

Integrated Approaches to Population, Health and Environment (PHE): A Guidebook for Local Executives

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PREFACE

Efforts to promote integrated approaches to development in the Philippines date back to policy shifts in the 1980s and 1990s when the Philippines' Commission on Population (POPCOM) ventured to link population perspectives to larger development issues such as natural resource planning. This effort was prompted by a growing concern about the impact of increasing population on declining agricultural and fisheries production, vanishing animal and plant species, and dying coral reefs. The government's new approach to planning was called integrate population and development or "POPDEV."

Using the POPDEV framework, the POPCOM initiated a Population Development Planning and Research (PDPR) Project in 1981 that aimed to build institutional capacity of local governments. The PDPR supported studies and POPDEV training courses in three pilot regions in the Philippines and produced significant results including the integration of population into development planning at the national level, greater collaboration between researchers and development planners, and an assembly of core trainers and training modules. The early successes of PDPR became the building blocks for future initiatives supported by USAID which, along with the East West Center and International Institute for Applied Systems Analysis (IIASA), explored a policy planning tool to integrate population, development and environment concerns. UNFPA also encouraged and supported national government agencies to assess the interrelationships between population and development under a project entitled Population Policy Operation, which contributed to the formulation of implementing rules and regulations known as the Urban Development and Housing Act of 1992. This act called for collaboration among local and national government agencies to monitor population movements and their impact on development. The academic community also embraced the POPDEV framework and implemented a comprehensive research program designed to apply population perspectives in development policy formulation and planning, which enabled the Environmental Impact System that is currently used in the Philippines

In the early 2000s, several NGOs initiated field-based Population-Health-Environment (PHE) activities that represent some of the "first generation" projects worldwide to apply cross-sectoral and community-based approaches to address poverty, food insecurity, habitat and species lost, and other development concerns in rural Philippines. These PHE projects demonstrated the feasibility and rewards of working with communities in a holistic fashion and in a manner that builds local capacity to simultaneously address their family planning, environmental security and livelihood development needs. Two of these projects have since been acclaimed by international development specialists as "gold standard models for PHE integration" namely: the Integrated Population and Coastal Resource Management (IPOPORM) Initiative by PATH Foundation Philippines, Inc. and the People and Environment Coexistence Development (PESCODEV) Project by Save-The-Children Philippines. These projects worked with and through national agencies, local government and non-governmental organizations, civil society groups and local entrepreneurs to develop, test

and evaluate community-based PHE models that have since been brought to scale and replicated in several other areas of the country.

The lessons learned from the “first generation” projects in the Philippines have been widely disseminated in this country and abroad. Sharing of best practices has occurred among local executives through conferences, workshops and exposure visits to PHE learning sites in the Visayas and Palawan where much of the groundbreaking work took place. Several mayors have since expressed interest in applying PHE approaches in high growth hotspot areas under their jurisdiction. One example is the Danajon Double Barrier Reef in the Central Visayas, which spans four provinces and 17 municipal governments and provides food and livelihood opportunities for a million people living in its vicinity. Working together with PFPI and through an inter-provincial planning council, these policymakers have formulated a joint master plan for improved management of the Danajon to redress its declining fisheries and the high level of unmet need for family planning in the 576 barangays that border the ecoregion.

A second example is the League of Municipalities of the Philippines (LMP) Mayor’s Development Center which is collaborating with PFPI to introduce PHE approaches to local executives in the country’s most disadvantaged provinces and municipalities. To enable this process and respond to interest expressed by other stakeholders, the POPCOM and UNFPA are supporting the production of this PHE Guidebook for Local Executives, which we sincerely hope will provide useful insights and planning assistance to those keen on exploring alternative approaches to poverty alleviation and food security that work across the sectors of population, health and environment.

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Among others, we salute and thank the David and Lucile Packard Foundation, the UNFPA and USAID for providing generous grant funding during 2000-2007 that enabled PFPI and partners to introduce, replicate and scale-up the IPOPCORM approach in the Philippines, and to contribute to the emerging PHE field and “first generation” population-health-environment (PHE) projects worldwide. We also appreciate and acknowledge the collaboration of SIGUE network members who supported IPOPCORM and other PHE advocacy efforts.

Lastly, special mention goes to members of the IPOPCORM technical team who critiqued earlier drafts of this manuscript and provided valuable comments and suggestions that improved the contents of this Guidebook, particularly Ms. Leona D’Agnes, Dr. Angel Alcala and Dr. Enrique Hernandez.

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ACRONYMS

BFAR	Bureau of Fisheries and Aquatic Resources, Department of Agriculture
CBD	Community Based Distribution of contraceptives
CBCRM	Community based coastal resource management
CBNRM	Community based natural resource management
CCEF	Coastal Conservation and Education Foundation Inc. (Filipino NGO)
CHOW	Community Health Outreach Worker (community organizer with health skills)
CI	Conservation International (an international NGO)
CPE	Couple Peer Educator (adult trained in peer-mediated behavior change)
CRMP	Coastal Resource Management Project
DENR	Department of Environment and Natural Resources
IEC	Information, education and communication (IEC) strategy
FP	Family Planning
ICM	Integrated Coastal Management
IPOPCORM	Integrated Population and Coastal Resource Management
LGU	Local Government Units
NAPC	National Anti-Poverty Commission
NGO	Non-governmental organization (legally registered, private non-profit sector)
NRM	Natural Resource Management
PDA	Population & Community Development Association (Thai national NGO)
PE	Population-Environment (interlinkage approach among two sectors)
PF	Packard Foundation (David and Lucile Packard)
PFPI	PATH Foundation Philippines Inc. (Filipino NGO with 501(c) status in USA)
PHE	Population-Health-Environment (interlinkage approach among three sectors)
PO	Peoples Organization (grassroots civil society organization in Philippines)
POPCOM	Commission on Population
RH	Reproductive Health
RH/NRM	Reproductive Health linked to Natural Resource Management
SAVE	Save the Children (an international NGO)
SUAKCREM	Silliman University Angel King Center for Research & Environment Management
TMF	Ting Matiao Foundation Inc. (Filipino NGO)
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WWF	World Wildlife Fund (international NGO)
YPE	Youth Peer Educator (youth trained in peer-mediated behavior change)

EXECUTIVE SUMMARY

The Philippines has played an important role in generating science-based evidence to substantiate the claim that integrated population-health-environment (PHE) approaches are cost-effective and generate synergy and value-added for development programs. Several local chief executives facilitated the policy reforms and processes that enabled this work to be undertaken. Because natural resource management is a basic service of local government, it makes sense to embark on PHE work with the front-line stewards of the environment e.g., local mayors, barangay captains and other local government unit (LGU) leaders. Many of the LGUs that played an instrumental role in the evolution of PHE were already familiar with state-of-the-arts approaches to fisheries and/or coastal resource management (CRM) through previous projects financed by national government and international donor agencies. Their enhanced capacity for CRM and recognition of its limitations in the face of burgeoning population growth facilitated opportunities for PHE experimentation in the coastal zone which otherwise may have been too costly embark upon.

Chapter I of this guidebook presents a definition of integrated or cross-sectoral approaches to population-health-environment (PHE), and the philosophy behind the rapidly growing PHE movement in the Philippines together with doable actions for each level of democratic governance.

Chapter II highlights two “first generation” PHE projects pioneered in the Philippines, which have since gained internationally recognition as “gold standard models” for PHE planning and execution. It also provides a summary of the lessons learned and best practices emerging from these and other PHE projects implemented in the Philippines.

Chapter III describes the process of conceptualizing an integrated approach to PHE based on the experience of the Integrated Population and Coastal Resource Management (IPOPCORM) – the largest ongoing PHE project in the country both in terms of geographic coverage and investment. Working in partnership with local government units (LGU) and NGOs, the PATH Foundation Philippines Inc. (PFPI) launched IPOPCORM in 2001 and has since replicated the approach in thirty-three (33) different coastal municipalities in an effort to address the inter-related problems of poverty, over-population and over-exploitation of marine resources which characterize many communities in the coastal zone.

Chapter IV explains how to implement PHE in local settings including activities to build capacity among local implementing partners, monitoring tools and logistical resources needed from the preparatory phase to the actual implementation.

Chapter V provides insights on the constraints that PHE implementers faced in promoting and implementing PHE approaches in the Philippines and strategies that were used to mitigate and overcome the barriers.

Chapter VI discusses sustainability issues and how PHE activities were institutionalized at the local level.

In the final Chapter VII of this guidebook, scientific evidence of the cost-effectiveness of PHE approaches is discussed based on data and results from recent PHE operations research and monitoring and evaluation activities conducted in the Philippines. A number of references are provided in the final section of the manual for those wishing to explore in greater detail the research methods and implementation strategies applied in the PHE projects cited in this document.

INTRODUCTION

PATH Foundation Philippines, Inc. (PFPI) in partnership with the Commission on Population (POPCOM) of the Philippines developed this guidebook in order to share knowledge and experience gained from programs and projects that applied integrated approaches to population-health-environment (PHE) in the Philippines. This guide is targeted primarily to executives of local government and non-government agencies that are interested in developing, implementing and monitoring field-based PHE activities for enhanced food security, poverty alleviation and sustainable development. For those already implementing PHE approaches, this handbook can serve as reference for fine tuning program management and implementation. Whenever possible, this manual cites examples and scientific evidence from ongoing or past PHE projects in the Philippines that have undergone independent review and evaluation by domestic and international specialists. Lessons and best practices generated from other global PHE projects that have undergone similar analysis are also referenced for comparative purposes.

I. PHE – RATIONALE AND DEFINITION

Humans, in their numbers and practices, are increasingly affecting the environment and its life-supporting processes as noted by the United Nations (UN) Millennium Ecosystem Assessment, which found that “60 percent of the benefits people obtain from ecosystems are being degraded or used unsustainably¹.” Much of the ecosystem changes observed in the past 50 years were driven by the need to meet increasing demands of expanding populations for food, fresh water, timber, fiber, and fuel. The same report recognizes the shortcomings of sectoral approaches to environmental management and concludes that cross-sectoral approaches, policies and investments are paramount to improving ecosystem management on local, national, regional and global scales.

