[BALANCED]

Promoting & advancing integrated population, health, and environment approaches

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Woman cooking fish over traditional stove, Djenne, Mali

How Population, Health and Environment Approaches Contribute to Progress on the Millennium Development Goals

The Promise of Integration: Another Missed Opportunity?

Roger-Mark De Souza, Population Action International

The Promise of Integration

In June 2012, the United Nations (UN) Conference on Sustainable Development (Rio+20) will take place in Brazil to mark the 20th anniversary of the 1992 United Nations Conference on Environment and Development (UNCED). UNCED was a momentous international event that produced Agenda 21, a platform for action that recognized "to achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies."[1]

In accordance with the Rio Summit, the International Conference on Population and Development (ICPD) in Cairo in 1994 recognized the interrelationships between population, development, the environment, and human rights.[2] Moving away from demographic targets, the ICPD paradigm endorsed a progressive

In This Issue

The Promise of Integration: Another Missed Opportunity?
Roger-Mark De Souza, Population Action International

How PHE Approaches Help Achieve Millenium Development Goal 3 - Gender Equality
Terri Lukas, Cara Honzak, Nathalie Simoneau, World Wildlife Fund

How PHE Approaches Contribute to Millenium Development Goals 4 and 5 - Child and Maternal Health
Linda Bruce, Coastal Resources Center, University of Rhode Island

How PHE Approaches Contribute to Millenium Development Goal 7 - Ensuring Environmental Sustainability
Janet Edmond, N'Aina Zo Zatovonirina, Conservation International

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CONSERVATION INTERNATIONAL

Volume 1 || Issue 4|| April 2012

vision of comprehensive reproductive health programs, focusing on human rights and the individual needs and wishes of women. Empowering women and realizing universal access to reproductive health services was recognized as a goal in its own right, as well as being critical to achieving sustainable development.

Both these key conferences affirmed that environment and population dynamics influence every aspect of human, social and economic development, and they held out a promise of integration for future political discussions and deliberations. The integrated population, health and environment (PHE) movement embraced this promise, recognizing that people's lives are not lived in single sectors. People deal simultaneously with food, water, livelihoods, health, and education, among other issues, including fertility.

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Universal access to reproductive health services meets developmental goals

Box 1

Millennium Development Goals, Targets and Select Indicators

The MDGs were developed out of the eight chapters of the Millennium Declaration, signed in September 2000. There are eight goals with 21 targets, and a series of measurable indicators for each target.

Goal 1: Eradicate extreme poverty and hunger

Target 1A: Halve the proportion of people living on less than $1 a day
Target 1B: Achieve Decent Employment for Women, Men, and Young People
Target 1C: Halve the proportion of people who suffer from hunger

Goal 2: Achieve universal primary education

Target 2A: By 2015, all children can complete a full course of primary schooling, girls and boys

Goal 3: Promote gender equality and empower women

Target 3A: Eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015
- Ratios of girls to boys in primary, secondary and tertiary education
- Share of women in wage employment in the non-agricultural sector
- Proportion of seats held by women in national parliament

Goal 4: Reduce child mortality rates

Target 4A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate

Goal 5: Improve Maternal Health

Target 5A: Reduce by three quarters, between 1990 and 2015, the maternal mortality rate
Target 5B: Achieve, by 2015, universal access to reproductive health

Goal 6: Combat HIV/AIDS, malaria, and other diseases

Target 6A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS
Target 6B: Achieve, by 2015, universal access to reproductive health

Target 6C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

Goal 7: Ensure environmental sustainability

Target 7A: Integrate the principles of sustainable development into country policies and programs; reverse loss of environmental resources
Target 7B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss
- Proportion of land area covered by forest
- CO2 emissions, total, per capita and per $1 GDP (PPP)
- Consumption of ozone-depleting substances
- Proportion of fish stocks within safe biological limits
- Proportion of total water resources used
- Proportion of terrestrial and marine areas protected
- Proportion of species threatened with extinction

Target 7C: Halve by 2015 the proportion of the population without sustainable access to safe drinking water and basic sanitation
- Proportion of population with sustainable access to an improved water source, urban and rural
- Proportion of urban population with access to improved sanitation

Target 7D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum-dwellers
- Proportion of urban population living in slums

Goal 8: Develop a global partnership for development

Target 8A: Develop further an open, rule-based, predictable, non-discriminatory trading and financial system
Target 8B: Address the Special Needs of the Least Developed Countries (LCD)
Target 8C: Address the special needs of landlocked developing countries and small island developing States
Target 8D: Deal comprehensively with the debt problems of developing countries
Target 8E: In co-operation with pharmaceutical companies, provide access to affordable, essential drugs in developing countries
Target 8F: In co-operation with the private sector, make available the benefits of new technologies, especially information and communications

Volume 1 || Issue 4|| April 2012

Missed Opportunities

In the years since ICPD and UNCED, this promise of integration has fallen short at both the national and international levels. Consider the Millennium Development Goals (MDGs), adopted by world leaders in 2000, to provide benchmarks for tackling extreme poverty in its many dimensions. The MDGs include a range of development priorities such as eradicating hunger; improving education; promoting gender equality; reducing child mortality; improving maternal health; combating HIV/AIDS, malaria and other diseases; ensuring environmental sustainability; and implementing policies to ensure global partnerships for equitable development (see Box 1). While both Agenda 21 and the ICPD Programme of Action explicitly discuss the interrelationship between population, sustained economic growth, and the environment, the MDGs do not directly address the relevance of demographic factors for reaching these global objectives.[3]

With increasingly pressing global environmental and sustainability challenges such as climate change, this promise of integration is far from realization. The governments of Least Developed Countries (LDCs) have assessed their climate change vulnerabilities and identified actions needed to cope with climate. However, these linkages are not matched by a proportional response through climate adaptation projects that address population, including access to voluntary family planning. Only two countries among 41 include reproductive health projects in their National Action Plans for Adaptation (NAPAs), and neither of those projects has received funding.[4]

© Population Action International
Investing in women is a powerful antidote to poverty

Another Opportunity to Integrate Green Economics, Production and Population?

It is well-established that the environmental impact of human activity is attributable to three principle determinants—the rate of economic growth, the rate of technological progress in production and distribution processes, and the rate of population growth.[5] Past policies and the current debate have not adequately addressed these determinants and their inter-linkages. In recent years, the promotion of greener economies, which addresses two of these determinants—economic growth and technological progress—has received increasing attention. Indeed, this is a significant component of the Rio+20 framework.

