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PROCEEDINGS COASTAL ZONE PHILIPPINES 2: SUSTAINABLE FINANCING AND MARINE PROTECTED AREAS CONGRESS

MARINE PROTECTED AREAS SUPPORT NETWORK MSN

MSN

PROCEEDINGS

COASTAL ZONE PHILIPPINES 2

Sustainable Financing and Marine Protected Areas

CONGRESS

PROCEEDINGS

COASTAL ZONE PHILIPPINES 2:

Sustainable Financing and Marine Protected Areas

CONGRESS

27-28 October 2007

Iloilo City, Philippines

Edited by

Ramon I. Miclat, Rhia Odessa M. Gonzales and Porfirio M. Aliño

Funded by

The Philippine Environmental Governance 2 Project
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MPA Support Network
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Proceedings of the Coastal Zone Philippines 2: Sustainable Financing and Marine Protected Areas (MPA) Congress

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Foreword

The profound importance of the Philippine coastal areas can be seen in the country's great majority of our coastal population (i.e., ~50 million out of 88 million residing in the coastal areas). Over a million people depend on coastal and marine areas for their source of livelihood with the fishing industry providing around 3% of the nation's labor force (ADB 2003). Considering that municipal fisheries produce a third of fisheries production, its value alone is estimated at US$ 741 million. The economic contribution of the coastal and marine areas to the gross domestic product (GDP) is estimated to be around 60% (DENR-UNDP-MERF 2004). Sustaining and improving these tremendous assets is imperative. This can only be achieved through integrated coastal management (ICM) with marine protected areas (MPA) being identified as an important entry point to foster community stewardship and good practices in coastal governance.

In 2006, Executive Order (EO) 533 presented a boost to our efforts through a framework for ICM and our Sustainable Philippine Archipelagic Development Agenda. EO 578 provides another link for our marine biodiversity conservation efforts to ICM. Another decade under the Philippine Fisheries Code of 1998 has seen us seizing the opportunities and overcoming many constraints with innovative ways of doing things.

Thus, the regular sharing of experiences and lessons learned derived from these country-wide efforts such as in this Coastal Zone Philippines-2 (CZPhil-2): Sustainable Financing and MPA Congress is necessary, to take stock of where we are and how effective have we been. Arriving at a consensus on how we can move further in our goal to reduce degradation trends and achieve our sustainable development objectives, is crucial. In the previous CZPhil held in 2004, it was pointed out that the ICM practitioners agree on the strategic actions that will sustain ICM financing. Ecosystem-based management approaches have also been started. These are being practiced in a growing number of areas especially through the complementation of fisheries management and coastal zoning, together with good governance systems being put in place.

In this 2007 Congress, there was a resounding call for mainstreaming, upscaling and improving implementation of ICM plans and programs (*see Congress Resolution*). These efforts need to be harmonized with that of coastal land-use plans. Appropriating budgets through a regular share of its Internal Revenue Allotment (IRA) for all coastal municipalities will be targeted by 2009. Accelerating efforts in MPA effectiveness by increasing the size of full protection through no-take areas and MPA networks will be advocated. This will hopefully lead to reduction in the economic loss from over-fishing, which is estimated at about Php 1.6 billion per year in lost fish catch. Reducing degradation trends especially from habitat modification and pollution is the increasing emergent concern. Our next challenges especially in relation to regulating elite capture of the coastal zones, preventing irresponsible mining and poor land-use, can be transformed into an opportunity when corporate social responsibility (CSR) will translate into social enterprises with fair public investment partnerships.

Our journey together has gone a long way, we are seeing increasing areas that have sprung forth hope from the knowledge-based awakening and enhanced skills. It has borne fruit to a new generation that help multiply our resources through the sanctuaries of network synergies and strengthen our partnerships in the Marine Protected Areas Support Network (MSN). Over 10 years after the 1st International Year of the Reef (IYOR), 2008 is another IYOR and a National Fisheries Summit is being organized. These years are indeed challenging for all of us to produce an unfolding sea change.

Coastal Zone Philippines-2 (CZPhil-2): Sustainable Financing and MPA Congress was held on 27-28 October 2007. This marks one of the major milestones of the activities of the MSN and its partners especially with the support of the Philippine Council for Aquatic Marine Research and Development (PCAMRD) of the Department of Science and Technology (DOST) and the Department of Environment and Natural Resources (DENR). The USAID-funded Philippine Environmental Governance Project (EcoGov 2) provided a grant to the Philippine Association of Marine Science (PAMS) to document good practices on ICM and MPA in the Philippines and as an independent evaluator of the 2007 Outstanding MPA Awards and Recognition (MAR) Event. PAMS held its 9th biannual symposium prior to the CZPhil-2 Congress and co-hosted it in the same venue at the Punta Villa Resort, Arevalo, Iloilo City.

Porfirio M. Aliño, PhD.
Co-chair, CZPhil2

Acknowledgments

We would like to thank the different sponsors of the CZPhil-2 Congress for without their needed financial assistance; this Congress would have just remained a dream: the DOST-PCAMRD, CI-Philippines, the USAID-EcoGov 2 Project, the UPMSI-MERF, the DENR, PAMS, and NOAA. The latter funded the MPA Support Network (MSN) which organized this Congress together with its various partners in government, NGOs, POs, academe and research institutions, the list of which is appended in this document. Our appreciation also goes to the men and women who served as committee members of the organizing team who gave their time and effort in planning, discussing, and executing the Congress activities. Their names are listed at the end of this document.

Planning for this Congress started since the first MSN National Consultation and Indicative Planning Workshop held in November 2006 and the succeeding three MSN Regional forums in the Visayas (February 2007), Mindanao (March 2007) and Luzon (April 2007), all of which contributed to the conceptualization and organization of the Congress. We would like to extend our sincerest thanks to the following key MSN member-organizations who gave their utmost technical, logistics and financial support in organizing the three regional forums, namely: the CCEF, Inc. in Cebu City; the Xavier University in Cagayan de Oro City and Mindanao State University in Naawan, Misamis Occidental; and the SCS/UNEP Masinloc Coral Reef Demo-Site Project in Zambales. They mobilized their staff to support the MSN Secretariat in the conduct of the said forums. The active participation of the various MPA practitioners in the three regions cannot be remised for their contribution to the success of the MSN forums and eventually this Congress.

We are very grateful to each of the participants of the CZPhil-2 Congress for their whole-hearted participation in the Congress activities/processes, most specially to the different resource persons and discussants, for without their technical contribution; this important document would have not materialized. It is through working together and cooperating with one another that an action agenda was produced in this Congress. It is our hope that this document will not end up just another collection in our libraries but instead, will serve as reference and a catalyst in moving forward our dreams and aspirations of having a productive and sustainably maintained marine environment not only for this generation but to more generations of Filipinos to come. MABUHAY to all MSN partners! The national and local tri-media's (print, radio and television) contributions in the dissemination of information about the Congress, the Most Outstanding MPA Awards Night and the other various MSN activities are greatly appreciated. To Manuel 'EG' Hizon of EcoGov2 Project and William Azucena of CI-Phil who gave their time and effort in helping the MSN media desk in the write-ups of press releases, our many thanks!

Three names we would like to specially mention in the crafting of this Congress Proceedings, namely: Rhia Odessa Gonzales of the MSN Secretariat who assisted in formatting and proofreading; Mia Comeros, a UPMSI graduate student assistant, who painstakingly transcribed all the Congress taped proceedings (and also made follow-ups with the authors), which indeed made the job easier for the Editor to be able to capture some of the details of the presentations and discussions; and of course to the MSN Coordinator and Steering Committee Chair, Dr. Perry Aliño, without whose guidance and encouragement this document would have not become a reality. Kudos to the three of you!

Ramon I. Miclat
Editor

List of Acronyms

ABC – Association of Barangay Councils
ADB – Asian Development Bank
AFMA – Agriculture and Fisheries Modernization Act of 1997
APEC – Asia Pacific Economic Council
AR – Artificial Reef
BAFMAPA – Banacon Fishermen and Mangrove Planters Association
BAPs – Best Aquaculture Practices
BBRMCI – Banate Bay Resource Management Council, Inc.
BCCF – Bataan Coastal Care Foundation, Inc.
BDP – Barangay Development Program
BEMO – Bohol Environment Management Office
BFAR – Bureau of Fisheries and Aquatic Resources
BICMP – Bataan Integrated Coastal Management Program
BOT – Build, Operate and Transfer
CBCRM – Community-Based Coastal Resource Management
CBD – Convention on Biological Diversity
CCEF – Coastal Conservation and Education Foundation, Inc.
CERD – Community Extension and Research for Development
CFRMC – Coastal Fisheries Resources Management Council
CHED – Commission on Higher Education
CI-Phil – Conservation International - Philippines
CLEC – Coastal Law Enforcement Council
CLET – Coastal Law Enforcement Training
CMOA – Commission on Maritime and Ocean Affairs
CPUE – Catch per Unit Effort
CRM – Coastal Resources Management
CSR – Corporate Social Responsibility
CWA – Clean Water Act (RA 9275)
CZAP – Coastal Zone Asia-Pacific Conference
CZM – Coastal Zone Management
CZPhil – Coastal Zone Philippines
DA – Department of Agriculture
DBM – Department of Budget and Management
DENR – Department of Environment and Natural Resources
DILG – Department of Interior and Local Government
DLSU – De La Salle University
DOF – Department of Finance
DOST – Department of Science and Technology
DOT – Department of Tourism
DPWH – Department of Public Works and Highways
DSWD – Department of Social Welfare and Development
EBFM – Ecosystem-Based Fisheries Management
ECC – Environmental Compliance Certificate
EcoGov 2 – Philippine Environmental Governance 2 Project
ECOSAN – Ecological Sanitation
EIA – Environmental Impact Assessment
EIS – Environmental Impact Statement
ELAC – Environment Legal Assistance Center, Inc.
EMB – Environmental Management Bureau
ENRMD – Environment and Natural Resources Management Division
EO – Executive Order
EO 533 – ICM as a National Strategy (2006)
EO 578 – Establishing the National Policy on Biological Diversity (2006)
ERA – Environmental Risk Assessment
ERDT – Engineering Research and Development Technology (DOST)
ESWM – Ecological Solid Waste Management
FARMC – Fisheries and Aquatic Resources Management Council
FISH Project – Fisheries for Improved Sustainable Harvest Project
FRMP – Fisheries Resource Management Program
FSP – Fisheries Sector Program
GDFI – Guiuan Development Foundation, Inc.
GDP – Gross Domestic Product
GEF – Global Environment Facility
GESAMP – Group of Experts on the Scientific Aspects of Marine Environmental Protection
GIA – Grants-In-Aid
GTZ – German Technical Cooperation Agency
HAB – Harmful Algal Bloom
HRD – Human Resource Development
ICAM – Integrated Coastal Area Management
ICM – Integrated Coastal Management
ICRMP – Integrated Coastal Resource Management Project
ICZM – Integrated Coastal Zone Management
IEC – Information, Education and Communication or Campaign
IEE – Initial Environmental Examination
IMCAM – Integrated Marine and Coastal Area Management
IMFARMC – Integrated Municipal FARMC
IMO – International Maritime Organization
IOC – Intergovernmental Oceanographic Commission
IPAF – Integrated Protected Areas Fund
IPRA – Indigenous People's Rights Act (RA 8371)
IRA – Internal Revenue Allotment
IRR – Implementing Rules and Regulations
IYOR – International Year of the Reef
JAO – Joint Administrative Order
JBIC – Japan Bank for International Cooperation
LCE – Local Chief Executive
LGC – Local Government Code
LGU – Local Government Unit
LIPASECU – Libertad, Pandan, Sebaste, Culasi
LMP – League of Municipalities of the Philippines
M&E – Monitoring and Evaluation
MAO – Municipal Agriculture Office
MDP – Municipal Development Project
MERF – Marine Environment and Resources Foundation, Inc.
MFR – Marine Fishery Reserve
MIGEDC – Metro Iloilo-Guimaras Economic Development Council
MPA – Marine Protected Area
MPD – Marine Pollution Decree

MSN – MPA Support Network
MSU – Mindanao State University
NAMRIA – National Mapping and Resource Information Authority
NAST – National Academy of Science and Technology
NEDA – National Economic Development Authority
NEPC – National Environmental Protection Council
NGA – National Government Agency
NGO – Non-government(al) Organization
NIPAS – National Integrated Protected Areas System
NNARMAC – Northern Negros Aquatic Resources Management Advisory Council
NOAA – National Oceanic and Atmospheric Administration
OPA – Office of the Provincial Agriculturist
PAB – Pollution Adjudication Board
PADI – Professional Association of Diving Instructors
PAMB – Protected Area Management Board
PAMS – Philippine Association of Marine Science
PAWB – Protected Areas and Wildlife Bureau
PCAMRD – Philippine Council for Aquatic and Marine Research & Development
PCG – Philippine Coast Guard
PCRA – Participatory Coastal Resource Assessment
PD – Presidential Decree
PD 704 – Fisheries Act of 1975
PEMSEA – Partnerships in Environmental Management for the Seas of East Asia
PENRMO – Provincial Environment and Natural Resources Management Office
PG-ENRO – Provincial Government-Environment and Natural Resources Office
PhilMarSaSt – Philippine Marine Sanctuary Strategy
PhilReefs – Coral Reef Information Network of the Philippines
PIDWWO – Pamilacan Island Dolphin and Whale Watching Organization
PLMMA – Philippine Locally-Managed Marine Areas Network
PO – People's Organization
PPA – Philippine Ports Authority
PPDO – Provincial Planning & Development Office
PPP – Public-Private Partnership
PROCESS-Bohol – Participatory Research, Organization of Communities and Education towards Struggle for Self-Reliance, Inc.
R&D – Research and Development
RA – Republic Act
RA 8550 – Philippine Fisheries Code of 1998
REECS – Resource, Environment and Economic Center for Studies, Inc.
S&T – Science and Technology
SAFDZ – Strategic Agriculture and Fisheries Development Zones
SCD – Sustainable Coastal Development
SCS – South China Sea
SCUBA – Self-Contained Underwater Breathing Apparatus
SFM – Sustainable Financing Mechanism
SMCR – Sustainable Management of Coastal Resources
SPAGS/SPAGs – Spawning Aggregation Sites/ Spawning Aggregations
SSME – Sulu-Sulawesi Marine Ecoregion
SU – Silliman University
SUAKCREM – Silliman University Angelo King Center for Resources and Environmental Management
SUIEMS – Silliman University Institute of Environmental and Marine Sciences
SUML – Silliman University Marine Laboratory
SWM – Sewage Waste Management
TCP – Technology Commercialization Plan
TDC – Tambuyog Development Center, Inc.
TESDA – Technical Education and Skills Development Authority
TK – Tanggol Kalikasan
TWG – Technical Working Group
ULAP – Union of Local Authorities of the Philippines
UNCLOS – United Nations Convention on Law of the Sea
UNDP – United Nations Development Programme
UNEP – United Nations Environment Programme
UNESCO – United Nations Educational, Scientific and Cultural Organization
UPMSI – University of the Philippines Marine Science Institute
UPV – University of the Philippines in the Visayas
URI-CRC – University of Rhode Island - Coastal Resources Center
USAID – United States Agency for International Development
WCPA – World Commission on Protected Areas
WSSD – World Summit for Sustainable Development
WWF – World Wide Fund for Nature
XU – Xavier University

Table of Contents

Congress Program

Coastal Zone Philippines 2: Sustainable Financing and Marine Protected Areas (MPA) Congress

October 27-28, 2007, Punta Villa Resort, Arevalo, Iloilo City

DAY 1 A.M., 27 October 2007, Plenary Hall (Grand Crown Ballroom)

7:30 – 8:30	Registration
8:30 – 8:35	Ecumenical Prayer and National Anthem Dr. Asuncion B. de Guzman / MSU-Naawan
8:35 – 8:50	Welcome Remarks Hon. Niel D. Tupas, Sr. / Governor, Provincial Government of Iloilo Recognition of Participants Ms. Preciosa C. Samonte / DOST-PCAMRD
8:50 – 9:05	Opening Remarks "National Programs funding opportunities and bilateral frameworks: A snapshot" Dr. Graciano P. Yumul, Jr. / Undersecretary for Research & Development, DOST
9:05 – 9:35	Keynote Address Hon. Arthur C. Yap / Secretary, DA
9:35 – 9:45	Group Photo
9:45 – 9:55	Coffee Break

Masters of Ceremony:
Hilly Ann R. Quiaoit / Xavier University
Anna Theresa L. Licaros, Bb. Pilipinas 2007

Plenary Paper Presentations

9:55 – 10:15	Rationale, Objectives and Logistics of the Congress Dir. Cesario R. Pagdilao / Deputy Executive Director, DOST-PCAMRD
10:15 – 10:35	Overview of Philippine MPA Program and the MPA Support Network (MSN) Dr. Porfirio M. Aliño / CRM Sector Leader - EcoGov 2 Project and UP Marine Science Institute
10:35 – 11:10	ICZM Strategies and Challenges Atty. Analiza R. Teh / Assistant Secretary, DENR
11:10 – 11:35	Sustainable Financing Mechanisms to Support ICZM Strategies Atty. Rose-Liza E. Osorio / Executive Director, CCEF
11:35 – 12:00	Open Forum
12:00 – 1:00	Lunch Break

Facilitator: Robert S. Jara / DENR
Documentors: Noela C. Lasmarias / REECS
Merlina N. Andalecio / UP Visayas
Zita B. Toribio / EcoGov 2 Project

DAY 1 P.M., 27 October 2007, Room A to D, 1:00 – 6:00 PM – Concurrent Workshop Sessions

ROOM A, SUB-THEME 1: Sustainable Financing Mechanisms (SFM)
Expected Output: Action plan to enhance and advocate sustainable financing.

1:00 – 3:00	Workshop session #1: Situationer and Gap Analysis
3:00 – 3:25	*Financing of and Investments in Coastal Resources Management: To Whom Will the Bell Ring?* Dr. Ernesto S. Guiang / Chief of Party, EcoGov 2 Project
3:35 – 3:45	Discussant / Dr. Rodelio F. Subade / Professor, UP Visayas
3:45 – 4:10	*Public-Private Partnerships towards Sustainable Coastal Development for the Province of Bataan* Ms. Marilou G. Erni / President, Petron Foundation
4:20 – 4:30	Discussant / Mr. Robert S. Jara / Program Coordinator, PEMSEA-DENR
4:30 – 4:40	Open Forum (Q&A)
4:40 – 5:10	Workshop session #2: Visioning
5:10 – 5:40	Workshop session #3: Action Planning

Facilitator:	Preciosa C. Samonte / DOST-PCAMRD
Co-Facilitator:	Ma. Ronely B. Sheen / TK
Documentor:	Andre Jon Uychiaoco / PEMSEA
Co-documentor:	Lilian G. Bondoc / DOST-PCAMRD

ROOM B, SUB-THEME 2: MPAs and Ecosystem-Based Fisheries Management (EBFM)
Expected Output: Action plan to improve and sustain MPA management.

1:00 – 3:00	Workshop session #1: Situationer and Gap Analysis
3:00 – 3:25	*MPA and EBFM: the FISH Project Approach* Mr. Nygiel B. Armada / Consultant, FISH Project
3:25 – 3:35	Discussant / Dr. Wilfredo Y. Licuanan / Professor, DLSU Shields Marine Station
3:35 –4:00	*Upscaling Efforts in MPA: an Analysis of Two Cases in the Philippines* Dr. Asuncion B. de Guzman / Professor, MSU-Naawan & Dr. Sheila G. Vergara / CI-Philippines
4:00 – 4:10	Discussant / Dr. Theresa Mundita S. Lim / Director, PAWB
4:10 – 4:35	*Forging Alliances in the Establishment of Marine Protected Area and Ecosystem-Based Fisheries Management* Ms. Emilia S. Roslinda / Executive Director, PROCESS-Bohol
4:35 – 4:45	Discussant / Mr. Terence U. Dacles / Program Coordinator for Region VI, GTZ
4:45 – 4:55	Open Forum (Q&A)
4:55 – 5:25	Workshop session #2: Visioning
5:25 – 5:50	Workshop session #3: Action Planning

Facilitator:	Jessica C. Muñoz / BFAR
Co-Facilitator:	Sheila G. Vergara / CI-Phil
Documentor:	Daisy F. Salgado / PLMMA
Co-documentor:	Miledel Christine C. Quibilan / CI-Phil

ROOM C, SUB-THEME 3: Recent Concerns with Pollution in the Coastal Zone
Expected Output: Action plan to mitigate pollution and establish management systems, processes and standards.

1:00 – 3:00	Workshop session #1: Situationer and Gap Analysis
3:00 – 3:25	*Fish Production and the Environment* Dr. Nelson A. Lopez / Chief, Inland Fisheries and Aquaculture Division, BFAR
3:25 – 3:35	Discussant / Dr. Maria Lourdes SD. McGlone / Director, UPMSI
3:35 – 4:00	*Pollution and Waste Management within Integrated Coastal Management Context: The Case of Batangas Bay Region* Engr. Evelyn L. Estigoy / Dept. Head, PG-ENRO, Province of Batangas
4:00 – 4:10	Discussant / Ms. Ella S. Deocadiz / Director, EMB
4:10 – 4:20	Open Forum (Q&A)
4:20 – 4:50	Workshop session #2: Visioning
4:50 – 5:20	Workshop session #3: Action Planning

Facilitator:	Sandra Victoria R. Arcamo / BFAR
Co-Facilitator:	Lynette T. Laroya / PAWB
Documentor:	Emerlinda C. Dizon / UNEP-GEF Masinloc Coral Demo-Site
Co-documentor:	Loureeda C. Darvin / DOST-PCAMRD

ROOM D, SUB-THEME 4: MPA Best Practices from Sites
Expected outcome: Top 3 finalists/awardees for the 2007 Outstanding MPA (to be announced in the November MPA Awards Night).

TIME	TOPIC	PRESENTOR
1:00 - 1:30	Sagay Marine Reserve	Mr. Terence Dacles
1:30 - 2:00	Buluan Island Marine Sanctuary	Ms. Edna Hingosa
2:00 - 2:30	Iniban Marine Reserve	Ms. Amanda Blake
2:30 - 3:00	Capandan Marine Sanctuary	Mayor Pedro M. Trinidad by Ms. Fewee Arreglado
3:00 - 3:30	Harka Piloto Reef Fish Sanctuary	Mr. Marius Panahon
3:30 - 4:00	Handumon Marine Sanctuary	Ms. Elvira Bohol
4:00 - 4:30	Agsalin Fish Sanctuary	Mrs. Lydia Cantos
4:30 - 5:00	Twin Rocks MPA	Ms. Luzviminda Villas
5:00 - 5:30	MiSSTa MPA	Mr. Marianito Verallo
5:30 - 6:00	Recap	

Facilitator:	Wilfredo L. Campos / UP Visayas
Co-Facilitator:	Margarita T. de la Cruz / GDFI
Documentor:	Samuel S. Mamauag / UPMSI
Co-documentor:	Reuben T. Campos / UP Diliman

7:30 PM SOCIALS, Pool Side

DAY 2, 28 October 2007, Rooms A to D
Continuation of Concurrent Workshop Sessions

Expected output of the A.M. Session: Congressional Resolution

8:00 – 10:00 Revisit Action Plan by Workshop Group

10:00 – 11:30 Plenary Presentation of Action Plans and Adoption
1. Sustainable Financing Mechanisms (SFM)
2. MPAs and Ecosystem-Based Fisheries Management
3. Recent Concerns with Pollution in the Coastal Zone
Open Forum (Q&A)

11:30 – 12:00 *Silliman University MPA Program 1974-2006*
Dr. Angel C. Alcala / SUAKCREM and Dr. Hilconida P. Calumpong/ SU Marine Laboratory
Open Forum (Q&A)
Facilitator: Asis G. Perez / TK
Documentor: Andre Jon Uychiaoco / PEMSEA

Expected output of the P.M. Session: Covenant Signing of Congressional Resolution

12:00 – 1:00 Lunch Break

1:00 – 1:15 Presentation of Congressional Resolution

1:15 – 2:30 Response from Panelists
Dr. Glenn D. Aguilar / Chancellor, UP Visayas
Dr. Angel C. Alcala / SUAKCREM
Atty. Malcolm I. Sarmiento / Director, DA- BFAR
USec. Manuel D. Gerochi / DENR
Ms. Anna Theresa L. Licaros / Celebrity Sector Representative

2:30 – 2:45 Covenant signing of Congressional Resolution
Facilitator: Asis G. Perez / TK
Documentor: Lilian G. Bondoc / DOST-PCAMRD

2:45 – 3:15 Closing Ceremony
Dr. Porfirio M. Aliño / Chair, MSN Steering Committee
Dr. Glenn D. Aguilar / Chancellor, UP Visayas
USec. Manuel D. Gerochi / DENR

Masters of Ceremony:
Hilly Ann R. Quiaoit / Xavier University & Anna Theresa L. Licaros, Bb. Pilipinas 2007

3:15 – 4:00 Press Conference

4:00 – 5:00 Business meeting

NOTE: Evaluation forms (inside the kit) should be returned in exchange for the certificates of participation and appearance on Sunday (Oct. 28, 2007, 3:00 P.M.)

Opening Ceremonies

Ecumenical Prayer

(led by Dr. Asuncion B. de Guzman, MSU-Naawan)

Let us all come together in prayer.

Our most high, most heavenly, most merciful Father in heaven, we come unto Your presence this morning, O God, for this momentous occasion where our top government officials, scientists, coastal resource management practitioners, students and volunteers are gathered for the Coastal Zone Philippines 2: Sustainable Financing and Marine Protected Areas (MPA) Congress, so that as one assembly we can address the issues and problems that have, for so long, threatened the integrity of our coastal resources. So that as one assembly, we can also find the solutions we have sought for in our various capacities and responsibilities.

We seek Your guidance, Father, as we do at all times and we pray that You will lend Your wisdom upon us all for the next two days of this Congress, even as we welcome the sharing of knowledge and reunion and fellowship with old friends and meeting new ones.

We thank You, Father, for Your faithfulness and Your generous provisions everyday of our lives, and we hope that this Congress will help us become better stewards of your creation.

Amen.

Welcome Remarks

by Governor Niel D. Tupas, Sr., Provincial Government of Iloilo

(Read by Mr. Mario Nillos, Provincial Planning Officer)

Department of Science and Technology (DOST) Secretary, Hon. Estrella F. Alabastro; DOST Undersecretary Graciano P. Yumul, Jr.; Department of Agriculture (DA) Secretary, Hon. Arthur C. Yap; Bureau of Fisheries and Aquatic Resources (BFAR) Director, Atty. Malcolm I. Sarmiento; Philippine Council for Aquatic and Marine Research & Development (PCAMRD) Deputy Executive Director, Cesario R. Pagdilao; Marine Protected Areas Support Network (MSN) Coordinator, Dr. Porfirio M. Aliño; DA OIC-Regional Executive Director, Larry Nacionales; Officials of DOST-PCAMRD and other NGAs, NGOs, POs, Academe and Research Institutions and donor agencies; delegates; ladies and gentlemen, good morning!

I am most glad that PCAMRD and MSN have chosen the Province of Iloilo as the venue of its 2nd Coastal Zone Philippines: Sustainable Financing and Marine Protected Areas Congress. It is my pleasure to welcome our country's coastal and marine stakeholders from the government and non-government agencies, LGUs, and the private sector as well, who play important roles in preserving, protecting, and improving our coastal resources and environment.

The economy of the Province of Iloilo is much more dynamic and stronger than ever before with the agriculture and fisheries sector providing the force, and supported by tourism, banking, education, shipping, and communications. Moreover, the opening of the Iloilo Airport of international standards opened new and promising doors for further development in the years to come.

Approximately 80% of the people in Iloilo are dependent on agriculture and fisheries for livelihood; hence, it is but appropriate that farmers and fisherfolks be given due attention, importance and valuable assistance. I am happy that a Congress such as this is designed for such purpose.

It is of common knowledge that the Philippine government has requested the government of Japan to assist it with a project intended to revitalize the local areas through LGU clusters. In March 2007, a Record Discussions was signed for a Capacity Enhancement Program for the Metro Iloilo-Guimaras Economic Development Council (MIGEDC) and the Banate Bay Resource Management Council, Inc. (BBRMCI). These are the two primary projects of the Province aimed at strengthening the local coastal resources management for the promotion of tourism and economic development in the area.

Proposed programs and projects to sustain the agriculture expansion have also been formulated. One of these services is categorized for Fishery Development, the carrying program of which is the establishment of Integrated Aquamarine Village Program composed of: *1)* Coastal Resource Development/ Management and Protection; *2)* Freshwater Development; and *3)* Enterprise Development, including product packaging and marketing.

The tasks ahead of us may seem daunting, but I am positive that, with the cooperation of other government and non-governmental organizations and with your assistance, the total development not only of the Ilonggo people but the nation as well, can be realized. As you take a good look at what's happening in our country's coastal and marine resources and environment in the days ahead at this Congress, allow me to extend once again the warmest welcome of our Province and her beautiful people.

Thank you and good day!

Keynote Address

by Secretary Arthur C. Yap, Department of Agriculture

(delivered by Director Malcolm I. Sarmiento, BFAR)

Good Morning!

The most precise definition of Sustainable Development, in my humble opinion, comes from a recent World Bank report that sees it in the context of "development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs."

For us in the business of fisheries administration whose efforts at achieving a balance between resource utilization and conservation are often stymied by a wide range of multiple

resource use conflicts, that definition of sustainable development, had it been introduced as recently as ten years ago, would have come off like either a shallow pontification or an empty motherhood statement bereft of any significance.

These days, however, the challenge of attaining fisheries development that satisfies that requirements of both the present and future generations no longer sounds impossible, much less daunting. The significant advances we have achieved in the various coastal resource management (CRM) disciplines have led us to believe that with the help of the NGO community and all other bonafide stakeholders, a sustainable future for the Philippine fisheries sector has become an attainable aspiration. If the present leaderships of the Department of Agriculture (DA) and the Bureau of Fisheries and Aquatic Resources (BFAR) have come to sincerely believe that the country has got what it takes to regenerate our coastal resources, rehabilitate the coastal environment and alleviate poverty among the municipal fishermen, it is because the wealth of lessons and experiences we have accumulated in the process of developing various integrated CRM strategies and approaches has empowered us to come up with a comprehensive roadmap towards responsible resource utilization.

The Philippines is internationally recognized as a trailblazer in the field of coastal zone management. But this distinction, while well deserved, did not come easy, much less cheap. Our initial forays in coastal zone management came in the form of fish sanctuaries and artificial reefs, environment-friendly fishing gears, awareness programs and habitat restoration techniques. Later, these interventions were expanded to include good governance practices in resource management and law enforcement as well as stakeholders' participation in resource management bodies.

The DA, through BFAR, provided the platform for the multiplication and synthesis of the learning curves through various foreign-aided interventions. These include: the Fisheries Sector Program (FSP) funded by the Asian Development Bank (ADB) and the Fisheries Resource Management Program (FRMP) bankrolled by ADB/JBIC. These Programs sought to address two critical and interconnected issues of fisheries resource depletion and poverty among the municipal fisheries and, in the process, laid the foundation for the development of policies related to fisheries and coastal management.

Although the Local Government Code (LGC) has entrusted to local government units (LGUs) the responsibility of implementing integrated coastal management (ICM) programs, DA and BFAR continue to provide support in the form of new ICM-focused foreign-assisted projects. These include: the Sustainable Management of Coastal Resources (SMCR) of the Bicol and CARAGA Regions being financed by a grant from the Spanish government; the Integrated Coastal Resource Management Project (ICRMP) being implemented in partnership with the Department of Environment and Natural Resources (DENR) in Regions 2, 3, 5, 7 and 11 using funds provided by ADB/GEF; the Fisheries for Improved Sustainable Harvest, better known as the USAID-funded FISH Project; and, in smaller scale, a UNEP/GEF funded project that aims to assist the coastal municipalities along South China Sea to manage their resources.

But much of the credit for keeping the ICM spirit alive should go to the NGO and academic communities, on the one hand, and the LGUs, on the other, for providing the impetus for the establishments of Marine Protected Areas (MPAs) in the country. The success stories being attributed to the MPAs in Bohol, the Gilutongan Island in Cebu, and the Apo Island Marine Sanctuary in Negros Oriental are living testimonies to the importance of well-managed MPAs in the conservation and sustainable management of marine biodiversity in the Philippines.

MPAs, according to Dr. Porfirio M. Aliño, are "areas within municipal waters, which the local community and the local government opt to fully protect. They are generally no-take areas where harmful extractive activities are not allowed (except friendly activities like eco-tourism) to allow the enhancement of marine life and its ecosystems, such as coral reefs." Inside an MPA, "marine organisms are able to grow in size and number, providing a 'spillover' effect and replenishing the adjacent municipal waters where local communities can fish."

