

Integrating ICM into the Planning Process of Local Governments

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Key Message

- Successful demonstration of the effectiveness and impacts of integrated coastal management (ICM) programs enhances adoption of sustainable development concepts into the local government planning process. This also increases local political commitment towards sustainable coastal and marine development.
- The integration of ICM into long-term development planning is facilitated through the adoption and implementation of a vision-based Coastal Strategy and/or Strategic Environmental Management Plan.
- The key steps of the ICM cycle are designed to increase the impacts of ICM initiatives, and the integration of environmental concerns and priorities into local development plans.

Abstract

The experiences of four ICM demonstration sites (Batangas, Philippines; Chonburi, Thailand; Da Nang, Viet Nam; and Xiamen, PR China), their replication, and subsequent scaling up suggest that the integration of ICM — a holistic, integrative, well-coordinated, vision-led, and result and process-oriented planning and implementation approach — into the local government's planning process ensures environmental sustainability over a longer term.

Factors contributing to ICM integration include:

- involvement of local government;
- visible achievements and impacts;
- enhanced values of integrated planning and management approach;
- leadership role of the coordinating mechanism;



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- vision-led programs;
- key steps of the ICM cyclical process;
- stakeholders' partnership;
- sustainable financing;
- local champions;
- enhanced policy and functional integration;
- enactment of ICM-related national policy and legislations;
- local and political commitments; and
- meeting sustainable development objectives.

This case study analyzes the application and achievements of ICM implementation in four demonstration sites. It examines how ICM facilitated vertical and horizontal integration as well as the dynamics and process of transforming key elements of ICM into local plans and distill lessons learned.

Background

Coastal areas are major socioeconomic zones that facilitate the growth of ocean-based economies. These areas are vulnerable to overexploitation of resources and environmental degradation, which result in diminished supply of ecosystem goods and services.

The conventional approach to managing coastal development activities is sector-oriented, with various agencies dealing with the relevant problems in isolation from the others. The interconnectedness of coastal areas, physically and biologically, makes sectoral management inadequate in addressing the complex and overlapping problems.

ICM is defined as “a natural resource and environmental management framework which employs an integrative, holistic approach and an interactive policymaking, planning, and implementation process addressing the complex management issues in the coastal area” (PEMSEA, 2014). The ICM approach offers an alternative management option that effectively recognizes

the links between and among ecosystems and stakeholders. Over the past two decades, the operational methodology of ICM has evolved and further refined into an ICM system where its application has contributed significantly to achieving sustainable development at the local level.

Given the advantages of using the ICM system, this case study aims to show: (a) whether or not the ICM approach and coverage have been incorporated as an integral part of environment and natural resource management programs of local government; (b) how the ICM cycle (and the expanded plan-do-check-act cycle) has contributed to the planning process of local government; and (c) whether or not ICM has been fully internalized through the key approaches of demonstration, replication, and scaling up.

This case study examined the implementation of ICM in four demonstration sites, which have been practicing ICM for many years, namely Batangas and Xiamen since 1994, Da Nang since 2000, and Chonburi since 2001, to distill answers to the above questions. The analysis also focused on identifying key factors contributing to the integration of the ICM approach into local government plans.

Approach and Methodology

The performance of ICM implementation in four countries (PR China, Philippines, Thailand, and Viet Nam) was evaluated in terms of:

- a. The effectiveness of the ICM system and its contribution to capacity development and sustainable development goals – assessing the development of local capacity through ICM implementation and the significance in building a critical mass of local planners, resource managers, and expertise;
- b. The significance of ICM demonstration, replication, and scaling up as important stages for integrating ICM into government sustainable

- development plans – evaluating the necessity, effectiveness, and impacts of each site and their contributions to achieving sustainable development objective;
- c. ICM cycle as a critical and continuous planning, implementing, and evaluation process (Figure 1) – assessing the key stages of the ICM process in relation to continuous improvements and eventual integration into regular government plans of action;
 - d. Policy, legislative, and institutional arrangements at local and national levels – assessing the conditions leading to the development, modification, and improvement of related policy, strategies, legislation, and institutional arrangements as a result of widening management scope and approaches; and
 - e. Role of international/regional organizations in facilitating local and national efforts towards the adoption and implementation of the ICM demonstration, replication, and scaling up.

