

Facilitation of Environmental Conservation and Sustainable Development by ICM:

- Lessons Learnt in Japanese Coasts of Urban and Countries

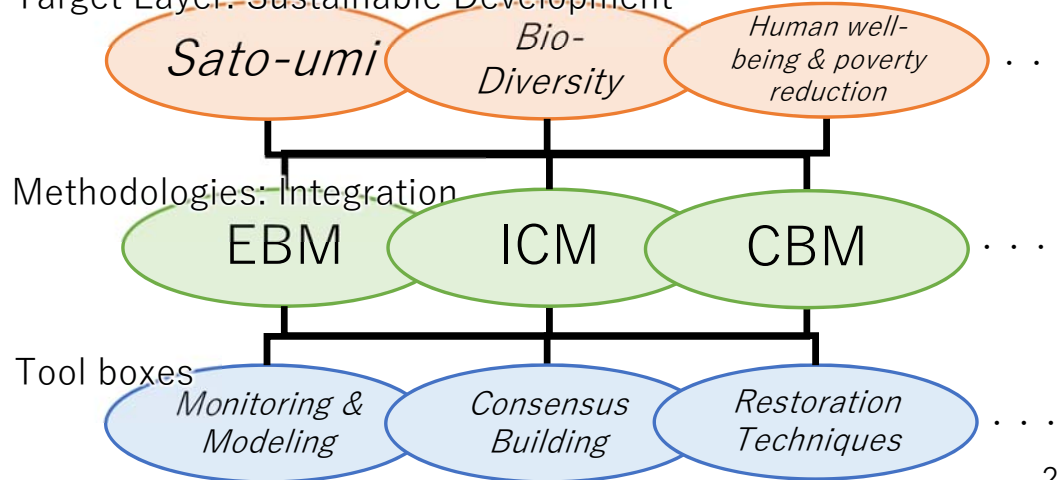
Network of Nature,
 Network of People

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 Center for Oceanic Studies and Integrated Education, YNU

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For the better promotion of Local Coasts

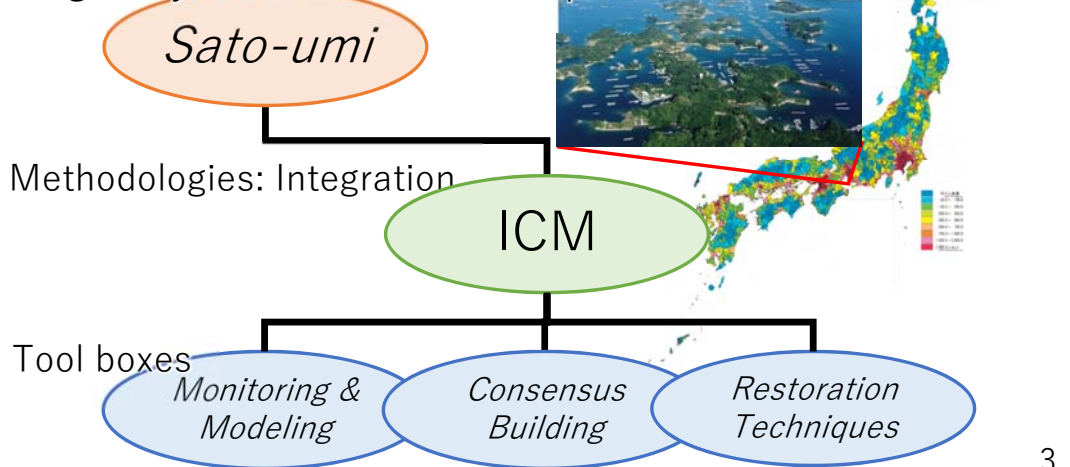
Target Layer: Sustainable Development



2

For the better promotion of Local Coasts

Target Layer: Sustainable Development



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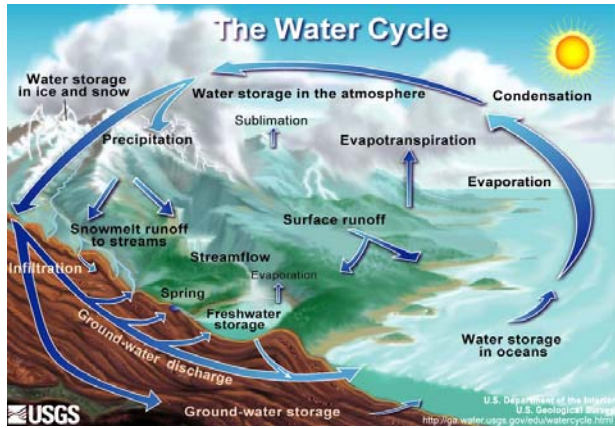
Integrated Coastal Management

