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Integrated Coastal Management in Philippine Local Governance: Evolution and Benefits

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In 1991 the Philippine government shifted many coastal management responsibilities to local governments and fostered increased local participation in the management of coastal resources. In their delivery of integrated coastal management (ICM) as a basic service, many local governments have achieved increasing public awareness of coastal resource management (CRM) issues. Continuing challenges are financial sustainability, inadequate capacities, weak law enforcement, and lack of integrated and collaborative efforts. To address these challenges, a CRM certification system was developed to improve strategies and promote incentives for local governments to support ICM. This system is being applied by an increasing number of local governments to guide the development and implementation of ICM in their jurisdiction. The CRM benchmarks required for a local government to achieve the first level of certification are: budget allocated, CRM related organizations formed and active, CRM plan developed and adopted, shoreline management initiated and two or more best practices implemented. Implementation is providing tangible benefits to communities through enhanced fisheries production associated with MPAs, revenues from user fees and enhanced community pride through learning exchanges and involvement in decisions, among others.

Keywords benchmarks, coastal resource management, community-based management, decentralization, integrated coastal management, local governance, MPAs, Philippines

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Introduction

The Philippines has one of the richest experiences of integrated coastal management (ICM) of any country in the world, beginning in the late 1970s. The country defined its coastal zone in 1978 and has evolved an ICM system since that time. The 1980s saw many experiments with community-based management of coastal resources through the implementation of localized marine protected areas. The 1990s brought true devolution of authority to local governments and the implementation of several large foreign-funded projects that provided lessons of how best to carry out ICM in the country (Christie & White, 1997; White et al., 2005).

Despite progress in the implementation of ICM highlighted here, the Philippine government and its policies must endorse ICM much more vigorously if coastal resources and the people dependent on them are to survive in the 21st century (White & Chua, 2004). Given that 4 out of 10 people are living under the poverty line and that a large part of the population depend on coastal living resources for their protein needs and livelihoods, the need to implement effective management measures has become more urgent than in the past (ADB, 2003).

The Philippine coastal environment is being degraded by a variety of uncontrolled human activities including overexploitation of fisheries and destructive fishing methods, as well as unplanned, or illegal and improper shoreline development among others (Gomez et al., 1994; White et al., 2000; DENR et al., 2001; DA-BFAR, 2004). These cause loss of critical habitats and fisheries as well as aggravate pollution. Resource use conflicts exist among various stakeholders of which municipal fishers represent only one sector. Institutional arrangements to manage human impacts and resource use are often unclear and almost always inadequate. Although the issues facing coastal management are substantial and broad, the lessons, successes, and opportunities for improving ICM from past experiences are also many (Courtney et al., 2000; White et al., 2005).

This article highlights that ICM is catching on and spreading quickly in the Philippines and shows the historical events leading to this. It highlights that support for development of ICM is rooted in the tangible benefits that are accruing to local stakeholder communities and local governments alike such as enhanced fisheries, revenues from user fees and improved coastal environmental quality, among others (White et al., 2002; White & Rosales, 2003). How ICM is providing a systematic means of dealing with a multitude of issues that cannot be addressed within one sector or through narrowly focused approaches is also discussed. Finally, this article offers key lessons being learned in the process of the Philippine example and how these lessons can better inform future work in the Philippines and elsewhere.

History and Lessons Contributing to the Mainstreaming of ICM in Local Governance

In recent years, two major forces have influenced the development of coastal management in the Philippines. First, a series of donor-assisted government and nongovernment programs have provided a foundation for ICM. These programs have ranged in size from narrow to wide geographic boundaries covering more than 1000 km of coastline and from low levels of financial support to multi-million dollar assistance over five or more years (White et al., 2005). Second, the legal and policy framework for coastal management in the Philippines has been established with the passage of the 1991 Local Government Code and more recently, the 1998 Fisheries Code, both of which have contributed to the devolution of primary responsibility for coastal resources to local government. This

current legal and policy framework for coastal management creates new institutional roles and responsibilities for national and local governments (municipal, city, and province), nongovernment organizations, academe, and people's organizations (DENR et al., 2001).

A review of the historical evolution and events of ICM in the Philippines in Table 1 shows the richness of experience over the last 30 plus years. It also reveals that legal and jurisdictional responsibility for coastal management has been in transition from central to local government since the late 1980s.