As the UN Population Fund (UNFPA) has noted, the role of population dynamics, however, has been largely neglected by policy makers. Some of the reasons include: a) the fact that population growth rates in the last two decades have been declining in most of the countries and the belief that the "population problem" has already been solved; b) the concern that some of the past policies implemented in order to influence population dynamics infringed on fundamental human rights and freedoms; and c) the sensitivity of the issues related with the ICPD Programme of Action particularly regarding reproductive rights.[6]

In late 2011, the Civil Society Declaration of the 64th Annual UN Department of Public Information Non-Governmental Organization (DPI/NGO) Conference focusing on preparations for Rio+20 and attainment of the MDG 5, including universal access to reproductive health, reaffirmed that PHE integration offers opportunities to strengthen the resilience of people and communities to the consequences of climate change and environment degradation.[7]

Population Action International's (PAI) interactive online database, Mapping Population and Climate Change, indicates 26 population and climate change "hotspots." These are countries with a low climate change resilience rating that are experiencing rapid population growth and high projected declines in agricultural production (see Figure 1).[8] The average number of children born to each woman in hotspot countries is 4.6, and the average population growth rate is 2.2 percent. If unchanged, this rate of growth would result in a doubling of the population in 31 years.[9] But at Rio+20, there will be little recognition that integrating reproductive health programs into climate change adaptation plans would enable women to determine the size of their families and would make it easier to adapt to the effects of

climate change.

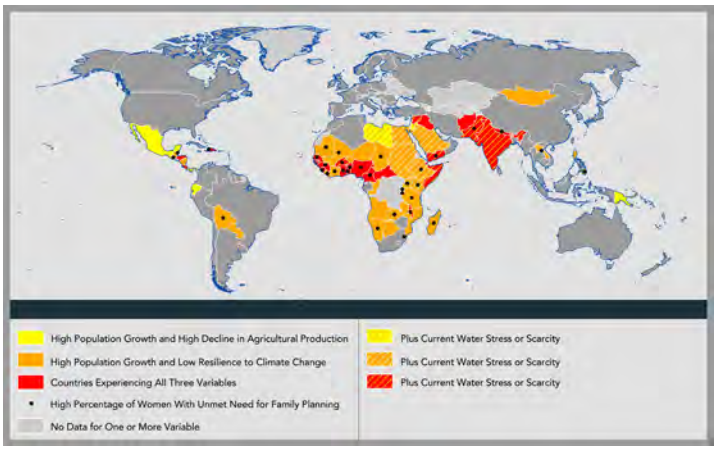

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Figure 1. Population and climate change hotspots

Key Messages for Delegates at Rio+20 and for the Continuing MDG Review Process

Rio+20 and the MDG review process present critical opportunities for international leaders to agree and commit to urgent action required to promote a new, sustainable model of development that reflects environmental limits and seeks to deliver prosperity for all. Examining, understanding and integrating demographic data and analysis into planning, programming and policy provides a number of opportunities to determine impactful investments that help policymakers, program planners and concerned citizens address the impacts of population changes on our lives. In so doing, we empower women and families to take action to realize the positive changes they want in their lives. Some key messages for the PHE community to convey to policymakers at Rio+20 and other international meetings include:

Integration matters today because there are more people in an increasingly complex world. World population reached 7 billion in late 2011. People are living longer. The average life expectancy today is 69 years. More than one-half of the world's population is under age 30, and a quarter is younger than age 15.[10] The decisions these young people make today about their fertility will have ripple effects for decades to come. Rates of international migration are increasing, and more than half of the world's population now lives in cities.[11] And global population is projected to grow to anywhere between 8 billion and 11 billion by the middle of the century. Yet, the most striking characteristic of world population today is the context in which these shifts are occurring. While the global demographic trajectory for decades has been one of rapid growth, the story of the impacts of today's dynamics is now more complex. Economic, environmental and political factors are affecting the ways in which global population is changing. Those changes are impacting our lives in various ways.

Changes in population and the environment help determine how healthy we are. Forty percent of all pregnancies in developing countries are unintended.[12] Pregnancies that occur too early, too late or too frequently can lead to illness during pregnancy and complications at the time of birth. Slums around urban areas are extremely vulnerable to infectious diseases due to poor sanitation, high population density and high levels of poverty, all of which increase disease incidence. Most of the countries with the highest numbers of people who are unable to meet their dietary need and food preferences for an active and healthy life also have high fertility rates. Overall, rapid population growth, where that growth is occurring, and the ability of families to meet desired fertility levels are impacting the fabric and well-being of lives across the globe.

Population and environment dynamics affect global stability. As the world's population grows, the demand for water, forests and land mounts and pressure on finite resources intensifies. The most resource-stressed areas are typically those with fewer resources, high population densities, and high population growth rates. Population growth limits the amount of resources available per person, drives people into marginal regions—which are already stressed—and also into cities. PAI has determined that regions rich in endemic species have higher than average population densities and population growth rates.[13] Millions of people are being displaced by natural disasters and conflict. And, recent studies show that urbanization is the most important driver of deforestation in the 21st century. [14]

Investing in women is a powerful antidote to poverty. Every person should enjoy equal rights and dignity. Advancing women's education, reproductive health, and access to contraception will enhance their well-being and productivity, in turn improving prospects for their children and grandchildren. At the individual level, smaller family size may allow more children overall to be educated and improve girls' access to education. In turn, educated[15] women are more likely to have smaller families and healthier children.[16]

Universal access to reproductive health services provides development, diplomatic and security objectives. The MDGs offer precise time-bound targets for promoting global development around poverty alleviation, women's empowerment,

environmental sustainability and human well-being. MDG Target 5B calls for universal access to reproductive health care. Funding for international family planning and reproductive health is a proven and cost-effective way to meet a broad range of international development goals. Investment in family planning and reproductive health remains in the best interest of development, diplomatic, and national security objectives.

PHE programs that build on the synergistic interventions produce results. In specific countries, the recognition of the interconnectness of global health, climate change and food security is an opportunity to provide integration and build on existing economies of scale. Providing support at international and national levels for such integrated interventions can reap long-term benefits and provide a basis for long-term sustainable programming driven by community needs.

Innovative and creative international policies and financing mechanisms need to recognize the complex links between health, development and the environment upon which all life depends. Breaking down barriers to vertical or single sector funding schemes is the first step to fostering more flexible and responsive funding strategies in support of integrated approaches and programs such as PHE initiatives. Additional encouragement and support is critical to help NGOs, communities and local and national governments to implement multi-sectoral partnerships and programs to meet both health and environmental goals.

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8 Analysis based on Population Action International's Mapping Population and Climate Change website: http://www.populationaction.org/Publications/Interactive_Databases/climate_map.shtml. "Low resilience countries" are those in the lower two quartiles of the Vulnerability-Resilience Indicators Model. "High population growth" is defined as above the median population growth rate of 1.33%. "High projected decline in agricultural production" are those where the projected declines in relative terms are above the median of all countries expected to experience decline between 1990 and 2020.

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16 Ibid.

Volume 1 || Issue 4|| April 2012

HOW PHE APPROACHES HELP ACHIEVE MDG 3 – GENDER EQUALITY

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Millennium Development Goal (MDG) 3 calls for promoting gender equality and women's empowerment. In the same year the MDGs were established, World Wildlife Fund (WWF) launched its Girls and Women Program, which supports formal and informal education opportunities and micro-grant and loan initiatives in priority areas for biodiversity conservation, and its Population, Health and Environment (PHE) Program. When it began, the PHE program included gender in its title. Over the last decade, as the PHE approach has become more widely recognized, the term "gender" was removed from the title and the two WWF programs—its Girls and Women Program and its PHE program—diverged. Nonetheless, and at least for WWF, gender—and family planning as it relates to gender—remain central to the PHE approach.

