

Integrated Coastal Management Implementation and Scaling Up in Chonburi Province, Thailand

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Key Message

- The integrated coastal management (ICM) concept and approach were adopted and successfully demonstrated in five municipalities in Chonburi Province, Thailand. Over a span of 15 years, the ICM practice was effectively scaled up to cover all the 26 coastal and 73 noncoastal municipalities of the province utilizing local/provincial and national financial and human resources.
- A national decentralization policy mandating management responsibilities to local governments was a contributing factor to stronger commitment of resources for the implementation of ICM programs.
- The success in ICM implementation and scaling up was attributed to the continuous process of capacity building of local officials and institutions and greater involvement of local and national scientific research and educational institutions.

Abstract

Rapid economic development in the last 20 years transformed Chonburi's economy from agriculture and fisheries-based to industry-based, causing the degradation of marine and coastal resources and the coastal ecosystems.

Thailand's government structure at that time was being decentralized to give local governments the mandate and authority to manage natural resources and the environment. Thus, when Chonburi Province was selected as a PEMSEA national demonstration site, the provincial authority took the opportunity to address its key environmental concerns as well as to strengthen local capacity in marine and coastal management.

The project began in 2001 with the participation of five coastal municipalities and a project office hosted by Sriracha Municipality. Through the systematic and participatory process of ICM program development, a long-term coastal strategy was prepared and adopted by the provincial government and the five municipal governments in September 2004. A Provincial

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Order was issued to streamline the initial interagency and multisectoral ICM coordinating mechanism, with Sriracha Municipality serving as the Secretariat for the ICM project.

Through annual ICM scaling up promotion activities from 2006 to 2009, all 99 local governments in the province became members of the ICM network and committed to implementing the Provincial Coastal Strategy.

Background

Chonburi, a coastal province 80 km southeast of Bangkok in the Upper Gulf of Thailand, has a land area of 4,363 km², a 160 km coastline and a population of 1.3 million. Its nature parks, heritage sites, cultural events, and local produce attract foreign and local tourists. It is also a center of marine fisheries and aquaculture in the Upper Gulf of Thailand.

The Eastern Seaboard Development Project, a long-term project of the Thai Government, was launched in 1981 aiming to expand economic development from Bangkok to other provinces. This move transformed Chonburi and its adjoining provinces into industrial centers and direct gateways for import and export (Narcise and Sujarae, 2004). This was accompanied by continuous development of important public infrastructure, including roads, electricity, waterworks, and harbor for domestic and international transport, in order to serve industries such as petroleum, steel, and oil refining.

The rapid development of Chonburi within 20 years resulted in the deterioration of the marine and coastal environment and resources; reduction in fisheries production; increase in pollution from solid, liquid, and toxic/hazardous wastes; increase in air pollutants; and visible degradation of beach areas as well as natural, historical, and cultural sites

which were also major tourist destinations. These were having adverse socioeconomic consequences to sectors and communities that were dependent on healthy marine and coastal resources, including fisheries and tourism (Narcise and Sujarae, 2004; PEMSEA and Chonburi ICM PMO, 2004).

A government decentralization process in 1999, mandated by the 1997 Constitution, delegated the management of natural resources and the environment to local governments, and emphasized people's participation in making decisions, formulating goals and policies, and management of their own localities. This highlighted the need to develop capacity of local governments.

ICM was introduced by PEMSEA around this time. The local government recognized ICM as a viable approach for continuing local development while sustaining the functional integrity of natural habitats as well as the local culture. Visits to ICM sites in other countries and witnessing the tangible outcomes and benefits of ICM implementation further inspired them to apply ICM in Chonburi (Thimkrajang¹, pers. comm.).

Approach and Methodology

Initiating ICM program development and implementation

The ICM project in Chonburi was initiated in 2001 in five municipalities: Sriracha, Laemchabang, Saensuk, Au Udom (now Chaoprayasurasak), and Koh Sichang. Their leaders saw the benefits of local development that takes into account marine conservation (Thimkrajang, pers. comm.). An ICM Project Management Office (PMO) was established and hosted by Sriracha Municipality. Core PMO staff and key government units were trained on ICM and project development and implementation. A senior level interagency and multisectoral ICM

¹ Chatchai Thimkrajang, former Mayor of Sriracha Municipality and Chonburi ICM PMO Director; current Head of Sriracha Municipal Council.