☆ Area of concerns

☆ Social System for Decision Making

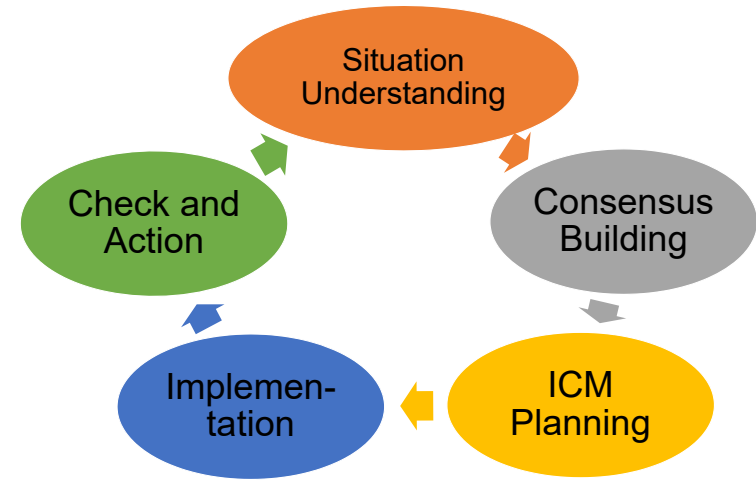
4

Integrated Coastal Management



the SEQ Healthy Waterways Partnership (<http://www.healthywaterways.org>) 5

Integrated Coastal Management



Origin of Sectorial Management and its Development in Japan Democracies by Meiji Restoration and Development (since 1868)

- Regulatory Laws for Industrial storage ocean use
 - Water Pollution Control Act (1970)
 - Basic Environment Act (1993)
 - Environment Impact Assessment Law (1997)
 - Ports and Harbors Act: Port Plan (Strategic EIA)
 - Electricity Business Act: Special Provisions Concerning Environmental Impact Assessment
 - *Seto* Inland Sea environmental conservation special measures law (1973)
 - *Ariake - Yatsushiro* environmental conservation special measures law (2002)

Kisugi (2015)

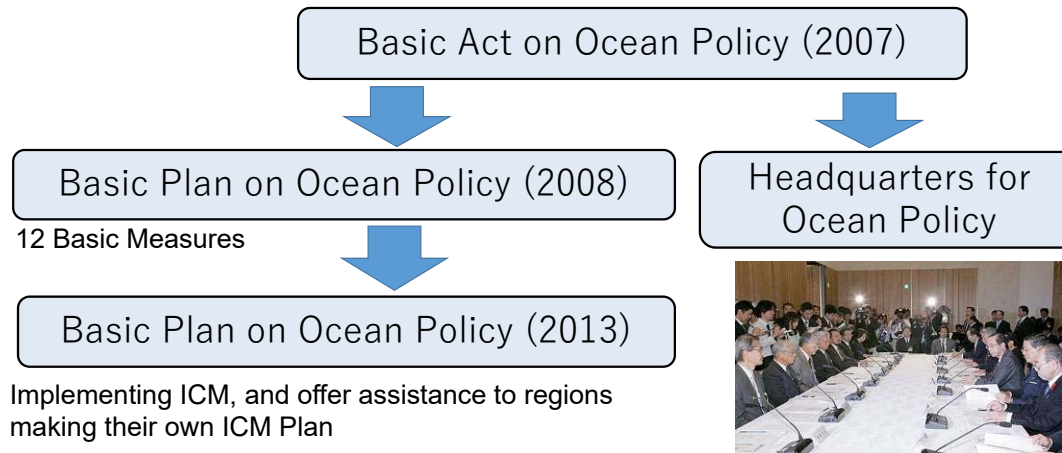
Implementation of ICM and its Development in Japan *Seto Inland Sea environmental conservation special measures law*

- As Forerunner: It is environmental conservation oriented, but it had foresight on ICM concepts
- As of Coastal Law, it is only set priority area of measures namely 50 m in ward and out ward from shoreline, while the Law objectives were extended for protection, use and conservation of environment in a historic revision in 1999.



