

Designation and Management of MPAs in KOREA

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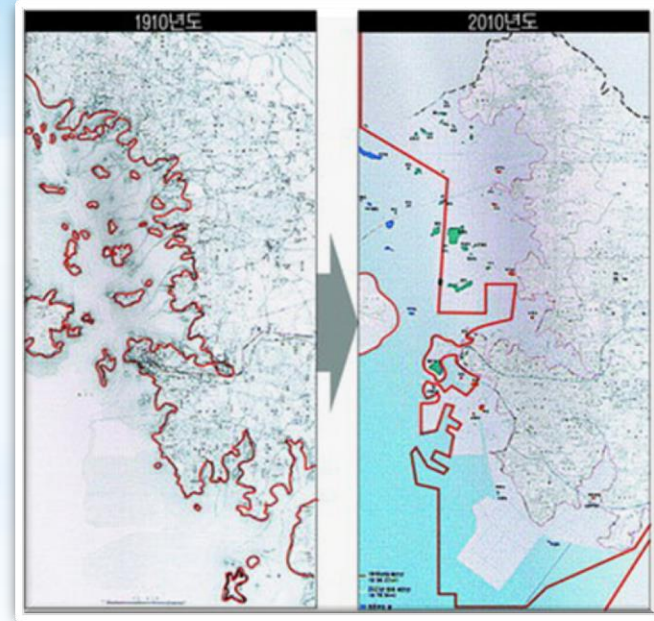
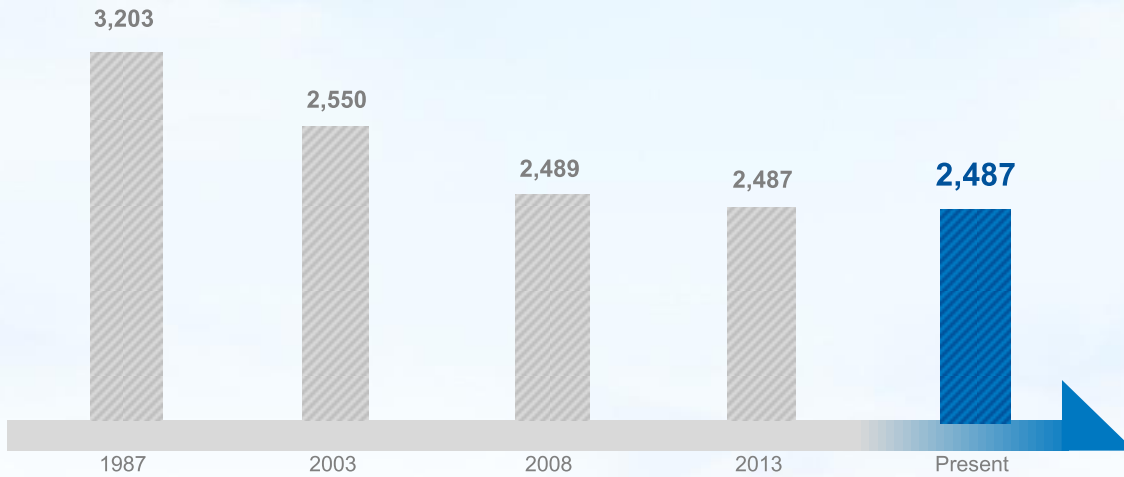
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I . Current Status and Value



■ Tidal Flat in Korea Surface



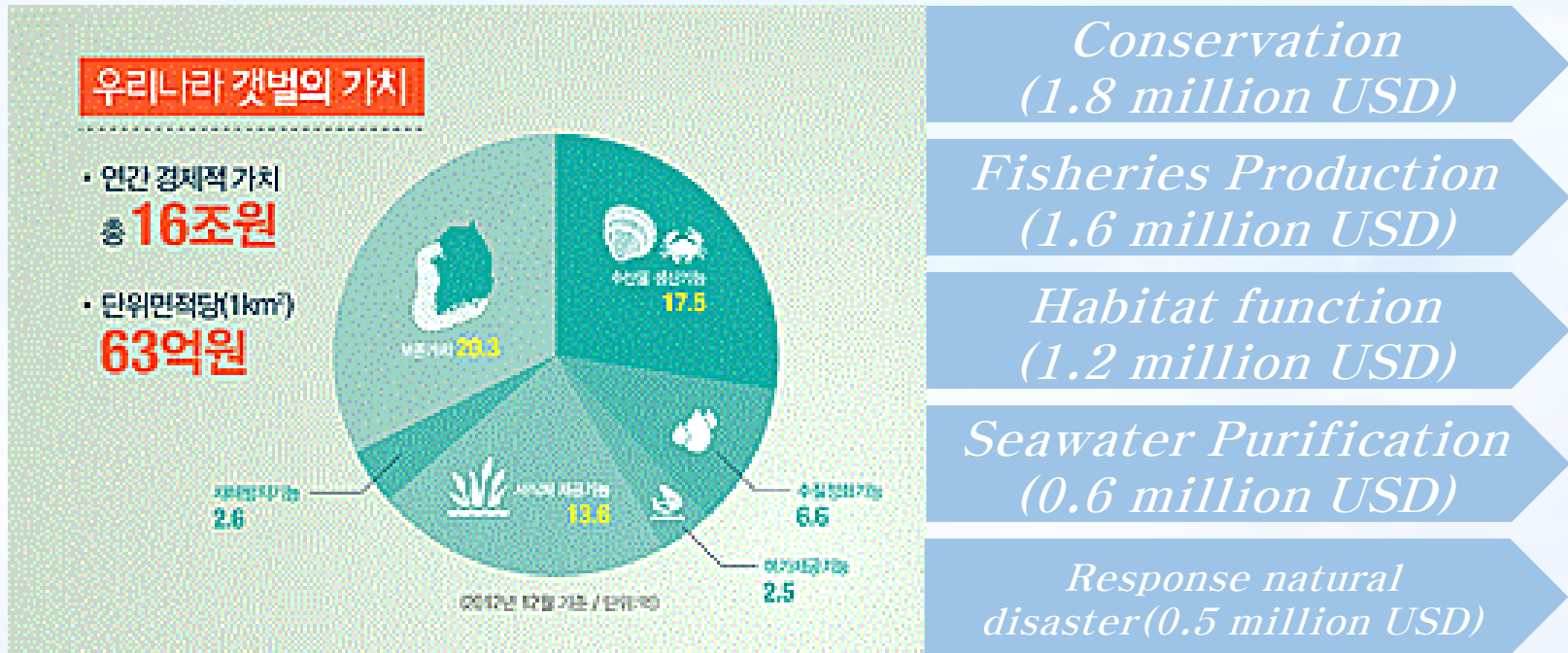
• 40% of use : fisheries(MOF, 2011)

