Financing Mechanisms and Economic Instruments to Leverage ICM Program Implementation and Sustainability: Experience from Xiamen and Batangas

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Key Message

- Sustainable financing is an important component of governance within an integrated coastal management (ICM) system. It emphasizes that specific attention is required from different stakeholders for ICM program sustainability.
- Government budgetary allocation is still the main financial resource for ICM-related investments although other financial mechanisms and economic instruments, such as user fees and permit systems, also generate significant income.
- Common vision, coordinated and integrated approach, and stakeholder participation are important elements towards building collaborative opportunities with private and business communities through public-private partnerships (PPP) and corporate social responsibility (CSR).

Abstract

ICM implementation is often initiated with the use of external funding from donors and other external funding agencies. The challenge lies in sustaining the implementation of the ICM program after resources from external sources have ended. Lack of continuing funds has been frequently used as an excuse for inaction and even discontinuation of the program. A sustainable financing mechanism was therefore included in PEMSEA's governance framework for an ICM system. It was included to put additional focus on the need to generate a continuous supply of funds for management interventions and maintenance of environmental improvement infrastructure (Chua, 2008). The ICM system enables the identification and selection of appropriate options for developing sustainable financing mechanisms including regular government budget allocation, user fees and taxes, and PPP.

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This case study is part of the book: *Chua, T.-E., L.M. Chou, G. Jacinto, S.A. Ross, and D. Bonga. (Editors). 2018. Local Contributions to Global Sustainable Agenda: Case Studies in Integrated Coastal Management in the East Asian Seas Region. Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) and Coastal Management Center (CMC), Quezon City, Philippines.*

This case study identifies the enabling conditions which facilitated initial and continued investments of ICM intiatives using the Xiamen and Batangas experience; in particular identifying various sustainable financing options and economic instruments used at these two ICM sites. The analysis recognizes the role of international interventions in providing conceptual and technical support, as well as limited financial resources, while local government commitment remains key to ICM sustainability. The ICM system provides the framework and process to enable: (a) application of appropriate sustainable financial mechanisms and economic instruments (e.g., regular government budget allocation, user fees, taxes, permit and user fee system); (b) identification and implementation of collaborative opportunities (e.g., cooperation with private sector); and (c) leveraging external resources (e.g., foreign-aided environmental investment projects), to augment the required financial investments.

Background

The ICM system was initiated more than 20 years in the East Asian Seas region. To date, all ICM sites of PEMSEA member countries were able to continue implementing their ICM programs, although varying in terms of level and maturity. Innovative, sustainable financing was a key ingredient to ensuring the needed human and financial resources to implement action plans to achieve long-term goals and targets.

Two selected ICM antecedent projects of PEMSEA (i.e., first phase - Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Sea [MPP-EAS]) in Xiamen, PR China and Batangas, Philippines were implemented from 1994-1999, with direct financial and human resources from the concerned local governments and partial financial and technical support from the Global Environment Facility (GEF)/United Nations Development Programme (UNDP)/International Maritime Organization (IMO). These two sites were able to maintain and scale-up their ICM programs, even after the initial project was completed.

The success of the first two ICM sites led to the establishment of ICM demonstration sites in Cambodia (Sihanoukville), PR China (Dongying), DPR Korea (Nampho), Malaysia (Port Klang), Philippines (Bataan), Thailand (Chonburi), and Viet Nam (Da Nang) during the second phase of the Regional Programme on Building PEMSEA (1999-2007). In the second phase, much of the financial and human resources were from the respective local governments or jointly from other nongovernment sources, with basic support from PEMSEA for capacity development, essential equipment, travel, and some operational budgets especially for those least developed countries. From 2007 onwards, international financial support to existing ICM sites were much reduced, and national and local governments provided the major operational costs. Since then, new ICM parallel sites were developed and implemented solely with local or national financing or jointly with other sources, although PEMSEA continued to provide capacity development support. Over 35 sites were set up in the region, all implementing ICM programs that are self-financing.