The Philippines has at least 150 coastal municipalities with CRM programs covering 4,000 kms of coastlines. The UP Marine Science Institute (UPMSI) has reported that there are over 500 MPAs all over the country established through local community initiatives. Unfortunately, most of these MPAs are 10 hectares or less and not well-managed. Conventional wisdom specifies that at least 20 hectares would be needed for an MPA to have considerable impact on the coral reef ecosystem and adjacent areas. In a bid to introduce this undertaking, the BFAR in coordination with the LGUs is implementing a project called: The Coral Garden Project with Shellfish Hatchery.

There is therefore an imperative need for the creation of more and larger MPAs and the formation of networks that will allow all MPA stewards to pool their resources together and make cooperative arrangements. That in essence is the reason we in the DA and BFAR value the efforts of the organizers of this Congress to strengthen and expand the country's network of ICM managers and programs. While our collective achievements in the field of ICM have put in place a basic framework for a sustainable CRM, major gaps still exist in the areas of integration, synchronization and standardization of action plans, approaches and strategies. If we want to fast tract the resolution of conflicts over the use of resources and enable more people to benefit from it, if we want to expedite the establishment of more and larger MPAs, if we want to accelerate the organization of fully functioning MPA networks, we need to be able to document the lessons and experiences we have accumulated over the years, make a distinction between the good and the bad, identify constraints, develop an action plan and come up with implementation template that, with little modification, can be replicated all over the country.

As the whole world will benefit from the output of this Congress, we wish you all a fruitful and productive working sessions so that at the end of the day, we will be able to inspire potential ICM stewards to take part in, and benefit from, a new and better coastal management regime without having to

reinvent the proverbial wheel, start from scratch or be frustrated by the hassles of having to go through a trial and error process.

There is no denying a healthy mix of good science and sound governance is essential to a successful CRM program. The collective wealth of expertise, knowledge and experience of all us gathered here today, inspires confidence that we will be able to speed-up the attainment of the goal to full protection by 10 percent, of the country's coral reefs by year 2020.

Thank you and good day!

Rationale and Objectives of the Congress

by Mr. Cesario R. Pagdilao, Deputy Executive Director
DOST-Philippine Council for Aquatic and Marine
Research & Development (PCAMRD)
(delivered by Ms. Preciosa Samonte, DOST-PCAMRD)

Rationale:

Coastal Zone Philippines 2: Sustainable Financing and MPACongress (CZPhil-2) is a sequel of the Coastal Zone Philippines 2004: Integrated Coastal Management in the Philippines: 20 Years of Experience (CZPhil 2004). CZPhil 2004 is an offshoot of Coastal Zone Asia Pacific Conference 2002 (CZAP 2002) held in Thailand. Philippine delegates to the CZAP 2002 realized the need to assess and evaluate the state of the Philippine coastal management initiatives. They organized themselves and conceptualized CZPhil 2004.

CZPhil 2004, the first conference held in Cebu City, reviewed and assessed the country's lessons in coastal management, the continuing challenges and how necessary efforts and interventions can be 'scaled-up' to better address the host of inter-related issues affecting the coastal zone. The Philippines is recognized as the leader in community-based coastal management, however, coastal resources and communities dependent on the coastal zone remain vulnerable. The reason is, successes in coastal management in the country remain localized with localized benefits. To achieve greater impact, there is a need to "scale-up" these successes to demonstrate national benefits where integration and collaboration were emphasized as critical requirements.

The 2004 conference participants emphasized the need to conduct the conference every 2 years. This enables coastal managers to share and learn experiences in order to enhance their capacities, improve cooperation and complementation in managing issues and problems on coastal resources and in the coastal zone. They also identified "Sustainable Livelihood and Financing Mechanisms that Support ICM" and "Coastal Ecosystem and Ecosystem-based Fisheries Management" as the top priority themes for the next conference. These, then are the focus of CZPhil-2 and highlights marine protected areas (MPAs) as the entry point to improve coastal management.

The *objectives* of this Congress are the following:

1. Discuss the different ICM strategies for the implementation and effective management of coastal resources and share experiences and lessons learned;
2. Highlight MPA as an important entry point to improve ICM effectiveness;
3. Identify effective financing mechanism to support the different ICM strategies;
4. Identify, recognize and promote best practices on ICM;
5. Develop an action plan to improve coordination and collaborative arrangement; and
6. Discuss MPA issues that may need to be clarified for a stronger consensus for action.

The *expected outputs* of this Congress are the following:

1. Action plan based on different sub-themes that will be presented in a plenary: sustainable financing mechanisms; MPA management and EBFM, recent concerns on marine pollution; and best MPA practices from sites.
2. Congress resolution to be submitted to decision makers and signed as a covenant among participants

The *activities* of this Congress are the following:

1. Plenary presentations
2. Concurrent workshop sessions (workshop sessions and discussions)
3. Paper presentations (by speakers and discussants)
4. Action planning and adoption
5. Covenant signing
6. Press conference
7. Socials

Congress Program Rundown (see Program)

NOTE: Congress kit contains reference materials in CDs containing outputs of the three MSN regional MPA forums, pens, writing pads, notebooks, meal tickets, Congress evaluation forms to be submitted on the 2nd day and Congress program.

PLENARY SESSION 1 (Summary of Proceedings)

The Congress officially opened at 9:30 AM with an Ecumenical Prayer and the singing of the National Anthem led by Dr. Asuncion B. de Guzman of MSU-Naawan. This was followed by the Welcome Remarks delivered by Mr. Mario Nillos, the Provincial Planning Officer of Iloilo, for Governor Niel D. Tupas, Sr. of Iloilo Provincial Government, who at that time was visiting the different municipalities of Iloilo in preparation for the upcoming barangay national elections. Gov. Tupas was very pleased that Iloilo City was chosen as the venue for the Congress. He stressed that the conference objective -- the strengthening of integrated coastal zone management system in the country is very timely for the province-wide program on enhancing the people's capacity in CRM. Ms. Preciosa Samonte of DOST-PCAMRD introduced the participants coming from different NGAs, local and foreign NGOs, POs, national and foreign funding agencies, academe, research institutions, and private sector. Around 200 participants came.

Atty. Malcolm I. Sarmiento, the Director of the Bureau of Fisheries and Aquatic Resources (BFAR) delivered the Keynote Address for and on behalf of the Secretary of the Department of Agriculture (DA), Sec. Arthur C. Yap. He congratulated the organizers of the Congress for putting forward ICM in the context of sustainable development, which he defined as development that meets the present needs without compromising the needs of future generations. He related the different projects and programs the Department had undergone with regards to ICM through BFAR and its other attached agencies with concerns on ICM. He also emphasized the importance of MPA networks and the networking of various groups and organizations concerned with the coastal environment.

The Opening Remarks was delivered by Usec. Graciano P. Yumul, Jr. of the DOST for and on behalf of Sec. Estrella F. Alabastro by way of delivering a paper entitled: "National Programs, Funding Opportunities and Bilateral Frameworks: A Snapshot," of the DOST. He provided information on available ICM financing windows at the Department whose priority R&D fields include: biotechnology, pharmaceuticals, information and communication technology, environment (marine science included) and alternative fuels. He reminded those who are interested in undertaking S&T and R&D projects that money are available at the DOST, that they should stay on the loop for announcements and developments on project funds availability.

The Congress rationale, objectives and logistics were presented by Ms. Samonte for and on behalf of Mr. Cesario R. Pagdilao, Deputy Executive Director of PCAMRD and co-chair of this Congress. Objectives of the Congress include: 1) to discuss the different ICM strategies for the implementation of effective management of coastal resources and share experiences and lesson learned, 2) highlight MPA as an important entry point to improve ICM effectiveness, 3) identify effective financing mechanism to support the different ICM strategy, 4) identify, recognize and promote best practices on ICM, 5) develop an action plan to improve coordination and collaborative arrangement, and 6) discuss MPA issues that may need to be clarified for a stronger consensus for action.

Dr. Porfirio M. Aliño, currently the MSN coordinator, gave an overview of the MPA program in the country and the background information of the MPA Support Network or MSN. An update on the current number of MPA established in the country and the status of their management were discussed. He then went on to describe the birth of the MSN as a sustaining mechanism for MPA management in the Philippines. Atty. Analiza R. Teh, Assistant Secretary of DENR discussed some of the strategies and challenges of ICZM in the country. She enumerated and expounded on the different national laws and policies passed which are in support of the ICM program in the country. She lamented that despite the presence of these numerous laws and policies, there seem to have a lot of institutional gaps and concerns. Last to present was Atty. Rose-Liza Eisma-Osorio, Executive Director of CCEF on sustainable financing mechanisms to support ICZM strategies where she identified various sources of sustainable funds to support LGU ICM program. She concluded that the one responsible for the management of municipal waters are the LGUs and that they are capable to support ICM program with available and sustainable funding sources. Thus, they must play a larger role in the MPA management process including sustainable financing.

Plenary Paper Presentations

1. National Programs Funding Opportunities and Bilateral Frameworks: A Snapshot

by Dr. Graciano P. Yumul, Jr., Undersecretary for R&D
Department of Science and Technology (DOST)

EXCERPTS FROM THE PRESENTATION
(See appended PowerPoint presentation for details)

(The DOST Undersecretary for Research and Development (R&D) delivered his opening remarks for DOST Secretary Estrella F. Alabastro by way of providing information on the financing windows available at the DOST which can be used for ICM initiatives. He informed the Congress that just recently, a Php 165-million project was approved which will be implemented by the UPMSI).

The DOST five priority R&D fields include: *1)* biotechnology; *2)* pharmaceuticals; *3)* information and communication technology; *4)* environment (marine science and fisheries included); and *5)* alternative fuels/energy. Right now all money of DOST go to knowledge expansion, wealth creation, and human resource development (HRD).

Initiatives being funded on the environment are: *1)* oceanography (Pacific Seaboard R&D program); *2)* red tide; *3)* seaweeds; *4)* invertebrates; *5)* oil spill; and *6)* capacity-building. On national programs, a lot of money goes to the United Nations Convention on the Law of the Sea (UNCLOS) delineation of territorial boundaries (e.g., physical characterization, living resource and non-living resource characterization, and legal parameters). On climate change local initiatives we have: technology, mitigation, adaptation, and financing. Other projects being funded are: disaster management (air-ocean interaction); energy (marine current, algae as source of biofuel); and health (vaccines and related substances).

The DOST has a Grants-In-Aid (GIA) program with substantial amount of money but is basically proposal driven. These include the 5 priority fields and Other Priority Areas (OPAs) that are believed to help spur sustainable economic growth through S&T. Certain amount of money went to the M/T Solar 1 oil spill program in Guimaras. There is also the TECHNICOM Program that will make sure that the transfer and commercialization of R&D results are fast tracked (i.e., pilot plant operation, prototype development, IPR applications, Technology Commercialization Plan (TCP), technology evaluation). Other programs include: the Accelerated S&T HRD (ASTHRD) Program which aims to improve the country's global competitiveness and accelerate production of high level S&T workers; the DOST-Engineering R&D Technology (ERDT) program which has scholarship, R&D, and infrastructure components. DOST's rationale for doing a comprehensive R&D in S&T is to develop a pool of high level S&T human resources. This can be done through DOST providing the S&T experts and programs, the Commission on Higher Education (CHED), on the other hand, providing support to faculty development and the UP College of Engineering providing the engineering experts. This will help in bridging the innovation chasm.

Other DOST programs are: the DOST-National Science Council of Taiwan Program (include: R&D, scholarship, joint laboratories, and equipment upgrade); the DOST-JSPS Program (include: joint research program, energy, environment, infectious diseases and under this program is the Asian Core Program which includes: joint research, seminars, meetings and research exchange, and also under JSPS Program is the JSPS Ronpaku, a 5-year dissertation Ph.D. scholarship). The bilateral-multilateral program includes the ASEAN Committee on S&T and the APEC Industrial S&T Working Group.

The DOST has several Council funding windows for the following: basic research (NRCP); marine and aquatic (PCAMRD); agriculture (PCARRD); advanced S&T (PCASTRD); health (PCHRD); industry and energy (PCIERD). In order for an applicant to avail of the funds, *1)* the proposal must address a national program, *2)* it should be good science, *3)* it must have a counterpart fund, *4)* it must have a head of agency endorsement, and *5)* should have complete documentation.

The present day Philippine national innovation system shows a shift from knowledge creation and expansion through adaptive and strategic science and involvement in frontier and innovative science to diffusion or commercialization activities so that R&D results get to the application stage and create wealth.

Undersecretary Yumul concluded that: "Resources are available at DOST, they are proposal driven. Complementary and multidisciplinary approach is encouraged. Those who are interested to avail of these funding should be in the loop (national and worldwide). So spread the word that resources and money are available".

2. Marine Protected Areas Support Network (MSN): Sustaining Mechanism for MPA Management

by Dr. Porfirio M. Aliño[1,2], Ramon I. Miclat[1], Rhia Odessa M. Gonzales[1] and Hazel O. Arceo[2]
[1]MSN Secretariat-MERF, [2]EcoGov 2 Project-MERF

Background of the Marine protected areas Support Network (MSN)

Previous work has shown that over 500 MPA have been established in the Philippines in over 30 years but only 10-15% of the total with effective management. The issues and challenges that have been identified relate to weak governance, poor law enforcement, lack of funds and logistic support, divergent

interest of stakeholders, lack of coordination among stakeholders, poor incentives, and inadequate standards in assessment and monitoring.

Some of the more noteworthy milestones include the proclamation of the year 1997 as International Year of the Reef (IYOR), which highlighted the need to protect and conserve the reefs of the Philippines and facilitated the launching of the Best Managed Reef Awards. Other important events are the National Biodiversity Priority Setting Workshops in 2001 that was spearheaded by Conservation International, the formulation of the Archipelagic Development Strategy in 2004, and the drafting of the National Coral Reef Strategy from 2004 to 2006. It was agreed that targeting the full protection of 10% of the coral reefs in the Philippines would take 100 years. Thus, MSN seeks to address the issues above and hope to accelerate the goal to achieve full protection of the desired size of area under improved effective management.

What is MSN?

MSN is a multi-sectoral alliance of government and non-government organizations, peoples' organization and academic institutions that aims to support MPA initiatives through complementary collaborative efforts at the local, regional and national level.

It aims to build on the Philippine Marine Sanctuary Strategy (PhilMarSaSt) and Philippine Coral Reef Information Network (PhilReefs) to contribute for the improvement of MPA-management effectiveness and to achieving at least 10% full protection of coastal areas by the year 2020.

How did MSN come into being?

The need for collaborative efforts among various MPA practitioners and supporters nationwide to help improve MPA effectiveness led to the establishment of MSN.

- It is composed of more than 20 organizations that formed a Technical Working Group (TWG) to brainstorm on institutional MPA networking during a partners' workshop in January 2005
- TWG concept of MPA support network presented in various fora and gained acceptance
- MOA drafted and signed in November 2005 to formalize MSN
- Support-fund sourcing and in-kind contributions

Why is the MSN needed?

- It is imperative to reduce degradation of coastal areas.
- It is crucial to build on our gains from establishing and managing MPAs.
- It is urgently needed to strengthen the foundation of our investments.
- We need to strengthen MPA management to improve cost effectiveness and ensure sustainability.
- We need to sustain MPA ecological benefits that would redound to reducing poverty and enhance social equity.

How does the MSN propose to achieve its MPA support role and commitments?

MSN proposes the following:

- To come up with an action agenda that supports local and regional adaptive management training through its monitoring, evaluation, response and feedback system.
- To facilitate the establishment of an incentive system for good MPA governance and performance through annual recognition awards.
- To assist in financial leveraging
- To advocate for better enabling environments through policy and legislative reforms.

What were the activities of MSN in the period October 2006 - October 2007?

- Formulation of MSN general program of action (October-December 2006) and preparation for MPA Congress
- Regional forums (January-April 2007)
- Nominations for MPA champions, awards and drafting of proposals to support MPA champions (April-August 2007)
- Adaptive management training (June-August 2007)
- Follow-up preparations for MPA Congress and evaluation of nominations and proposals (July-September 2007)
- Philippine MPA Congress (CZPhil 2) and pledging ceremony for the MPA covenant (October 27-28, 2007)
- MPA Awards and Recognition: The Linking of Champions Night (November 26, 2007)

What has been done so far?

In the past, the need to increase the minimum MPA size requirement for achieving and accelerating the time and spatial area covered under full protection of no-take areas has been an important advocacy. The proposition was that if it would take 100 years to achieve nearly 1,800 km^2, i.e. the lower minimum of 10% coral reef area under protection in ,the Philippines, then there would be more likelihood to attain the PhilMarSaSt target by 2020 if MPAs cover larger areas and if existing MPAs are more effectively managed. In addition, an integration approach, as that of Integrated Coastal Management (ICM), is also strategic in addressing concerns beyond MPAs, such as fisheries ecosystem-based management through bay-wide and island cluster management and coordinated efforts.

To further determine the progress of MPA management since 2000, the 5-point agenda discussed by Aliño et al. (2002) is revisited (See Arceo et al., State of the Coast volume).

1. Working for more effective MPAs facilitated under a National Coral Reef Strategy (NCRS)

A continued increase in the total number of MPAs in the Philippines can be observed over the years. Despite the large number of MPAs, sustaining management effectiveness remains to be a challenge. The relatively low effectiveness suggested by earlier reviews cites only 10-15% of the MPA considered to be effectual. To date, through survey with 200 MSN respondents using the CCEF (2005) MPA Rating System, an increase of around 20-30% was observed as effective based on the level of enforcement practiced in those MPAs.

2. Advocating for at least one MPA per coastal municipality integrated into coastal and land-use development plans

There are now 415 coastal municipalities in 62 provinces with MPAs, an almost two-fold increase from the 276 coastal municipalities in 2000. In fact, an increase in number, size and performance, and integrated efforts can be gleaned from good practices from practitioners who vied for the Outstanding MPA Awards. Such incentive systems further encourage LGUs to continue, if not improve, their existing initiatives in MPA management.

3. Facilitate comparable (if not common) monitoring and evaluation methods linked to capacity-building for enhanced cost-effectiveness of MPA benefits

The widespread use of the various participatory MPA monitoring methods and scientist- based monitoring is seen from the updates of the state of the coasts reports (see also Nañola et al. 2004). Despite this, there are presently only at least 65 MPAs with reef M&E information. The Regional Capability-building workshop for MPA Managers conducted by MSN to train local MPA managers on standardized M&E methodologies is a significant step to improve this state. State-of-the-Coasts Fora, which is slowly being adopted as regular activity in various areas all over the country, further provide opportunities for feedbacking and sharing of M&E results, thus pushing more local managers to implement their M&E programs in their respective sites.

4. Developing criteria for "successful" MPAs to popularize the lessons learned and lead to a harmonized vision of coral reef management

The evaluation criteria developed under PhilReefs and used in the search for the Best Managed Reefs was refined and applied in the MSN Outstanding MPA Awards. It includes key indicators to gauge management effectiveness, biophysical and ecological impacts, and social and economic benefits gained from the MPA. Existing performance evaluation tools, particularly the MPA Rating Guide is currently being enhanced with governance indicators. This has helped 'popularize' and increase the incentives for improving management effectiveness. Lastly, documentation and promotion of good management practices, through publications such as Reefs Through Time and Atlas of MPAs (Haribon) have helped disseminate lessons learned and experiences in MPA management and facilitated replication in other areas.

5. Looking at how MPAs fit into the bigger picture of people and nature

In recent years, MPAs are starting to be viewed through an ecosystem-based management approach rather than at the local/site levels alone. This is clearly evident in the emergence of marine biodiversity conservation corridors (e.g., Verde Passage and Balabac Straits), inter-LGU collaboration within bays or shared seas (e.g., Illana Bay Regional Alliance, Camotes Sea CRM Council, Lanuza Bay Development Alliance, LIPASECU Baywide Management Council, etc.). Integrative and hierarchical complementation and upscaling of initiatives at the local, provincial, baywide-island cluster MPA networks and biogeographic region scales are providing various scales of governance and ecological connectedness. These complementary and convergent efforts should be taken in the context of horizontal and vertical integration and upscaling through the Reef to Ridge and Archipelagic Development strategy perspectives.

Future Directions

Great strides have been made in order to further improve MPA effectiveness and accelerate efforts to achieve the goals of the PhilMarSaSt. With that, the major objectives put forth in the previous reviews are enhanced and modified into the following 5-point agenda to set the directions of MPA work for the coming decade:

1. Strengthening coastal law enforcement and compliance mechanisms within the ICM approach
2. Sustain MPA management through enhanced coordination of MPA network synergies and highlight working MPA network models
3. Institutionalize MPA incentives for good performance and increase adaptive management (e.g., State of the Coasts)
4. Improve cost effectiveness and equitable allocation of costs and benefits including governance, performance and impact evaluation
5. Develop public-private partnerships (PPP) and linkages of actions at various management scales

Next Steps

For the year 2008, the immediate next steps are highlighted below as a follow-through on the priority areas earlier identified and in consonance with the modified 5-point agenda indicated in the previous section.

- Highlight plans and programs for IYOR (November-December 2007)
- Advocate for local and national coordinating mechanisms (January-March 2008)
- Program International Coral Reef Symposium (July 2008) and International Coral Reef Initiative preparations
- Training and planning workshops in other regions and provinces
- Setting special action teams (e.g. coral bleaching monitoring, Crown-of-thorns starfish [COTS] watch-group, media, and law enforcement team - LET).

3. Integrated Coastal Zone Management (ICZM) Strategies and Challenges

by Atty. Analiza R. Teh, Assistant Secretary
Department of Environment and Natural Resources

EXCERPTS FROM THE PRESENTATION
(See appended PowerPoint presentation for details)

[Outline of paper: *1)* Policies significant to CRM; *2)* ICM defined; *3)* Existing governance tools and policies and institutional concerns; *4)* EO 533; and *5)* Action plan]

1. Policies significant to CRM include: the 1987 Constitution; national laws like CA 141 (Public Land Act), PD 601(Revised Coastguard Law), PD 705 (Forestry Reform Code), PD 1586 - Environmental Impact Statement (EIS) law, RA 7160 or the Local Government Code (LGC); and etc. Highlighted are PD 1152 (Philippine Environment Code), PD 1151 (Philippine Environment Policy), PD 1586 (EIS Requirement) and Proc 2146 (Environmentally Critical Areas), and Administrative Orders for implementing EIS law. Other laws are RA 8550 (Philippine Fisheries Code) and RA 8435 (Agriculture and Fisheries Modernization Act (AFMA). Strategies supported by the various laws and policies include: Environmental Impact Assessment (EIA), creation of SAFDZs (Strategic Agriculture and Fisheries Development Zones), creation of marine protected areas (MPAs), shoreline management, protection of wildlife flora and fauna, mangrove management, pollution management, sand and gravel quarrying, mining and reclamation. There are many laws already in place but we still fail to protect our coastal environment.

2. ICM is defined as management which not only includes the coastal and marine areas but also address inter-linkages among associated watersheds, estuaries and wetlands (EO 533, Sec. 2). ICM strategy and action plans have to include upland and inland issues that impact on the coastal zone.

3. Governance tools and strategies: Uplands are legally classified as forestland. But in the lowlands, the issues are more complicated. Governance tools and strategies are spelled out in various laws such as the LGC, RA 9003, EIS law, and other management frameworks (e.g., water and solid waste management). Provinces have no authority over coastal areas which are commonly under the cities and municipalities. Their role is usually to coordinate efforts of cities and towns in coastal zone management. BFAR's role in municipal waters is confined to providing technical assistance, but beyond the municipal waters, the agency regulates commercial fishing. Recently, EO 510 (March 2006) created the River Basin Control Office under DENR working closely with DPWH to rationalize river basin projects. EO 612 (March 2007) created the Commission on Maritime and Ocean Affairs (CMOA) headed by the Executive Secretary of the President.

Despite the different laws mentioned, there are still a lot of institutional gaps and concerns: i.e., development planning is usually land-based; there are sectoral fragmentation and jurisdiction confusion; gaps, contradictions and overlaps in laws and policies; confusion over national and local government responsible over marine-related management, to mention a few. As a result of these issues, confusions occur as to who should take the lead in resolving issues or where to file complaints. There is a tendency to separate fisheries mandate from environment concerns.

4. EO 533 was issued to provide for ICM as a national strategy. This is a big milestone for coastal zone management. The national ICM work program includes: strategic action program and basic policies; institutional arrangements; sustainable financing mechanisms; capacity development; partnerships; public awareness and communication; legislation; and state of the coasts reporting. EO 533 is said to be very ambitious.

5. Action Plan: Although the ICM Plan has not been developed yet, the process had started by convening agencies and various groups to formulate a national ICM work program.

Open Forum (Q & A)

Question/Comment (Engr. Estigoy, Batangas PG-ENRO):

Which is more applicable at municipal and city level, ICM or CRM? Is ICM more applicable at provincial level? EO 533 says ICM because of the multi-sectoral system. But in the case of Batangas province, some are using CRM, and some are beginning to use ICM. Cities and municipalities and component barangays are also dealing with multiple uses. What term do you suggest that we use in developing coastal management plan at the city and municipal level, in general?

Response (Asec. Teh):

The province has no direct authority over municipal waters but the province has an important role in facilitating linkages. Looking at the whole environment system, the linkages between the upland and lowland seems to suggest applicability of ICM at the city and municipal level.

Comment (Jessie De los Reyes, MFARMC Chair, Calatagan, Batangas):

"Maraming conflict sa paggawa ng plano kasi may mga weaknesses like conflict between DA and DENR; walang special court ang DENR tungkol sa environment, (e.g. conflict sa land classification at land-use; i.e., sa DENR, land ay classified as mining land pero sa DA ay agricultural; sa law enforcement naman, lumalabas na sa Philippine Coast Guard (PCG) pa rin ang tungkol sa pollution sa karagatan base sa transparency na pinakita, pero iba naman ang nangyayari sa lugar."

Response (Asec. Teh):

"Sa DENR ay may sistema sa pag-adjudicate sa violation ng pollution laws na tinatawag na Pollution Adjudication Board (PAB). Yung nangyari sa Guimaras pwede kami magfile ng kaso kasi na-amend na yung Marine Pollution Decree (MPD) ng Clean Water Act, pero sabi ng PCG, sila ang may jurisdiction dahil sa MPD. Guilty kami sa confusions kasi may failure to specify sa batas kung aling mga batas ang repealed na. Sa usapin ng resource conflict, minsan may ancestral land ang use pero dahil sa protected area din ang mga ito, may issue sa DENR kung sino magprevail. Minsan ang issue ay mismong sa pagitan ng mga DENR agencies like Mining and Protected Area bureaus. May sistema katulad ng alternative dispute resolution na ginagamit ng DENR. Pero kailangan talaga ng clarification kung sino talaga ang may authority to reclassify. Although may kalinawan na sa batas, may confusion pa ring nangyayari. Kailangan ng resource valuation. Issues can be addressed through proper valuation and accounting of resources, i.e., mas beneficial economically ba kung mining or protected area base sa valuation? Minsan dahil walang standard na valuation ay nag-iiba ang decision lalung-lalo na pag nagpalit ng kalihim ang departamento, kasi iba't iba ng perspective."

4. Sustainable Financing Mechanisms to Support ICZM Strategies

by Atty. Rose-Liza Eisma-Osorio, Executive Director
Coastal Conservation and Education Foundation, Inc.

I. Background

Coastal management takes many forms with a growing number of initiatives worldwide. The concept of coastal management has attracted several names and corresponding acronyms – ICM, CRM, CZM, ICAM, IMCAM and ICZM. The earliest attempt at managing coastal zones in the U.S. utilized coastal zone management (CZM) in their 1972 Coastal Zone Act. Efforts in developing countries were often given the name integrated coastal area management (ICAM) as these were usually limited to a specific coastal area rather than the entire coastal zone. As the concept gained greater international recognition, the phrases integrated coastal zone management (ICZM) and integrated coastal management (ICM) came into use. The term integrated was included when it became clear that an integrated approach, rather than a single-sector approach, was essential for effective coastal management. More recently, in connection with the implementation of the Convention on Biological Diversity, the term integrated marine and coastal area management (IMCAM) has begun to be used as well. These terms all refer to the same concept – that of integrated coastal management. [Cicin-Sain, B. and Knecht, R., 1998]

II. Definition of ICM

The following are frequently cited definitions of Integrated Coastal Management (ICM):

1) ICM is a process by which rational decisions are made concerning the conservation and sustainable use of coastal and ocean resources and space. The process is designed to overcome the fragmentation inherent in single-sector management approaches (fishing operations, oil and gas development, etc.), in the splits in jurisdiction among different levels of government, and in the land-water interface. [Cicin-Sain B, Knecht, R.]

2) ICM is a broad and dynamic process that requires the active and sustained involvement of the interested public and many stakeholders with interests in how coastal resources are allocated and conflicts are mediated. The ICM process provides a means by which concerns at local, regional and national levels are discussed and future directions are negotiated. [GESAMP (IMO/FAO/UNESCO-IOC/WMO/WHO/IAEA/UN UNEP Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection]

3) ICM has been also defined under a recent Executive Order (EO 533) which was adopted in 2006. These definitions emphasize characteristics of the ICM process – on the one hand, balancing development and conservation and ensuring multi-sectoral planning, and, on the other hand, participation and conflict mediation.

III. The Goals of ICM

ICM is first and foremost about people and attempting to define a dynamic balance between people and the qualities of our coastal environment. The goal of ICM is to improve the quality of life of human communities who depend on coastal resources while maintaining the biological diversity and productivity of coastal ecosystems [GESAMP; Olsen, 1997].

A central purpose of ICM is to create conditions for "a sustained effort, whose fundamental goal is to reform the objectives, structure and processes of governance that control how coastal resources are allocated," the rates in which coastal resources are used, and "how conflicts among user groups are resolved." [Olsen, Tobey and Hale]

IV. The ICM Program Cycle

ICM employs a suite of tools such as MPAs, coastal zoning, planning and fisheries management. These concepts are introduced progressively and as necessary in many ICM programs. The following diagram from the University of Rhode Island–Coastal Resources Center (URI-CRC) highlights the iterative and progressively expansive nature of ICM (Fig. 1). The process begins (stage 1) by identifying and analyzing the issues in the coastal area in question, and then proceeds to set objectives and prepare a plan of policies and actions (stage 2). Next is stage 3, formulation thru a law, decree, interagency agreement and the securing of funds for implementation of some selected set of actions. Policy implementation (stage 4) is the stage in which mechanisms planned in the policy formulation stage are made operational. Mechanisms may include public meetings, conflict resolution, enforcement procedures, and public investments. Stage 5 is formal monitoring and evaluation. In this stage, the results of the policy making process are compared with the desired outcomes.

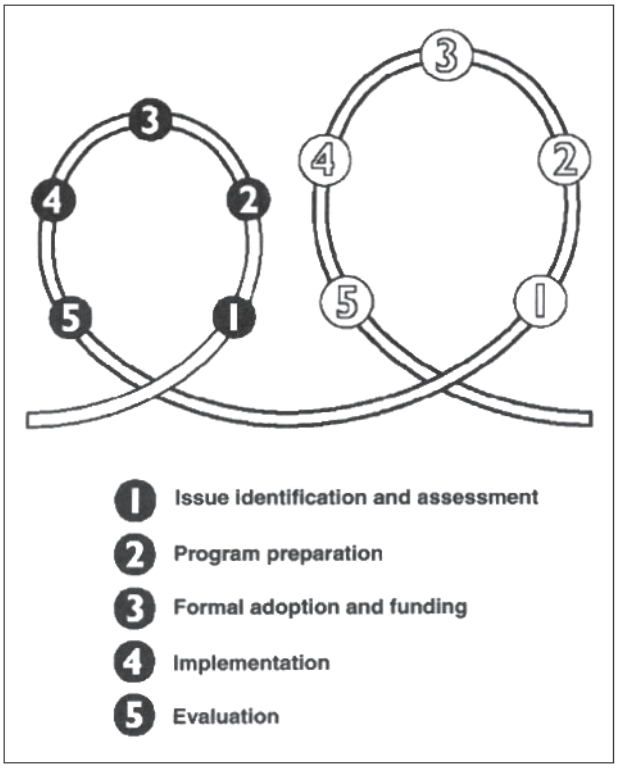


FIGURE 1. Generalized LGU steps.