Population density of each prefecture in the watershed area of the Seto Inland Sea (Yanagi, 2015)

Integrated Coastal Management



The Revised Basic Plan on Ocean Policy – 12 Measures

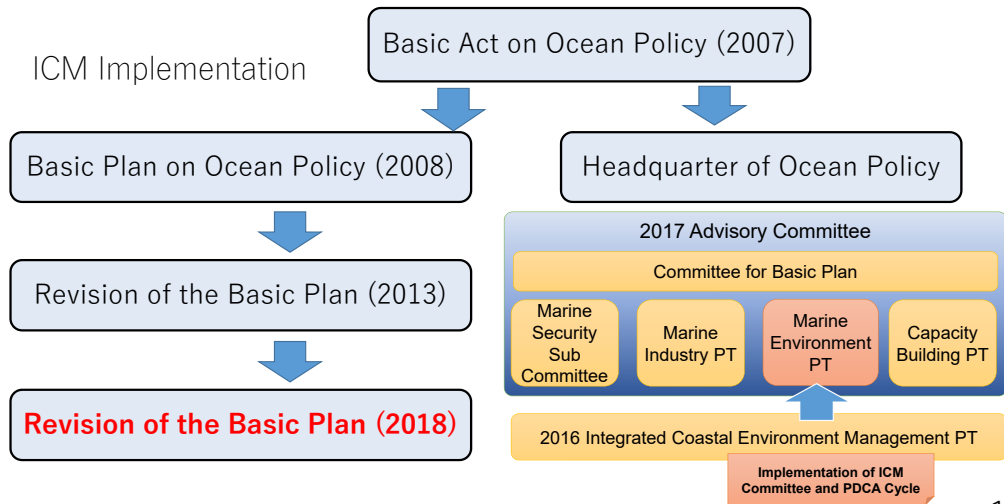
9. Comprehensive Management of Coastal Zones

- (1) Promotion of integrated coastal management
- (2) Coastal management to be performed together with the land and sea
- (3) Promotion of coastal management in the enclosed seas
- (4) Adaptation for coastal use

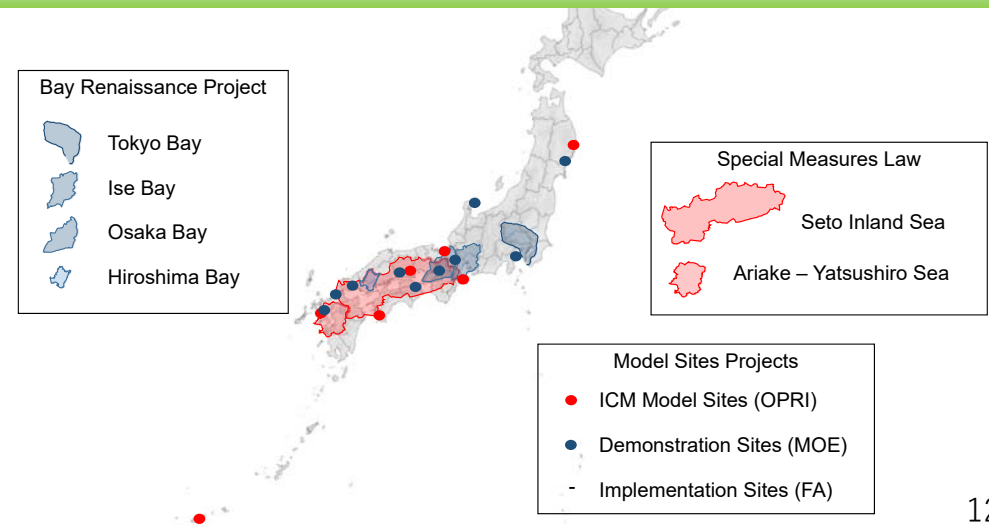
ICM: Integrated Coastal Management

3.(1):
To promote the establishment of an attractive and independent local municipality, measures for integrated coastal management will be promoted, and planning activities in local will be supported (by government).

