

INTEGRATED COASTAL AND OCEAN GOVERNANCE OF KOREA - *EVOLUTION & INNOVATION* -

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OUTLINES

1

Status of the ocean and coastal areas of Korea

2

Evolution of ocean and coastal governance in Korea

3

Major oceans and coastal management policies

4

Toward Innovation governance for our ocean & coast



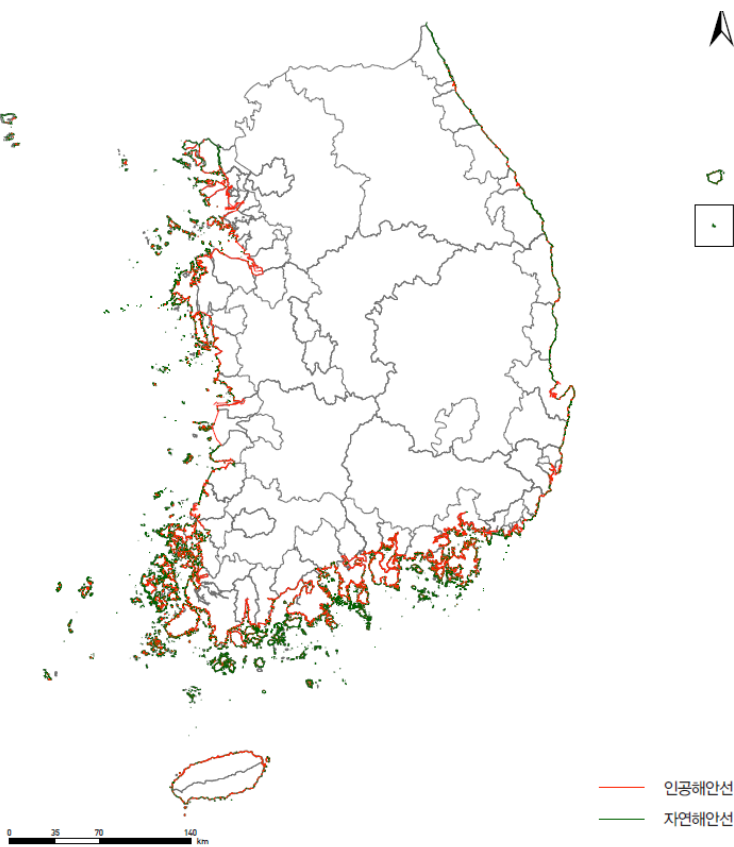
1. Status of the ocean and coastal areas of Korea



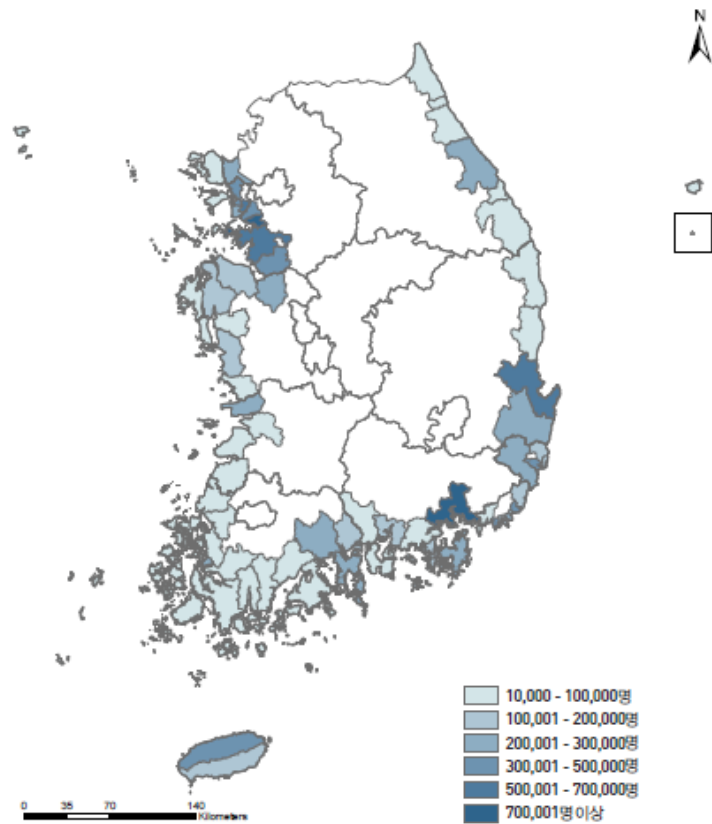
1. Status of the ocean and coastal areas of Korea

State of coastal areas

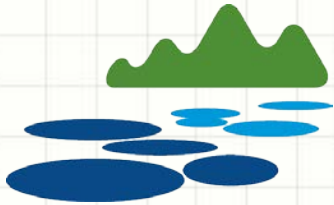
- Coastline 14,962.8km (51.4% artificial coastline)
- Reclamation
→ agricultural, industrial and residential use etc.



- 13.7 million (27.1% Total population)
- 11 No. of coastal province governments
- 74 No. of coastal local governments



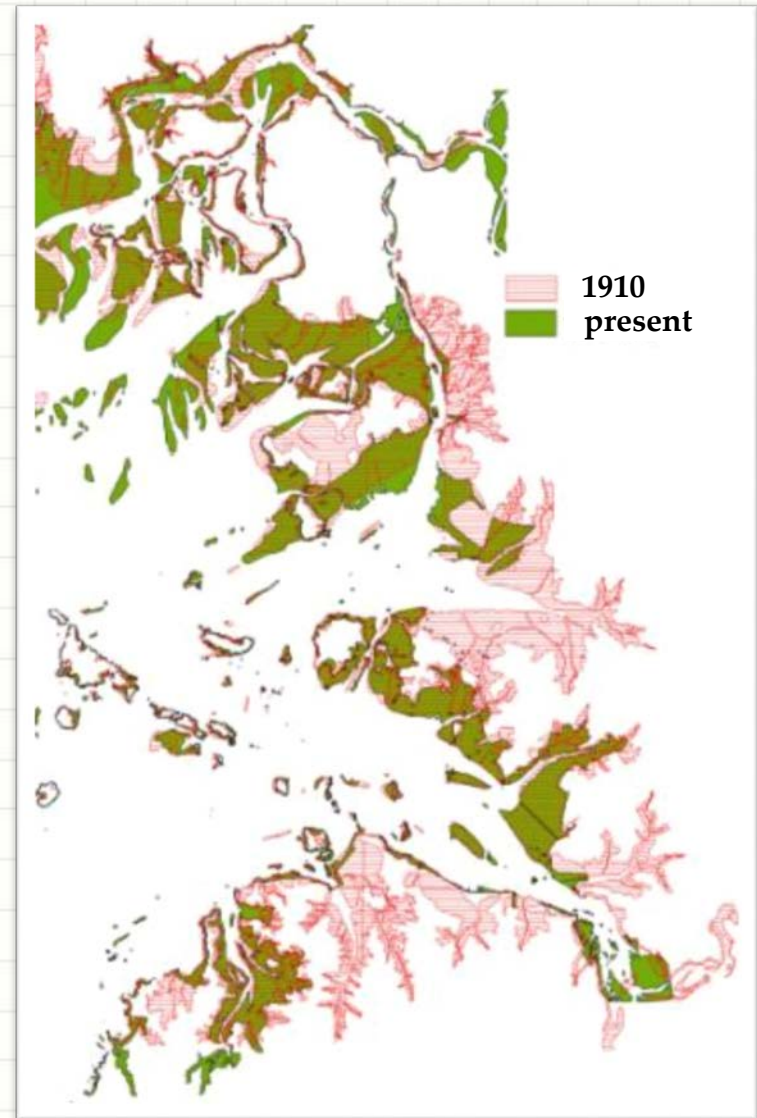
1. Status of the ocean and coastal areas of Korea



Coastal Environment

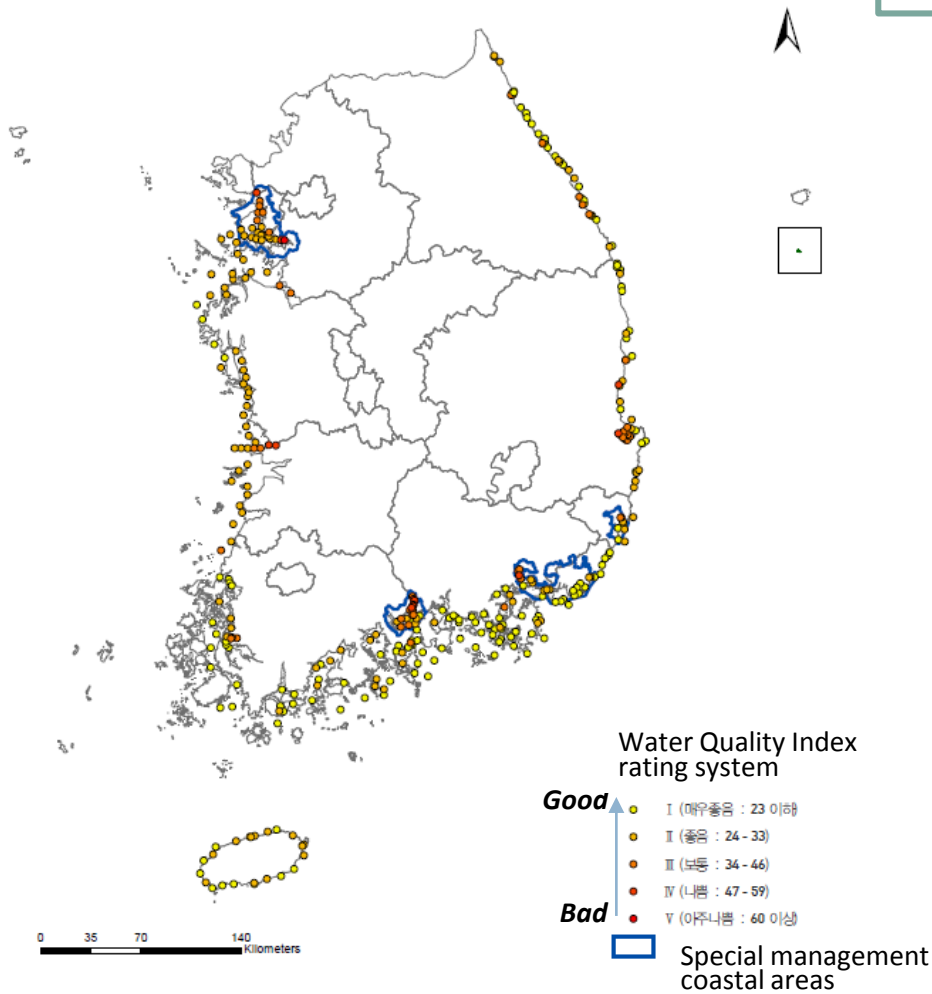
- ▶ Decrease of natural coastline by landfill, seawalls and coastal roads
 - Artificial coastline 51.4%, serious coastal erosion
- ▶ 20% of tidal flats lost during the last two decades
- ▶ Improvement in the average coastal water quality
 - Water Quality Index I-II grade
: 77.6%('07) → 85.4%('10) → 71.7%('13)
- ▶ Semi-enclosed bays contaminated by heavy metal and POPs
 - Deterioration of water quality near big cities & industrial sites
- ▶ Harmful red tides as a common event in the 2000s