V. ICM in the Philippines

Coastal management programs in the Philippines were implemented since the 1970s. National concern for coastal zone management began with the creation of the National Environmental Protection Council (NEPC) in 1976. A Coastal Zone Management Committee was established under the NEPC, later renamed Inter-Agency Committee on Coastal Zone Management (CZM). The committee formulated a long-term program for CZM and provided policy recommendations for protection and optimum utilization of the coasts.

Thereafter, the Fisheries Act of 1975 (PD 704) gave responsibilities for fisheries management to both national and municipal governments. The government measures undertaken under PD 704 were ineffective in promoting rational, sustainable fisheries management. As recognition of more effective community-based management increased, the government began to devolve control over fisheries to local communities under the 1991 Local Government Code (LGC). The devolution of management of nearshore fisheries to municipalities in local fishing communities was the key element of reform under the LGC. What followed were various implementation of donor ICM and bay-wide projects and the introduction of an ICM framework with a benchmark system.

TABLE 1. Philippine ICM timeline

	1932-1975	1976-1990	1991-2004
Legal Regimes	Laws support fisheries development Open access regime Central control	Coastal environmental laws enacted Central control	Devolution of authority ICM framework with benchmark system Co-management
Implementation	None	Community-based marine protected areas	Donor ICM projects Bay-wide projects National ICM implementation

TABLE 2. Summary of LGU Benchmarks for Beginning, Intermediate, and Advanced Levels of CRM

Level 1 – Beginning CRM	Level 2 – Intermediate CRM	Level 3 – Advanced CRM
Acceptance of CRM as a basic service of municipality/city government with planning and field interventions initiated (1 to 3 years)	*Implementation of CRM plans underway with effective integration to local governance (2 to 5 years)*	*Sustained long-term implementation of CRM with monitoring, measured results, and positive returns (5 years or more)*
• Multi-year CRM drafted • Baseline assessment conducted • CRM-related rganizations formed and active • Annual budget allocated for CRM • Shoreline/foreshore management measures planned and initiated • At least two CRM best practices planned and initiated		

VI. Importance of ICM Investments

In essence, ICM goes through multiple cycles as seen in Figure 1 but rarely do these initiatives continue after the withdrawal of external financial and technical assistance [Christie, P., et al., 2005]. The dependence of ICM on financial and technical assistance creates both the potential for and the reality of unsustainability of ICM institutions and policies as projects are terminated and support staff are withdrawn [Pollnac and Pomeroy, 2005].

Needless to say, financial and technical investments are the backbone of ICM. Without the essential support, ICM will not be initiated, implemented and sustained. In particular, each stage of the ICM Program Cycle above requires as an essential requirement that adequate funding is secured for an ICM program.

VII. What are the various ICM activities vis-à-vis investments by key players and/or stakeholders?

There are various investment sources to support a sustainable ICM program. Typically, these are grants and government budget allocation. Initially, one of the ways of funding to initiate an ICM program is by relying on grants from donor institutions and/or agencies. This type of investment covers the following activities:

- Grants program for site-specific ICM activities such as planning, research, MPA management, monitoring and evaluation, etc.
- Technical and logistical support for non-government organizations (NGOs), LGUs, and partners

Another way of funding to embark on an ICM effort is by relying on new funding, typically coming from the national grant which can provide funds expressly to cover the development phase of an ICM program. The types of investments coming from the national government can cover a suite of activities:

- Organizational strengthening to perform basic core functions
- Protection and management of declared protected areas
- Policy and enforcement support
- Conflict resolution
- Linkaging and building partnerships
- Technical and logistical support for LGUs and partners
- Data collection and analysis, crafting recommendations, and information dissemination
- Policy advocacy

However, in most developing countries like the Philippines, the national government is usually unable to provide such funding. In these instances, outside funding from international organizations, donor agencies and NGOs becomes a necessity. A number of private entities are also willing to fund ICM-related activities such as ICM plan formulation, including resource assessments and valuation. The types of investments from the private/business sector (businesses, resort operators, etc.) can cover the following:

- Conservation/protection of MPAs
- Ecotourism, mariculture, and other investments
- Processing plants and marketing
- Information campaigns, enforcement assistance, coordination, and community relations
- Corporate Social Responsibility (CSR) which include poverty alleviation (from the corporate sector)
- Organizational systems and structures, as needed

On the other hand, civil society groups can cover some of these activities:

- Training and capacity-building of communities and marginalized groups
- Livelihood assistance and diversification

- Dialogues, advocacy, awareness campaigns
- Biodiversity conservation

To fund ICM on a continuing basis in the Philippines, there is more reliance on the use of local government funds. This is in view of the enactment of the LGC (RA 7160) which expressly devolved powers to local government units for local level planning and implementation of ICM programs. Prior to its enactment, resource management programs and action plans typically originated from national government agencies, with the support of scientific and academic institutions that generated the technical information base for management strategies [DENR et al., 2001].

VIII. ICM planning process adopted by more LGUs in the Philippines

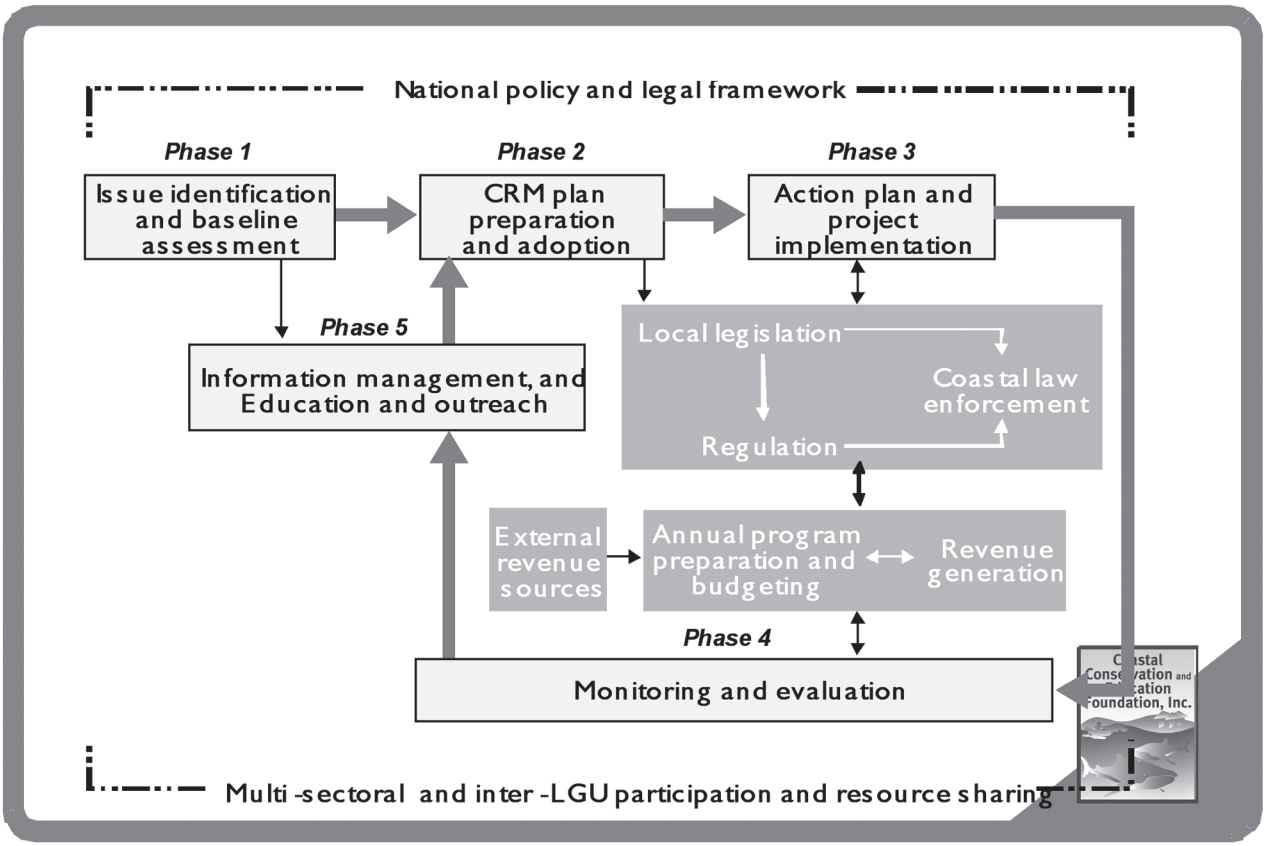
At present, LGUs play a pivotal role in ICM, having been given more duties, responsibilities and accountabilities for management of coastal resources within waters. Some of these LGU activities, which are also the main ICM processes include:

- Resource assessments
- Creating and operationalizing ENROs or ICM Sections in existing MAOs
- Enactment of ordinances
- Adoption of plans
- Establishment and maintenance of marine sanctuaries
- Coastal law enforcement
- Organizing and training
- Information, education and advocacy campaigns
- Database management
- Conflict resolutions
- Setting up of monitoring and evaluation systems

Finally, local fisherfolk communities invest resources for ICM in the following manner:

- MPA management
- Local enforcement and reporting system
- Small-scale processing centers and marketing
- Public awareness, enforcement, coordination, and community relations
- Organizational systems and structures

FIGURE 2. CRM planning process adapted for Philippine local government.



IX. Sources of Sustainable Funds to Support a LGU ICM Program

Sources of funds for most LGUs can come from local taxes, fees, licenses and charges, internal revenue allotments (IRA), and share in the proceeds of national wealth, in some instances. With LGUs now enjoying greater fiscal autonomy, revenues can be generated from internal sources, such as taxes, incomes, fees and charges. The LGC under Section 186 provides that LGUs may exercise the power to levy taxes, fees or charges through an ordinance which is enacted after public hearings are conducted for the purpose. LGUs can also create their own sources of revenue by virtue of Section 149 of the LGC in relation to the Philippine Fisheries Code (RA 8550) which lists down the following fisheries-related functions that can generate revenues for LGUs:

- Fishery privileges to erect fish corrals and oyster, mussel or other aquatic beds
- Bangus fry concessions
- Licenses for operation of fishing vessels of 3GT or less
- Licenses for operation of small and medium-scale fishing vessels within 10.1 to 15 km area of the municipal waters
- Permits for operation of pearl farms; and
- Auxiliary invoices for transfer of fish and fishery products

Each LGU also gets a share in the IRA on a yearly basis which is determined from the national internal revenue taxes actually realized. The total annual IRA shares due to all LGUs are allocated according to provinces (23%), cities (23%), municipalities (34%) and barangays (20%). In some instances, LGUs can receive about 40% of the national revenue as their equitable share in the proceeds derived from the utilization and development of national wealth within their respective territories as provided in Section 289 of the LGC.

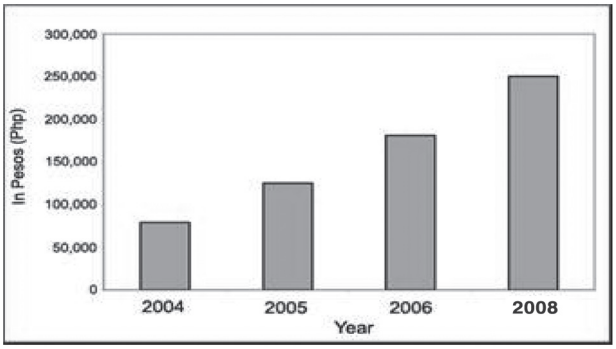


FIGURE 3. Average CRM budget allocation by local government units in 20 municipalities in Cebu and Siquijor assisted by CCEF since 2004.

Presently, the share of each province, city and municipality in the IRA is based on land area (25%), population (50%) and equal sharing (25%) as provided in Section 285 of the LGC. Under Section 384 of the implementing rules and regulation (IRR) of the LGC, it shall be mandatory for LGUs to set aside in its annual budget amounting to no less than 20% of its IRA for the year as appropriation for local development projects which include ICM programs. With all the available funding sources for LGUs, some LGUs have been known to have increased their budget allocation for ICM within a span of over three (3) years while making the principal revenue source coming from their share of the IRA.

X. The Costs of ICM

A coastal municipality has to take on significant basic service responsibilities and incremental costs associated with carrying out ICM plans along with other related implementation and monitoring activities. To achieve the estimated annual budgetary requirements for ICM programs, LGUs need approximately Php 1 - 1.3 million annually to begin and maintain the process [White and Cruz-Trinidad 1998].

A more detailed costing for ICM programs for a six-year period (including one year for investment) estimates Php 1.4 million for investment and a recurring cost of Php 400,000 - 600,000 per year for a period of five years. The bulk of investment costs is accounted for by boat purchase, an office and some capital equipment (vehicles, computer, GPS, etc.). Most of the recurring cost is accounted for by staff costs while the rest are small budget items such as meetings, trainings and maintenance of equipment. Possible cost-sharing with other LGUs (like in the case of the boat) and performance of regular LGU functions such as public consultations and hearings can significantly bring down the costs.

XII. Additional Revenues and Benefits of ICM

Despite all these available funding sources and incremental costs related to an ICM program, other channels of fund sources have resulted from the successful ICM implementation. LGUs can rely upon financial inputs of the private sector and NGOs to carry out their ICM programs. They often fund a great deal of ICM activity, provide equipment for law enforcement such as patrol boats, radios, and offer technical assistance to local governments. The successful implementation of ICM programs such as marine sanctuaries have served as an alternative source of income by way of user's fees coming from an increase influx of tourists and visitors. Other revenues include: fines and penalties for environmental violations and damages; and incentives for Bantay Dagat, volunteers, etc.

For instance, over the last five years in Gilutongan Island, the marine sanctuary has accumulated a total of Php 5.2 million or US$ 92,857. As reflected in the figure below, user-fees have gradually increased over the years and have become a major source of income for sustainable island activities such as MPA maintenance, water supply, and other small-scale business initiatives.

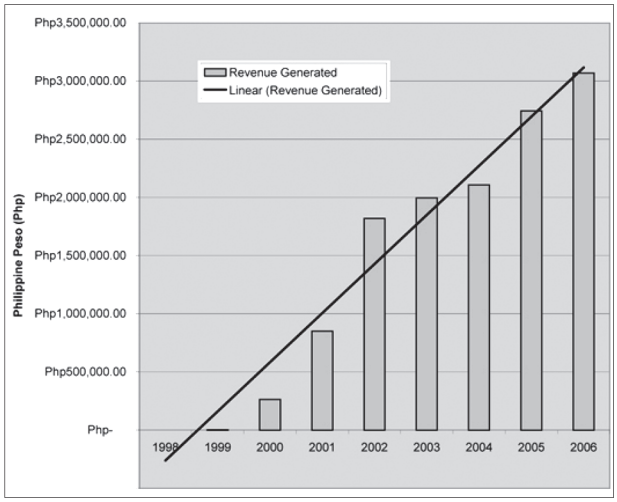


FIGURE 4. Users fee income from Gilutongan Island

XIII. What are the Benefits of a Sustainable ICM Program?

1. Improving management of coastal resources while rehabilitating degraded coastal ecosystems
   - Improved capacities of people especially local coastal communities
   - Increased awareness among key agencies and stakeholders

2. Increasing supply of goods (fisheries) and services (recreation, ecotourism, etc.) from coastal resources leading to food security and sustainable ICM program

XIV. Conclusion

Local government units (municipalities and cities) are primarily responsible for the management of municipal waters, thus, are capable of supporting an ICM program with available and sustainable funding sources. With the strict mandate to establish MPAs in at least 15% of their municipal waters, local governments must play a larger role in the MPA management process, including sustainable financing. Benefits are derived from implementing ICM; it can result in sustainable financing of ICM activities.

Workshop Sessions

SUB-THEME 1 - Workshop Sessions on Sustainable Financing Mechanisms

Facilitators: Atty. Ma. Ronely Sheen (TK)
Ms. Preciosa Samonte (DOST-PCAMRD)
Documentors: Dr. Andre Uychiaoco (PEMSEA)
Dr. Lilian Bondoc (DOST-PCAMRD)

(Summary of Workshop Proceedings)

Session started at 2:30 p.m. Facilitators, documentors, resource persons, discussants, and participants were properly introduced. The facilitators explained the flow of the workshop sessions: *1)* workshop session #1 on situationer, current actions undertaken, and gap analysis, is held first; then followed by *2)* paper presentations by resource persons and the corresponding reactions of the discussants, proceeded by an open forum/Q&A portion, then by *3)* the conduct of two subsequent workshop sessions #2 and #3 on visioning and action planning, respectively. As a workshop rule, color-coded metacards were used. Expected output of this workshop is to come-up with an action plan that will enhance and advocate sustainable financing mechanisms (SFM) for ICM. Outputs of the 3 workshop sessions are presented after the paper presentation portion

Paper Presentations

1. Financing of and Investments in Coastal Resources Management: To Whom Will the Bell Ring?

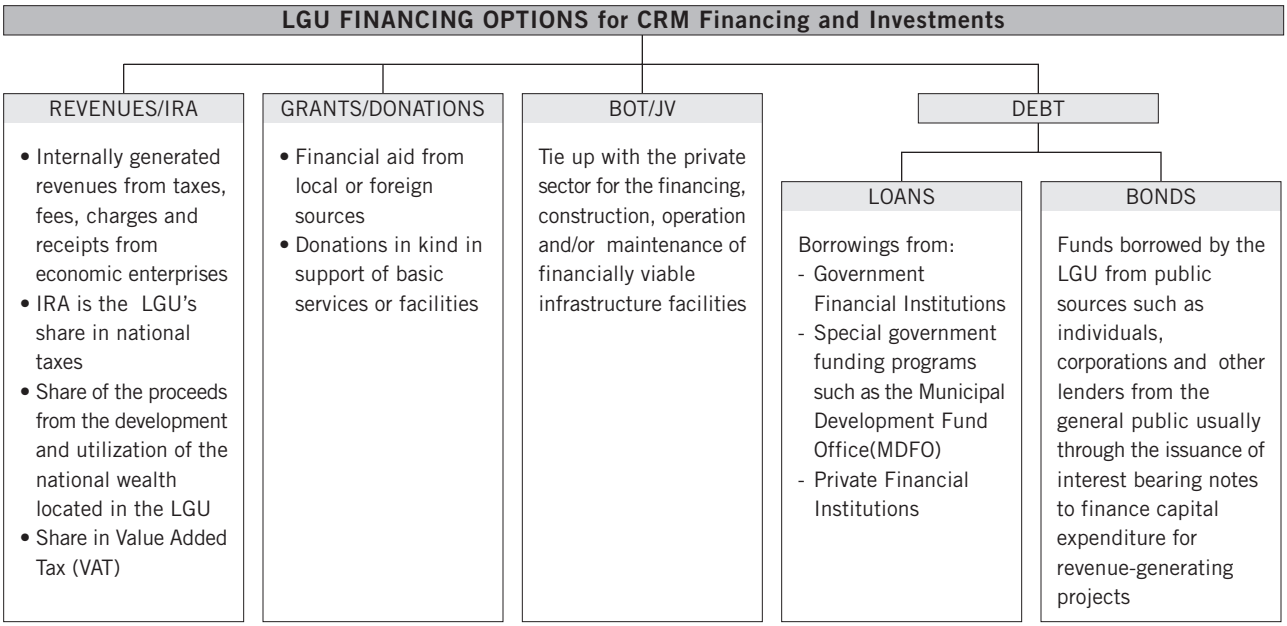
by Ernesto S. Guiang, Ph.D., Chief of Party
USAID - The Philippine Environmental Governance Project (EcoGov 2)

INTRODUCTION

One of the important challenges in Coastal Resources Management (CRM) is understanding where sources of financing are derived from and the mechanisms to be able to actually have the financial resources to carry-out the CRM strategies and activities. It is also important to be able clarify the context of the multiple objectives for sustaining CRM financing. These would be to protect and manage coastal resources and ecosystem goods and services and thus, also conserve biodiversity, sustain resources productivity and use, and generate economic activities. The context of sustainable financing CRM in the big picture is to be able to see the major areas of financing and investments and its various features and attributes. Sustainable financing requires the understanding of who will benefit so that social banditry is minimized through good governance by establishing the appropriate CRM policies and systems. I present some of the possible opportunities in social enterprise approaches and recommendations to move forward in meeting the future challenges of CRM sustainable financing.

I. Looking at the big picture

Charting the CRM vision for biodiversity conservation, sustained resource productivity and poverty alleviation, implies that sustainable financing will need to consonant with this vision. This means that every spending decision must contribute to achieving the CRM vision, its objectives and its strategies, plans and programs. An important reference context is the CRM plan, and a review of some of these CRM plans (e.g., Davao City, Tabina and Tukuran in Zamboanga del Sur) shows that some zones are predominantly under: i) the biodiversity conservation zones such as the protection and rehabilitation areas through Marine Protected Areas (MPAs) in coral reefs, mangroves and seagrass areas; ii) mariculture zones, iii) fisheries management zones; iv) navigation and maritime zones; and v) tourism and recreation zones. The challenge to sustain financing for the entire CRM/ICM overall picture is how to achieve the implementation of the appropriate technical strategies based on the approved zonation plans. This would require that the LGU undertake good governance processes that are transparent, accountable and participatory so that the management bodies are operationally functional. It should utilize LGU institutional, organizational programs and strategies of its broad range of devolved powers for CRM. On the other hand, the national agencies such as the Department of Environment and Natural Resources (DENR) and the Department of Agriculture (DA) – Bureau of Fisheries and Aquatic Resources (BFAR) provide support systems in the devolved areas in the coastal zone.



Areas of CRM financing would entail the priority implementation of the approved CRM plans such those in the individual MPA and MPA networks and safety nets for marginalized communities. The backward and forward social enterprises and the social infrastructures are needed to support and sustain coastal resources development. In conjunction with these are the enforcement of laws and regulations, public awareness campaigns, advocacy and coordination, research and development, and continuous monitoring and evaluation to adequately adjust management accordingly.

The sources of funds from the public sector (e.g. the LGUs and the NGA) and the private sector (e.g. social enterprises on site and offsite) and how the partnerships are forged to financing CRM both through internal and external sources should be laid down. The use of the funds in short, medium and long term expenditures should also be clarified and implemented according to appropriate recurring operational costs, capital outlays and investments.

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II. How to pursue CRM financing?

Various modes of CRM financing and investment promotions can be pursued through co-financing, co-investments, and property and access rights that will provide the individual or groups' behavior for investments, user fees, penalties, ring-fencing and LGU special accounts. Policies that follow good governance processes and clarify private sector investments with defined environmental standards and mechanisms for tax redistribution are also crucial.

The following concepts and considerations need to be addressed such as:

1. Who will benefit from public-private financing and investments?
2. What are the implications in vesting particular access rights and the effects of "scarcity power" in CRM as natural assets?
3. Are there asymmetry to access of information and its availability to stakeholders?
4. Have positive and negative externalities been adequately considered?
5. Have the responsibility, accountability and authority been clarified?
6. Are subsidiarity and devolution of roles and functions clear?
7. Have the charges and user fees been adequately discussed with sufficient technical basis, addressed in participatory way and appropriately legitimized?
8. What is the demand scenario like e.g. between the combined forces of the "need" and the enforcement aspects in CRM?

Ideally, any CRM activity that is financed should be perceived as an "investment" by itself. Public financing should lead to improving the value of coastal resources and capacities of resource managers. Financing should also result to greater public benefit. Public financing combined with privilege access rights to those who have CRM information may lead to either "government banditry" or "monopolistic power or scarcity of power" to a few. In order to avoid such situations, safety nets

for marginalized fisherfolks should be provided support from the public in order to get them off from the "handle of the first rung" out of poverty. For example, on-site and off-sites and upstream polluters have to be slapped with "user charges" and "user fees", respectively as source of funds for CRM. Any financing initiative should strive to bring about economic efficiency in such a way that everybody is better off with no one in worse condition.

III. "Investments in CRM"

"Investments in CRM" are current and planned commitments of resources from the government, private sector, individual fisherfolks, communities, civil society organizations, and donors. Its goal is to conserve *biodiversity,* sustain resource *productivity,* and improve management of coastal resources and *achieve streams of periodic benefits for individuals and society.*

- What are these benefits?
  - Financial (fish, revenues from ecotourism, mariculture, user fees, etc.)
  - Improved social capital (capacity, network, relationships)
  - Biodiversity
  - Psychic or spiritual,
  - Resource sustainability
  - Equity

- Streams of direct and indirect; short-, medium-, and long-term; on- and off-site benefits

- Who will benefit from CRM "investment"?
  - individuals, public, private; periodic or sustained, or unpredictable

- What are key features of CRM investments?
  1. Need for short, medium, and long-term investments with implications on the profit motive of the private sector
  2. Highly susceptible to state and elite capture i.e. corruption, inequitable access
  3. In some ways, "the factory is also the product"
  4. Benefits not mutually-exclusive resulting to externality, free riders
  5. Benefits the present and future generation, on and off-site communities
  6. Requires social enterprise approach
  7. Requires both public (pre-investments, support systems, regulations to reduce cost of doing business) and private investments
  8. Need for periodic M&E system and strong enforcement system

- Why the need for sustained financing and investments? Sustained financing and investments is a major 'driving force" in:
  1. Conserving biological diversity
  2. Sustaining supply of goods (fish) and services (ecotourism, etc.) from coastal resources
  3. Generating and expanding economic activities
  4. Alleviating or eliminating poverty
  5. Restoring degraded ecological systems
  6. Achieving social equity, redistribution, and efficiency

IV. Social Enterprise

What is a social enterprise?

- *Social enterprise:* Any organization, in any sector, that uses earned income strategies to pursue a double bottom line or a triple bottom line, either alone (as a social sector business) or as part of a mixed revenue stream that includes charitable contributions and public sector subsidies.
- *Social Enterprise Approach in the CRM/ENR sector*
  Allowing or promoting enterprises that generate private profits (corporate income) while simultaneously addressing environmental concerns. These social enterprises are those that benefit the general public or other members of the society (employment, livelihood, ecosystem services, equity through democratized access, inter-generational welfare improvement, and public health).

Matrix of Benefits in Key CRM Zones

Zone	*Profit Benefits*	*Social, Environmental, and Good Will Benefits*
1. Protected (MPAs, etc.)	Minimal (unless with ecotourism value and spillover benefits)	Yes
2. Mariculture	Yes	Yes
3. Recreation and Tourism	Yes	Yes
4. Navigation and marine transport	Yes	Yes
5. Fisheries	Yes	Yes

V. Guide in Promoting Investments

- Public and private investments in natural resources should not result to:
  - Market failures supporting state and elite capture in CRM resulting to monopoly, control by key individuals of unique sites and locations, etc. (no government banditry)
  - Selectively in disseminating CRM information to those with influence, politicians and local elites resulting to asymmetry of information
  - Putting in place a system where "free riders" use CRM at the expense of the majority – not paying enough charges, user's fees, penalties, environmental tax, etc.

Potential CRM Investors

OBJs Financing and Investments	Potential Investors (expected magnitudes)					
	National Govt	*LGUs*	*Donors*	*Private Sector*	*Fisher Folks*	*CSOs*
1. Strengthening institutions (POs, LGUs, resource managers, networks, research institutions)	XXX	XXX	X	X	X	X
2. Production areas (open fisheries, tourism, processing, transport, marketing, mariculture,)	X	X	X	XXX	XXX	X
3. MPAs and other Protected areas	XXX	XXX	XX	X	XX	X
4. Poverty alleviation (safety nets, livelihood, support system)	XX	XXX	XX	X	XX	XX

- Advocacy in Promoting Public Investments Support Systems
  - Implementation of approved CRM and MPA plans;
  - Re-aligning social infra support;
  - Safety nets support for highly marginalized communities;
  - Training and capacity-building
  - Enacting ordinances that will "institutionalize"
  - Externality charges and fees from those who use coastal resources; and
  - Setting up mechanism to re-distribute this amount equitably in improving CRM

- Attracting Private Investments
  - Facilitating the process of "reducing the overall cost of private sector investments" in coastal resources without sacrificing equity and environmental sustainability through:
  - Transparent processes
  - Permitting
  - Facilitating ECC requirements
  - Externality charges
  - Sharing
  - Taxes

VI. Summary – To whom will the bells ring?

- There are numerous financiers and investors that could help achieve CRM objectives so that these can also achieve equitable benefits.
- The principles of social enterprise approach in managing coastal resources must be applied.
- The challenge is to assist LGUs to spearhead and coordinate the process of getting investors reach out to their pockets, volunteer their labor or allocate more resources for investments in coastal resources?
- Financing of and investments in CRM require individual and collective actions.
- LGUs are the integrators and must be supported by national agencies, civil society, private sector, and training institutions, and communities.

Reaction of Discussant: Dr. Rodelio F. Subade (UPV)

Resource rent should go back to the resource and it is the government's role to ensure this. This is ultimately a matter of governance (integrity, honesty, credibility, efficiency, effectiveness, etc.). The Philippines has the local expertise to deal with this. In undertaking projects on marine resources in various parts of the country, available local experts in those areas should be tapped for sustainability and cost-efficiency.

2. Public-Private Partnership (PPP) Program towards Sustainable Coastal Development for the Province of Bataan

by Ms. Marilou G. Erni, Executive Director and President
Bataan Coastal Care Foundation, Inc. (BCCF)
and *Petron Foundation, Inc. (PFI)*

Introduction

This paper deals with the involvement of the private sector in sustainable coastal development (SCD) for the province of Bataan, in partnership with the Bataan Provincial Government (BPG) and other stakeholders. It began with a slogan we came up with for the first Petron environmental activity we undertook collectively in the province on 16 September 1999. *"Water cleans people. It's time people clean the waters."* This catch-phrase was our battle cry to get the people of Bataan interested and involved in *"Kontra Kalat sa Dagat"*, or coastal clean-up as the private sector's participation in the International Coastal Clean-Up Day. The campaign initially covered three municipalities, but it has since become a social movement in the province where villages in all 12 municipalities adapted the clean-up process and made it a monthly or sometimes a weekly activity. It made people realized the extent of environmental problems in Bataan and highlighted the need to come up with strategic and sustainable

ways to solving them. It likewise showcased the strength of a multi-sectoral partnership involving the LGU, private sector and civil society groups. This sharing of concern for the environment and the resulting collective action led to Bataan's adoption of an integrated coastal management (ICM).

Early Beginnings

In 10 February 2000, a tri-partite agreement was signed between the Public-Private Partnership (PPP) program of the BPG, the Petron Foundation, and the GEF-IMO-UNDP, towards the sustainable management and development of the province's natural resources. This agreement made Bataan the first ICM parallel site of the regional program of the Partnerships on Environmental Management for the Seas of East Asia (PEMSEA). On a larger scale, PEMSEA harnesses the power of partnerships between and among governments and other sectors of society in the East Asian region. It has established ICM sites in Nampo, (North Korea), Shiwa (South Korea), Chonburi (Thailand), Danang (Vietnam), Sihanoukville (Cambodia), Port Klang (Malaysia), Bali (Indonesia), Batangas and Bataan (Philippines). Its premier site and ICM showcase is in Xiamen, People's Republic of China. Together, they exert efforts to make ICM not only address their respective coastal concerns, but also contribute to the bigger task of applying environmental management to major pollution hotspots in major sea areas such as the Bohai Sea, Gulf of Thailand, Malacca Straits and Manila Bay. Twelve (12) countries in the East Asian region have banded together under the PEMSEA program to craft a shared vision of managing their coastal resources through a Sustainable Development Strategy (SDS). This shared vision was jointly adopted in the Putrajaya Declaration of Regional Cooperation for the Sustainable Development of the Seas of East Asia on 12 December 2003.

FIGURE 1. Area coverage of the Bataan ICM Program (BICMP).

ICM Defined

We define ICM as looking at attaining sustainable coastal development (SCD) by resolving conflicts brought about by the competing uses of the marine resources and coordinating the various environmental conservation initiatives. We see ICM as a long term effort targeted at creating a harmonious balance between economic development activities and efforts to preserve the environment, including the rehabilitation of damaged and endangered ecosystems and the removal of marine debris from our waters. Through ICM, we engaged in identifying issues and generating action plans to deal with concerns in habitat degradation, biodiversity, marine pollution, fisheries, and aquaculture. Solving these problems require regional and sub-regional collaboration. No single government, donor, and non-government agencies or specific groups can solely and effectively resolve the environmental problems of the region because of their complexities and trans-boundary nature. They require strong partnerships of all stakeholders at the local, national and regional levels through pooling of human and financial resources. Such partnerships create development opportunities, mobilize human and financial resources, increase effectiveness of networks, strengthen knowledge management, and improve cost-effectiveness of management interventions.

The Bataan ICM Program (BICMP) in Partnership with the Private Sector

This range of partnership benefits comes as a result of going through the entire ICM cycle, which Bataan has adopted and completed. As a parallel site, Bataan implements an ICM program using its own local resources – a partnership combining the strengths and assets of the local government and the private sector, through the Bataan ICM Program (BICMP). At the same time, it features a unique partnership that brings together the Province of Bataan, the private sector, civil society, and international agencies to work hand-in-hand in achieving these objectives. This arrangement is what also enabled us to be recognized by the UNDP-IMO through its PEMSEA program as its first ICM Parallel Site.