Three general phases of the evolution of ICM in the Philippines are shown in Figure 1. A progression is noted toward more integrated, multi-sector, and ecosystem-based management in recent years.

A review of experiences in coastal management from donor-assisted and government ICM programs in the Philippines provide broad and historical lessons that include:

- ICM provides an integrated management framework and a process that allow local governments to undertake sustainable coastal development within and across their administrative boundaries and within the limits of their financial resources and their capability (Chua, 1998).
- Participation at all levels of government is a prerequisite to effective implementation of ICM, ensuring stronger interagency cooperation and involvement from other sectors of the society (Christie & White, 1997).
- An integrated planning process is essential to bring together the divergent efforts of government, nongovernment, and other organizations in ICM program implementation (Christie & White, 1997).
- Coastal strategies and action plans that build on comprehensive information (i.e., environmental profiles) that evolves with the planning process are a prerequisite to effective and appropriate ICM plans (DeLeon, 2003).
- Institutionalizing ICM into local government framework is a step toward sustainability because this facilitates integration of ICM programs into regular government development plans (DENR et al., 2001).
- Baseline information is a prerequisite for ICM, a factor needed for coastal management planning and comparative analyses of "with" and "without" project scenarios.
- Community-based management that appears successful and autonomous still requires on-going support and mentoring from government, NGOs, or the private sector (White et al., 2002).
- The sustainability of ICM interventions cannot be determined without time for field-testing.

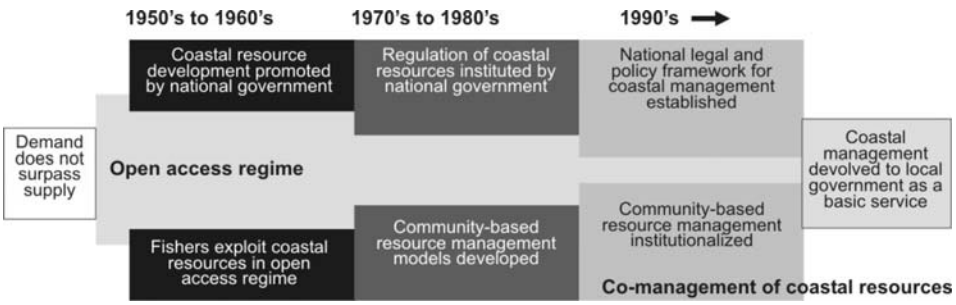

Figure 1. Philippine ICM timeline.

Table 1
Important events, projects, and laws in the evolution of ICM

Pre-Spanish	Villages controlled coastal resources, no organized state
1500s–1898	Spanish introduced and maintained state control over natural resources
1932	Fisheries Act gave most management responsibility to central government but allowed exclusive use of coastal waters by individuals for fish corrals, fish ponds, and so on and introduced municipal boundaries for subsistence fishers
1930–1960s	Resources considered unlimited in supply not requiring management
1946–1960s	Blast fishing became common after World War II
1960–1970s	Robust expansion and development in fisheries and aquaculture
1974	First municipal marine reserve established around Sumilon Island, Cebu
1975	Fisheries decree promoted optimal exploitation of fisheries under central control
1975	Forestry Code established the need to protect mangrove forests
1976	Environmental Impact System established
1976	National Mangrove Committee established
1976	Commercial fishing limited to areas beyond 7 km of the shoreline
1976–1981	5-year assessment of coral reef resources by UP-Marine Science Center
1978	Coral gathering limited to scientific research
1978	Marine Parks Task Force created to recommend sites for marine parks
1978	The Philippine Extended Economic Zone established
1979	Coastal Zone Management Committee with 22 agencies formed
1979–1982	First integrated small-scale fishery study of San Miguel Bay showed overfishing
1981	Philippines becomes signatory to CITES
1983–1987	Government embarked on Expanded Fish Production Program
1984–1992	Central Visayas Regional Project begins community-based ICM supported by World Bank
1985–1986	Marine Conservation and Development Program of Silliman University and USAID establishes Apo, Pamilacan, and Balicasag, Islands as marine reserves
1986	Muro-ami and Kayakas fishing methods banned in Philippine waters
1986–1992	First bay-wide management program in Lingayen Gulf with multiple academic and government partners supported by USAID
1987	Bureau of Fisheries and Aquatic Resources moves from the Ministry of Natural Resources to the Department of Agriculture
1988	First National Marine Park established at Tubbataha Reefs, Sulu Sea
1988	San Salvador Island marine sanctuary, Zambales initiated by Haribon Foundation
1990–1997	Fishery Sector Program of DA-BFAR initiates bay-wide management by ADB
1991	Local Government Code devolves responsibilities to local governments
1991	Southeast Asian Fisheries Development Center launched project on Malalison Island for community-based fisheries management
1992	Philippine Council for Sustainable Development created
1992	Philippines becomes a signatory to Agenda 21