Changing the size of tidal flat

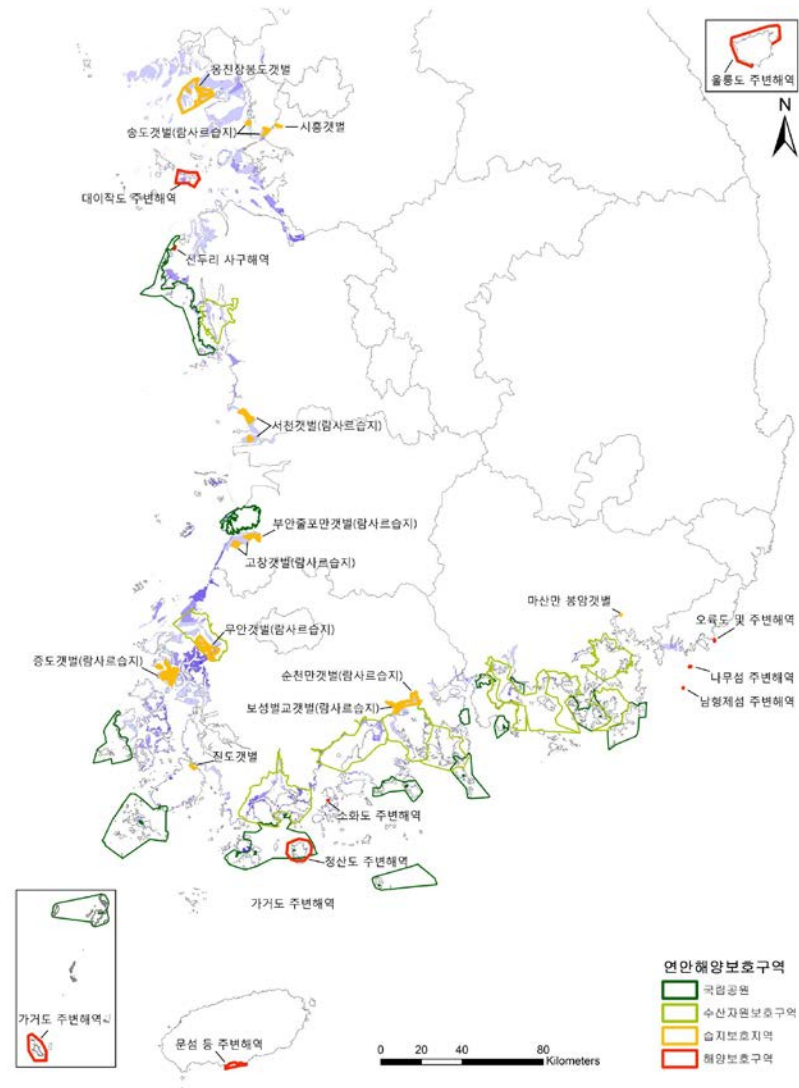


1. Status of the ocean and coastal areas of Korea

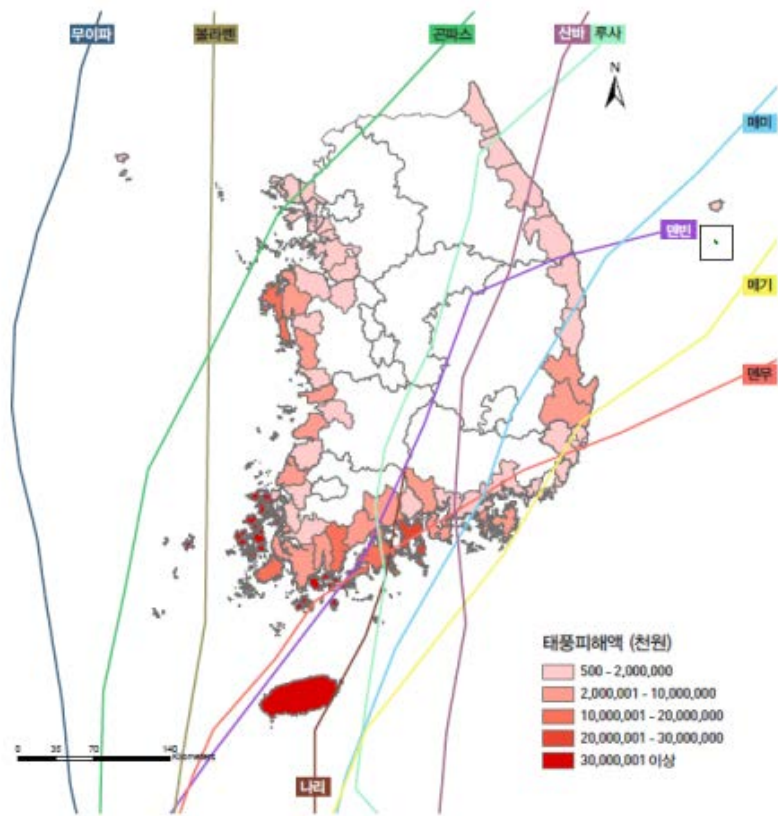
- 7.8% of the territorial sea of Korea
- 8.8% Wetlands PAs of total wetland area of Korea
- 40 No. of coastal and marine protected areas



4 Special Management Areas
→ Coastal total pollutant management



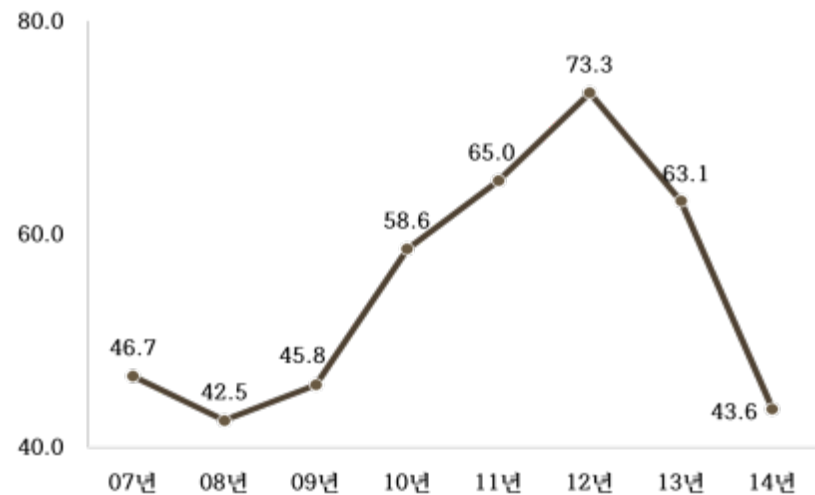
1. Status of the ocean and coastal areas of Korea



Increasing vulnerability of coastal areas



Coastal erosion rate
42.5%('08) → 73.3%('12)→ 43.6%('14)

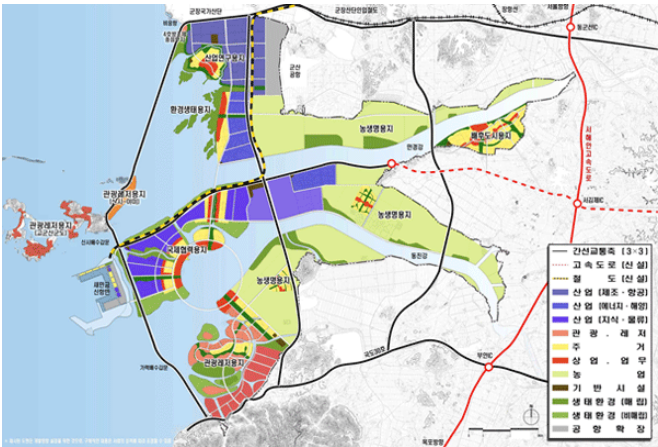
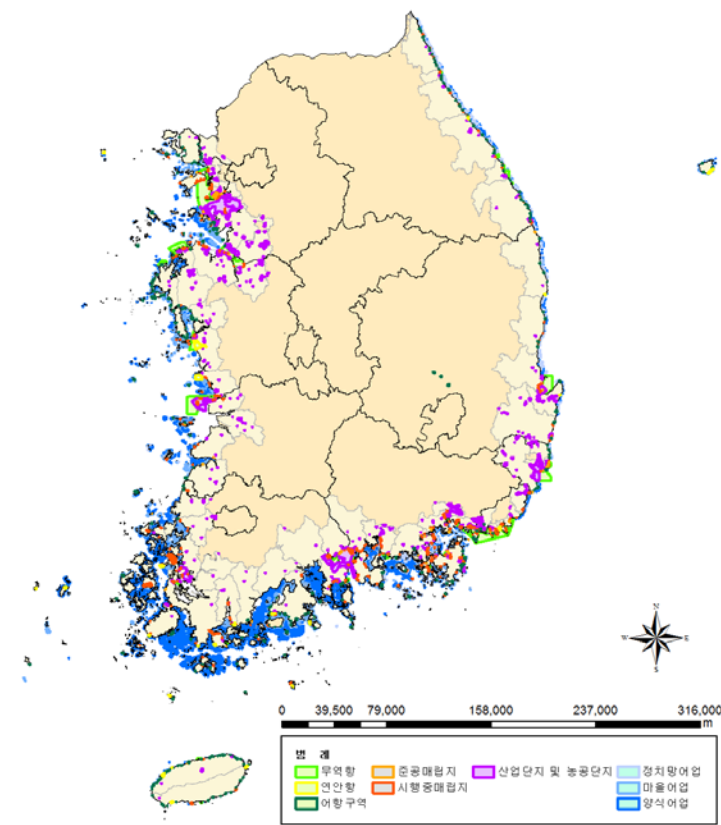