Results

The development and implementation of the ICM program requires the commitment and full involvement of the local government (PEMSEA, 2014). This case study enumerates the exemplary approaches that each demonstration site confirmed to be effective in achieving success in the ICM implementation and in integrating the ICM approach into the local government planning process (Table 1).

Figure 1. A simplified ICM cycle illustrating the key steps of ICM.

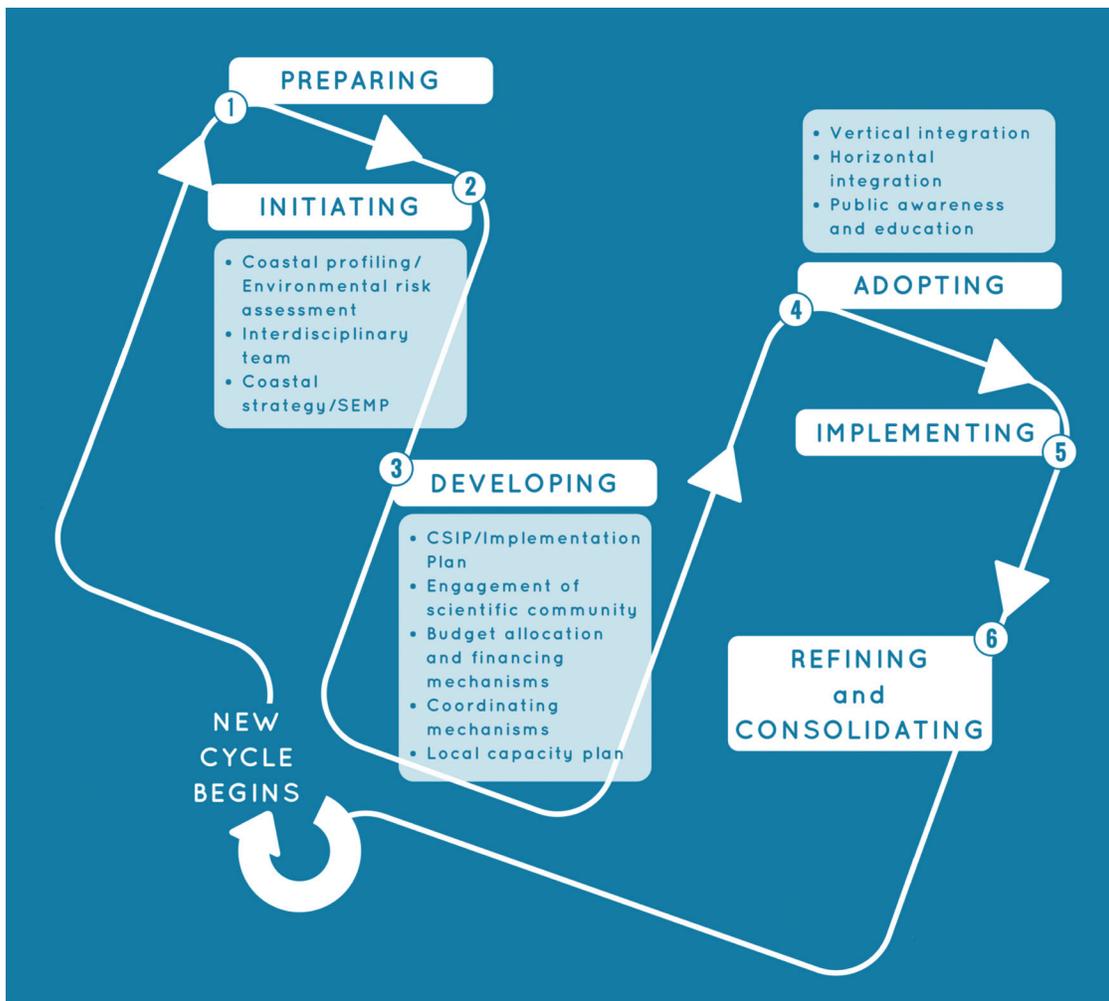


Table 1. Summary of achievements of the four demonstration sites with the integration of ICM into the planning processes, highlighting best practices from each ICM site.

