

ICM System Certification: a Process for Recognition, Inquiry, and Internal Dialogue

Renato Cardinal*, Daisy Padayao, and Danilo Bonga

Partnerships in Environmental Management for the Seas of East Asia
DENR Compound, Visayas Ave., Quezon City 1100, Philippines



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.

Key Message

- An ICM System (ICMS) Certification is a governance and management performance tool, which underpins monitoring and evaluation, contributes to capacity building, and seeks accountability.
- ICMS Certification is as much an organizational work as an individual growth. As the ICMS matures, it is imperative that the competencies of ICM leaders and allied professionals continue to improve.
- ICMS Certification—beyond compelling ICM sites to follow standardized processes and procedures to gain recognition—is a strategic lever that unlocks many benefits.

Abstract

A Level 1 ICMS certification audit—based upon the requirements of the ICM Code—was pilot tested in Batangas, Philippines, in 2014. By the following year, 15 other local governments requested Level 1 ICMS certification audits. Fifteen of the 16 sites eventually received ICMS Level 1 certification. PEMSEA acted as a third-party auditor while the respective ICM site managers served as auditees. While the ICM Code was crafted to include requirements and procedures and a suite of general prescriptions in the management toolbox, the certification audit ascertains whether processes are being correctly followed and/or whether the requirements are complied with, are missing, or in some instances, if substitute proxies are appropriately suited for the ICMS.

* Email: rcardinal@pemsea.org

The conduct of an ICMS certification audit is most appropriate when the ICM system is in place and fully operational, including processes for assessing and continually improving ICMS towards sustainable development.

Among the direct benefits of adopting and implementing an ICMS, local governments experience a resultant growth in capacity and an ability to leverage accomplishments, such as stronger coalitions with partners, improved planning, and opportunities for cost-sharing and cost-effective use of available funds and resources.

Background

In 2007, PEMSEA initiated the development of an ICM Code in its efforts to develop and implement a systematic approach to integrated management of marine and coastal resources using the ICM approach (Chua, 2008). In 2015, the Code was officially recognized as an international standard which measures a local government's governance and management performance vis-à-vis its explicit—and agreed upon—integrated coastal management system (ICMS) (PEMSEA, 2015).

Developed in accordance with the ISO 9001 and ISO 14000 requirements of the international standards for quality and environmental management, the ICM Code covers planning, developing, implementing and improving an ICMS.

The Code encapsulates decades of ICM practices and experiences, particularly in the East Asian region, and has the following features:

- Provides a systematic approach to sustainable coastal development based on international standards for environmental management and quality management, at the local government level;
- Facilitates efficient and effective use of available resources through an integrated planning, implementation, monitoring and review process;
- Uses the “ICM Development and Implementation” process as the basis for continual improvement;

- Applicable to any local government that wishes to establish, maintain, improve and seek certification of their ICM System; and
- Validates the operations of a local government conforming to international management standards, i.e., ISO 9001 and ISO 14001.

Full execution of the ICM programs enables the local governments to be certified in compliance with the international standards of practice (Chua, 2008). In this case, PEMSEA has the experience in promoting the use of ISO certification in ensuring port safety, health of workers and environmental quality through port safety, health and environment management system (Cardinal and Factuar, this volume).

With the ICM Code, PEMSEA developed and implemented an ICMS Certification designed for local governments seeking validation of their ICMS and recognition for excellence and continuous improvement (Box 1).

The ICMS Certification formally evaluates and certifies that an ICMS conforms to the requirements of the ICM Code. This may be integrated with other local management requirements to enhance local governance and achieve desired social, economic and environmental goals. Three levels of certification are available (Figure 1).

Figure 1. Three levels of certification.



Box 1. ICMS certification process

To achieve certification, a local government's ICM system needs to undergo the ICM System Development, Implementation and Continual Improvement Process, which comprises four phases:

Phase 1: Initial Status Review

This first phase consists of a system review to establish the current status of the existing process and the ICM System being implemented by the local government.

Phase 2: Strategic Planning

In this phase, the scope of the ICM System is determined and the business process is established. Risk assessment is conducted and the objectives, targets and programs are then established.

Phase 3: System Development and Documentation

This phase involves the establishment of manuals and procedures to facilitate the control of the process and address identified risks.

Phase 4: Monitoring and Measurement

The policy and programs of the ICM System are implemented progressively during this phase. The planning and conduct of audits and continual improvement of the ICM System are also implemented.