- Village community fishery (762km², 2,289 units)
- Shell fish aquaculture (237km², 2,120 units)



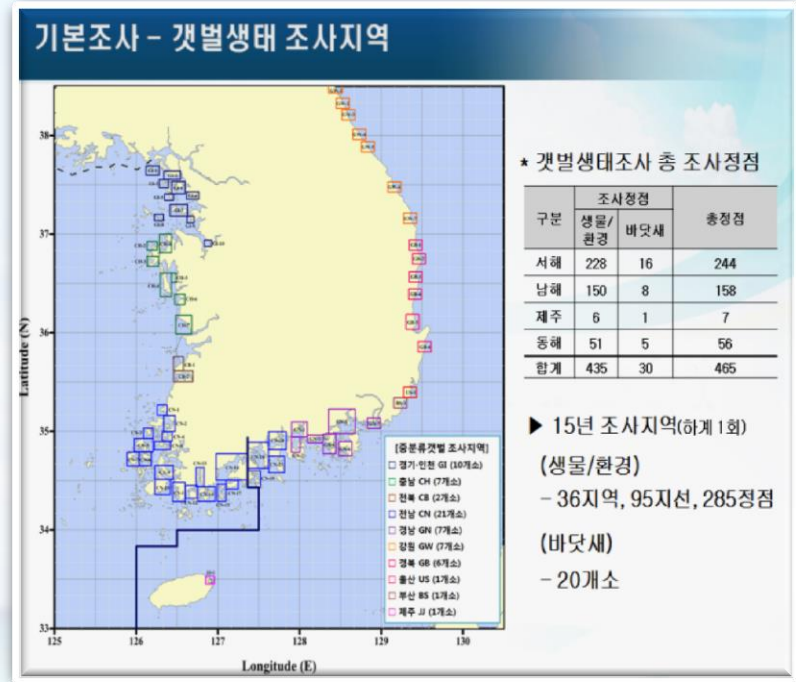
■ Tidal Flat in Korea Value

- about 5.6 million USD / km² (=6.3 million KW) (MOF, 2013)
- * Total economic valuation 14.4 Billion USD estimated



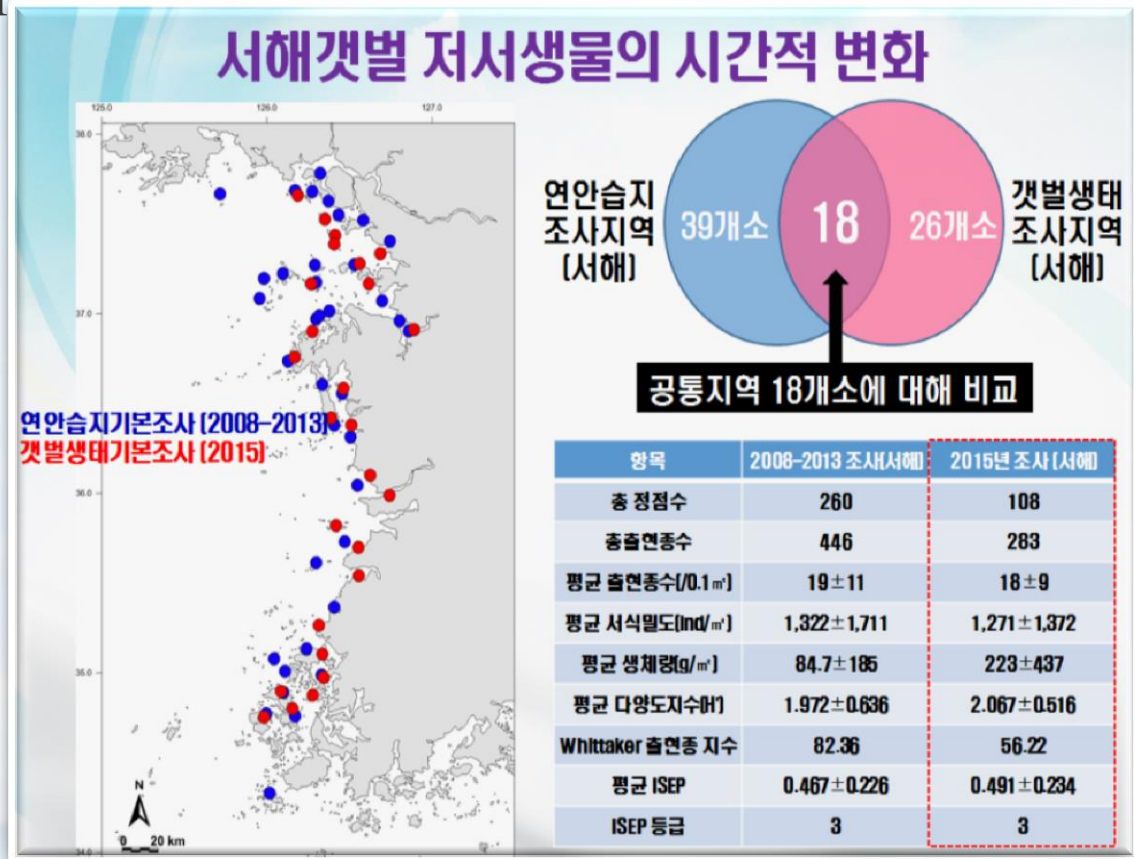
National survey Programs

- National Basic Survey of Coastal Wetland(1999~2014)
- National Integrated Survey of Marine Ecosystem(2015~)