As an ICM parallel site, Bataan provides the ideal vehicle for achieving our goals, yet at the same time presents the public and private sectors with a host of challenges, including long-term investment, resources mobilization and cooperation, program sustenance and social acceptance. Here is where all stakeholders play critical roles in which the value of partnerships between the government and the private sector is emphasized. Every stakeholder has to contribute for the program to succeed. Thus we set up the Project Coordinating Committee (PCC) to implement BICMP. We have clarified the roles of each stakeholder, from the GEF, to the alliance of companies operating in Bataan known as Bataan Coastal Care Foundation, Inc.

The Bataan Coastal Care Foundation (BCCF), Inc.

The organization has the Provincial Governor as Chairman. The composition of the executive and line committees shows how the PPP is realized, mobilizing support from communities and other key groups in resolving problems in coastal management. The provincial government covers the salaries of the employees and staff of Bataan's ICM projects as well as the operating expenses. The BCCF funds most of the project under the BICMP. This kind of financing arrangement is a first in the history of ICM. And with the development of new parallel sites, PEMSEA has demonstrated the viability of the PPP in financing ICM.

Before the BICMP, the private sector provided pro-environment initiatives that were far and few in between, sectoral in approach and often as short-term activities. The establishment of the ICM program in the province offered the private sector the best opportunity to give back to the community – as champions in the cause of SCD through active participation, dynamic partnerships and continuous advocacy of the ICM program.

In developing the BICMP, leaders of the province's business community realized that: *1)* collectively, we can make a much bigger difference, especially in the field of environmental care, and *2)* whatever solutions we wanted to pursue or advocate needed to be more significant and lasting contribution in its benefits to the community and the environment. The BICMP provided the ideal vehicle for achieving this goal, yet at the same time presented the private sector with a host of challenges, including long-term investment, resources mobilization, program sustenance and public acceptance. It is in this context that the private sector realized the value of partnerships. This meant encouraging the other business organizations based in or doing business with Bataan to share in the idea of environmental stewardship. The result was 18 corporations and socio-civic organizations forming the BCCF with the primary aim of supporting the development and implementation of the ICM program as the province's key environmental management framework. Since its incorporation in 2000, the BCCF has paralleled the efforts of the BPG in sustaining the ICM program. It has also become the primary partner of the BPG in developing a culture of transparency and trust in coastal governance in the province.

Equally important, the BCCF has catalyzed the institutionalization of ICM in the provincial governance system and in the development agenda of key stakeholder groups in Bataan. The private sector has helped in the process of formulating the Bataan Coastal Strategy (BCS), which was adopted by the Sangguniang Panlalawigan as Bataan's primary framework for SCD and democratic environmental governance through the BICMP. In the process of implementing the BICMP, the private sector is now considered as a leading advocate of sustainable development in the province, through:

- Leadership and major participation in the BIGKIS-BATAAN Project Coordinating Committee (BBPCC);
- Active participation in consultation workshops leading to institutional and policy reforms in the municipal, provincial, regional and national levels;
- Mobilization of resources (business management skills, technical expertise, research materials and other relevant data, equipment, facilities and manpower) to complement the resources of the local government
- Sponsorships of community-based rehabilitation projects, supplemental livelihood support to coastal communities, consensus building on environmental issues and IEC campaign.

For its part, the BPG, under Gov. Enrique Garcia, Jr., has ensured sustainability by institutionalizing in 2005 the BICMP through two executive orders:

- EO # 05, S. 2005, institutionalizing the BICMP and establishing the Project Management Office (PMO) within the Provincial Planning & Development Office (PPDO) and
- EO # 06, S. 2005, establishing the Technical Working Group (TWG) for the Coastal Use Zoning Plan for Bataan (CUZPB).

BICMP Achievements and the BSDS

The PPP program has resulted in the establishment of institutional arrangements that strengthen the implementation of the BICMP. Among its accomplishments were:

1. The publication of the Bataan Sustainable Development Strategy (BSDS), which succeeds the BCS. The BSDS is a proclamation of the vision and mission of the people of Bataan to chart a course for the preservation and maintenance of our rich natural endowments. This will also serve as a comprehensive framework that will provide directions in achieving target outcomes and formulate specific action plans and programs involving active participation of stakeholders from the government, private sector and civil society groups. One of the action plans included in the BSDS and a major milestone for the ICM program is the formulation of the CUZPB. Gov. Garcia created a TWG, composed of the PPDO, PG-ENRO, OPA, PEO and the Tourism Office, to lead the development of this plan. At the heart of the Zoning Plan is the delineation of our coastal area per city/municipality according to each zone:
   - Agricultural zone
   - Built-up area zone
   - Mangrove and mudflat protection zone
   - Traditional fishing zone
   - Seagrass restoration and protection zone
   - Aquaculture zone
   - Industrial zone
   - Tourism (recreation, cultural and eco-tourism) zone
   - Coral reef restoration and protection zone
   - Sanctuaries (birds, marine, turtles and fish) zone
   - Municipal fishing zone
   - Shipping and navigation zone

   Other parts of the CUZPB include the review of existing uses of the coastal area, the regulatory scheme and a template of ordinances to be implemented in the

municipality or province. It will reflect the share of equal opportunities that can be derived in our coastal areas. Areas are delineated according to ideal and specific use, thus enabling stakeholders to avoid or resolve conflict with others. There will be a standard governing policy and ordinances that will be applied to the whole coastal area of Bataan. The CUZPB is the first of its kind in the Philippines. So, we really have something to be proud of in coming up with this plan which had gone through a series of workshops, consultations and review from all stakeholders. Another major factor in the realization of this plan is the funding that came from the Manila Bay Environmental Management Project and the technical expertise by PEMSEA. We have also presented the CUZPB to the Manila Bay Project Coordinating Committee on November 13, 2006, where DENR Secretary Angelo Reyes and Gov. Garcia were present. The Committee adopted the plan to be replicated to other coastal cities/towns and provinces in the Manila Bay area. On 4 December 2006, the PMO presented the CUZPB to the Sangguniang Panlalawigan where it was adopted through Resolution No. 155.

2. Highlighting the importance of stakeholder engagement, which we address through different activities. First is an all-out campaign against illegal fishing. We have already established a Task Force for this project for the stricter implementation of laws and ordinances. The BPG is putting in place a mechanism where the people of Bataan can easily report incidents or provide information to support law enforcement agencies. It is also strengthening the capabilities of LGUs and the judiciary to effectively address the legal aspects of combating illegal activity.

3. BCCF working with the ICM-PMO to identify and develop opportunities for alternative livelihood, specifically for residents in coastal areas. We are also tapping donor mechanisms such as World Bank and UNDP to secure grants for more sustainable livelihood programs, in partnership with established NGOs and POs. A regular activity we have and is timed to coincide with the Earth Day celebration is mangrove planting. We have already planted a total of 25.5 hectares of mangrove areas and planted 167,600 propagules and 22,000 seedlings since we started in 2000. This activity becomes increasingly relevant in light of the diminishing number of "bakawan" due to illegal cutting, encroachment of aquaculture, and illegal settling, to name a few. More importantly, this is our way of contributing to the fight against global warming.

4. The coastal clean-up drive continues to be an activity that is regularly conducted and zealously participated by all stakeholders in the province. In many cases, our employees from Manila also travel all the way to Bataan just to be part of the clean-up.

5. Our PMO is serving as an information resource on ICM for interested parties from within and outside the country. The PMO had educational visits by delegates from the LGU of General Santos City and Moncton, Canada. They wanted to learn more about the PPP in Bataan in relation to establishing a solid waste management (SWM) system in General Santos City with technical assistance from Canada and financial backing from the private sector. Our PMO also entertained students from Nagoya, Japan who visited to know more about ICM and collaboration with fisher groups or communities. A delegation from the Indonesian Congress went on a mission to learn how to develop zoning ordinances for coastal communities and small islands.

6. Represented the Province of Bataan in the 2006 East Asian Seas (EAS) Congress in Haikou City, Hainan in the People's Republic of China. The theme of the Congress was "One Ocean, One People, and One Vision". Over 1,000 participants from all over the world came for the 3-day congress which was a gathering of experts in ICM, environment, information technology, IEC, etc. Gov. Garcia, though he was not able to attend, was elected unanimously as Vice-President of the PEMSEA Network of Local Governments for SCD. The BCCF also achieved a first when it was presented the PEMSEA Award for "Outstanding Partner in ICM" and received the first PEMSEA Award for "Outstanding Performance as a Partner in ICM". The recognition was given to BCCF for its active involvement in the development and implementation of ICM and in forging partnerships with all stakeholders to achieve environmental sustainability while providing a harmonious environment for investments. It was also at this time the EAS Congress flag was turned-over to DENR Sec. Angelo Reyes for the Philippines was chosen to host the next Congress in 2009.

Clearly, the above achievements validate the benefits of PPP. Our collaborative actions have resulted in a significant and visible improvement of Bataan's environment. The symbiotic relationship with partners has also led to the gaining of new knowledge through the sharing of corporate experiences and best practices. Still another and perhaps the most important benefit of partnerships, is being able to enjoy the trust of both the local governments and the people of Bataan. This has also allowed the private sector to establish and maintain better relationships with each other. Working together, communities in Bataan now regard both local government and the private sector in a positive light, accepting the BICMP as a venue to raise issues on environmental concerns and as a force to provide the long-term solutions to such concerns. Coastal communities are also more aware now of their roles and responsibilities on conserving coastal and marine resources for their own benefit and for the sake of sustainable development.

Challenges

Of course our efforts are not without accompanying challenges. There is still a need to get more stakeholders to understand, appreciate and become involved in our activities. We also need to develop more programs to uplift and empower the communities. Specific to the BCCF, we would like to have more companies become members to add dynamism to the organization, as well as to the various resources needed for program implementation. We need to be more effective and aggressive in our IEC campaign. Eventually, we see our ICM program and the strengths it brings to grow beyond the fringes of Bataan to involve Bulacan, Pampanga, and Cavite provinces, as well as cities and municipalities in the NCR, that border Manila Bay. We look to extend the positive results of our partnerships in the ICM program to help in the bigger goal of reviving the Manila Bay.

Finally, what works for Bataan is for the PPP program to start a proactive advocacy campaign for different stakeholder groups to bond together and understand the nature and extent of environmental problems in the province. Another key is to have a clear direction to which stakeholders can adhere to, such as the BSDS and the CUZPB. Here, the transparency of the development process and political will are the key to innovative local environmental governance. The private sector commitment made it easy for elected leaders to take the risk of institutionalizing a long-term program going way beyond their political term. In this, the province's business community, through the BCCF, intends to continue the partnership in pursuit of corporate social responsibility (CSR) to answer the challenge of balancing economic development with utmost caring for the environment.

Reaction of Discussant: Mr. Robert S. Jara (DENR)

The cost of coordination through public-private partnership (PPP) is actually small. PPP has worked well in other countries than in the Philippines. We should look at investment not only on the economic side but also on the human aspect. There is a need for more water-based than land-based planning since we have more water than land. BCCF's contribution in ICM advocacy is much more than what may be considered tax deductible or tax due to government. BCCF provides the funds; LGUs provide man-power, while DENR-Partnerships on Environmental Management for the Seas of East Asia (PEMSEA) provide technical assistance. Some organizations' support is part of their operating expenses. Ideally, it should be from the net income after tax.

Open Forum (Q & A)

Question 1. How do you harness the partnerships with private organizations or corporations?

Response (Ms. Erni): There are two important key points, namely: leadership of the government; and information, education and communication (IEC) campaign. Each company was given a responsibility as to who will be its partners at the municipal level and at the provincial level.

Question 2. Do they have other facilities aside from the gas corporations? How do you engage the higher-ups in the organizations?

Response (Ms. Erni): The private sector was gradually mobilized through government leadership and IEC. Matching corporations with local communities also helps strengthen corporate commitment. It is not only about money that can be contributed, rather it is finding and optimizing existing competencies of each group or stakeholder. BCCF does not receive tax incentives from the government for this, the result themselves are the rewards. The role of the municipal government in localizing the provincial blueprint is very important. BCCF is considering promoting their experience for replication in other sites (e.g. on the other side of Manila Bay). They've learned from past mistakes and do not want other sites to have to reinvent the wheel.

Question 3. Should limited funds be invested in CRM, given that the coastal resources are already degraded?

Response (Dr. Guiang): We need to develop economic magnets and to look at the macro-economic level, not only a particular sector (e.g. fisherfolk), in order to develop the economic potential of our coastal resources.

A. Outputs of SFM Workshop Session # 1: *Situationer and Gap Analysis*

Guide Question #1. *Sa kasalukuyang panahon, paano sinusuportahan ang inyong mga sanktuaryo/MPA/karagatang reserba?* (At present, how are the sanctuaries/MPAs/marine reserves being supported?)

Government Financing	- provide support funds - LGU support - 20% development fund - local council funding (LGUs) - annual allocation from LGUs
Funding from Donors and NGOs	- donor funding - assistance from NGOs - grant from external donors - users' fee - 70% users' fee - unified divers' fee - fines paid by illegal fishers at no take zone
Partnerships and Counterparts	- funding from foreign agencies with LGUs and community counterpart - counter-parting of Barangay, LGU, NGO, business, PO, etc. - networking with other organizations for sustainability - partnership building (link NGO-PO, provide technical assistance to LGU-PO) - facilitate shared agreements
Technical Assistance from NGAs, LGUs and Donors	- technical support for planning - technical assistance from foreign government - habitat assessment - baseline assessment and surveys - provision of technical assistance on PCRA and preparation or facilitation of management plans - management planning training - capability-building training - standardization and competence standards of PA managers
Community Contribution	- volunteer labor of fisherfolk - community organizing and participation - advocacy or IEC on MPA establishment - enforcement
Support for Policy Formulation	- inputs for policy reforms formulation
Livelihood	- logistics (e.g. buoys)

Guide Question #2. *Sapat ba ang mga ito? Kung hindi, ano pa ang kulang?* (Are these enough? What are lacking? [Gap analysis])

Lack Sustainable Mechanisms for Financing	- sustainable allocation (trust fund mechanisms) - assistance on SF of MPAs as local/foreign assisted projects end or mayor's term ends - sustainable financing scheme
Lack funds caused by misuse of funds and wrong prioritization	- funds misuse - low priority of some LGUs for CRM (little appreciation for marine resources)
Lack/limited funds	- salary for technical staff to attract best people - funding from national government for capital outlay - funds for regeneration and rehabilitation of MPA resources - funding for ecosystem-based planning - livelihood support for MPA managers
Lack government support/ Chief Executive support	- political will - no support from local executives - no prioritization from LGU's local chief executives
Lack support for policy formation	- no ordinance submitted - no policy and program framework - no fund allocation and utilization can be made to improve MPA
Lack support for Law Enforcement	- logistic support for law enforcement, monitoring and evaluation - funding for Bantay Dagat
Lack support for M&E	- monitoring and evaluation (M&E) - monitoring CRM projects, baseline data gathering - baseline on fish data
Lack support on IEC for leaders and people	- perception of IEC - not enough IEC - bigger salary to attract better people - funding for LGU technical staff - knowledge on values or economic values of marine resources - need assistance in developing project proposals - prosecutors must be knowledgeable on environmental and fisheries laws
Lack of community support and trust	- support for local community - trust in the government (people's cooperation)
Lack ICM plan in LGU Development Plan	- integration of ICM in local development plan of some LGUs

B. Outputs of SFM Workshop Session # 2: *Visioning*

Objectives are:
- 50% of LGUs committing funds for ICM (LGUs will play a big role in terms of financial support in CRM)
- Strongly organized and well equipped CRM programs in municipality
- Optimal resource allocation and utilization
- Established user's fee (payment of environment services)
- Clear stakeholder roles and contribution to ICM

These will all result to sustainable livelihood.

VISION STATEMENT:
"In the next 5 years, we envision ICM/CRM institutionalized in at least 50% of the coastal municipalities in the Philippines with active participation of stakeholders through financially sustainable programs".

C. Outputs of SFM Workshop Session # 3: *Action Planning*

Guide Question #1. *Paano ang gagawin para makamit ang ninanais?* (Identification of Action)

OBJECTIVES:	PRIORITIZATION OF THE OBJECTIVES:
1) Baseline studies and identification of key biodiversity or production areas 2) Lobby for the amendment of the RA 8550 – make mandatory the networking among the contiguous LGUs surrounding identified key biodiversity or production areas; increasing the penalties; 3) Assign environmental resource officers (lobby for the amendment of the LGC to make environmental officers mandatory) 4) DA-BFAR to issue IRR to delineate municipalities with offshore islands 5) Institutionalization of LGA programs on coastal resource management 6) Strengthen implementation of DILG policy on a Comprehensive Land and Water Use Plan 7) Set up national, regional, provincial, municipal organizational/structural or mechanism that will ensure ICM financing / proper resource allocation at all levels • Strengthen client based mechanisms / support systems / coordination / networking / IEC and social marketing of ICM / promotion of incentives • Program capability building (e.g. training for LGUs especially on proposal development and resource assessment) 8) Strengthen FARMCs / fisherfolk organization who will lobby to their LGUs to provide ICM services 9) ICM as a rallying point for private-public partnerships	1) Set up national, regional, provincial, municipal organizational/structural mechanism that will ensure ICM financing / proper resource allocation at all levels • Strengthen client based mechanisms / support systems / coordination / networking / IEC and social marketing of ICM / promotion of incentives • Program capability building (e.g. training for LGUs especially on proposal development and resource assessment) 2) Baseline studies and identification of key biodiversity or production areas 3) DA-BFAR to issue IRR to delineate municipalities with offshore islands 4) ICM as a rallying point for private-public partnerships

WORKSHOP SESSIONS

SUB-THEME 2 - Workshop Sessions on Marine Protected Areas and Ecosystem-Based Fisheries Management

Facilitators: Ms. Jessica C. Muñoz (BFAR)
Dr. Sheila G. Vergara (CI-Phil)
Documentors: Ms. Daisy F. Salgado (PLMMA)
Ms. Miledel C. Quibilan (CI-Phil)

(Summary of Workshop Proceedings)

Workshop sessions on MPA and EBFM started officially at 2:30 PM upon the introduction of the members, resource persons, discussants, facilitators and documentors. As the standard format of the workshops for the three sub-themes, workshop session #1 on the situationer and issue identification was conducted first. Three guide questions were used for workshop session #1. As a workshop rule; color-coded metacards were used by the participants to answer questions posed regarding issues related to MPA management in the Philippines. This was followed by the 3 paper presentations of resource persons after which were reacted to by a discussant for each of the paper presented. An open forum or Q&A followed. This was followed by the conduct of workshop session #2 on visioning and workshop session #3 on action planning. Expected output of this workshop is to come up with concrete action plan to improve and sustain MPA and fisheries management in the country. Outputs of the three workshop sessions follow the paper presentation portion.

Paper Presentations

1. MPA and Ecosystem-Based Fisheries Management (EBFM): The FISH Project Approach

by Mr. Nygiel B. Armada, Consultant
USAID-FISH Project

EXCERPTS FROM THE PRESENTATION
(See appended PowerPoint presentation for details)

There is interconnectivity between fisheries resources and ecosystem. There is also a functional range of values attached to the fisheries resources and ecosystem. Example: commercial fishing boat operators think of supplying food security to the population and profit for the company running the operation; but for the small-scale fishers, it is to provide food, clothing and education to their families. There is a need to link current fisheries management systems (e.g., capture fisheries with sophisticated computer models and scientific details, despite its high-tech nature, still this fishery failed) to ecosystems management approach. In the FISH Project, we think of it as an *ecosystem-based fisheries management (EBFM)*. The goal of which is to sustain optimal benefits from fisheries within the capacity of the resources and their supporting ecosystem.

FISH Project EBFM Objectives:

1. Maintain biodiversity (ecosystem, species, and gene)
2. Maintain harvested, dependent and associated species (including trophic level balance)
3. Limit negative fisheries impacts on the ecosystem (cause by fine-mesh nets, illegal fishing)
4. Ensure compatibility of management across the ecosystem and resource distribution, making sure that fish stocks will not be depleted. We have to think of it as: "this fish could be food for the fish that we use for our fisheries".
5. Spur adaptive and precautionary management
6. Ensure human and ecosystem well-being and equity in governance

To simplify our objectives, FISH Project adapted EBFM recommended actions in the context of Philippine setting; basically, this list will lead to management mechanisms employed by the project, which are: *growth, control and maintenance* (GCM). Growth is the need to have a protected area, protection of species, and protection of the young and their habitat. Control is the need to control the number of boats, fishers, and size of nets.

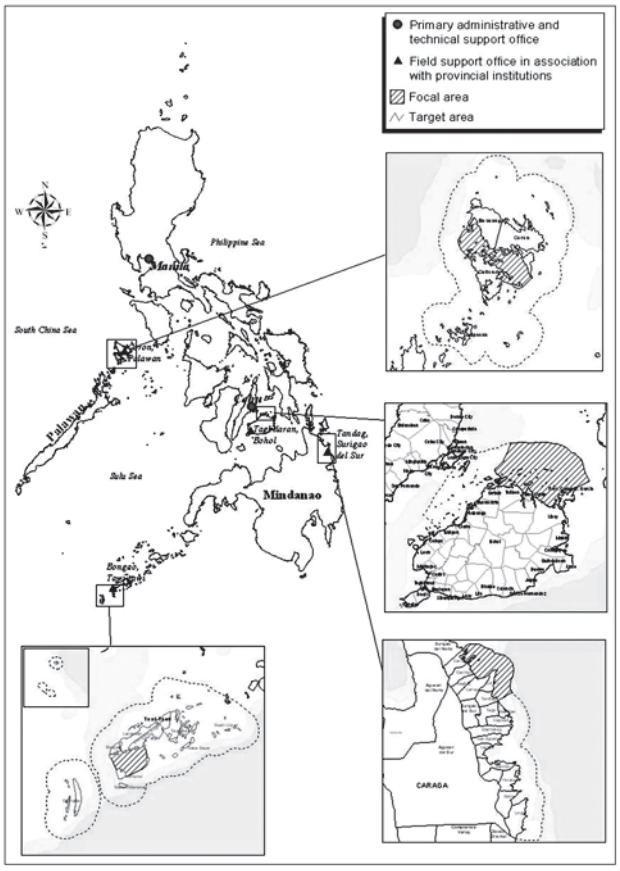

FIGURE 1. Four major sites under the Fish Project EBFM: Northern Palawan, Bohol, Surigao del Sur and Tawi-tawi.

Maintenance, on the other hand, is to ensure the sustainability thru intervention. Modes of delivery are: capacity-building; constituency-building and policy improvement. These are not infrastructure projects but rather, are ways to improve capability of our local partners – BFAR and the government. We hope that this will change the exploitation patterns and therefore change the behavior of those exploiting the resources, thereby achieving our goal and objectives. Our biophysical indicator would be a 10% increase in fish stocks. With declining resources, it is not just about increasing fish stocks by 10% but also to stop the decline and increase fish stocks by 10%. These are measured through monitoring methods. Briefly, these are monitoring tools that will show how we are doing in our management strategies. We have come up with basic elements in achieving our goals because we know that we can not do everything that was on that list. These basic elements are what we hope to do in the beginning of the project and towards the end, add more elements to it.

Basic Elements to EBFM Approach

1. Incremental understanding of the dynamics of the marine ecosystem and subsystems within the boundary
2. Early fisheries management actions on obvious fisheries exploitation (gear) issues
3. Immediate actions on obvious issues – lessons learned from FISH project, early management actions
4. Immediate fisheries management interventions for species that constitute a large portion of the food web (economic importance). These vary in different areas, e.g., Danajon Bank (blue crab), Palawan (live fish)
5. Development of governance system that is responsive to ecosystems approach

FISH Project is found in the different areas of the country: Calamianes Islands, Northern Palawan; Danajon Bank, Bohol; Surigao del Sur (Lanuza Bay), Pacific Seaboard; and Tawi-tawi, Sulu Archipelago. Each of these sites has its own peculiarity with a common characteristic of depleted resources. These areas have different cultures too, and thus should use different approaches as well. We provide support to improve capability of our project partners in controlling input and output for management. Input controls means, to constrain directly any aspect of the fishing *effort* such as: who does the fishing (licensing), when they can fish (closed season), where they can fish (zoning and MPAs) and how they can fish (what gear is allowed). For example, in Cortes area in Bohol, they have pukot (gill net) with legal mesh size but is 3 km long. It is not illegal but it becomes an issue on how they can fish (there is a need to come up with compromise, like having it 200 m long).

Output controls answer what is allowed to be harvested (constrain directly any aspect of the *catch* in a fishery). Examples are: restrictions on size of blue crab (11 cm or bigger), lobster and rabbitfishes (danggit), restrictions on age of maturity for blue crab, catch limits, and quotas, which are difficult to impose in this country. As a control mechanism, we can establish total allowable catch (TAC) or maximum sustainable yield (MSY). MSY was already attained in the late '70s, and effort in the late '80s, so there is a need to reduce fishing effort for small pelagic species to be sustainable. This kind of intervention is also threatening and nobody will do it because it is difficult to impose. As the saying goes, "malaki at malakas ang kalaban" and no one dares to impose it. In Sapian Bay, there is a need to reduce the number of fishing gears and increase distance between these gears for it to be more productive. Then again, this approach is threatening. Thus, the FISH Project focuses on non-threatening approaches i.e., establishments of marine protected areas (MPAs), which serve as the core of the Project's fisheries management intervention. MPAs also serve as: entry point for community participation in fisheries management; serve as laboratory for the community's learning and appreciation of the principles of fisheries management; serve as laboratory for LGU's learning and understanding of government's role in fisheries management as well as appreciation of social and economic benefits that may be derived from it; serve as common ground for community, PO, LGU, and NGO co-management endeavors, including reproductive health; and serve as the smallest ecosystem unit for governance system that could be harnessed for scaling up.

FISH Project Fish Management Interventions

- Establishing MPA network
- Gathering resources
- Providing information where MPAs are best established through scientific studies (circulation patterns in Coron Bay and other FISH project sites,

to find out cardinal patterns of current during several seasonal periods in a year, distribution of larvae)
- By merging larval and circulation patterns, the Project came up with sources and sinks of larvae, from which forms the basis of suggesting where MPAs can be established or where not to establish MPAs. This increases the probability of the MPA success.
- Mesh-size control (recommendations, ordinances)
- Minimum size limit for blue crabs (12 cm carapace width, minimum crab gillnet mesh size of 10 cm/4 in, impounding berried females (7 days), zoning of crab fishing gears)
- Closed season for siganids/rabbitfishes (closed season during spawning season of rabbitfishes – 4th, 5th, and 6th day after the new moon, monthly for the entire year or for a few months only, banning of fine-meshed gears catching rabbitfishes, banning of selling of rabbitfishes during close season)
- Minimum and maximum size limit for the grouper *Plectropomus leopardus*
- Ban on catching berried crustaceans
- Joint enforcement (integrated enforcement)
- Zoning
- Scale up (governance should be compatible to resources, find out what scale governance can fit into the ecosystem that you are managing)

Reaction of Discussant: Dr. Wilfredo Y. Licuanan (DLSU-Shield's Marine Station) [with PowerPoint presentation]

We should be more aware about the scale of our interventions. The following should be considered:
- Which elements of EBFM can we do right away?
- Where do we start? Which species, sectors, and activities?
- Local (community) vs. large-scale processes (bay or basin-wide)
- Short-term (years) vs. long-term needs (decades)

How to operationalize EBFM:
- Determine the level of understanding of ecosystems and associated social systems needed to ensure timely management
- Boundary delineation vis-à-vis use patterns
- Habitat size and distribution
- Condition of the habitats, population dynamics
- * Rules of thumb for initial, exploratory responses
- Baselines and measures of success
- Determine the necessary legal and institutional arrangements
- Assess the impacts of other activities (e.g. mariculture)

* Rules of thumb in Philippine coastal fisheries management (3-3-30, 7-7-70 rule). This may mean – 3fishers/km^2-3kg/day-30% coastal area to be protected (MPA) or 7fishers/km^2-7kg/day-70% of coastal area to be protected (MPA)

2. Upscaling Efforts in MPA Management: an Analysis of Two Cases in the Philippines

by Sheila G. Vergara[1] and Asuncion Biña-de Guzman[2]
[1]*Conservation International*, [2]*Mindanao State University at Naawan*

ABSTRACT

This paper presents two cases of upscaling efforts in marine protected area (MPA) management in the Philippines. The first case documents the impacts of changing institutional arrangements from a community-managed MPA project to a national initiative, while the second case presents the advantages of integrating several small MPAs into a corridor-wide management initiative shared by several local government units. The Baliangao Marine Sanctuary (BMS) in Danao Bay, Misamis Occidental is an example of upscaling an NGO-driven, community-managed MPA managed by the Danao Bay Resource Management Organization (DB-REMO), into a National Integrated Protected Areas System (NIPAS) site with a Protected Area Management Board (PAMB) taking over management of the MPA in early 2002. This 'changing of the guards' created a perceived loss of project ownership by local stakeholders, reduced prominence in decision-making, and a waning of the spirit of community volunteerism in enforcement efforts. A series of sporadic poaching events followed by mass plunder of fish and invertebrate resources of the sanctuary in March 2005 had reduced this MPA to virtually an unprotected state, with a decline in fish species diversity by 30-70% and fish biomass by 35-72% from its 2001 levels. The most recent assessment of the BMS showed that while overall standing stock of fish in the sanctuary seems to be recovering since 2005, the biomass of target food species remained low at 1.42 t/km^2, less than five percent of its 2001 level. These ecological data indicate the negative impacts of management failure and suggest that upscaling a community-managed MPA to a national MPA does not always result in improved management and environmental governance.

In contrast, results of upscaling MPA management in the Verde Island Passage (VIP) marine biodiversity conservation corridor recount a different story. Ecosystem management of the waters of the VIP prior to 2005 was implemented through small municipal-based sanctuaries that were slow to demonstrate impacts in the form of ecosystem services that they were established for (too small for marine biodiversity conservation or sustainable fisheries). Initially, the most logical action was to pursue the increase in MPA numbers and area covered. However, the majority of the stakeholders resisted the idea, not due to a lack of interest but from a greater interest in managing the Passage in a more publicly and socially acceptable manner. In pursuit of an appropriate enabling environment, a policy investment engaged the highest levels of government to highlight the biodiversity importance of the VIP as part of the Sulu-Sulawesi Seascape (SSS). As a result Executive Order (EO) 578 (Establishing the National Policy on Biological Diversity prescribing its implementation throughout the

country particularly the Sulu-Sulawesi Marine Ecosystem and the VIP Marine Corridor) mandated the development of the VIP Management Plan through a collaborative action among government agencies and institutional representation from civil society. To date, this corridor-wide initiative has solicited the participation of 5 provinces: Batangas, Oriental and Occidental Mindoro, Marinduque and Romblon. The framework plan for the VIP Marine Biodiversity Corridor is now in its final stage of preparation.

These case studies demonstrate, *a)* that locally managed but functional MPAs need not be upscaled for any reason and *b)* that successful management of coastal and marine ecosystems in the country are not necessarily governed by pre-determined blue prints, rather, with the right decision support tools comprehensive stakeholder consultations, evolve through consensus towards acceptable management arrangements for each particular geography and corresponding set of circumstances.

INTRODUCTION

The establishment of marine protected areas (MPAs), such as marine reserves or fish sanctuaries, is a popular strategy in tropical coastal communities to avert the downtrend of capture fisheries and to ensure the sustainability of fish stocks that support municipal or reef fisheries (De Guzman 2004). Many fisheries scientists (Roberts and Polunin 1991; Russ and Alcala 1996; Alcala 2001) believe that considering the alarming levels of overexploitation of many reefs, marine reserves may be one of the few management options available to maintain a critical spawning stock biomass needed to sustain reef fisheries. More recently, upscaling community-level MPAs into larger-scale management efforts, such as establishment of MPA networks and marine corridors, is seen as strategic in increasing effectiveness and potential benefits of protection (Allison et al. 1998).