Following ICM System Development, three stages of external audits are conducted as part of the ICM System Certification Process.

Stage 1 Assessment: System Adequacy Audit

The established ICM System and its documentation are assessed against the ICM Code.

Stage 2 Assessment: Effectiveness of the ICM System Implementation

Stage 3 Assessment: Continual Improvement

The ICM Code and the ICMS certification are recognized as essential components of national ICM scaling up programs in several countries as they underpin monitoring and evaluation and capacity building (Chua, 2006). By following standardized procedures and processes as defined in the ICM Code, the potential for the East Asian Seas to become a region of excellence in implementing good practice in ICM increases and could markedly influence policy reforms in the international arena.

Approach and Methodology

A Level 1 ICMS certification audit involves three stages of assessment:

Look at the system

The first stage in certification auditing is to seek evidence that an ICM system is in operation by:

examining information and materials such as official documents and resolutions, minutes of meetings, organograms, websites, databases, staff trainings, annual work plans and budgets, IEC materials, photos, and progress reports. A certification audit is carried out initially by ticking off dialogue boxes of a certification checklist, a simple yes-no response (Annex) and satisfying conformance to the ICM Code.

The exercise is marked by looking at two infrastructures: institutional (staff composition and training, planning tools) and information (meetings, workshops, consultations, progress reports, monitoring documents). This is an assets-based approach looking for the necessary resources (or assets) for mobilization in order to fulfill the ICM requirements.

This stage steers two outcomes: 1) it is a deliberate way of identifying the spectra of policy options put

into motion; the range of analytical and planning tools adopted; and the variety of interventions implemented; and 2) it provides information on the traction made to help move the process forward to establish (for new sites) and sustain (for mature sites) an ICM system.

Look for interactions/ relationships

The second stage in certification is an in-depth interview and discussion with the auditees. This stage aims at surfacing underlying interactions and relationship-building activities that contribute further to effective implementation, in general, and to good governance, in particular.

This is a functions-based approach, which is premised on two questions: 1) How did a local chief executive and an ICM manager use the components and variables of an ICM system to create a context conducive to the initiation of integrative planning and governance, a partnership approach, consensus building, and capacity building? 2) How did a local chief executive and an ICM manager navigate and adapt through the complexities of local governance (mired in institutional, sociopolitical, and ecological uncertainties and disruptions) using the components and platforms of an ICM system?

The exercise is able to articulate strategies to manage interactions (inside the organization) and building relationships (across government division and agencies and with other partners and stakeholders).

Look beyond the system

The third stage in certification is underpinned by the principle of continual improvement. It is envisioned as a way to carry out dialogue about the system: auditees are asked to examine and identify

areas for improvement of the ICMS. At the first instance, the inquiry is narrow and singly focuses on reforms in administrative procedures and capacity building. However, with knowledge gained from understanding and improving coastal and ocean governance, this stage is also a reflection on several fundamental questions to advance the maturity of ICMS towards sustainable development:

- What scenarios in the future can be forecasted given present conditions? How can an ICMS contribute further to what and where governments want in the future?
- What actions are feasible now and what steps are needed to address more fundamental problems over the longer term? What policy and institutional reforms are needed to further improve governance? Are the present plurality of “legal hierarchy” and implementation spaces (including ICMS partnership networks) appropriate for an anticipated future development?
- What mechanisms of local government readily allow an ICMS to accommodate nascent and emerging dilemmas and what systemic concerns need national (and even international) attention to be taken on as opportunities? How can an ICMS influence reframing and re-alignment of priorities?

Results

Conformance to the ICM System

Table 1 shows the list of ICM sites recognized by PEMSEA with Level 1 certification. These ICM sites were separately audited in 2014 and 2015 and were individually recognized during the East Asian Seas Congress, in Da Nang Viet Nam, in 2015.

Table 1. Level 1 ICMS certification.