Site	Coastal strategy/ strategic environmental management plans	Coordinating mechanisms	Government budget allocation for the ICM program	Engagement and mobilization of the public and other stakeholders	Local environment management/ development plans (integrated with coastal strategy plans)	Replication and scaling up of ICM plans
Batangas, Philippines	Strategic Environmental Management Plan (SEMP 1996–2020)	Batangas Environmental Protection Council (BEPC)	✓	Local fishers as MPA patrol guards, known as <i>Bantay Dagat</i> (Sea Patrol) which scaled up into Bantay Dagat Network	Batangas Comprehensive Land Use Plan (CLUP) and Physical Framework Plan (PFP)	Batangas SEMP updated and scaled up to include the adjacent bays and municipalities; adopted by the Provincial Legislative Body, 31 municipalities and 3 cities in the province in March 2007
Chonburi, Thailand	Strategic Management Plan for Marine Pollution Prevention and Management (SEMP)	Provincial ICM Coordinating Committee (PCC)	✓	Led by then Mayor Chatchai Thimkrajang and with the increasing knowledge, confidence in, and ownership of the Sriracha Municipality's Crab Conservation Program, the farmers, villagers, and seafood restaurant owners actively engaged and largely contributed to the program success; the program replicated in other local governments in Chonburi Province	The Crab Conservation Program incorporated in the local development plans and budget plans of eight local governments in Chonburi Province: municipalities of Sriracha, Saensuk, Sattahip, Laemchabang, Bang Phra, Banglamung, Bang Sarae, and Pattaya City	The Chonburi ICM Network now comprises 99 local governments, covering the entire province, and the noncoastal local government units
Da Nang, Viet Nam	Coastal Strategy of Da Nang City	Viet Nam Administration of Seas and Islands (VASI)	✓	Stakeholders' consultations and public awareness activities	The coastal use zoning plan for Da Nang City developed with objective of enhancing spatial planning of the city; addressed the resolution of the multiple uses of the city's beach area and other coastal resources, contributed to Da Nang's coastal tourism that balances conservation, economic, and social goals	Initiatives by central government to replicate ICM practices in 14 municipalities
Xiamen, PR China	Coastal Strategy Implementation Plan (CSIP); Strategic Action Plan (SAP) of 2005	Xiamen Marine Management and Coordination Committee (MMCC)	✓	In 1996, the Xiamen Marine Experts Group (MEG) formed by the municipal government to provide a venue to integrate scientific findings and opinions for policy and management decisions	Five-year Social and Economic Development Plans (FYPs)	Functional and geographical scaling up of integrated coastal and river basin management in Jiulong river basin

Note: ✓ achieved

Demonstration of the relevance and effectiveness of ICM has resulted in replication and scaling up in four countries.

All four demonstration sites were able to utilize the key components of the ICM system in designing, prioritizing, developing, and implementing policy, legislation, strategies, and action plans to address environmental and other key sustainable development challenges. The five key challenges were: disaster prevention and management; pollution; habitat protection and management; freshwater supply and management; and fishery resource management and livelihoods. They were addressed incrementally over time. Hence, both the holistic and integrative approach of the ICM system and the management issues addressed were highly relevant and readily acceptable by the local authorities at each site. Each demonstration site was able to:

- mobilize political commitments and stakeholder support in financing and participation in ICM activities;
- demonstrate that the ICM concept enabled a broad-based approach in managing environmental complexities and that the operational methodology was appropriate and effective for developing the necessary policy, legislative, and institutional arrangements to incrementally achieve management objectives;
- successfully demonstrate increased commitments, confidence, and willingness to participate and contribute among the various line agencies of the local governments and various stakeholders, thus forming the essential foundation for replication; and
- promote national commitment to develop national coastal/ocean policy, strategy, or legislation to adopt and utilize the ICM approach in achieving national sustainable development programs.

The successful implementation of the ICM program in Xiamen since 1994 demonstrated the feasibility of the ICM approach in addressing local challenges in a fast-developing nation; in particular, the key environmental

challenges arising from rapid economic development which had affected environmental quality, biodiversity, and ecosystem services. The holistic, system-based management approach coupled with strong political and institutional support, effectively transformed, restored, and rehabilitated the degraded environment in lagoons and bays of Xiamen (PEMSEA, 2006b). The visible impacts increased confidence and political support, which translated into a long-term strategy and improved operational methodology and financing in addressing other sustainable development challenges over the past 25 years.