CASE 1: Upscaling a Community MPA to NIPAS Site

The Baliangao Marine Sanctuary (BMS) in Danao Bay, Misamis Occidental is an example of upscaling an NGO-driven, community-managed MPA into a National Integrated Protected Areas System (NIPAS) managed by a Protected Area Management Board (PAMB). The BMS is a 74-ha. MPA established in 1991 by the Pipuli Foundation (Heinen and Laranjo 1996) and was managed by the Danao Bay Resource Management Organization (DB-REMO), a federation of seven people's organizations (PO) around the bay, from 1998 to 2002 (Fig. 1) It was declared a NIPAS site in November 2000 and renamed the Baliangao Protected Landscape and Seascape (BPLSS). On October 4, 2001, a PAMB was created and took over management of the MPA in early 2002, about the time the Pipuli Foundation has phased out of the project and turned over its management to the DB-REMO. This 'changing of the guards' created among the local stakeholders a perceived loss of project ownership, reduced prominence in their role as sanctuary managers, and a waning of the spirit of community volunteerism in enforcement efforts. By early 2005 law enforcement and guarding the sanctuary became fragmented due to lack of LGU support and assurance of security of sanctuary guards, resulting in sporadic fishing violations. In March 2005, a "fishing frenzy" occurred inside the BMS – neither the PAMB nor DB-REMO was able to stop these violations.

Materials and Methods

Reports on sporadic poaching incidents and the mass plunder of the sanctuary's fish and invertebrate resources by some 300 fishers and gleaners in March 2005 were confirmed by DB-REMO officials. An underwater assessment by a team of divers was conducted in August 2005 to find out the impact of fishing on the reef fish community inside the marine sanctuary through daytime visual census in the core and reef slope areas of the MPA. The abundance and biomass of various fish groups were compared with data in 2001 (De Guzman 2004). Another assessment was made in December 2006, this time including estimation of hard coral cover using the standard line intercept transect (LIT) method (see result Fig. 2).

Results

The underwater surveys inside the BMS conducted in August 2005 and December 2006 showed a decline in fish species diversity by 30-70% (Table 1). Fish abundance in the BMS core area decreased by 53%, however, abundance in the reef slope more than doubled during the 2006 assessment (Fig. 3), attributed to numerous small pomacentrids (damselfishes). Fish biomass, on the other hand, decreased by 35% (core area) to 90%

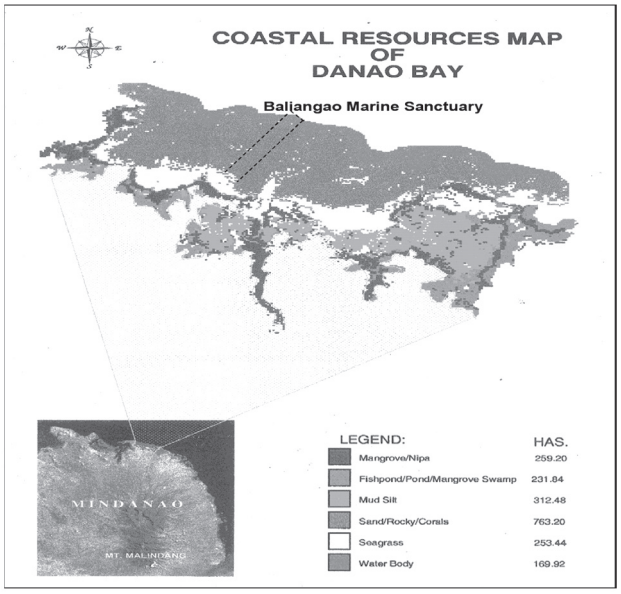

FIGURE 1. Map showing the location of Baliangao Marine Sanctuary in Danao Bay, Misamis Occidental.

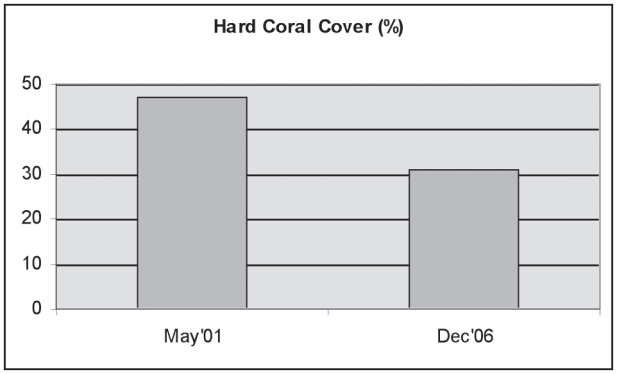

FIGURE 2. Changes in hard coral cover in the BMS.

(reef slope) from its 2001 levels. The most prominent impact of fishing violations inside the sanctuary was the decrease (close to 80%) in the biomass of target food species inside the core area from 35.86 t/km^2 in May 2001 to 7.14 t/km^2 in August 2005 (Fig. 4).

Fish biomass inside the elliptical core area was much larger than that on the reef slopes, owing to the basin-like structure of the core that increases retention of large food species (e.g. snappers, emperor breams, surgeonfishes and parrotfishes). The core area also serves as nursery ground of a diverse community of seagrass and reef-associated fish. The most recent assessment of the reef slope in the BMS (December 2006) showed that while overall standing stock of fish (17.7 t/km^2) seems to be recovering since 2005 (1.34 t/km^2), the biomass of target food species remained low at 1.42 t/km^2, still about 46% of its 2001 level (Fig. 5).

Discussion

The above ecological data characterize the current status of the BMS as approximating an unprotected state, with sharp decline in fish species diversity and biomass from its 2001 levels when protection was maximum. These results clearly indicate the negative impacts of changing institutional arrangements, particularly the erosion of local community support to the project. The support of the local government to NGO and PO efforts had always been nominal, but at least the federated members of the DB-REMO and other local stakeholders had

TABLE 1. Time-series changes in diversity of reef fish inside the BMS following massive fishing violations in early 2005.

GROUP/CATEGORY	*NUMBER OF FISH SPECIES*				
	Core Area		Reef Slope		
	May '01	Aug '05	May '01	Aug '05	Dec '06
Target Food species	56	26	24	5	20
Indicator species	14	7	7	5	7
Major Demersal species	61	55	59	16	44
Other Groups	4	6	3	2	2
Total	135	94	93	28	73

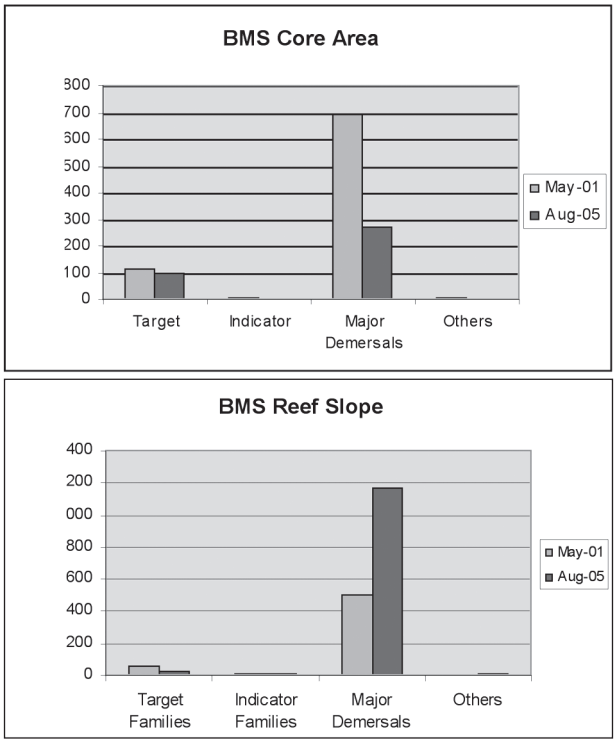

FIGURE 3. Changes in fish abundance and biomass of fish inside the BMS between 2001 and 2005.

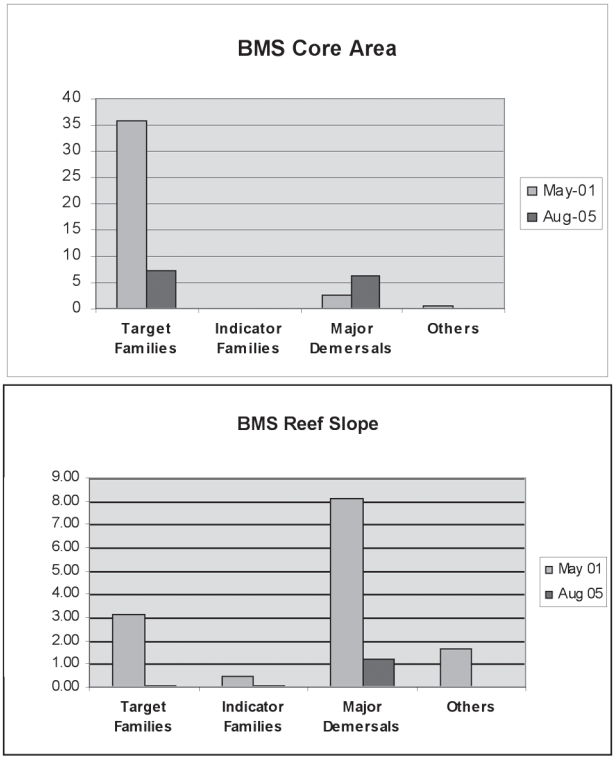

FIGURE 4. Changes in fish biomass inside the BMS as a result of fishing violations.

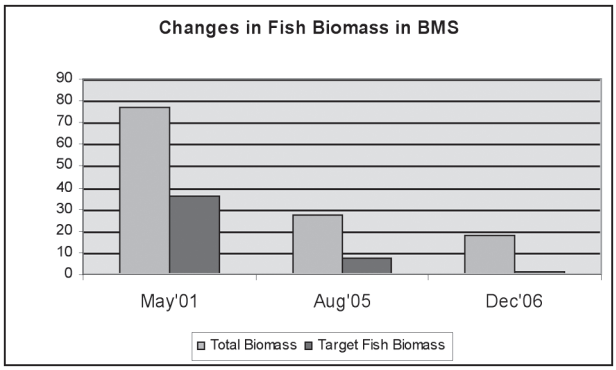

FIGURE 5. Time-series comparison of reef fish biomass inside the BMS.

ownership of the marine sanctuary project and have launched a bay-wide community-based coastal resource management (CB-CRM) program.

The creation of a PAMB, whose chair is the Regional Executive Director of the Department of Environment and Natural Resources (DENR), shifted the center of management toward the national government agency and reduced the representation of the community, and hence, their participation, in the project. Moreover, the PAMB does not have an independent source of funds to run the project, and must rely on revenues from tourism, contributions from local government, or out-sourcing funds from various financing institutions. Barely three years after the PAMB took over the reins of leadership, management and enforcement of sanctuary rules had fragmented. Sanctuary guards, receiving little incentive from management but much threat to their personal security, became remiss of their function, leading to sporadic and eventually, to massive fishing violations.

Analysis of the management or institutional failure in the case of the BMS (Fig. 6) suggests that upscaling a community-managed marine sanctuary project to a national MPA does not always result in improved management and environmental governance. Local communities have demonstrated the ability to

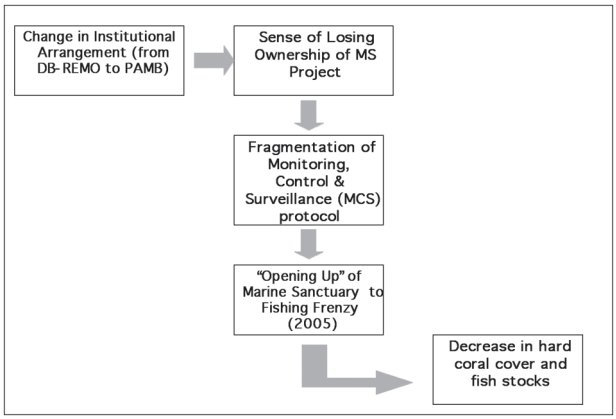

FIGURE 6. Anatomy of institutional and management failure in the BMS

effectively manage their MPAs. What they need is support from the local government, NGAs, academe, NGOs, and financing institutions for capacity-building and empowerment. Upscaling a well-managed LGU- or community-MPA to a national MPA is not necessary in certain cases.

CASE 2: Finding the Best Suited Governance Mechanism

The marine biodiversity of Verde Island Passage (VIP) have, since the publication of "The center of the center of marine shore fish biodiversity: the Philippine Islands" by Carpenter and Springer (2005), been afforded much acclaim and attention. However, conservation efforts in the past decade have not caught up with the conservation needs of the passage. In aggregate, a little over 590 hectares (Table 2) have been established as MPAs for an area that spans over a million hectares (Fig. 7).

TABLE 2. MPAs established in the VIP prior to 2005.

Municipalities	*Total Area (hectares)*
Balayan	6.56
Calatagan	8.00
Nasugbu	25.00
Bauan	1.80
Mabini	56.10
Tingloy	4.80
Batangas City (VI)	5.50
Lobo	40.40
San Juan	442.68
TOTAL (hectares)	*590.84*

The VIP has been traditionally used as a sea-lane for passenger ships and fishing vessels, oil and gas industry locators and ecotourism establishments. Prior to the implementation of the SSS initiative, MPAs in Batangas, (the province that borders the northern coast of the VIP) were individually established by stakeholders of local municipalities. Conservation International (CI) in partnership with World Wildlife Fund (WWF-Philippines) assessed the state of these MPAs using established criteria and found that a total of 590 hectares of coastal and marine areas were declared (in this area) in a span of approximately 10 years. These MPAs cover approximately 0.05% of the planning area, most are without management plans and are, in terms of ecological expectations, inadequate to respond to the need of enhancing the Passage's marine biodiversity and its capacity to support outcomes for sustainable fisheries.

The media hype organized for the Passage as the 'center of the center of marine shorefish biodiversity' and the state of conservation in the Passage spurred the drafting of a house bill that intended to declare the whole of the Passage as a protected area. Stakeholders immediately criticized the draft bill for the lack of consultation and its conservation intentions running against current land and water uses.

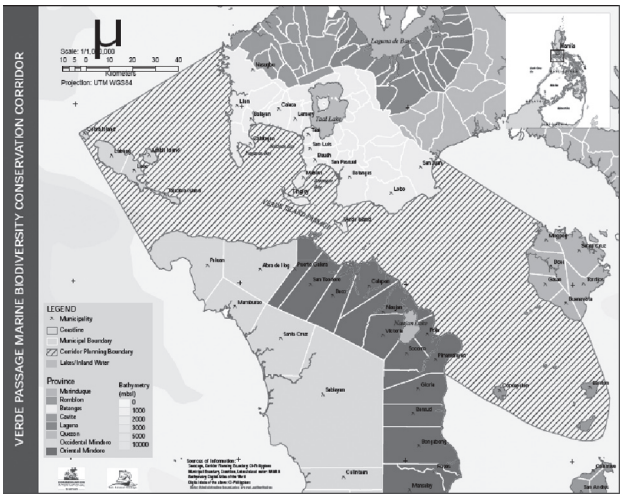

FIGURE 7. Verde Island Passage area coverage as agreed by stakeholders

As an alternative to the resistance against the establishment of MPA equate to the size of the VIP and leveraging on the attention that the passage was generating, CI, partners and other interested stakeholders supported the development of a policy that allowed for collaborative action that was acceptable to the wide range of corridor usership. The government response to this initiative was the drafting and subsequent signing of EO 578 (Establishing the National Policy on Biological Diversity prescribing its implementation throughout the country particularly the Sulu-Sulawesi Marine Ecosystem and the VIP Marine Corridor) that intended to facilitate improved governance of the VIP and also provide a mechanism on how to manage marine areas in the context of the larger Sulu-Sulawesi Seascape (SSS). As a result of this innovation, local government units have become interested in marine conservation and have requested the assistance of facilitating NGOs such as CI in developing their coastal management plans. First to come forward was the municipality of Calatagan, Batangas, followed by Calapan City (Oriental Mindoro) and Tingloy, Batangas.

EO 578 caused the collaborative development of the Framework Plan for the VIP that embodies and defines conservation activities and partnerships. This unique multi-province partnership established the country's first conservation alternative to the National Integrated Protected Areas (NIPAS) Act. This governance innovation highlights 1.14 million hectares of coastal and marine environment for potential private conservation investments.

The EO is an example of a policy which simultaneously creates a conservation-enabling environment at the corridor level and highlights conservation action as a national priority as it support the Sulu-Sulawesi Marine Ecoregion (SSME) Framework, a formalized collaboration between Malaysia, Indonesia and the Philippines. This crucial governance lesson learned during the first phase of the Seascape initiative suggests that management of coastal and marine ecosystems in the SSS are not governed by pre-determined blue prints but may, through stakeholder consultations, evolve towards a consensus or an acceptable management arrangement for each particular geography.

Acknowledgements

The authors would like to thank the officers and staff of the DB-REMO, the MPA Support Network (MSN), and the Coastal Zone Philippines-2 (CZPhil-2) for this opportunity to share these case studies and the lessons learned from upscaling efforts in MPA. Special thanks are given to researchers and students of MSU at Naawan for their help in gathering field data; to Ms. Miriam C. Balgos of the University of Delaware, and CI-Phil for funding the participation of the authors in the MPA Congress.

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Reaction of Discussant: Director Theresa Mundita S. Lim (DENR-PAWB)

Facts
1) Earlier attempts to upscale already working community-based MPAs have not worked as expected.
2) Networks of MPAs are essential to link marine ecosystems to better protect important species. Thus, MPAs under certain circumstances need to be upscaled (e.g. Verde Island Passage).
3) Some lessons learned from the NIPAS experience are:
   - higher expectations as better community participation and funding
   - reduced community participation, DENR, other NGAs and some PAMB members mindset were to be implementers or 'rowers', not 'steerers' or facilitators. This means that PAMB should represent concerns of constituents and should act as policy-making body only
   - IPAF became centralized and became difficult to access. Need to amend through individual Republic Acts (RAs)

Upscaling
- World Summit for Sustainable Development (WSSD), World Commission on Protected Areas (WCPA), and Convention on Biological Diversity (CBD), encourage networking of MPAs
- MPA networks to be established should be guided by various frameworks. NIPAS can be a framework to institutionalize links among various small MPAs (e.g. Sarangani, Taal)
- Success of EO 578 still remains to be seen at various levels of governance e.g., Verde Island Passage Task Force, Sulu-Celebes Presidential Commission, and the Tri-national Committee for SSME

It is up to the stakeholders to determine, based on the best available scientific information, and lessons learned, the best framework to use to scale up the management of important marine biodiversity areas (collaborative management arrangements).

3. Forging Alliances in the Establishment of MPAs and EBFM: the Bohol Experience

by Ms. Emilia S. Roslinda, Executive Director
PROCESS – Bohol

Brief Background

Bohol is the tenth largest island in the country and is located in Region 7, the central part of the Philippines. With regards to the province's coastal and marine resources, out of the 47 municipalities and one city comprising the whole province, there are 30 coastal towns with 303 coastal and 64 island barangays, respectively, out of the total 1,109 barangays. The province's total coastline is 642 km long. The total area of its municipal waters is 642,726 hectares, which is almost twice as big as the land area of the province which is only 411,900 hectares. This is the reason why the coastal resources are afforded more protection and concern.

The vision of Bohol is to "become a prime eco-cultural tourist destination and a strong agro-industrial province with an empowered and self-reliant people who are God-fearing, law-abiding, proud of their cultural heritage, and committed to the growth and protection of the environment." Contained in this vision are two economic drivers that served as effective strategies in addressing the poverty problem in the province. These are agro-industry and ecotourism. As an agricultural province and a food basket in the Central Visayas, agriculture and agri-based industries coupled with enhancing cultural heritage are one of the means to strengthen tourism industry in the province. Fisheries form part of the agriculture sector.

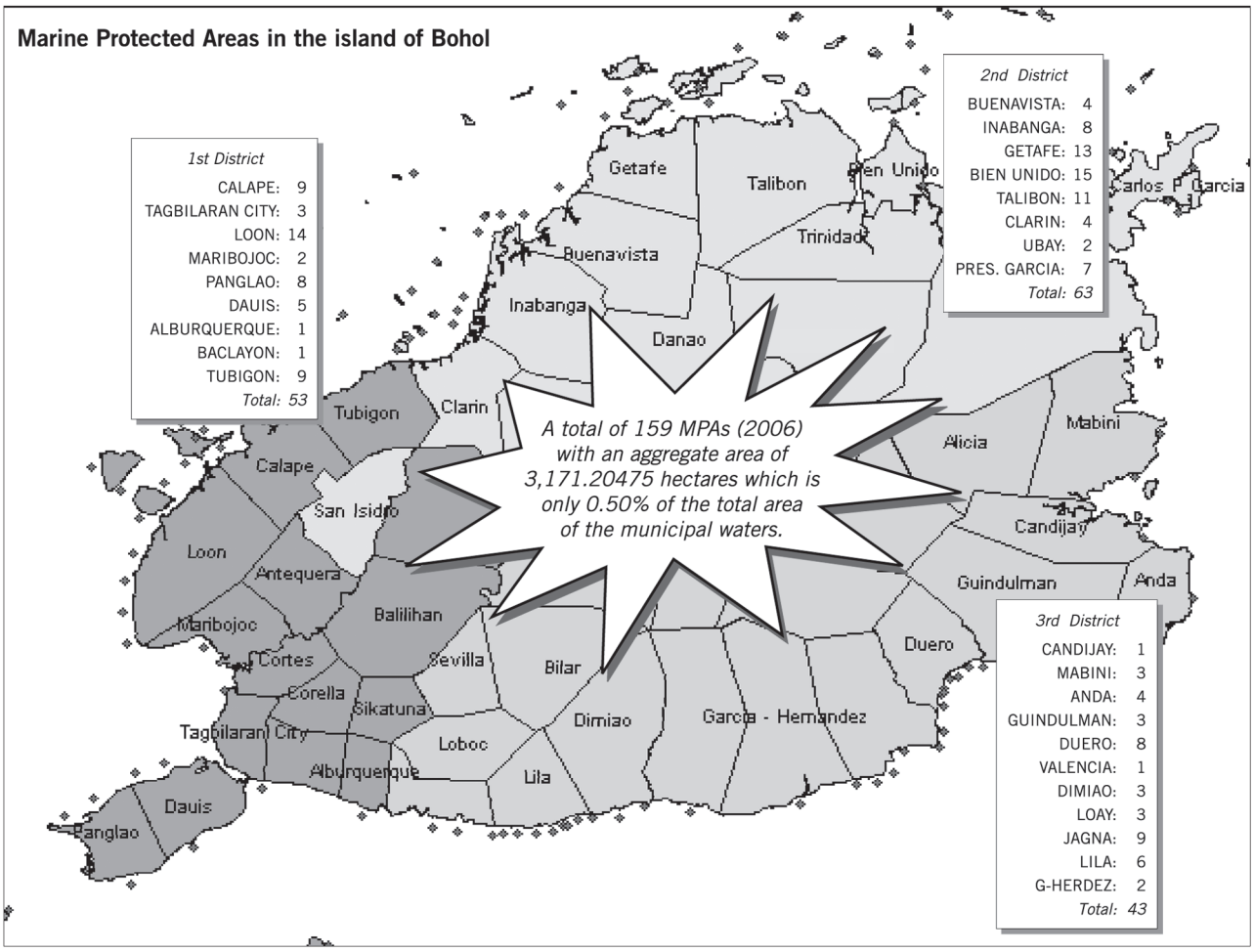
Marine Protected Areas (MPAs) in Bohol

There are a total of 159 MPAs in the province of Bohol which vary in sizes i.e., from one (1) to 50 has. With an aggregate area of 3,171.20 has. This represents only less than 1% of the total area of the municipal waters. Our challenge is to strengthen these MPA sites through: *1)* formulation of MPA management plan, *2)* institutionalization of the MPA rating system at the LGU level, and *3)* adoption of sustainable financing mechanism. Of the total 159 MPAs, the following show the ratings achieved:
- 59 have management plans (37%)
- 20 rated as Level 1 (initiated)
- 29 rated as Level 2 (established)
- 24 rated as Level 3 (enforced)
- 6 rated as Level 4 (sustained)
- 10 rated as Level 5 (institutionalized)

Breakthroughs in MPA Establishment

One of the key results in having a good partnership and collaboration with various sectors of the society is the development and packaging of wholesome eco-tourism products that are community-based, an offshoot of well-managed MPAs. This is what we call community-based sustainable ecotourism. These products become tourist attractions/destinations in itself and thus become a source of alternative livelihood for an empowered community who are given the opportunity to manage their ecotourism projects. Financing mechanisms were developed and adopted such as, user fees and other revenue generating initiatives. User fees are utilized for the management and maintenance of the MPAs.

Although the province has no provincial waters, the provincial government plays a crucial role in MPA management and other CRM interventions. It acts as a coach, facilitator, coordinator,



and a conduit to link municipal LGUs and the province with prospective donors and financiers. It plays the role of a pressure group to encourage and push LGUs and other partners to act together and do their respective roles and responsibilities.

Building Alliances and Partnerships

The province has established a strong and harmonious partnership and collaboration with various stakeholders particularly with the civil society groups and business sector. This was manifested way back in 1997 when the province of Bohol conducted its first Environmental Summit *(a participatory approach to environment protection and policy formulation)*, wherein a covenant for sustainable development was signed by all the participating sectors of government, business and civil society (tripartite). This led the formulation and adoption of the Bohol Environment Code (BEC). As an off-shoot of the BEC, an office was created named the Bohol Environment Management Office (BEMO) whose function is to collectively ensure the efficient and effective enforcement of the ground rules for sustainable development.

The success of MPA establishment and CRM implementation is not a monopoly of the government but by the collaborative efforts of the various key stakeholders/players and partners working in CRM (e.g., LGUs, NGAs, NGOs, and the various funding institutions such as Oxfam-NOVIB, USAID, AUSAID, UNOP, CBRM-WB/DOF and ADB, among others).

Future Challenges

The challenges that we are currently facing as a result of all our efforts and initiatives are the need to continue linking and forging alliances with other partners in terms of the following concerns:

1. Managing networks of MPA's that are socially and ecologically link with each other (Bohol Sea Initiatives and Danajon Bank)
2. Formulation of MPA Management Plan
3. Institutionalizing MPA Rating System in the local governance

4. Staff complementation
5. Creation of pool of SCUBA divers for the continuous underwater monitoring of MPAs
6. Sustaining partnership and collaboration with partners from NGAs/NGOs/Academe
7. Strengthening MPA as one of the best strategies in reducing poverty

Conclusion

In conclusion, there is a saying which goes *"A journey to a thousand miles always begins with the first step"* and that the first step is to build good working relationship and alliances with others so that we can move ahead and reach our destination together.

Reaction of Discussant: Mr. Terence Paul U. Dacles (GTZ) (with PowerPoint presentation)

The following are key factors for the success of Bohol MPA initiative:

- Alliance plays a key role in MPA establishment, sustainability, and effective management
- External funding is needed to jumpstart
- Ecotourism as a tool to derive economic benefits from CRM
- Alliances complements in assisting POs activities and initiatives
- Role of the provincial government of Bohol provides the long-term strategy

Some lessons learned from the Negros Occidental alliance-building in attaining sustainability of MPA:

- LGU alliances in Negros Occidental is called the Northern Negros Aquatic Resources Management Advisory Council (NNARMAC) consisting of 8 coastal and 1 upland communities. The Alliance tackles common issues and problems on fisheries especially with illegal fishers and law enforcement
- The alliance was formed in year 2000, of which chairmanship is rotated every 3 years
- Different committees are formed
- Contributions per LGU are: P200,000 for cities, and P100,000 for municipalities

Advantages shown for having an alliance:

- Easy political support
- Resources are shared
- Common policies, regulations, programs
- Standardized methods in implementation
- Easy coordination
- Foster better relations between LGUs
- Constructive competition
- Bigger impact

Some of the risk and challenges encountered for having alliances are:

- Change in political personalities
- Dissolution of alliance
- Organizational Development of alliance
- Red tape on fund release and acquisition of equipment
- Limited grassroots representation
- Fortifying/building the alliance
- Strong provincial support needed
- National and regional directions of clustering LGUs

Donors are now more attracted to give funds to alliances. Alliance-building is not new, we need to learn from others.

A. Outputs of MPA and EBFM Workshop Session # 1: *Situationer*

Guide Question #1. *Liban sa pondo at pollution, anong kalagayan ng mga MPAs sa inyong lugar?*
(What is the state of MPA management in relation to the coastal zone and fisheries?)

Categories	*On-going MPA-related activities*
Sustainable mechanisms	- User fees sustain management of MPAs - Implementation of user fees in MPAs - Strong partnership with academe research institution (monitoring, planning, equipment) - Promoting MPAs for snorkeling and diving
Baselines established	- Baseline conditions recorded and continued monitoring by locals/residents - Resource inventory with focus on human impact assessment - Connection of ecosystems (mangroves, seagrass, coral reefs) - Assessment conducted (coral reefs, seagrass) - Aquaculture/fisheries activities - MPA/resource management
On-going IEC	- Information, Education Campaign (IEC) to fisherfolks - Continuous IEC program through orientations, billboards, etc. - Community education to support and understand coastal ecosystems and MPAs - Active involvement of community - Organization of 3 MPA Congresses to address MPA issues
Enforcement organized	- Apprehending known, repeat violators - Full support for enforcement - Patrolling of offshore MPA (with limited funding) - LGU-cluster law enforcement - Organized Operations and Bantay Dagat Task Force - Formation and strengthening of MPA management councils/governing boards (composed of PO reps, BLGU, MLGU).
MPAs organized	- Site prioritization for MPA establishment (SPAGS or add-on value) - Initiated MPA networks - Strengthening of individual MPAs through clustering - Well-managed MPAs are now eco-tourism destinations and generate income - Clustering of LGU for Fisheries and habitat management - LGU-managed - Uniformity of markers/buoys - Co-management scheme PO + LGU with technical assistance from NGOs

Guide Question #2. *Sa panahon ngayon, paano tinutugunan? Sapat na ba ito? Kung hindi ano pa ang kulang?* (Currently, how it is being addressed? If not, what are the gaps?)