Country	ICM site	Year ICM was established	Date of ICMS Level 1 audit
Cambodia	Preah Sihanouk	2000	25 September 2015
China	Dongying	2005	26 October 2015
	Fangchenggang	2005	27 October 2015
	Haikou	2005	27 October 2015
	Lianyungang	2005	26 October 2015
	Quanzhou	2005	26 October 2015
	Xiamen	1993	27 October 2015
Philippines	Batangas	1993	26-27 August 2014
	Bataan	2000	16-17 April 2015
	Cavite	2004	22-23 April 2015
	Guimaras	2008	5-8 May 2015
Thailand	Chonburi	2001	20 October 2015
Viet Nam	Da Nang	2000	13 July 2015
	Quang Nam	2004	14 July 2015
	Thua Thien Hue	2007	14 July 2015

Obviously, local governments that have long been implementing their ICM programs complied with the ICM Code and Level 1 requirements. All of them demonstrated an ICMS that was initially targeted as project-based but eventually became integrated into the general function of the local government. Thus the components for seamless planning and implementation processes were set up, became operational and/or were adopted, including a Project Management Office (PMO), an interagency coordinating mechanism, the delineation of a management boundary, the baseline state of the coast report or profile, a coastal strategy, an annual work plan and budget, and a monitoring and reporting mechanism. Institutionalized, each component was deliberately and explicitly aligned with the general development policy and administration of each local government, which meant that the ICM

system was embedded in the day-to-day planning and administrative processes and procedures of the local government.

While the ICM Code was crafted to include requirements and procedures and a suite of general prescriptions in the management toolbox, the certification audit ascertains whether processes are correctly followed and/or the requirements are complied with, missing or, in some instances, whether substitute proxies are appropriately suited for the ICMS. In some audits, requirements initially appeared to be missing or nonconforming. But the certification audit process allowed the examination of other strategies or proxies that can take the place of the prescribed elements and processes that validated the conformance of the ICM system with the ICM Code.

One of the more typical problems encountered during audit is the infrequent and irregular convening of the interagency coordinating mechanism. In Batangas, Philippines, two strategies were carried out to maintain and sustain the coordination. Regular meetings of the ICM focal persons were held to discuss issues and matters related to ICM program implementation in lieu of the convening of the full Batangas Environmental Protection Council (BEPC). ICM focal persons were designated by the Mayors through Executive Orders or similar Administrative Orders. The focal persons were in turn responsible for discussing the concerns of the ICM program with their respective Mayors. Another strategy was convening of meetings of the BEPC as part of a bigger event organized by the province, e.g., the Batangas Environment Summits, first held in 2011.

In PR China, coordinating mechanisms may be hard to convene when immediate responses are needed to allay concerns about emerging issues and emergencies. Dongying created ad hoc subcommittees that were required to meet two to three times within a year to address problems needing immediate actions. In Haikou, the Deputy Party Secretary and the Deputy Mayor each leads a coordinating mechanism related to the operation of an ICM system. Regular, almost weekly meetings are held with the executives. But in response to emerging issues and problems, ad hoc subcommittees are easily assigned (and mobilized) among the members of the coordinating mechanisms.

Communication plans are non-existent in most sites. However, consultative meetings and workshops, which are well-embedded in the planning and policymaking processes, and regular information, education and communication (IEC) activities, which are differently employed during the implementation processes, are in place. In Lianyungang, PR China, during the planning phases, the Lianyungang ICM Leading Group's rules of procedure and a cooperation framework agreement became operational, which resulted in a

full consultation with relevant agencies and sectors involved. During implementation phases, public awareness strategies included active participation during festivals and regular announcements and notices of work activities, regulations and accomplishments.

In Fangchenggang, PR China, the communication channels operating during the planning phases involved full consultation with relevant government agencies and sectors, which are members of the coordinating mechanism. Agencies were normally requested to provide comments and reviews. Data and information were readily shared among member government agencies. The staff of Fangchenggang Oceans and Fisheries Bureau (FOFB) were assigned to gather stored data located in other agencies. During the implementation phases, stakeholders were informed through different strategies, including: (1) FOFB conducted regular water quality monitoring and shared the data with other government agencies. FOFB produced yearly water quality results (and other environmental conditions). These results were seen on television and newspapers; and (2) the FOFB website was used for raising awareness through announcements of activities and accomplishments. It also carried hotline numbers dedicated for queries and complaints

In Quanzhou, PR China, during the planning process, the subcommittee meetings were used as platforms to solicit dialogues; and during implementation phases, the Quanzhou Oceans and Fisheries Bureau (QOFB) facilitated smooth coordination and effective communication between agencies with mutual agreements, particularly in marine law enforcement and marine environmental protection. Several IEC strategies were used and integrated in the annual work plan with budget. Stakeholders were informed through strategies that relied heavily on mass media to target the general public, as well as particular stakeholders. For awareness building, announcements from QOFB regarding results of activities were disseminated in newspapers, television and the QOFB website;

and an Ocean Library was set up in selected public schools to raise awareness about caring for the oceans.