The Batangas Bay Demonstration Project (BBDP) in the Philippines applied the ICM approach to the fast-developing areas of San Pascual, Bauan, Mabini, and Batangas City. At the end of the BBDP, the Strategic Environmental Management Plan (SEMP) of Batangas Province was updated and scaled up to include the adjacent bays and municipalities and was adopted by the Provincial Legislative Body, 31 municipalities, and 3 cities in the province in March 2007 (PEMSEA, 2008).

In Thailand, the demonstration area initially covered five municipalities — comprising 18% of the provincial coastline — and through consistent awareness, and capacity building and study visits to other ICM sites, ICM implementation in Chonburi was scaled up. By late 2008, all 26 coastal local governments became part of the Chonburi ICM Network. Eventually, in 2010, the network expanded to cover the entire province, including the noncoastal local government units, a total of 99 local governments (Kanchanopas-Barnette, et al., 2012; Barnette and Wiwekwin, this volume). The successful demonstration of ICM in the five municipalities was critical for the replication of the ICM program.

In Viet Nam, the success of the ICM implementation in Da Nang, was also recognized and thus set a good example for the replication of the program in other coastal provinces and cities in Viet Nam (Da Nang Coastalink, n.d.). Other established sites in the country included the provinces of Quang Nam and Thua Thien Hue (PEMSEA, 2016).

Following the key steps of the ICM planning cycle ensured the integration of coastal strategies and SEMP into the environmental and natural resource management plans of local governments.

All four ICM demonstration sites followed a cyclical process in preparing, developing, adopting, and implementing ICM programs under their respective local contexts. As the ICM system provides a framework of coastal governance involving environmental profiling and risk assessment, information disclosure, communication, and participation in decisionmaking, all SEMP and ICM plans were included in the development planning process of the concerned local governments and subsequently funded. Highlighted below are notable examples of planning in ICM programs, following the ICM cyclical process.

1. All four ICM sites developed their own coastal strategy and implementation plans, using the data from risk assessment reports/coastal profiles. In Batangas, the SEMP 1996–2020 served as a guide for the sustainable management of Batangas Bay (PEMSEA, 2006a; Padayao and Sollestre, 2009). In Da Nang, the coastal strategy provided short and long-term action programs designed to help resolve complex issues that beset the coastal and marine environment through cross-sectoral cooperation (People's Committee of Da Nang City, 2001). In Xiamen, the SEMP for Marine Pollution Prevention and Management contained an appraisal of the causes and effects of identified environmental concerns and their associated risks; the evaluated management measures in place; and the possible options for intervention (PEMSEA, 2006b). In Chonburi, the Coastal Strategy Implementation Plan (CSIP) was eventually adopted by the five municipalities, which then catalyzed the scaling up of ICM implementation to the whole province (Kanchanopas-Barnette, et al., 2012; Barnette and Wiwekwin, this volume).
2. All sites created interdisciplinary technical teams to help undertake environmental risk assessments and develop coastal strategies and coastal strategy implementation plans (CSIP). The ICM program success in Xiamen entailed the active involvement of scientists and other experts who extended support from the startup phase to the present. In 1996, the Xiamen Marine Experts Group (MEG) was formed by the municipal government to provide a venue to integrate scientific findings and opinions for policy and management decisions. Composed of marine scientists, economists, and legal and other technical experts, the group was given the responsibility of providing expert and technical advice when needed. Information and findings from scientific studies provided the basis for the policies and decisions made by the Marine Management and Coordination Committee (MMCC) (PEMSEA, 2006b).
3. The interest of the local governments in implementing ICM goes hand in hand with allocating budgets for the programs and the coordinating mechanisms. Even after the first cycle of the ICM program was completed, the government budget allocation continued due to the integration of ICM and its relevant content into the local government plans and programs. The local government was able to explore other financing mechanisms to augment the financing requirements of the program implementation. In Batangas, along with the establishment of the *Bantay Dagat* (Sea Patrol), was the collection of diver fees, which started in Mabini and Tingloy in 2003. Mabini, Tingloy, and Calatagan established an environmental fund, utilizing the majority of fees collected for the management of the coastal areas and its resources (PEMSEA, 2008). In Xiamen, the Xiamen Sea Use Management Regulations mandated “the levy of sea use fee for six types of activities (i.e., engineering, industry, tourism, fishery, dumping, and other activities) (Article 4). The same regulation allowed the sea use fees to be used for sea area development and construction, conservation, and management (Article 19)” (PEMSEA, 2015a).
4. Setting up a coordinating mechanism was a critical step in the cycle. In Batangas, the adoption and implementation of the SEMP required and thus enabled the establishment of a coordinating

mechanism, the Batangas Bay Region Environment Protection Council (BBREPC). The BBREPC was a multisectoral body that provided the platform for coordination, conflict resolution, information exchange, and cross-sectoral relations between government and nongovernment stakeholders, including the fishers. The council served as the governing and policymaking body for the implementation of SEMP. With the scaling up of ICM, the council was expanded to cover two adjacent bays, Balayan Bay and Tayabas Bay. The council was then renamed the Batangas Environmental Protection Council (PEMSEA, 2014).