Many lessons can be distilled from the two decades of ICM practice in the region, especially the approach, forms, and methodology in securing continuous financial and human resources to support local solutions covering a broad spectrum of environmental, social and economic sustainability challenges. This case study focuses on the experience gained from Xiamen and Batangas, which have been operating successfully under different political, social, and economic conditions.

Approach and Methodology

More than 20 years of ICM practice in securing continuous financial and human resources to support local solutions entailed the following approaches:

1. Identifying the preconditions necessary for initial investment by the local governments to initiate, develop, and implement ICM programs and the role of international donors in the process;

2. Delineating required policies and legal instruments which contribute to sustained ICM implementation;

3. Determining the positive impacts of ICM program implementation in generating confidence, commitments, and the drivers towards internalizing and mainstreaming ICM into the local government agenda;

4. Exploring appropriate financing mechanisms or economic instruments used by the concerned local governments in securing the needed financial resources; and

5. Assessing how the ICM sites were able to generate the required financial resources given variations in sociopolitical systems.

These different approaches are presented separately for each site. Despite the disparity, this case study also attempted to present common financing instruments and key supporting drivers which contributed to the successful implementation and sustainability of ICM programs in Xiamen and Batangas.

Results

Pre-conditions for initial investment in ICM program development and implementation

The adoption of integrated coastal management at two coastal sites (Xiamen and Batangas) was largely influenced and facilitated by international efforts, namely the MPP-EAS project which provided technical know-how and contributed to capacity development of local officials and managers.

In the case of Xiamen, which was one of the five special economic development zones of PR China, there was strong political will and administrative desire to promote and demonstrate mitigation of pollution and conflicting uses of marine and coastal resources in the area. In the case of Batangas, which was identified as one of the major and important marine ports of the Philippines, the focus was on preventing and avoiding pollutive conditions in the coastal area from the expansion of port facilities and the growth of industrial activities. In both cases, the introduction of ICM was a necessity and an opportunity.

Supporting policy and legal instruments contributing to ICM investments

National marine-related environmental protection and conservation policy and sector-related legislations (e.g., pollution prevention and management; shipping; port development; fishery; marine resources exploitation; and habitat protection) supporting policy and legal instruments favored government investment in the ICM program. The ICM approach facilitates integration and pooling of financial and human resources in meeting common objectives and targets, thus enabling the institutionalization of a sustainable and regular government budget.

In Xiamen, the local government implemented several legislations for financing marine environment protection, ecosystem restoration, disaster risk reduction, and endangered species protection (Guo and Engay, this volume).