Audit is also a mechanism to compel a site to address a nonconformance, within a deadline, as requisite to being certified. For instance, Cavite was able to refine the Cavite Sustainable Development Strategy and complete the Cavite SOC for the Level 1 certification.

ICMS certification audits prepare sites which commit to ISO certification and reinforce the procedures of existing ISO-certified sites (e.g., Xiamen and Cavite) as well as in tandem with existing national or local performance audits. In Bataan, ICMS is integrated with the requirements of another management system to enhance local governance and achieve desired social, economic, and environmental goals. In this case, the ICM System, together with the Performance Governance System (PGS), is under the Special Projects Division of the Bataan Provincial Planning Office. PGS, which complements ICMS, is a transformation tool of the local government performance.

Proper implementation and maintenance of the ICM system

PMO as a lever. The audits confirm the critical role played by the PMO. PMOs can be considered as the workhorse—the heart, even—of a functioning ICMS. It is the main hub for coordination and integration and could harmonize a local government's operations. At the forefront of the day-to-day operations, and the “gatekeeper” of the proper implementation and maintenance of the ICMS, the designated PMO head and deputies (usually from an environment, ocean and fisheries, or planning division) are the default managers of the ICMS.

The common narrative that was reinforced during the audits was the transformation each manager underwent to becoming better at what they do over years of implementing ICMS. With a direct line to a

local chief executive, managers became more facilitative; given constant conflicts to resolve, skills in political brokerage, relationship building, and collaboration with different sectors and partners improved; with a limited staff to manage huge responsibilities, administrative skills were bolstered; given new knowledge acquired through training and collaboration with different partners, a new way of looking at different perspectives and reframing issues in the coastal areas became second nature.

A new set of skills, competencies, and values were ingrained; ingredients to being better managers and leaders. Implementing ICMS is contributing to unfolding the criteria in leadership development to create new “breeds” of effective sustainability leaders:

- In Cavite, the ICM program manager has excellent grasp and understanding of the ICM principles and approaches and was thus able to see the different entry points of ICM program implementation in the government's policy cycle. Recently chosen as a scholar to complete a Professional Masters in Tropical Marine Ecosystem Management, the manager embodies the ICM tenet of “good science-good governance” dichotomy;
- In Batangas, the manager has shown special aptitude in strategic governance and as a policy entrepreneur: knowing which partner to collaborate with given specific circumstance has become second nature; and advocating the importance the SDCA framework and using it as a decision tool whenever new funding partners offer new projects to the province;
- In Guimaras, good and effective leadership by the PMO head was evidenced: instituted hands on and effective delegation of tasks; exhibited fairness in assigning which staff will further undergo training and capacity development; has foresight and spearheaded the re-structuring of the Guimaras Environment and Natural Resources Office;
- In Fangchenggang, an introspective and reflective manager realized the significant contribution of ICM in conflict resolution, particularly between

port (shipping), fisheries and tourism activities; strengthened awareness in the protection of mangroves (about 21% of Fangchenggang's coastline is zoned for mangrove protection, the largest in China); expressed the differences in the level of capacities and skills of the staff and the problem of high turnover rate of staff, thus the urgency for upgrading capacity of staff and need to train new ones;

- In Dongying, the manager exhibited excellent collaboration and networking skills and fully utilized the wealth of resources offered by the State Oceanic Administration and the China-PEMSEA Center, which catapulted Dongying as the model in the implementation of an ICMS being replicated by the other ICM parallel sites in PR China;
- In Preah Sihanouk, a junior manager playing adaptive and strategic roles realized and remarked: “We had four governors since we implemented ICM. This means four different styles of leadership and ICM has helped us work well with our leaders. I think that is one good result of capacity building: being able to adapt to different management styles;” and
- In Da Nang, one of the junior managers exhibited self-awareness as requisite to growth in any professional career, and remarked, “Implementing an ICM program made me understand the benefits of integrated management approach to achieve sustainable development, which is very useful for me to carry out various tasks related to the management of the environment and natural resources. My involvement in ICM project implementation has taught me how to develop and manage projects and plans as well as collecting and sharing data and information with various stakeholders. The project has also provided me the opportunity to improve my ability in preparing and presenting reports.”