1. Status of the ocean and coastal areas of Korea



The Pressure of Coastal Use and Development

- ▶ **Population decrease in coastal areas**
 - 27.1% of total Population lived in coastal areas in 2012 annual rate
 - Population density in coastal area : 427 people/km²
 - The spatial pattern of inequality
- ▶ **Reclamation of tidal flats for agricultural and industrial uses**
- ▶ **Concentration of development activities and the emergence of new use activities in the coastal area**
 - increasing needs for industrial, marina and islands tourism uses
 - ocean energy complexes. ex wind, wave, current, tidal power
- ▶ **Deepening conflicts on the value of conservation and development**

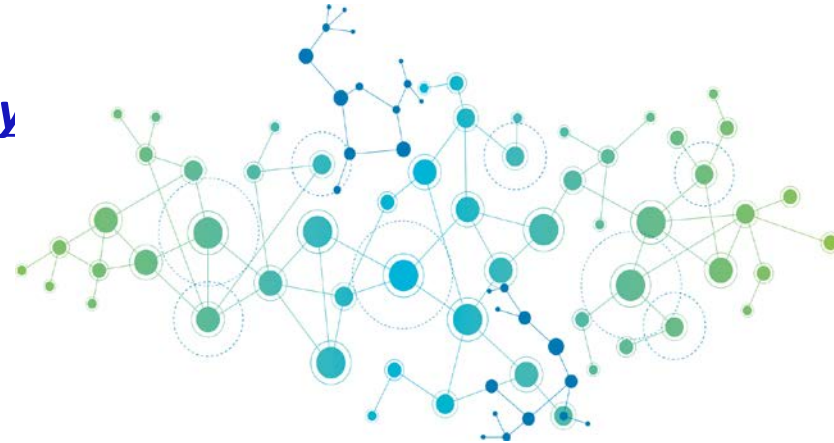


2. Evolution of the ocean and coastal governance in Korea

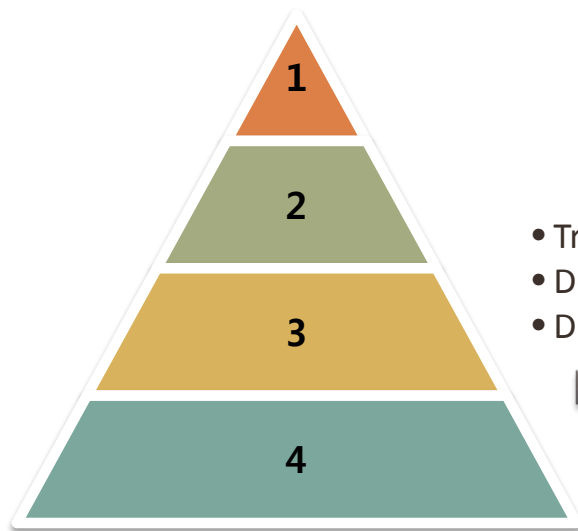


Transformation from a Centralization Society to a Network Society

- Increasing the demand for sharing information, knowledge & power
- accordance and consensus within stakeholders



Resource: <http://www.smartboxmobile.com/wp-content/uploads/2013/04/networking.png>



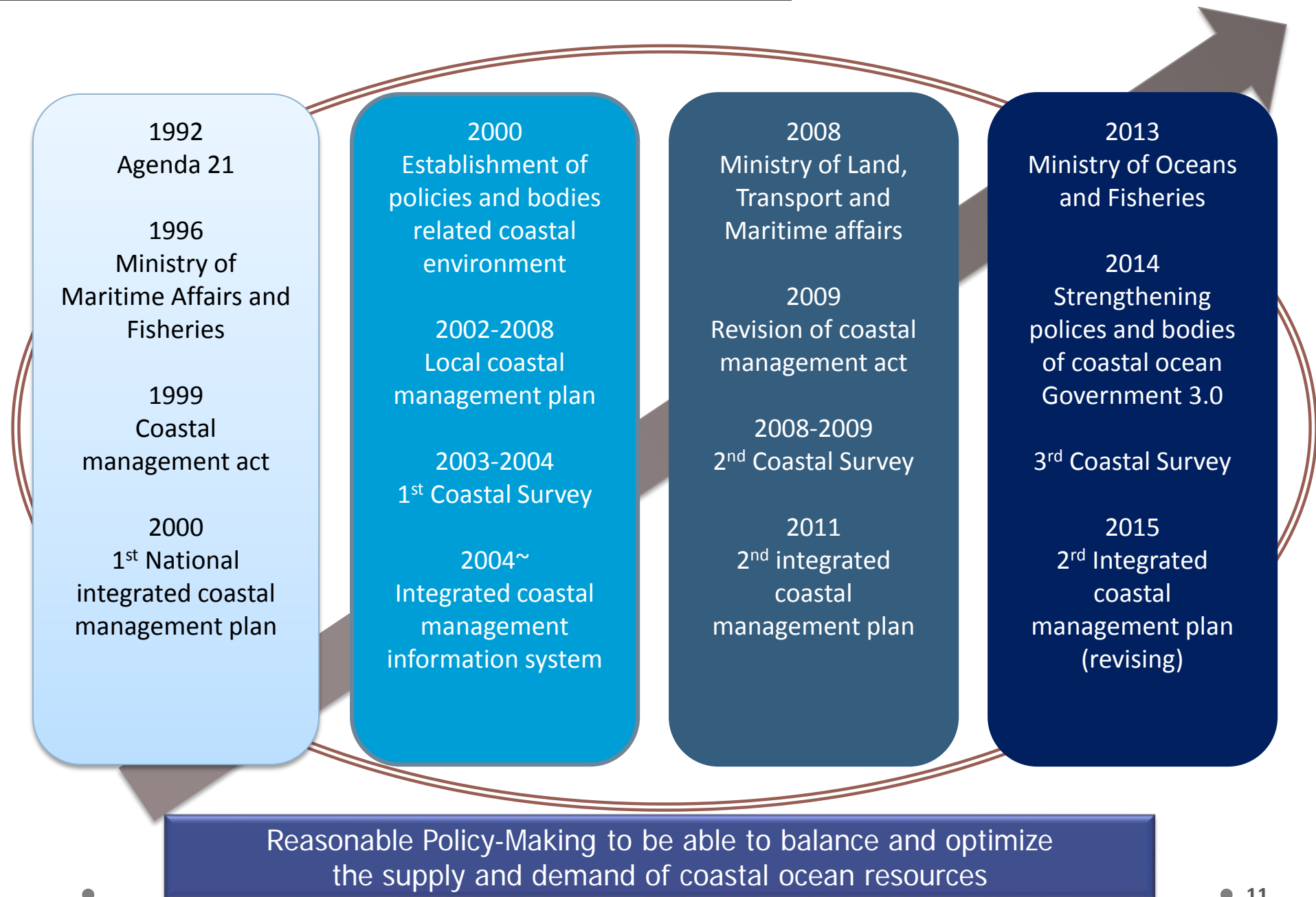
[Vertical Governance]

- Transboundary
- Development of information technology
- Diffusion of participatory democracy