(Continued)

Table 1
Important events, projects, and laws in the evolution of ICM (*Continued*)

1992	National Integrated Protected Areas System (NIPAS) Act passed
1993	Coastal Environment Program (CEP) of DENR established
1994–2005	Regional Program on Partnerships in Environmental Management for the Seas of East Asia with projects in Batangas and Manila Bays
1995	Fisheries and Aquatic Resources Management Councils authorized
1996–2004	Coastal Resource Management Project of DENR supported by USAID
1998	Fisheries Code reinforces the roles of local government in management
1998	First national coastal Mayors conference held to discuss ICM issues
1998–2005	Fisheries Resource Management Project builds on lessons of FSP for bay-wide coastal management supported by ADB and Japan
1999	May proclaimed the Month of the Ocean in Philippines
2000	DA and DENR sign joint Memorandum on implementation of Fisheries Code
2001	More than 100 municipalities and cities allocate budget for ICM
2001	Southern Mindanao Integrated Coastal Zone Project starts
2002	Coastal and Marine Management Office replaces CEP in DENR
2003	CRM Certification System for coastal municipalities and cities adopted, Inabanga, Bohol and Hagonoy, Davao del Sur first CRM certified municipalities
2003–2004	National Coastal Management Policy reviewed at national level
2004	More than 20 supporting organizations (academic, NGO, and government) endorse a standard system to monitoring and evaluating MPAs nationwide
2004	Fisheries Improved for Sustainable Harvests (FISH) Project initiated by USAID

Sources: Arquiza and White (1999), Chua (1998), Christie et al. (2003a), Courtney and White (2000), CRMP (2004), DENR et al. (2001), Ferrer (2004), Ferrer et al. (1996), NEDA (1992), Pomeroy and Carlos (1997), SUML (1996), White and Lopez (1991), White and Vogt (2000), White et al. (2002), and DA-BFAR (2004).

Case studies from around the country reveal how coastal management programs have evolved under different conditions to address local issues that have a number of similarities across locations. The role of *barangays*,[1] municipalities, cities, and provinces is essential in every instance for long-term success of ICM interventions because they provide the primary government presence in coastal areas. In the 1980s, most projects focused at the community and barangay level to establish small marine protected areas (MPAs) (White et al., 1994; Ferrer et al., 1996; White et al., 2002). Those still operating today, in Negros Oriental (Apo Island), Bohol (Balicasag and Pamilacan Islands), Zambales (San Salvador Island), and Batangas (Mabini Marine Reserve), have illustrated the value of empowering communities to manage their coastal areas and resources through their own initiative and with legal and institutional support of the barangay and municipality (White & Vogt, 2000; Christie et al., 2003a, 2003b; Oracion, 2003; Russ et al., 2004). These small projects have provided lessons that are now reflected in larger ICM programs (ADB, 2003). Their strength is the relative success in protecting and enhancing near-shore habitats and fisheries for the benefit of coastal communities. Marine tourism has also been attracted to these MPAs and

has contributed to the local economies through employment in management and tourism activities, user fees, and visitor spending (White & Rosales, 2003).

Following the strictly "community-based" approaches of the 1980s, coastal management projects expanded their scope and were commonly referred to as "coastal resource management" (CRM) and later "ICM" projects. Examples include the Coastal Resource Management Project (CRMP) of the United States Agency for International Development (USAID)/International Center for Living Aquatic Resource Management (1986–1992), the Central Visayas Regional Project and the Community-Based Resource Management Project of the World Bank (1994 to present); the Fishery Sector Program and the Fisheries Resource Management Project of the Asian Development Bank (1990 to present); the Regional Program on Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) (1994 to present), and the CRMP of USAID (1996–2004) (ADB, 2003; PEMSEA, 2003; SUML, 1996; CRMP, 2003, 2004; White & Lopez, 1991; White et al., 2005). These projects have partnered with national agencies (e.g., Department of Environment and Natural Resources [DENR] and/or the Department of Agriculture Bureau of Fisheries and Aquatic Resources [DA-BFAR]) and with local governments. All have also assisted coastal communities in association with their local governments in their ICM efforts.