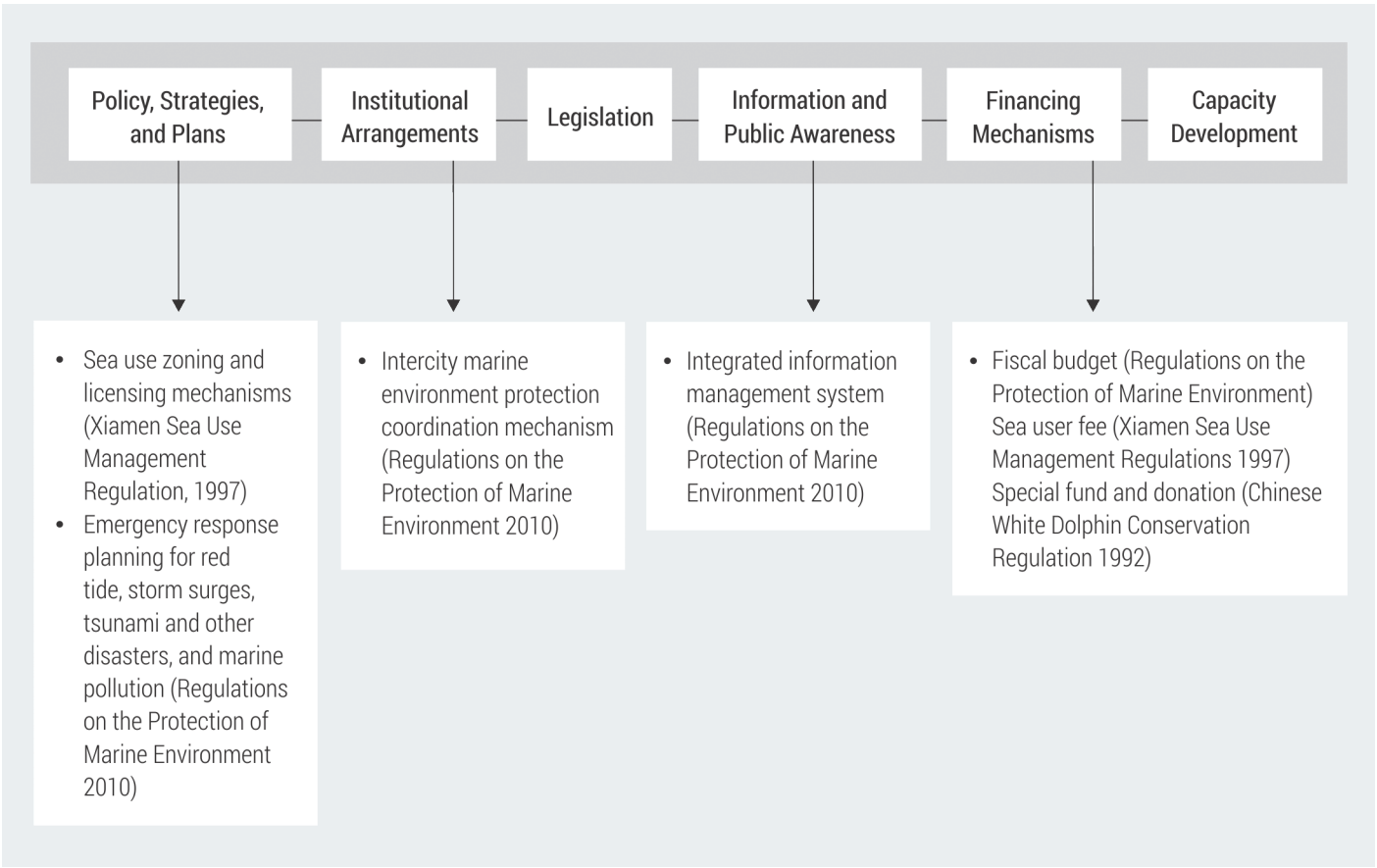
Mandatory allocation of fiscal budget was included in the Xiamen's Regulations in the Protection of

Marine Environment (Article 7), which required municipal and district governments to gradually increase investment in marine ecosystem restoration, marine disaster preparedness and risk reduction, and marine environment pollution treatment. In addition, operational funds were included in the fiscal budget of the different levels of national and local governments (Figure 1). Additionally, special funds were allocated from the local government budget to undertake specific activities which were unique and beneficial to the areas concerned. For example, Article 4 of the Xiamen Chinese White Dolphin Conservation Regulation (1997) stated that the municipal government was required to establish the Chinese White Dolphin Conservation and Development Special Fund to support the species' conservation, MPA management, and scientific research, education, and awareness-raising activities.

In the case of Batangas, supporting policy and legislations were available for ICM program implementation. The Philippines adopted ICM as the "national strategy to ensure the sustainable development of the country's coastal and marine environment and resources" with the issuance of Executive Order No. 533 (2006). Section 7 of the said strategy provided for the corporate and private sectors, among others, to "be engaged in planning, community organizing, research, technology transfer, information sharing, investment, and training programs in the development and implementation of the ICM program".