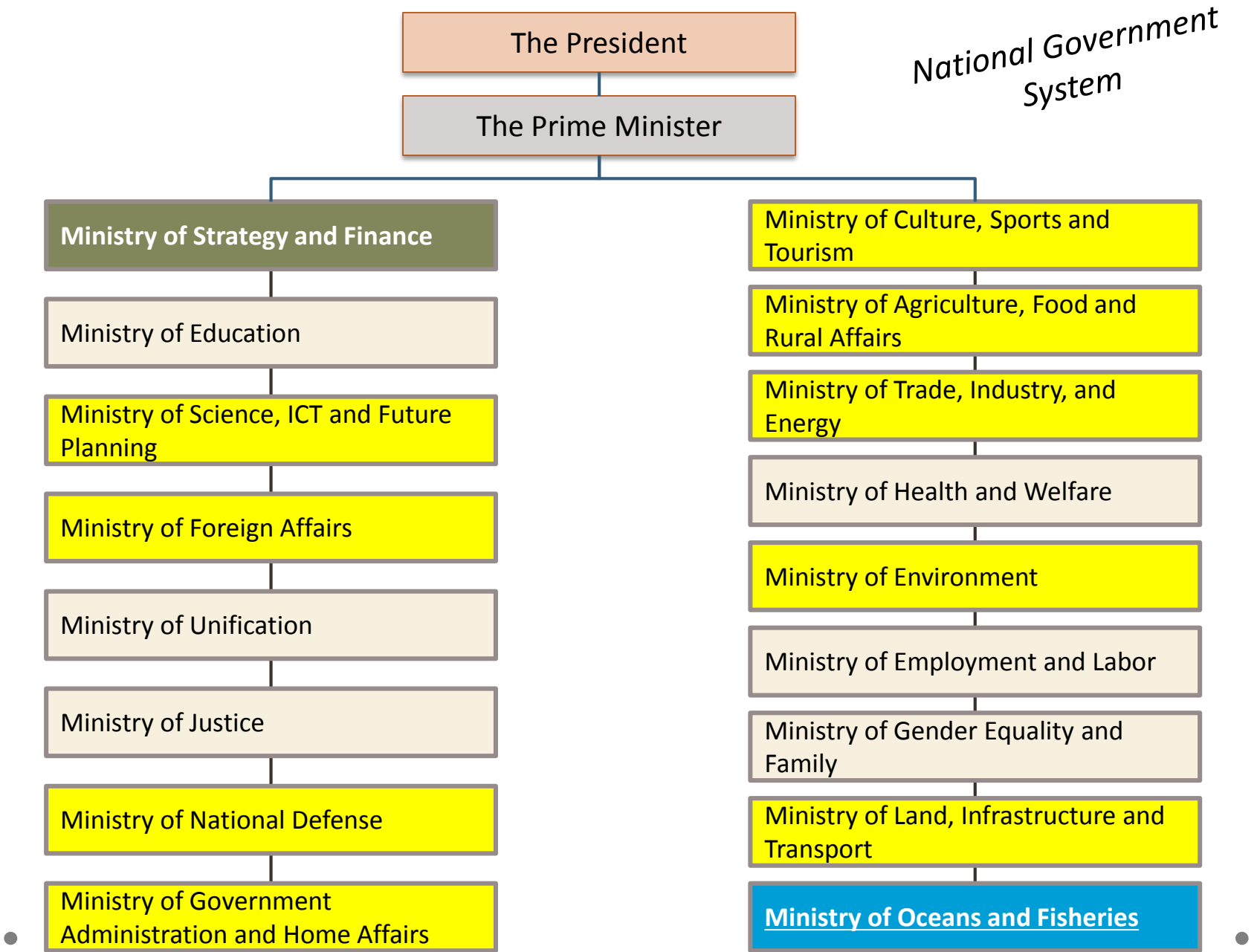


[Horizontal Governance]

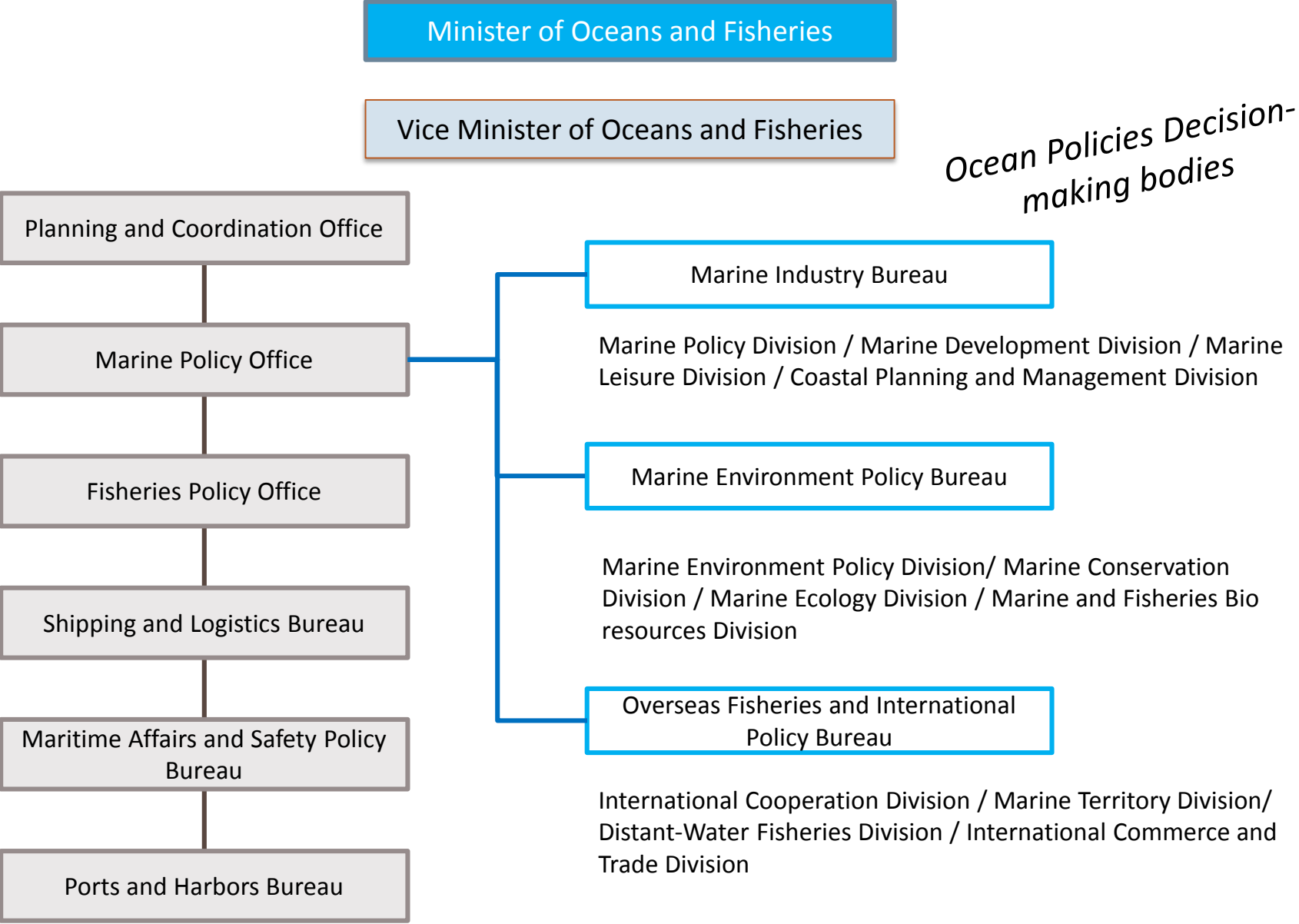
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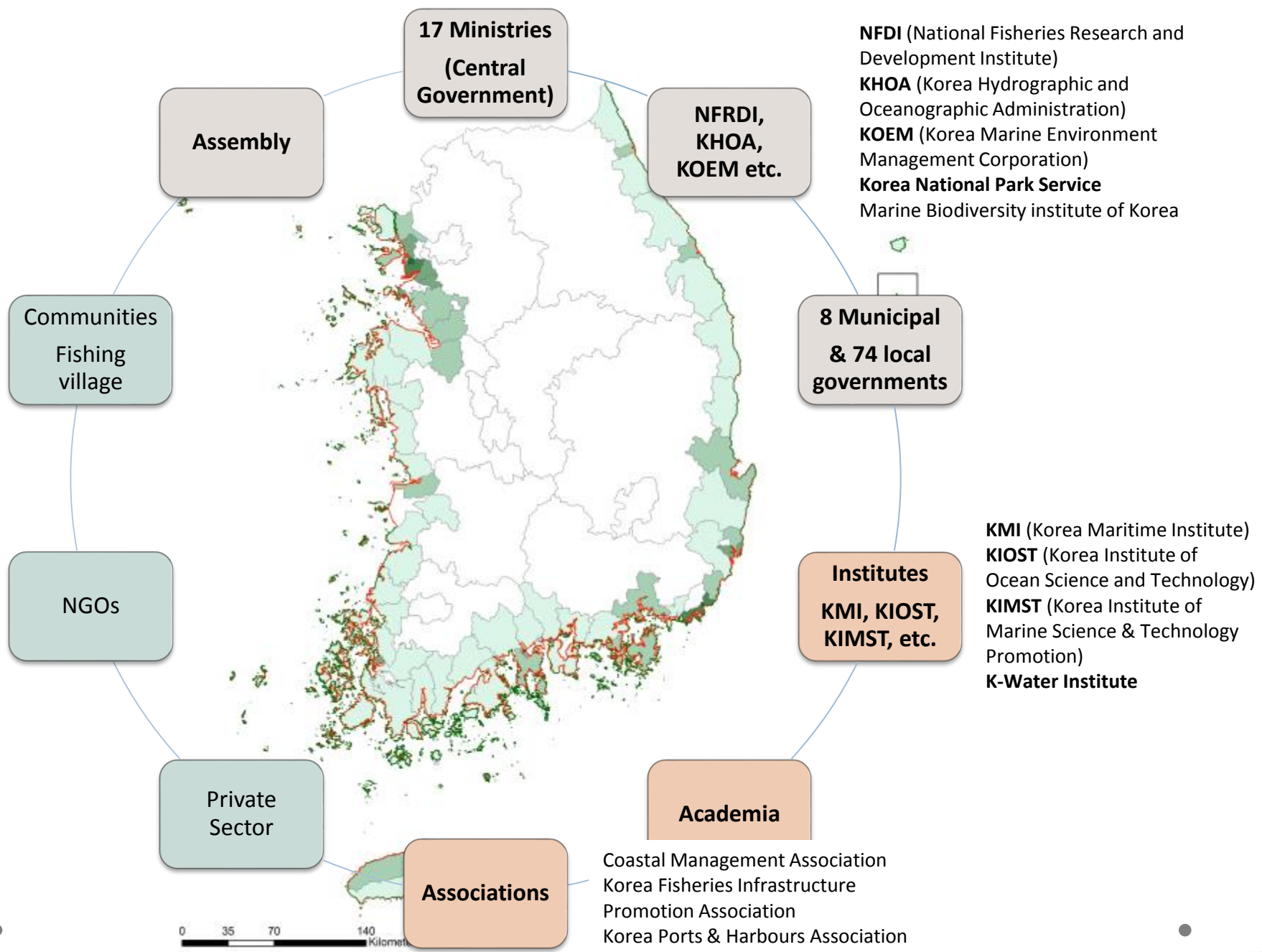
Stakeholders structure of coastal management



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Stakeholders structure of coastal management