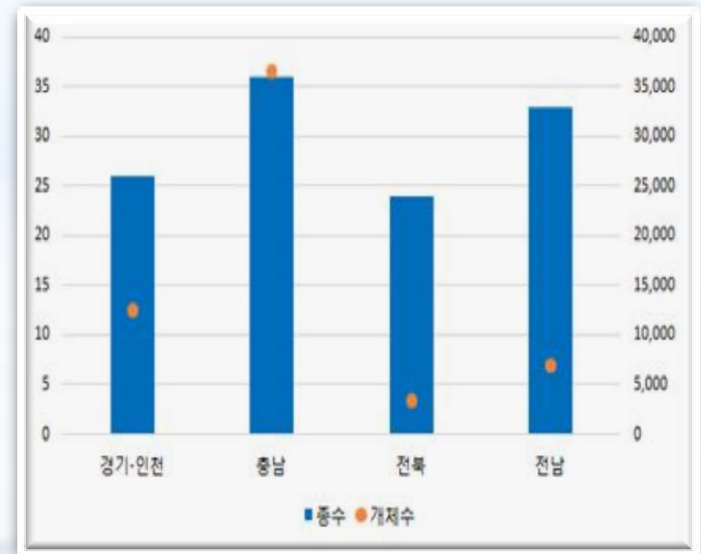
■ Main Results from National Survey : Benthos(MOF, 2015)

- appearance of 401 species of macrobenthos
- Comparing with precedent data 2008~2013)
 - : stable of biomass, density, health index
- Increasing of density and biomass Oyster, shell(Clam)

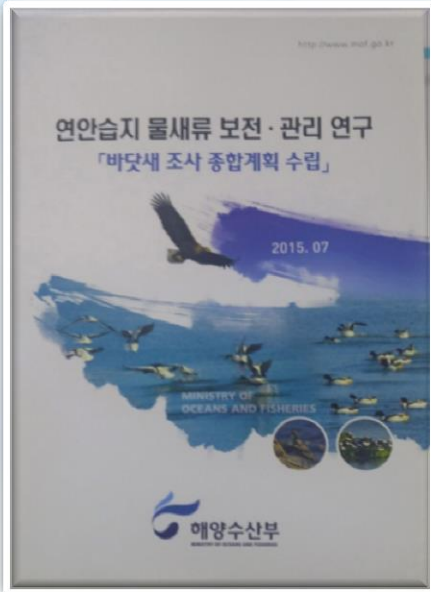


■ Main Results from National Survey : Sea Bird(MOF, 2015)

- Appearance: 49 species, 59,262ind. in 15 sites
- 8 of legal protected species



Outcomes from Sea Birds Conservation and Management Project(2014)



• National plan of Sea Bird Long-term Survey (MOF, 2015)



• National report on sea bird monitoring in East Sea(MOF, 2015)



• National report on monitoring of Sea bird (Snipe & Plover) (MOF, 2015)



• National Symposium on Habitat conservation of Sea Bird in Yellow Sea(Dec. 2015)

II. Designation of MPAs



■ Classification of MPA in Korea

MPAs

- Designated and Managed Zone by MOF or Local province to Certain water due to Marine ecosystem or Marine lifes deserve to conservate

Types of MPA

Conservation & Management of Marine Ecosystem Act

- Marine Ecological Protected Area
- Marine Life Protected Area
- Marine Scenery Protected Area



Wetland Protection Act

- Coastal Wetland Protected Area



■ Coastal and Marine Protected Areas (3 ministries & 6 laws)

Name	Area(km ²)	Ministry	Acts
<i>Marine Life Protected Area</i>	<i>254.322</i>	<i>MOF</i>	<i>Conservation & Management of Marine Ecosystem Act</i>
<i>Marine Ecological Protected Area</i>	<i>91.237</i>		
<i>Wetland Protected Area</i>	<i>235.81</i>	<i>MOF</i>	<i>Wetland Protection Act</i>
Marine Environment Conservation	949.12	MOF	Marine Environment Conservation Act
Fisheries Resource Protection	2,526.6	MOF	National Land Planning and Utilization Act
National/Province/Country Park	3,141.93	ME	Natural Park Law
Natural Heritage	1,087.83	CHPA	Cultural Heritage Protection Act
Total	8,286.849		

■ *Laws System of MPA*

Conservation & Management of Marine Ecosystem Act

■ Marine Protected Area

1. a sea area in which the natural condition maintains primitiveness or which has abundant marine bio-diversity making it worth conserving and academically studying it
2. a sea area required to be specially conserved as the sea floor scenery and the seascape are beautiful.

