Integrating the Aichi Biodiversity Targets into Integrated Coastal Management Development Program through ICMS

based on lectures delivered by Dr. Chua Thia-Eng

Convention on Biological Diversity

SUSTAINABLE OCEAN INITIATIVE

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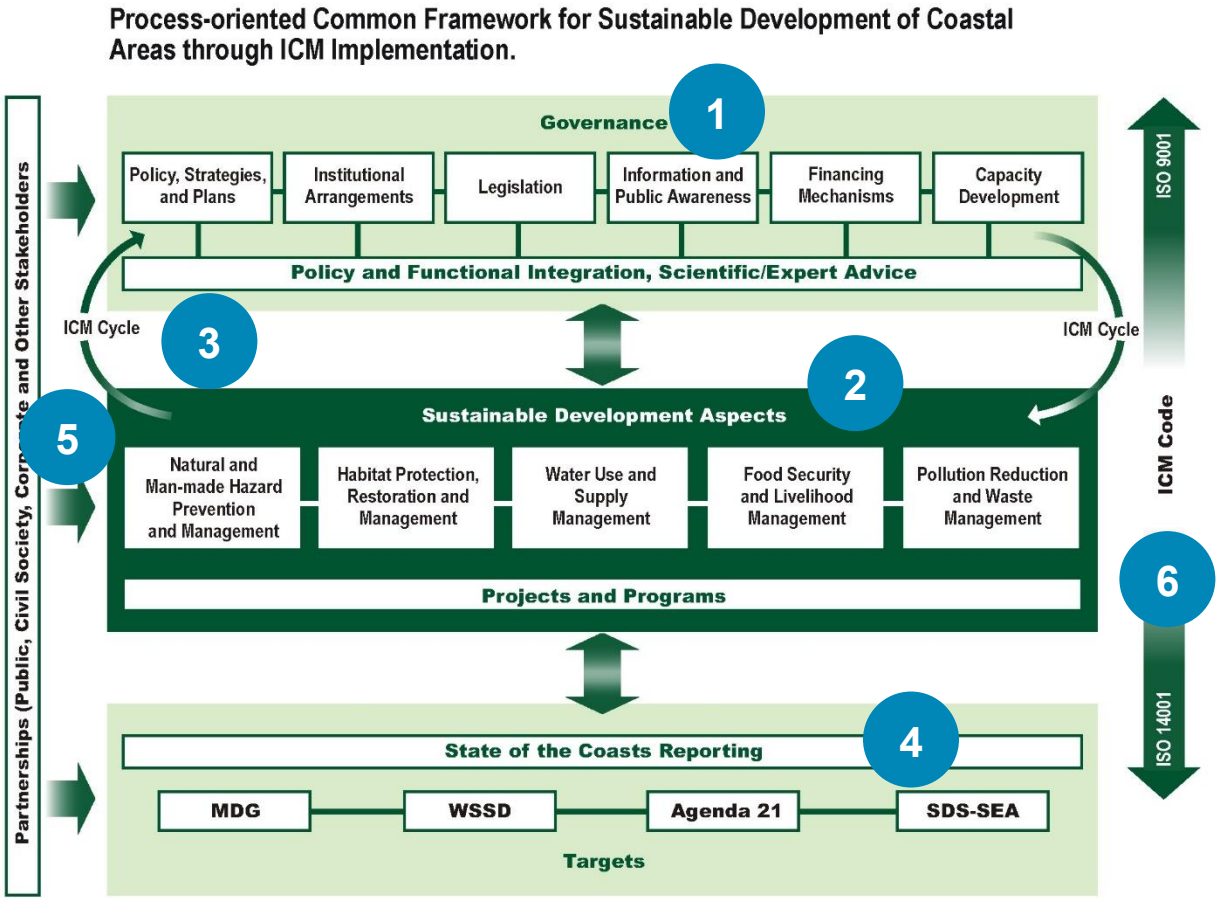
Introduction

Welcome to the Sustainable Ocean Initiative (SOI) training guide on Integrating the Aichi Biodiversity Targets into Integrated Coastal Management Program Development through the application of the Integrated Coastal Management System (ICMS). This training guide was prepared by the Secretariat of the Convention on Biological Diversity on the basis of lectures delivered by Dr. Chua Thia-Eng, Chair-Emeritus, Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) during training activities under the Sustainable Ocean Initiative.