The PHE approach has its roots in activities that began in Southern Asia in the 1970s. At that time, women's groups and their leaders were already fundamental partners to any non-governmental organization (NGO)-led interventions that sought to integrate family planning with basic environmental activities (Engelman 1998). Family planning interventions were also a key component.

As the PHE approach grew and developed, women's roles in these projects remained central, but few projects posited women's empowerment as a fundamental objective. Instead, it seemed to remain an implicit fact. The WWF analysis "Conservation and Family Planning: What is the Value of Integrating Family Planning into Conservation Projects?" found that the project managers from seven out of eight PHE projects implemented by conservation organizations felt that achieving women's empowerment was among the top three reasons for PHE project implementation. Through a variety of WWF PHE efforts, the evidence base to support their contention is now growing. Based in large part on the improved and gender-sensitive integrated monitoring and evaluation efforts from the recently-concluded WWF PHE Alliance project, this article presents key findings from WWF's PHE projects, implemented within its community-based conservation programs. These demonstrate how its PHE approach contributes to achieving meaningful results in gender equality, women's empowerment and the MDG 3 target.

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Women carrying plantains in Kika, Cameroon

Background to MDG 3: Promote Gender Equality and Empower Women

The MDG 3 target is to eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015. According to the Millennium Development Goals Report 2011, girls are gaining ground when it comes to ***education***, though unequal access persists in many regions. In 2009, in developing regions of the world, 96 girls were enrolled in primary and secondary school for every 100 boys. This is an improvement over the ratios 10 years earlier, in 1999, when 91 girls were in enrolled in primary school for every 100 boys and 88 girls were enrolled in secondary school for every 100 boys.

Improvements for girls in achieving gender parity with boys in ***primary school*** were greatest in the Caucasus and Central Asia, Latin America and the Caribbean, and South-Eastern Asia. (In Eastern Asia, girls slightly outnumber boys in primary school.) In other parts of the developing world, progress for girls lagged, especially in northern Africa, Oceania, Southern Asia, Sub-Saharan Africa and Western Asia.

In ***secondary school***, girls have achieved gender parity in the Caucasus and Central Asia and Latin America and the Caribbean. They have come very close to achieving gender parity in North Africa and Southeast Asia. However, in Oceania, Southern Asia, sub-Saharan Africa and Western Asia, girls are highly disadvantaged relative to boys.

For ***tertiary education***, only in East Asia and North Africa do girls have gender parity with boys. Boys are highly advantaged over

girls in Oceania, Southern Asia, Sub-Saharan Africa and Western Asia. Surprisingly, girls are highly advantaged over boys in the Caucasus and Central Asia, Latin America and the Caribbean and Southeast Asia.

Worldwide, the share of women in ***non-agricultural paid employment*** increased from 35 percent in 1990, to almost 40 percent in 2009. But the economic crisis of 2008-2009 slowed this increase substantially. South Asia and Sub-Saharan Africa realized the greatest improvement, although in the former, women make up less than 20 percent of non-agricultural wage employment. In Sub-Saharan Africa, this statistic masks the fact that non-agricultural wage employment for men and women represents a very small proportion of employment overall. In North Africa and Western Asia, the employment situation of women remained essentially unchanged over the last two decades.

Between 1995 and 2011, the percent of women who were in ***national parliaments*** grew from 11.6 percent to only 19.3 percent. Between 2010 and 2011, the most gains for women were made in North Africa (9 to 11.7 percent) and Western Asia (4.2 to 9.4 percent). In 2010, in Sub-Saharan Africa, Ethiopia, Madagascar, Tanzania, Burundi, Sao Tome and Principe, women realized substantial gains in parliamentary representation. South Asia and Southeastern Asia saw no gains in women in parliaments.

What is WWF's PHE Approach?

The WWF PHE approach integrates health and family planning with conservation activities, seeking to achieve synergistic successes and greater conservation and human welfare outcomes than if they were implemented as single sector approaches. WWF's PHE projects have been implemented in its conservation priority areas, meaning that in all cases, the beneficiaries have been people living in very remote areas where WWF works to conserve biodiversity and manage natural resources in ways that sustain livelihoods. When these PHE projects began, in most cases these people had little or no access to basic government-provided health services, education, and livelihood opportunities available to people living elsewhere. WWF's PHE projects have taken a flexible approach to introducing interventions, by paying attention to people's expressions of basic needs and working with development partners to address these needs in the most cost-effective ways.

How WWF's PHE Approach can Address Problems Slowing Achievement of MDG 3

WWF's PHE approach addresses "gateway" issues in remote communities that prevent women from taking steps to advance their educational, economic and leadership status relative to men. There are three general categories of issues that WWF's PHE approach has addressed in specific country and eco-scape contexts. Examples from WWF's PHE projects illustrate activities that address each of the three categories of issues.

First, through meeting existing demand for spacing or limiting births, by improving and expanding family planning and reproductive health (FP/RH) and preventive health services, PHE projects help free up women's time from child bearing and caring for the sick for alternative activities. For young women, married or unmarried, improving access to FP/RH and health services offers a way to delay first pregnancy and take advantage of opportunities to stay in school, earn income or otherwise expand their horizons and build their lifetime earning capacity.

Among five WWF PHE projects implemented by organizations in remote areas where conservation is a primary goal, the median annual increase in contraceptive prevalence rate was three percentage points per project year (Honzak unpublished). One WWF project that observed an increase in FP uptake was adjacent to the Salonga National Park in the Democratic Republic of Congo (DRC). This project began in 2008, with funding from the PHE Alliance, supported by the US Agency for International Development (USAID) and Johnson & Johnson (J&J), targeting a population of approximately 50,000 people—24,000 of whom were women of reproductive age. This population lacked access to modern health care services, including family planning and reproductive health care. Specifically, there were no modern contraceptives available to these people. Yet in a randomized household sample survey in the project area, 46 percent of men and women indicated that they would use modern family planning services and contraceptives if they had access to them. To address this unmet need for family planning, WWF leveraged donations of contraceptives from the USAID Mission in Kinshasa and transported them to the project site. The PHE project then trained the local government health staff and community-based agents in family planning counseling and referral and service delivery. One year later, this enhanced service delivery capacity resulted in a monthly increase of approximately 300 new users and 4,000 continuing users.

In Kenya, the PHE Alliance supported a project in the Lamu Archipelago, on the Kenyan border with Somalia, in majority

Islamic communities. Over the course of the project, men's attitudes towards their wives' use of modern family planning changed substantially. A baseline household survey showed that approximately 30 percent of men supported use of modern family planning by their wives, while a repeat survey at the end of the project indicated that approximately 60 percent of men were in support. This transformation in husbands' attitudes likely foreshadows further changes underway regarding gender relations in the project areas.