Wetland Protection Act

■ Coastal Wetland Protected Area

1. An area in which the natural condition maintains primitiveness or which has abundant biological diversity
2. A habitat of rare or endangered wild plants and animals
3. An area with an unusual scenic, topographic, or geologic value

Meaning of MPA



Systematic Conservation



Wise Use



Value Improvement

■ Status of MPAs Designation

27 MPAs / Total 581.369 km²



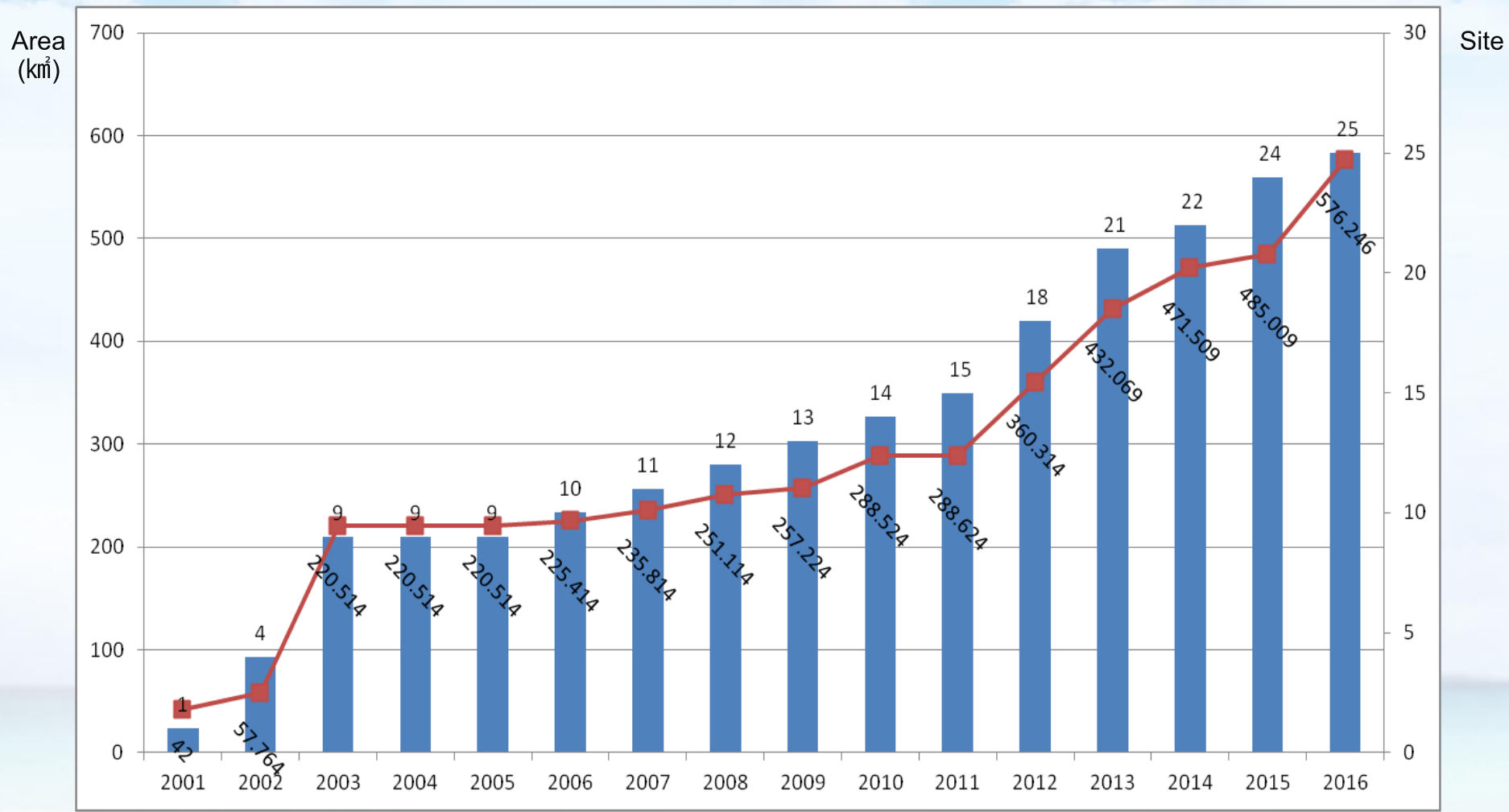
Conservation & Management of Marine Ecosystem Act

- **12** of Marine Ecological Protected Areas
(254.322 km²)
- **1** of Marine Life Protected Area
(91.237 km²)

Wetland Protection Act

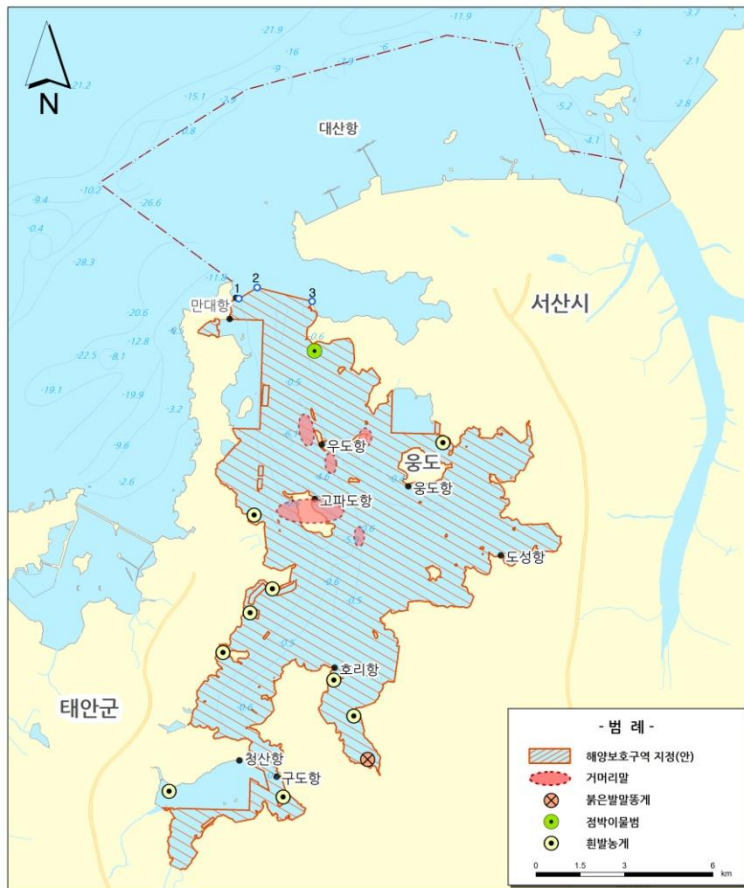
- **14** of Coastal Wetland Protected Areas
(235.81 km²)

