulting in loss of biodiversity, collapse of fisheries and wetland cultivation,¹⁴ and between 2012-2014, has experienced receding levels,¹⁵ affecting the lives of those who depend on this ecosystem.

Lake Chilwa Basin Climate Change Adaptation Programme (LCBCCAP), implemented by Leadership for Environment and Development (LEAD) and its partners and funded by Royal Norwegian Embassy began in 2010, focusing mainly on climate change adaptation through building the resilience of the natural resource base and improving livelihoods thereby helping communities adapt better to climate change impacts. As the project progressed, communities in the Basin demanded that their health concerns, in particular Bilharzia (Schistosomiasis), be addressed as this disease hindered their ability to effectively participate in project activities. Women voiced their need for family planning and stated that large family sizes prevented them from participating in development activities. The LCBCCAP then responded through support from Population Action International and the World Health Organization in addressing these needs. The project evolved from a primarily climate change adaptation project into a 'Population- Health- Environment' project.

Results

The linkages between climate change adaptation, health and population became clear in Lake Chilwa after LEAD conducted a study in 2012 interviewing 100 households undertaking several focus group discussions. Communities testified that they wanted integrated development to address their livelihoods, health and family planning needs in a holistic manner.

A prevalence investigation for Schistosomiasis was done in five randomly selected villages in Zomba and prevalence ranged from 23% to 49%.¹⁶ Notably, prevalence was higher in areas where well-intentioned adaptation measures of expanded irrigation coverage increased favourable habitats for parasite (schistosome) hosting snails. The results provided evidence for authorities to increase Bilharzia treatment through mass drug administration in endemic areas and now farmers, out of school youth and other community members are able to access drugs that are being distributed through the targeted primary school treatment systems.

As the LCBCCAP project progressed, it was observed that women's participation was less than expected. Women in Malawi have an unmet need for family planning of 26% nationally,¹⁷ and are overburdened by responsibilities of looking after their households, fetching water, firewood and sourcing food. In Lake Chilwa Basin Total Fertility Rates are higher than national average. Fifty per cent of Malawian women get married before the age of 18 years. Having large numbers of children and low access to family planning affects women's ability to actively participate in projects and income-generating activities, and makes them more vulnerable to impacts of climate change. Integration of health and population was done through collaboration with local NGOs, international organizations and development partners, thereby bringing

synergy and sharing of resources as well as infrastructure. LEAD promoted family planning in Lake Chilwa Basin through advocacy via radio programmes and one programme successfully prevented a child marriage. The communities have since received training on the linkages between population, reproductive health and the environment and there are plans to increase access to contraceptives in these areas through mobile clinics.

The experiences from Lake Chilwa Basin show inter-linkages between population, health and environment issues in this fragile ecosystem. Evidence from Lake Chilwa Basin provides lessons for shaping the Post-2015 development agenda, for integrated development through a Population-Health-Environment approach is recommended to more holistically address the needs of communities living in remote fragile ecosystems and improve the participation of women in development.

Empowering communities to live with the sea: results from the implementation of a PHE approach in coastal southwest Madagascar

By Caroline Savitzky, Blue Ventures Conservation

Context

Madagascar is a globally important biodiversity hotspot, with 80% of its flora and fauna found nowhere else on earth.¹⁸ The World Bank also identified Madagascar in 2012 as the eighth poorest country in the world, with 92% of the population living on less than US\$2 per day (World Bank, 2013a).¹⁹ Government health spending was cut by more than 50% between 2009 and 2012, to less than US\$10 per capita in 2012, and public health centers are chronically under-staffed and under-stocked.²⁰ The country also faces serious food insecurity with 65% of the population affected.²¹

Madagascar's semi-nomadic Vezo fishing communities in the southwest are among the poorest and most isolated in the country, lacking access to basic health, education and services. They rely almost exclusively on the marine environment for food and income but overfishing, lack of access to alternative resources and rapid population growth related to unmet family planning needs are threatening the sustainability of their livelihoods, and the effects of climate change further compound this.^{22,23,24}

Health services can be located up to 50 kilometers away from some villages in this remote southwest coastal region (Atsimo-Andrefana), where less than a third of women in a sexual union are using contraceptives, while the fertility rate is 6.2 births per woman, which is well above the national average of 4.8.²⁵ Yet, in a recent local health survey, 90% of women of reproductive age reported wanting to be able to plan their pregnancies.²⁶ This lack of access to reproductive health services results in high fertility rates, inadequate birth spacing, and poor maternal and child health outcomes.