This guide aims to provide a strategic thinking framework and a functional process for achieving the Sustainable Development Goals (SDG) and the Aichi Biodiversity Targets (ABT) through a tested stepwise operational methodology – ICMS. It then demonstrates how the ABTs are integrated into the major components of the ICM program. It also gives an accurate example of how to do this.

I. Integrated Coastal Management System

The first focus of this guide is to understand the framework and the various components of the Integrated Coastal Management system (ICMS), and how it is implemented through the planning and implementation processes, the ICM cycle.



Key components: 1. Governance, 2. Sustainable Development Aspects (challenges), 3. ICM cycle, 4. State of the Coasts Reporting, 5. Partnerships, and 6. ICM Code.

The ICMS is comprehensive, systematic, planned, participatory, documented and codified. The key components (1-6) ensure policy and financial commitments, institutional arrangements and coordination, stakeholders involvement, science-based management interventions and reporting following standard code of practices and driven by the essential processes of the ICM cycle.

The ICM cycle is displayed on the next page.

Integrated Coastal Management (ICM) Cycle

The ICM Cycle is a tested stepwise process for ICM program development, adoption, implementation, and refinement; ensuring continuity from one cycle to the next. It is an iterative process, and the 6 steps are explained in more detail below:

1. Preparing

- Project management mechanism
- Work plan and budget
- Human and financial resource arrangements
- Stakeholder identification and preliminary

2. Initiating

- Environmental and coastal profiling
- Issues identification and prioritization, such as:
  - Biodiversity/habitat protection
  - Land- and sea-based pollution/waste
  - Climate change/hazard
  - Fisheries and livelihoods
  - Fresh water supply
- Initial risk assessment
- Integrated information management system
- Public aware ness
- Stakeholder consensus building and communication plan preparation

3. Developing

- Refined risk assessment
- Coastal Strategy and Implementation Plan
- Issue-specific and area-specific action
  - Natural and manmade hazard prevention and management
  - Habitat protection, restoration and management
  - Food security and livelihood management
  - Pollution reduction and waste management
- Financing/Investment plan
- Environmental monitoring plan
- Stakeholder participation/communication

4. Adopting

- Organizational and legal mechanisms
- Coastal policy, strategy and 3-5-year action plans
- Funding mechanisms

5. Implementing

- Coordinating and program management mechanisms
- Environmental monitoring program
- 3-5-year action plans