Project Coordination Committee (PCC) was also organized to provide policy and technical guidance for ICM development and implementation.

Adopting a common framework for action

The Coastal Strategy for Chonburi was completed in 2004 with the following shared vision of stakeholders: “Chonburi is an area with scenic and clean beaches and coastline, a popular tourist destination and center of socioeconomic development, where local people enjoy and care for the many bounties provided by the environment, protect Thai culture and traditions, and enjoy wholesome, secure and good quality of life” (PEMSEA and Chonburi ICM PMO, 2004).

The Coastal Strategy was adopted by the five municipalities and the province in September 2004 through an official declaration ceremony attended by representatives from the provincial and local governments in Chonburi, key national agencies and other stakeholders (Figure 1).

During the ceremony, the governor directed the Provincial Office of Natural Resources and Environment (PNRE) and concerned offices to integrate the strategy into the plans and programs of the province.

Improving institutional mechanisms for implementation

ICM implementation gained momentum in May 2006 with the issuance of the Chonburi Province Order No. 673/BE 2549, which requested relevant agencies and institutions concerned with natural resources and environmental management to collaborate and support the implementation of ICM programs in the five pilot sites identified by the local governments. The Provincial Order established an ICM PCC chaired by the governor

Figure 1. Coastal Strategy Declaration, September 2004.



and composed of heads of relevant agencies, academic institutions, and representatives from private sector and nongovernment organizations (NGO). The PNRE was named as the Secretariat to PCC. A Technical Working Group (TWG), led by the head of PNRE, was designated to coordinate the implementation of decisions of PCC. The Provincial Order also established a PMO which was composed of a consultative committee of the mayors and four working committees with designated municipalities to coordinate program planning, financing, implementation, monitoring and evaluation, respectively. Sriracha Municipality was identified the Secretariat to PMO. In June 2006, Sriracha Municipal Order 207/BE2549 was issued to support the establishment of an ICM Secretariat Office, designation of staff, and allocation of financial and other administrative and technical support, as needed by the ICM program. The mayor of Sriracha Municipality served as the director of PMO.

The official order from the provincial government was critical for getting commitments from stakeholders as well as for identifying the different sectors' responsibilities related to natural resources and environmental management, and for communicating expectations and directives

from the top level to concerned local implementers (Khunplome², pers. comm.).

Demonstrating the implementation of the Coastal Strategy in Sriracha

With the strong commitment and support of the mayor, Sriracha Municipality sent two technical staff for internship at the PEMSEA Regional Programme Office in the Philippines, in order to enhance their capacity and confidence to coordinate ICM program development and implementation. A key output from the internship was a draft medium-term Coastal Strategy Implementation Plan (CSIP) for Sriracha Municipality, which focused on enhancing awareness and understanding among stakeholders; promoting marine and coastal conservation, solid waste and wastewater management; and strengthening oil spill monitoring and response.

Sriracha Municipality was identified as a pilot site for adoption and implementation of the CSIP.

Some of the activities implemented as part of the CSIP included:

- conservation of marine species; release of sea turtles (Figure 2) and juveniles of aquatic

species, e.g., sea bass, shrimp and blue swimming crab into the sea; and protection of gravid female crabs in a protective structure until the eggs are released;

- habitat restoration (mangrove and seagrass planting) (Figure 2);
- training on environment-friendly coastal aquaculture, e.g., floating mussel farms;
- waste management (waste segregation and recycling, including establishment of collection facilities for recyclable wastes in schools and communities, and development of payment system for wastewater treatment);
- establishment and training of a volunteer group to support oil spill monitoring, reporting, and response;
- conduct of scientific research on potential impacts of a sea-based commercial operation on the ecosystem of Sriracha Bay and on the health of nearby communities (Box 1); and
- promotion of sustainable tourism development (establishment/improvement of coastal parks with sea turtle conservation pond, marine

Figure 2. Public awareness activities in Sriracha Municipality: sea turtle release activity with participants from various sectors (left); and seagrass planting with various stakeholders (right).