Definition of PHE

In this manual, PHE is defined as an approach to development that works across the domains of population, health and environment in an integrated fashion – resulting in improved outcomes for each sector as well as for the intersection of these 3 domains (e.g. a common goal) and for the community/target population at large. In the case of the Philippines, the common goal that encouraged the PHE exploration and the public-private partnerships essential for successful integration was largely driven by concerns about increasing poverty incidence and food insecurity associated with biodiversity loss and declining productivity of marine and terrestrial ecosystem.

¹ United Nations (2005) Millennium Ecosystem Assessment: Ecosystems and Human Well-being. Synthesis Report. Washington DC. Island Press.

The Philippines PHE Movement

Proponents of PHE in the Philippines are united in their belief that healthy ecosystems – including people, animals, plants and other organisms - will result only when the interdependencies among ecosystem members are acknowledged and taken into considered. Community-centered natural resource management (NRM) is seen also as key to local, regional and national development while health is appreciated as critical to sustainable development and effective NRM since humans need to be healthy to be productive and able to engage in environmentally-friendly practices that may be more labor intensive at the outset.

The Philippine community of PHE practitioners has set forth its collective viewpoints in a 2004 Declaration signed in Antipolo City that espouses “the basic right of every Filipino to a clean, balanced and secured environment; to a healthy and sound body and freedom from poverty.” As caretakers of natural resources for future generations, the Declaration states that “harmonizing people and the environment is the key to sustainability” because “our problems are linked and so should our solutions be; that the integrated and comprehensive approaches that acknowledge and address the complexities but vital linkages between and among population, health and environment effectively respond to the citizens’ aspirations for a better quality of life and sustainable human development; that equity concerns can be addressed through PHE².”

The Declaration sets forth doable actions for every sector of democratic governance including:

- **THE PRESIDENT AND GOVERNMENT** to which it notes that “ PHE integration is a key to upholding the commitment to International Covenants where the Philippines is a signatory to: the United Nations Millennium Development Goals, the Program of Action of the International Conference on Population and Development and the Rio de Janeiro Declaration on Sustainable Development.”
- **THE CONGRESS** which is encouraged to legislate national policies that unify population management, health development and environmental protection and security.
- **NATIONAL GOVERNMENT AGENCIES** and their instrumentalities to implement existing policies such as the National Integrated Protected Area System Act, Clean Air Act, Solid Waste Management Act, Clean Water Act and the Indigenous Peoples Rights Acts and align to health and population measures.
- **LOCAL GOVERNMENT UNITS** to integrate and implement population, health and environment projects down to the barangay levels.
- **FAITH-BASED GROUPS, NGOs AND PEOPLE’S ORGANIZATIONS** to join the broad-based movement for the promotion and advancement of PHE in the Philippines.

² The Antipolo Declaration on Population, Health and Environment. (November 2004) signed by participants to the First National Conference on Population, Health and Environment composed of development professionals, local government executives, policy makers, health and conservation workers, members of the academe, social scientists, indigenous people and religious sector representatives, artists, business, national and international development agencies.

- NATIONAL & INTERNATIONAL DONOR AGENCIES AND THE BUSINESS COMMUNITY to support PHE programs by allocating resources for policies and programs that encourage PHE integration and cross- sectoral collaboration.

II. 1ST GENERATION PHE PROJECTS

Two landmark projects in the Philippines that have gained international recognition as “gold standard models” for PHE planning and execution are described below. These include the Integrated Population and Coastal Resource Management (IPOPCORM) spearheaded by the PATH Foundation Philippines, Inc. (PFPI), and the People and Environment Coexistence Development (PESCODEV) Project implemented by Save-The-Children Philippines. Both NGOs worked with national agencies, local government units and civil society groups to develop and test field-based PHE models that were brought to scale and replicated in several other areas of the country over the past seven years.

Additional initiatives that rank among the so-called “first generation” PHE project in the Philippines include the Integrated Reproductive Health-Natural Resource Management (RH-NRM) Project implemented by the Worlds Neighbors-Philippines in the Loboc Watershed, Bohol Province; the Mapping Population-Biodiversity Connection Project, implemented by Conservation International-Philippines; and the Philippines NGO Council for Health, Population and Welfare project that enabled PHE advocacy and the development of the SIGUE network. Learning from these projects is also cited throughout this Guidebook.

1. The IPOPCORM Initiative (2000-2007)

The Integrated Population and Coastal Resource Management (IPOPCORM) Initiative is the flagship program of the private, non-profit PATH Foundation Philippines, Inc. (PFPI). The project’s planning stage began in year 2000 with a series of situational analyses undertaken with local executives and community based organizations on Palawan and Bohol. An earlier desk review revealed high rates of population growth and momentum in these two provinces which overlap several ecological “hotspot” areas ranked by the government as “extremely high priority” for conservation of marine biodiversity.” In 2001 PFPI commissioned local researchers to conduct household surveys and biophysical assessments in several of these hotspot areas. Survey results revealed high rates of poverty, child malnutrition and unmet need for family planning in communities living in these areas, while the marine research data showed high levels of ecosystem stress linked to overfishing and detrimental environmental practices particularly dynamite fishing and rampant cutting of mangrove forests. Using these and other available information, PFPI and

partners conceptualized the IPOPCORM approach and set forth its goals which aim to improve the quality of life of people living in high-growth hotspot areas while maintaining diversity and productivity of the ecosystems they depend on for food and livelihood.

The IPOPCORM initiative was largely financed by grants from the David and Lucile Packard Foundation whose preference is to channel resource through NGOs with the understanding that they will work together with government agencies, civil society groups and communities to test and implement sustainable PHE approaches. PFPI staff with expertise in both family planning/health and coastal resource management (CRM), developed the project's results framework, facilitated collaborative working arrangements between LGU and NGO partners, prepared integrated PHE training materials, trained NGO and LGU personnel staff in technical aspects of PHE service delivery and supplied program monitoring and evaluation support.

At the national level, PFPI linked and coordinated with the DENR, DA/BFAR, the Department of Health (DOH), national NGOs, UN agencies and international donors. At municipal levels, PFPI worked with and through local government-nongovernmental organizations (LGU-NGO) teams who jointly implemented the program's strategies. Following a study tour to Thailand where LGU-NGO executive were exposed to successful PHE projects ongoing in that country, the teams developed a joint plan for field-based PHE activities and executed a Memorandum of Understanding that clarified the roles and tasks of each partner – including fiscal responsibilities. The LGU-NGO teams advocated for the passage of ordinances to protect critical ecosystems and for the integration of RH/FP and HIV/AIDS prevention strategies into CRM agendas at provincial and municipal levels. At village (barangay) level, the LGU-NGO teams worked with the multi-sectoral Barangay Development Councils (BDC) and local Peoples' Organizations (PO) to facilitate participatory coastal resource assessments (PCRA) and barangay-specific action plans and budgets for linked RH-CRM activities. The partners also delivered paralegal training, technical assistance for strengthening/establishing marine protected areas, alternative livelihood/enterprise development support (including micro-financing), family planning outreach services, and IEC about population-environment linkages.

The LGU-NGO teams also trained and supervised the activities of selected Peoples Organizations and local entrepreneurs (sari-sari owners) that participated in social-marketing and community based distribution (CBD) of contraceptives through existing facilities and outlets. Annual behavioral monitoring surveys conducted by partner NGOs helped to track changes in attitude and behavior among adults and youth in the program areas, specifically with regard to reproductive health/family planning, fishing practices and coastal conservation practices. Independent research partners also conducted periodic surveys to assess the project's impact and the effectiveness of the IPOPCORM approach.

The IPOPCORM approach, which started in 12 coastal municipalities of Palawan and Bohol, was replicated in six other provinces with complementary funding from USAID, UNFPA and

counterpart contributions from local partners. By 2006, activities were ongoing in 1,090 coastal communities of 33 municipalities that overlap with half of the most imperiled marine ecosystems in the country. In 2007, IPOPCORM's field-based activities were turned over and accepted by the different partner local government units (LGU) who are sustaining the approach together with the Peoples Organizations and private sector partners operating the CBD systems. Several of the project focal areas in Palawan, Bohol, Cebu, Negros Oriental and Camiguin have now become PHE learning sites for other LGUs and local and international development workers and NGOs.

2. The PESCODEV Project (2000-2005)

Implemented by Save The Children-Philippines, the Population and Environment Co-Existence Development (PESCODEV) project started in year 2000 in the coastal municipality of Concepcion on Panay Island and by 2005 had expanded to 10 other municipalities on Panay and Guimaras. The project focused broadly on population and health (P-H) needs of populations living in 95 target barangays, several of which had received previous support for coastal resource management (CRM) activities. PESCODEV's overall goal was to achieve a sustainable balance between population and environment for these communities. Specific objectives included: (1) Policies enacted and programs implemented that facilitate access to RH information and services for youth, (2) Increased knowledge and awareness of RH/FP, pop/environment linkages, and natural resource management among community members, particularly persons of reproductive age, and (3) Enhanced natural resource management skills. Key program strategies included capacity building, IEC, enterprise development and improvement of reproductive health services. Three types of activities were integrated into the program in each municipality namely: coastal resource management (CRM), FP/RH and adolescent reproductive and sexual health, and enhancement of existing enterprise.

PESCODEV used a method called Appreciative Community Mobilization (ACM) to activate community participation in project focal areas. It also trained and supported peer educators, using family planning action sessions as an approach to encourage groups of 10-12 couples to make firm decisions about beginning to use FP. The project also focused attention on adolescent reproductive health needs for both sexes. PESCODEV also targeted local chief executives with inputs that strengthened their capacity in participatory community planning and PHE programming and monitoring. These processes reportedly enabled the Concepcion LGU to make the link between PHE and poverty alleviation and "achieve better and stronger results in both reproductive health and CRM than any time before," according to its Mayor Dr. Raul Bantias³. Mayor Bantias – who at the time was also an executive of the Northern Iloilo Alliance of Coastal Municipalities – shared the PESCODEV model with his counterparts in the Alliance and helped its members to secure grants from international donor agencies to replicate the PESCODEV approach throughout the northern

³ Chan-Pongan, Norma. (2006, Sept.). Building partnerships with local government units: PHE Programming in the Municipality of Concepcion. *Strategies for sustainable development*. Population Reference Bureau. Available online at: <http://www.prb.org/pdf06/PHE-BuildingPartnerships.pdf>.