Another way WWF's PHE projects free up women's and girls' time from traditional responsibilities and improve their health is to increase households' access to clean water and energy-efficient cook stoves. In both cases, PHE projects reduced the time allocation women and girls traditionally give to fetching water and gathering wood, chores which can occupy large parts of a day and prevent girls from attending school.

The PHE Alliance funded a project in Nepal, which incentivized households to build energy-efficient cook stoves. Over a three year period, the project supported (directly and through subsidies) the installation of 1,626 biogas and improved cook stoves, saving 2,932 kilograms of wood that otherwise would have been removed from the forests. This is also the amount of wood that women and girls would have had to spend time gathering and carrying to their homes instead of engaging in other activities.

In the DRC project site, the PHE project installed 10 new clean water sources, where none had existed previously. These new water sources provided 20 percent of the target population with improved access to clean water—i.e., within a maximum travel distance of 1 kilometer. The reaction of local women to the building of these sources was overwhelmingly positive and requests from other villages for building water sources within their reach multiplied.

Second, WWF's PHE approach provides pathways for women to become engaged in sustainable livelihood activities that produce benefits both for biodiversity conservation and household income.

This is because WWF's PHE projects are linked to its broader conservation and natural resources management program in a geographical eco-scape. Development literature is replete with examples of how women make use of time that is released from traditional household chores. In general, women seek out opportunities to improve their livelihoods and invest in the health and well-being of their children.

The WWF DRC PHE project formed 27 mothers' groups to change the way children are fed and the foods they are fed so as to reverse high rates of infant and childhood malnutrition. The women were soon empowered by their newly-acquired skills to improve their children's health and branched out to solve other problems. For example, in order to improve the quality and quantity of food they fed their children, they formed nine farming groups that put into practice farming techniques that WWF was promoting through its conservation livelihoods project. Women in these groups were known in the local Lingala language as Mama Molende or Courageous Mothers. As one of the groups' members explained, "working together is more efficient than working individually; we are stronger as a group" (Simoneau personal communication). The Courageous Mothers were so successful that they were soon producing surplus crops, which they sold in the central market.

In its Nepal site, the WWF PHE project supported a total of 101 mothers' groups for purposes of sharing information about health, family planning and conservation issues, and also used these gatherings to promote women's use of existing savings and credit cooperatives. WWF did this to increase the number of female shareholders in cooperatives and thereby increase women's income generating opportunities. This effort proved to be successful in doubling the percent of loans made to women for installing biogas and improved cook stoves in their homes and family compounds (from 20 percent in 2009 to 43 percent in 2011). This achievement fulfilled one of the key women's empowerment targets set by the project's gender action plan adopted in 2010 ("… to increase loans to women for biogas and improved cooking stove technologies by 10 percent, as a demonstration of women's increasing involvement in the … savings and credit cooperatives.")

Third, PHE can shape men's and community attitudes in general towards women's capacity to function outside traditional roles. As more and more women shed traditional roles and successfully avail themselves of alternative opportunities, others' attitudes towards women can change. When women prove by example to their families and neighbors that they can change their circumstances and the quality of their lives and their children's futures, they move from an individual or family space to a leadership space in their communities. Women leaders have emerged from WWF's PHE communities to engage in land use planning decision-making processes, and to take on leadership roles in community-based natural resource management organizations.

Referring again to the PHE Alliance's DRC project, women registered impressive gains in taking on non-traditional roles as a result of the project's capacity building efforts. At the start of

the project, the Ministry of Health did not recruit women to be community-based health volunteers, known officially as Relais Comunitaires or ReCos. Within the project area, there were 122 such volunteers, but only two of them were women. By the end of the project, and through the project's directed efforts to recruit more females, 54 new female ReCos have been trained on a range of health interventions, including family planning counseling, referral and the distribution of family planning commodities. These ReCos are formally integrated into the health system.

In Nepal, the PHE Alliance project operated in tandem with a suite of other conservation and livelihood activities, to improve the performance of local community forest user groups (CFUGs), local organizations responsible for protecting and managing the forests of the Terai Arc landscape. These forests are places of high biodiversity and home to endangered species such as the tiger, rhino and forest elephant. The PHE baseline survey found that only 16 percent of CFUGs had female presidents and only 22 percent of CFUGs had women in other leadership positions. WWF prioritized moving women into leadership positions in the CFUGs and three years later, the end-of-project survey revealed that 27 percent of CFUGs had female presidents and 47 percent of CFUGs had female treasurers, vice-presidents and secretaries.

Qualitative information from focus groups conducted during the end-of-project survey supports WWF's theory that the PHE project contributed to greater gender balance in CFUG leadership. Focus groups with male and female CFUG member groups reported that they observed greater gender balance developing over the life-of-the-project. The PHE field coordinator also observed that women who were involved in the process, and particularly those in leadership roles, were effective in energizing

© Kate Holt / WWF-UK
Smiling woman and child in Goma, DRC

Recommendations for Strengthening PHE Linkages to MDG 3

Based on WWF's PHE project lessons, we recommend the following steps to strengthen gender equality and women's empowerment through PHE approaches:

- Gender action plans should be incorporated into PHE projects from the outset of project design and relevant monitoring plans should be in place to refine gender strategies over time. WWF has a tested tool that enables PHE projects to incorporate gender action plans into the design of projects and conduct self-assessments of progress made in empowering women.
- Program planners should place PHE and girls' education projects in the same geographical location to ensure that PHE approaches are able to achieve the MDG 3 target and that girls education programs are able to achieve the broad women's empowerment goal of MDG 3.
- PHE project implementers should take advantage of opportunities to link school-based environment clubs with youth-based reproductive health programs, particularly in remote places where livelihoods are based on natural resources. Based on WWF's experience, such activities can empower young women to manage their reproductive health and stay in school.

WWF's PHE experience demonstrates there are a variety of ways that PHE approaches contribute to achieving the MDG 3 goal, and as 2015 approaches, the PHE community and its supporters can do even more to ensure that PHE projects are focused on helping our global community meet the MDG 3 target and goal.

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Volume 1 || Issue 4|| April 2012

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The Blue Ventures project team launched the use of implanon (a long acting reversible contraceptive)

HOW PHE APPROACHES CONTRIBUTE TO MILLENNIUM DEVELOPMENT GOALS (MDG) 4 AND 5 – CHILD AND MATERNAL HEALTH

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In 2000, 189 Heads of State from the North and South signed onto the Millennium Declaration at the 2000 United Nations (UN) Millennium Summit, which committed world leaders at the highest political level to a set of time-bound targets that when achieved will end extreme poverty worldwide by 2015. The eight Millennium Development Goals (MDGs) are framed as a compact, which recognizes both the efforts that must be undertaken by developing countries, and the contribution that developed countries can make through trade, development assistance, debt relief, access to essential medicines and technology transfer.