Several key sector-specific legislations were adopted in support of implementing action plans of the ICM programs. For example, in the Philippines, apart from the national policy (E.O. 533, 2006), there was no national or local legislation covering

Figure 1. Statutes that strengthen different aspects of coastal governance in Xiamen ICM legal framework.



the development and implementation of ICM. With respect to water use zoning, Mabini enacted such a regulation through Municipal Ordinance No. 4, 2006. Nine coastal municipalities (Calaca, Calatagan, San Juan, Lobo, Mabini, Tingloy, Balayan, Batangas City, Nasugbu) passed municipal regulations with respect to fisheries. Batangas City and Calatagan passed Municipal Ordinances (in 1996 and 2006, respectively) that limit fishing in their municipal waters to their own resident fishers. Regulations with respect to mining and quarrying were enacted at the provincial level. The Provincial Mining Regulatory Board was established in 1996 and further affirmed through Provincial Ordinance No. 003, 2004, which allocated appropriations for the Board (PG-Batangas and PEMSEA, 2008) (see Figures 2, 3, 4, and 5). These legislations were specific in addressing key sustainability challenges including natural and human-made disasters and climate change, pollution, habitat protection and conservation, fisheries and other marine resources, etc.

Impacts of ICM program implementation in building confidence and commitments for sustainability

Both ICM sites benefitted from the long-term implementation of their ICM programs not only in terms of visible improvements on environmental quality and the restoration of habitats but also in building trust, confidence, commitment, and capability among the stakeholders, which ensured longer term commitment of the local government in adopting the ICM system.

In Xiamen, the local government was able to provide and even generate other financial resources to continue ICM implementation for the past two decades. Understanding the value of the ICM system among local government officials, ICM project staff, and stakeholders generated greater confidence and more investments from the local government.

Figure 2. MPA Management Plans of the municipalities of the Province of Batangas.

Figure 3. **Facilitating the implementation of the Strategic Environmental Management Plan (SEMP) of the Province of Batangas: governance.**