Iloilo coastal zone, which has now become a PHE learning area for other LGUs and executives from other countries seeking first-hand knowledge on how to develop a PHE program.

Best Practices and Lessons Learned from 1st Generation PHE Projects⁴

1. Best Practices and Main Lessons

- Effective integration of PHE can generate synergistic because RH/FP lends sustainability to CRM interventions, while CRM provides a comprehensible context for coastal residents to recognize the necessity of limiting family size to achieve food security
- Reproductive health provides value added to environment and conservation efforts via greater female involvement in integrated coastal management activities and increased participation of adolescents.
- Integrated coastal management brings advantages to family planning efforts through greater access to men and adolescent boys, and positive changes in the community perception of women and in women's self-perception when they have access to and control of money and credit.
- Micro-credit and alternative livelihood encourages strong community involvement and is helping to reduce poverty and to balance gender inequities in coastal communities..
- Effective stewardship of coastal resources and human health mostly occurs through local organizations and community plans and actions.
- Integrated approaches reduce the resistance to family planning by the Catholic church, religious leaders and conservative followers because of the linkage with food security.
- Integrated strategies facilitate informing youth about RH, abating resistance by parents who might otherwise object.
- Formation of self-help groups among marginalized women for livelihood activities can facilitate demand for and access to reproductive health services
- Income and savings obtained by women through self-help activities builds confidence and enables women to access reproductive health and family planning services
- Helping men and women improve their control and management of natural resources may lead to higher acceptance of family planning

⁴ Pielemeier, John (2005 August). Review of Population-Health-Environment Programs Supported by the Packard Foundation and USAID. Available online at <http://www.ehproject.org/PDF/phe/II-packard2.pdf>

- Building trust and confidence between program leaders and the community is vital, and responding to the community's priority needs is the best way to achieve this
- Participatory methods and gender analysis can bring sensitive family planning and reproductive health needs into individual and household decision-making
- Communities can gain capacities to address reproductive health and family planning needs and to forge effective links to service providers
- It takes time to create and maintain partnership and partnerships can be complex and have many levels
- The partners must share ownership of the development process and project
- Interpersonal Communication (IPC) to the Local Chief Executive (LCE) and other stakeholders is an effective strategy to gain support for PHE programs
- Evidence-based information is one of the necessary factors to make advocacy efforts more effective
- Repeat IPC is needed to effect behavior change
- Building trust and rapport is important to get the support of the LGU and other stakeholders. This could be done through frequent visits and constant communication with the LCE and other stakeholders
- Field staff and community volunteers are critical to the success of the project.
- Working with the line agencies is necessary to sustain project activities

2. Value Added in Implementing PHE Approaches

- Utilizing integrated approach generates savings. LGUs save money by supporting and implementing integrated programs thus more savings which allows to address other basic needs of the community
- Use of local resources in identifying and addressing community issues and problems is maximized
- Communication between couples is encouraged
- Empowerment of women and youth, and gender equality is promoted
- Improved nutritional status of children under three years of age
- Youth development programs that applies integrated approach address the varied interests of youth, reaches more youth and facilitates community acceptance
- Encourages active participation of the community in the discussion of public issues and planning activities

3. Key Factors that can Support and Hamper Success of PHE Program

The following factors can support success:

- Broad Community involvement in participatory RH and CRM needs assessments or action research
- Involvement of local government officials and political leaders at project initiation
- Develop local government support at the onset and sustain beyond the project period
- Create a team approach at the very beginning

- Transparent partnership
- Partnership with experienced NGOs with previous positive PHE experience in the community
- Convergence of partner views about project objectives
- Presence of political will and potential political champions
- Close contact with government provides credibility
- Ensure absolute clarity between medical team and clients regarding sexual and reproductive health objectives
- Provide tangible benefits quickly
- Respond to priority needs of community to built trust and confidence
- Build on community strengths
- Set clear attainable targets
- Ensure commodity/input availability and quality
- Keep a flexible budget
- Include youth as a target audience to affect behavior change within the larger community
- Include strong livelihood component, if possible, that can bring wealth and encourage changes in aspirations
- Women's access to money generates self-respect and self-direction
- Micro-credit and cash income improves women's status in the family and the community
- Involving women in CRM/NRM encourages broader family participation
- Accessibility to project site
- Availability of radio signals that reach isolated communities
- Literacy

The following factors can hamper success:

- Limited government involvement
- Government corruption
- Weakness and small number of NGOs available to work in a region
- NGO dependence on one key individual
- Hard to find NGO with people-oriented approach to RH
- Health partner had no community base
- Hard for program managers to measure the capacity of potential partners – maybe need to partner first for a while
- Partners did not share the same mission, vision and objectives;
- Lack of experience in integrated approach – few models, dubious staff
- Absence of key inputs (FP stock outs) or poor quality
- Lack of sufficient time to observe changes in behavior
- Weak participation of women in some locations;
- High gender division
- Church opposition to family planning
- Significant migration (in-migration and out-migration)

- Indigenous areas sensitive to RH and gender issues
- Conservative nature of isolated areas

4. Where is Implementation of PHE Most Appropriate?

Setting:

- In or near threatened environmental or biodiversity “hotspots” and protected areas (PA)
- Where there is heavy pressure on the PA or the natural resource base by the local communities due, in part, to high population density per arable land available
- Where demographic, health or poverty indicators are worse than the norm

Key supporting factors:

- Both P and E problems and pressures are evident to the communities
- The communities demonstrate a reasonable degree of social capital and leadership
- Availability of NGOs that have worked in the area and who have gained the respect of the community
- Mayoral or other local political support is available for the program
- A significant number of donor projects or government programs are active in the area that can build on each other’s energy and programs
- Where P and E program services (e.g. government) are not adequate

Specific target areas:

- Buffer zones of PAs
- Landscape and corridor areas
- Fishing villages in/near threatened marine/coastal areas and where the fishing waters can be locally controlled (e.g. absence of commercial fishing)
- Watersheds where water scarcity is a recognized problem
- Urban slums
- As part of disaster relief programs (rain-induced landslides)

III. CONCEPTUALIZING PHE APPROACHES

This chapter draws heavily upon the IPOPCORM experience as it is the most extensively documented and evaluated PHE model in the Philippines.

In conceptualizing the IPOPCORM approach, PFPI personnel were influenced by the “linked eco-social system” concept first articulated by Professor G. Marten who – in a publication on sustainable development – set forth the belief that “Ecosystems and human social systems form a unified whole and that whatever affects one system affects the other⁵.” An eco-social system is a human social community taken together with the material ecosystem that enables supports and restrains it. These are systems of processes that are interconnected and interdependent. This concept implies that small improvements in social and ecological systems can reinforce one another, to turn around both systems from degradation to health.

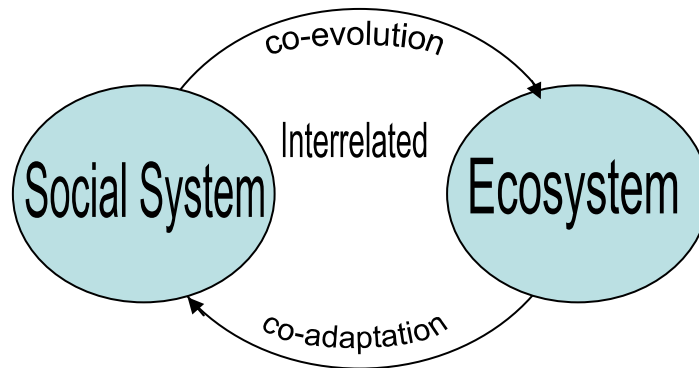


Figure 1. Linked Eco-social System Concept⁶

IPOPCORM also made use of an existing framework developed by the Philippines Coastal Resource Management Project (CRMP) which identified three critical results needed to assure food security from the sea. These require that: 1) fishing effort be reduced to sustainable levels, 2) illegal and destructive fishing practices be stopped, and 3) coastal habitats be protected and managed with community involvement. Among other “strategic interventions” to reduce fishing effort, the framework recommends that “family planning (FP) be strengthened in coastal communities.”

CRMP was not the first project to suggest the need for FP in coastal Philippines. In 1991 a renowned fisheries expert - Dr. Pauly – identified three “levers” that could help to “roll-back” overfishing in the Philippines e.g., establishment of marine protected areas (MPA) or “no-take” areas, support for land-based alternative livelihood opportunities for fishers, and increase access to

⁵ Marten, Gerry G. (2001). Human ecology: Basic concepts for sustainable Development. London: Earthscan Publications.

⁶ Ibid.

FP for women living in coastal areas. Using this information and other data from IPOPCORM's baseline surveys, PFPI developed a conceptual model for the project which helped to identify the causal linkages between the social and environmental challenges in coastal Philippines and opportunities for intervention. Five causal factors/opportunity emerged in the analysis e.g. lack of access to family planning, lack of alternative livelihoods, weak enforcement of environmental laws and codes, destructive and illegal fishing, and traditions and preferences (See Figure 1). These guided the selection of the PHE intervention mix used in the IPOPCORM model. You may want to develop a similar pictorial analysis of the factors that are contributing to poverty, food insecurity, and loss of biological diversity in your program area.