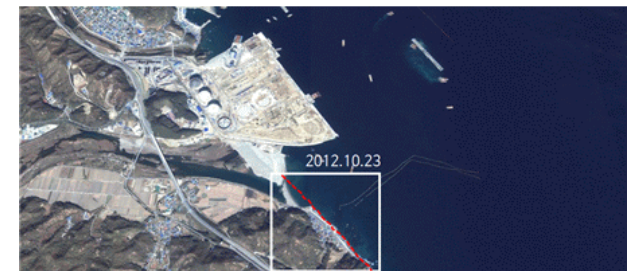
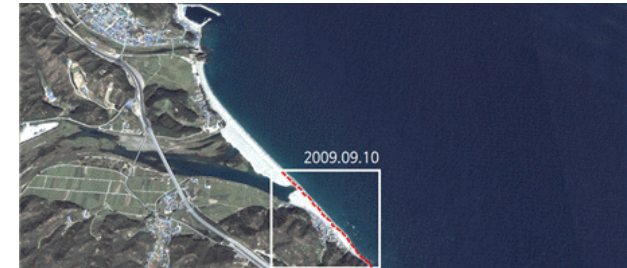
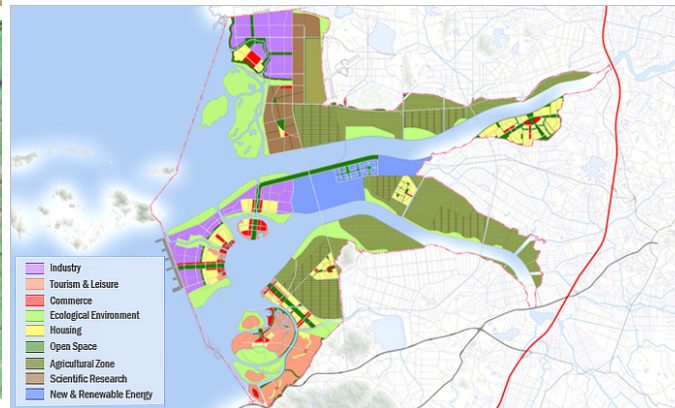


Coastal Reclamation Projects

- Difference between economic & environmental values and interests
- Privatization of public waters
- Unilateral policy decisions and lack of transparency and participation



- Saemangum Area: 401km²
 - Reclaimed land : 283km²
 - Freshwater lake : 118km²
- Length of sea dike : 33.9km
- Development period: 1989~2030
- Functions: Industry, global business, tourism & leisure, environment



Development of Janghang national industrial park vs. Conservation of tidal flats

Stakeholders:

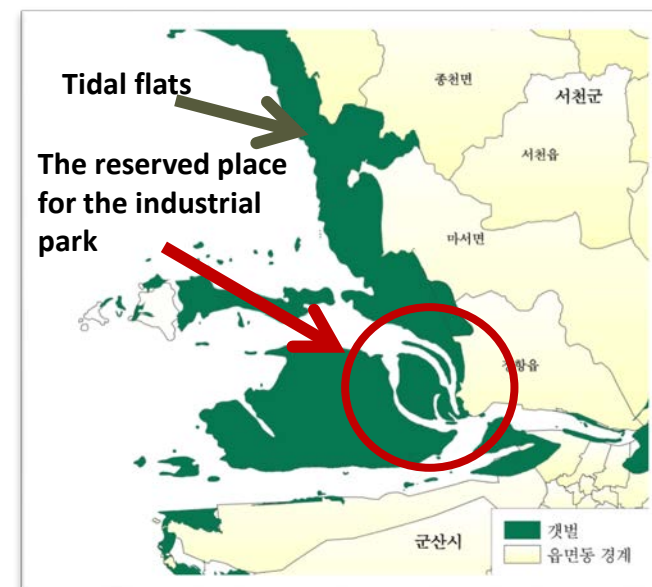
- Central governments
- Local governments, Fishermen, Residents, NGOs
- Industrial Groups, Academic Groups

Conflict resolution mechanism

- Central government's strong willingness
- Establishment of a conflict management committee
: continuous **efforts to build trust with stakeholders**
- Comprehensive joint-survey

Result of the conflict management

- Cancellation of the development plan
- Designation of a MPA
- Decision on investment to achieve protection goals
(National Marine & Ocean Museum)

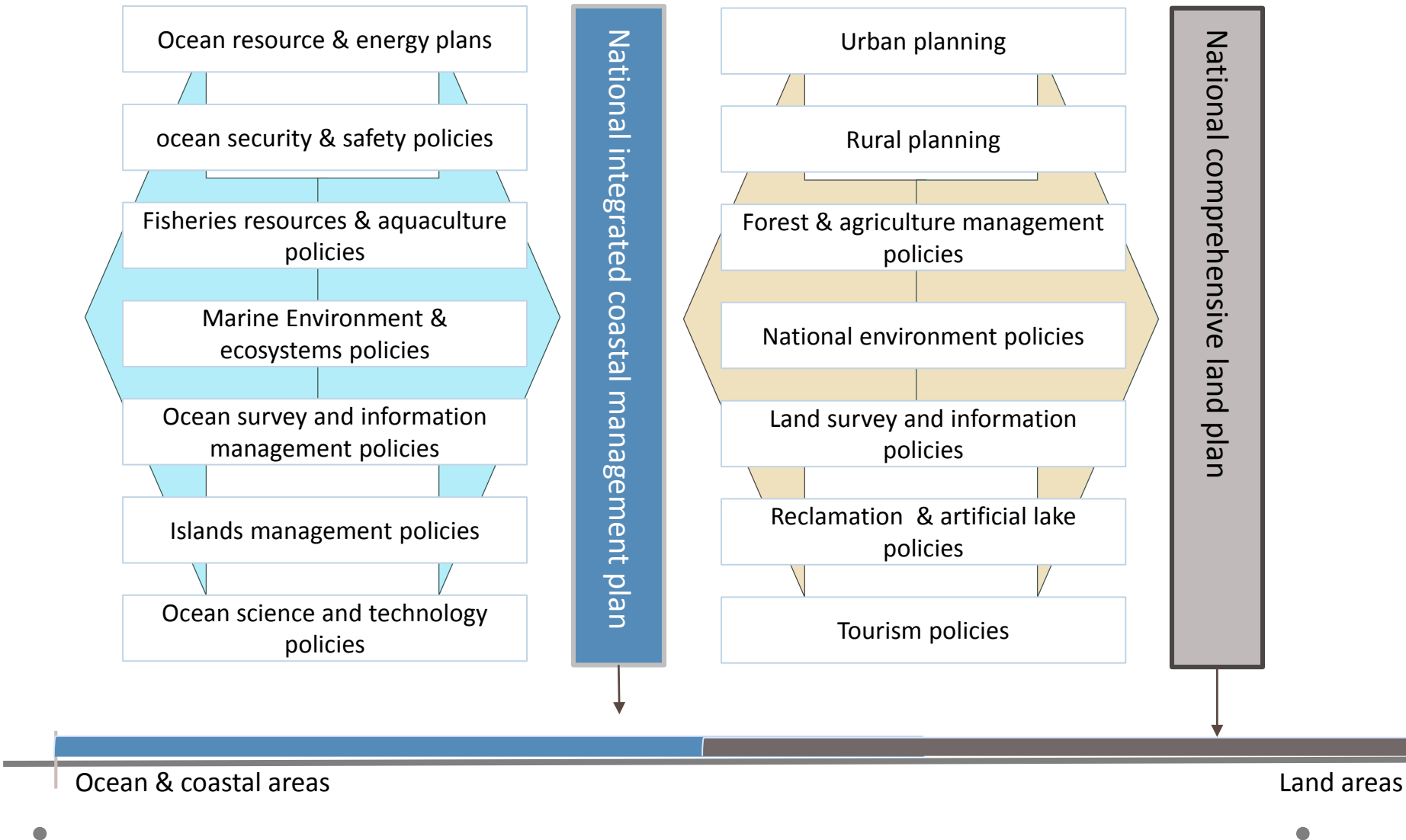


3. The ocean and coastal governance mechanism of Korea



The Ocean and Coastal Governance in Korea

Ocean Korea 21



Coastal management mechanism in Korea

Basic act on ocean and fisheries development

- Wetland conservation act
- Marine environment management act
- Marine Ecosystem Conservation and Management Act
- Natural Parks Act
- Water Quality and Aquatic Ecosystem Conservation Act
- Law on Public Waters Management and Reclamation
- Law on the Conservation and Management of Uninhabited Islands
- Maritime Safety Act
- Framework Act on the Management of Disasters and Safety
- Fisheries Act
- Special Act on Improving Quality of Life of Farmers and Fishermen and Development of Agriculture and Fishing Village

CONSISTENCY



MAIN COMPONENTS OF COASTAL MANAGEMENT ACT

Coastal Management Act

Enhancing the preservation of the coastal environment

Facilitating the sustainable use & development of coasts

Creating pleasant and affluent coasts as the basis for people's lives.