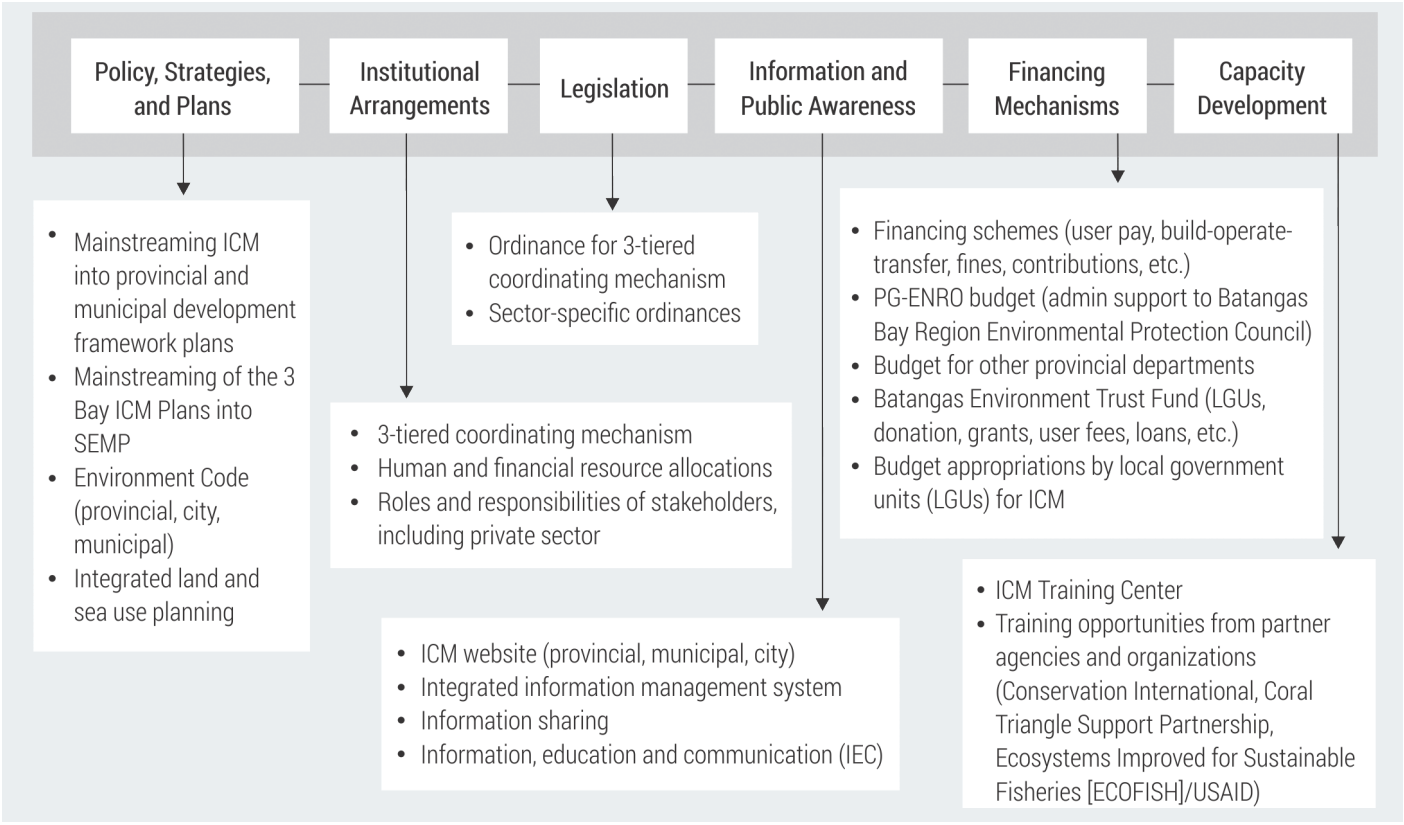


Figure 4. **Facilitating the implementation of SEMP of the Province of Batangas: sustainable development aspects.**