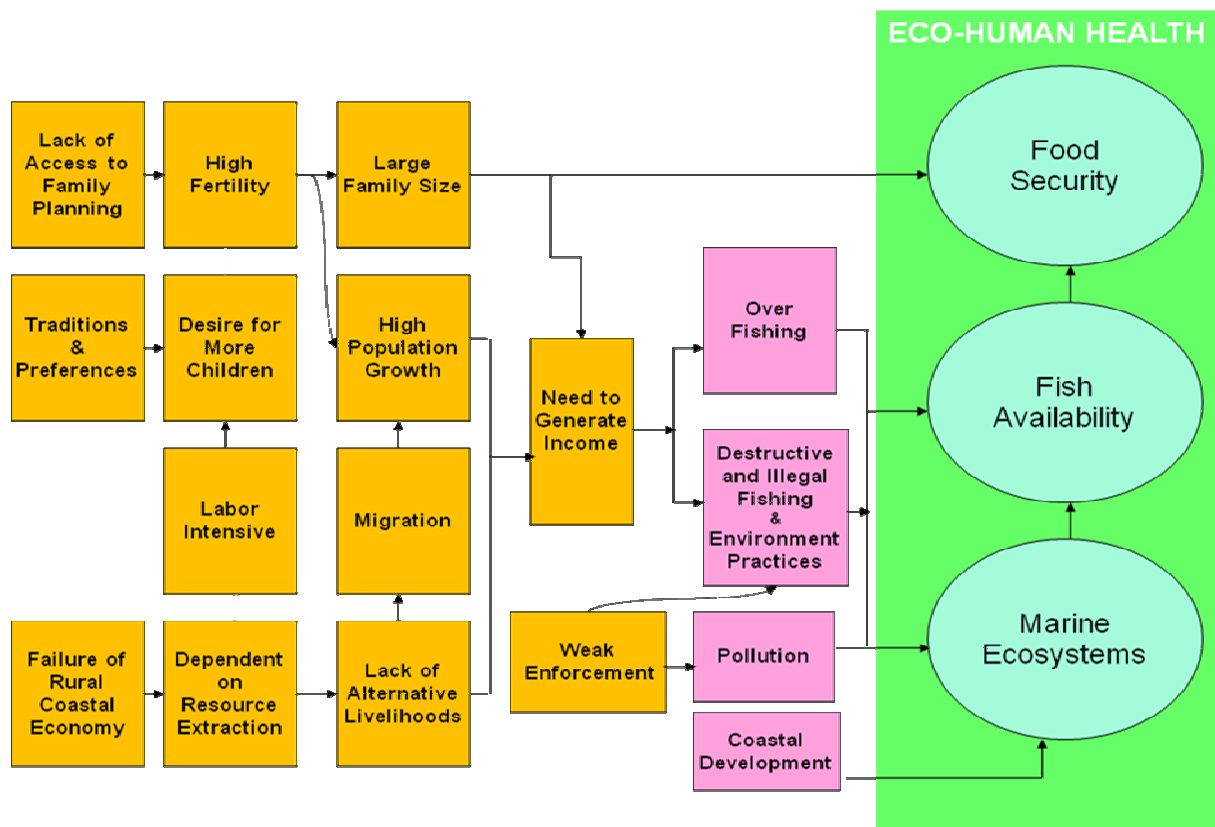


Figure 2. Conceptual Model for the IPOPCORM Initiative⁷

⁷ Source: D'Agnes, L. and Cheryl Margoulis (2007). Integrating Population, Health and Environment Projects: A Programming Manual produced with support from USAID and CDM International.

IV. HOW TO IMPLEMENT PHE IN LOCAL SETTINGS

A. Preparatory / Initiation Phase

Understanding the situation at the proposed PHE project site is a must before planning a PHE project or adding on a component on the existing project. All the important micro and macro-level factors at the site and how these factors affect each other must be identified and understood. A useful way to gain greater understanding of the factors at the local site is to create a graphic representation of the relationships of these factors. Once one has a solid understanding of the factors at the site, he/she can develop a management plan for the project – one can create appropriate goals and objectives, identify interventions and determine resources needed. Goal statements reflect the project's long-range vision and overarching purpose which, in the case of integrated initiatives, often relates to balancing population growth and natural resource use. It should be linked to targets, impact oriented, measurable, time limited and specific. The process of setting goals is particularly important for PHE projects as it helps determine if an integrated approach is appropriate. Once goals are established, one needs to create objectives for the project which is a formal statement detailing a desired outcome of a project. Objective should be SMART - specific, measurable, appropriate, realistic and timely. It is helpful to articulate both a general objective and specific objectives. After creating objectives, one then needs to develop potential strategies.

Early in the development stage of the project, one should consider identifying existing policy frameworks that could support the project. If the project is already ongoing, it is advisable to review the policy context in which the project is working. Policy frameworks specific to PHE do not normally exist. However, PHE projects do not necessarily need to work within a PHE policy. The important thing is that they should be consistent with the priorities and programs of the national government or the local government units.

PHE interventions generally aim to reduce unmet family planning needs, and minimize harmful effects of human activity on the environment and their consequences for human well-being. Activities do not necessarily to be integrated, but can also be done in parallel fashion. Choose interventions that can generate high impact at relatively low cost and can be promoted with community involvement. Interventions that generate value added or multiple impacts are preferable to those that impact a single objective.

Implementation Phase

Initial steps that should be undertaken during the implementation of PHE programs include orientation of the staff who will be involved in the program, and orientation and social mobilization activities for the local government officials and other stakeholders, and the communities. Forging partnerships through signing of MOU/MOA or if there's a need for baseline data gathering or community profiling, these activities should be done during the initial stage of program implementation.

The following capacity building activities can be conducted:

1. Training and Re-training

a. Government Health Personnel and BHW Training

To establish a good referral system and working relationship with the Rural Health Unit (RHU), the RHU personnel and Barangay Health Workers (BHW) should be trained on integrated reproductive health/family planning (RH/FP) and CRM/natural resource management (NRM). Training manuals and reference materials should be developed, pre-tested and finalized which will be used in the training. The training could be done in two days with 20-25 participants. Several batches of training could be scheduled. A refresher training should be conducted a year after the first training. Recruitment and training of Peer Educators or community volunteers can also be conducted. These Peer Educators can help the RHU staff and BHWs disseminate information on RH/CRM-NRM and recruit clients for FP.

b. Training on CBD System

To make family planning commodities more accessible and available to family planning users, training on the community based distribution (CBD) system could be conducted among RHU personnel and sarisari store owners. A training manual on CBD should be developed and pre-tested which will be used during the training. One community-based distribution outlet could be established per sitio/purok.

2. Development Planning

One way of institutionalizing PHE activities is by integrating them to development and/or environmental plans. This could be done both at the barangay and municipal levels. Barangay development council and/or municipal development council could be convened to develop plans with PHE activities and budget.

B. Monitoring and Evaluation

Ideally Monitoring and Evaluation (M and E) plans are developed during the planning phase of the project. This allows for the collection of information before the project begins, which can then serve as baseline data to which one can compare data collected later in the project. Monitoring involves the collection and reporting of data on a routine basis. It provides the basis for periodically assessing how one's activities are progressing compared to expectations. Traditionally, indicators are used to represent key aspects of the program or project and expectations are expressed in terms of anticipated indicator values over time and space. Evaluation, on the other hand, complements monitoring and involves a more in-depth assessment of targeted aspects of one's program. Data acquired through the monitoring process may indicate that one's program is not performing to expectations in one or more areas. An evaluation may then be conducted to investigate why this is the case and to suggest ways to address identified problems. Evaluations usually require more human and financial resources to conduct but provide critical value judgments and insights into why things are happening or not happening according to expectations. Evaluations are geared towards improving the design and/or implementation of the project or program being evaluated.

Program inputs, processes and activity outputs are monitored using easily available data sources; evaluations at this level are often conducted only if specific issues have been identified. For example, if demand for contraception exists in an area but contraceptive supplies are not readily available, a process evaluation is warranted to identify why the supply system is not working and how the problems may be remedied. Similarly, if farmers are receiving information about alternative agricultural methods but uptake of these new methods is not happening, an evaluation can focus on identifying key barriers to method uptake.

Given the time and financial requirements to conduct meaningful evaluations, often they are limited to providing insights into factors positively or negatively affecting the achievement of overall program objectives or outcome level effects. To make a stronger case that the program activities resulted in observed effects, data can be collected before and after the program is initiated. This kind of evaluation design helps to control for factors affecting outcomes that have nothing to do with the program interventions, which helps in the interpretation of how well the program achieved its objectives.

Input and activity monitoring must be conducted. Monitoring of key activity outputs such as number of community outreach workers/volunteers trained should be undertaken. Pertinent data could be obtained through, among other means, activity reports, routine reporting systems and field supervisory visits.

The following monitoring and evaluation tools can be used:

1. Detailed Implementation Plan. This serves as an accurate guide in monitoring the progress or flow of the project. It allows comparing targets with actual outputs.
2. Outreach Workers Diary. It documents outreach activities conducted.
3. Site visits. Regular visits provide opportunity to check the activities and know problems in the field.
4. Survey Reports. Among the survey methods used to gauge the success of various program components are Knowledge, Attitude and Practices (KAP) Surveys, Focus Group Discussions (FGD) and Behavioral Monitoring Surveys (BMS). BMS is an information system for monitoring the project and tracking changes in community attitudes and behaviors over time.
5. Regular meetings. Meetings among staff involved with PHE activities should be conducted at least twice a month to present updates, issues and emerging needs, and review monitoring procedures.
6. Quarterly and Annual Reports. These reports record the accomplishments of the project. These contain both quantitative and qualitative data. Problems encountered and suggestions on possible strategies for improvement should be included.

Box 1: Tools for Integrated Learning⁸

- Family income budgeting with couple participation: Women normally manage the family budget in Philippine coastal communities. This exercise for couples begins with a review of the family's minimal nutritional requirements; and moves progressively through determining food consumption needs, the costs of providing/purchasing food, and the additional costs (in terms of time spent on the sea) of feeding (and educating) a new family member. The result is increased male awareness of the link between family size and his workload.
- "Problem trees" show linkages between livelihoods, family size and access to land as well as the effects of migration and teen-age pregnancy.
- 3-dimensional map that illustrates the status of natural resources and helps delineate CRM pressure points, potential areas for marine parks and sanctuaries, and priority zones for citizen patrolling.
- Family Planning "action sessions": it brings 10-12 couples together to discuss family planning and uses "action cards" to codify FP decisions (with follow-up by the municipal health officer or peer educators).
- Adolescent theatre: used successfully by many projects to encourage youth to understand NRM/CRM and RH issues.
- "Couples communication games" used on RH day or NRM day: a form of "how much do you really know about your spouse" to encourage family communication.
- Garden of Eden /Adam and Eve/ Our Community: Demonstrates and discusses the effects of generational demographic and NRM changes on an island. Floor space becomes more limited as the game progresses.