Results

The connections between poor health, unmet family planning needs, unsustainable resource use and food insecurity are experienced every day by people in this region, and are clearly voiced. In direct response to the expressed needs of Vezo communities, Blue Ventures is pioneering an integrated approach to sustainable development; safeguarding marine biodiversity and traditional coastal livelihoods by tackling the drivers of environmental degradation and poor health through community-led sustainable fisheries management, alternative livelihoods and reproductive health service delivery.

A locally-managed marine area of 678 km² known as Velondriake – meaning ‘to live with the sea’ – consists of 25 villages working together to manage their marine resources; implementing reserves, fishery closures and banning destructive fishing practices. As the benefits of these efforts often take extended amounts of time to

be fully realized, alternative livelihoods are also needed to provide income and to reduce pressure on the marine environment. Thus community-based aquaculture has been introduced, including farming of seaweed and sea cucumber for export, and is now generating a monthly income of up to US\$20 per sea cucumber farmer and US\$42 per seaweed farmer.²⁶ Approximately half of current farmers are local women; serving to strengthen gender equality and women's financial independence.²³

Integrating these programmes with rights-based voluntary family planning services further empowers women and couples, supporting them to make their own reproductive health choices. A full range of contraceptive options and counselling are provided via community-based distributors and in partnership with Marie Stopes Madagascar for provision of long-acting contraceptive methods. In the first six years since these services began, 2,000 couple years of contraceptive protection have been provided, averting more than 800 unintended pregnancies.²³ The proportion of women using contraception has increased more than fivefold.²⁶ The programme is now being replicated further north along the same coast and is currently reaching 25,000 people in 50 villages.

With couples now better able to plan and provide for their families, women have more opportunities to become economically active and participate in decision-making about natural resource management, strengthening local conservation efforts, and supporting communities to create their own sustainable paths out of poverty. Beyond the clear and important cost efficiencies created through sharing of resources, opportunities and skills, the true value of the integrated PHE approach lies in its ability to address challenges to sustainable development in some of the most remote and urgent areas in the ways in which they are experienced by communities: interconnected.

The Power of PHE Multi Sectoral Integration in Accelerating Rural Fertility Transition: The Case of Integrated PHE Sites in Ethiopia.

By Negash Teklu, PHE Ethiopia Consortium

Context

In Ethiopia rapid population growth remains a major barrier to poverty reduction, and is placing strains on the resource base, the economy, and the ability to deliver services to the population. Nationally, 25% of married women have an unmet need for family planning, and in rural areas this is higher with 27.5% of women having an unmet need for family planning.²⁷ This rate is even higher for young women, with unmet need for family planning for women aged 15-19 at approximately 33%.²⁷ This high unmet need results in a high fertility rate, of women having an average of 4.8 births nationally, and with wide variation in the total fertility rate between urban (2.6) and rural areas (5.5).²⁷ The overall effect is to hamper efforts to improve women and children's health while undermining sustainable development overall. Furthermore, women's potential is held back by poorer health, and repeated and dangerous pregnancies. In addition to caring for their children much of their time is consumed with the gathering of water and fire wood.²⁸

Programmes seeking to address these complex factors and interactions, and their impacts upon poverty alleviation and the natural environment, need to have the skills, partnerships, and political support to effectively reach women and youth in order to protect their health and their families. In 2008 PHE Ethiopia Consortium was established formally to promote the Population-Health and Environment approach in Ethiopia and support PHE implementing organizations, to realize the vision of; "Ethiopia with a healthy population, sustainable resource use, improved livelihood and resilient ecosystem."²⁹

Results

In Ethiopia integrated Population-Health-Environment approaches are offering an innovative and effective way of reaching rural women to fulfil their demand for family planning. The projects are principally

implemented in rural areas with a focus on women and youth and are working to understand the diverse reasons why women and young people aren't using, or don't have access to, family planning. PHE implementers are trying to reach these people with the services and information they need through bringing the different stakeholders together to collaborate and coordinate their efforts from the grassroots to the policy level.³⁰

In 2005, PHE Ethiopia Consortium member Guraghe People's Self-Help Development Organization (GPSDO) began implementing an integrated project, including girls' education, environmental conservation, income generation activities, and family planning/reproductive health promotion and service provision. From 2005 to 2010, GPSDO's efforts contributed to 49,784 new family planning clients, resulting in an increase in the contraceptive prevalence rate in the Guraghe zone from 8.1% in 2005 to 33.46% in 2010.³¹ Similar successes have been made by other PHE practitioners in Ethiopia. By linking family planning, environmental conservation and livelihood development, from 2007 to 2010, Ethio Wetlands and Natural Resources Association in conjunction with Metu district government and the community, increased contraceptive prevalence from 34% to 77% and increased household food security from five months to nine months.³²

Experience from Ethiopia shows that the comprehensive nature of PHE interventions makes them vital in dealing with the complex needs of society. Because of its integrated format, the PHE approach can be more responsive to priority needs, more cost-effective for organizations, and more time efficient for communities and its harmonization. The integrated PHE projects have proven valuable for reaching the most hard to reach populations, involving men in family planning, and involving women in natural resource management, offering valuable learning for the Post-2015 development agenda.