6. Refining and Consolidating

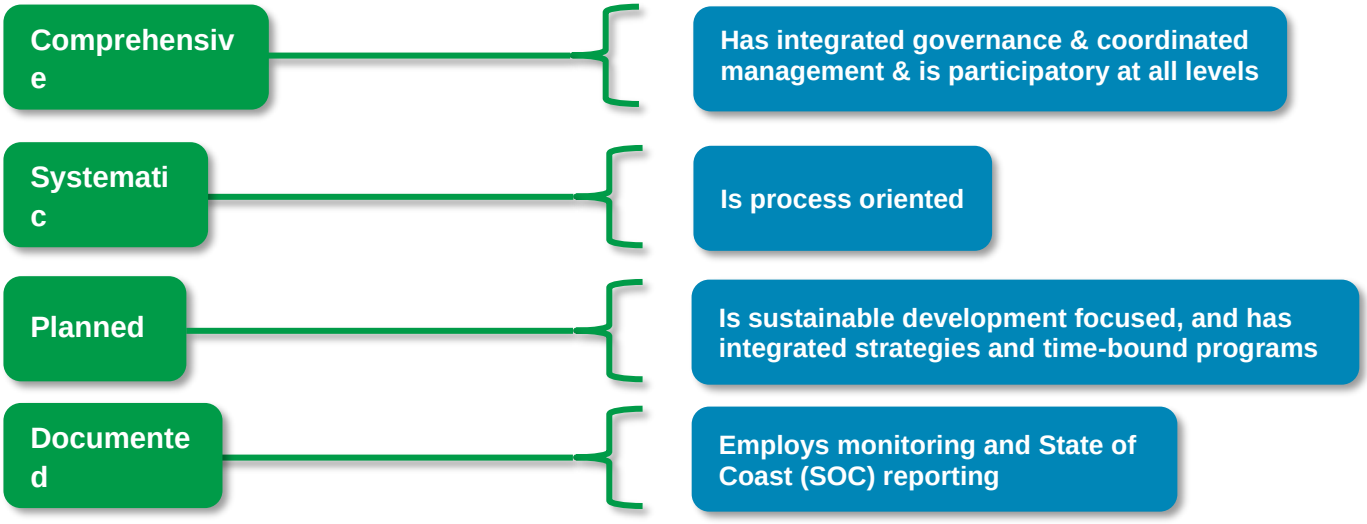
- Review institutional setup
- Program monitoring and evaluation
- Revision of strategies and action plans
- Scaling up strategy
- Planning for next program cycle
  - Updating SOC
  - Targeting ICM Recognition/Certification

ICM System and Environmental Management System

The ICMS embodies all the integral components of an Environmental Management System (EMS).

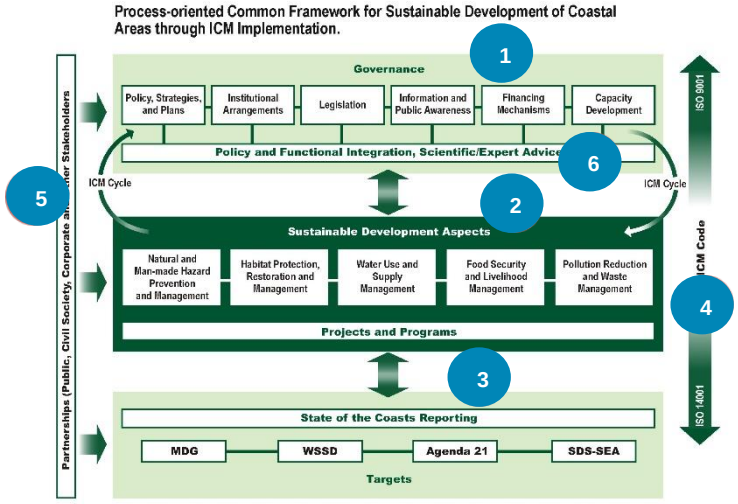
EMS refers to the management of an organization's environment programs in manner that is:

The ICMS fulfills each of the manner of an EMS. The ICMS:

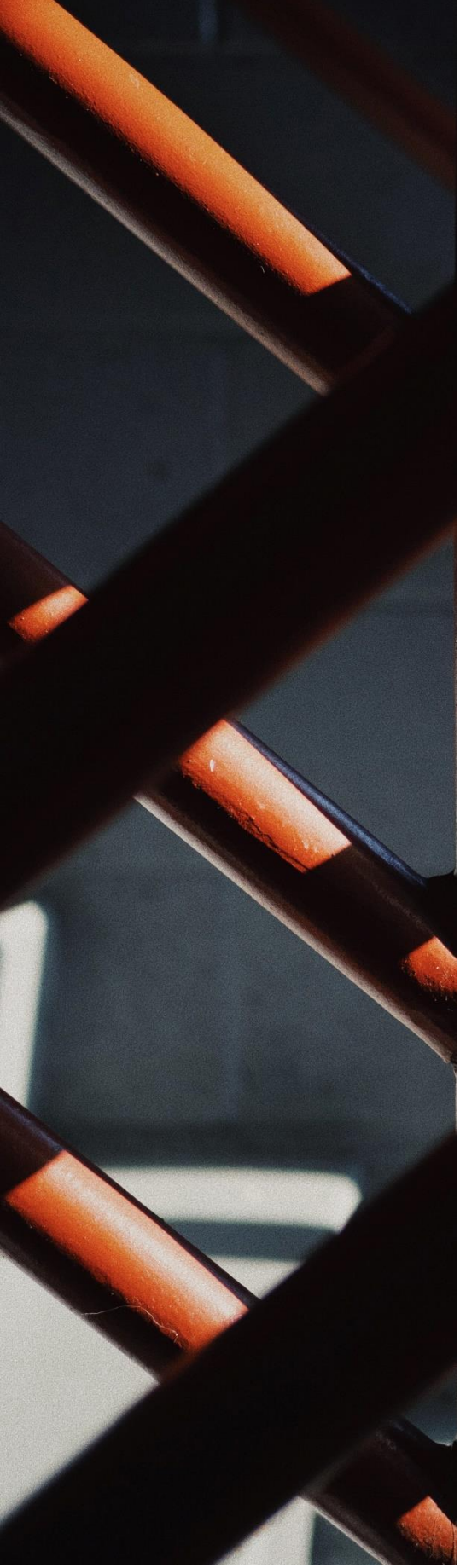


What the ICM System Facilitates

The various components of the ICMS have numerous advantages for coastal developments. ICMS facilitates:



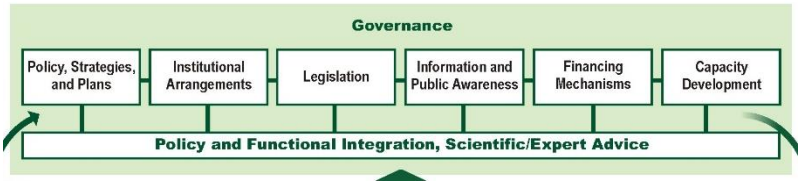
1. **Legitimacy and political/social acceptance.** This is facilitated by the Information and public awareness component of the ICMS
2. **Targeted Investment and technical/ management knowledge building.** This is facilitated by the sustainable development aspects of the ICMS
3. **Accountability.** This is facilitated by the State of the Coasts reporting component of the ICMS
4. **Conformity.** This is facilitated by the ICM cycle component of the ICMS
5. **Collaborative partnerships.** This is facilitated by the various partnerships and stakeholders incorporated into the ICMS
6. **Policy-Science integration.** This is facilitated by the interdisciplinary and vertical/horizontal integration aspects of the ICMS
7. **Adaptive, science-based management, learning-by-doing, and mainstreaming.** This is facilitated by the initiating component of the ICM cycle, part of the ICMS.



Framework and Processes to Develop ICM Programs

Governance Framework

The ICMS provides a governance framework or “umbrella” for addressing all development, environment and biodiversity issues guided by the principles of Sustainable Development.



The ABTs are among the development goals that can be addressed using ICMS governance framework. But how can this be done?

The ICMS governance framework can help achieve the ABTs by:

- Providing policy and legislative framework for Biodiversity-focused ICM programs
- Establishing biodiversity-focused strategies and actions plans
- Building institutional arrangement
- Promoting public awareness
- Developing an integrated information management system
- Promoting public and private sector financing models
- Developing the local planning and management capacity

Health and Environmental Link

The ICMs also recognizes the inter linkage between ecosystem and human health concerns.

Key development and biodiversity issues such as:

- Hazards
- Habitat degradation
- Food security and livelihoods
- Water supply; and
- Pollution

are closely interlinked – the combination of which greatly impacts the functional integrity of ecosystems.

Development and Environmental Challenges

Similarly, the ICMS addresses key development and environment challenges in a coordinated and integrated manner. Here's how:

- Key sustainable development challenges are addressed holistically
- Agencies and stakeholders are involved in consultative planning
- Room is made for interagency coordination
- Basis is provided for policy and management integration
- Serves as a base for information management systems
- Policy and investment opportunities are created for public and private sector financing
- Local planning and management capacity are developed
- Capable of responding to goals and targets under the Convention on Biological Diversity (CBD)

Stakeholder Consultation and Participation

The ICMS ensures stakeholder consultation and participation throughout the planning and implementation process.