Legislative Progress



ICM Coverages in Japan



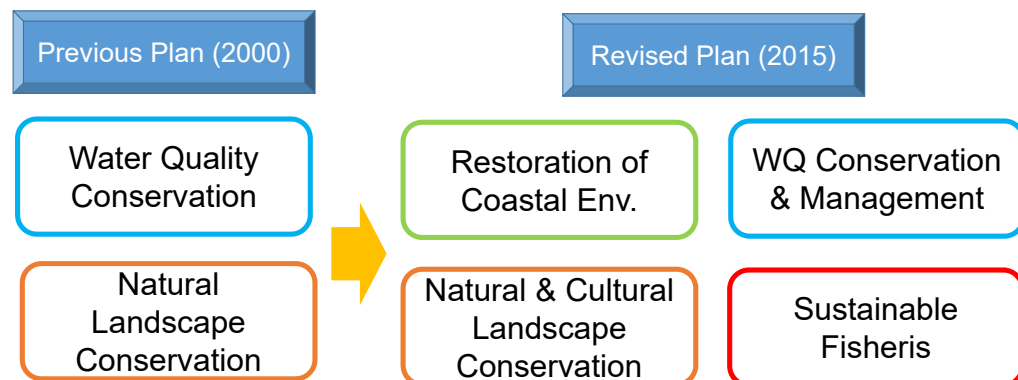
ICM Coverages in Japan

Plan/Project	Area	Municipality	Area of Watershed (Land/Sea km ²)	Population in Watershed (million)
Bay Renaissance Project	Tokyo Bay	1 MPC, 3 Pref., 5 Cities	9,076/1,380	31
	Ise Bay	4 Pref.	16,191/2,130	10.89
	Osaka Bay	2 Pref., 5 Cities	11,200/1,400	17.45
	Hiroshima Bay	2 Pref.	3,743/1,043	1.78
Special Measures Law	Seto Inland Sea	13 Pref.	33,098/21,827	30
	Ariake Sea	5 Pref.	8,000/1,700	3.36
	Yatsushiro Sea	3 Pref.	1,880/1,200	0.51
ICM Model Site (OPRI)	7 Sites			
Demonstration Sites (MOE)	9 Sites			
Implementation Sites (FA)	47 Regional Committee (incl. 336 Cities)			

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Revised basic plan for Environmental Conservation of the Seto Inland Sea

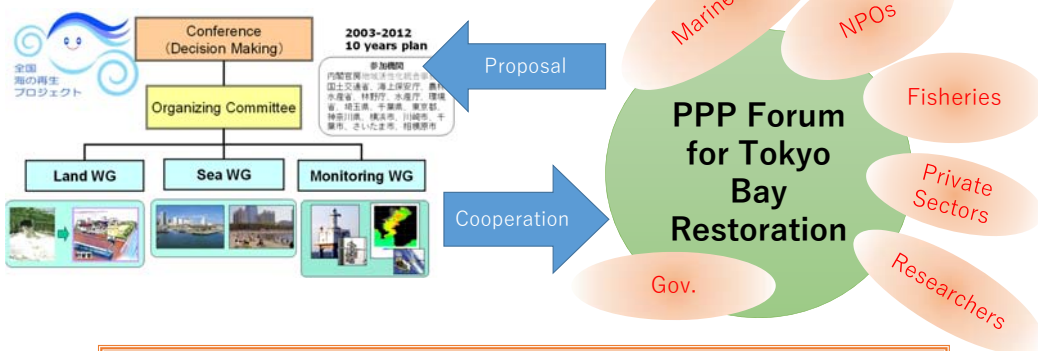
(finalized by the Cabinet in 2015)



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Tokyo Bay Renaissance Project