⁸ Pielemeier, John. loc. cit

V. Challenges in Implementing PHE Projects

Challenges	Strategies to Mitigate Barriers/Challenges
<ul style="list-style-type: none"> • Establishing rapport and getting the support of the LGUs and other stakeholders 	<ul style="list-style-type: none"> ➤ Conduct courtesy call to LGU and orient them about PHE and the project ➤ Involve the LGU in project planning and implementation ➤ Regularly visit and consult the LGU and provide feedback/updates about the project
<ul style="list-style-type: none"> • Encouraging community involvement, participation and support 	<ul style="list-style-type: none"> ➤ Conduct orientation in the communities ➤ Involve the community in project planning and implementation ➤ Train peer educators
<ul style="list-style-type: none"> • Integrating RH/FP into development/CRM/NRM plans and leveraging counterpart contributions from local sources 	<ul style="list-style-type: none"> ➤ Initiate and/or coordinate with the LCE and the local development councils for the conduct of planning workshops ➤ Orient the local development councils on PHE
<ul style="list-style-type: none"> • Opposition/Resistance/Pressures from religious leaders, political leaders and other conservative groups 	<ul style="list-style-type: none"> ➤ Orient leaders on PHE and discuss their concerns related to PHE ➤ Develop PHE champions/advocates
<ul style="list-style-type: none"> • Sustaining PHE activities 	<ul style="list-style-type: none"> ➤ Incorporate PHE activities in the local development plans/CRM/Fisheries plans ➤ Training of community volunteers ➤ Involve the community and other stakeholders in planning and implementation
<ul style="list-style-type: none"> • Unsupportive local government officials 	<ul style="list-style-type: none"> ➤ Conduct orientation with local government officials ➤ Involve local government officials in project activities
<ul style="list-style-type: none"> • Making the community and stakeholders understand the PHE linkage and its importance including benefits 	<ul style="list-style-type: none"> ➤ Conduct orientation, social mobilization, seminars, trainings and symposia

Challenges	Strategies to Mitigate Barriers/Challenges
<ul style="list-style-type: none"> • Lack of national population policy 	<ul style="list-style-type: none"> ➤ Focus advocacy efforts at the local level
<ul style="list-style-type: none"> • Environment and FP are low priority programs 	<ul style="list-style-type: none"> ➤ Continuous advocacy with stakeholders to support PHE
<ul style="list-style-type: none"> • Lack of transport and communication facilities in remote areas 	<ul style="list-style-type: none"> ➤ Training of indigenous leaders as community volunteers and CBDs
<ul style="list-style-type: none"> • Short political term of elected officials 	<ul style="list-style-type: none"> ➤ Work with line agencies
<ul style="list-style-type: none"> • Political party/affiliations 	<ul style="list-style-type: none"> ➤ Constantly coordinate and update all local officials and heads of line agencies
<ul style="list-style-type: none"> • Budget constraints 	<ul style="list-style-type: none"> ➤ Source out funds from different agencies, political and business leaders, and private companies and individuals
<ul style="list-style-type: none"> • Lack of technical expertise of LGU officials on PHE 	<ul style="list-style-type: none"> ➤ Conduct orientation and trainings for LGU officials
<ul style="list-style-type: none"> • Establishing rapport and getting the support of the local leaders and other stakeholders 	<ul style="list-style-type: none"> ➤ Orient stakeholders on PHE ➤ Involve the local leaders and other stakeholders in project planning and implementation ➤ Regularly visit and consult the local leaders and other stakeholders, and provide feedback/updates
<ul style="list-style-type: none"> • Personal vested interest of some officials supporting illegal fishing/environmental activities 	<ul style="list-style-type: none"> ➤ Conduct IEC campaigns on PHE ➤ Involve local officials in planning and implementation

VI. Sustaining PHE Activities

In order for a PHE project to be sustainable, the activities must be adopted by members of the community, including local institutions. There are several strategies and activities that can be conducted to achieve sustainability of PHE.

A. PHE Advocacy

Advocacy activities that aim for support to PHE should be conducted at all levels: municipal, barangay, subvillages. Advocacy activities include PHE orientation, social mobilization, study tours, PHE forums, conferences, community assemblies, PHE awareness campaigns, traditional and non-traditional IEC activities including print and broadcast media, trainings of PHE champions, leaders and advocates. IPOPCORM trained 40 PHE advocates who continued PHE advocacy activities to local officials, other stakeholders and communities to support PHE. In addition, IPOPCORM also trained media and information officers on PHE in the provinces of Cebu, Negros Oriental, Bohol and Siquijor. Several articles on PHE came out in national and local newspapers as outputs of this training.

B. Institutionalization of PHE Activities

This is done by integrating PHE dimensions in development and/or environmental/fisheries/CRM/MPA management plans as well as in national and sub-national frameworks (*see example of an integrated plan in attachment A*).

C. Local organizations

Local organizations are often committed to a particular area. Empowerment of development committees and councils with PHE knowledge and planning/budgeting skills could easily access development funds. IPOPCORM provided technical assistance to barangay and municipal development councils in conducting development planning workshops. This resulted to barangay and municipal development plans with RH-CRM activities and budgets.

D. Local federations/organizations

Mechanisms that create or strengthen relevant federations operating in the area can also promote longer impacts. Community volunteers can be organized to form associations/organizations which could eventually handle and manage the program or help sustain PHE activities. IPOPCORM partner NGOs in Palawan, Tawi-Tawi and Bohol initiated the organization of Peer Educators and CBDs. These Peer Educators and CBDs associations were capacitated on organizational development, financial management and community-based distribution of FP commodities. The PE and CBD associations continue to conduct IPCs and outreach activities even if the IPOPCORM project has ended.

E. Level of engagement of community

The ability to effectively engage the community and communicate the linkages to the community is an important factor in sustainability. If the community fully understands the importance of PHE integration and how this affects their lives and their living conditions, they are most likely to continue advocating for PHE and sustain PHE activities.

VII. Science-based Evidence Supporting PHE

That integrated approaches to population-health-environment can generate synergy and added value has been demonstrated in research projects undertaken in the Philippines over the past decade by PATH Foundation and other groups. Two recent operations research studies carried out in the Philippines demonstrated several of the competitive advantages of PHE as described below. Other PHE projects that incorporated program monitoring and evaluation activities provide supporting evidence, which are also described below.

1. IPOPCORM Operations Research in Northern Palawan

The IPOPCORM project supports three different types of evaluation activities: process, impact and operations researches (OR). It also builds the capacity of local partners to conduct simple surveys to track change in target groups attitudes and practices and to monitor the effectiveness of local PHE initiatives. The process and impact assessment activities were conducted in 2004 and 2005 respectively by independent consultants and research groups. The OR was conducted over a period of six years (2001-2007) in order to test IPOPCORM's central hypothesis that *“There will be a significant improvement in coastal resources management (CRM) outcomes and reproductive health family planning (RH/FP) outcomes by delivering these services in an integrated fashion as opposed to delivering either intervention in isolation.”*

The Demographic Research and Development Foundation (DRDF) Inc. – an independent research institute affiliated with the University of the Philippines Population Institute (UPPI) was commissioned by PFPI to conduct the impact assessment. Prior to the launch of project interventions, DRDF gathered baseline information (2001) from target communities in selected designated evaluation sites. Three years later, DRDF repeated the survey in the same areas using the same sampling framework and survey instruments. In its final report to PFPI, DRDF describes the statistical methods that were used in the impact study and the final results showing “the integrated approach significantly reduced unmet need for family planning and produced a greater impact on population-environment linkage variables relative to the control group⁹.”

The OR study, which is testing IPOPCORM's central hypothesis, entailed more detailed and extensive research activities using a quasi-experimental evaluation design. This research was carried out in four different coastal municipalities in Northern Palawan during 2001-2007 e.g., Culion, Cuyo, Busuanga and Dumarán. Research partners included the DRDF and Foundation for the Advancement of Clinical Epidemiology (FACE) for the population and socio-demographic surveys, and the Marine Environment and Research Foundation (MERF) for the ecology and biophysical assessments. The surveys were conducted before (2001) and six years after (2007) the introduction of different intervention modalities in the study areas which were facilitated by local

⁹ DRDF/UPPI (2005) Final Report on the follow-up survey for the IPOPCORM Initiative.

LGU-NGO partners. In some communities, vertical approaches to coastal resource management (CRM) were applied to conserve marine ecosystems; in other communities, vertical approaches to reproductive health (RH) management were implemented to improve human health. In the IPOPCORM study areas, communities were empowered to implement CRM, RH and alternative livelihood activities in an integrated manner so as to improve food security, conserve marine ecosystems and enhance human health. Other areas where no interventions were introduced serve as comparison sites.

Results of regression analysis and other statistical tests performed on the pre-project (2001) and post-project (2007) datasets by the research partners indicate that the IPOPCORM approach yielded significantly higher impacts on both reproductive health *and* coastal resource management (CRM) indicators compared to vertical approaches. Although IPOPCORM cost more to field than either of the non-integrated approaches, the *combined* cost of fielding the independent RH intervention and the independent CRM intervention was considerably greater than the cost of fielding the IPOPCORM intervention. When its cost-efficiency was viewed together with its higher yielding impacts, the study concluded that IPOPCORM was the more *cost-effective* approach¹⁰.

Other key findings highlight that integrating population management into CRM is not merely adding a FP package but designing an *approach* that also incorporates alternative livelihood that can significantly influence consumption and management of coastal resources. The study concludes that “without integrated forms of coastal management, it will be difficult to make progress in the area of marine conservation while at the same time Family Planning is needed to ensure long term sustainability of management and prevention of over-use of coastal resources.”

2. World Neighbors’ Research in the Loboc Watershed, Bohol

This project aimed to assess the impact of Integrating Natural Resource Management and Reproductive Health in the Loboc Watershed, Bohol Island, Philippines. The Loboc Watershed comprises approximately 12.5 percent of the total land area of Bohol Province and is considered a “critical watershed area” by the GOP. An ongoing Loboc Watershed Development and Management Program, implemented by World Neighbors and local government and NGO partners, was already providing inputs to protect, rehabilitate and manage the natural resources in the Loboc watershed. Although this program experienced early success in natural resource management (NRM) and livelihood improvements, World Neighbors sought to take the integration a step further by adding a reproductive health (RH) component.