Key Elements in Mainstreaming ICM in Local Governance

A national ICM framework has emerged from the experience of the various ICM projects working with footprints in more than 100 coastal municipalities and cities that cover about one-sixth of the 18,000 km of shoreline in the country (CRMP, 2003). The ICM framework, endorsed by DENR, DA-BFAR, the Department of Interior and Local Government (DILG) and the League of Municipalities of the Philippines is represented by a simple benchmark system for local governments in their planning and implementation of ICM (DENR-CMMO, 2003; DENR et al., 2001). A prerequisite of achieving the basic level of "CRM" for a given local government unit is the "acceptance of CRM as a basic service of municipal/city, government with planning and field interventions initiated." The process to develop ICM or CRM plans and to initiate and achieve some level of CRM in a given local government is described in Figure 2. The benchmarks represent the basic ingredients to a sustainable ICM program include indicators such as:

- Baseline assessment conducted
- Multi-year CRM plan drafted
- CRM-related organizations formed and active
- Annual budget allocated for CRM
- Shoreline/foreshore management measures planned and initiated
- At least 2 CRM best practices planned and initiated (e.g., municipal water delineation, coastal zoning, fisheries management, marine protected areas, mangrove management, solid waste management, upland/watershed management, coastal law enforcement, environmentally friendly enterprises, and others)

The common lessons drawn from the national ICM framework and its implementation in more than 100 local governments are substantial and include (CRMP, 2003, 2004):

- Early community involvement through baseline assessment and planning is essential to the success of any coastal management program.

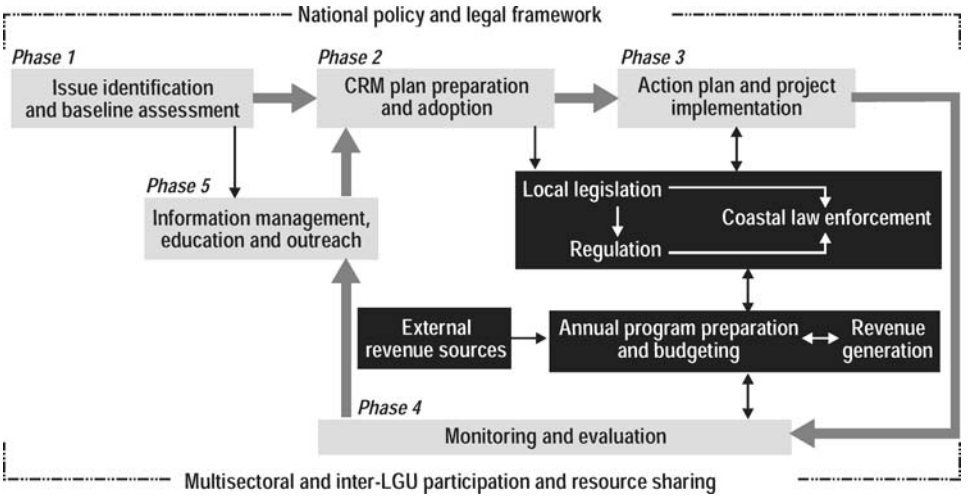

Figure 2. CRM planning process for local governments (DENR et al., 2001).