Population, Health and Environment (PHE) programs can help meet MDGs 4 and 5, concerning child and maternal health respectively. Integrated, cross-sectoral PHE development initiatives are able to increase access to family planning and maternal and child health services in remote communities where conservation organizations work, and where the need for health services is the greatest. PHE programs are generally conducted in areas of high biodiversity and conservation hotspots, which are typically rural with poor water supplies and sanitation and inadequate access to health care. In some countries, women needed to walk 50 kilometers (30 miles) to reach the nearest health care facility. According to recent research, almost 1.5 billion people live in these biodiversity "hotspots" (21 percent of the global population) – an increase of more than 400 million people over the past decade (Williams 2011). Sub-Saharan hotspots have the highest growth rates with some growing as quickly as 2.5 percent annually. Consequently, these biologically-diverse areas are becoming more and more crowded. Using conservation groups to reach these populations with improved health care, water and sanitation, and access to family planning (FP) can contribute to achievement of the MDG goals.

Background

Two of the eight MDGs focus on improving the health of women and children. The MDG 4 target is to reduce infant and child mortality by two-thirds from 1990 to 2015. According to the United Nation's recent report on the progress of MDGs, child deaths are falling, but not quickly enough (UN 2010.) Substantial progress has been made in reducing child deaths—the mortality of children under five in developing countries dropped by 28 percent since 1990. However, despite these accomplishments little or no progress has been made in some countries where infant and child mortality remains unacceptably high. The highest rates of child mortality can still be found in Sub-Saharan Africa, where up to one in seven die before their fifth birthday. Poverty, poor access to health services and the high rate of fertility have resulted in an increase in the number of children who have died there—from 4.0 million in 1990 to 4.4 million in 2008. Four diseases—pneumonia, diarrhea, malaria and AIDS—accounted for 43 percent of all deaths among children under five worldwide in 2008 (UN 2010). Clearly, there is an urgent need to bring lifesaving prevention and treatment interventions and increased access to family planning to the most vulnerable regions to help curb the unbridled rate of child mortality.

Universal access to reproductive health, including family planning, is designated in MDG 5B. According to the United States Agency for International Development (USAID), full availability of voluntary family planning can reduce by 25 percent what are currently more than 500,000 maternal deaths annually. However, from 2000 to 2007, the annual rate of increase in contraceptive prevalence in almost all regions was lower than it had been during the 1990s. Contraceptive prevalence rates (CPR) in Sub-Saharan Africa and Oceania continue to be very low (UN 2010). Insufficient funding from family planning programs is a major failure in fulfilling commitments to improving women's health.

Cleland et al suggest that improved access to contraception has the potential to avert 32 percent of maternal deaths and

nearly 10 percent of childhood deaths, reduce poverty and hunger, contribute substantially to women's empowerment, and help achieve universal primary schooling and environmental sustainability—all of which would contribute to helping achieve the MDGs set forth by the UN.

© Blue Ventures
Group of female peer educators reciting poems about the benefits of family planning, and the risks of sexually transmitted infections

How Integrated PHE's Approaches Help Achieve MDG 4

Infant mortality due to poverty, poor nutrition, poor sanitation and lack of access to health care is much higher in bio-diverse rural regions of the world. In order to help reach the MDG 4 goal, it is important to find solutions for reaching nearly 20 percent of the world's population that live in these underserved, rural conservation areas. PHE programs help bridge the rural gap by bringing water and sanitation, HIV prevention and treatment programs, and improved access to health care to these hard-to-reach regions. Working together with conservation groups, health partners can bring innovative community-based initiatives that significantly improve the health of women and children living around conservation sites. For example, the mid-hills district of Dhading, Nepal is noted for infant death from respiratory infections from indoor smoke pollution, lack of access to health care, unmet need for family planning and high population density. Here, a PHE project implemented by the Resource Identification and Management Society (RIMS) with community forest user groups led to a decline in the number of acute respiratory infections and the rate of case referrals. It also witnessed a 25 percent increase in the contraceptive prevalence rate and a yearly savings of more than 3,000 metric tons of firewood, resulting in a conservation benefit (D'Agnes 2009). Poor sanitation is a primary cause of diarrhea, and diarrhea is the leading cause of infant mortality. Many PHE programs also work to improve basic sanitation and access to clean water. In Cameroon, the World Wildlife Fund's (WWF) conservation project incorporated latrine building in their conservation program. As a result, the Salapoumbe Private Catholic Hospital in southeastern Cameroon reported that cases of childhood diarrhea admitted to the hospital dropped significantly in the course of a few months after latrines were introduced (Oglethorpe et al. 2008).

Many PHE projects include infant and child services conducted by trained medical staff and health education volunteers who provide vaccinations against childhood diseases, who conduct growth monitoring, and who offer nutrition and health education. Such an approach was implemented in Dzanga Sangha, Central Africa Republic, where a PHE project worked to improve the nutritional status of young children and pregnant women. The intervention focused on the Ba'Aka indigenous people who worked in the logging industry, and who experienced poor nutrition and a high mortality rate. Another leading killer of children is malaria. In the remote district of Lamu in Kenya, malaria is the biggest cause of morbidity. WWF's Kiunga PHE Project in the northern part of the district tapped into a large national malaria program distributing free bed nets to mothers of children under five years of age. The project also facilitated the treatment of malaria cases in the remote communities through local dispensaries and mobile clinics. The District Health Office reported an eight percent decline in cases of malaria district-wide after the introduction of the program. PHE activities in Kiunga also increased immunization coverage for children's vaccinations from 60 to 80 percent and reduced the incidence of waterborne illness in villages that treated water sources (Oglethorpe et al. 2008).

About 1.2 million infant deaths are averted globally each year by preventing unintended pregnancies (Singh et al 2009). Regions where conservation groups work often experience a high unmet need for family planning, especially in Sub-Saharan Africa. However, conservation organizations are often already established in remote areas and can easily facilitate access to family planning through rural community-based distribution, social marketing to provide reliable supplies, peer education systems and mobile clinics. Conservation groups' strong links with local communities

facilitates culturally sensitive and quicker uptake of these services. Furthermore, PHE activities can utilize existing infrastructure originally put in place to achieve conservation goals, to help in achieving health goals as well. Investing in integrated PHE approaches will help reach the MDG 4 goal of reducing infant and child mortality by bringing much-needed health interventions to a sizeable segment of the world's population that experiences some of the highest rates of infant mortality due to lack of information and services.

© CPTH
Community health workers discuss family planning and reproductive health with villagers near Bwindi Impenetrable National Park

How Integrated PHE Approaches Help Achieve MDG 5

As mentioned above, universal access to reproductive health, including family planning can reduce by 25 percent the more than 500,000 maternal deaths. Pregnant women in rural, low-resource settings are the most vulnerable and often lack access to family planning and safe delivery. Adolescent pregnancies are also increasing, especially in rural areas where adolescent birth rates are almost double those of urban areas. Yet, pregnant adolescents are less likely to seek pre-natal care or receive medical assistance during labor. These women experience higher risk of maternal mortality, and morbidities that are often permanent. Populations living in and around rural, and often remote, conservation hotspots often lack information and access to a continuous supply of family planning methods. Government and health donors frequently overlook these populations because of the difficult access and lack of funding and resources.