Trust is a must. The audits also confirm, that in building relationships, partnership networks must endure the processes of engaging and convening

stakeholders and partners in a variety of ways and multiple times. Buying-in to the ICMS processes and the conferment of legitimacy to adopted actions are common outcomes as evidenced in the adoption of coastal strategies, in the implementation of plans and targets; and in validating results from the State of the Coasts reporting. But more importantly, accountability and trust were built, validating most experts' view that (e.g., [Jentoft, 2007](#); [Verutes, et al., 2017](#)): “Trust is built through repeated interactions”.

With a constraint due to limited numbers of staff and resources, public and partnership engagement are key in implementing interventions. PMOs were again at the forefront of this strategy: coordinating, mobilizing volunteers, and “dipping” and partaking into the resources of a network of partners. PMOs articulated ease in coordination, over time, with other government agencies. Reinforcing civic duties and volunteerism were the other outcomes: it could be “forced” (as exhibited in centralized states like PR China and Viet Nam, characterized by large numbers of volunteers that can be mobilized immediately) or “goaded with incentives”, in the form of free food, clothing and transportation (as in democratic states of Indonesia, Thailand, and the Philippines); the other good outcomes guised as a monitoring strategy to show increased awareness and knowledge about taking care of the environment; even gaining public relations brownie points for the local government (points that could be translated to votes for local officials) and as corporate social responsibility points for the private sector partners.

The audit of Quanzhou revealed exemplary accomplishments: several ICM projects were demonstrating technologies and approaches which were creating positive results. The Quanzhou coastal water quality was improving: 84.6% of the coastal monitoring stations reached the standard in 2014, compared with 50% in 2006. The investments in the special coastal zone north of Quanzhou Bay, the coastal zone from Chongwu to Xiutu, resulted in not only 10 large coastal zone management and restoration projects being accomplished but

also significantly raised public awareness in coastal resources conservation and rehabilitation.

Aside from the relevant government agencies in Quanzhou, other sectors which have been gradually included and have been consulted during policy discussions—and have been demonstrating strong support for ICM activities, in recent years—included private companies from port and shipping industries; and fishers and farmers. This recent development bodes well for Quanzhou's long coastline, which offers both high opportunity for investments and economic growth and a platform in demonstrating effective coastal resources protection and restoration through partnerships with various sectors.

All auditees remarked that while public awareness building is incorporated in the annual work plan and budget, new strategies are needed to be explored to promote greater public participation.

Identifying areas for immediate ICMS improvement

Four priority activities were repeatedly mentioned across all sites that the auditees felt merit immediate attention.

Revitalizing the coordinating councils. The local chief executive on top of the organogram has a huge symbolic meaning: it defines commitment and for the most part, accountability: where the buck stops. Most sites were saddled with the challenge of convening the councils regularly and more frequently, which diminished some of their oversight role. The auditees expressed the value of convening as one group, which can further strengthen policy and decisionmaking; and they committed to explore other strategies to meeting this requirement. With initiatives to scale up ICMS, the councils were taken to task in the engagement of other groups (e.g., women, youth, marginalized poor)—to become more inclusive—and in sustaining the commitment of usual partners and sectors (e.g., NGOs, academic, and private).

Staff training. The value of upgrading skills was not lost among the auditees. The drivers were three pronged: emerging challenges (e.g., climate change

and disaster risk reduction); amassing huge data; and high turnover rate of staff. The manager of Fangchenggang, in particular—who had been doing ICM-related and ICM programs since 1997—realized the institutional memory for ICM can be considered low given the high turnover rate of staff. In Quanzhou, the manager expressed the need for practical management skills, including leadership training.

In most ICM sites, the reality is that the present crop of dedicated managers is reaching retirement age. There is constant need to train new staff to become the next ICM leaders. As a first step, the auditees committed to conscious and regular tracking of staff development through a matrix of training as a record of the training attended and of potential skills needed for capacity development: a practical way to identify capacity building needs and gaps.

Information management. The auditees agreed that because data are continuously being collected and used to update the State of the Coasts (SOC) report, there is a need to establish an integrated information management system (IIMS) ([Padayao, this volume](#)). In PR China, the sites update the SOC every five years and committed to establish IIMS as an essential improvement to their ICMS. The State Oceanic Administration in turn offered to provide technical guidance and support. In Viet Nam, the development of the IIMS is in coordination with Viet Nam Administration for Seas and Islands, Center for Planning and ICM. Starting in Thua Thien Hue Province, the People's Committee decided to establish the IIMS so that data can be used in the development of its SOC. The development of the IIMS will eventually look into the consolidation of information from local to the provincial level.