MPAs Designation Trend



Recent Designation of Garolim Bay as **Marine Life Protected Area** (The first designation case in Korea)

* 91.237 km² of surface including tidal flat (28 July 2016)



Spotted seal



Eelgrass



White-Clawed fiddler crab



Red-clawed de haan's crab



III. Management of MPAs



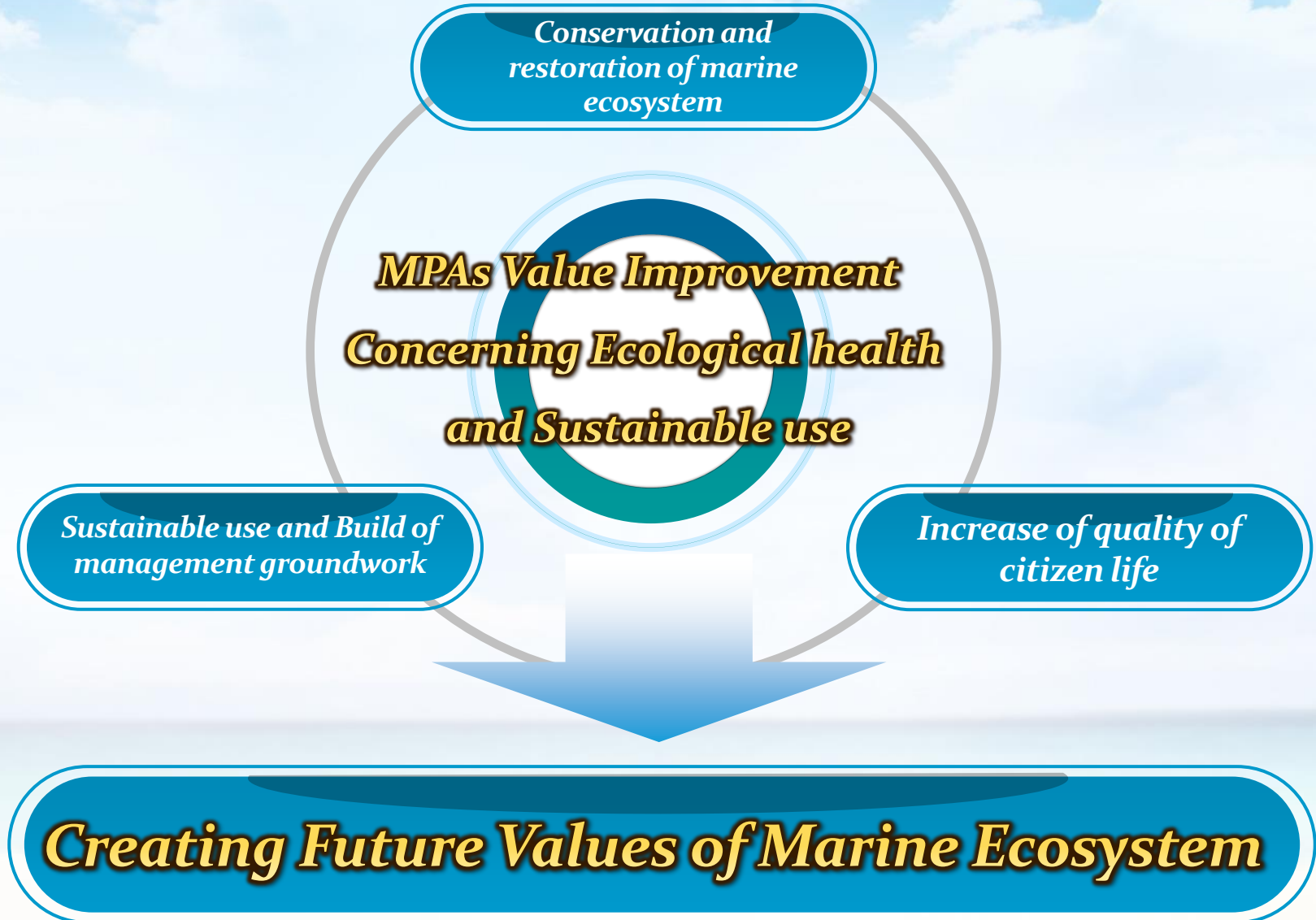
Basic Concept: Adaptive Management(WWF, 2008)



Management Acting



■ Systematic of MPAs Management



Prohibited Acts

- Landfill operation on public waters or changing land's shape and quality in protected area
- Constructing new buildings or other structures or expanding existing ones
- Collecting sand, silica, and earth and rocks
- Changing the structure of public waters or increasing or decreasing sea levels or sea water quantity
- Damaging breeding grounds and/or habitats for protected marine lifes

Allowed Acts

Acts needed to maintain or improve the unique way of life for nearby residents **or to continue existing farming or fishing operations**

- Educational, promotional, and research facilities included in basic management plan such as nature learning centers and ecological experience centers
- Acts for military purposes or emergency measures
- National projects for public benefits designed for national economic development