² Vitaya Khunplome, Head of Chonburi Provincial Administration Organization; current Chonburi ICM PMO Director.

conservation activities, and health facilities where people can exercise) (Figure 3); replacement of a causeway from the mainland to an island park that hindered water circulation (Figure 3).

Most of the activities were implemented with wide stakeholder participation, thus raising public awareness and commitment to environmental protection and marine conservation. Activities were also implemented in collaboration with various agencies and sectors which contributed financial, personnel, and technical support. Other municipalities and institutions were invited to participate in or to witness various ICM implementation activities.

Figure 3. Construction of infrastructure with inter-agency and inter-sectoral collaboration in Sriracha Municipality: waterfront improvement (above); and replacement of bridge that hindered water circulation (below).



Box 1. Use of science to support policymaking and management.

For four decades, the process of transferring certain commodities from small vessels to bigger ships in Sriracha Bay for international transport caused dust clouds that settled in the bay area (Figures 4A and B). No scientific evaluation of the impacts on the bay and living resources was conducted. The nearby local governments of Sriracha and Koh Sichang did not have the authority to address the problem as the area is under national government jurisdiction. Sriracha Municipality collaborated with researchers from the Sriracha Fisheries Research Station of Kasetsart University in 2006 to assess seawater, sediment and air quality, and benthic communities in the area. The research showed that sea-based operations have negative impacts on the local ecosystem. The results were brought to the attention of concerned national agencies (Figure 5).

Sichang municipality was subsequently granted the authority to govern its surrounding sea area under Act 2551 (30 October 2008) of the Ministry of Interior.

Figure 4. Transfer of dusty commodity from small boat to ship.



Box 1. Cont.

Sichang was the first municipality in Thailand to have a designated sea area and the authority to protect and manage the marine natural resources and environment, collect fees from shipping boats, and control shipping operations (Figure 6).

Figure 5. Presentation of research results to concerned agencies and sectors.



Figure 6. New administrative map of Sichang Municipality including the sea area.



Promoting ICM to other local governments

The mayor of Sriracha took every opportunity to explain the benefits of sustainable coastal development in various forums in the province, and interacted with other mayors and persuaded them to adopt the ICM approach.

Under the mayor's leadership and coordination of the ICM Secretariat at Sriracha Municipality, other mayors and senior local officials were invited to join the annual forum of the PEMSEA Network of Local Governments (PNLG) to learn from other ICM sites (Figure 7). Study tours to ICM sites (Xiamen, China; Danang, Viet Nam; Shihwa, RO Korea; Sihanoukville, Cambodia; Batangas, Philippines; Bali, Indonesia; and Shima City, Japan) and other locations (Tokyo and Osaka, Japan; Townsville, Australia; Netherlands; France; Belgium; and Germany) were organized for the local leaders and implementers to see good practices for themselves, and to motivate and inspire them to develop their municipality in a sustainable manner. The study tours also served as venues for local leaders in Chonburi to interact, discuss common issues, and share information and strategies for addressing the issues.

Officials from ICM sites in other countries also visited Chonburi Province, which provided further opportunities for information exchange and relationship building with their international counterparts (Figure 8).

Preparing a CSIP for five municipalities

Local governments in Thailand were required to develop a three-year social and economic development plan to serve as basis for requesting annual budget allocations.

Figure 7. Study tour of Chonburi officials in Shihwa, RO Korea on 20 June 2006.



Figure 8. Mayor of Sriracha receiving visitors from the Philippines in September 2006.



The plans were to be in accordance with national development strategies, and include proposed projects or activities which would be developed with people's participation. Plans or projects proposed for each year were required to have continuity covering three years with annual evaluation and feedback.

Collaborative planning workshops were organized involving local governments, concerned agencies and other stakeholders to develop a medium-term coastal strategy implementation plan (CSIP) for the five municipalities. The plan was prepared considering the priority needs, concerns, and mandates of each municipality; common concerns and potential areas of collaboration across municipalities; targets and priorities in provincial and national plans; and good practices from various areas. The CSIP was

prepared in accordance with the three-year local development planning process and included provincial policies and civil service protocols. The plan was approved by PCC and adopted as the Chonburi ICM Action Plan for 2006–2008.