Documentation. The auditees agreed that documenting good practices (through case studies and enhanced monitoring reports) is not just documenting accomplishment but a sharing of knowledge so that local governments can learn from the experiences of each other. In Lianyungang,

PR China, the three new ICM projects are demonstrating technologies and approaches which are aimed at becoming a national model: marine ecological compensation project; oceanic pasture (Ocean Park) project; and the special marine protected area project.

In Dongying, PR China, several new ICM projects are demonstrating technologies and approaches, which are creating positive results: the establishment of special marine protected areas; the private sector is influencing how the concept of the payment for ecological services is being used in a realistic and practical way; and an eco-aquaculture project is demonstrating low density abalone farming, control of antibiotics use, and utility of geothermal energy to power installations.

There was also an impetus to document the processes and procedures applied in the implementation of the ICM system in each site and in preparation for the sites that expressed intention to undergo the ICMS Certification Level II.

Measures for continual improvement to advance the maturity of ICMS towards sustainable development

Although great strides to sustainable coastal development have been taken, the auditees realized that the journey is a long haul one. The certification audit processes have compelled managers to look beyond what is current. It became a process of inquiry and contemplation on what issues need attention and how the current governance and management systems, including ICMS, will be up to the task given emerging environmental dilemma, efforts to comply with international targets including the Sustainable Development Goals, and initiatives looking at effective scaling up mechanisms.

The landscapes to where the sites would want to be in the future are vested on policy and institutional reforms, looking at new technological interventions and expressing need for national government

support. Such forward looking approaches, based on the issues and concerns as discerned by managers from the ICM sites in PR China, are described below:

- In Quanzhou, owing to the long coastline being governed, two functional coordinating mechanisms were established. One has an administrative jurisdiction over the entire coastline and the other dedicated to the special coastal zone north of Quanzhou Bay, covering the coastal zone from Chongwu to Xiutu earmarked for coastal protection and restoration. The manager expressed the need for further support from the government for more strategic planning as well as support from research and academic institutions to initiate scientific based planning;
- In Dongying, the published reports about the Guangli River Watershed and the Dongying ICMS implementation became an impetus to strengthen focus on the integration of the river-coastal area-ocean continuum. A greater effort to manage ocean pollution coming from land and upstream was earmarked as a future undertaking;
- In Xiamen, the recent SOC results revealed priority areas that need more attention for the emerging opportunities in integrated coastal management and improvement in ICMS such as beach restoration; standardized sea use system, with the inclusion of new areas for specific allowable development activities; and ecotourism;
- In Fangchenggang, the concern with the use of the beach as public space was raised during the audit. Current observations showed increasing conflict between the agriculture and tourism sectors; and
- In Haikou, the manager underscored the need to scale up the implementation of ICM to the

entire Hainan Island. This could start with Sanya as local executives have shown keen interest to replicate the Haikou experience

Lessons Learned

Where you start has a lot to do with where you end up

The certification process contributed to compelling local governments to apply the ICMS, while underpinning monitoring and evaluation, capacity building, and accountability. The ICMS is comprised of fundamental requirements employed in a cyclical, long-term system. More importantly, it is a governance and management performance tool, that facilitates: monitoring and assessment of benefits and costs (or even harm) accruing with each action (or inaction) on identified issues; increased awareness on ecosystem carrying capacity; and improved strategic governance and adaptive management.

The third-party audit carried out by PEMSEA ensures an objective and credible assessment. The sites have experienced that beyond the adoption and implementation of the required elements is a resultant growth in capacity and the ability to leverage accomplishments to develop a stronger coalition of partners and to create cost-effective mechanisms. As evidenced, a competitive advantage was shown when partnering with risk averse businesses (e.g., in Xiamen, Dongying and Quanzhou, PR China) and funders (e.g., Batangas, Philippines). An ICMS and a certification are “badges” that good practices are applied and are assurances to businesses and investors of proper governance, and therefore of reduced risk. The lessons learned have prodded two countries to escalate the local experiences to national actions:

- In PR China, development of an ICM certification standard in line with PEMSEA’s ICM Code and Certification system as a

voluntary mechanism for the 52 coastal cities and provinces was subscribed to ensure sustainable development of coastal areas and the implementation of good governance practices in managing these areas. The issuance of a SOA administrative guidelines is anticipated to facilitate the process; and

- In the Philippines, ICM status review of the 228 (out of 832) coastal municipalities with ICM plans, as reported by the Department of Environment and Natural Resources (DENR) in May 2015, will be conducted using the PEMSEA ICM Code.