※ MPAs are set for public waters only and impose no restrictions on land owners

■ Management of Marine Protected Areas(MOF and MPA Center(KOEM))

Conservation and restoration of marine ecosystem

- *Designation of MPA Site*
- *Interated Managing of Citizen Monitoring*
- *National Integrated Survey of Marine Ecosystem*

Sustainable use and Build of management groundwork

- *Assessment and Consulting of MPA Management*
- *MPA Manager Capacity Building Programs*
- *Managing MPA Central Advisory Council*

Increase of quality of citizen life

- *Supporting MPA Visitor Centers Network*
- *World Wetland Day Ceremony, Korean Marine Protected Area Congress*
- *International Cooperation(RAMSAR, Wadden Sea, NOAA, NEASPEC)*

■ Management of Marine Protected Areas (Regional MOF and Local Government)

Conservation and restoration of marine ecosystem

- *Establishing Mater and Annual Management Plan*
- *Citizen Monitoring or Regional Monitoring of Marine Ecosystem*

Sustainable use and Build of management groundwork

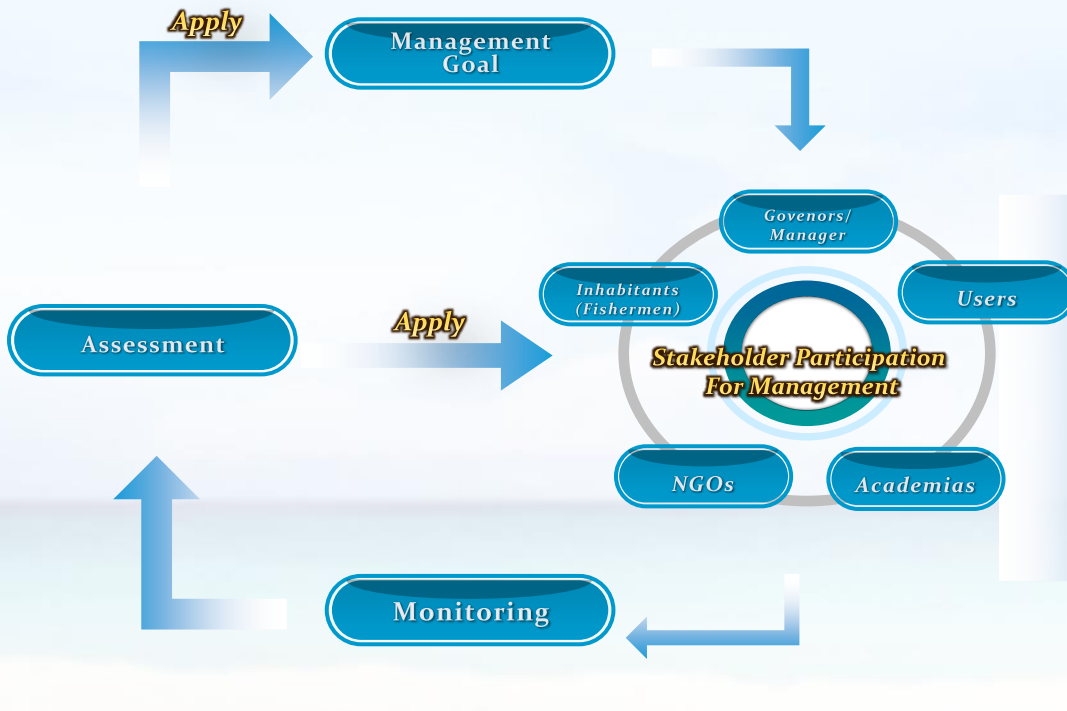
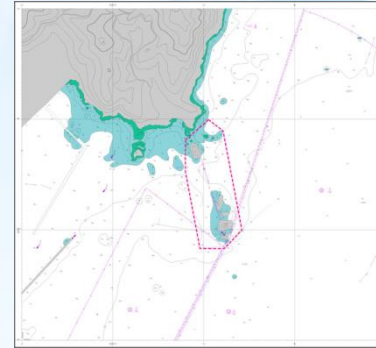
- *Training Tidal-flat Ecology Guide*
- *Managing MPA Regional Advisory Council*

Increase of quality of citizen life

- *Scattering Spats and Juvenile fishes*
- *Running MPA Visitor Centers for Public Awareness and MPA Management*
- *Facilities for Marine pollution reduction and Resident welfare*
- *Cleaning up Marine litters*