1. The scope of coastal Zone
2. 5-year Regular Coastal Survey & Coastal Management Information System
3. National Integrated Coastal Management Plan (NICMP)
4. Local Coastal Management Plan (LCMP)
: Coastal water zoning system, Target-based natural coastline management system
5. Coastal Enhancement Project (CEP)
: Coastal erosion project, coastal waterfront projects
6. Designation & Management of Coastal erosion management areas
7. Coastal Management Committee (CMC)

1. 5-year regular national coastal survey & coastal management information system

National Coastal Survey

(Evaluating the status of coastal areas in every 5 years)

연안 사회·경제
Socio-
Economic

연안 이용·개발
Use &
Development

연안재해
Coastal
Disaster

연안경관 생태
Landscape &
Ecosystem

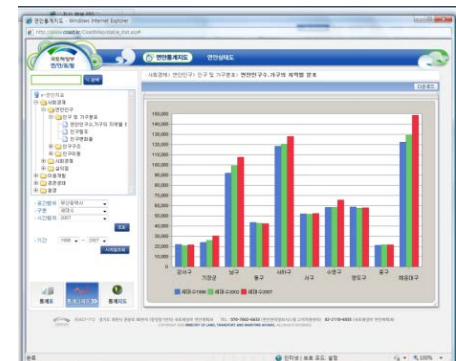
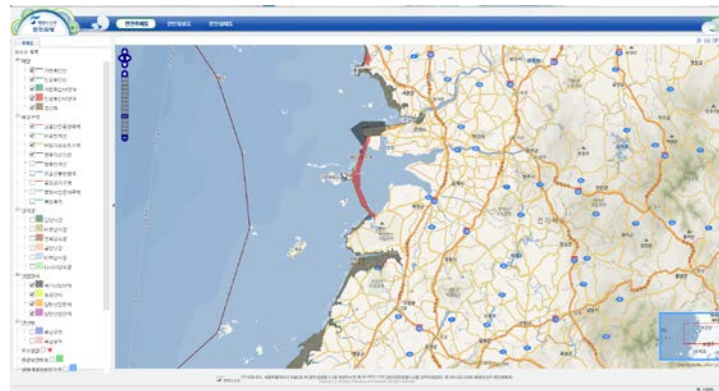
연안환경
Marine
Environment

연안통합관리정책 이행평가 및 진단
Evaluation and assessment of ICM policies

Quality of Coastal Life
Indicators

Coastal Use
Indicators

Coastal Ecosystem
Indicators



2. National integrated coastal management plan

Creating ECHO based on win-win & cooperation system

* ECHO: Ecosystem, Co-ordination, Human and Oceans

Integrated Coast

Eco-based Coast

Attractive Coast

Co-managed Coast

1. Application of new coastal management system

2. Enhancement of healthy ecosystems and coastal landscape

3. Reinforcement of adaptation to climate change and coastal disasters

4. Establishment of coast governance

5. Strengthening innovative system of implementation of coastal management

3. Local coastal management plan

Purposes of LCMP

- ▶ Implementation plan of NICMP to realize in local territorial boundary
- ▶ Implementation of the coastal sea area zoning and target-based natural coast management system
- ▶ Consensus-based plan; the consultation of stakeholders, experts participation, coordination between the departments of local government

Contents of LCMP

1. Designation of the scope of the coastal zone
2. Assessment of coastal environmental and socio-economical status
3. Directions for local coastal management
4. Implementation of the actions of the national integrated coastal management
5. Coastal sea area zoning system
6. Target-based natural coast management system
7. Direction of the local coastal enhancement projects

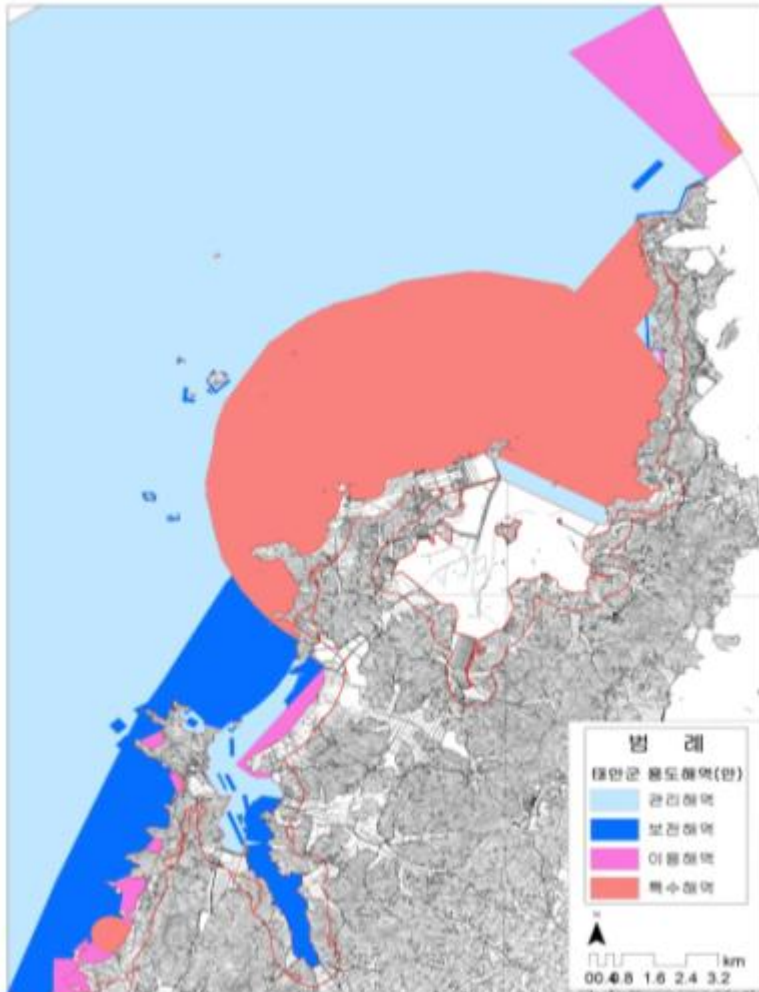
4. Local coastal management plan – coastal sea area zoning system

Coastal Sea Area Zoning pre-determines the uses and functions of coastal sea area according to its characteristics for its effective conservation, use and development

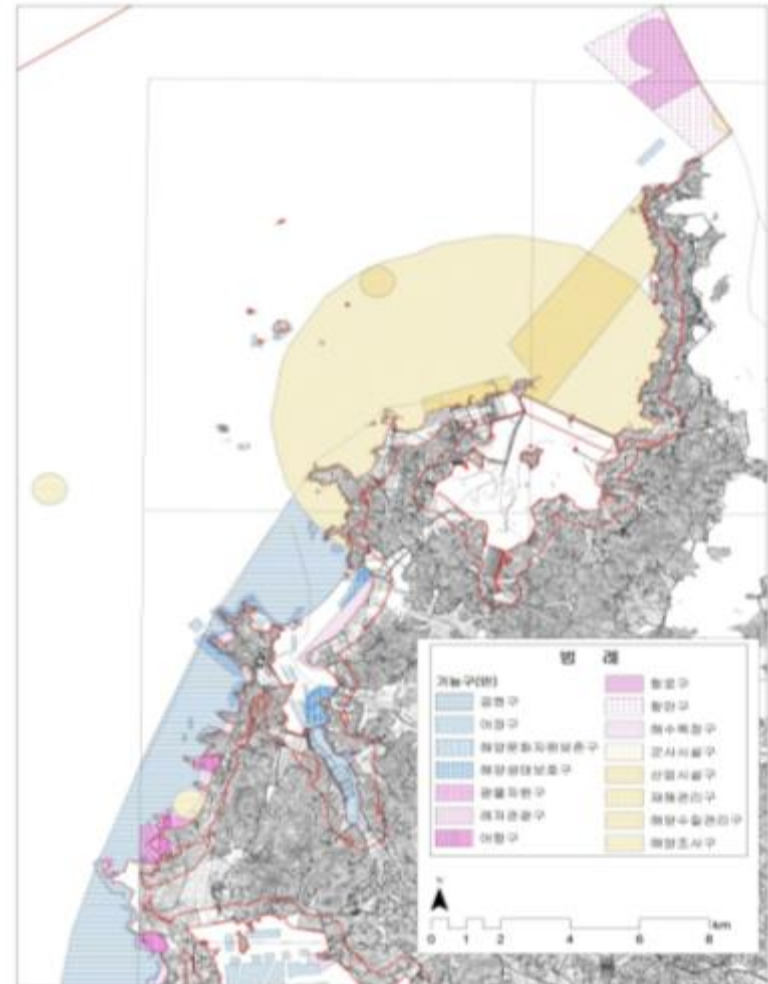
| 4 Types | Criteria | 19 Functional Zones |
|---------------------------------|--|---|
| “Use” Coastal Sea Area | <ul style="list-style-type: none">- Coastal sea area with planned or expected development or use with minimum marine environmental impacts | Port zone, navigation zone, harbor zone, leisure & tourism zone, beach zone, mineral resource zone, underwater cultural facility zone |
| “Special” coastal sea area | <ul style="list-style-type: none">- Coastal sea area which requires special management for the protection of military facilities or other facilities with national importance- Coastal sea area which requires special management due to marine environmental /ecological destruction or possible destruction | Water quality management zone, marine survey zone, disaster management zone, military facility zone, industrial zone, marine environmental restoration zone |
| “Conservation” coastal sea area | <ul style="list-style-type: none">- Coastal sea area which requires management for the protection of coastal environment, resources, and culture | Fishery resources protection zone, marine ecosystem protection zone, landscape protection zone, park zone, aquaculture zone, marine cultural resource conservation zone |
| “Management” coastal sea area | <ul style="list-style-type: none">- Coastal sea area excluded from the above categories- Coastal sea area which belongs to more than two categories among the above | |

4. Local coastal management plan – coastal sea area zoning system

Ex. Coastal sea area zoning



Ex. Functional zones

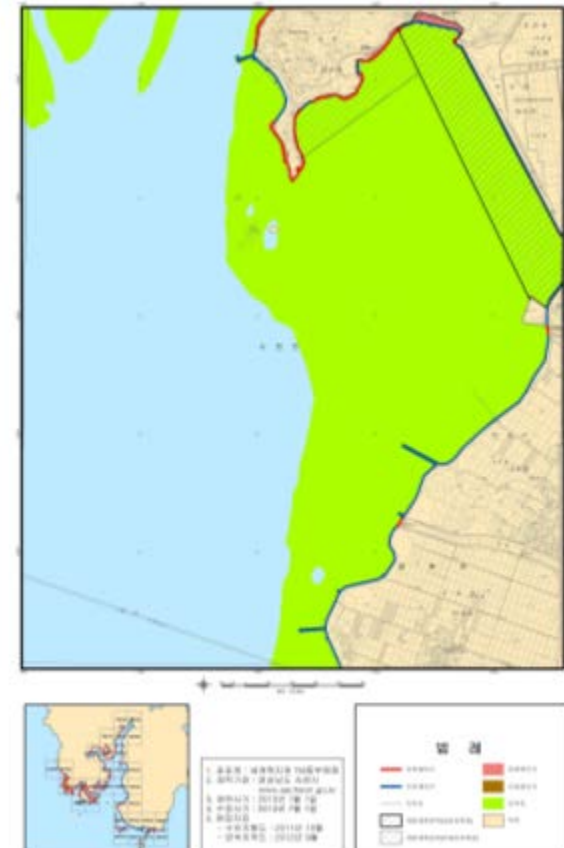


4. Local coastal management plan – Target-based natural coast management system

Goal

The management of natural coast based on its total length and area, which is expected to restore destroyed coast.