The approach for developing the CSIP/ICM Action Plan for Chonburi was in fact a positive contribution to the planning process of local governments, in support of the newly issued regulation on local development planning. Compared to plans prepared under the centralized governance system, the resulting action plan was more reflective of the concerns and needs of local people, and thus was able to secure the cooperation and collaboration of stakeholders.

Implementing ICM programs

Initial implementation of the ICM Action Plan (2006–2008) focused on activities that were designed to generate political and stakeholder support for the local ICM programs and show visible results (Figures 9 and 10).

Scaling up of ICM implementation

The continuing awareness and capacity-building activities led to the adoption of the ICM policy and framework by other local governments in Chonburi (Khunplome and Wiwekwin, 2008; Kanchanopas-Barnette, et al., 2012).

Figure 9. Enhancing public awareness in support of environmental conservation and management in Chonburi: (a) lectures during environmental youth camps; (b) snorkeling as an activity in youth camps, to develop appreciation of marine resources; (c) drawing competitions on marine subjects; and (d) youths participating in mangrove planting.



Figure 10. Bicycle rally to promote marine conservation (left) participated in by local leaders and officials from various municipalities and other partners (right).



In March 2006, an additional five municipalities (Muang Chonburi, Angsila, Bangphra, Sattahip Municipalities and Bangphra Subdistrict Administrative Organization) signed the 2004 Coastal Strategy Declaration, formalizing their commitment and collaboration for ICM implementation and scaling up (Figure 11). Consequently, the ICM Action Plan for 2006–2008 was expanded to include the new participating municipalities.

Ten more municipalities, cities, and subdistrict administrative organizations joined in ICM implementation in 2007; two municipalities in 2008 and four in 2009, thereby completing the coverage of all coastal local governments.

By November 2010, all 73 noncoastal municipalities joined in ICM implementation, thereby scaling up ICM for the entire province of Chonburi.

Figure 11. Declaration of scaling up of ICM implementation in Chonburi, Thailand, in March 2006 (left) and in January 2008 (right).



Results

ICM implementation in Chonburi was sustained and scaled up over a 15-year period

Although environmental outcomes and impacts arising from ICM implementation have yet to be systematically assessed, there were visible changes such as habitat improvement, clean beaches, reduced solid wastes as well as improvement in income of local people. Reduced multiple use conflicts have encouraged local governments and stakeholders to proceed with their respective environmental conservation programs.

Increased public awareness and active participation in marine and coastal conservation programs

When the ICM program started, the support of local communities for environmental conservation was not strong. ICM played a significant role in encouraging and facilitating stakeholder participation (Kanchanopas-Barnette, et al., 2012). As the success of ICM hinges on changes in people's behavior and their support for conservation, most ICM program activities were designed to provide venues for stakeholders' education and mobilization (Figures 9 and 10).

Improving local government capacity

The ICM process has strengthened individual and institutional capacity, leadership and commitment of local governments to make decisions and manage their respective local areas, although local governments still depend on budget allocation from the central government.

A common vision and operational framework for coastal management

Whereas local governments previously developed policies and management actions on their own, the development and adoption of the Coastal Strategy for the province provided a common vision and framework for action by concerned local cities and municipalities. On the other hand, the process of developing and implementing the ICM Action Plans generated the needed opportunity for integration of policies, legislation, and management measures.

Stronger cooperation and reduced conflicts among stakeholders/sectors within the local governments were achieved

The consultative and participatory processes as applied in various aspects of ICM program implementation with its coordination and management mechanisms, facilitated dialogues, consensus building, and greater cooperation among concerned sectors, key stakeholders, and local line agencies.

The PCC served as a venue for policy and management decisions and coordination with the support of the TWG, and enforcement through PMO. Such mechanisms were proven to be effective in streamlining policy and management actions at the local level.