PHE programs have the potential to reduce this gap by providing greater access to family planning services as well as other health care interventions.

Family planning and reproductive health interventions are included in almost all PHE projects implemented by conservation and health groups. The Integrated Population and Coastal Resource Management Project (IPOPCORM) in the Philippines improved access to family planning information and services through the social marketing of family planning methods, the development of a strong system of community-based family planning and couple peer educators who informed the community about population, health and environment linkages and provided support to seek and continue to use family planning. This resulted in higher positive impact on several reproductive health indicators than did single-sector approaches. Furthermore, the project brought access to family planning to heavily populated, remote coastal populations far from formal health care services (D'Agnes et al. 2010). In Madagascar, a biodiversity hotspot and one of the least developed countries with one of the fastest growing populations in the world, Blue Ventures, a social enterprise and marine conservation organization, included family planning in its conservation activities in Velondriake, a community with a fertility rate higher than the national average total fertility rate (TFR) of 6.7 children per woman, and with very limited access to health services. By reducing the distance to the nearest family planning services from 50 kilometers (30 miles) to a couple of kilometers, CPR rose from 10 to 40 percent within a two-year span (Mohan 2012). In Tanzania, the Tanzania Coastal Management Partnership brought community-based distribution (CBD) of health and family planning to Pangani District and co-trained its savings and loans members and conservation volunteers to talk about population, health and environment linkages and to refer interested men and women to the CBDs and other health dispensaries for family planning. As a result, they improved access

to family planning by reducing the distance to FP methods from an average of 8 kilometers to 500 meters (Torell 2012).

As mentioned above, the RIMS's PHE project in Nepal showed a 25 percent increase in CPR. But progress does not stop there. In a WWF Nepal project site, the PHE approach increased CPR by 26 percent in eighteen months (Oglethorpe et al. 2008). In Kenya, the WWF PHE project in Kiunga increased CPR by 10 percent, which is a positive outcome for such a remote Muslim area (Weru et al. 2010). In Uganda, Conservation Through Public Health integrated health and family planning into their gorilla conservation activities in and around the Bwindi Impenetrable National Park, a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site. Bwindi is surrounded by some of the poorest people in Africa with a population density between 200 to 300 people/km2 and very limited access to health care. An aggressive peer education and communication campaign led to a 490 percent increase in new FP users as well as a 1,200 percent increase in referral of tuberculosis suspects (Kalema-Zikusoka 2010). The Environment and Development Society of Ethiopia brought an integrated approach to the Welmera Woreda (district) located in the highlands and home to 60 percent of Ethiopia's population. Family planning interventions coupled with conservation and livelihood activities resulted in an increase in FP acceptance from zero to 40 percent among women of reproductive age as well as a 50 percent reduction in waterborne diseases (Techane 2011).

Adolescents in general face greater obstacles than adult women in accessing reproductive health services. In most regions, the adolescent birth rate decreased between 1990 and 2000. However, the highest birth rate among adolescents is found in Sub-Saharan Africa, which has seen very little progress since 1990 (UN 2010). Improving adolescents' access to these services should reduce mortality among young girls giving birth and dramatically slow the rate of natural increase in population. In the Philippines, PATH Foundation Philippines, Inc. (PFPI) developed a special PHE program that targeted youth (15 to 19 years) in population-dense coastal areas. An evaluation of program results indicated that youth, especially men, were more likely to use family planning and delay early sex in the PHE Program site compared to their counterparts in a comparison site (D'Agnes 2009). Such increases in contraceptive prevalence and use of family planning can help to reduce maternal deaths in areas that are hardly reached by formal health care information or services.

Recommendations

Progress toward achievement of MDGs 4 and 5 is slow, especially in countries that house many of the world's biodiversity "hotpots." A good portion of the 1.5 billion people living in or around these bio-diverse areas experiences the highest rates of infant and maternal mortality. As health sectors compete for limited resources and often develop "vertical" delivery systems, it is even more essential today to establish partnerships and integrate health and family planning into other sectors. Given that conservation, livelihood and rural development projects often work in the same areas, partnering with them to improve the community's access to health care has shown promising results and makes sense. By sharing budgets, staff, and logistics, these partners together can respond more holistically and efficiently to community development needs and, in the process, promote a potentially healthier environment, economy, and families.

In order to strengthen the contributions that PHE approaches can make to MDGs 4 and 5, development and conservation organizations should:

- Increase collaboration among partners and funders to significantly broaden and improve the delivery of information, services, and the reach of supply systems by building on existing mechanisms and long-standing relationships with the community. These innovative approaches also serve a population that may not be reached by the formal health sector due to lack of financial and human resources. With heath sectors competing for limited resources, it makes sense to take advantage of these partnerships to synergistically address development goals addressed in MDGs 4 and 5.
- Move beyond the traditional focus on adult women and include men in project interventions. Men who do not embrace the term "family planning" have shown openness when couched within the context that supporting smaller families is linked to greater economic stability and better health. One way to involve more men is to go where the men work. Men are usually involved in conservation and livelihood activities and often see the links between scarce resources and too many people. And, by the very nature of their design, PHE programs involve more men than do traditional health care programs.
- Target youth as a critical step toward reaching MDG goals. Good peer education and community engagement have produced positive behavioral changes among adolescents. Yet, the needs of this growing population are often not met in many countries where conservation hotspots are found.

Working through conservation groups in remote and rural areas, PHE programs are able to reach this vulnerable group and engage them as stewards of their bodies and their environment.

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PHE approaches in the Philippines can help families space their children every two to three years, leading to improved maternal and child health outcomes

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Volume 1 || Issue 4|| April 2012

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Along the route to Fito village, people depend upon the water resources in the remote biodiversity rich area of Toamasina, Madagascar

HOW PHE APPROACHES CONTRIBUTE TO MILLENNIUM DEVELOPMENT GOAL (MDG) 7 – ENSURING ENVIRONMENTAL SUSTAINABILITY

Janet Edmond, N'Aina Zo Zatovonirina, Conservation International

MDG 7 concerns environmental sustainability and has probably the most challenging set of indicators to accurately measure and quantify. While it seems easy to count the number of trees planted or replanted or to count the numbers of hectares of habitat or land preserved, these measures are often one-dimensional and do not adequately reflect the sustainability aspect of environmental protection or conservation. In fact, many conservation professionals believe the full set of MDGs are awkward or flawed in their construction, allowing for a separate MDG for environment, when it is widely recognized in the international community that environmental or ecosystem services sustain critical water and food production systems upon which all life depends. This is especially true for target 7C, which calls for reducing by half the number of people without access to clean water, a requirement for all life. According to many environmentalists, MDG 7 is a prerequisite for all human well-being and underpins all other MDGs.