¹⁰ Amarillo, Maria Lourdes and Samuel Mamauag. (2007). Powerpoint presentations on the evaluation of the IPOPCORM approach. National Dissemination Forum: Integration makes the difference. MetroCentre Hotel, Tagbilaran City, Bohol, Philippines. October 3, 2007

In 2001, with the assistance of the David and Lucile Packard Foundation, World Neighbors began identifying possible linkages between NRM and RH. Some of the more obvious issues in the Loboc Watershed linked limited land tenure and land degradation with high out migration and large family sizes. With these issues in mind, World Neighbors identified three local NGOs¹¹ to assist with the implementation of research activities designed to assess the impacts and outcomes of RH and NRM. In selecting the site for implementation of the integrated intervention, the partners explored four municipalities where intensive work was being done within the LWDMP and decided on the municipality of Batuan because it was one of the poorest municipalities located in the upper reaches of the Loboc Watershed. The municipal government of Batuan, the Rural Health Unit, the Municipal Social Welfare and Development Department, and the Department of Education, Culture and Sports committed to support the efforts of the partners. Other units of the municipal government also became involved at various stages later in the process. In addition, the barangay government, the local people's organization (BACOD) and the general constituents of the village of Cabacnitan in Batuan, manifested strong interest in the collaborative work. As the chief of barangay Cabacnitan insightfully stated, "We live because of the benefits of the environment. But we can't protect the environment if we are unhealthy. That is why it is important to integrate." Cabacnitan became the pilot community where World Neighbors and partners tested the hypothesis that "the impacts of integrated NRM and RH programs are greater than those in a stand-alone program."

The program had four major phases: community needs assessment, community analysis and planning, community activities and program interventions, and impact assessment. The community activities included RH, NRM and integration activities. Both RH and NRM program dimensions had livelihood activities. The impact assessment was conducted in three sites, i.e. one barangay in each of three different municipalities. These were the integrated (NRM/RH) program site, the RH-only site and the NRM-only site. The research team developed two major research instruments; focus group discussion (FGD) guides and a household survey questionnaire.

Results of the World Neighbor's impact assessment indicate "the integrated RH-NRM approach generated positive impacts on community organization and empowerment, and active involvement of a broader segment of the community compared to the sectoral approaches. " There were a number of RH issues where the integrated site also demonstrated greater outcomes. These included family planning, pregnancy, prenatal care, deliveries, postnatal care, and gender. As with RH, there were aspects of NRM wherein the integrated site had greater impacts and outcomes than the comparison sites. These were in the areas of adoption of appropriate farming technologies - such as organic farming and agroforestry- and crops and trees planted as well as community's understanding of watershed. Because of the short duration of the study (20 months), however, the data did not yield statistically significant results for several other indicators.

¹¹ The Bohol Alliance of Non-Government Organizations Network (BANGON), the Soil and Water Conservation Foundation (SWCF), a member of BANGON, and the Kauswagan Community Development Center (KCDC), an NGO that specializes in RH.

Although the integration approach in the Loboc Watershed was woven together as the program evolved, having the partners understand why integration was important and ensuring that there was a commitment to learning how to make integration happen, were key ingredients for making this initiative a success. Today, the nine local NGOs working in the Loboc Watershed have a working model of an integrated program approach, and are all keen on scaling up this approach in their respective sites.

3. PHE Scale-up in Siquijor Province and Program Monitoring Results

Siquijor is an island province situated in Region VII within a marine corridor ranked among the countries highest priority for biodiversity conservation effort. The island's central mountain is home to rare plant species and its fringing reefs contain a plethora of reef fish, sea grass species and coral communities. Siquijor's population of 25, 186 (2005) is concentrated within six coastal municipalities where fishing predominates. Due to over-extraction and illegal activities of commercial and local fishers coupled with ineffective ecosystem management, the province's fisheries and coastal resources have been declining over the past decade and a half.

In 2003 with funding from USAID's Global Health/Population & Reproductive Health (GH/PRH) office, the PATH Foundation Philippines Inc (PFPI) introduced the IPOPCORM approach in two of Siquijor's coastal municipalities. Working through two local NGO partners – Ting Matiao Foundation and Coastal Conservation and Education Foundation - and a number of small private entrepreneurs, the project established CBD systems for family planning, a community-managed marine sanctuary and alternative economic opportunities in the target areas. Based on the project's early success, PRB/USAID and the Packard Foundation co-financed a series of advocacy and expansion activities during 2004-2006 that incorporated support for integrated population-health-environment (PHE) in the province's five-year development plan and facilitated scale-up of the IPOPCORM approach throughout the remaining four municipalities. Together the planning, policy-advocacy and field operations conducted under the project succeeded in mobilizing US\$50,900 dollars worth of counterpart contributions from local sources to finance IPOPCORM activities on Siquijor. Together with the grant financing provided by PRB, USAID and the Packard Foundation, this support enabled Siquijor to achieve the first province-wide scale up of an integrated PHE approach in all of the Philippines.

Feedback from the communities about the benefits of PHE highlighted the following:

- “IPOPCORM has helped to decrease population and crowding in the community”
- “Because of family planning, we now have more time to attend to other chores and activities”
- “Because of the marine protected areas, we now have more abundant fish harvest”

Results of program monitoring conducted on Siquijor during 2003-2006 indicate that daily average fish catch rates increased from 3.4 to 8.3 kilos and nearly twice as many fishers (54.6%) were involved in protected marine sanctuaries compared to the 2003 level (30%). Use of modern FP methods more than doubled over the same period (from 30% in 2003 to 64.7% in 2006), while awareness of the interrelationship between over-population and declining coastal resources also increased. These results clearly point to the many benefits of private-public partnerships working together with communities to implement cross-sectoral approaches to food security that simultaneously promote reproductive health, coastal conservation and alternative livelihood opportunities.

4. LGU and Academe Collaboration on PHE in Dauin

The municipality of Dauin has been in the forefront of marine resource management and environmental protection since the early 1980s. No-take marine protected areas (MPAs) in this area range in age from two to 23 years and total 50 hectares of coral reefs. Around these reefs are about 150 hectares of fishing areas for the people, making some 200 hectares of MPA system in Bohol Sea. This system of conservation, in which a smaller, strictly protected core area (no-take reserve) serves as source of adult fish biomass for a larger fishing area in which only non-destructive fishing methods are allowed, has acquired wide acceptance in the country as an integral element of coastal and marine resource management (CRM).

In 2004 the PFPI worked with SUAKCREM to integrate RH into the CRM framework in Dauin, adding the population management objective to the protection and income-producing objectives of the original conservation project.¹² The population of the 9 target barangays totaled 11,765 (2004). By offering family planning and reproductive health services, the project aims to improve RH outcomes of individuals in the barangays covered by the project and in turn, decrease the fertility and population growth rates. Community participation is encouraged through the recruitment and training of volunteer peer educators (couples and youth) and community distributors of commodities. Peer educators are tasked to inform their peers about family planning and reproductive health. At the same time, family planning commodities are voluntarily distributed by owners of sari-sari stores (small convenience stores) located within the neighborhood.

Since the municipality of Dauin has on-going coastal resource management program headed by the municipal mayor, the project aims to strengthen these efforts with complementary activities such as

¹² Alcalá, Angel¹, Enrique Oracion², and Angelita Cadelina. (2006). "Effects of Integrating Coastal Resource Management, Family Planning, and Livelihood Opportunities on Income Levels and Fertility in Nine Barangays in the Municipality of Dauin, Negros Oriental, Philippines." SUAKCREAM, Silliman University, Dumaguete City, Philippines

sponsoring of barangay planning workshops, Information Education and Communication campaigns, and offering an alternative livelihood program. The alternative livelihood program is aimed towards providing deserving residents with seed capital to start a land-based, environment-friendly enterprise that will decrease the dependence of the residents on their marine resources as a source livelihood. Another aim is to provide additional livelihood opportunities to individuals of low income, and thus alleviate their economic condition. The following criteria must be met to become eligible recipients of the seed capital:

- A. Personal Criteria - the applicant should meet the following qualifications:
 - 1. should be any of the following: member of a People's Organization, Community-Based Distributor, Couple Peer Educator, Fisherfolk, or have supported/is supportive of the IPOPCORM project
 - 2. should be a resident of the target barangay for at least six months
 - 3. must have undergone the training on entrepreneurship and marketing skills to be provided by SUAKCREM
 - 4. must have undergone the livelihood skills training (if needed) to be provided by IPOPCORM
 - 5. must be recognized in the community as someone who is honest, responsible and with good character
 - 6. must attend at least half of any IPOPCORM meetings, and other related activities each month.
 - 7. must not have any unpaid loan from banks or cooperatives or other credit institutions

- B. Livelihood Criteria - the project/livelihood should meet the following qualifications:
 - 1. must be environment-friendly, does not involve extraction of marine resources, and does not pollute the environment
 - 2. raw materials are available, can be purchased at a low price
 - 3. there is existing or potential market for the product
 - 4. does not require complicated and high maintenance equipment and technology
 - 5. must be easy to replicate or expand
 - 6. must be financially viable
 - 7. business proposals should be reviewed by a technical expert during the skills training workshops

To monitor the project and track changes in community attitudes and behaviors, PFPI conducted a Behavioral Monitoring Survey (BMS) in the municipality of Dauin in 2003, 2004 and 2006. The surveys gathered information on knowledge, attitudes and behaviors related to indicators for reproductive health, coastal resource management and their integration using simple random sampling. The survey revealed the following results:

- 1. Awareness of modern methods of contraceptives among adults increased from 68.8% to 89.3% during 2003-2006

2. Levels of use of modern contraceptives also increased over the same three-year period e.g., from 18.8% of adults in 2003 to 83.6% in 2006.
3. Nearly 4-times as many men reported recent condom use in 2006 (19.8%) compared to 2003 (5.5%) suggesting the project's IEC messages were reaching the intended audiences and having the desired impact.
4. Among youth respondents, there was an increase in the mean age of sexual debut from 12 years in 2003 to 17 in 2006. This has important implications for slowing down population momentum and growth in these hot-spot areas.
5. Over 93% of adult and youth respondents in all surveys said that they have other sources of income aside from the sea suggesting the alternative livelihood program was helping to diversify household income sources for coastal families.
6. There was an increase in the level of disagreement among adult and youth respondents about their community being helpless in protecting its resources, which suggests these communities are now empowered to better protect their coastal environments.
7. There was an increase in the proportion of adult and youth fishers who volunteered to guard sanctuary/mangroves, which supports the community empowerment results mentioned above.