■ Oryuk-do Neighboring Water Marine Ecological Protected Area

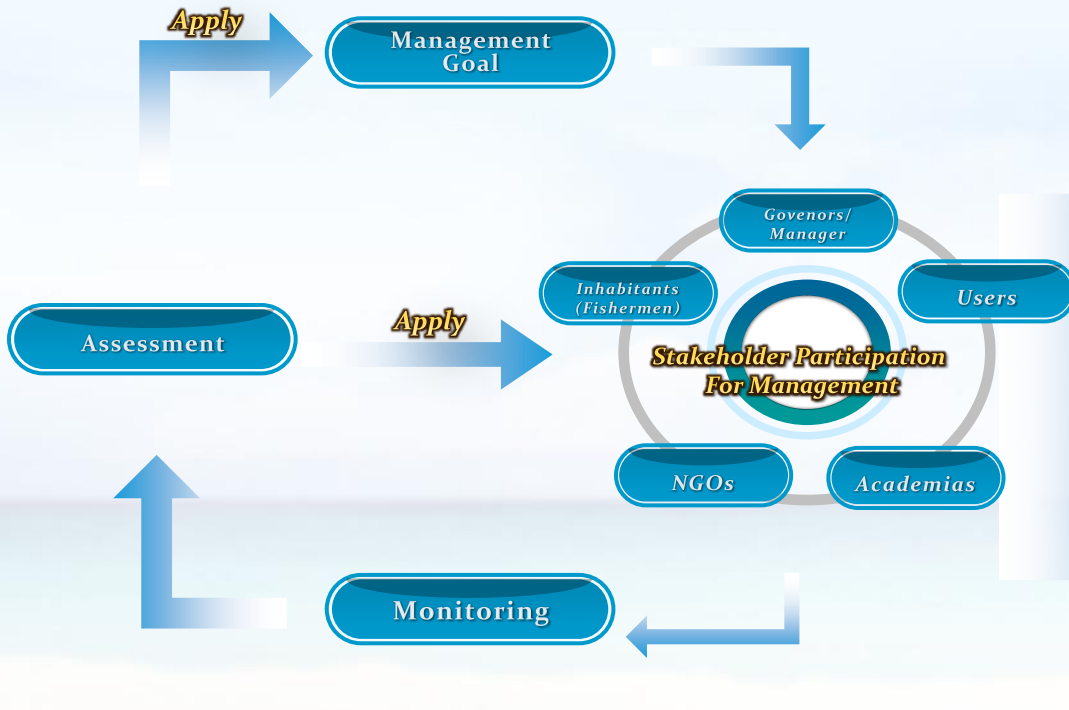
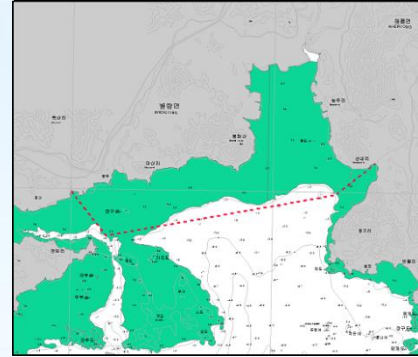
1. Designation Date: 2003. 12. 31.
2. Designation Extent: 0.35km²
3. Designation Purpose: To protect bed rocks marine biota and Marine Ecosystem



- Being a tourist attraction and Brand Making
⇒ *Social and Cultural Value Improvement*
- Increasing Visitor s and Inhabitant's income
(0.5million people/yr)
⇒ *Economical Value Improvement*
- Conservation Awareness and Wise Use
⇒ *Ecological Value Improvement*

■ Suncheon Bay Tidal flat Wetland Protected Area

1. Designation Date: 2003. 12. 31.
2. Designation Extent: 28km²
3. Designation Purpose: To protect Hooded Cranes and Nature Scenery of Common reeds colonies and tidal flat.



Eco-tourism Brand making
(Suncheon bay Ecological Park, Common reeds colonies, Hooded Cranes)
⇒ **Social and Cultural Value Improvement**

Increasing Visitors and Activation of Regional Economy
(2.5million people/yr, \$1 billion)
⇒ **Economical Value Improvement**

Tidal flat restorations and Conservation of Hooded Cranes
(Increasing Hooded Cranes Population)
⇒ **Ecological Value Improvement**

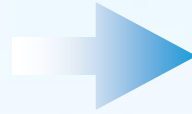
IV. Integrated Management of MPAs



Plan of MPAs integrated management

** 3 Strategies and 8 targets*

Conservation and restoration of marine ecosystem



- ① Build of scientific management system***
- ② Enlarge of designation MPAs***

Sustainable use and Build of management groundwork



- ③ Reinforce of regional capacity building***
- ④ Build of systematic management tools***
- ⑤ Build of governance***

Increase of quality of citizen life



- ⑥ Increase of MPAs outreach***
- ⑦ Reinforce of international and national cooperation***
- ⑧ Activation of regional economy***

(1) Conservation and restoration of marine ecosystem

- *Build of scientific management system*
 - *monitoring, valuation, build of habitats*