The 2nd Phase

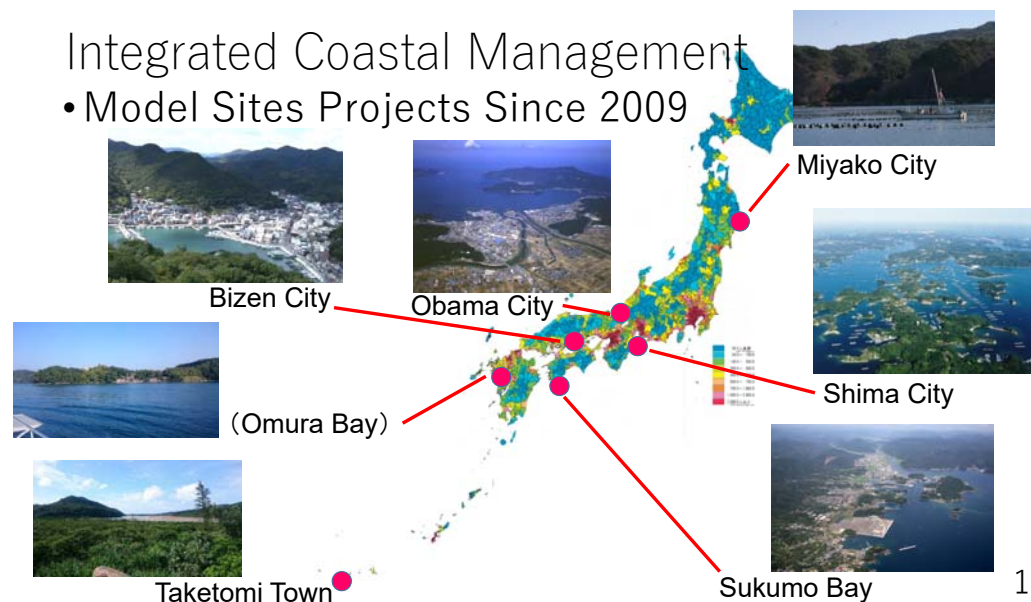


Tokyo Bay as Friendly, Beautiful, Rich Habitat for *Edo-mae* and Comfort Play ground

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Integrated Coastal Management

• Model Sites Projects Since 2009



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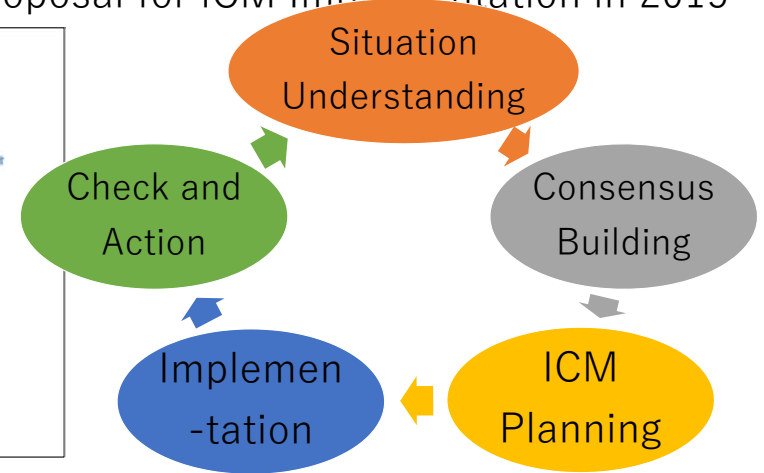
- Policy Proposal for ICM Implementation in 2015



General Proposal
Implementation and supporting mechanisms are urgent needs.
Proposal 1.
Local governments should implement ICM
Proposal 2.
National governments should supports
Proposal 3.
Sea area into local gov.'s jurisdiction

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- Policy Proposal for ICM Implementation in 2015



ICM Model Sites Progress

	Situation	Consensus	ICM Plan	Project	PDCA
Shima City:	✓	✓ (ICM Committee Restructured)	✓	✓	✓
Obama City:	✓	✓ (ICM Committee)	✓	✓	✓ (Revision of the ICM Plan has started)
Bizen City:	✓	✓ (ICM Committee established)	✓ (Declaration only)	✓	
Sukumo Bay:	✓	✓ (Preparatory group)		✓ (Science based monitoring)	
Miyako City:	✓	✓ (Preparatory Group)			
Taketomi Town:		✓ (Committee for Revision of the Plan)	✓ (Ocean Basic Plan)	✓	✓ (Revision of Ocean Basic Plan)
OmuraBay:	✓	✓ (Preparatory Group)		✓ (Event based projects)	