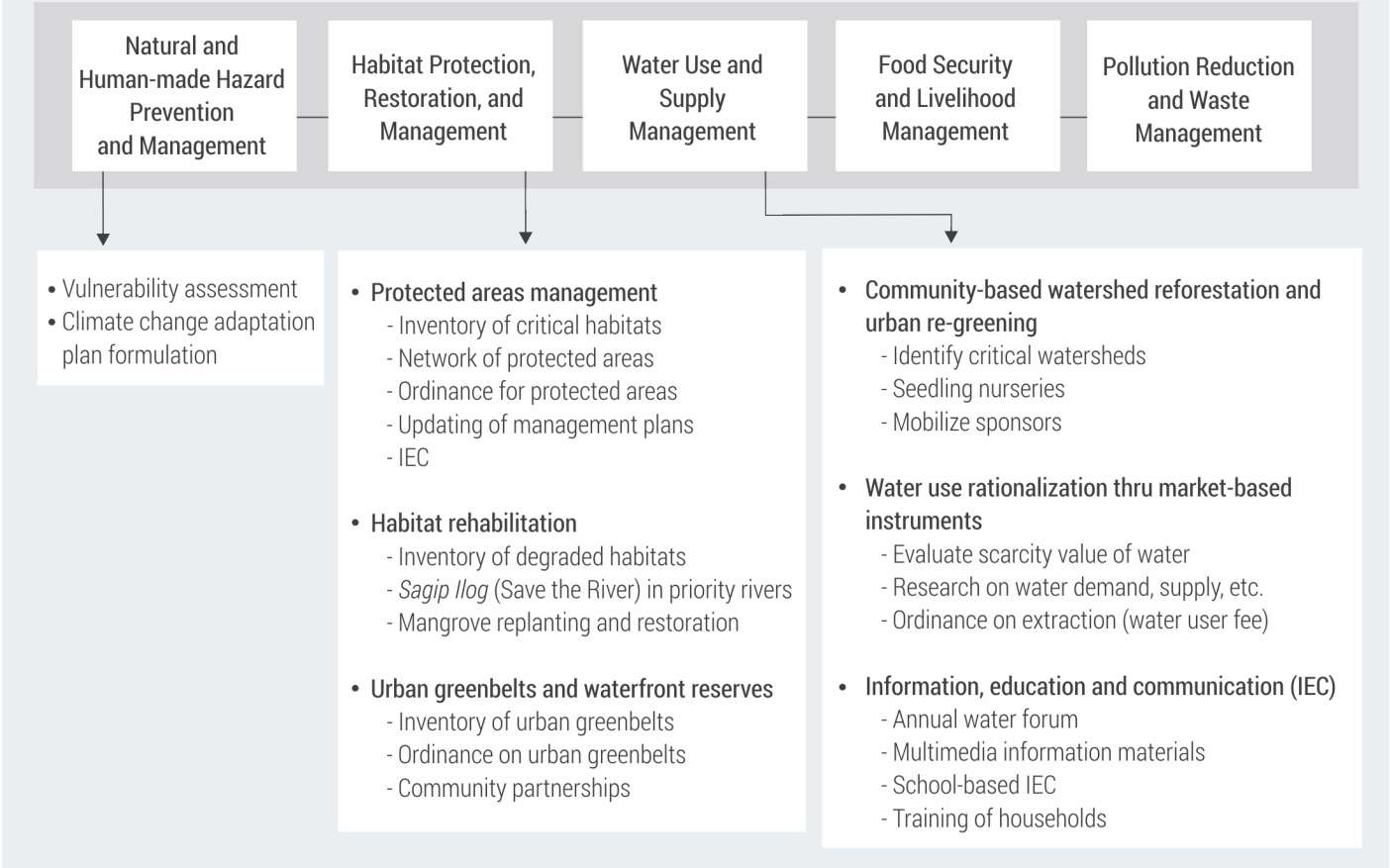
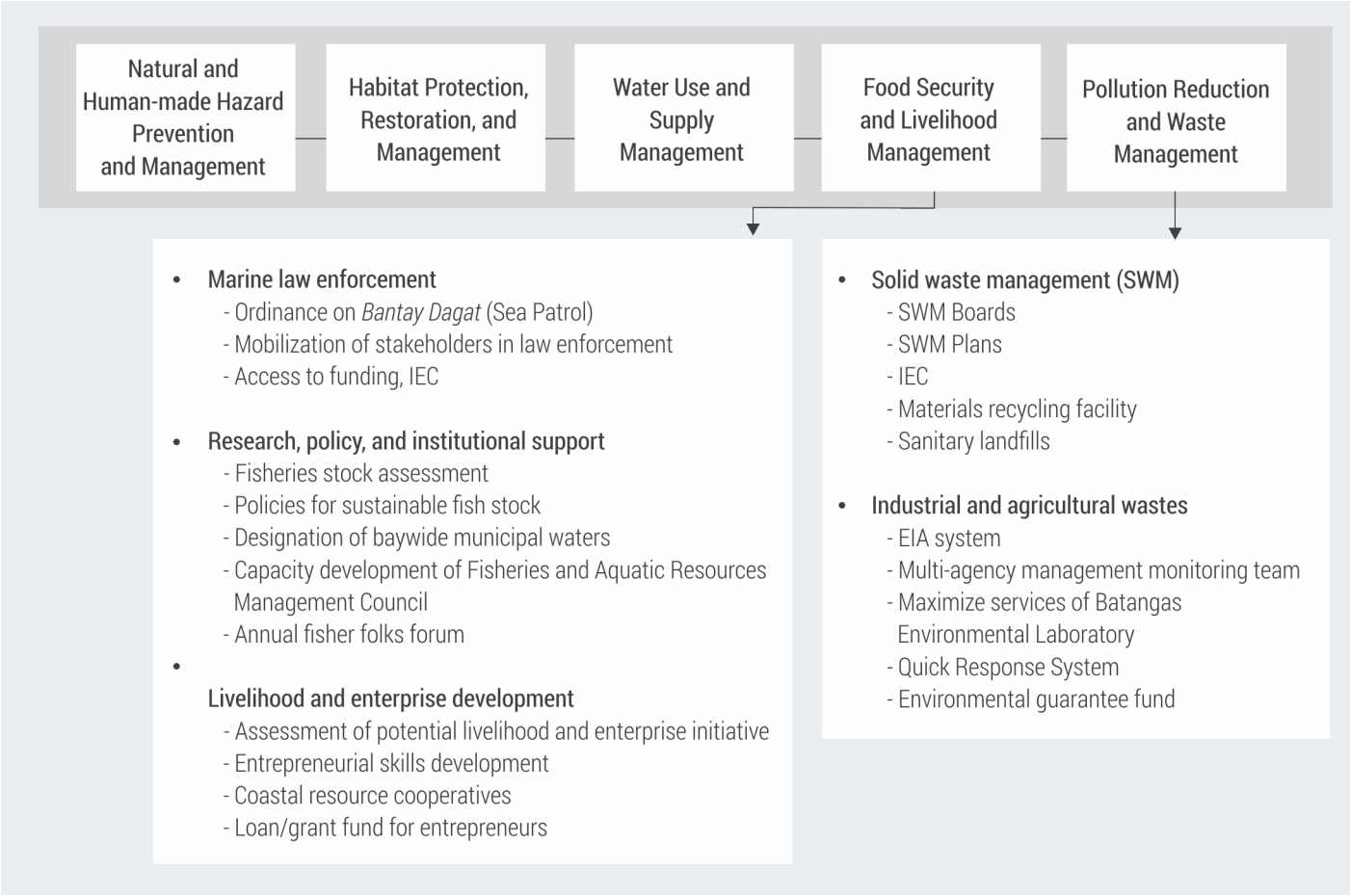