In accordance with the implementation of the Coastal Strategy of Chonburi (PEMSEA, n.d.), the provincial government established the ICM coordinating and management mechanism—the Provincial ICM Coordinating Committee (PCC).

The Xiamen MMCC was set up in late 1995 as an interagency structure. The creation of the coordinating mechanism resulted in the promotion of policy options and decisions based on priority concerns and available capacity, but with a realistic evaluation of the effects these had on the whole system: ecology, society, and economic sector. Not wanting the coordinating mechanism to be simply another layer of bureaucracy, Xiamen took early action to efficiently streamline the operations of disparate agencies by harmonizing interagency functions and operations. The improved efficiency helped to lower the delivery costs of services (PEMSEA, 2014).

5. Learning by doing is one of the key functions of the ICM cycle. Through progressive implementation of ICM programs over the cyclical process, a critical mass of local officials and local technical experts were trained. Concerned line agencies and research institutions involved were also able to improve their institutional capacity in environmental management. Batangas and Chonburi formally adopted local development plans to develop needed capacity for implementing their ICM plans. In Batangas, an ICM Training Center was established in 1999 under the

PG-ENRO, becoming a venue for study tours and cross-site visits from within the Philippines and other countries. The PG-ENRO staff conducted orientation and sharing of lessons learned and practical experiences in ICM implementation (PEMSEA, 2008). In Da Nang, local capacity building was one of the main thrusts of the ICM program through on-site training courses and workshops organized by PEMSEA, which included a number of national professionals and local experts as participants (Da Nang Coastalink, n.d.).

Geographical scaling up of ICM practices along national coastline was achieved through national coastal/ocean policy, strategies, and legislation

In the Philippines, the importance attached to ICM was exemplified by scaling up ICM through national policymaking and legislation. This in turn provided the conditions for mainstreaming ICM programs into the national development planning process. Presidential Executive Order 533 (E.O. 533, 2006) of the Republic of the Philippines, which adopted ICM as a national strategy for sustainable development of coastal and marine areas, also called for the development of coastal strategies and action plans that provide a long-term vision and goals for sustainable development of coastal areas. It required the mainstreaming of ICM into the national and local governments' planning and socioeconomic development programs with the allocation of adequate financial and human resources for implementation. The E.O. 533 also required the development of a national ICM program to implement the policy. The Department of Environment and Natural Resources (DENR), together with other concerned agencies, local government units, and other organizations initiated the Integrated Coastal Resource Management Program (ICRMP) in 80 coastal municipalities (DENR, 2012). A National ICM Program (NICMP) was proposed to expand its coverage to 832 municipalities. The major challenge, however, was the availability of funding support.

Similarly, the government of Viet Nam also recognized the contributions of ICM in the sustainable management of the coastal resources and the needs

to strengthen implementation by developing ICM policies, programs and legislation at the national level (Nguyen and Nguyen, 2014). The ICM scaling up program in North Central region and Central coastal provinces towards 2020 was accelerated through the integration of ICM into the revised Marine Environment Law and other relevant policy and legislation documents.

More specifically, the Law on Natural Resources and Environment of Sea and Islands, ratified on 25 June 2015 during the 9th session of the 13th National Assembly of Viet Nam, mandated the development of the National Strategy on Sustainable Exploitation and Use of Marine and Island Resources and Protection of the Marine and Island Environment covering a 20-year period with a vision for 30 years (PEMSEA, 2015b).

Coastal strategies and strategic environmental management plans developed during the demonstration phase were integrated into the development plans of the respective sites

The Batangas Province SEMP 2005–2020, a deliverable during the first phase of the PEMSEA Project, was incorporated into the comprehensive land use plan (CLUP) and Physical Framework Plan (PFP) (Box 1) of the province (PEMSEA, 2008).