- ✓ If a coastal development project risks destroying natural coast, the project should meet the requirements of this system.
- ✓ If the project exceeds the natural coast management target, it should also restore another coast as a tradeoff.



5. Coastal enhancement project

Purposes of CEP

SEA Coastline (Safety, Ecosystems, Amenity)

- ▶ To preserve land and enhance coastal amenity by preventing coastal erosion and creating waterfronts. → sea level rise, artificial structures

Waterfront project

To raise coastal amenity though making recreational place on coast

Coastal erosion response project

To restore deteriorated coastal area due to natural disaster and etc.
To take prevention against the damage of coastal development

Completed the 1st stage
(2000~2009),
now undertaking the 2nd
stage (2009~2019).



〈촬영일시 : 2009년 04월〉

Before



〈촬영일시 : 2014년 04월〉

After

6. Designation & Management of Coastal erosion management areas

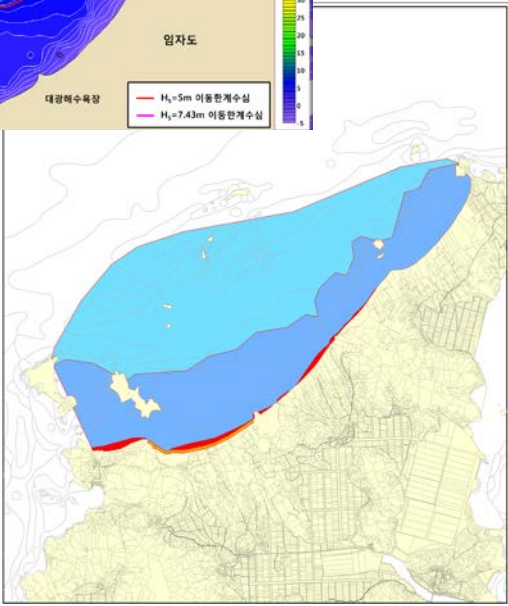
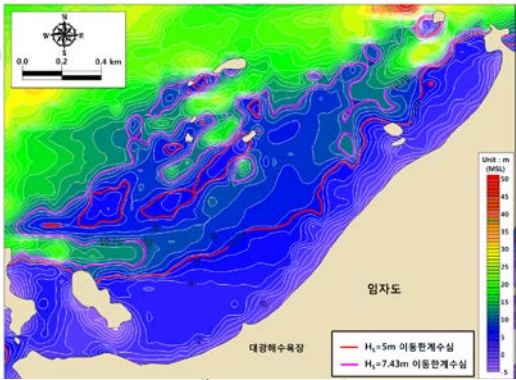
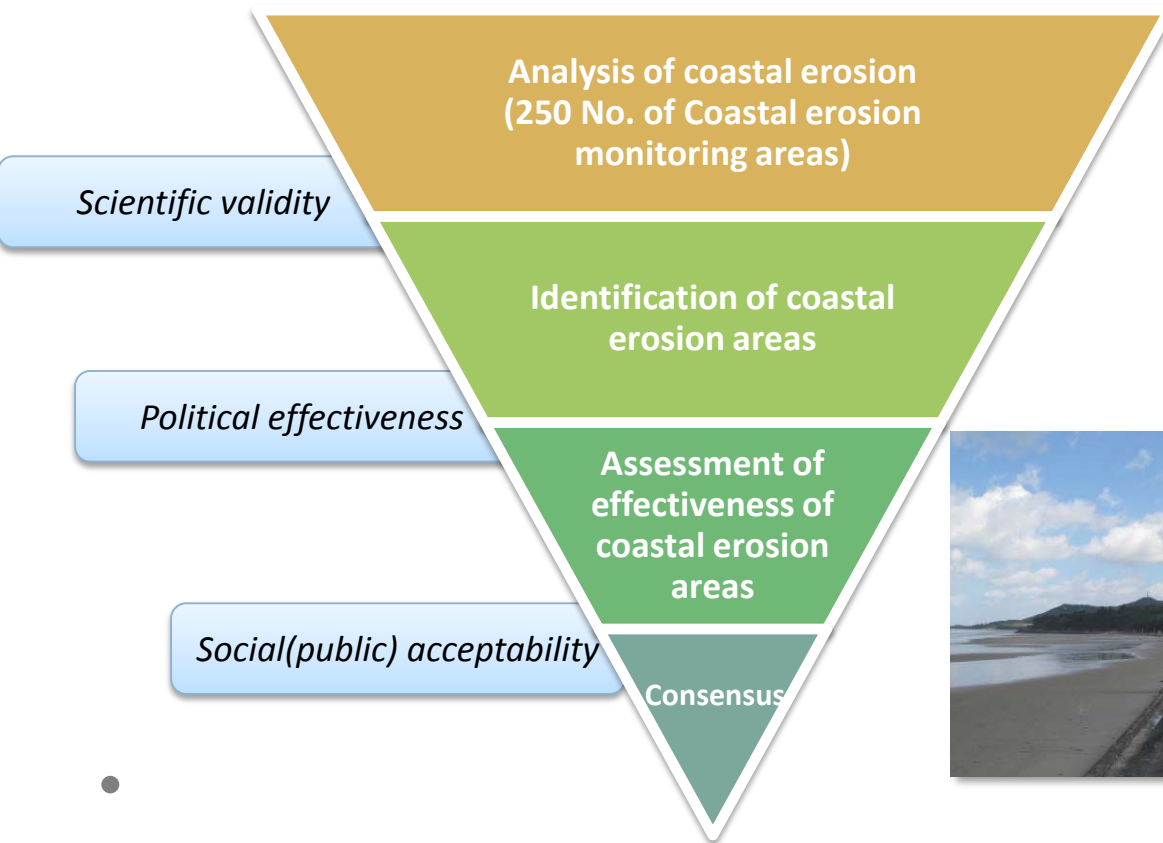
Basic Response of coastal erosion → Climate Change, coastal use and development activities etc.

Integration

Large ecosystems-based

Long terms

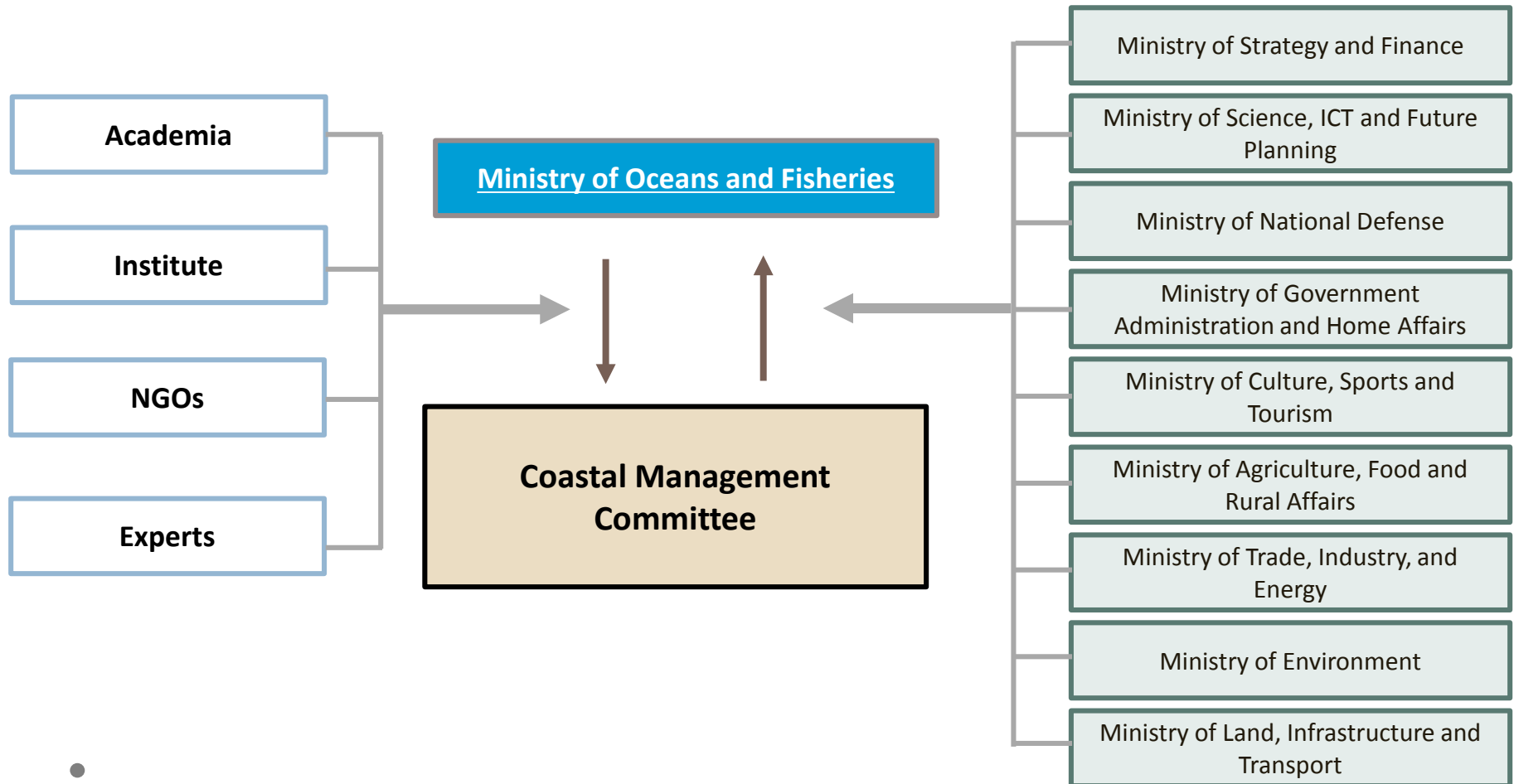
★ Coastal erosion management areas: serious damaged areas or concerned erosion areas
→ Core zone + Buffer zone