Stakeholder involvement across sectors is an important part of the biodiversity focused ICM planning and implementation process.

It is necessary to build ownership and support to biodiversity focused action plans.

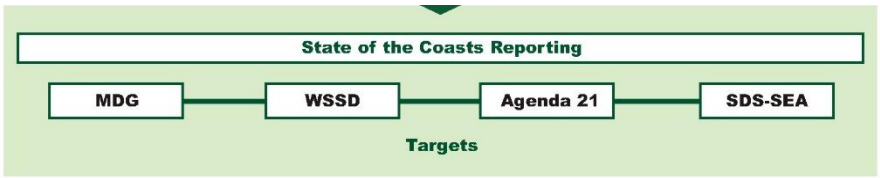
Science-based Decision making

The ICMS strengthens science-based decisions by making expert advice a part of the decision-making process.

How? Policy integration across sectors and functional integration across agencies is strengthened by expert advice. However, adaptive management continues to play a dominant role in times of inadequate information and scientific gaps.

Monitoring and Evaluation

The ICMS enables a systematic approach in monitoring of coastal management progress and in evaluating performance indicators over time, tracking not only the achievements but also the investment of resources.

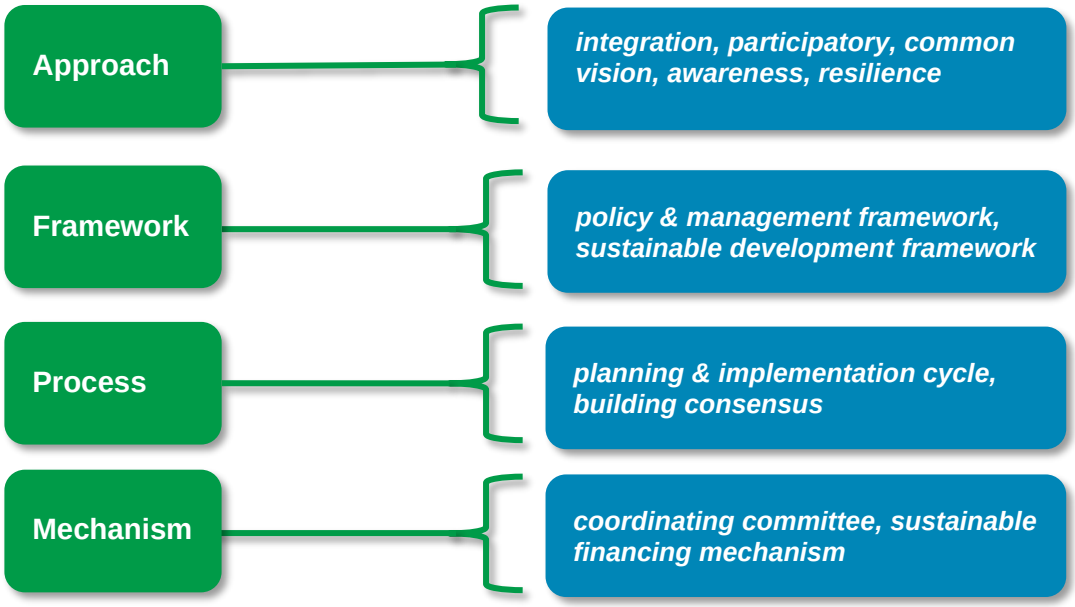


The State of Coasts is a type of report card often produced by the local government, providing information for the policy and decision makers and the public on:

- Condition of their coasts and biodiversity values as measured by various social, environmental and economic indicators
- Performance in meeting national and international targets
- Identified areas for improvement

Driving Forces

The effectiveness of the ICMS depends on wise use of the driving forces: Approach, framework, process and mechanism. Examples of how each driving force can be used are below:



Key Drivers for Change

Effective use of the key drivers for change improves ICM outputs and outcomes. These drivers are an ongoing process which feed into one another. Take a look at the figure below:

1. Resilience
2. Vision
3. Coordination
4. Integration
5. Partnerships
6. Flexibility/Adaptability
7. Processes
8. Awareness
9. Platform

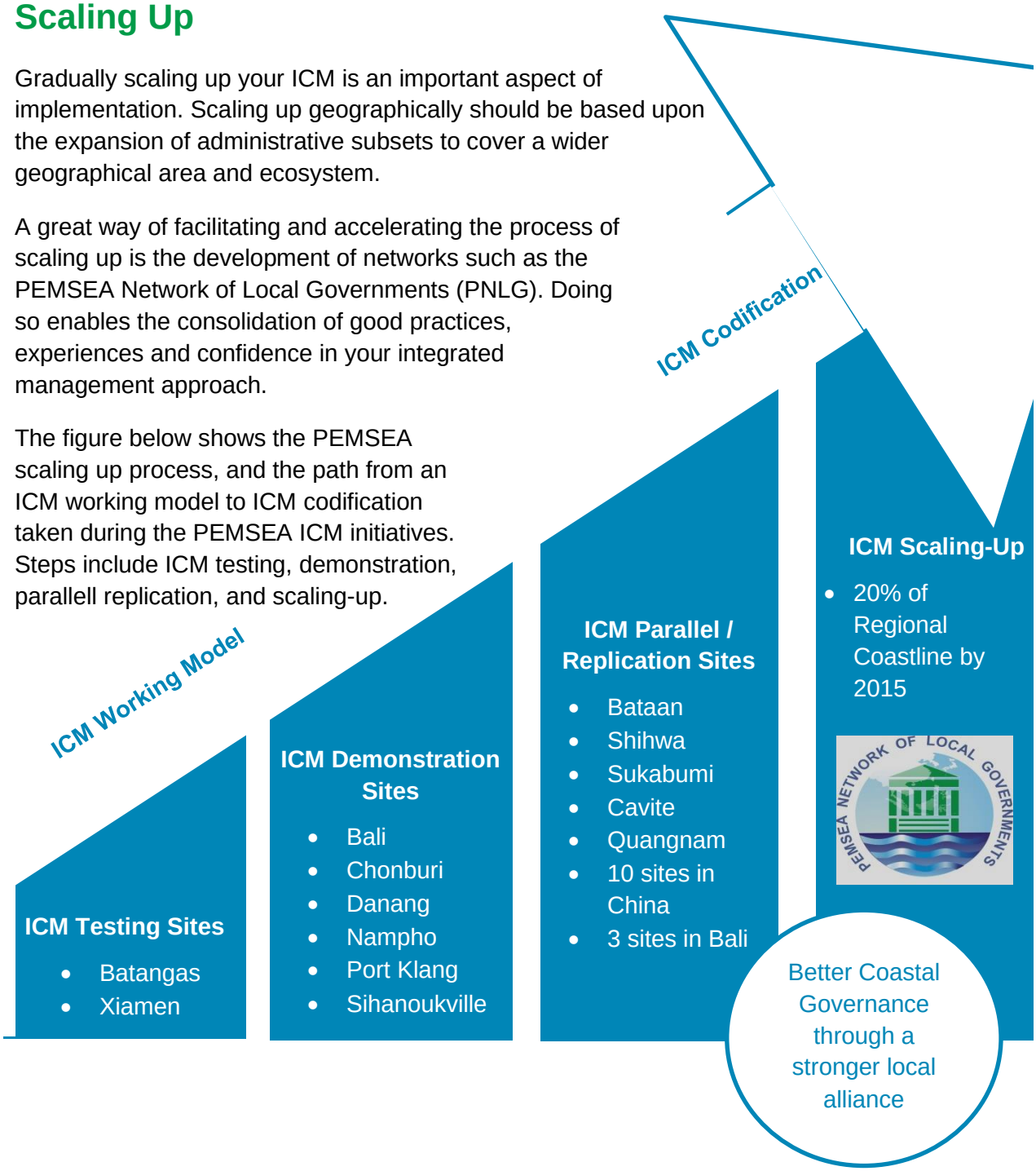
The key drivers for change are a cyclical process with each one equally important as the last.