This article highlights how integrated Population, Health and Environment (PHE) approaches contribute to the achievement of MDG 7 and sustainability of our global natural resources. PHE approaches attempt to simultaneously reduce population pressures on natural resources by meeting unmet need for voluntary family planning and reproductive health services, while building local capacity to plan, manage and conserve our natural resources, which continue to be exposed to intense human- and climate change-induced pressures. The underpinning philosophy of PHE approaches assumes that conservation is a social issue—i.e., that empowering vulnerable human populations to meet their health and basic needs will ultimately lead to sustainable environmental management and conservation, with reduced pressures on biodiversity and critical ecosystem services in the most remote, rural areas of global significance. Thus, the target populations for PHE projects are always located in areas of highly-endangered biodiversity.

Volume 1 || Issue 4|| April 2012

Background on MDG 7

Most commonly accepted definitions of environmental sustainability assume linkages and interactions among economics, society, and the environment. As mentioned above, the MDG 7 targets and indicators, however, represent only a narrow subset of the broader set of environmental sustainability principles.

The four targets and associated indicators with this MDG are:

- Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources
- Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss
  - Indicator: Proportion of land area covered by forest
  - Indicator: Proportion of species threatened with extinction
  - Indicator: Carbon Dioxide (CO2) emissions per capita
  - Indicator: Energy use (kg oil equivalent) per $1 Gross Domestic product (GDP)
  - Indicator: Consumption of ozone-depleting substances
  - Indicator: Proportion of fish stocks within safe biological limits
  - Indicator: Proportion of total water resources used
  - Indicator: Proportion of terrestrial and marine areas protected
- Reduce by half the proportion of people without sustainable access to safe drinking water and basic sanitation by 2015
  - Indicator: Proportion of population using an improved drinking water source
  - Indicator: Proportion of population using an improved sanitation facility
- Achieve significant improvement in lives of at least 100 million slum dwellers, by 2020
  - Indicator: Proportion of urban population living in slums

According to the United Nations (UN), progress on these goals and indicators since 2005 has been largely positive. At the global level, the rate of deforestation decreased from an estimated 16 million hectares per year in the 1990s to about 13 million hectares per year in the past decade (UN 2011). Unfortunately, overall the world's natural resources remain severely threatened and its biodiversity under intense pressure. This is particularly true for tropical forests, which play an important role in the global carbon cycle. If these pressures on natural resources continue, the overall rate of biodiversity loss will also persist.

In terms of achieving the world's sanitation target, significant challenges remain—for example, globally over 2.6 billion people lack flush toilets and other forms of improved sanitation. Meanwhile, there are significant regional differences as well as differences between rural and urban areas in terms of making progress toward the targets and indicators under MDG 7. For example, poor, rural populations are less likely than urban populations to increase their access to clean drinking water.

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Access to safe water is improving worldwide but more than 40 percent of people in Sub-Saharan Africa still lack access

How PHE Approaches Help Achieve Environmental Sustainability

By definition, PHE approaches and projects involve multiple partners with multi-sectoral objectives. Most PHE projects combine efforts to increase access to family planning and reproductive health (FP/RH) services for remote, rural populations with interventions designed to increase local capacity to sustainably manage natural resources. During the past decade, conservation and health partners have achieved significant increases in access to FP/RH services and information in some of the most remote, biodiversity areas such as Cambodia, Democratic Republic of Congo (DRC), Ethiopia, Kenya, Uganda, Madagascar, Nepal, Rwanda and the Philippines. Among the

PHE community's portfolio of field-based projects, maternal and child health outcomes have also improved, including an increase in vaccination coverage and assisted deliveries. Innovative projects in Rwanda and the DRC have combined health education and outreach on HIV/AIDS prevention to decrease HIV/AIDS transmission while improving rural community livelihoods through improved agriculture and coffee production enterprises.

While PHE initiatives take many forms, most PHE approaches contribute to environmental sustainability because they address the root causes or human-induced threats to biodiversity loss, including natural population growth, high rates of consumption, habitat loss, invasive species, pollution and climate change (UN 2010). In many places, these threats impede sustainable environmental management and cause negative and often unintended impacts on the robust and optimal function of critical ecosystems such as watersheds and forests. For example, in Madagascar, one of the most biologically-rich countries on the planet, destructive practices such as "tavy" or slash-and-burn agriculture, have not been eradicated despite concentrated, focused multisectoral governmental efforts by the agriculture, environment and economic sectors. One of the first steps in designing PHE projects is to assess and prioritize threats and drivers in the target sites or landscapes and to determine appropriate interventions to mitigate or reduce the threats. By designing interventions to overcome these threats, PHE projects can help break the existing cycle of environmental degradation and resulting poverty though integrated approaches.

As mentioned above, PHE approaches recognize conservation as a social issue and thereby prioritize strategies to increase capacity and empowerment of local community stakeholders and actors to meet their needs for basic health and material goods. Three other ways in which PHE approaches contribute to environmental sustainability include:

- **Empowering People: Create enabling conditions and good will for conservation among local stakeholders**

The conservation-based rationale for integrating health services into community-based conservation efforts is designed to increase community buy-in to, participation in and ownership over conservation in the long term. By improving the health of the mothers, fathers and children in the target areas, people can be more productive, take advantage of economic opportunities such as microcredit, and have a range of options to satisfy basic human needs such as food, shelter and income. As demonstrated by many field-based PHE projects in Africa and Asia, health services also open the door to collaboration on activities such as environmental training and livelihood diversification (JGI 2004).

PHE projects create an enabling environment, building the social foundation and capital among community members to make conservation possible. By supporting efforts to improve local knowledge and capacities for environmental stewardship and wise development, these projects provide win-win opportunities that enable local stakeholders to protect their own interests and those of the global community long after the project ends.

According to an unpublished 2009 study conducted under the BALANCED Project by three Madagascar-based organizations—Conservation International (CI) Madagascar, Voahary Salama and World Wildlife Fund (WWF)—17 NGOs with PHE experience reported that the PHE approach is very important and effective in addressing the environmental needs of the communities because PHE approaches highlight the cause and effect relationships between community-level activities and the protection of biodiversity. Many respondents highlighted the role of community-based health extension agents who are critical to program successes—they deliver multi-sectoral messages to help promote behavior change and the community views them as a trusted source of information and change.

© Miguel Angel de Cueva / CI
Gender roles in conservation vary according to cultural and social factors

Once local communities have invested and bought into an integrated framework for meeting simultaneous health and conservation goals, the systems and processes used can become institutionalized and adapted by local management units or committees to sustain these efforts. Many local government units see the value in linking health and environmental services, often with an eye toward program efficiency and cost saving.