The SEMP in Xiamen served as a framework for the specific action plans in different sectors in accordance with the local planning process. Based on the Strategic Action Plan (SAP) of 2005, Xiamen developed and implemented a series of ocean-related operational plans to achieve the objectives, including a marine functional zoning scheme, protection and exploitation of uninhabited islands plan, marine environmental protection plan, wetland conservation plan, and a program on the rehabilitation of tidal flats (PEMSEA, 2006b). The operational plans under the SAP provided the basis for the development of five-year plans for the ocean sector (Box 2).

Stakeholders were successfully mobilized and engaged in the implementation of the ICM programs

To effectively implement an ICM program, stakeholders should be educated and engaged throughout the ICM cycle. Cultivation of their positive attitude towards the environment contributes to the effectiveness of ICM implementation as they become collaborative partners with the local authorities in the preservation and management of the environment.

The establishment of marine protected areas (MPA) in Mabini, Batangas Province, engaged the participation of stakeholders, particularly fishers whose livelihoods were affected by MPAs. After a long process of awareness-raising about the benefits of an effectively managed MPA, including local revenue from tourism and other related activities, the community's perception changed, resulting in the establishment of the first marine sanctuary, Twin Rocks, in Mabini in 1991. The fishing community was encouraged to help maintain MPAs as members of *Bantay Dagat* (Sea Patrol). A series of capacity-building activities were conducted in the community to provide the members with information on the environment and fishery laws as well as the values of and threats to the marine coastal resources (Padayao and Sollestre, 2009).

Box 1. CLUP and PFP in the Philippines.
(Source: HLURB, 2006)

The national, regional, and provincial PFP are policy-oriented and indicative in nature, where different land use categories such as forest lands and agricultural lands are categorized into protection and production land uses. The broad allocation of land uses in the level of PFP is treated in detail in CLUP.

Comprehensive land use planning is a constitutionally supported undertaking in the Philippines. The state declares its land use policies and principles in terms of relation to national economy and patrimony as well as its police power for the promotion of public health, public safety, public interest, public order, and general welfare.

Box 2. Five-year planning process in China.**(Source: USCBC, 2015)**

Five-Year Social and Economic Development Plans (FYP) are drafted and implemented by central, provincial, local, and district governments. The central FYP and targets are drafted by the National Development and Reform Commission (NDRC) in coordination with line ministries. Specific economic targets are GDP growth rates and social development goals. Targets are established in consultation with experts from the academe, industry, and other government ministries. The Chinese government works closely with regulators to draft a number of industry-specific FYP in fields like financial services, environmental protection, etc. These plans can have very detailed goals and are often circulated after the release of the central plan, and will serve as the basis for development of plans at local levels.

With the expansion of the ICM program to a bay-wide scale, and in accordance with the Verde Passage Management Framework Plan, the MPA Networks were created. Similarly, a *Bantay Dagat* Network in the coastal municipalities was also established to consolidate the coastal enforcement efforts in the province. Finally, almost all the 15 coastal municipalities in Batangas became a part of the *Bantay Dagat* Network (PEMSEA, 2008).

In Da Nang, a notable impact of the ICM program was manifested in the gradual change in the people's mindset towards the environment and natural resources. More citizens, including local policymakers, recognized the value of the coasts and oceans and the threats associated with resource exploitation and degradation. To some degree, there was also an appreciation of the ICM approach involving all sectors, including policymakers, scientists, civil society, and the communities, which was catalyzed through consultations and public awareness activities (Da Nang Coastalink, n.d.).

ICM programs catalyzed donor contributions and external collaboration

In 2005, Conservation International (CI)-Philippines initiated a marine biodiversity program in the Verde Island Passage Marine Biodiversity Conservation Corridor as part of the Sulu-Sulawesi Seascape Project. Since the SEMP was adopted by the province, it was used as the environmental strategy for CI-Philippines to implement its program in the Verde Island Passage Marine Corridor (VIPMC). The Batangas Province SEMP became a major component of the Verde Passage Management Framework Plan. The existing MPAs in Batangas, which are within the bounds of the Verde Island Passage, were further expanded to cover the entire Verde Island Passage (DENR-PAWB, 2009). The network aimed to enhance the effectiveness and functionality of MPAs in promoting sustainable livelihood for fishers and protection of coastal resources (Padayao and Sollestre, 2009).