Integrated Coastal Management

- Five Steps for ICM Implementation (1/5 Situation Understanding)



Diagnosis by Smooth Material Cycling and Stability of Ecosystems (Bio Diversity)

Situation Understanding (Ocean Health Check)

Ocean Health Check

- Ecosystem sustainability and Smooth Material Cycling as indicator of Richness of the Sea
- 1st Diagnosis: Easy and Fast check for the status
- 2nd Diagnosis: Careful observation for understanding mechanisms

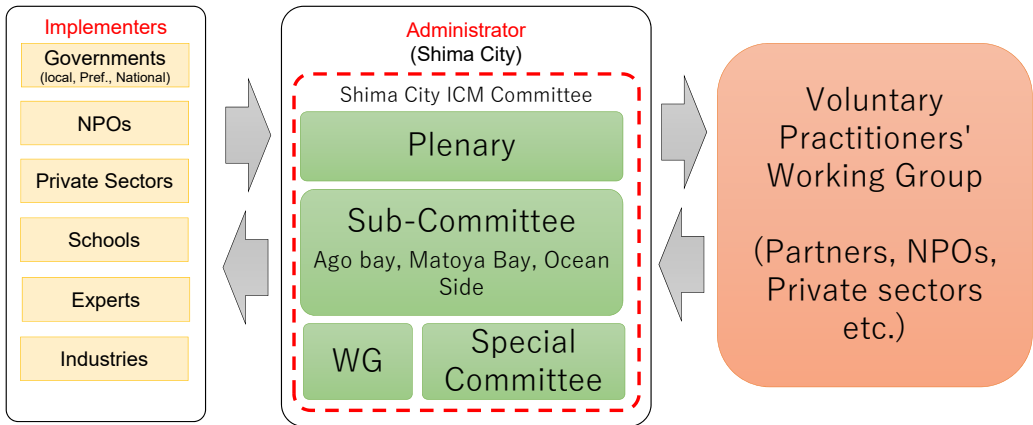


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- Five Steps for ICM Implementation (2/5 Consensus Building)

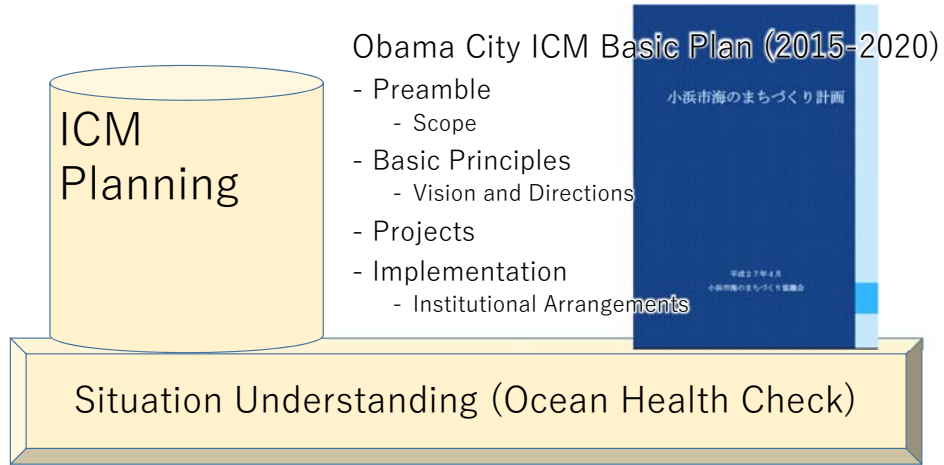


Restructuring the ICM Committee in Shima City



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- Five Steps for ICM Implementation (3/5 ICM Planning)



Integrated Coastal Management

- Five Steps for ICM Implementation (4/5 Project Implementation)