Figure 5. Facilitating the implementation of SEMP of the Province of Batangas: sustainable development aspects.



Similar impacts of ICM implementation were experienced in Batangas. The involvement of the private sector in the ICM program since its initial phase increased the confidence and commitment of the local and provincial governments. The private sector contributed significantly through the Batangas Bay Coastal Management Foundation to projects such as mangrove rehabilitation, oil spill response, and water quality monitoring.

Financial mechanisms and economic instruments for ICM program implementation

a. **Fiscal budget allocation.** In both sites, annual budget was allocated by the local governments for ICM program implementation. Integrated coastal planning, development, and management were identified as key functions of the government, and the commitment of fiscal budget was seen as a means of ensuring program implementation.

b. **User fees**. In Xiamen, a permit system was adopted for the use of coastal waters. 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 regulations allowed 70% of the sea use fees to be utilized for sea area development and construction, conservation, and management (Article 19). Thirty percent of the fees was turned over to the national treasury (Uychiaoco, et al., 2009).

The success and experience of Xiamen were recognized at the national level. The enactment of national legislation, the Law of the People's Republic of China on the Administration of the Seas, was approved by the People's Congress in 2001. Its general purpose as stated in the law was strengthening the administration of sea area use; safeguarding state ownership of the sea areas and

the legitimate rights and interests of the sea area users; and promoting rational development and sustainable utilization of the seas.

A different user fee system was developed in Batangas (Salao, et al., 2007; PG-Batangas and PEMSEA, 2008; Rawlins, 2009; Maypa, et al., 2012). In the municipalities of Mabini and Tingloy, divers fees were implemented in 2003. Both municipalities enacted the municipal ordinance that imposed a conservation fee on divers, day tourists (picnics), and others to finance their conservation and environmental protection activities. The collection of fees increased from P 225,000 (US$ 5,600) in 2003 to P 2.5 million (US$ 53,700) in 2007. Some 85% and 80% of the fees collected in Mabini and Tingloy, respectively, were utilized for management (PG-Batangas and PEMSEA, 2008; Rawlins, 2009). Both municipalities had established environmental funds (Salao, et al., 2007). In Calatagan, 70% of the collection from registration of fishers and boats, as well as fines from fishery violations, were allocated for coastal resource management, while Calaca allocated 70% of the fisheries registration fees for the Fisheries and Aquatic Resources Management Council (FARMC) livelihood projects by 2009.