Categories	*Current Issues-related to MPA management*
Funds	- Inadequate sources of finances - No funds to conduct and sustain monitoring of MPAs - Funding and technical support for monitoring and assessment - Access to IPAF - Budget allocation for the implementation of MPA project - Provide policy support for MPA budget allocation - Establish linkages with LMP, ULAP and ABC leagues
Political Will	- Lack of political will to reduce fishing effort - *Padrino* system to illegal fishers - Lack of political will among barangay officials - Lack of support to MPA from the MAO - Give incentives to law enforcers who caught an intruder
Technical Support	- Technical support to municipalities - Lack of impact analysis of land-use to MPA site selection (pollution point sources) - Inappropriate site selection of MPA - Lack of echo hydrology consideration in design of mangrove MPA - Threats: Development or establishment in MPAs (e.g. Mining resorts) - Data management and analysis - Lack of information of possible sources and sinks of recruits (corals, fish)
Capacity-Building	- Funds technical assessment training and equipment - Need to strengthen People's Organization - MPA management planning workshop - Limited capabilities to do monitoring of MPAs - MPAs are existing yet lack systematic monitoring and evaluation or lack monitoring - Even the local council hindi alam ang kahalagahan ng MPA kaya walang batas na maipasa
Equipment	- Walang bangka para habulin ang mga illegal fishers (hal. Commercial fishers) - Walang armas para tapatan ang baril ng commercial fishers - Problems on procurement of enforcement facilities and incentives for enforcers - Need for comprehensive provincial ICM plan - MPA budget allocation from annual investment plan

(continued next page)

General Needs	- Walang malinaw na point of boundaries or buya (buoy) ang fish sanctuary - Address upland pollution affecting MPAs - Organized and capacitated management body needed - Series of para-legal sa mga mangingisda re: RA 8550 and Fisheries code (Calatagan) MPA within a protected land and seascape (focused on endangered species) - Lack of IEC materials at dapat ay Filipino - Massive information dissemination to all resource users - Budget allocation for the implementation of MPA project - Perception assessment and biophysical monitoring - MPA not a stand alone program but part of an overall CRM project - No unified effort or system in MPA establishment *"kanya-kanya"* system - Strengthening of management board - Access to IPAF - Comprehensive ICM plan - MPAs budget allocation from annual investment plan - Fisherfolk settlement - Loopholes fisheries laws National vs. Local - Lack of information on possible sources of sinks of recruits (coral, fish) - move to technical support - Integrated Watershed - Tenure right / Infrastructure - Importance of Management Plan - No management plan yet - Developing eco-tourism and revenue sharing
Setting up and Planning of MPAs	- Support the CRM plan of the LGU - Setting up of community-managed MPA is barangay initiated - Planning process (management plan) with participation of community - LGU forest land-use plan formulated (in some LGUs) - MOAs for joint management of adjacent municipalities - Consider role of MPA area in migratory routes and nature habitat corridors
Resource Use Conflict	- Conflict between fisherfolk organization and LGU - Resource-use conflicts – fisherfolks are displaced in their fishing areas - Capacity-building – community involvement in monitoring of community MPAs - Commercial fishing still rampant in municipal waters - Jurisdictional and legal conflicts (Tañon Strait) - MPA stewardship agreement of private sector - Public access to MPAs
Connection of Ecosystem	- Activity upstream affected coastal areas

B. Outputs of MPA and EBFM Workshop Session # 2: *Visioning*

Key words raised by participants:
- CRM/Integrated Ecosystem Management
- Inter-alliances to be formed
- Network of MPAs
- Food security (Fisheries)
- Capacity-building and community participation
- Use of sound science
- Institutionalization
- Sustainable mechanisms (e.g. ecotourism)

WHEREAS there are inadequate sources of support for MPA management in financial and material form;

WHEREAS political will and action are wanting at the barangay and municipal levels such that excessive fishing effort, poaching, unmanaged mining and use of illegal and destructive means of fishing persist;

WHEREAS there is a need to improve stakeholder knowledge and capacities to select, establish, plan for, delineate, monitor, mitigate threats on and source sustaining means for MPAs

WHEREAS there is a need to design incentive systems for coastal enforcers (Bantay Dagat) to encourage volunteerism and thereby support control mechanisms in favor of conservation;

WHEREAS there is a recognized need to design and establish a parsimonious set of MPA systems that integrate means to manage land and sea components and the corresponding stakeholder groups that will support their management;

WHEREAS there is a need to strengthen POs and provide means to manage resource use conflicts and their possible impacts;

WHEREFORE, our VISION STATEMENT is:

> *"In the next 5 years we envision that marine protected areas are established, sustainably funded, functional and managed at the appropriate ecosystem scales with a properly capacitated host community's participation through the most appropriate mechanisms, including alliances and marine protected area networks, and based on sound science such that they contribute to sustainable fisheries, food security and ecotourism".*

C. Outputs of MPA and EBFM Workshop Session # 3: *Action Planning*

Action plan developed in order to achieve the Vision:

1. Develop and improve fund access and availability by : a. Institutionalizing CRM/ICM at the LGU level with fund/staff component * b. Networking and linking local initiatives with both national and foreign funding institutions *
2. Support the formation and scaling up of alliances in support of and to encourage political commitments
3. Provide the means to access adequate technical support: a. Through improved collaboration of local MPA initiatives with research institutions (national/international),* b. By providing the means by which local communities are able to access technical expertise c. By initiating the formation of MPA networks (local, national)*
4. Promote and develop capacity of coastal stakeholders to: a. Collect, keep, manage and use locally collected information for MPA management
5. Select, establish, plan for, delineate, monitor, mitigate threats on and source sustaining means for MPAs
6. Develop and promote integration through the formulation of instruments in planning to be able to: a. Conduct participatory assessments, appropriate planning methods and plan implementation b. Develop or adapt and implement conflict resolution mechanisms
7. Address resource-use conflict issues by: a. Establishing conflict resolution mechanisms
8. Strengthen law enforcement capabilities at municipal levels by: a. Creating composite teams b. Simplify entry requirements for Bantay Dagat membership
9. Establish sustainable mechanisms that will: a. Ensure a continuous M&E of MPAs b. Develop an advertising strategy to promote MPAs and improve site access c. Provide adequate facilities at site d. Organize support organization that will maintain the MPAs and ensure that fees are collected fees

*priority actions

WORKSHOP SESSIONS

SUB-THEME 3 - Workshop Sessions on Recent Concerns with Pollution in the Coastal Zone

Facilitators: Ms. Sandra Victoria R. Arcamo (DA-BFAR)
Ms. Lynette T. Laroya (DENR-PAWB)
Documentors: Ms. Emerlinda C. Dizon
(Masinloc Coral Reef Demo-Site Project)
Dr. Loureeda C. Darvin (DOST-PCAMRD)

(Summary of Workshop Proceedings)

Session started at 2:30 PM simultaneously with the two other groups. The participants, resource persons, discussants, facilitators and documentors were properly introduced by facilitators from BFAR and PAWB. The flow of the workshop sessions followed the sequencing of the two other workshop groups. Two papers were presented by resource persons from the BFAR-IFAD and the Batangas PG-ENRO and reacted upon by discussants from UPMSI and DENR-EMB. As a workshop rule, color-coded metacards were used in the conduct of the workshop sessions. Expected output for this workshop is an action plan to mitigate pollution in the coastal zone and establish management systems, processes and standards for pollution control. Outputs of the workshop follow the paper presentation section.

Paper Presentations

1. Fish Production and the Environment

by Dr. Nelson A. Lopez, Division Chief
Inland Fisheries and Aquaculture Division, BFAR-CO

EXCERPTS FROM THE PRESENTATION
(See appended PowerPoint presentation for details)

The presentation was outlined into 3 topics: *1)* Coastal zoning (Mariculture Park) to mitigate pollution; *2)* Adaptive management measures and incentives for compliance; and *3)* Best practices to prevent pollution in river basin system, coastal and marine waters.

Mariculture Park is defined as a concept similar to an economic zone where necessary infrastructures are provided such as roads, power, water and communication facilities to facilitate investments. In the same manner, ancillary services such as cold storage, feed storage, hatchery, fish landing and marketing facilities are to be provided in the park.

There is a process to follow in the mariculture zonation: *1)* pre-assessment of site; *2)* detailed assessment; *3)* issuance of Environmental Compliance Certificate (ECC) based on Environmental Impact Assessment (EIA); and 4) declaration of the area through a municipal ordinance. Studies on social displacement and environmental impact, identifying benefits of aquaculture structures are presently being conducted. The ECC is given to an area and not to individual entrepreneur and that municipal ordinance installs management body that will manage the park (e.g. Basey, Samar municipal ordinance). A MOA which delineates the responsibilities of each of the agency involved is also necessary to complete the picture.

As incentives for compliance, BFAR provides demonstration activities in the park, particularly in the designated areas for the small fisherfolks. It also provides training and promotes the park to investors. The park shall be zoned to delineate areas for small fishers, local investors and investors outside the locality. Some of the incentives that BFAR could provide are the following: *1)* eco-labeling to ensure that the products are safe and of good quality; *2)* technical assistance; *3)* awards and recognition e.g., GAWAD SAKA; and *4)* trainings.

The role of LGUs in implementing the ordinance is emphasized, providing manpower support and funds, organizing the fishers, and cooperatives, issuing licenses and business permits, collecting rentals and providing security in the area. It will also be the LGU who will apply for ECC to DENR.

On best practices, the existence of the following documents was enumerated: *1)* Code of Practice for Aquaculture (FAO 214); *2)* Draft BAPs Certification Scheme; *3)* Draft Joint Administrative Order (JAO) and LGU Guide Book; *4)* Regional Workshop on BMPs for Marine Aquaculture in Asia-Pacific; and *5)* The PHILMINAQ Experience.

Reaction of Discussant: Dr. Maria Lourdes SD. McGlone (UP-MSI)

Dr. McGlone started with a rationale why there is a need for mariculture. There are more than 80 million Filipinos who need fish for food and the increase in fish requirement has resulted to the depletion of fish stocks in the wild, hence, the need for mariculture to satisfy the food requirement. 40% of the total fish production came from aquaculture. Because of the limited access to aquaculture due to the moratorium on pond conversion, many resort to mariculture, culture of fish in open coastal areas. There is a tendency for people to join the bandwagon because of profit which led to uncontrolled proliferation of fish cages. In the case of Bolinao, Pangasinan whose coastal waters carrying capacity is only 544 fish cages, the number increased to over 1,000 structures in 2002. As a consequence there was a massive fish kill which resulted to a loss of P600 million for the municipality. Fish kills occur when there are a lot of feed wastes in the water, more food will be available for the plankton resulting to plankton blooms. When plankton dies, there will be less oxygen in the water resulting to fish kills.

She stressed that the problems faced by mariculture projects are basically pollution and economic losses. The challenge is the government's response to mitigate problems and a strategy to increase fish production. The idea of Mariculture Park is enticing because basic infrastructures are provided and the investors need only to pay annual fees. Ancillary services such as cold storage, feed storage, hatchery, fish landing and marketing facilities are also provided in the park.

However, Dr. McGlone enumerated the following concerns:

1. On resource assessment, there should be longer assessment to see change through time.
2. On selected zones, ensure that there are no other resource users affected such as resorts, residential areas, etc.
3. There should be a sound basis for zone selection.
4. Good emphasis on programmatic EIA to consider all users, not just aquaculture, its impacts on different activities, users and vice versa.
5. Issuance of ECC must be required.
6. There should be different assessment for different areas (e.g. previously impacted vs. pristine areas).
7. LGUs should make sure that mariculture park is within the coastal development plan.
8. There are no clear roles of the council members (e.g. BFAR and LGUs). It was not stipulated in the MOA who will monitor the environment.
9. On the safety nets against pollution, Dr. Lopez mentioned the existence of the following documents: Code of Practice, Joint Administrative Order, etc. However, he did not mention who will make sure that these safety nets are followed.

Dr. McGlone also posted the following questions:

1. Are the mariculture parks necessary?
2. Are they placed in the proper sites considering their effect on other resources?
3. Who should really manage the parks?
4. Are the environmental issues associated with parks addressed? How? There should be criteria standards for water and sediment quality.
5. How are the issues regarding other fish pens and cages addressed vis-à-vis the parks? With such issues as feeds accreditation, feeding practices, stocking density, there should be training as pre-license issuance requirement and an environmental monitoring program of LGU in place.

Open Forum (Q & A)

Question 1 (RTD, DENR Region-9):

Mariculture is now on the loose. No one is managing this industry. What is BFAR doing as far as monitoring the issuance of the ECC? What other agency should help BFAR monitor?

Response (Dr. Lopez):

It is very clear who will monitor. The BFAR should monitor but it lacks the funds to conduct the activity and the fund for salary of its manpower. Capability is available but it is not applied because of lack of funds and equipment. The academe and other funding agencies could assist in this activity.

Question 2:

What are being monitored by the BFAR?

Response (Dr. Lopez):

Water quality, environmental impact, social impact, and profitability.

Comment (Ms. Arcamo, BFAR):

The environmental monitoring is not yet being done. The LGUs should have been doing the monitoring long time ago, they, being empowered by the LGC. However, not all of them have created an office to tackle this concern.

Comment (Dr. McGlone):

LGU could generate funds from the mariculture which they could use for environmental monitoring.

Comment (Mr. Biyo, CI-Phil):

Do we really need mariculture? Most of those who undertake mariculture are those who have the capital, so the small-scale fishers are affected. The social impact could not really be achieved, only the rich are benefited.

Question 3 (Palawan participant):

Pearl farming could still be considered mariculture. What do you do to regulate pearl farming?

Response (Dr. Lopez):

There is a special provision of RA 8550 for pearl farming. There are only few areas that could be provided permit. The issuance for permit for the pearl farm is done by the BFAR.

The LGU was not given the authority to provide permits. Cages outside the zonation area are illegal. Mariculture zones are where the fish cages should be established. On the issue of social equity, it is indeed true that the capitalists are the ones primarily benefited since it requires a bulk of capital. In Quezon, QUEDANCOR provided money for the fishers to establish seaweed farming rather than fishing, which is no longer profitable. In Samar, a cooperative of former dynamite fishers were able to get benefits in the mariculture farm because they were assisted by the BFAR not only in the production but also in the marketing of seaweeds.

2. Pollution Waste Management within ICM Context: The Case of Batangas Bay Region

by Engr. Evelyn L. Estigoy, PG-ENRO
Batangas Provincial Government, Batangas City

EXCERPTS FROM THE PRESENTATION
(See appended PowerPoint presentation for details)

Integrated Coastal Management (ICM) Operational Areas & General Profile in Batangas

The presentation was outlined as follows: I) Vision, Mission and Goal under Strategic Environmental Management Plan (SEMP) of the Province; II) Integrated Coastal Management (ICM) Operational Areas and General Profile; III) Batangas Bay Demonstration Project on ICM Operational Areas and General Profile; and IV) Pollution and Waste Management in Batangas Bay Region.

"Batangas is a socially and economically developed community citizenry committed and empowered to be good stewards of our environment and natural resources". The ICM operational area is focused in Batangas Bay and there are successful replication sites such as Nasugbu Bay, Talim Bay, Pagapas Bay, Balayan Bay and Tayabas Bay through collaborative efforts. The management of Batangas Bay is comprised of 14 LGUs (2 cities and 12 municipalities). It is in this Bay that we find the most concentration of economic activities and high population growth, among other issues. It is also the center of marine shore fish biodiversity which resulted to the declaration of Executive Order 533 and 578.

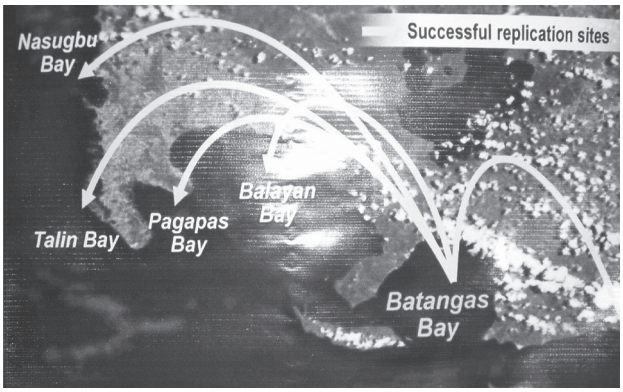


FIGURE 1. Integrated coastal management (ICM) operational areas and general profile in Batangas.

To address issues on pollution, such as, decreased fishery and marginalization of tourism, the SEMP has come up with six components: *1)* Legal and institutional mechanisms; *2)* Integrated planning and policy systems; *3)* Technical interventions; *4)* Capability-building; *5)* Improvement of information base; and *6)* Sustainable financing system.

On pollution and waste management, the key approaches in the strategic environmental management plan include application of: *1)* ICM system for pollution prevention and management; *2)* Sustainable development principles; *3)* Precautionary principle; *4)* Establishment of sustainable financing mechanism; and *5)* Institutionalization of public and private sectors, NGOs and community partnerships.

The core programs are as follows: *1)* Integrated waste management; *2)* Water pollution abatement; *3)* Conservation of special ecosystems particularly the remaining mangroves and the coral reefs in Mabini and Tingloy; *4)* Coastal tourism development in Mabini and Maricaban Island; *5)* Development of alternative livelihood activities; and *6)* Improvement of municipal fisheries habitat.

A provincial ordinance was the basis for the establishment of a bay-wide, multi-sectoral council which is the Batangas Bay Region-wide Council (BBRC).

Examples of case studies were mentioned on *1)* Integrated waste management plan for the province of Batangas, and *2)* Participatory monitoring. The 5 phases of the Plan includes: *1)* Preparation Phase (1996-1997) wherein the technical study on the solid waste management system and the waste analysis protocol were completed; *2)* Mobilization Phase (1997-1998) wherein a model ordinance covering the generation, segregation, collection, handling, processing and disposal of residential, commercial, industrial and institutional solid wastes was adopted, implemented and monitored by the PG-ENRO; *3)* Early improvement phase (1998-1999) wherein programs on waste minimization, recycling and re-use were launched in schools, municipal halls and communities; *4)* Development Phase (1999-2002) wherein RA 9003 was signed into law by the President of the Philippines; and *5)* Further Improvement Phase (2002-2005 and beyond) wherein materials recovery facilities (MRF) were established, conversion of open dumpsites to control dumpsites were done and more development activities were being undertaken.

On the status of the implementation of RA 9003, about 82% of the LGUs have solid waste management plan, 77% of the municipalities and cities with MRF, 11 dumpsites are open, 14 are controlled and 9 are closed.

On participatory monitoring, stakeholders' participation was solicited and strengthening of the capability of the LGU to monitor environmental changes was undertaken. There is the

plan of the Province to put up a marine laboratory which will impose fees to generate income for its operations.

Reaction of Discussant: Director Ella S. Deocadiz (DENR-Environmental Management Bureau, EMB)

(NOTE: Reaction paper was read by Ms. Perseveranda Fe Otico of EMB, the official representative of Dir. Deocadiz.)

The presentation covered the following major topics: vision, mission, and goal under the Strategic Environmental Management Plan (SEMP); integrated coastal management (ICM) operational areas and general profile; Batangas Bay Demonstration Project (1994-1999); and pollution and waste management in the Batangas Bay Region.

Among the recipients of grants and assistance from major ICM programs, Batangas could be said to have the most exposure and experience in Pollution and Waste Management within the ICM context. My discussion will be based purely on the slides presented. There is a possibility that the gaps that I may be pointing out in this discussion might have already been addressed. In general, pollution and waste management in the Batangas Bay Region is focused and realistic. There are, however, areas that also need to be considered in the medium-term and long-term time frames.

On the assessment of the pollution and waste management issues in the province

The coastal environmental profile should have been the primary source document on the assessment of the pollution and waste management in the province. Such assessment is supposed to have been the basis for the pollution and waste management programs and projects.

There is no mention of any initiative to handle the concern on the management (collection, treatment and disposal) of domestic sewage and stormwater. Domestic wastewater pollution is a major issue in urbanized areas. To date, there are only three jurisdictions in the country with sewerage systems and sewage and/or septage treatment facilities. Batangas is not one of those jurisdictions.

Pollution from agricultural sources, particularly pesticides, has not been mentioned in the program. There were previous studies on pesticide levels in the various environmental media in Batangas. Have there been an assessment and a decision not to consider this concern?

Pollution from aquaculture and marine litter is not included in the province's pollution program. These are issues in a number of coastal provinces and cities in the country.

On contingency planning and emergency preparedness and response

The bodies of water as well as the inland transportation route and industrial areas in Batangas are in constant threat of intentional or unintentional spillage of oil and hazardous waste.

Under the component "Improvement of information base" of the Batangas Bay Demonstration Project (1994-1999), there was mention of "Environmental Sensitivity Index (ESI) for oil spills with assistance of WWF-Philippines.

There was no mention whether both coastal/marine and land (terrestrial) areas were covered by the ESI and whether contingency planning and emergency preparedness and response was conducted as part of this activity. If contingency planning has indeed been undertaken in line with ESI development, said plan is due for updating by now.

On environmental infrastructure

Examples of these are facilities for pollution control and management, remediation of dumpsites, management of stormwater and flooding, protection of catchment areas, waste reception, etc.

There must be an assessment of the adequacy of these facilities in terms of their number and quality/efficiency. Sustainable financing for the establishment and management of these facilities should also be established.

On targets and performance indicators

The province might consider the development of site-specific targets, environmental performance indicators (immediate outcome and long-term environmental impact), environmental quality criteria, and standards.

Open Forum (Q & A)

Reaction/Comment (Engr. Estigoy):

The concerns of Dir. Deocadiz are somehow being addressed by the province, though there are still improvements that need to be done. The presentation was limited by the invitation of the organizers. Just to mention a few for the issues raised:

1. Sewage/seepage – cities and LGUs have physical jurisdiction over communities and households
2. Toxic and hazardous wastes – there is a pre-feasibility study which established the volume generation of toxic and hazardous wastes, considering a build, operate and transfer (BOT) scheme to put-up the facility and inclusion of pathological wastes from the hospital
3. Ship and port wastes – shore reception facility is done by private sector and the Philippine Ports Authority (PPA)
4. Agricultural wastes (pesticides) – integrated pest management being advocated by the agriculture office
5. Contingency planning on disaster management – there is an existing contingency plan for Taal volcano eruption, earthquake, oil spill (in cooperation with the oil companies)
6. Mariculture in Taal Lake – regulation done by the Protected Areas Management Board (PAMB)

Question 1:

There is a need to monitor the swimming pools which discharge their waters directly to the sea. What is being done regarding the issue?

Response (Engr. Estigoy):

There is a need to impose user fee as possible source for monitoring fund. Another is self-monitoring which could be imposed through an ordinance.

Comment (Participant):

Bleaching agents should be considered pollutants. Bleaching agents used in seaweed processing gets into the water either by being leached-out by the rain or disposed-off directly. This practice is rampant in the seaweed areas in Bohol, where barangays are engaged in drying of seaweeds. They have no proper waste disposal and absence of areas where they can dispose the wastes coming from the process.

Comment (Participant):

I think we should also consider the introduced alien species as pollutants. Phytoplankton bloom can also be considered pollution if there is imbalance in population of species with toxic substances.

Comment (Mr. Biyo, CI-Phil):

The issue on ballast water is a national concern and that it needs to be taken up in the action planning.

A. Outputs of Pollution Workshop Session # 1: *Situationer*

Guide Question #1. *Anu-ano ang pinanggagalingan ng marine pollution?*
(What are the sources of marine pollution?)

Types of Marine Pollution	*Sources of Marine Pollution*
Pollution from aquaculture	- aquaculture from marine litter - water from fish ponds - bleaching agents from seaweed farms - fishing gear remains
Natural pollution	- siltation or soil erosion
Man-made wastes	- shampoo sachet and other products - plastic bags - styrofoam wastes - oil spill - bilges from shipping vessels
Urban pollution	- industrial waste - chemical spill - used oil
Agricultural fertilization	- chemical fertilizers from farms/pesticides - piggeries - poultry farms - animal waste
Human wastes	- solid waste from households
Tourism-related establishments	- garbage on beaches - noisy activities (jet-ski) - loss of naturalness (concreted beach)
Others	- "don't care" attitude - overpopulation
Special concern	- biological pollution

Guide Question #2. *Ano ang mga ginagawa para matugunan o maibsan ang pollution sa karagatan?*
(What are the actions undertaken to mitigate marine pollution?)

Categories	*Actions undertaken to mitigate marine pollution*
Community /stakeholders mobilization	- Participatory planning/review - Community participation or involvement - Conduct coastal clean-up - Start in your own backyard - Plant trees - Domestic waste collection organized - Clear household or sitio or municipal responsibilities
Education/IEC	- Sapat na edukasyon sa mga polluter - Involvement of schools in SWM - Curriculum integration
Laws/regulations	- Harbor fees/penalties adapted - Polluters pay/pollution fees for industry - Permit system - Strong implementation of laws (RA 9003) - Compliance of an ECC/EIA/IEE/ERA - Enforcement of solid waste management ordinances - Formulation of ESWM ordinance - Closure of open dumpsite - Prohibition of septic tanks within 20 m easement
Monitoring activities	- Set up anti-pollution devices - Conversion of open dumpsite to sanitary landfill - Set up catch basin - Wastewater treatment
Zoning/land-use plan	- Land occupation organized
Waste management	- Reduce, reuse, recycle - Use less plastic - Use paper bags - Composting - Set up compost pit - SCUBA basura - Promote SWM
Organic agriculture	- promote organic farming
Collaboration of various stakeholders	

Guide Question #3. *Sapat ba ang mga ito? Ano pa ang mga kulang?* (Gap identification)

Categories	*Gap identification*
Lack of funds	- Accountability or penalize industrial polluters - Apprehension of violators/file case - Lagyan ng "pangil" ang batas - LGU enact strict laws with penalties
Strong advocacy IEC	- Research on wastewater reuse - Review status and implement or enforce laws more strictly - Polluter's pay system - Strict implementation of waste management in ships - Regulation of dumping of wastewater
Water quality analyses/monitoring	- Continuous monitoring activities by local communities
Participatory monitoring	- Hold LGUs accountable for pollution
Technical assistance	
Political will	- Devolution of function related to pollution to LGU - Dapat lahat ng LGU gumawa ng ESWM plan

B. Outputs of Pollution Workshop Session # 2: *Visioning*

The following are the suggestions of the 4 subgroups formed to craft the Vision Statement:
1. Malinis na kapaligiran at mayamang kalikasan
2. Well-managed resources by responsible people for a better marine environment
3. In five (5) years the existing mariculture is reduced by 90%
4. Sa susunod na limang taon, nais namin na magkaroon ng malinis at masaganang karagatan tungo sa likas-kayang pang-unlad

VISION STATEMENT:

"*Sa susunod na limang taon, nais naming na magkaroon ng higit na malinis, ligtas at masaganang karagatan na pinangangasiwaan ng responsableng pamayanan tungo sa likas kayang pag-unlad.*"

WHEREAS the prevalent pollution concerns in the coastal zone are brought about by aquaculture, man-made, urban development, agriculture, human wastes, tourism-related activities and ballast water;

WHEREAS there is a need to strengthen mitigation measures to address these pollution concerns

WHEREFORE, we jointly envision for a cleaner, safer and robust marine resources managed by responsible stakeholders towards sustainable development in the next five years

AND THAT in order to realize this vision, we agree to implement or advocate the implementation of the following ACTION POINTS:

1. Intensify solid waste management (SWM) and/or establish other relevant waste management programs in each municipality/city;
2. Establish/Institutionalize pollution monitoring and evaluation (M&E) program for the coastal zone;
3. Promote and support sustainable livelihood practices;
4. Strengthen collaboration and participation among various stakeholders and communities in coastal resources management (CRM);
5. Increase level of awareness on coastal management;
6. Develop sustainable financing mechanisms (SFM) to support waste management and pollution control;
7. Enhance/Intensify implementation of waste management and other pollution control laws, rules and regulations; and
8. Design and establish research and development agenda focusing on, but not limited to, carrying capacity of the marine environment and utilize scientific inputs in mitigating pollution in the coastal zone;

C. Outputs of Pollution Workshop Session # 1: *Action Planning*

Guide Question #1. *Paano ang gagawin para makamit ang ninanais?*
(Identification of Actions)

Action Point	*Identified Activities per Action Point*
1. SWM Program institutionalization	– Establishment of waste management facilities in each municipality – Coastal clean-up – Wastewater treatment – Closure open dumpsite or conversion to sanitary landfill – Set up anti pollution devices – Reuse reduce recycle/use less plastic/use paper bags – Domestic waste collection organized – Composting or set up compost pit or start in backyard – Development of ESWM plan
2. Research and Development (R&D)	– Develop a market for solid waste reuse – Research on waste local reuse
3. Monitoring and Evaluation	– Water quality monitoring or at least quarterly or set up monitoring stations – Biological monitoring and assessment – Establish institutionalized pollution monitoring and evaluation program – Develop environmental quality criteria, i.e. sediment quality – Improved monitoring thru MMT – Integration of BAPs in municipal development plans, different agencies and stakeholders involved in monitoring of projects
4. Alternative livelihood development	– Promote organic farming – Organic agriculture – Sustainable mariculture practices
5. Social mobilization	– Strong collaboration of stakeholders – Participatory planning and review – Community participation or involvement – Involvement of schools on SWM

(continued next page)

6. Information, education, communication (IEC) campaign and capability building	– IEC on ESWM ordinance – SWM curriculum integration – Education of polluters (e.g. industries) – Media reports on environmental issues – Environmental education for senators and congressmen – Involvement of celebrities on environmental issues – Environmental education in economics and management schools – Reappropriation of nature by mega cities citizens
7. Sustainable financing mechanisms development	– Provision of funds for municipal waste management – Formulation of sustainable financing mechanism
8. Regulation and implementation	– Review status and implement laws more stringently – Permit system – Polluter's pay system – Harbor fees or penalties – Solid waste management – ECC, EIA, IEE – Promote use of Environmental Risk Assessment (ERA) – Promotion of ecological sanitation (ECOSAN) – Land-use plan or zoning including water use zoning – Formulation of ESWM ordinance – LGU enactment and enforcement of ordinance, i.e. sewage or septage treatment – Construction of sewage treatment facility of some resorts has not really been monitored by LGUs, so this will provide a stricter monitoring. – Strictly enforce provisions of water code – Prohibition of septic tanks within 20 m easement – Alamin kung sino ang nagpopollute, nagpapatupad ng batas at nagmomonitor
9. Utilization of market-based instruments	– Polluter's pay/polluter's fee for industries
10. Provision of funds for municipal waste management	

WORKSHOP SESSIONS

SUB-THEME 4 - MPA Best Practices from Sites

MSN 9 Finalists
"2007 Outstanding Marine Protected Area (MPA) Awards"

AGSALIN FISH SANCTUARY
Brgy. Agsalin, Gloria, Oriental Mindoro

Established in 2004, the Agsalin Fish Sanctuary covers 35.6 hectares, including 10 hectares of reef areas. After two years of operation, marine life is reported to be more abundant, with the growth of live corals accelerated. Coral cover has increased from 47.74 % in 2003 to 51.7% in 2007. MPA management is in the hands of a strong, LGU-led multi-sectoral management body made up of representatives from practically all sectors, including the Church, the youth, and senior citizens. Recognizing the need to provide additional income for fisherfolks, livelihood projects have been put in place. These include: seaweed farming, *tilapia* and *bangus* culture, and fish processing.

Agsalin Fish Sanctuary (Gloria, Oriental Mindoro)

State of MPA	*Milestones*	*Challenges*
• 35.6 has. • Non-acropora abundant (47.74%) • Abundant with schools of snappers, sweetlips, fusiliers, surgeonfishes, rabbitfishes, barracudas, catfishes and jacks • Municipal Ordinance No.4 • Declared as protected area (April 30, 2004) • Resolution No. 3051-A, Municipal Ordinance # 04 Series of 2005 (Agsalin Reef as fishery reserve/sanctuary) • Provincial Ordinance No. 004 – 2004	• Live coral cover increased from 47.74% (2003) to 51.70% (present) • Bantay Dagat created by the Municipal Government • Barangay Agsalin Fish Sanctuary Management Board put-up • Displaced fisherfolks were provided with alternative livelihood	• Some violations (e.g. fishing inside the core zone) noted during the first year of establishment • Recent typhoons damaged the MPA structures and livelihood projects • Addressing the existing threats without creating conflict among the stakeholders in the area • Strengthen laws governing Fish Sanctuary • Strengthen Bantay Dagat Task Force • Continuous support and linkage between the government and stakeholders • Sustaining Fish Sanctuary management

BULUAN ISLAND MARINE SANCTUARY

Buluan Island, Ipil, Zamboanga Sibugay

Buluan Island Marine Sanctuary was declared a marine sanctuary in 2004 and covers 63.16 hectares. The island's many natural attractions offer opportunities for eco-tourism. Surveys conducted by marine experts have shown that hard corals in the area increased from 28.5% in 2003 to 61.39% (inside the MPA) in 2007, while dead corals decreased from 59% to 18.5%. There is a perception that fish catch around the MPA went up by about 50% (catch per unit effort) due to the spillover effect.

The success of the Buluan Island Marine Sanctuary is partly due to the focus on prevention rather than apprehension. The LGU tries to address the socio-economic problems of fisherfolk to discourage the practice of illegal and destructive fishing. This involves the setting up of livelihood projects such as seaweed farming and aquaculture (raising groupers or *lapu-lapu* and king crabs). There is also a massive mangrove reforestation campaign to revive marine habitats.

Buluan Island Marine Sanctuary (Ipil, Zamboanga Sibugay)

State of MPA	*Milestones*	*Challenges*
• 63.16 has. • Declared on March 9, 2004 • MFO # 09-214-2006 • Established through a barangay resolution • Peculiar rock formation • Municipal Fishery Ordinance # 09-214-2006 adopting RA 8550 (09/11/06)	• Municipal government provided budget for the establishment of artificial reefs in 2003 • DENR-CENRO conducted the survey (August 2003) • MOA signed between the DAR-WMCIP and LGU providing technical assistance for the establishment of Buluan Sanctuary (2004) • Launching of Buluan MPA where markers and buoys were deployed (March 2004) • Ipil Fishery Law Enforcement Team created • Catch per unit effort (CPUE) is increased by 50% • Community participation • Government line agencies participation • NGO's and PO's participation • One MAO personnel is assigned • Two Bantay Dagat are deputized	• Illegal and destructive fishing methods • Extortion/Protection money • Encroachment • Increasing number of visitors • Siltation

CAPANDAN FISH SANCTUARY

Brgy. Capandan, Cortes, Surigao del Sur

Capandan Fish Sanctuary covers an area of 21 hectares; established in 2003 and is managed by a people's organization with support from the LGU. While the sanctuary is one of eight MPA's in the municipality, Capandan was the only one that survived among the 12 MPAs established by the Community-Based Resource Management Project (CBRMP). The local community is thoroughly committed to supporting their MPA. Guarding is voluntary and even women participate in watching over the sanctuary. The entire community is involved, particularly in reporting violations, and illegal fishers have been transformed into supporters. The LGU's IEC campaign also reaches out to the youth with the use of comics material. It has been observed that there is an increase in coral cover and fish density, with fish catch improving in the adjacent areas.