- Outside technical and financial assistance is often critical, but local governments and communities must allocate their own resources and continue to program budgets and personnel every year to sustain activities.
- Political will is a prerequisite to start and sustain successful ICM programs at the local level.
- Municipalities/cities must draft and enforce ordinances based on their local priorities as determined in the participatory ICM planning process.
- Multi-municipal/city plans and ordinances covering areas of common interest (e.g., a bay, common fishing ground, ecosystem) are essential to show consistency of purpose and strong coordination to stakeholders. Exchange of information among neighboring municipalities must also occur to ensure effective compliance and quick resolution of conflict in common ICM areas.
- Alternative livelihood opportunities must be developed to relieve pressure on fisheries and habitats through environmentally friendly options (e.g., tourism, appropriate aquaculture).
- Education, information dissemination, and training are essential to enhance participation in and receptiveness to the ICM plan implementation.
- Accountability for ICM by local governments to their constituents as well as to higher levels of government (provincial and national) as measured in the "CRM benchmark and certification system" is proving to be stimulus for more and improved ICM countrywide.
- Results of ICM must be immediate and communicated often to stakeholders such as improved income from fish catches or other sources such as ecotourism, reduced resource use conflicts, improved environmental quality or other benefits, to sustain community and local government involvement (White et al., 1994).
- National government agencies play a critical role in providing necessary technical, training, and other forms of assistance to LGUs to effectively implement their CRM programs.

The experiences and lessons learned from coastal management programs in the Philippines are providing a foundation that can now be generalized for broader application in consonance with emerging trends in devolution and improved local governance. A viable co-management system for coastal resources between national and local government agencies together with coastal communities is evolving through the establishment of "coastal management as a basic service of local government"[2] that focuses on the benchmarks for coastal management elaborated earlier. This co-management system also depends on empowering and supporting local communities to implement management measures, with assistance from other sectors, especially national government, nongovernment, and private sectors.

Admittedly these efforts are not adequate to reverse the rapid rate of environmental degradation in many parts of the country (Huttche et al., 2002; Green et al., 2003). Pollution remains severe, habitats continue to be degraded, fish stocks continue to be overexploited, and the overall resource-base has not shown signs of general improvement. Nevertheless, in some well-managed coastal areas or habitats, there are encouraging signs of recovery as noted by biophysical monitoring and evaluation in MPAs in recent years as shown in Figure 3.

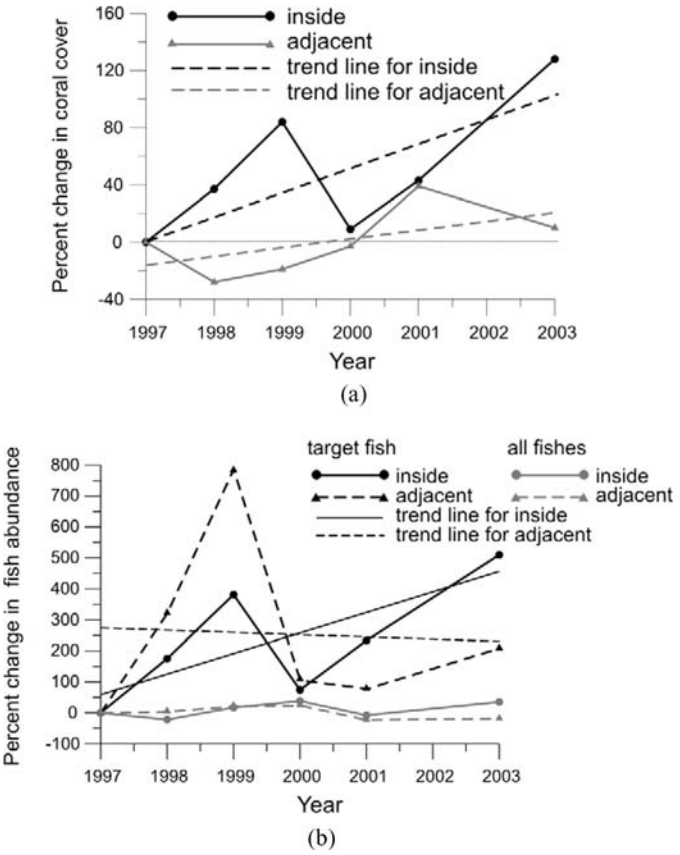

Figure 3. Biophysical changes in six marine protected areas between 1998 and 2003 (Nanola et al., 2004). (a) Percent change in hard coral cover inside and adjacent to the six fish sanctuary areas. (b) Percent change in fish abundance inside and adjacent to the six fish sanctuary areas.