PEMSEA played an important facilitating and catalyzing role in the development of ICM demonstration and subsequent replication and scaling up

The successful implementation of ICM in the four countries was largely facilitated and assisted by PEMSEA, in particular by promoting the concept of ICM and providing initial catalytic funding to initiate, develop, and implement their ICM programs. The role of PEMSEA was critical in the early phase of ICM program development and implementation as well as in promoting the national coastal/ocean policy and strategy.

The agreement between the local government and PEMSEA to partner in the development and implementation of ICM was an important step towards the integration of ICM into the planning process. When proven successful at

the demonstration level, it built the confidence needed for the ICM scaling up along with institutionalization of the coordinating and implementing mechanisms, and the incorporation of the strategy and management plans into the broader developmental framework of the local government.

Lessons Learned

Demonstration is an effective approach towards replication and scaling up

PEMSEA's approach to engaging countries to adopt ICM in addressing the complex coastal development challenges started with the demonstration of ICM efficiency and effectiveness at a relatively small spatial and administrative scale. After success was established and confidence was gained, replication to other coastal sites and, onwards, scaling up was possible.

The scaling up of ICM meant that the success of on-the-ground initiatives of local ICM implementation was recognized by both the local and national authorities. This promoted its adoption at the national, subregional, and later, at the regional level, by demonstrating to local governments that the ICM framework and process not only results in environmental benefits but also social and economic gains.

ICM cycle is a useful and effective process to guide the preparation, development, adoption, implementation, and followup to ensure internalization of concept and integration of ICM strategies and plans into the local government planning process

The key factors driving the integration of ICM into the development planning process of local government units are embedded in the ICM cycle, including: (a) leadership role of local government; (b) visible achievements and impacts; (c) values of integrated planning and management approach; (d) coordinating mechanism; (e) vision-led programs;

(f) stakeholders partnership; (g) sustainable financing; (h) local champions; (i) policy and functional integration; (j) national policy and legislations; and (k) local and political commitments.

The adoption of the coastal strategy (CSIP/SEMP) at the provincial level, as in the case of Batangas and Chonburi by their provincial governments, ensured that the plan was vertically integrated at the local government level. The adoption of the strategic plans not only strengthened the effectiveness of implementation, but also enabled funding by the government. The horizontal integration of SEMP or coastal strategy into a CLUP, ensured due consideration of the sustainable development challenges and eventually catalyzed financing through investment programs. Experiences from the four sites showed that efforts in achieving sustainable development objectives would be incomplete if CSIP and SEMP were not integrated into the government planning process.

Legislation and policies can be catalysts for ICM integration into the local government's planning process

In the mainstreaming of CSIP and SEMP, the enactment of national or local legislation and policy can make a real difference as demonstrated by E.O. 533 (Philippines), and the Law on Natural Resources and Environment of Sea and Islands (Viet Nam). In addition to ICM plans, these policies and legislation facilitated the implementation of ICM programs as more aspects of governance, sustainable development, partnerships, and ICM code were included. Legislation and municipal ordinances also reflected the commitment of the local government in the implementation of ICM. Most importantly, when legislations supported the various ICM mechanisms and activities, and budget allocations were in place, the ICM approach was effectively integrated into the planning process.

Public awareness and education can mobilize supportive stakeholders who are engaged in sustainable management of resources

The "public" stakeholders engaged in the sustainable development of the coasts were educated about the value of coastal and marine resources, the existing environmental issues, the rationale for sustainable coastal

management, and their role in the conservation of these resources. Once this was achieved, their engagement in various environmental activities created a sense of ownership, custodianship, and confidence in the ICM program and its positive effects.

Institutionalizing an effective coordinating mechanism is a necessary step in fully integrating ICM into the local planning process

The experiences of the ICM sites showed that the institutionalization of the coordinating mechanisms was a nonnegotiable target of ICM practice. This made the ICM program sustainable, since the coordinating mechanism was integrated into the local government's implementing agency and the local development plan. With a stable and permanent coordinating mechanism, the local government was able to implement priority action plans according to its own timeframe, capacity and resources.

Through the success of the ICM program, particularly in the early cycles, confidence in the ICM approach was built, resulting in enacted legislations and enforced policies. This, in turn, led to the institutionalization of the coordinating mechanism, since the integration into the local government was backed up by law such as a provincial ordinance.

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