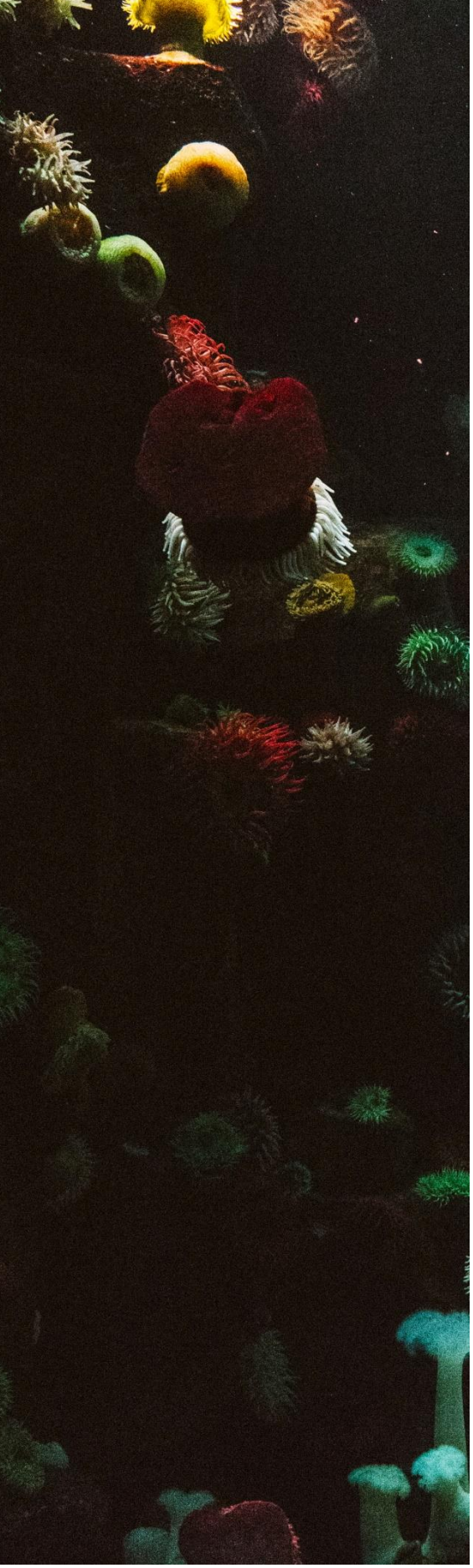
Scaling Up

Gradually scaling up your ICM is an important aspect of implementation. Scaling up geographically should be based upon the expansion of administrative subsets to cover a wider geographical area and ecosystem.

A great way of facilitating and accelerating the process of scaling up is the development of networks such as the PEMSEA Network of Local Governments (PNLG). Doing so enables the consolidation of good practices, experiences and confidence in your integrated management approach.

The figure below shows the PEMSEA scaling up process, and the path from an ICM working model to ICM codification taken during the PEMSEA ICM initiatives. Steps include ICM testing, demonstration, parallell replication, and scaling-up.





II. Integrating ABTs int ICM Program Development

ICMS can be a great method of working towards the Aichi Biodiversity Targets (ABTs), specifically ABTs 1-13. Let's look at how ABTs 1-13 can be integrated in the components of ICM.

Habitat Protection

The sustainable development aspect of ICM "habitat protection, restoration and management" addresses several ABTs, including:

Target 2: Biodiversity values
Target 3: Reduction or removal of subsidies affecting biodiversity
Target 5: Loss of natural habitats
Target 11: Conservation of coastal and marine habitats
Target 12: Protection of extinct species
Target 14: Protection of ecosystems to safeguard ecosystem services
Target 15: Ecosystem resilience

The ICM system provides a local implementation platform for ABTs at a local level.