5. PESCODEV Evaluation Results

PESCODEV created significant results and policy development in support of population, health and environment. The project was able to train a total of 93 family planning volunteers. Family planning users increased from 1,280 in 2002 to 1,550 in 2004. A total of 9 marine protected areas were established in the municipality of Concepcion. The project was also able to train 40 adolescent peer facilitators. There were 16 resolutions/policies passed in support of PHE activities and programs. A total of 3 counseling rooms were constructed for family planning/adolescent reproductive and sexual health. There were 1,233 beneficiaries enrolled in social health insurance program. A total of 8 MFARMC/BFARMC were organized and strengthened and 187 fish wardens deputized. In linking PHE with poverty alleviation in Concepcion, Iloilo, the project was able to achieve good results. Poverty incidence decreased from 87% in 2001 to 68% in 2003. Crude birth rate also decreased from 25/1,000 live births to 18.8/1,000 live births. Maternal mortality also decreased from 3.4/1,000 live births in 2001 to 0 in 2003. Prevalence of malnutrition among preschoolers decreased from 6.87% in 2001 to 2.82% in 2003.

Annex A.1 Example of a Municipal CRM Plan with Population Management (RH/FP) Strategy

MUNICIPAL CRM PLAN OF CANDIJAY, BOHOL

FISHERIES MANAGEMENT

Objectives:

- To increase productivity of fisheries resources in order to achieve food security
- To regulate access to the municipal waters and reserve its resources for the benefits of municipal fishers
- To regulate the exploitation of fisheries resources and limit fishing efforts to sustainable levels
- To ensure the rational and sustainable development and management of the fishery resources
- To develop monitoring, control and surveillance mechanisms and strengthen law enforcement units
- To ensure equity in fisheries exploitation

Strategies	Activities	Institutions /Persons Involved	Time Frame					Budget (P'000)	Funding Source
			2001	2002	2003	2004	2005		
Establishment and management of MPA of fish/marine sanctuaries	1. Identification of potential site of MPA	MPDC, CO, PROCESS, CVSCAFT, CRMP, BEMO, BFAR, PO, Bgy Council, FARMC, SB, Bantay Dagat, CLEC	X					Y1=50 Y2=1200 Y3=	MLGU, BFAR, PROCESS/PFPI CASEC LOGOFI ND DENR
	2. Conduct biophysical and socioeconomic assessment		X						
	3. Conduct IEC on MPA		X	X	X	X	X		
	4. Installation of marker buoys and conduct geographic survey		X						
	5. Legislation of necessary resolutions and ordinances		X						

Strategies	Activities	Institutions /Persons Involved	Time Frame					Budget (P'000)	Funding Source
			2001	2002	2003	2004	2005		
	6. Formation of community based management committee		X						
	7. Formulation of management plan		X	X	X	X	X		
	8. Enforcement of the ordinance and implementation of the management plan		X	X					
	9. Construction of guard house near the sanctuary site		X	X	X	X	X		
	10. Purchase binoculars and radio handset		X	X	X	X	X		
	11. Conduct of continuous IEC		X	X					
	12. Conduct of participatory monitoring and evaluation		X						

HABITAT MANAGEMENT

Objectives:

- To protect, conserve and rehabilitate existing habitats
- To improve productivity and biodiversity of corals, seagrasses, mangroves and estuaries
- To enhance community participation in the management of the habitats

Strategies	Activities	Institutions /Persons Involved	Time Frame					Budget (P'000)	Funding Source
			2001	2002	2003	2004	2005		
Management of mangroves under the CBFM framework	Existing CBFM sites:	DENR, LGU, PNP, DOJ, BFAR, FARMC, LCE, SB, MPDO, POs, Bgy Council						Y1=50 Y2=2000 Y3=2000 Y4=2000 Y5=500	LGU/LO GOFIND
	1. Conduct deputation seminar for Bantay Katunggan		X						
	2. Strengthening of POs, regular meetings		X	X	X	X	X		
	3. Establishment of mangrove nurseries			X	X	X	X		
	4. Reversion of abandoned fishponds to timberland			X	X	X	X		
	5. Conduct mangrove reforestation on reverted area			X	X	X	X		
	6. Develop and implement mangrove friendly livelihood projects		X	X	X	X	X		
	7. Review of CRMF, AWP, RUP		X	X	X	X	X		
8. Conduct participatory monitoring and evaluation	X	X	X	X	X				

COASTAL ZONING

Objectives:

- To delineate zones for specific uses or activities in the municipal waters
- To eliminate use conflict in the utilization of the municipal waters
- To regulate activities in the different zones

Strategies	Activities	Institutions /Persons Involved	Time Frame					Budget (P'000)	Funding Source	
			2001	2002	2003	2004	2005			
Delineation of municipal water boundaries	1. Identification of land boundaries or coastal terminal points with immediate neighbor municipalities/cities	DENR, NAMRIA, BFAR, MLGU, PLGU/BE MO	X					Y1=50 Y2=2000 Y3=2000 Y4=2000 Y5=500	MLGU, DENR, BFAR, PROCESS/P FPI, CASEC	
	2. Enactment of Sangguniang Bayan Resolution requesting technical assistance from National Mapping and Resource Information Authority (NAMRIA)			X						
	3. Conduct public hearing in coordination with immediate neighbor municipalities				X					
	4. Enactment of Municipal Ordinance delineating and/or delimiting municipal waters				X					

Strategies	Activities	Institutions /Persons Involved	Time Frame					Budget (P'000)	Funding Source
			2001	2002	2003	2004	2005		
	<p>5. Installation of marker buoys and other land markers</p> <p>6. Conduct of regular monitoring, control and surveillance of the area, in coordination with the PNP, fish wardens, B/MFARMCs and POs</p>			X	X	X	X		

SHORELINE MANAGEMENT

Objectives:

- To protect the shoreline from further degradation due to destructive activities
- To maintain access of the people to foreshore area
- To regulate activities in the foreshore area that would affect the condition of the shore
- To minimize erosion and loss of beach to natural and human induced forces

Strategies	Activities	Institutions /Persons Involved	Time Frame					Budget (P'000)	Funding Source
			2001	2002	2003	2004	2005		
Regulation of sand and coral extraction	1. Implementation of national laws banning the extraction or gathering of corals	Bantay Dagat, CLEC, PO, MFARMC, SB	X	X	X	X	X	Y1=10	MLGU, PLGU
	2. Conduct of monitoring, control and surveillance in coordination with the PNP, fish wardens, B/MFARMCs, and POs		X	X				Y2=10 Y3=10 Y4=10 Y5=10	

ECO-TOURISM MANAGEMENT

Objectives:

- To develop community-based sustainable tourism through Educational Exchange Program
- To develop local capability in eco-tourism projects that contribute better coastal management and community development

Strategies	Activities	Institutions /Persons Involved	Time Frame					Budget (P'000)	Funding Source
			2001	2002	2003	2004	2005		
Visitors education and management for eco-tourism	1. Production and distribution of IEC materials about proper management of eco-tourism	DENR/CRMP, DOT, PLGU/BIPC, Eco-Ventures, FCBFI/PFPI	X	X	X	X	X	Y1-Y5=500	MLGU, POs, PLGU/BIPC, LOGOFI ND

ENTERPRISE AND LIVELIHOOD MANAGEMENT

Objectives:

- To develop alternative and supplement employment to fishers in order to lessen their fishing effort and pressure to the sea
- To diversify income source of the fisher to less dependence on fishing
- To develop environment-friendly enterprise and livelihood projects

Strategies	Activities	Institutions /Persons Involved	Time Frame					Budget (P'000)	Funding Source
			2001	2002	2003	2004	2005		
Development of environment-friendly and economically feasible projects	1. Identification of environment-friendly projects and identification of project partners	MPDO, SB, DENR, PO, PROCESS/FCBFI/PFPI, DTI, TESDA, PLGU/BE MO, BFAR, DENR	X	X				Y1=200 Y2=2000 Y3=1000 Y4=1000 Y5=1000	MLGU, LOGOFI ND, PLGU/O PA, BFAR, DENR, PROCES S/FCBFI/ PFPI
	2. Provide skills training for livelihood options		X	X	X	X	X		
	3. Facilitate barangay adoption of livelihood project		X	X	X	X	X		

WASTE MANAGEMENT

Objectives:

- To minimize the potential adverse impact of wastes to human and environmental health

Strategies	Activities	Institutions /Persons Involved	Time Frame					Budget (P'000)	Funding Source
			2001	2002	2003	2004	2005		
Water quality monitoring	1. Conduct marine and brackish water quality studies	MPDO/ENRO, DENR/EMB, BFAR, CVSCAFT, DOH, PROCESS/FCBFI/PFPI, CASEC, PLGU/BEMO		X	X	X	X	Y1=0 Y2=20 Y3=50 Y4=50 Y5=50	DENR, BFAR, MLGU, PLGU/BEMO, PROCESS/FCBFI/PFPI CASEC
	2. Formulate measures to minimize marine water pollution			X	X	X	X		
	3. Organize water quality monitoring team and conduct regular monitoring		X	X					

LEGAL ARRANGEMENT AND INSTITUTIONAL DEVELOPMENT

Objectives:

- To improve mechanisms and arrangements for local governance on coastal management
- To enhance community participation in coastal management planning, legislation, implementation, monitoring and evaluation
- To strengthen environmental and fishery law enforcement
- To improve the delivery of coastal management-related services
- To strengthen network and linkage with other local government units, national government, international and local organizations and community and POs