A Real Opportunity for Sustainable Development: Integration that Works

By Roger-Mark De Souza, Woodrow Wilson Center

Context: An overview of PHE

Since the early 1990s, a number of programmes have been integrating reproductive health services into development programmes. These integrated approaches have addressed population-health-environment links in ecologically fragile areas, such as biodiversity hotspots, urban areas, and coastal zones. Such programs combine environmental conservation efforts, family planning, gender programming, and other health services in communities where population growth is increasing communities' vulnerabilities and leading to unsustainable use of natural resources and food insecurity.

Integrated PHE development programmes provide multiple benefits. An assessment of projects in Madagascar and the Philippines supported by USAID and the David and Lucile Packard Foundation found that integrating environmental interventions into reproductive health and family planning programmes encourages men and adolescent boys to get involved, while integrating health into natural resource management projects prompts greater participation by women and adolescent girls.^{33,3} Recent operations research tested the effectiveness of synergies among reproductive health, natural resource management, and food security programmes.¹ This research demonstrated that the communities where an integrated approach was used were more resilient (greater outcomes in terms of health, coastal resource management and food security) than communities where such programmes were not implemented.

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 programme after outside funding stops.

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.

The challenges and opportunities for replication

PHE programmes have been successful at the community level, but will they be successful at the regional and national scales? Efforts to scale up programmes in Madagascar and the Philippines have been relatively successful, due to the following factors:^{34,35}

- 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.

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.^{3,36,37}

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

Results: What PHE offers the sustainable development movement

Today an important component of the sustainability agenda is resilience. Integrated projects such as those of the PHE approach present unique opportunities to strengthen community resilience through risk reduction, livelihood diversification, creating community involvement and trust, improving governance structures, and strengthening women's involvement in decision-making and positioning them as agents of change. For communities, and women in particular, these programmes:

- empower women to have a greater role in the economic and political life of their communities,
- incorporate feedback from all segments of society to ensure participatory planning,
- strengthen social cohesion that underpins community resilience to disasters, conflict and other shocks, and introduce participatory ways to manage gender and social/power dimensions.

Capitalizing on opportunities to integrate family planning into resilience programming and sustainable development objectives, through integrated programmes such as those combining population, health and environment, offers an opportunity to package together a number of long-term, sustainable resilience-based solutions, increasing the effectiveness of each approach.

Discussion

This paper has presented examples of the PHE approach being implemented in a variety of environmental settings, from the tropical coastal regions of Madagascar and the Philippines to wetlands and freshwater lakes in Ethiopia and Malawi. This set of examples illustrates the different objectives that can be met through these integrated programmes, including improving the health and wellbeing of communities, meeting family planning needs of women and youth in rural areas, strengthening biodiversity conservation efforts and improving food security, as well as reducing the impact of natural disasters and facilitating better climate change adaptation. The rationale for and benefits of this integrated approach have been discussed, with a clear theme emerging of the importance of taking a holistic approach to the interconnected challenges described above.

Another clear theme to emerge from the examples given is the potential for replication of this integrated approach, with huge opportunities for sharing lessons learned and acting upon the emerging evidence of the benefits of PHE. A variety of examples of replication have been presented, from in-country replication and the formation of a PHE consortium, to replication in several other countries in the global South. Some of the conditions that have enabled successful replication have been presented.

In the context of the Post-2015 Development Agenda, perhaps the most important message to emerge is the contribution that PHE programmes can make to building the resilience of communities. Resilience programming provides an important opportunity for the wider use of this integrated approach, and this could position PHE as a key development strategy in the Post-2015 process.

With such powerful examples of the impact and scalability of PHE programmes, and such a strong rationale for the adoption of this integrated approach, the Population and Sustainable Development Alliance believes that PHE has an essential role to play in ensuring the timely and cost effective achievement of Sustainable Development Goals. The membership of the PSDA call upon policy makers, donors, academic institutions and implementing organisations to better understand, support and implement more integrated programmes that address the linkages between population dynamics, human health and the environment within the context of the Post-2015 sustainable development agenda.

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