This is as much as an organizational work as an individual growth

A proper and functional ICMS cannot be established without the requisite human resources. It needs leaders to navigate and steer the system to what the organization wants to accomplish and to where local government wants to be in the future. It needs leaders who are dedicated and keen to gain knowledge aimed at understanding as well as improving governance (Boiral, 2007; Christmann, 2004; Christmann and Taylor, 2006; Jentoft, 2007). It is best to heed what other experts have concluded: “...debates on the efficacy of management systems, such as ISO 14001 standard might be enhanced by taking into account the action logics underlying the implementation of this type of system. Indeed, improvements attributable to ISO 14001 may depend less on the fact of being certified and more on the way in which the standard is implemented (Boiral, et al., 2009).”

The audits of the local governments were instrumental in recognizing outstanding managers of the ICMS. As such, PEMSEA believes that it is the opportune time to roll out the mechanism for the certification of ICM managers. The Annex lists the proposed requirements for a Level 1 ICMS Managers (right column) that must be demonstrated as it mirrors the Level 1 ICMS

checklist (left column). As the ICMS matures, it is imperative that the competencies of ICM leaders and allied professionals be certified based on the three ICMS levels.

References

- Boiral, O. 2007. Corporate Greening through ISO 14001: a Rational Myth? *Organization Science*, 18(1):127–146.
- Boiral, O., M. Cayer, and C.M. Baron. 2009. The Action Logics of Environmental Leadership: a Developmental Perspective. *Journal of Business Ethics*, 85:479–499.
- Christmann, P. 2004. Multinational Companies and the Natural Environment: Determinants of Global Environmental Policy Standardization. *Academy of Management Journal*, 47(5):747–760.
- Christmann, P and G. Taylor. 2006. Firm Self-regulation through International Certifiable Standards: Determinants of Symbolic versus Substantive Implementation. *Journal of International Studies*, 37(4):863–878.
- Chua, T.-E. 2006. Toward ICM Recognition/Certification, pp. 290–303. In: *The Dynamics of Integrated Coastal Management: Practical Applications in the Sustainable Coastal Development in East Asia*. Partnerships in Environmental Management for the Seas of East Asia, Quezon City, Philippines. 433 p.
- Chua, T.-E. 2008. Coastal Governance: a Reflection of Integrated Coastal Management (ICM) Initiatives with Special Reference to the East Asian Seas Region, pp. 371–402. In: *Securing the Oceans: Essays on Ocean Governance—Global and Regional Perspectives*. Edited by T.-E. Chua, G. Kullenberg, and D. Bonga. Partnerships in Environmental Management for the Seas of East Asia and The Nippon Foundation, Quezon City, Philippines. 770 p.
- Jentoft, S. 2007. Limits of Governability: Institutional Implications for Fisheries and Coastal Governance. *Marine Policy*, 31:360–370.
- PEMSEA (Partnerships in Environmental Management for the Seas of East Asia). 2015. *Integrated Coastal Management (ICM) Code*. PEMSEA, Quezon City, Philippines. 65 p.
- Verutes, G.M., K.K. Arkema, C. Clarke-Samuels, S.A. Wood, A. Rosenthal, S. Rosado, M. Canto, N. Bood and M. Ruckelshaus. 2017. Integrated Planning that Safeguards Ecosystems and Balances Multiple Objectives in Coastal Belize. *International Journal of Biodiversity Science, Ecosystem Services and Management*, 13(3):1–17.

Annex

The ICMS Level 1 audit checklist vis-à-vis a proposed Level 1 ICMS manager certification audit checklist.