7. Coastal management committee

The decision making organization under MOF for coastal management(consensus-based approach)

- Approval of Local coastal management plan
- Approval of public water reclamation
- Approval of coastal environment enhancement projects





4. Toward innovation governance for our ocean & coast



OUR CHALLENGES

Coastal & Marine Ecosystem & Environment



- ▶ Improvement of coastal water quality
- ▶ Decrease of natural shoreline & habitat by reclamation, seawalls and coastal roads
- ▶ Semi-enclosed bays contaminated by heavy metals and POPs (Dead Zone)

The Pressure of Coastal Use and Development



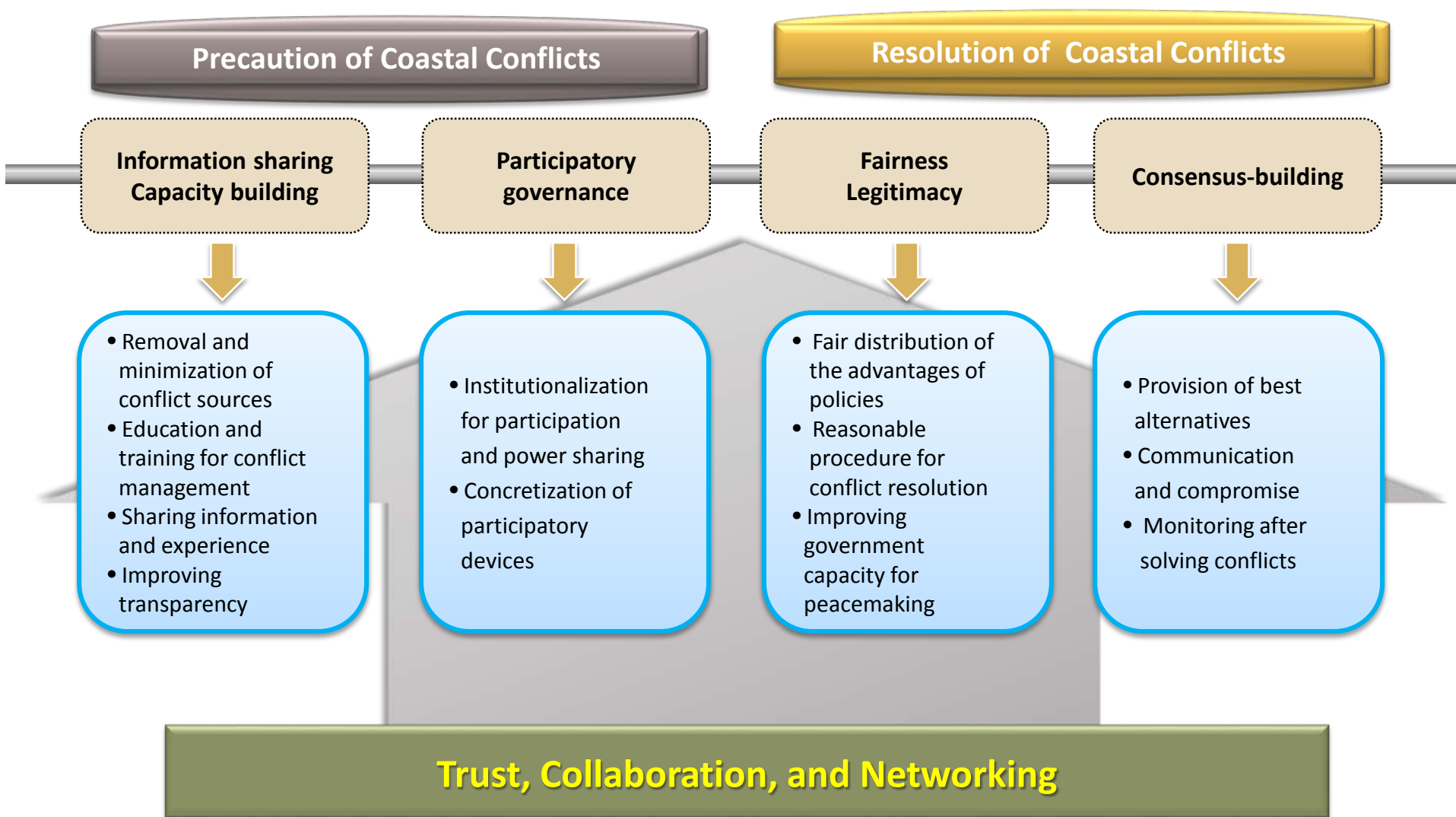
- ▶ Decrease of coastal population and increase of aged population
- ▶ Concentration of development activities in coastal area
- ▶ Increase of new demands for the coastal development (renewable energy)

The Government Capacity of Coastal Management



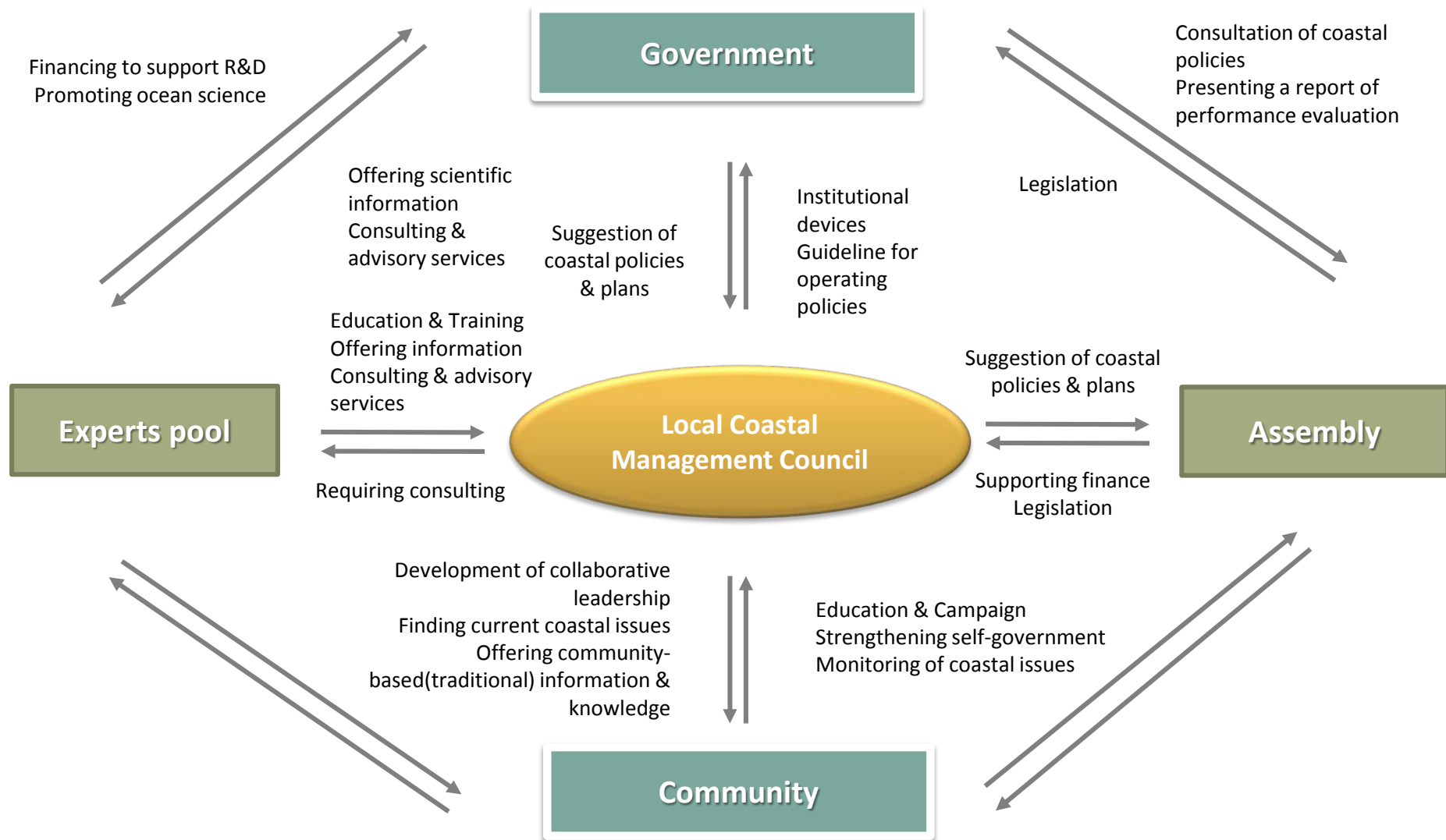
- ▶ Institutional arrangements for coastal management policy
- ▶ Need of strong capacity building in local area
- ▶ Deepening conflicts on the value of conservation and development

4. Our challenges : A process toward the true end goal?



OPERATION OF OCEAN & COAST-NETWORKING (A PROPOSAL)

Flow of energy, idea and feeling



Toward innovation governance for our ocean & coast

For better coastal ecosystems and communities
(living together)

Sustainable development by rational and harmonized coastal system
Realization of ecosystem-based management &
Cooperation and power sharing


Forming, developing and sustaining social common ground

to make it possible to communicate with the common people and to promote consensus building through deliberation

Recreating good social relationships and networks

through the procedure and system for horizontal communication based on mutual respect, participation and collaboration (social capital)

Sharing ecological and socio-economical value & political power



*No right answers.
Difference of between Knowledge and understanding.
Process for finding a way together.*

THANK YOU!

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