Strategies	Activities	Institutions /Persons Involved	Time Frame					Budget (P'000)	Funding Source
			2001	2002	2003	2004	2005		
Legislation of comprehensive CRM ordinance	1. Review of existing ordinances and resolutions	LCE, SB, MPDO/ENRO, CRM-TWG, MFARMC, CRMP, BEMO, BFAR, DENR	X					Y1=10 Y2=20 Y3=30 Y4=40 Y5=50	MLGU, PROCES S/FCBFI/ PFPI, CASEC, CRMP, BEMO
	2. Drafting of comprehensive ordinance with inputs from the CRM Plan TWG, MFARMC, Barangay officials, POs and other stakeholders		X						
	3. Finalization of proposed CRM ordinance and submission to the Mayor for endorsement to the Sangguniang Bayan for legislative action		X						

Strategies	Activities	Institutions /Persons Involved	Time Frame					Budget (P'000)	Funding Source
			2001	2002	2003	2004	2005		
	4. Conduct of committee hearing and floor deliberation		X						
	5. Enactment of CRM ordinance		X	X	X	X	X		
	6. Implementation of the ordinance		X	X	X	X	X		
	7. Monitoring and implementation of the ordinance			X	X	X	X		

WATERSHED MANAGEMENT

Objectives:

- To minimize and control soil erosion
- To increase biodiversity of flora and fauna
- To enhance livelihood among marginal farmers and fisherfolks
- To reduce agri-agro destructive practices

Strategies	Activities	Institutions /Persons Involved	Time Frame					Budget (P'000)	Funding Source
			2001	2002	2003	2004	2005		
Implement watershed management as an approach to curb down habitat destruction and resource degradation	1. Establishment of demo farm using organic fertilizer	DENR, DA, LGU, FAs, CASEC, PROCESS, MPDO, ENRO, DENR	X					Y1=50 Y2=500 Y3=30 Y4=500 Y5=50	MLGU/LOGOFIN D, CASEC, PROCESS/FCBFI/PFPI, PLGU/BEMO
	2. Identification of suitable sites			X	X	X	X		
	3. Identification and implementation of viable agro-forestry projects		X						

REPRODUCTIVE HEALTH PROGRAM MANAGEMENT

Objectives:

- To ensure the delivery and availability of Reproductive Health care services to every coastal barangays as a healthy resource managers
- To capacitate communities to meet their health needs
- To strengthen networks and linkages between health providers and coastal communities
- To increase the level of awareness among coastal communities regarding CRM

Strategies	Activities	Institutions /Persons Involved	Time Frame					Budget (P'000)	Funding Source
			2001	2002	2003	2004	2005		
Improve an integrated health programs for coastal communities	1. Conduct integrated reproductive health-CRM seminars	LCE, SB, MPDO/ENRO, CRM-TWG, MFARMC, CRMP, BEMO, BFAR, DENR	X	X	X			Y1=10 Y2=20 Y3=30 Y4=40 Y5=50	PROCES S/FCBFI/ PFPI
	2. Identify available reproductive health services		X	X					
	3. Conduct consultations on reproductive health services delivery		X	X					
	4. Set up mechanism for reproductive health service delivery		X	X					
	5. Strengthening of Municipal Community-based Health Program Development		X	X	X	X	X		

Annex A.2 Example of a Marine Protected Area Management Plan with Population Management (RH/FP) Strategy

Binudac Community-Based Coastal Resources Management Association, Inc. (BCBCRMAI)

Community-based Marine Sanctuary Management Plan

GOALS	OBJECTIVES	ACTIVITIES	Persons/ Institution in Charge	TIME FRAME							
				2005				2006	2007	2008	2009
				1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr				
1. Conservation, preservation, protection and management of our natural resources: forest, coastal and fishery resources in a sustainable manner within the area covered by the barangay.	1. Eradicate illegal cutting activities and <i>kaingin</i> (slash and burn).	1. Reforestation along riverbanks and deforested areas to prevent soil erosion.	BCBCRMAI Barangay Council LGU Culion			X		X	X	X	X
	2. Assist in the strict enforcement of forestry laws.	1. Conduct trainings and seminars on the environmental Conduct trainings and seminars on the environmental aspects of natural resources. 2. Request DENR-Coron to conduct deputization training to barangay officials and PO. 3. Assist in the strict enforcement of forestry laws by the local government/DENR and PCSDS thru:	Barangay Council LGU-Culion PCSDS DENR-CENRO (Coron) BCBCRMAI Barangay Council LGU-Culion PCSDS DENR-CENRO (Coron)				X	X			

GOALS	OBJECTIVES	ACTIVITIES	Persons/ Institution in Charge	TIME FRAME							
				2005				2006	2007	2008	2009
				1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr				
		a. Regular patrolling /monitoring on the area covered by Barangay Binudac.	Barangay Council LGU-Culion	X	X	X	X	X	X	X	X
		b. Information dissemination on the effects of kaingin, and illegal logging activities.	BCBCRMAI Barangay Council LGU-Culion	X	X	X	X	X	X	X	X
		c. Apprehension of violators and coordination with the barangay council on the matter.	BCBCRMAI Barangay Council LGU-Culion					X			
		d. Installation of signages such as billboards indicating banning of illegal cutting in Binudac.	BCBCRMAI Barangay Council								
	3. Conservative, protection and management of mangrove resources thru sustainable use.	1. Mangrove reforestation along shoreline, mudflats and tidal flats and to areas already deforested.	Barangay Council LGU-Culion		X	X		X			
		2. Community-based management of mangrove areas thru stewardship agreement with the government.	BCBCRMAI Barangay Council LGU-Culion DENR-CENRO (Coron) Manglares PFPI-CFI			X		X			
		3. Encourage mangrove users to become member of the PO.	BCBCRMAI Barangay Council			X	X	X			
		4. Conduct IEC/public consultation among mangrove users to eradicate mangrove cutting for charcoal making and firewood especially those	BCBCRMAI Barangay Council Manglares			X	X	X			

GOALS	OBJECTIVES	ACTIVITIES	Persons/ Institution in Charge	TIME FRAME								
				2005				2006	2007	2008	2009	
				1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr					
	ground.	grounds.										
		2. Conduct of baywatch patrolling within the municipal fishing ground and the areas covered by the marine sanctuary.	BCBCRMAI Barangay Council	X	X	X	X	X	X	X	X	X
	6. Participate and support the strict enforcement of fishery laws.	1. Conduct public information and education campaign to the community particularly to fishers and other coastal resource users.	BCBCRMAI Barangay Council Manglares, CFI	X	X	X	X	X	X	X	X	X
		2. Conduct of baywatch patrolling within the municipal fishing ground/waters.	BCBCRMAI Barangay Council	X	X	X	X	X	X	X	X	X
		3. Formulation of barangay ordinance, resolution-supporting implementation of fishery laws.	Barangay Council LGU-Culion BCBCRMAI	X	X	X	X	X	X	X	X	X
	7. Protection of shoreline and near-shore areas from pebbles/sand extraction, oil spill, indiscriminate disposal of garbage and other materials causing water pollution.	1. Through barangay ordinance regulate and monitor extraction of pebbles and sand within the covered area of the Binudac.	Barangay Council LGU-Culion BCBCRMAI	X	X	X	X	X	X	X	X	X
		2. Implement proper disposal of garbage by the community and apprehend violators and impose appropriate penalties.	Barangay Council LGU-Culion	X	X	X	X	X	X	X	X	X
		3. Strictly monitor fishing vessels dumping oil in the shoreline and coastal waters.	Barangay Council LGU-Culion BCBCRMAI	X	X	X	X	X	X	X	X	X

GOALS	OBJECTIVES	ACTIVITIES	Persons/ Institution in Charge	TIME FRAME							
				2005				2006	2007	2008	2009
				1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr				
2. Reduce the rapid rate of population growth in Binudac.	1. Implement the acceptable family planning methods to each family in the community.	1. Support and participate in various projects of PFPI-CFI.	Barangay Council BCBCRMAI PFPI-CFI	X	X	X	X	X	X	X	X
		2. Coordinate with BHW, BEANS, RHU and DOH.	Barangay Council BCBCRMAI PFPI-CFI	X	X	X	X	X	X	X	X
		3. Conduct of IEC to the community.	Barangay Council BCBCRMAI PFPI-CFI	X	X	X	X	X	X	X	X
		4. Conduct of Mother Class projects that promote: a. Nutrition program b. Skills development/ livelihood program	Barangay Council LGU-Culion PFPI-CFI	X	X	X	X	X	X	X	X
				X	X	X	X	X	X	X	X
3. Skills development and capability building activities for PO such as trainings and seminars to become self-sustaining organization.	1. Develop skills and create training opportunities for officers and members.	1. Trainings on capability building, financial management, and other managerial capability trainings and seminars.	Barangay Council LGU-Culion PFPI-CFI Manglares		X	X		X			
		2. Study-tour to successful project sites of IPOPCORM.	PFPI-CFI		X			X			
4. Generate viable livelihood opportunities	1. Source out financing for livelihood projects.	1. Develop project proposals for potential financing.	Barangay Council LGU-Culion PFPI-CFI Manglares					X	X	X	X
		2. Create and establish market linkages.	LGU-Culion MAO-DTI PFPI-CFI Manglares	X	X	X	X	X	X	X	X
5. To create public awareness on the coastal resource use and protection.	1. Conduct public information, education and communication campaigns on the benefits of coastal	1. IEC campaign to illegal fishers.	Barangay Council LGU-Culion BCBCRMAI PFPI-CFI Manglares	X	X	X	X	X	X	X	X

GOALS	OBJECTIVES	ACTIVITIES	Persons/ Institution in Charge	TIME FRAME								
				2005				2006	2007	2008	2009	
				1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr					
	environments.											
6. Establish network and linking to other institutions for funding sources.	1. To tie-up with existing assisting organizations (PFPI-CFI, Manglares) on future projects. 2. Funding request to Palawan provincial government.	1. Draft resolution for memorandum of agreement for future projects and provision of technical trainings (e.g. DTI-MAO). 2. Draft resolution for memorandum of agreement for future requests.	Barangay Council LGU-Culion PFPI-CFI Manglares Barangay Council LGU-Culion PFPI-CFI Manglares BCBCRMAI	X	X	X	X	X	X	X	X	X
				X	X	X	X	X	X	X	X	X

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