Training field agents in health and conservation outreach can achieve multiple goals with limited resources. Many PHE projects have utilized this approach and reported successes in improving community ownership, awareness and sustainability after project funding ended (Oglethorpe et al. 2008; Pielemeier et al. 2008; Edmond et al. 2008). For example, as part of BALANCED Project support to the Tanzania Coastal Management Partnership (TCMP), project staff cross-trained their conservation agents in Pangani as PHE peer educators so that can promote pro-health messages during their daily activities, thus increasing access to health and family planning information. Simultaneously, government community-based distributors (CBDs) were also trained on PHE, health and environment topics, thus increasing the number of pro-conservation change agents in the project sites.

- **Empowering Communities: Ensure vulnerable populations have access, rights and services to meet their needs in an environmentally sustainable manner**

While people live integrated lives and see the connections between their health and environment clearly, funding streams most often pick apart the elements of community-based initiatives. The PHE approach brings these elements "back together" under the framework of a single project. For example, in the Philippines the BALANCED Project received both health and biodiversity field support funds from USAID Philippines to scale-up PHE in two important bio-regions in the Philippines. Further, some PHE projects have shown to demonstrate value-added benefits to improving access to health services including FP/RH, basic maternal and child health services and natural resources management as compared to those projects delivering these same services but through single sector interventions or parallel programs (Pielemeier et al 2007.), especially when many communities members participate in the approach (Pollnac et al. 2011). In many ways, PHE is a transformational development approach that can be harnessed to address threats to ecosystem health and human health.

The U.S. Agency for International Development (USAID) has played a pivotal role supporting PHE projects in priority biodiversity areas since 2002, and these investments have helped local communities continue to improve community health outcomes.

One example of a sustainable PHE approach comes from Madagascar, one of the world's poorest nations. From 2003 to 2008, CI Madagascar partnered with a local non-governmental organization (NGO) called MATEZA to meet health and conservation goals in the community in Miarinarivo, located in the eastern biological corridor. Recognizing the critical links between water conservation and improved human health, MATEZA collaborated with the local Women's Association for Nutritional Education (EFEN), a group of 20 women members, to conduct awareness-raising sessions in the target communities and to prioritize community health needs.

The communities did not have an adequate supply of potable water and had to use the nearby river both as a toilet and a source of water for drinking and cooking and other household needs.

Through a participatory process, the community members decided they needed to take action to protect the river and prevent the spread of water-borne diseases like diarrhea, which was common among children under the age of five. These actions included building communal latrines (limited available land required communal vs. private latrines); learned and undertook improved hand-washing and sanitation practices; and at the same time, planted trees and nurseries to improve the quality of land and water in the surrounding landscape.

According to a March 2011 report, 80 percent of the latrines are still functioning and well-utilized by the members of the community in Miarinarivo. Local officials continue to monitor the condition of and maintain the latrines in order to ensure sustainability for the community. Like other development projects in Madagascar, raising awareness about water and sanitation issues and promoting the use of the latrines has fostered a "win-win" solution for the residents of this remote, rural community. The project helped to overcome some of the local traditions and taboos about waste management such as the use of communal latrines for defecation and the mixed gender use of latrines. At the same time, the project helped communities to better manage their water resources and ultimately improve their health.

In the larger environmental context, these local level initiatives reflect the fact that healthy, functioning freshwater ecosystems are fundamental to ensuring the long-term sustainability of progress towards water, sanitation and hygiene (WASH) goals. Integrated health and conservation approaches, such as the latrines to improve human and environmental health, are needed to preserve nature's benefits.

- **Promoting Multisectoral Policies and Financing at Multiple Scales: Linking environment and development goals in local and national development planning frameworks and policies**

Many PHE projects have employed conservation tools and approaches to help reach environmental conservation goals such

as species conservation activities, protected areas management, and site-based and landscape-level conservation planning. These components of PHE projects have focused on increasing local capacity and ownership for conservation outcomes. For example, on the Kenyan coast, WWF has worked with local fisherman and women's groups to improve coastal management practices to ensure sea turtle habitat preservation is linked to improved community waste management practices.

At the same time, many PHE projects include activities designed to increase community capacity for local land use planning to meet both development and conservation objectives. These planning efforts have increased local government awareness and ownership of integrated approaches, and many local government units or governments have dedicated local resources to integrated projects. According to the 2007 assessment of all USAID-supported PHE projects at the time, sustainability of PHE projects has been most evident where local government has decentralized authorities, has revenues it can allocate to PHE, and has a reasonable level of trained technical staff.

Many PHE projects also work with the local governmental authorities to promote finance policies which combine health and environmental funding into a package. For example, the Government of the Philippines is highly decentralized, giving budget and program control to the most basic Local Government Unit (LGU) structures. Recognizing the links between health and environment, many local mayors and officials have demonstrated their commitment to PHE approaches through local government policies and budget allocations to ensure PHE is core business for their barangay or local municipality. BALANCED partner Path Foundation Philippines Inc. (PFPI) has fostered these efforts and helped officials throughout the Philippines coastal communities to link local poverty reduction actions to national conservation and development goals. These efforts have attracted national attention and fostered increased support for PHE at multiple scales.

While PHE approaches do contribute to environmental sustainability, there remain many opportunities to further strengthen conservation outcomes and ensure nature's future for generations to come. The PHE community struggles to develop effective models to "scale-up" PHE approaches and reach wider audiences—in an effort to demonstrate that integrated approaches can work at regional and national levels as well as at the site-level scale. As mentioned earlier, the vertical or single sector nature of most international and bilateral development assistance agencies and institutions presents PHE implementation challenges as sector funding is more inflexible and building collaborations with single-sector projects can be time-consuming and costly. Meanwhile, the PHE community itself can do much more to draw attention to the successes of PHE approaches in international policy dialogues and negotiations.

Recommendations

PHE partners and the international conservation and development community could strengthen their commitment to achieving MDG 7 by taking immediate action to:

- Promote new and innovative international development policies and funding mechanisms that encourage PHE and other integrated approaches to improving health and conservation outcomes.
- Refine MDG 7 targets and indicators to include the "value-added" aspects and contributions of PHE approaches to poverty reduction and stakeholder participation in conservation, such as increased participation (non-traditional) by women in natural resources management sector activities.
- Spearhead and implement more diverse and integrated PHE projects in order to strengthen the evidence base for integrating health, development and conservation as effective and efficient approaches to meeting multiple needs/threats.
- Promote more models and success stories of partnerships among conservation and development groups working in landscapes and biodiversity areas to increase efficiencies.

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Women and their children selling fish in market in Madagascar

Volume 1 || Issue 4|| April 2012

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BALANCED is:

Building Actors and Leaders for Advancing Community Excellence in Development

About The Newsletter:

The newsletter is published once per year as a PDF document on the BALANCED website http://balanced.crc.uri.edu. Each issue has a theme and we are interested in garnering suggestions for future issue themes.

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PHE Toolkit:

Population, Health, and Environment (PHE) approaches strive to simultaneously improve access to health services and assist communities to manage their natural resources in ways that improve their health and livelihoods and to conserve the critical ecosystems upon which they depend. For more information on a wide range of PHE resources, please visit the USAID-supported PHE Toolkit at:

http://www.k4health.org/toolkits/phe

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