Food Security

The sustainable development aspect of ICM "food security and livelihood management" addresses several ABTs, including:

- Target 6: Sustainable harvest
- Target 7: Sustainable aquaculture

Scientific/Expert Advice

The governance aspect of ICM "policy and functional integration, scientific/expert advice" addresses:

Target 19: science-based knowledge

Pollution Reduction

The sustainable development aspect of ICM "pollution reduction and waste management" addresses several ABTs, including:

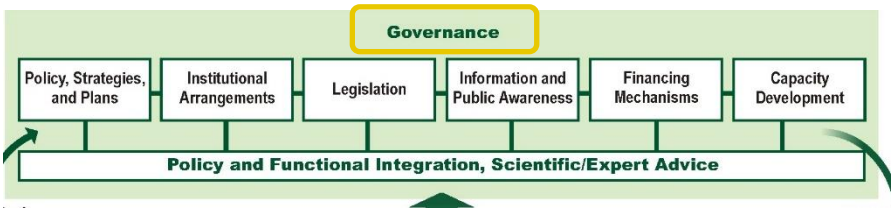
- Target 8: Nutrient pollution
- Target 9: Invasive alien species
- Target 10: Acidification

Partnerships

The ‘partnerships’ aspect of ICM partnerships (public, civil society, corporate and other stakeholders) addresses:

Target 4: Stakeholder participation

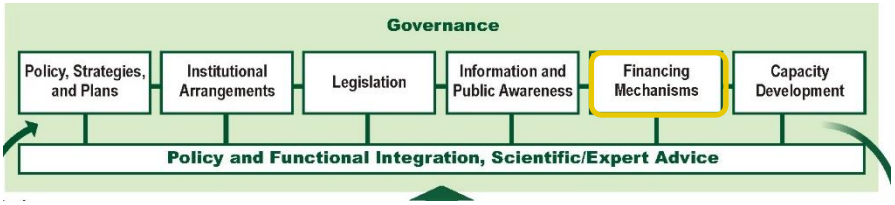
Governance



The governance aspect of ICM addresses several ABTs, including:

- Target 16: Access to genetic resources
- Target 17: Policy instrument, legislation for biodiversity plan implementation
- Target 18: Traditional/ indigenous knowledge and practices, Innovations, implementation of international conventions

Financing Mechanisms



The governance aspect of ICM “financing mechanisms” addresses:

- Target 20: Mobilization of financial resources for implementation of strategic action plans

Key Messages

Here are some key messages to take away with you from this guide:

- Effective use of the key elements, processes and tools of ICMS ensures incremental improvements of coastal and marine ecosystems in the delivery of ecosystem services
- ICM contributes to sustainable development of coastal and marine areas including attaining major global environmental goals and targets such as the ABTs through effective application of the ICM system

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Convention on Biological Diversity (CBD)

Opened for signature at the Earth Summit in Rio de Janeiro in 1992, and entering into force in December 1993, the Convention on Biological Diversity is an international treaty for the conservation of biodiversity, the sustainable use of the components of biodiversity and the equitable sharing of the benefits derived from the use of genetic resources. With 196 Parties, the Convention has near universal participation among countries. The Convention seeks to address all threats to biodiversity and ecosystem services, including threats from climate change, through scientific assessments, the development of tools, incentives and processes, the transfer of technologies and good practices and the full and active involvement of relevant stakeholders including indigenous and local communities, youth, NGOs, women and the business community. The Cartagena Protocol on Biosafety and the Nagoya Protocol on Access and Benefit Sharing are supplementary agreements to the Convention. The Cartagena Protocol, which entered into force on 11 September 2003, seeks to protect biological diversity from the potential risks posed by living modified organisms resulting from modern biotechnology. To date, 172 Parties have ratified the Cartagena Protocol. The Nagoya Protocol aims at sharing the benefits arising from the utilization of genetic resources in a fair and equitable way, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies. It entered into force on 12 October 2014 and to date has been ratified by 124 Parties.