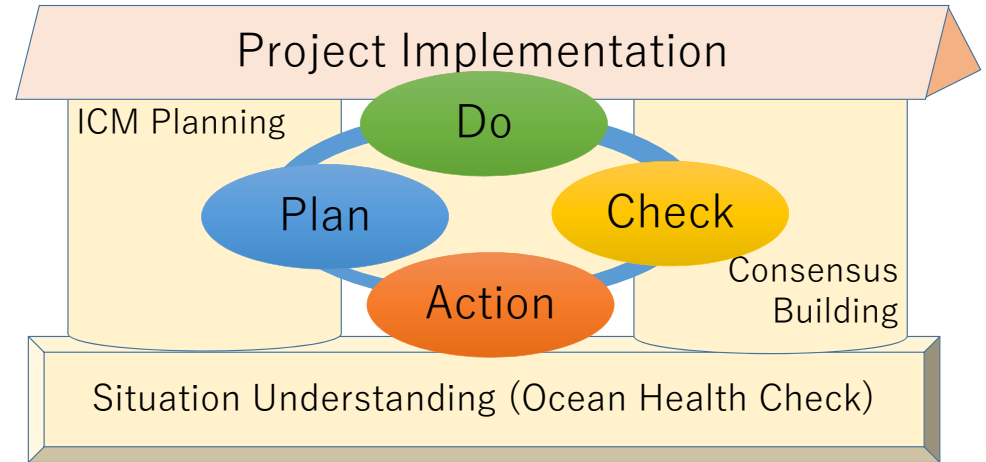
Project Implementation



Situation Understanding (Ocean Health Check)

Integrated Coastal Management

- Five Steps for ICM Implementation (5/5 Check and Action for PDCA)



Relationship with main town development plan

The 2nd
Shima City Comprehensive Plan
*First Priority Plan
2016 – 2025

The Shima City
Vitalizing
Comprehensive
Strategy
2015 -2019

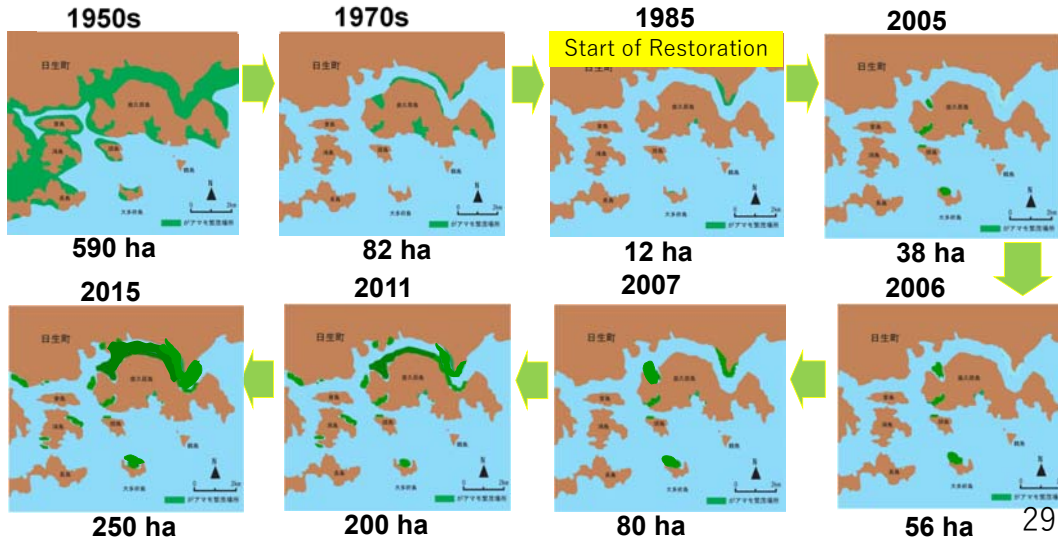
The 2nd
Satoumi Creation
Basic Plan
*ICM Basic Plan
2016 -2020