Network of local governments played an important role in promoting unity in addressing common challenges

Most local governments in Chonburi Province were able to work as a network with the same sustainable development goals, although some might have additional objectives specific to their localities. Working together helped to identify potential support across municipalities, especially human and financial resources, and advance their ICM initiatives more effectively and efficiently.

Creating an enabling environment for scientific involvement in local environmental management

In developing and implementing their ICM Action Plans, local governments recognized the need for technical support from concerned national agencies, local universities, and other research institutions in the country. It was apparent from the ICM activities that both local governments and scientific institutions benefitted by working together.

Creating an enabling environment for private sector and donor investments

The CSIP and local ICM action plans identified priority programs and activities that required funding from local and national governments, and other interested partners. As a consequence, local corporations and businesses were able to align their corporate social responsibility programs with the priority programs of local governments.

The coordination mechanism established under the ICM program was resilient to changes in political and administrative leadership

Over the 15-year history of ICM in Chonburi, leadership changes at local, provincial, and national levels have occurred during the process of scaling up of ICM practices throughout the entire province. Despite the changes, the existing ICM program was able to continue. The well-structured institutional arrangements were efficient, effective, and continued to receive strong support from local stakeholders. As such, the impacts of political changes were ameliorated.

Thailand's 2015 National Act on Promotion of Marine and Coastal Resources Management mandates the establishment of an interagency and multisectoral coordinating committee for marine and coastal resources management at the provincial and national levels. It provided

an opportunity for Chonburi to further strengthen and institutionalize its existing ICM coordination mechanism, and share experiences with other provinces on how such mechanism could be operationalized.

Recognition for good governance

For Sriracha Municipality, ICM implementation contributed to the achievement of awards recognizing its efforts in development of a healthy and sustainable city. The municipality received national awards for good governance for three consecutive years from 2006 to 2008. Other municipalities in the province have also received various forms of recognition.

Lessons Learned

Timing is important

The ICM concept and practices were introduced in Chonburi when the national government was in the process of implementing decentralization of management responsibilities to the local governments. The introduction of a local environmental management system that could harmonize economic development and environmental conservation proved to be very timely.

Create a shared vision

The development and formal adoption of a vision-led Coastal Strategy, and enactment of a Provincial Order to establish a coordinating mechanism were vital to ensuring wider recognition of the importance and value of the ICM program (Kanchanopas-Barnette, et al., 2012; Khunplome and Wiwekwin, 2008). These were the cornerstones for further development of ICM and its scaling up to the entire province (Box 2).

Box 2. Benefits of ICM implementation to local government members of the ICM network.

An informal survey of mayors/chief executives of 25 coastal and 21 noncoastal local governments in Chonburi conducted in 2015 confirmed their motivation for joining ICM implementation.

All local leaders believed that ICM:

- creates a platform for intermunicipal dialogue and exchange of information;
- provides a platform for cooperation with scientific institutions to respond to scientific questions;
- facilitates connections with international organizations and donors;
- provides an opportunity to participate in international conferences;
- provides local government with visibility in the international sphere; and
- sets a foundation for good governance.

Almost all the local leaders believed that ICM: (a) provides a framework for national government, private sector and donor investments for marine and coastal management; and (b) can strengthen technical, human, and financial resources for addressing sustainable development challenges in the marine and coastal areas.

Many of the local leaders also believed that ICM:

- helps solve multiple use conflicts in the area;
- helps improve political capital by providing a framework for achieving visions of sustainable economic development and environmental protection;
- provides an enabling policy environment for private sector ventures in the area; and
- provides travel and learning opportunities for local government leaders and implementers.

Start small and build

The successful implementation of the coastal strategy in Sriracha Municipality demonstrated the feasibility and effectiveness of the ICM process.

Find a champion

Mr. Chatchai Thimkrajang, former mayor of Sriracha Municipality, continually promoted ICM to other local leaders and areas in Thailand, and was instrumental in developing the ICM network in Chonburi.

Capacity building is a continuing process

Developing human resources and updating scientific and technical capacities to support ICM implementation in Chonburi is facilitated through partnerships with local universities and national agencies, as well as the national and international networks, such as PEMSEA's Network of Local Governments.

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