ICMS certification	ICMS Manager certification
ICM Governance Indicators	
1. ICM coordinating mechanism established and meeting regularly	
<ul style="list-style-type: none"> • Is there a coordinating mechanism for ICM? • Is there representation from government and sectoral interests? • Does it involve a senior political level? • Does the coordinating mechanism meet on a regular basis? • Are there minutes/proceedings of the meetings available? 	<p>Does the applicant have the ability to:</p> <ul style="list-style-type: none"> • facilitate the establishment of a coordinating mechanism for ICM? • interact with senior political level and representation from government and sectoral interests? • coordinate the regular meeting of the coordinating mechanism? • ensure the availability of minutes/proceedings of the coordinating mechanism meetings?
2. ICM Coordinating Office ICM office established and operational	
<ul style="list-style-type: none"> • Has an ICM office been established locally, which serves to coordinate multi-sectoral activities related to ICM planning, development and implementation? • Are staff hired/assigned to the office? • Has the staff been trained in ICM? • Does the ICM office prepare an annual work plan and budget for ICM development and implementation? (If the answer is yes, proceed to Section 3. If the answer is no, proceed to Section 4) 	<p>Does the applicant have the ability to:</p> <ul style="list-style-type: none"> • maintain the established coordinating office, which serves to coordinate multi-sectoral activities related to ICM planning, development and implementation? • facilitate the hiring/assigning of staff to the ICM Coordinating Office? • facilitate the training of the staff in ICM? prepare an annual work plan and budget for ICM development and implementation?
3. Work Plan, Budget and Financing Annual work plan prepared/budget allocated	
<p>Does the local government approve an annual work plan and budget for ICM development and implementation?</p>	<p>Does the applicant have the ability to: facilitate/coordinate the activities of the local government for the approval of an annual work plan and budget for ICM development and implementation?</p>
4. State of Coasts (SOC) SOC baseline/coastal profile prepared	
<ul style="list-style-type: none"> • Is the SOC baseline/coastal profile completed, including existing social, economic and ecological conditions in the ICM site? • Was the information in the SOC baseline used in identifying priority issues and areas of high risk? • Did the process for preparing the SOC baseline involve the stakeholders from the major concerned sectors? 	<p>Does the applicant have the ability to:</p> <ul style="list-style-type: none"> • facilitate/coordinate the completion of the SOC baseline/coastal profile, including existing social, economic and ecological conditions in the ICM site? • use the information in the SOC baseline in identifying priority issues and areas of high risk? • coordinate the involvement of stakeholders from the major concerned sectors in preparing the SOC baseline?

ICMS certification	ICMS Manager certification
5. Stakeholder Participation Stakeholder identification and consultation	
<ul style="list-style-type: none"> • Are multi-sectoral stakeholders informed, consulted and participating in the planning and development of the ICM program? • Are stakeholders from different sectors participating in the coordinating mechanism? • Has a communication plan been prepared for building awareness and understanding of the ICM program among different sectors? 	<p>Does the applicant have the ability to:</p> <ul style="list-style-type: none"> • ensure that multi-sectoral stakeholders are informed, consulted and participating in the planning and development of the ICM program? • facilitate the participation of stakeholders from different sectors in the coordinating mechanism? • facilitate the preparation and implementation of a communication plan for building awareness and understanding of the ICM program among different sectors?
6. Coastal Strategy Coastal strategy prepared	
<ul style="list-style-type: none"> • Has a coastal strategy been prepared, which provides the vision and strategic directions for coastal area development and management? • Has a multi-year coastal strategy implementation plan (CSIP) or similar plan been completed to delineate the specific activities to achieve the priority objectives and targets of the coastal strategy? • Were the strategy and CSIP prepared through a multi-sectoral participatory process? 	<p>Does the applicant have the ability to:</p> <ul style="list-style-type: none"> • coordinate the preparation of the coastal strategy, which provides the vision and strategic directions for coastal area development and management? • facilitate the completion of a multi-year coastal strategy implementation plan (CSIP) or similar plan to delineate the specific activities to achieve the priority objectives and targets of the coastal strategy? • coordinate the preparation of the strategy and CSIP through a multi-sectoral participatory process?
7. Sustainable Development Aspects At least two (2) sustainable development aspects planned and initiated	
<ul style="list-style-type: none"> • Are management plans completed, which address at least two of the five sustainable development aspects? • Are trained personnel allocated for the implementation of management plans? • Has an annual budget been allocated for the implementation of each plan? • Have activities been initiated for the implementation of the management plans? 	<p>Does the applicant have the ability to:</p> <ul style="list-style-type: none"> • ensure completion of the management plans which address sustainable development aspects? • facilitate the training of personnel allocated for the implementation of management plans? • coordinate the allocation of an annual budget for the implementation of each plan? • initiate the activities for the implementation of the management plans?