Capandan Fish Sanctuary (Cortes, Surigao del Sur)

State of MPA	*Milestones*	*Challenges*
• Established in 2003 • 21 has. • Atoll to fringing reef • 30 families of fishes recorded • PO managed, LGU supported • Only sanctuary that survived among the 12 MPAs established during CBRMP because of PO's persistence in managing	• Directly managed by the Capandan MPC • Management Plan adopted, newly enhanced and reviewed • Increased community awareness and involvement (from 7 members in 2000 to 30 members in 2007) • Enforcement assets acquired • Increase in coral cover within and adjacent areas • Increase in fish stock density • Women involved in guarding the sanctuary • Livelihood project on Agsam craft production put-up	• Budget still minimal • Building synergy among various stakeholders • Continuing education or community awareness • Establishment of sustainable financing mechanisms or provision of additional parallel livelihood projects/activities

HANDUMON/LIBAONG MARINE SANCTUARY

Jandayan Island, Brgy. Handumon, Getafe, Bohol

Handumon or Libaong Marine Sanctuary is situated in an area that is part of a large barrier reef teeming with fish, seashells, and thick mangroves. The sanctuary is all of 50 hectares established in 1995 and legalized by a municipal ordinance in 1998. Strong enforcement of fishery laws has substantially reduced incidents of violations. The creation of a people's organization (Kapunongan sa Nagkahiusang Mananagat ug Lumolupyo sa Handumon, KANAGMALUHAN) has strengthened management and enforcement. Among the activities they have prioritized are the regular planting of mangroves, coastal clean-ups, and the setting up of alternative livelihood projects, primarily handicraft making.

The stars of the Handumon MPA are the seahorses, which have been attracting visitors and are a good source of revenue. Regulated seahorse watching tours are now being offered with a fee of P350 for locals and P500 for foreigners. The sanctuary has also become a marine research station and this has resulted in an increased fish population. Strong support has been provided by Project Seahorse, which is starting to phase itself out of the area. Having realized the benefits, the local people are determined to continue taking care of their MPA after the project leaves, and well into the future.

Handumon Marine Sanctuary (Getafe, Bohol)

State of MPA	*Milestones*	*Challenges*
• Started in 1995 • 50 has. • Municipal Ordinance # 4-1998 • KANAGMALUHAN - PO as management body • Assistance from Project Seahorse • Participatory research • Enforcement • IEC	• Presence of various fish and invertebrate species • Substantial mangrove cover • Developed seaweed farming • Livelihood – handicraft • Strong and dedicated enforcement group • Seahorse watching activity	• Management Plan for period 2007-2009 • Sustain capacity in the phasing-out stage

HARKA PILOTO REEF FISH SANCTUARY

Brgy. Lazareto, Calapan City, Oriental Mindoro

Harka Piloto Reef Fish Sanctuary is within the Verde Island Passage which has been recognized as one of the world's center of marine biodiversity. It covers an area of 26.7 hectares and was established in 2004. The LGU and fisherfolk have internalized the benefits of maintaining an MPA and are enthusiastic in fulfilling the responsibilities that go with it.

They persevered even without the benefit of technical or funding assistance from any development project. Registration of fishers has netted the LGU some Php 96,000 in the past year. The campaign to win wider support from other sectors prompted the city to use local radio and cable television as vehicles for information on MPA awareness. It is hoped that benefits from the recently established sanctuary will start to be felt in the short term.

Harka Piloto Fish Sanctuary (Calapan City, Oriental, Mindoro)

State of MPA	*Milestones*	*Challenges*
• Established in 2003 • City Ordinance # 02-2003 • 26.7 has. • Regular enforcement (e.g., Bantay Dagat) • IEC through radio broadcast	• Increasing total coral cover • Presence of target fish families	• Cyanide use • Fine-mesh nets • Commercial boat encroachment • Increasing fishing effort

INIBAN MARINE RESERVE

Brgy. Iniban, Ayungon, Negros Oriental

Iniban Marine Reserve was declared a reserve in 1982 with an area of 8 hectares; legally established in 1996 and expanded to 27.89 hectares in 2000. Watching over the MPA are 19 deputized Bantay Dagat members with complete equipment, including GPS units. There is a perceived increase in fish catch in the area. The LGU seeks to build on the gains by providing fisherfolk with livelihood assistance, starting with swine breeding. There is also a plan to integrate on-site marine biology into the high school curriculum to insure that the next generation will continue the efforts.

The strength of Iniban Marine Reserve is in the active involvement of the local people who are well informed about the need to protect their marine resources. They have grouped themselves into a people's organization that co-manages the MPA with the LGU. The MPA has become a source of community pride.

Iniban Marine Reserve (Ayungon, Negros Oriental)

State of MPA	*Milestones*	*Challenges*
• Started in 1982 • Established in 1996 • M.O. # 229-1996 • 27.8 has. • PO Management body • Regular meeting • Enforcement • Marker buoys • Guardhouse • Billboards • IEC	• Fair coral cover • Presence of reef fish species • Surgeonfishes dominate • Spillover from MPA • Perceived increase in catch • Increase in awareness, source of pride • Swine breeding – livelihood	• Illegal fishing • Siltation • Oil exploration • Lack of scientific data

MiSSTa Marine Protected Area

(Brgys. Militar, Sugod, Sto. Nino and Tagulo, Tukuran, Zamboanga del Sur)

The second largest among the finalists at 160 hectares, MiSSTa MPA was established in 2004. The area has some of the most extensive mangrove forests in the region. MiSSTa has consistently implemented the strong enforcement of fishery laws and biophysical monitoring has been initiated. They have a full complement of enforcers – 28 Bantay Dagat members and five fish wardens. For the period June 2005 to August 2006, some 81 violators were apprehended and fined. Fifty percent of fines collected are given to the Bantay Dagat team as incentive. The LGU plans to put together a forest management program to contain siltation which they perceived to be one of the biggest threats to their MPA.

MiSSTa Marine Protected Area (Tukuran, Zamboanga del Sur)

State of MPA	*Milestones*	*Challenges*
• 160 has. (50 m buffer zone) • Enacted through Municipal Ordinance # 14-033-2004 • With mangroves along the coastline • Live hard coral cover fair • 80 species of fishes inside and 63 species outside the sanctuary	• MPA Management Plan adopted through SB Resolution (Aug 5, 2004) • Coastal Resource Management (CRM) Office established • Headquarters of the Fisheries Law Enforcement Team created • Active IEC campaigns continuing (billboards, leaflets, barangay assemblies, study eco-tours) • Hosted 13th Asian Youth Congress • Participatory M&E conducted (Oct 2006 and June 2007)	• Boundaries of the MPAs should be clearly delineated • The need for the establishment of a Forest Management Program • Formulation of plans specific for MPAs • Siltation, garbage pollution, compressor fishing • Illegal encroachment of fishers • Unregulated extractive human activities • Increased number of fishers competing with each other • Piracy and extortion • Lack of community participation in managing the MPA

SAGAY MARINE RESERVE

Sagay City, Negros Occidental

Sagay Marine Reserve was declared a fish sanctuary in 1983 and proclaimed as a marine reserve in 1995. It was established by RA 9106 as part of the National Integrated Protected Area System (NIPAS). It covers 32,000 hectares of coastal waters rich in coral reefs and populated by blue crabs, sea urchins, abalone, sea cucumbers and various seashells. Some 1,000 hectares within the MPA was set-aside as no-take areas. It is a well-established MPA supported by an efficient fishery law enforcement program by the LGU that includes seaborne patrols, registration of fishers and boats, and regulation of fishing permits. For the past year, the city generated Php 1.9M from the collection of resource use fees.

As a measure of the MPA's success, the average fish catch around the area increased from 3.27 kilograms per fisherman per day in 1997 to 6.41 kilograms in 2005. The City of Sagay spent some Php 8M for protection from 1997 to 1999, but increased the worth of fish caught through sustainable fishing by more than Php 18M in the same period. In 1997, the Sagay Marine Reserve won the "Galing Pook Award" for innovation, being the one of the first LGU-initiated MPAs and the first to protect fisheries and different habitats – mangroves and seagrass beds. It is now a learning area for MPA managers, academe, research institutions, and other local government units.

Sagay Marine Reserve (Sagay City, Negros Occidental)

State of MPA	*Milestones*	*Challenges*
• Proclaimed as Marine Reserve in 1995 • 32,000 has. (no-take – 500 has.) • PAMB as the management body • Regular monitoring • Reef rehabilitation project • IEC • Permit and licensing section • Law enforcement section • NNARMAC	• Won "Gawad Kalinga Pook" Awards • Best Aquatic Resources Management • Best eco-tourism • Revenues from resource use and fees • Apprehensions and cases filed • Apprehension fines	• Increasing violations (e.g., poaching)

TWIN ROCKS FISH SANCTUARY

Brgy. San Teodoro, Mabini, Batangas

Twin Rocks Fish Sanctuary has area of 22.9 hectares; established via a municipal ordinance in 1991 which merely prohibited fishing within the sanctuary and was subsequently amended in 1993 and 2006. It is home to a wide variety of reef fish and shellfish. Initial resistance to the MPA was countered by seminars, trainings, and cross-visits to MPAs in other places.

The Samahang Pangkaunlaran ng San Teodoro PO, which initially managed Twin Rocks, gave way to the Marine Reserve Resource Executive Council (MR REC) which manages the Mabini Marine Reserve covering an area of 359 hectares. It is one of the 3 marine sanctuaries in the reserve. The focus was on increasing awareness of coastal resource management among community members, and strict law enforcement. The council reports an increase in fish stock, including those that used to be rarely seen, including turtles, dolphins and sting rays. A major source of revenue of the council for CRM management is the collection of dive fees, the area being a popular dive spot. From 2003 to 2007, dive fees totaled Php 46M, 70% of which went to fund the enforcement campaign. Through the years, the MPA benefited from long-term monitoring by various projects.

Twin Rocks Fish Sanctuary (Mabini, Batangas)

State of MPA	*Milestones*	*Challenges*
• 22.9 has. • Established in 1991 • Presence of marker buoys • Continuing monitoring • M.O. # 11-91/06-93 • MR REC as management body • Regular enforcement activities	• Increasing target fish families • Increasing species richness • Increasing revenues from dive fees • Decreasing destructive practices • Increased community awareness • Good recruitment noted	• Devolve management from SPSTI to MR REC • Absence of management plan • Non-implementation of MO # 04-2006

PLENARY SESSION 2: Presentations of Workshops Outputs and Congress Resolution

Facilitator: Atty. Asis Perez (TK)
Documentors: Dr. Andre Uychiaoco (PEMSEA) and
Dr. Lilian Bondoc (DOST-PCAMRD)

(SUMMARY OF PLENARY 2 PROCEEDINGS)

The oral presentations of designated presentors of the three groups were conducted first. Group 3 of the Workshop on Marine Pollution was the first to present, followed by Group 1 on Sustainable Financing Mechanisms, and then by Group 2 on MPA and EBFM. Open discussions followed each of the group presentation wherein the entire Congress participants were able to give comments and suggestions for the improvement of the groups' final outputs. After having all suggestions endorsed and incorporated into the groups' reports, participants then adopted all three improved versions as the official plenary reports. Dr. Angel C. Alcala of SUAKCREM and Silliman University, considered the country's father of marine protected areas delivered the plenary paper entitled "Silliman University Marine Protected Areas Program, 1974-2006", which he co-authored with Dr. Hilconida P. Calumpong of the SU Institute of Environmental and Marine Sciences. This was followed by an open forum.

The plenary discussions went on to review the draft Congress Resolution prepared by the group of facilitators and documentors who covered the entire proceedings of the three workshop groups. Participants made comments and suggestions on the draft, after which a small working group was formed to properly word the final draft of the resolution. The final version was read and formally approved and adopted by the Congress body at 2:30 PM. A panel of reactors representing different sectors of society (NGAs, NGOs, research and academic institutions, and celebrity sector) each gave their comments and acceptance of the Resolution. This was followed by signing of the Congress Resolution by the panel and the entire Congress participants.

The formal closing of the CZPhil-2 Congress followed with the presentation of certificates of participation and appreciation to the Congress participants. Closing remarks were given by the representatives from the national government and the academe. The formal invitation to the upcoming 2007 Best MPA Awards and Recognition (Para el MAR): The Linking of Champions (awards night in November) was announced by the Congress over-all coordinator and MSN Steering Committee chair, Dr. Perry Aliño, who also officially closed the Congress at 4:00 o'clock PM. Press conference was held afterwards with the local and national media representatives in Iloilo City (Philippine Daily Inquirer, ABS-CBN, Philippine News Agency, The News Today, Daily Guardian, and representatives from the Iloilo Public Information Office).

Plenary Paper Presentation

Silliman University Marine Protected Areas (MPA) Program, 1974 to 2006

by Dr. Angel C. Alcala[1] and Dr. Hilconida P. Calumpong[2]

[1]*SUAKCREM* and [2]*SU-Institute of Environmental and Marine Sciences*

EXCERPTS FROM THE PRESENTATION
(See appended PowerPoint presentation for details)

History of MPAs

The first marine reserve (MR) in the world is in Florida, USA. Unfortunately, nothing has been published about it so we do not have information what really happened to it. The United States now has the largest MR in the world, which is the territory in the Pacific Ocean known as the NW chain of islands from the Hawaiian group.

In the Philippines, we have the first MR recorded in 1974. At that time, it was already very clear that coastal resources were rapidly undergoing depletion. So we thought of a mechanism to bring back the biodiversity particularly of coral reef areas. The small island of Sumilon near Dumaguete City, which is officially under the jurisdiction of San Tander, Cebu, with its 50-ha. of coral reefs around it, became a no-take MR. About 25% of the reef was off-limit to fishers. And for the next 10 years, it was continually documented by the Silliman University Marine Laboratory (SUML) in partnership with James Cook University (JCU), Townsville, Australia to what we might now expect of an MPA. At that time we have little idea of the workings of an MPA as there were not many references to rely on.

The rest of the 1970's saw more than 18 MRs which are protected by fisherfolks all over the country (AMBIO 1988). Between the 80's-90's, we began to focus on community-managed no-take MRs which were all located in the Central Visayas. They were either community-managed or LGU co-managed and they exemplify some of the best examples of very highly successful MRs in the world. Onwards, there was an exponential rise in the number of MRs. Apparently, news that there were more fish in MRs spread around nationwide so that many communities and LGUs in cooperation with NGOs and POs became excited by the concept and enthusiastically embarked on their establishments. Therefore, in the 1990s, MRs count was about 200-300 sites, and in the 2000's the number increased to about 400-500 sites. Currently, there are more than 1,000 MPAs around the country (i.e., national or municipal marine parks, marine or fish sanctuaries, marine reserves, artificial reefs, etc.).

Influence of Philippine Marine Reserve Initiatives on our Neighboring ASEAN Countries

It is noteworthy to report that what started as a crazy idea of an MPA which nobody or just a handful believed in, would eventually spill-over to our neighboring ASEAN countries. Presently, there are MPAs in Indonesia that are patterned after the Philippine concept. We sent technical or experienced people from Central Visayas to Manado and Bunaken in Indonesia to assist them establish their MRs. Now, Indonesia has some of the best and famous MPAs. A visit in Bunaken in 1993 with then President Fidel Ramos was a satisfying one because of the observed positive effect of their MPAs in terms of increase in fish biomass and sizes. However, after a few years and another visit, the satisfaction became a disappointment — no large biomass of fish was present. Instead, so many kinds of activities not compatible with marine protection were happening around the area.

In Vietnam, where there are published accounts of MRs, personal observation indicated that their MPAs are not that protected. People visiting the sites just grab anything without thinking of protection. The concept of marine protection in Vietnam which is also a developing country is not that successful because of the absence of community cooperation. On the other hand, a top to bottom type of scheme is being applied in the MPAs of Malaysia and this proved to be very effective there, which is an exemption rather than the rule. When this same scheme was done in the Philippines in the 1980s by the DENR in the Central Visayas, it was a colossal failure.

MPA Establishments Benefit Fishers and Coral Reef Protection

The concept of no-take zones is the only way that we can preserve our coral reefs. The present assessment is that we have less than 10% of coral reef areas in the whole country that are protected. This is about 200,000 has. out of the total 2,000,000 has. in the country. This means that we have a long way to go to really protect our reef resources! But it's satisfying to note that there are at present 1,100 MPAs in the country. If these are all existing and well-managed, we should be the happiest country in the world with lots of demersal and coral reef fishes marketed everyday to people that live far from the coasts.

Silliman University (SU) Marine Reserve Establishment Program

SU has more than 30 years (1974-2006) of data collected and analyzed which showed the potential of no-take MRs. It also showed the importance of time-series data collection and monitoring on MPA development. There is a book entitled "The Science of Marine Reserves" which the University will publish that will be helpful and interesting for everybody engaged in coastal marine protection.

These are the rationale for the SU establishment of its MR Program:

- Widespread and massive destruction of coral reefs by 1974
- Perception of reduced fishery production from coral reefs estimated at ca 30% of total capture fisheries
- As field research laboratory for the newly established marine laboratory of the Biology department
- Need to focus on neglected area of marine biology

SU campus is located in the SE part of Negros Oriental. Its marine laboratory, SUML, is located along the Silliman beach area, a stone's throw from the main campus. It was established almost at the same period that the UP Marine Science Center, now the UP Marine Science Institute was being established.

FIGURE 1. Shaded areas show the traditional research areas of Silliman University in the Visayas and Sulu Sea.

Our objectives are:

1. Conserve and protect coral reefs
2. Conserve and protect marine biodiversity
3. Build-up species richness, fish abundance, fish biomass on coral reefs
4. Improve reef fish yield thru spillover
5. Protect reefs for income-generation
6. Use research data for formal academic education and community extension

Improve reef fish yields thru spillover is one of the main objectives of the program at that time. This would be favorable for income generation of fishers through sustainable means. Data generated would help improve the information about a subject matter (i.e., coral reefs and coral reef biodiversity) for formal academic teaching. On the other hand, we use the data for the benefit of communities through the extension program which is part of the University's responsibility to the local communities.

SU's extension program is accomplished through:

1. Partnerships with LGUs, local communities, government agencies and other stakeholders for sustainable management
2. Community-organizing, IEC campaign, extension, linkages for management
3. Regular monitoring of protected reefs using standard research methods involving students
4. Publication of research and monitoring data

SU was witness to the failure of a top-to-bottom strategy of the DENR at that time, and taking from that cue, we set-out to engage communities and partner with LGUs, government agencies and stakeholders. We strengthened our community organizing skill and IEC campaign in order to win over people to our side. Community will always say, "We have to fish because we need to fish". They do not care whether coral reefs or mangroves are protected or not. You have to give them a strong reason why is there a need to protect the resources.

At that time, we participated in the ASEAN-Australia Living Resources in Coastal Areas Project and the methodologies generated from that Project are now being used as standard methods on reef surveys in the ASEAN and Australia.

- Our research bases are in the islands of Sumilon and Apo. Apo Island is a community-based managed MPA while Sumilon followed the co-managed scheme. Experimental control areas were established i.e., area within the reserve or no-take zone, and area outside of the reserve. These were subjected to experimental fishing where catch data were compared from time to time.
- One of the considerations in setting up MPA is to know how propagules or larvae reach the MPA sites. Our aim is to link this together with protection and management of MPAs by local communities.
- One of our publications in 1990 entitled "Effects of MPA: Fish Biomass in Reserve is Directly Related to Total Fish Catch outside the Reserve" showed the positive effect of MPAs in terms of fish catch in adjoining

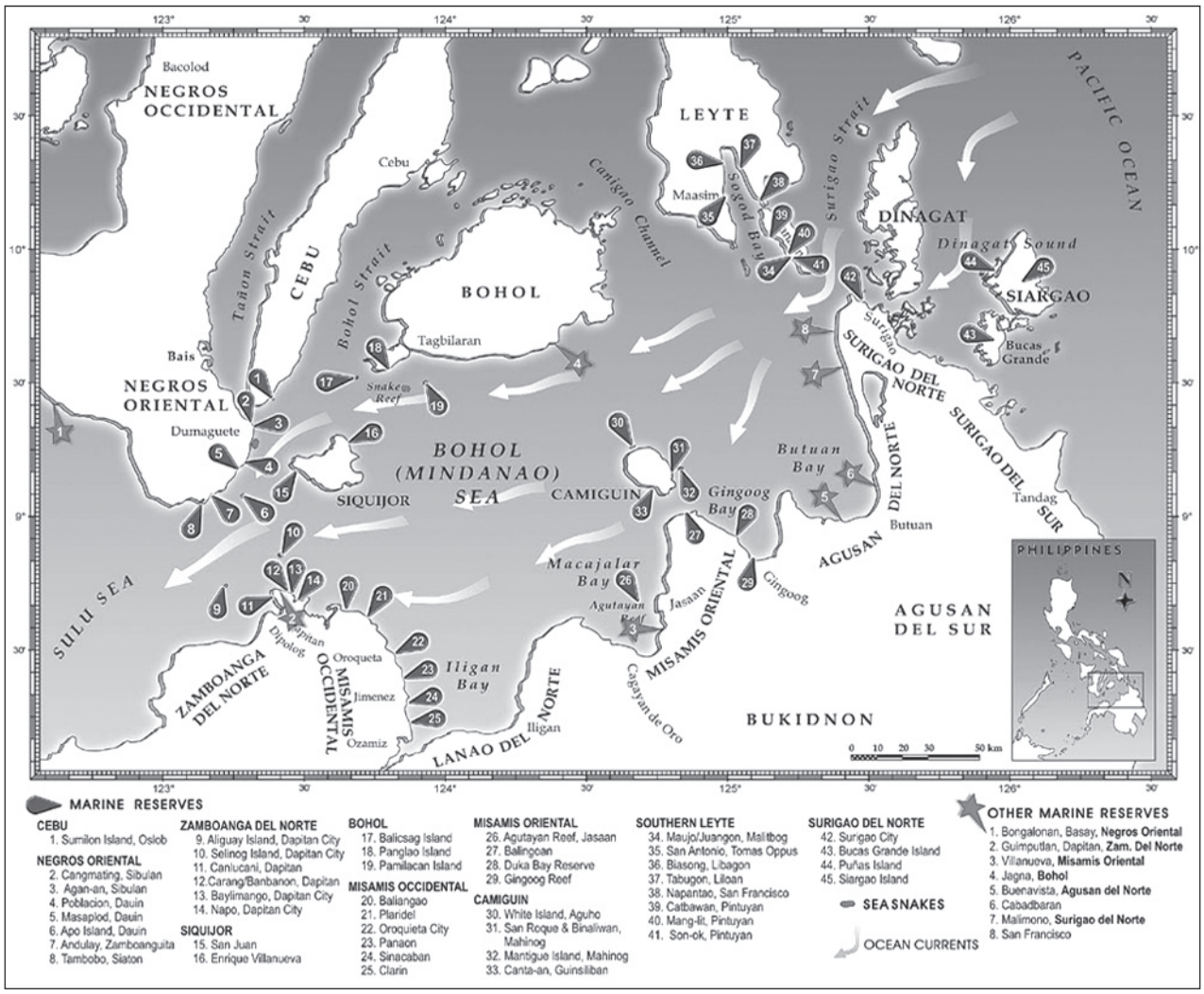


FIGURE 2. About 81 (of 350+) MPAs set up/associated with the SU Program in Bohol Sea, Central Philippines.

areas. This conclusion was the result of continuous monitoring of the Apo Island Marine reserve for a period of 20 years. Other results showed positive correlation between protection and biomass of four predatory fish families in the two study areas; others showed relationship of density and biomass with years of protection based on a 20-year time series data (e.g., fish density is linear while fish biomass is exponential).

- One good reminder when setting up MRs is that you do not make promises to the communities that they will get plenty of fish right away after MPA establishment. It takes several years for the spillover effect to be felt. Evidence for spillover of adult fish biomass usually happens at the boundary of the MR where CPUE is often higher. Fishers, as a result, fish only within 50 to 100 m from shore thereby saving on fuel, time and energy. 22 years of protection show increase in species richness of predatory fish e.g., groupers, snappers, jacks, and emperor breams.
- Some of the benefits of MPAs are shown in the following data: *1) Locally:* Dauin & Apo tourism receipts are estimated about $700,000 annually; coming from just the use of their biodiversity showcase program plus proceeds from Bohol Island. *2) Regionally:* for Bohol Sea and nearby seas with -ca 150,000 coastal residents benefiting from spillover, estimated at 10% of total annual fish yield or catch. *3) Nationally:* RA 8550 (Fisheries Code) and Municipal Ordinances served as policy frameworks for MPA establishments resulted to more than 350 no-take MPAs in the country, ca 100,000 has. or 10% of total coral reef area protected. *4) Internationally:* the Philippine concept of no-take reserves was adopted by many nations; and Shedd

Aquarium in Chicago had showcased the Apo Island model of coral reef conservation that is community-managed and sustained for nearly 30 years.

- SU has a good number of publications on marine protection program. As an academic institution, we have to show that our observations are publishable. Students no longer need to go to the bookstore to get data, but instead use our own data.
- Two of our paper publications have more than 100 citations. One can tell the quality of a paper by the number of citations. We would never have done what we have accomplished if we did not work with communities and LGUs. The proof of our endeavors can be seen in the many papers published on community-based or community-managed MRs.
- Some of the current studies being undertaken by the University are: the basis of sustainability through population genetics and biogeography. Our area is very close to Pacific Ocean and the Sulu Sea. Recent studies on biogeography and genetics suggest separation of populations at finer scales (<100 km). Studies are underway to predict connectivity using simulations of larval dispersal, test predictions by more biogeographic surveys, genetics and tagging of larvae to find out the mechanisms by which fish larvae can be distributed in our MPAs. If these are proven, proposal to put more protection for the source areas than the receiving areas may be recommended. Some areas in the Sulu Sea are upwelling areas which are very productive. We are interested to know what will happen to the fisheries of these upwelling areas while at the same time tackling the effects of global warming on the marine biology of the area.
- I would like to close my presentation by quoting Edward Wilson who is one of the leading experts on biodiversity. "At the end of the day, in a more democratic world, it will be the ethics and desires of the people, not their leaders, who give power to government and the NGOs or take it away. They will decide if there are to be more or fewer reserves, and choose whether particular species will live or die." We have to give people the power to manage their resources; we scientists cannot do that for them. What we could do is to conduct studies and present the data and results in an understandable manner to the people and to the policy makers. Sometimes policies are dotted-off from the air and taken down to earth, but nowadays, things are different. What we have been doing for quite sometime become bases of policies. Therefore, we expect that our findings on the benefits of marine reserves should already be the basis of policies, some of which are already taken into consideration in the promulgation of RA 8550.

Open Forum (Q & A)

Question 1:

Do you have data on the larval dispersal to the bottom of the channel of Tañon Strait?

Response:

We have some but we have no indications that there are some areas where the larvae circulate and they are not related to the marine reserves. The project is still being done so the data is not perfect yet. When we delve more deeply into the data then it will come out in publication.

Comment:

I have read in one of the publications of Daniel Pauly that 25% of the surface of all oceans should be put in marine reserves. So, in this Congress we are only targeting 10% so what do you think of that?

Response:

I think Dan Pauly is right and the Sumilon experience probably influenced him. Sumilon Is. has 25% no-take protected area from the area of the whole island and apparently, Sumilon has more spillover compared to Apo Island. So, I would agree with 25% but you would have to argue with the fishermen if you go beyond 25%. What we usually do is start from 10-15% and then convince the fishermen to increase their protected area. I think that Dan Pauly is one of the more insightful marine fishery scientists I know.

Question 2:

Can you tell something about your methodology for analysis of type and amount of larva that you have in your class?

Response:

Just give me your address and I'll send you the papers. This methodology was arrived at in the 1980s with a team of Australian and Filipino scientists, me included. We came up with this methodology and this has become the standard and is being used in publications. In the interest of time, just give me your address and I'll send you some of my reprints. Thank you.

Workshop Output Presentations

1. *Group of Sub-theme 3:* Recent Concerns with Pollution in the Coastal Zone

Presented by Ricky Biyo *(CI-Phil)*

Mr. Biyo presented briefly the group's output on: Sources of marine pollution, current practices to mitigate pollution, gaps identified on current management practices, vision statement, action plan, identified activities per action point. *The group noted that marine pollution is a complicated problem that needs to be addressed by the different stakeholders in the country.*

Open Forum

Comment/Clarification:

On the listings of pollution, whether it is on-site or off-site, the problems I think are not effectively being addressed. These two sites quite differ from one another that they require different sets of solutions. Specifically, the off-site almost have no control whatsoever. On the environmental risk assessment (ERA), since there is no law passed on this yet, then we cannot put this as one of current mitigating practices but rather as a recommendation for advocacy and promulgation under the action plan.

Suggestions/Modifications/Revisions to improve the group's outputs:

- In the sources of marine pollution under aquaculture, include excess from fish feeds
- In the sources of marine pollution, include mining and quarrying as two separate terms
- Under biological pollution, include introduction of new fish species; wastewater under industries-related; farm chemicals under agriculture; and deforestation, sedimentation, siltation under forestry
- In the action plan, include water-use
- In the regulation and implementation, include "strictly enforce the provisions of the Water Code" and promotion of ecological sanitation (ECOSAN)
- Change the word "karagatan" in the vision statement to "katubigan at baybaying dagat"
- Delete ERA under current practices and put it under regulation and implementation
- Under SFM, include formulation of SFM

ADOPTED PLENARY SUB-THEME 3 WORKSHOP REPORT:
Recent Concerns with Pollution in the Coastal Zone

Sources of Marine Pollution

Aquaculture	• Excess feeds (e.g. fishponds, cages, etc.) • Bleaching agents from seaweed farms
Man-made wastes	• Marine litter • Plastics, styrofoam, garbage
Urban wastes	• Industrial wastes, used oil
Agriculture	• Farm chemicals, fertilizers, piggeries, poultry, siltation
Human wastes	• Domestic wastes, solid wastes from households
Tourism–related establishments	
Biological pollution?	• Introduced species, Invasive species, harmful algal blooms
Quarrying	
Forestry	• Deforestation, siltation, sedimentation
Mining	
Industries-related	• Oil spill, chemical spill, wastewater

Current Practices to Mitigate Pollution	*Gaps*
• Stakeholder's mobilization – Coastal clean-up – Organized waste collection/segregation	• Lack of funds
• Waste management practices – Promote solid waste management (3Rs) – Composting/organic farming – Closure of open dumpsite	• Lack of political will – LGU to enact strict laws with penalties – Apprehend violators – Penalize industrial polluters
• Zoning /land use plan	• Devolution of regulatory function to LGUs
• Laws/regulations – Polluter fees for industry – Permit system – Compliance with ECC, EIA, IEE – Implement RA 9003 – ESWM ordinance	• LGUs to prepare ESWM plan

VISION STATEMENT:

"*Sa susunod na limang taon, nais namin na magkaroon ng higit na malinis, ligtas at masaganang katubigan at baybaying-dagat na pinangangasiwaan ng responsableng pamayanan tungo sa likas-kayang pag-unlad.*"

Action Plan	*Identified activities per action point*
Intensify solid waste management and/or establish other relevant waste management programs in each municipality/city	• SWM Program institutionalization – establishment of waste management facilities in each municipality – coastal clean-up – wastewater treatment – closure open dumpsite/conversion to sanitary landfill – set up anti pollution devices – reuse reduce recycle/use less plastic/use paper bags – domestic waste collection organized – composting/set up compost pit/start in backyard – development of ESWM plan
Establish/Institutionalize pollution monitoring and evaluation program for the coastal zone	• Monitoring and evaluation – water quality monitoring/at least quarterly /set up monitoring stations. – biological monitoring and assessment – establish institutionalized pollution monitoring and evaluation program – develop environmental quality criteria i.e. sediment quality – improved monitoring thru MMT – integration of BAPs in municipal development plans
Promote and support sustainable livelihood practices	• Alternative livelihood development – promote organic farming – organic agriculture – sustainable mariculture practices

(continued next page)

Strengthen collaboration and participation among various stakeholders and communities in coastal resources management	• Social mobilization – strong collaboration of stakeholders – participatory planning and review – community participation/involvement – involvement of schools on SWM
Increase level of awareness on coastal management	• IEC campaign and Capability building – IEC on ESWM ordinance – SWM curriculum integration – education of polluters – media reports on environmental issues – environmental education for senators and congressmen – involvement of artists and TV stars on environment – environmental education in economics and management schools – reappropriation of nature by mega cities citizens
Develop sustainable financing mechanisms to support waste management and pollution control	• Sustainable financing mechanisms – provision of funds for municipal waste management – formulation of sustainable financing mechanism
Enhance/Intensify implementation of waste management and other pollution control laws, rules and regulations	• Regulation and implementation – review status and implement laws more stringently – permit system – polluter's pay system – harbor fees/penalties – solid waste management – ECC, EIA, IEE – promote use of Environmental Risk Assessment (ERA) – promotion of ecological sanitation (ECOSAN) – land-use plan/zoning including water use zoning – formulation of ESWM ordinance – LGU enactment and enforcement of ordinance re sewage/septage treatment – strictly enforce provisions of water code – prohibition of septic tanks within 20 m easement – Alamin kung sino and nagpopollute, nagpapatupad ng batas at nagmomonitor
Design and establish research and development agenda focusing on, but not limited to, carrying capacity of the marine environment and utilize scientific inputs in mitigating pollution in the coastal zone	• Research & Development – develop a market for solid waste reuse – research on waste local reuse

2. *Group of Sub-theme 1:* Sustainable Financing Mechanisms (SFM)

Presented by Amado Blanco *(Project Seahorse)*

Mr. Blanco presented briefly the group's outputs on: Sources of support, Gaps identified for the present support received, Vision statement, Prioritized Action Plan, and other Action Plan. He emphasized that the group was guided by 3 questions which put the 'support' to a larger perspective than that of only the financial aspect.