Integrated Coastal Management

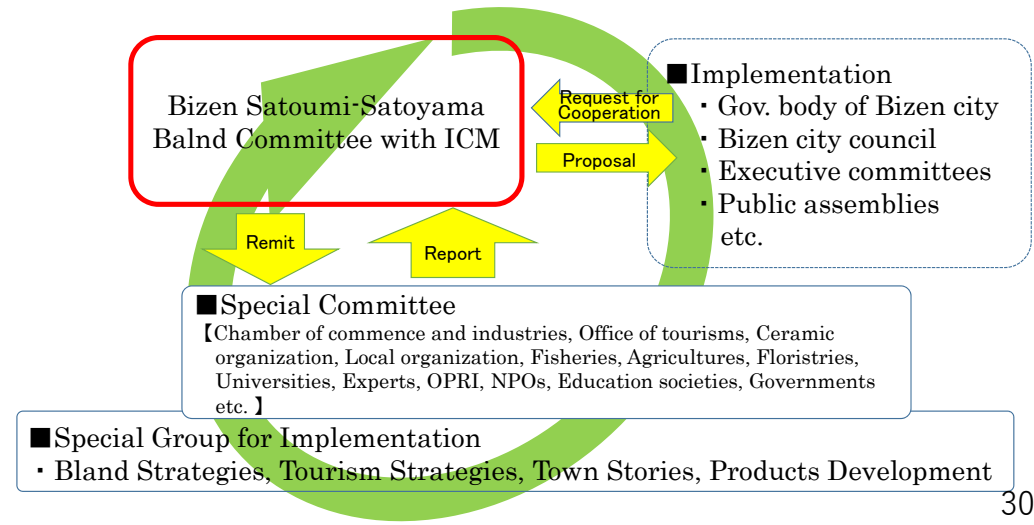
- Example of Hinase Area, Bizen City



Eel grass Habitation

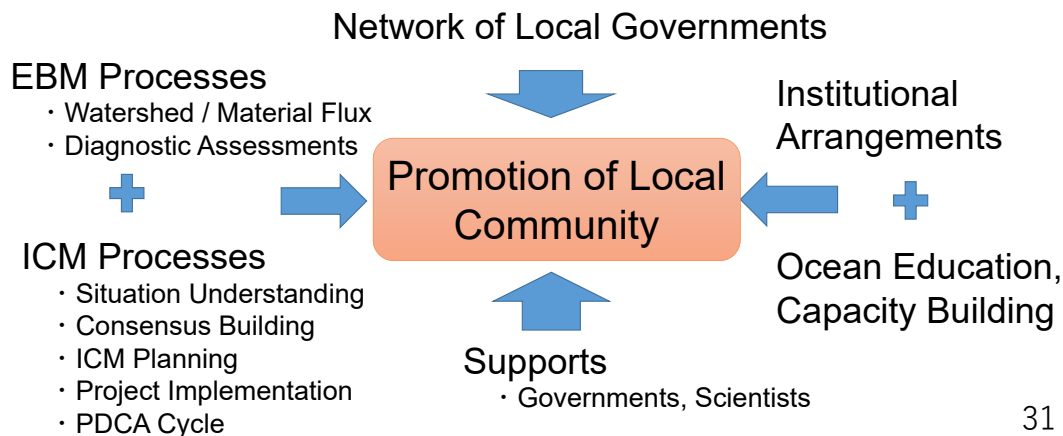


Establishment of Committee in Bizen City



For the better promotion of Local Coastal Communities

• ICM Formulations



Lesson 2: Net Work of People

- Establishment of Coastal / Ocean Governance
- Management / Implementation
 - Situation Understanding
 - Consensus Building with Public Participation
 - ICM Planning
 - Adaptive Management of Implementation
 - PDCA Cycle
- Integration and Cooperation

Why we need Integrated Coastal Management Now?

- Change of environment is a long-term process based on accumulation of short-term activity (social and Natural).
- Dominant processes are multi disciplinary.
 - Interpretation of physical processes for biological and chemical processes is required
 - Most biggest dominant processes are human activities
 - Social activities reflects on natural processes
- There is uncertainty in scenarios.
 - Strategic planning of counter measure are required
 - Integration of planning, monitoring and feedback

↳ **Not only Natural Science,
but also Social Science and Engineering is required!**

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What can we do for the next generation?

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Thank you for your considerations !