Biophysical improvements in MPAs where most extraction and physical impacts have been eliminated are expected to improve in condition and are providing examples of how productive and economically viable a healthy coral reef can perform in a relatively natural state (Maypa et al., 2002; Russ & Alcala, 1996; White, 1989). Beyond the boundaries of strictly protected MPAs, there are now large areas where illegal and destruction fishing have been effectively stopped. Such areas are displaying the broader and long-term benefits of ICM in action covering and include portions of the central Visayas near Bohol, Negros, Cebu, and Siquijor Islands as well as areas off the southern portion of Luzon Island, in the northern Philippines (Paredes & Balane, 2004; CRMP, 2003, 2004; Green et al., 2004).

Integration of Coastal Management in Provincial Governments

Several ICM projects have established demonstration sites (e.g., Batangas Bay and Bataan Province under PEMSEA and ICM programs in Cebu, Bohol, Negros Oriental, Sarangani, Davao del Sur, Palawan, and Masbate under CRMP) to test the viability, effectiveness, and sustainability of ICM programs under the coordination of provincial governments (PEMSEA, 2003; CRMP, 2003). For example, the Provincial Governments of Bohol, Davao del Sur, Batangas and Bataan have integrated ICM into their regular program of the Provincial Environmental Offices. These provinces have created long-term strategic plans for environmental management, trained local officials, developed databases for management, launched scientific studies to support policy decisions, and monitored environmental quality in selected sites (Paredes & Balane, 2004). Most significantly, these local governments are attempting to replicate their ICM efforts in other coastal areas of the Province. Being largely independent of donor support, these efforts have demonstrated how ICM could be effectively implemented with local human and financial resources (CRMP, 2003). These provincial programs have also created public awareness, promoted stakeholders' participation in protecting and rehabilitating habitats and have helped create alternative livelihoods to support the coastal poor.

One lesson of the provincial ICM programs has been the need to provide incentives for municipal and city governments to continue investing in ICM (CRMP, 2004). The CRM benchmarks, described earlier, to help standardize and guide the ICM planning and implementation at the local level within the province, is being used as the basis for a simple CRM certification system. Thus, to make the benchmark system more attractive to the local governments, the CRM certification system has evolved under the guidance of the DENR in association with each province that wants to participate. This simple certification system has three levels as shown in Figure 4 and utilizes the accomplishment of CRM benchmarks as a means for certification (DENR-CMMO, 2003). The provinces provide the first level of review of ICM accomplishment and the DENR, in collaboration with a multi-agency and multisector body awards the ultimate certification to the local government. The certification award to local governments is providing a seal of approval on their work that serves as an incentive in the form of recognition. The CRM-certified local governments, in several cases, have received financial assistance to implement programs because of the commitment shown on their part to implement a CRM program under their own resources.

Tangible Benefits to Coastal Communities

The benefits accruing to coastal communities and their local governments are in various forms, some easier to measure than others. Those that are most tangible and that have been documented through monitoring and research studies include:

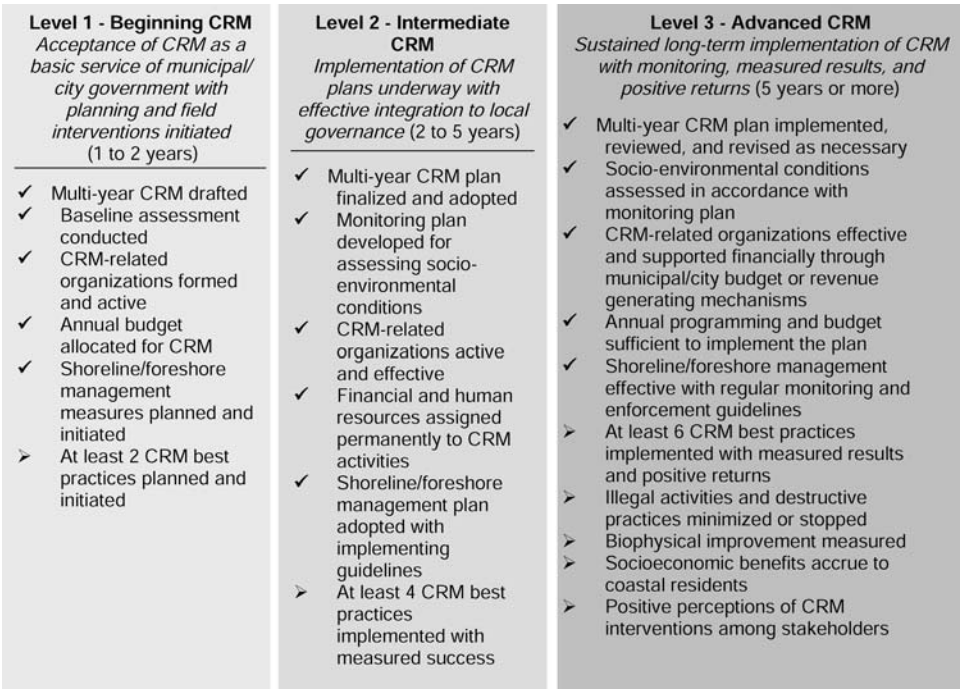

Figure 4. CRM benchmark and certification system (DENR-CMMO, 2003).

1. Enhanced biophysical quality of coastal habitats such as coral reefs and mangroves that translate into improved fish catch as documented inside and outside of marine sanctuaries and in areas where illegal fishing has been stopped and productivity improves (Russ et al., 2004; White, 1988; White & Savina, 1987; Nanola et al., 2004).
2. Enhanced revenues to communities and local governments derived from tourism within and outside of marine protected areas or around coral reefs that are in good condition and attract divers and visitors. Examples include the Apo Island Marine Reserve and others within the jurisdiction of Dauin Municipality, Negros Oriental; Gilutongan Marine Sanctuary in Cebu; and Mabini Marine Reserve in Batangas, among others (White & Trinidad, 1998; White et al., 2002; Vogt, 1997; White & Rosales, 2003; Salmonte et al., 2004).
3. Revenues from marine-based or "ecotourism" enterprises to local communities such as the Olango Bird and Seascape Tour near Mactan Island, Cebu and the Cambuhat River Tour in Bohol Island. These tours are both primarily based in a mangrove and estuarine habitats and include cultural attractions, natural history lectures, and native food all prepared and presented in a professional and attractive manner (White & Rosales, 2003; Flores, 2001).
4. Improved planning and implementation of ICM through more than 100 municipal and city governments such that they have a system to follow and to guide them in providing this basic service as mandated by the Local Government Code of the Philippines (CRMP, 2003, 2004; Paredes & Balane, 2004).

The benefits that are equally valuable but less easy to measure and quantify include:

1. Increased awareness among numerous stakeholders about the need to protect and manage coastal resources and areas and the resultant changes in values of people to guide them in being proactive in conservation (CRMP, 2003, 2004; Pollnac et al., 2003).
2. The beginning of a national policy framework that helps guide national agencies in their support of local governments in ICM through the CRM benchmark and certification system (DENR et al., 2001; DENR-CMMO, 2003).
3. The adoption of a national MPA management rating system by about 25 facilitating organizations (government and nongovernment) that standardizes the information gathered on MPAs and what criteria are used to evaluate their management implementation and effectiveness (White et al., 2004).
4. The relative sustainability of an ICM system that is being adopted by local and national government together with donor and private sector partners (Lowry et al., 2003).

A study and field assessment of the CRMP, that ended operation in 2004, concluded that indeed tangible benefits were one of the driving forces to encourage continued support for CRM at the local level (Paredes & Balane, 2004). This assessment, conducted through interviews with local government officials and community stakeholders in CRMP project areas, quantified the opinions of those interviewed regarding what had changed in their coastal areas as a result of the CRM activities as shown in Table 2.

Policies Required to Further Mainstream ICM in Local Governance

Urgent policy directions necessary to consolidate current experiences to prevent further erosion of the coastal resources in the Philippines include:

Table 2
Biophysical and socioeconomic changes reported by community-respondents in field assessment of CRMP areas (Paredes & Balane, 2004)

Area	Perceived benefits/effects/results	%
Biophysical	Increase in fish diversity/abundance	36.1
	New coral growth	25
	Recovery of seagrass	19.4
	Increase in abundance of marine life	8.3
	Increase in diversity and area of mangroves	5.6
	No changes	5.6
	Total number of responses (n) = 36	100
Socioeconomic	Increase in fish catch	28
	Increase in income from fishing	28
	Increase in income from alternative livelihood	28
	Home improvements/better household amenities	8
	No changes	8
	Total number of responses (n) = 25	100

- Establish a national coastal policy through legislation that endorses the present "CRM/ICM framework" that is presently operating. This is crucial to align government policies and programs with this successful ICM system.[3]
- Establish a simple but functional information and database system for ICM that emanates from the local government up through the provincial, regional, and national levels. This is essential to increase technical and information base and communication flow for improved decision making (DeLeon, 2003).
- Provide support to improve compliance with coastal management policies and laws through education and effective law enforcement. The laws and plans to support ICM are quite adequate but the enforcement is often weak and inconsistent (Lowry et al., 2005).
- Enhance the evolving incentive and certification system through support local governments practicing ICM (Lowry et al., 2005).