c. **CSR**. Prior to the establishment of the ICM initiatives in Batangas, several key corporate entities, which were utilizing the coastline of Batangas Bay for various industrial activities, including oil refining, ship-building, manufacturing, shipping, and ports, were supporting nongovernment initiatives such as the protection and rehabilitation of mangroves, community improvements, etc., as a part of their CSR programs. The ICM initiatives, since 1994, were effectively providing a broader and coordinated framework for pooling of efforts and resources from all sectors in achieving common objectives (Cardinal, 2012).

d. **PPP**. In Batangas, the Project Coordinating Committee was organized to coordinate the implementation of the ICM program. The committee evolved into an intergovernmental and multi-sectoral Batangas Bay Region Environmental Protection Council (BBREPC), which created an effective platform for the private sector to participate, channel its expertise, and better define the objectives and expectations of its CSR program. The corporate sector became an active participant in BBREPC, including the planning and development of the ICM program (Chua, 2006; PEMSEA, 2006).

As an active participant, BCRMF was providing supporting funds, staff, and other logistical support for ICM implementation. First Gen, Inc. and Malampaya Foundation likewise were active private sector partners whose activities included artificial reef monitoring, mangrove rehabilitation, waste management, MPA management, biodiversity conservation in Verde Island Passage, disaster preparedness and response, and capacity building for waste management and law enforcement.

The Batangas ICM initiatives catalyzed the development of a new parallel site in Bataan Province during the second phase of PEMSEA. The Bataan Integrated Coastal Management Program (BICMP) showcased the effective partnership among various stakeholders including the private sector in the Province of Bataan (PMO-Bataan, 2006; PEMSEA, 2009). The BICMP actions included annual coastal cleanups, improvements in solid waste management, establishment of sewage treatment facilities, support for livelihood programs, and formulation and enforcement of the Coastal Land and Sea Use Zoning Plan (Erni, 2012, 2013).

Lessons Learned

Although the ICM programs of Xiamen and Batangas were introduced and initiated through external financing, the local governments were able to internalize, adopt, and successfully implement them over a span of two decades through sustained political and financial commitments.

Public sector investment is essential to sustain ICM. In addition to regular government budgets, both local governments were able to increase public acceptance of paying for the use of the environmental services. They established a fee system for generating revenues for environmental management. In Xiamen, successful implementation of the sea use zoning plans enabled the local government to generate substantial financial resources. The concept of sea use zoning and user fee system was eventually recognized and made into national law thus enabling other coastal municipalities and cities to adopt a similar approach.

Private sector engagement is achievable through CSR and PPP. The province of Batangas provided on-the-ground examples of how a local government was able to engage with the private sector and how both benefited from this shared responsibility. The corporate sector contributed by providing resources, skills, equipment, and facilities in support of the ICM program. This was a form of PPP, which is broadly defined as collaborations between government and nongovernment actors to achieve mutually defined goals. It demonstrated one way of steering funds from the private sector toward coastal and marine development priorities of local governments. The ICM framework can improve the targeting of private funds for social ends, thereby increasing the development impact of CSR activities compared with independent corporate initiatives in CSR. Engaging these different stakeholders in a partnership can reduce project costs, target benefits more effectively, and improve sustainability as the local community gains greater ownership over project activities. PPP can be a good source of funds; however, on its own, it cannot support the implementation of an entire ICM program.

Hence, sustainability of ICM practices largely depended on: (a) realization of the usefulness, effectiveness, and the process of the ICM system in achieving economic, social, and environmental benefits made possible with strong local government commitments to sustainable development; (b) internalization of the concept and operational modality which leads to mainstreaming of the integrated planning and management approaches into local government regular programs and budgets; and (c) strong planning and management capability to galvanize and mobilize external or nongovernment funding sources through wise application of financial mechanisms and economic instruments to sustain implementation.

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