Open Forum

Comment/Clarification (Participant):

In the vision statement, you foresee that all of the vision will result to sustainable livelihood, yes? If so, there is no need to put that statement anymore.

Suggestions/Modifications/Revisions to improve the group's outputs:

Under the vision:
- Delete "These will all result to sustainable livelihood"
- Instead of the word "established", change it to "institutionalized"
- Include in the vision the word "and cities" after the "municipalities"
- Instead of "three years" change it to "five years"
- Delete "Done by well participative stakeholders" and change to "with active participation of stakeholders"
- Retain the word "at least 50%"
- Add "financially sustainable programs"

The statements such as: 50% of LGUs committing funds for ICM; Strongly organized and well equipped CRM programs in municipality; Optimal resource allocation and utilization; payment of environment services; and Clear stakeholder roles and contribution to ICM, should not be under the Vision but instead be classified as "Objectives".

Include in the prioritized Action agenda, "proposed amendment to the LGC to include the water areas for purpose of computing the IRA"

ADOPTED PLENARY SUB-THEME 1 WORKSHOP REPORT:
Sustainable Financing Mechanisms

Situation	*Gaps*
• Government Financing	• Lack of sustainable mechanisms for financing
• Community Contribution	• Lack of funds due to misuse and low priority
• Funding from Donors and NGOs	• Lack/Limited funds for salary, programs, planning, livelihood support, etc.
• Users' Fee	• Lack of government support/Chief Executive support
• Fines	• Lack of support for – policy formulation – law enforcement – monitoring and evaluation – IEC (for leaders and people)
• Partnerships and Counterparts	• Lack of community support and trust
• Technical Assistance from NGAs, LGUs, donors	• Lacking ICM plan in the LGU Development Plan
• Livelihood	
• Logistics (e.g. buoys)	
• Support for Policy Formulation	

VISION STATEMENT:

"*In the next five years, we envision ICM/CRM institutionalized in at least 50% of the coastal municipalities and cities in the Philippines with active participation of stakeholders through financially-sustainable programs.*"

Objectives:

- 50% of coastal municipalities committing funds for ICM
- Strongly organized and well equipped CRM programs in municipality
- Optimal resource allocation and utilization
- Established user's fee (payment of environment services)
- Clear stakeholder roles and contribution to ICM

Prioritized Action Agenda	*Other Action Agenda*
• Set up national, provincial, regional, municipal organizational/structural or mechanism that will ensure ICM financing/ proper resource allocation at all levels – Strengthen client based mechanisms / support systems / coordination / networking / IEC and social marketing of ICM / promotion of incentives – Program capability building (e.g. training for LGUs especially on proposal development; resource assessment)	• Lobby for the amendment of the RA 8550 – make mandatory the networking among the contiguous LGUs surrounding identified key biodiversity/production areas; increasing the penalties, etc.
• Baseline studies and identification of key biodiversity / production areas	• Lobby for the amendment of the LGC to make environmental officers mandatory
• DA-BFAR to issue IRR to delineate municipalities with offshore islands	• Institutionalization of LGA programs on coastal resource management
• ICM as a rallying point for private-public partnerships	• Strengthen implementation of DILG policy on a Comprehensive Land and Water Use Plan
• Propose amendment to the Local Government Code to include the water areas for purpose of computing the internal revenue allotment	• Strengthen FARMCs/fisherfolk organization who will lobby to their LGUs to provide ICM services

3. *Group of Sub-theme 2*: MPA and Ecosystem-Based Fisheries Management (EBFM)

The Group Leader presented briefly the group's outputs on: Current situation on MPA management, Gaps and issues identified on management of MPAs, Vision statement, and Prioritized action plan

Open Forum

Suggestions/Modifications/Revisions to improve the group's outputs:
- Under the Current Situation on "baseline established", include spawning aggregation (SPAGS) sites
- Under Priority Action by Rank – insert in number 4 "Harmonization of local and national policies on protected areas"

ADOPTED PLENARY SUB-THEME 2 WORKSHOP REPORT:
MPA and EBFM

Current situation related to MPA management	*Issues/Gaps related to MPA management*
Setting up and Planning of MPAs • Linked to CRM plans • Community-led establishment and planning process • Joint management of adjacent municipalities • use science for MPA establishment	Funds • Inadequate • No budget allocation • No policy to support allocation • Build alliances to leverage for funding/technical support
MPAs organized • Site prioritized for MPA establishment • Initiated MPA networks • strengthened individual MPAs through clustering • Well-managed MPAs are now ecotourism destinations • LGU-managed co-management scheme PO + LGU with technical assistance from NGOs	Political Will • Enforce fisheries policies • *"Padrino"* system • Support from LGUs • No incentives to law enforcers who caught violators
Resource Use Conflicts • Fisherfolks and LGUs, • Municipal and commercial fishers jurisdictional and legal (e.g. Tañon Strait), public access to MPAs	Technical Support • Need to be provided to municipalities, like: • The impacts of land-based activities and pollution • MPA site selection • Appropriate schemes for mangrove rehabilitation • Understanding connectivity (e.g. source and sinks) • Data management analyses
Sustainable mechanisms • User fees, partnerships with academe, promoting ecotourism	Capacity Building • On assessment • Monitoring and evaluation • MPA management and planning • Para-legal

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Baselines established • Inventory, condition of habitats (coral, seagrass, mangroves), spawning aggregation sites	Integration of management plans • CRM in ICM • Integrated watershed
On-going IEC activities	Formation and strengthening of management bodies
Enforcement organized • Apprehension of violators, funding provided, patrolling, networks formed, organized operations and Bantay Dagat task force	General needs • Policy (National and Local) • Funds • IEC • Equipment
Formation and strengthening of MPA management councils/governing boards composed of PO reps, BLGU, MLGU)	

VISION STATEMENT:

"*In the next 5 years we envision that marine protected areas are established, sustainably funded, functional and managed at the appropriate ecosystem scales with a properly capacitated host community's participation through the most appropriate mechanisms, including alliances and marine protected area networks, and based on sound science such that they contribute to sustainable fisheries, food security and ecotourism.*"

Priority Actions by Rank

1. Institutionalize CRM/ICM in the LGU level with fund/staff component
2. Continued collaboration with research institutions (national/international) to provide technical expertise to local governments and their constituencies
3. Empower local communities on MPA/EBM management
4. Formation of MPA networks and alliances (municipal-provincial-regional-national). Harmonization of local and national policies on protected areas.
5. Network and linkages with national and/or foreign funding institutions

Drafting of Congress Resolution

A. Discussions on the Congress Resolution

- Discussions started at 11:35 AM

- Ms. Luzviminda Villas of Batangas read the draft Congress Resolution prepared by the team of facilitators and documentors based on the outputs of the 3 workshop groups.

- The group decided to run through the resolution page by page.

- General Impressions on the draft resolution
  1. Long list of commitments or what the Congress intends to do
  2. No clear demand on what the national government agencies (e.g., DA, DENR, DOST, etc.) should do
  3. No title

- Since the participants have gone through the resolution, it was suggested that a committee be formed to study closely and do the necessary editing of the draft resolution. The following were chosen members:
  - Atty. Edwin P. Abanil (PEMO, Negros Occ.)
  - Mr. Nygiel Armada (FISH Project)
  - Atty. Joel Cabahug
  - Dr. Margarita de la Cruz (GDFI)
  - Dir. Theresa Mundita Lim (DENR-PAWB)
  - Atty. Rose-Liza Eisma-Osorio (CCEF)
  - Atty. Wilman Polisco (EcoGov 2 Project)

- The committee worked over lunch break

- Session resumes at 1:10 pm for the paper presentation of Dr. Angel C. Alcala of SUAKCREM. He was introduced by Dr. Sheila Vergara as the former Secretary of the DENR and a former 'boss' at the Department.

B. Presentation of the edited version of Congress Resolution:

The edited version was presented by Atty. Wilman Polisco (EcoGov 2 Project) to the plenary body.

1) The suggested title of the Congress Resolution was "Resolution of the Coastal Zone Philippines 2 – MPA Congress Adopting the Action Agenda and Calling on Concerned Agencies to Act Thereon".
2) The whereas portion stated the following:
   - the first whereas stated the general concerns on issues and problems
   - the second whereas stated the convening of the Congress to resolve the issues
   - the third whereas stated that different workshops were conducted resulting in agreements by the participants which form part of the Resolution
   - the fourth and fifth whereasses stated the general Vision
   - the Action Agenda presenting the agreements was enumerated for adoption
3) Suggestions given by the body to further improve the Congress Resolution
   - Include in the participants the: "donor agencies" together with the LGUs, POs, NGOs, academe, donor agencies, and NGAs
   - Instead of solid waste, just simply put "waste"
   - In Section 4, add: "sustainable financing mechanisms such as but not limited to user fees"
   - Under Resolved Finally, include DOST, DILG, DOF, DOT, DTI, DOTC, DPWH and DBM as other government agencies. Include the "civil society groups and private sector" after "other concerned government agencies"
   - Spell out all the abbreviations
   - Under Section 1, add: "a. Mandatory allocation of at least 5% of the 20% development fund of LGUs for ICM/CRM" under Section 1.

After all the suggestions, corrections, and refinement were done, the final draft of the Congress Resolution was read by Dr. Margarita dela Cruz (UP-Tacloban and GDFI) for approval and adoption by the plenary body. The final Congress Resolution was unanimously approved and adopted at 2:30 PM.

C. Responses from the Panel of Sector Representatives

Usec. Manuel Gerochi
for the DENR (Government)

Let me deal with just a small portion of the resolution. Let me accept the fact that we, at the DENR, cannot do alone the mandates of conserving and protecting the environment and the natural resources. This is the work not only by the national government but by everybody.

I noticed that we are very strong in enforcement and integrating tourism in the concept of ICM. To me this is a double-bladed thing. Enforcement without capacitation and education is basically a dangerous proposition because it will only be used as an excuse for corruption. Anything that is dictated and enforced might solicit a negative reaction from the populace who might not understand the rationale of what we are trying to do, which instead of achieving our goal, will instead lead to something else (e.g., corruption). This becomes a problem of governance and this is in fact the greatest debate in the United Nations now. What is important to me is that you ingrain in a person's system, the knowledge or culture of protection and conservation. This is accreditation which means changing culture and behavioral patterns.

When we talk about tourism per se (DENR by the way is part of the national steering committee on eco-tourism), my objection has always been, that before putting the concept of tourism in conservation or MPAs, we should already have a concrete idea on what kind of tourism we are putting in place. If we visualize Boracay as an eco-tourism model then I am afraid there is something very wrong in our concept. I, for one, will not integrate that kind of eco-tourism concept in our ICM activities.

I heard this from Dr. Alcala earlier, when he talked about MPAs being a no-touch zone, an area wherein you only look and not touch. I have seen this in the European park model, that's why they have boardwalks. You are there at a vantage point, you don't integrate yourself inside that park because you don't have to touch any part of that park, and you are there only to appreciate the park. And this is how Europeans envision eco-tourism. Do we have the same vision? What is our eco-tourism model in the country? I agree that one alterative form of livelihood for MPAs is tourism. I am suggesting in fact, to the national steering committee on tourism to adapt the 'bed and breakfast' concept in Europe so that tourism will really benefit the people in the protected area. This is not to build hotels in the area but rather improve the local houses of the people in the area to cater to the standard of tourists coming in. That will be a direct income generation for the people. If you invite hotels and put up buildings the result would be a forest of buildings, and if you set that up in a coastal area then that will contribute to the pollution of the area that is, if you do not have a sophisticated or well-planned sewage management.

Lastly, let me just point out the national land-use policy, which I should have included in my recommendation. Marine pollution has its origins from terrestrial activities. In the Philippines, some government agencies like the DA and BFAR have land-use policy laws but these are usually fragmented, not harmonized to have a definite land-use policy for the country. For example, in the preparation of the Verde Island Passage conservation plan, should we allow those oil refineries to be nearshore? What is our policy on pollution vis-à-vis protecting the Passage? What is the land-use plan to conserve that whole area? It is a coastal marine issue but the land-use plan is an important component because land is the source of pollutants. Whenever I talk of marine conservation, besides overfishing, and the malpractices of fishing methods, I am always reminded that we are also confronted with the terrestrial influences. Thank you.

Director Drusila Esther E. Bayate
(BFAR VI) for the DA-BFAR (Government)

Good afternoon everyone! As I go over the resolution, there is one point that we have missed when I saw that there was a suggestion for mandatory allocation of at least 5% of the 20% development fund. We at BFAR have been through several projects: the Fisheries Resource Management Project (FRMP), the Fisheries Sector Program (FSP) in partnership with DENR, stakeholders and LGUs, to mention a few. We are now seriously looking into the education information, education and communication (IEC) campaign for school children, wherein Region 6 has been very active in educating the school kids in the coastal communities. I hope that it would be incorporated in this Resolution, maybe as part of the curricula of school kids in their mandatory education so that we can make them active and passionate advocates and stakeholders in ICM. Well, this is quite a long term program but we see now that education starts at nursery and it might not be too long to wait when these same kids graduate from grade 6, when they become active advocates and stakeholders in their communities. We notice that when kids from private schools in Metro Manila visit coastal communities, the kids from the fishing villages are fascinated with the trendy and fancy looking bags and shoes of these rich kids from the city. Although these kids from the private schools have the passion to save the environment, they do not understand the concept of hunger in these coastal villages. In my humble opinion, I think that there should be a massive educational campaign for kids on integrated coastal management. Thank you.

Dr. Angel C. Alcala
(SUAKCREM and former DENR Secretary), for the Research Institutions

Good afternoon once again to everyone. I thought I would be spared in doing the task of commenting or reacting on this very valuable Congress document since I was not really here during the deliberation this morning. At any rate, I find the Resolution a product of lots of good thinking, and very comprehensive in scope. I think if followed and if there are agencies tasked to lead each of the 10 action agenda/activities, perhaps we can expect better implementation; more so, we can evaluate these agencies at the end of a period of time to check whether they did their work or not, of course this also includes the academe to which I also belong. We should think of which agencies that are listed here are tasked to be focal points or lead in each of the 10 action points. As I have pointed out in my previous presentation, one of the things to greatly affect the marine biodiversity and fisheries is global ocean warming. Global ocean warming should be put on top of the monitoring activities which I think the academe can fully address to in cooperation with the coastal communities, since they are in the forefront of determining the vulnerability of our marine ecosystems. We do not have studies yet on how vulnerable marine and even terrestrial ecosystems are to climate change. For example, how vulnerable is the mid mountain forest to climate change since these are ecosystems which are storage of large volume of waters? In the same manner that if global warming occurs in coastal areas, there will be changes in the patterns of water in our internal seas which may change the pattern of nutrient flow that may drastically affect the food chain. If we do not anticipate this, we might just be barking at the wrong things when we talk about climate change. I suggest that it should be an area of concern for the monitoring activities set forth in the action agenda.

On the marine pollution aspect, right now, there are people complaining already about the possible potential pollution of the Tañon Strait via the project of JAPEX which will drill 3 km from the bottom of the Tañon Strait at the level of the municipality of Pinamungahan. Questions as to what would be the possible effect of the cuttings coming from the drilling activity considering the current system in the Strait which leads to the Sulu Sea. Despite the complaints from people, DENR already issued an IEE. That IEE is practically useless as far as what will follow or happen later. We should be very careful when we disturbed the sea bottom and that is 3 km below the sea floor! The IEE, by the way, referred to the 2001 data of BFAR and we should remember that it is now year 2007! This is just an example when we talk about pollution monitoring and evaluation, we need to have some guidelines. As I understand, DENR declared Tañon Strait as a protected area! Unlike land where you can control almost everything, we do not have any control of the happenings at the bottom since the currents control them. Some of the things recommended here are already in effect, for example #10 is already being done. Maybe it should instead indicate that more effort should be put into this activity.

Lastly, I would like to point out to the comment of Usec. Gerochi regarding some adverse effects of tourism on MPAs. We really need to be very careful with some of the tourists' activities on the protected areas. For example, on diving activities, too many people diving at the same time would put pressure on the MPA and will also scare the fish and other organisms in the area. There must be a means of controlling activities, like limiting the number of divers. This remedy is already being done in some areas in Bohol which is a result of some research we had done regarding this problem. Thank you.

Chancellor Glenn D. Aguilar
(UPV), for the Academe

Can I just say Amen to everything that has been said? What I wanted to say now, I had already said in the concluded press conference outside. But I would just like to add as reinforcement on what was said earlier about education. It is true that we are talking about the sustainability of the ICM, but the greatest component for any sustainable development efforts is the human capability. I think that it is in order that somewhere, it should be inserted that the basic principles of ICM must be integrated in Philippine society and in all its citizens. This involves, of course, integrating into the curricula from pre-school to college. We also have to support the research and scientific efforts with IEC mentioned earlier. If we really want to be sustainable, we should seriously consider integrating the concepts of ICM into the basic education system of the country.

The second point I want to emphasize is bringing the concepts that we are all aware of in this Congress into national consciousness wherein media will play a key role. I really don't know if there is a group that is working on a strategy to market the concepts involved. Citing MPAs and ICM concepts take-off in the next few years with marketing strategies, getting different kinds and levels of media exposure, is very much in order.

My third point which I have observed yesterday and also from a number of participants, is the involvement of other sectors of society in this effort. I believe there is now a window of opportunity to involve the greater sector because of increasing awareness particularly with the commercial sector. I am talking about not only the commercial fishing sector but also the corporate legal foundations because they have increasingly been interested in getting involved. So we noticed a convergence of government, corporate, and donor attention, as well as the increasing involvement of different levels of the Philippine government as well as stakeholders and of course the communities. This is an opportunity to build on increasing awareness and to do something significant. Having said all that, I have complemented all those that have been said earlier. Thank you.

Ms. Anna Theresa L. Licaros
(Bb. Pilipinas-Universe 2007), for the Celebrity sector

Good afternoon once again to all! And you thought I could just host or emcee. And now that I am here, I am going to comment or give my reaction on this sort of work. So the first thing that came to mind (because I only signed up to be the host for this event) when they asked me to comment was, who am I to be given this privilege, this honor to be lined-up with ICM experts, what qualifications do I have to comment on the work which you have apparently been doing for so many years.

Three answers came to mind: *1)* I love to eat seafood; *2)* I like to snorkel; and *3)* I plan to have children. So, these 3 things make me perfectly qualified to be involved in an issue so few people would delve in, as a stakeholder. I would like to give my affirmation to all that have been said by the other panelists. I appreciate that there are a lot of NGOs which participated in this Congress and is gratifying to learn that many are involved in this kind of endeavor. I appreciate the participants' honesty in recognizing the need for fund access in ICM, not only in terms of money but also on the human capacity specially the younger people. Their involvement in this kind of endeavor is very much needed. So, I hope that the action points lined up in this Congress Resolution would be achieved for the betterment not only of our coastal populace but for the whole nation as well. Thank you for having me joined this Congress, it is an eye-opener for a law student like me and as Bb. Pilipinas title holder, that in my own little way, as you dubbed me a celebrity, I would be able to contribute in terms of promoting the ICM program to other celebrities like me through advocacy work. Maraming salamat po!

(After the panel members had given their comments and reactions to the Congress Resolution, they then affixed their signatures on the official Congress document; at the same time the Congress participants did. Copies of the Resolution will be sent to the presidents of the League of Municipalities of the Philippines (LMP) and the League of Provinces of the Philippines (LPP), and the Philippine Congress).

RESOLUTION of the Coastal Zone Philippines 2 Sustainable Financing and MPA Congress Adopting the Action Agenda and Calling on Concerned Agencies to Act Thereon

WHEREAS present financial, material, technical, and policy support are inadequate for sustained ICM/MPA management;

WHEREAS Coastal Zone Philippines 2 and MPA Congress was convened on October 27-28, 2007 with participants from LGUs, POs, NGOs, Academe, NGAs, and donor agencies to tackle issues on sustainable financing mechanisms, MPAs and ecosystem-based fisheries management, and pollution in the coastal zone;

WHEREAS, workshops and discussions were conducted resulting in agreements approved by the participants in plenary, which agreements form part of this document;

WHEREAS, in the next 5 years we envision that sustainably financed ICM/CRM is institutionalized and MPAs established at the appropriate ecosystem scales such that they contribute to sustainable fisheries, food security and ecotourism;

Whereas, we envision, for a cleaner, safer and robust marine resources managed by responsible stakeholders towards sustainable development;

NOW, therefore, it is resolved as it is hereby resolved to adopt the following action agenda:

1. Advocate for the improvement of fund access and availability by:
   a. Mandatory allocation of at least 5% of the 20% Development Fund of LGUs for ICM/CRM,
   b. Institutionalizing ICM/CRM at the LGU level with fund and staff component,
   c. Networking and linking local initiatives with both national and foreign funding institutions.
2. Support the formation of MPA networks and alliances (municipal-provincial-regional-national).
3. Facilitate access to adequate technical support from appropriate government agencies, research institutions and non-government organizations.
4. Promote and develop capacity of coastal stakeholders for MPA management, including resource use conflict resolution, and establishment of sustainable financing mechanisms such as but not limited to user fees.
5. Strengthen law enforcement capabilities at LGU and inter-LGU levels.
6. Advocate harmonization of local and national policies on protected areas.
7. Advocate for the establishment and institutionalization of pollution monitoring and evaluation program for the coastal zone as part of the waste management of municipalities and cities.
8. Promote and support sustainable livelihood practices.
9. Formulate research and development agenda focusing on, but not limited to, carrying capacity of the marine environment and facilitate the utilization of scientific inputs in support of decision-making in the coastal zone.
10. Promote ICM as a rallying point for private-public partnerships.

RESOLVED FURTHER to call on the concerned national and local agencies and organizations to act in support of this action agenda.

RESOLVED FINALLY, to furnish a copy of this resolution to the DENR, DA-BFAR, DOST, DILG, DOF, DBM, DOT, DTI, DOTC, DPWH, Congress, Leagues of Provinces, Cities and Municipalities and other concerned government agencies, academe, civil society groups and private sector.

UNANIMOUSLY ADOPTED this 28th day of October 2007 in Arevalo, Iloilo City.

Closing Ceremonies

Dr. Hilly Ann R. Quiaoit *(Xavier University)* and
Ms. Anna Theresa L. Licaros *(Bb. Pilipinas 2007)*
Masters of Ceremony

Certificates of Attendance/Appreciation were awarded to some 200 participants from Luzon, Visayas, and Mindanao representing their respective groups, organizations, and agencies from government, non-government and private sector.

Closing Remarks

by Usec. Manuel D. Gerochi
Department of Environment and Natural Resources

Good afternoon once again to all of you participants of this Congress, ladies and gentlemen!

May I commend and congratulate you all for organizing this Congress which encouraged active collaborative efforts of all stakeholders to mention, the National Government Agencies, Non-Government Organizations, Academe, Sponsoring Organizations, International partners and Local Government Units (LGUs), particularly the coastal communities which hopefully bring solutions to ecological disasters that have been storming around the coastal environment. This is very timely in the implementation of EO 533, towards identifying the real problems bombarding the capacity of the marine environment in providing the sustainable economic and ecological benefits to come up with viable polices and actions for the integrated protection, conservation and sustainable development of the coastal and marine resources.

Establishment of network of marine protected areas (MPAs) is so far the best tool to effectively and sustainably protect the coastal resources. The presence and ongoing establishment of network of MPAs is an indicator that there are coordinated efforts in the protection and management of the coastal resources especially by the concerned LGUs as they are the front liners in this kind of endeavor. Networking or Linkaging is a big challenge. It is not easy to implement conservation programs and projects in a hostile environment. There is a need to identify the best education program that would easily convince the affected populace to care and protect their environment. So, people-centered strategies would be positively embraced by the target community.

Program implementation must not only be based on tedious planning but sincerity and commitment must be felt by the beneficiaries which should go with your objectives. Strategies must not only be focused on the protection of nature but also the culture. Building true partnership between and among the community and implementers will pave the way for the success of any program implementation. May this initiative be sustained, and may the plans and actions you made be the center of the best options that will solve the issues, concerns and challenges of the present state of the coastal environment.

This is a challenge to all of us! Everyone here now must know his or her role after this Congress. Be a part of that VISION and work out for the achievement of that vision. Be the ROLE MODEL! Let us make this planet great again!

Thank you and God speed!

* * *

Dr. Perry M. Aliño, Congress Co-chair and MSN Steering Committee Chairman officially closed the Congress at 4:00 o'clock PM after thanking all the participants for a job well done and the various MSN partners which contributed to the success of the Congress. He then extended to everyone the invitation for The MPA Awards and Recognition (MAR) Event: The Linking of Champions which will be held at 6 PM on 26 November 2008 at the Celebrity Sports Plaza, Capitol Hills Drive, Diliman, Quezon City. The event will highlight the awarding of the 2007 Outstanding MPA in the country.

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Appendices

Appendix I. List of Congress Committee Members, Resource Persons and Discussants.

Chair: Porfirio Aliño (UPMSI/EcoGov 2 Project)
Main Documentor: Ramon Miclat (MERF-UPMSI)
Main Facilitator: Asis Perez (TK)

Plenary Session 1. Paper presentations

1. Facilitator: Robert Jara (DENR)
2. Documentor: Noela Lasmarias (REECS)
3. Co-documentor: Zita Toribio (EcoGov 2 Project)
   Merlina Andalecio (UP Visayas)

Workshop Sessions

Workshop Session 1:
Sustainable Financing (SF) Mechanisms
a. Facilitator: Preciosa Samonte (DOST-PCAMRD)
b. Co-Facilitator: Ronely Sheen (TK)
c. Documentor : Andre Uychiaoco (PEMSEA)
d. Co-documentor : Lilian Bondoc (DOST-PCAMRD)
e. Technician: Punta Villa Staff

Workshop Session 2:
MPAs and Ecosystem-based Management and Fisheries
a. Facilitator: Jessica Muñoz (DA-BFAR)
b. Co-Facilitator: Sheila Vergara (CI-Phil)
c. Documentor: Daisy Salgado (PLMMA)
d. Co-documentor: Miledel Quibilan (CI-Phil)
e. Technician: Punta Villa Staff

Workshop Session 3:
Recent Concerns with Pollution in the Coastal Zone
a. Facilitator: Sandra Arcamo (DA-BFAR)
b. Co-Facilitator: Lynette Laroya (DENR-PAWB)
c. Documentor: Emerlinda Dizon (Masinloc Coral Demo-Site Project)
d. Co-documentor: Loureeda Darvin (DOST-PCAMRD)
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Workshop Session 4:
MPA Best Practices from Sites
a. Facilitator: Wilfredo Campos (UPV)
b. Co-Facilitator: Margarita dela Cruz (GDFI)
c. Documentor: Samuel Mamauag (MERF-UPMSI)
d. Co-documentor: Reuben Campos (UP-Diliman)
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Plenary Session 2. Action Planning Session

Facilitator: Asis Perez (TK)
Documentor: Lilian Bondoc (DOST-PCAMRD)
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Registration and Photo-documentation
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2. Dir. Malcolm I. Sarmiento (DA-BFAR)
3. Dr. Porfirio M. Aliño (UPMSI/EcoGov 2 Project)
4. Asst. Secretary Analiza R. Teh (DENR)
5. Atty. Rose-Liza Eisma-Osorio (CCEF)
6. Dr. Ernesto S. Guiang (EcoGov 2 Project)
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14. Dr. Angel C. Alcala (SUAKCREM)
15. Dr. Wilfredo Y. Licuanan (DLSU)
16. Dir. Theresa Mundita S. Lim (PAWB)
17. Mr. Terence Paul U. Dacles (GTZ)
18. Mr. Robert S. Jara (DENR)
19. Dr. Ma. Lourdes SD. McGlone (UPMSI)
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21. Dr. Rodelio F. Subade (UPV)

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Appendix II. List of MSN Partners

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MSU-Naawan
CBCRM-RC
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Appendix III. PowerPoint Presentations (on CD)

Plenary 1- PowerPoint presentations *(Folder # 1)*

A. National Programs, Funding Opportunities and Bilateral Frameworks: A Snapshot (by Dr. Graciano P. Yumul, Jr.,
USec. for Research and Development – DOST)
B. Overview MPA Support Network and MPA Program in the Philippines (by Dr. Porfirio Aliño, Ramon Miclat, Rhia Odessa Gonzales and Hazel Arceo – Ecogov 2 Project & MSN-MERF)
C. Integrated Coastal Zone Management (ICZM) Strategies and Challenges (by Atty. Analiza R. Teh, Asst. Secretary – DENR)
D. Sustainable Financing to Support ICZM Strategies (by Atty. Rose-Liza Eisma-Osorio, Executive Director – CCEF, Inc.)
E. Coastal Zone Philippines 2 Congress Rationale, Objectives and Logistics (by Mr. Cesario R. Pagdilao, Deputy Executive Director – DOST-PCAMRD)

Sub-theme 1- Workshop on Sustainable Financing Mechanisms (SFM) paper presentations *(Folder # 2)*

F. Financing of and Investments in CRM: To whom will the bell ring? (by Dr. Ernesto S. Guiang, Chief of Party – USAID-EcoGov 2 Project)
G. Public-Private Partnerships Towards Sustainable Coastal Development for the Province of Bataan (by Ms. Marilou G. Erni, Executive Director – Bataan Coastal Care Foundation and President – Petron Foundation)

Sub-theme 2- Workshop on MPA and EBFM paper presentations *(Folder # 3)*

H. Marine Protected Areas (MPA) and Ecology-Based Fisheries Management (EBFM): The Fish Project Approach (by Mr. Nygiel B. Armada, Consultant – FISH Project)
I. Reaction: EBFM (by Dr. Wilfredo Y. Licuanan, Director – DLSU Marine Laboratory)
J. Upscaling Efforts in MPA Management: A Tale of Two Cases in the Philippines (by Dr. Sheila G. Vergara – CI Philippines and Dr. Asuncion B. de Guzman – MSU-Naawan)
K. Reaction: Upscaling Efforts (by Dr. Theresa Mundita S. Lim, Director – DENR-PAWB)
L. Forging Alliances in the Establishment of MPA & EBFM (by Ms. Emilia S. Roslinda, Executive Director – PROCESS-Bohol)
M. Reaction: Building LGU Alliances for CFRM Program (by Mr. Terence Dacles, GTZ)

Sub-theme 3 – Workshop on Recent Concern with Pollution in the Coastal Zone paper presentations *(Folder # 4)*

N. Pollution Waste Management Within ICM Context: The Case of Batangas Bay Region (by Engr. Evelyn L. Estigoy, Department Head – PG-ENRO, Provincial Office, Batangas)
O. Reaction: Pollution Management (by Ms. Ella S. Deocadiz, Director – Environmental Management Bureau (EMB) – DENR)
P. Fish Production and the Environment (by Dr. Nelson A. Lopez, Chief – Inland Fisheries and Aquaculture Division – BFAR)
Q. Reaction: Fish Production (by Dr. Maria Lourdes SD. McGlone, Director – UP Marine Science Institute)

Sub-theme 4. MPA Best Practices from Sites PowerPoint presentations *(Folder # 5)*

R. Sagay Marine Reserve (presented by Terence Dacles)
S. Buluan Island Marine Sanctuary (presented by Edna Hingosa)
T. Iniban Marine Reserve (presented by Amanda Blake)
U. Harka Piloto Reef Fish Sanctuary (presented by Marius Panahon)
V. Agsalin Fish Sanctuary (presented by Lydia Cantos)
W. Handumon/Libaong Marine Sanctuary (presented by Elvira Bohol)
X. Twin Rocks Marine Sanctuary (presented by Luzviminda Villas)
Y. Capandan Fish Sanctuary (presented by Fewee Arreglado)
Z. MiSSTA Marine Protected Area (presented by Marianito Verallo)

Plenary 2 – PowerPoint Presentation *(Folder #6)*

AA. Silliman University MPA Program 1974-2006 (by Dr. Angel C. Alcala-SUAKCREM and Dr. Hilconida Calumpong-SU-IEMS)