Emerging Trends and Conclusions

Several emerging trends in the Philippines are realigning the requirements for national institutional and policy frameworks in support of coastal management. The first is that ICM is replacing the emphasis on fisheries development and narrowly based habitat management of past projects thus emphasizing the need for improved integration and collaboration. This trend is also moving toward a more ecosystem-based management approach that brings fisheries into center focus (Green et al., 2004). A second trend is that local government units are assuming more responsibility for and allocating resources to manage municipal waters and coastal resources compared to their past dependence on national government (CRMP, 2004). This trend is encouraging national agencies to redefine their roles to provide technical assistance to local government as opposed to taking the lead in resources management. This trend also means that the assisting organizations such as national government agencies, universities, nongovernment organizations, and donors must work effectively with local government. Finally, multisector collaboration is becoming essential to solve the complex and deeply embedded coastal resource management problems that exist because of increasing population, poverty, scarce resources, and a lack of accessible alternatives.

These trends are encouraging although much remains to be done to ensure the sustainability of the integration of ICM into local governance in the country. ICM is rapidly expanding because of the urgent need to manage and protect the valuable coastal resources that occur along the country's extensive and diverse coastline. In response to this need, various multinational and bilateral donor projects have and are supporting various forms of coastal management. Although there are many successes in the implementation of these projects at a local scale and in the short term, many lack a full consideration of what is required to become sustainable beyond project life. The recent "Integrated Coastal Management Sustainability Research Project"[4] has revealed valuable insights about what constitutes "sustainability" in coastal management implementation. Implications for project design to improve sustainability include among others:

1. The need to further link management to improved biophysical conditions;
2. The important role of stakeholder participation and economic returns;
3. Having adequate legal and policy framework in place at each level of government;
4. Having capacity for law enforcement;
5. Building durable institutions beyond leadership changes;

6. The role of the private sector in performing tasks;
7. Avoiding becoming too dependent on the "project" versus government functions; and,
8. The need for education and raising awareness to accomplish tasks.

These eight tenets for improved sustainability of ICM in the Philippines are profound and true to our intuition about what actions will enhance ICM implementation. Yet, to put these into action will test our abilities as coastal managers because all situations are different and require appropriate interpretations of how these tenets will play out in local reality (White et al., 2005). Several key lessons that can help guide us as managers that have been learned in recent years from the Philippine experience are:

1. CRM/ICM is a governance function.
2. Mainstreaming ICM in local governance begins with acceptance of the local government leadership role.
3. The process must promote capacity development for ICM and proceed progressively toward the integration of the ICM planning process into local governance system.
4. People need to understand the "why" of ICM. Providing effective feedback on biological and socioeconomic information and quantitative indicators on fisheries and habitats as a result of effective management contributes to the understanding of why ICM is needed.
5. ICM requires a broad-based support system and true integration is essential.

Notes

1. *Barangay* is the smallest political unit in the Philippines within municipalities and cities. It is sometimes synonymous with village or community-level management because it is small and localized.

2. "Coastal management as a basic service of local government" is frequently referred to by the DENR (and previously CRMP) in public forums and the literature in an effort to encourage local governments to realize their responsibility under the local government code, and to encourage them to take action to fulfill it.

3. Pending to be signed by the president of the Philippines is an Executive Order that will establish ICM as a standard approach to coastal management by making it a "basic service of local government" and formalizing the CRM certification system described herein.

4. This Project was supported by the David and Lucille Packard Foundation and implemented through the University of Washington, School of Marine Affairs in association with Silliman University and a number of Philippine-based researchers. The results are published in the *Silliman Journal*, Vol. 44, No. 1, 2003 and in the *Ocean and Coastal Management Journal* in Vol. 48, 2005.

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