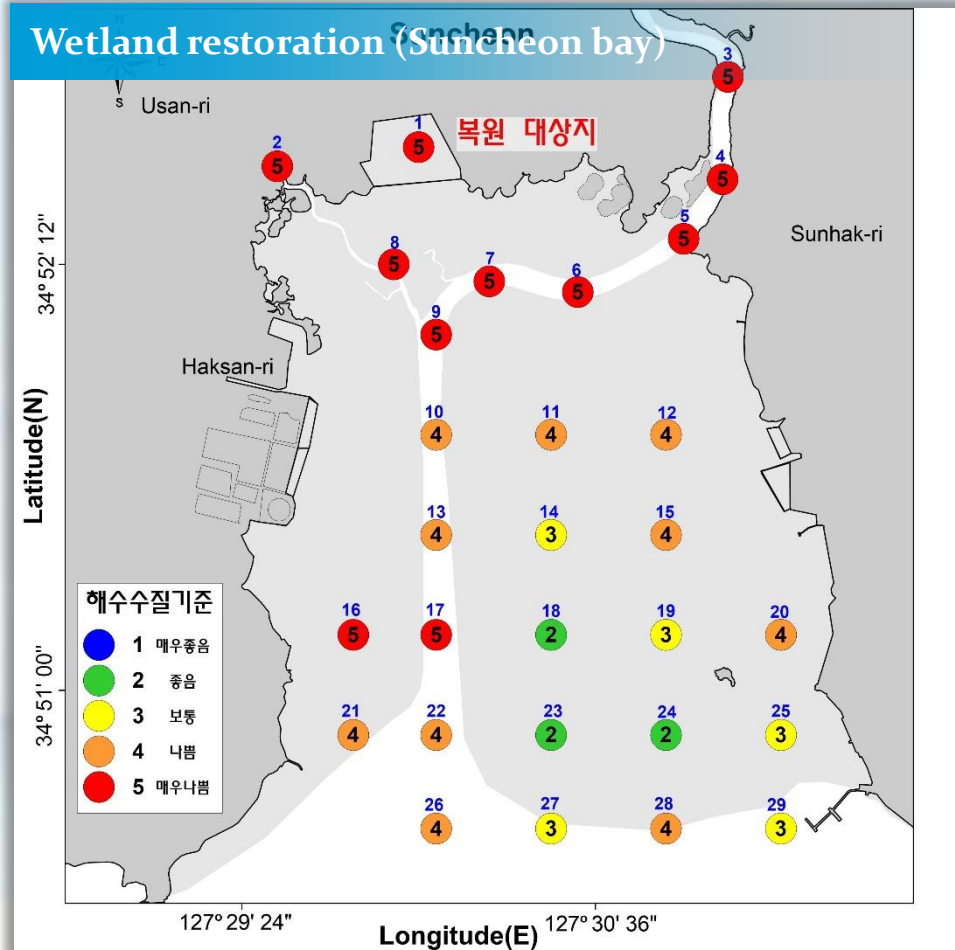
Citizen Monitoring



Bird Watching



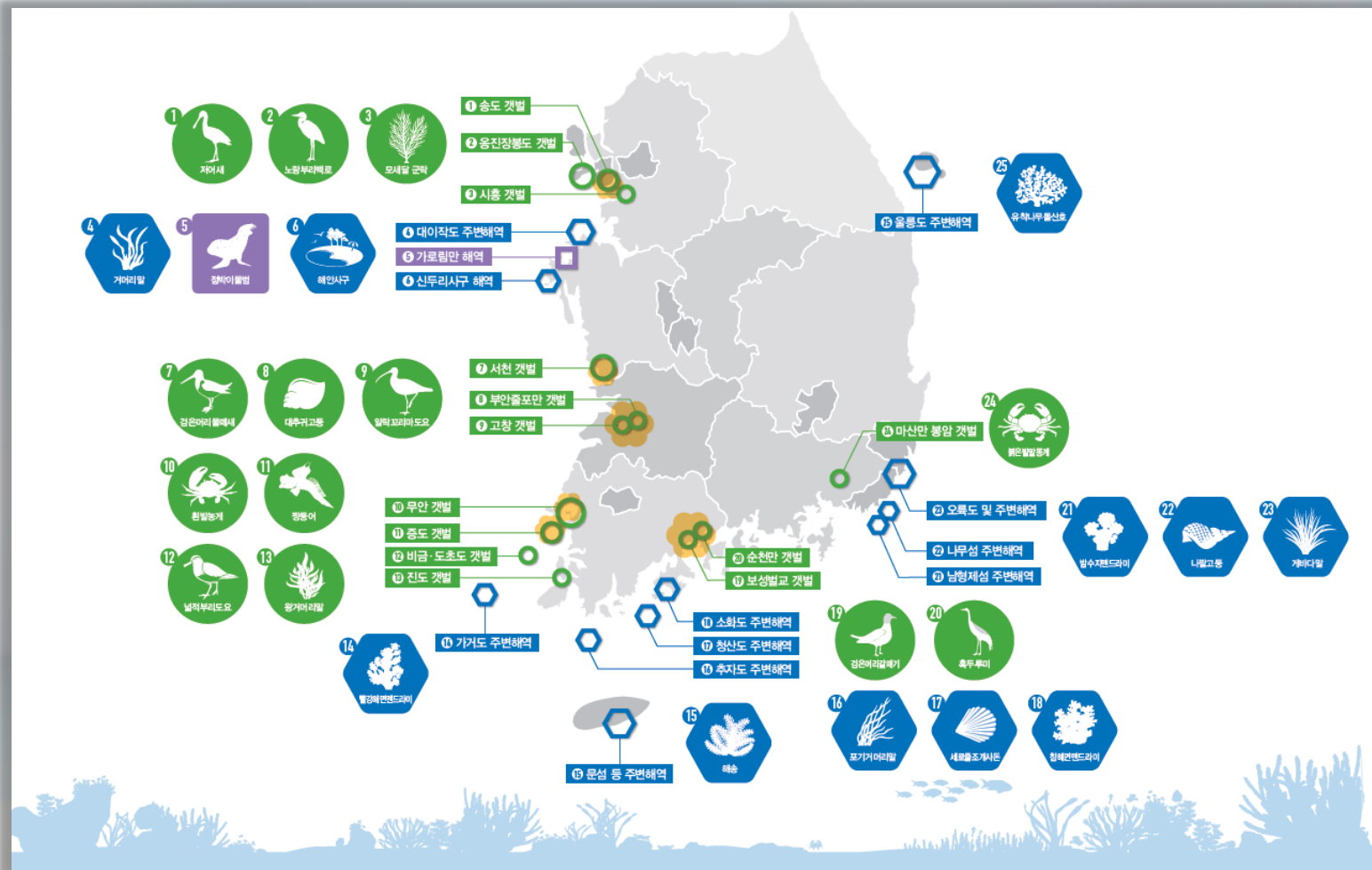
Wetland restoration (Suncheon bay)



(1) Conservation and restoration of marine ecosystem

· Enlarge of designation MPAs

- Selection of MPAs target species, outreach



(2) Sustainable use and Build of management groundwork

- **Reinforce of regional capacity building**
 - Vitalization of education and MPA networks
- **Build of systematic management tools**
 - Regional based management planning and assessment
 - Legal basic condition and volunteer zoning system
- **Build of governance**
 - composition and operation of governance led by citizen



(3) Increase of quality of citizen life

- **Increase of MPAs outreach**
 - advertise of MPAs value and management important
- **Reinforce of international and national cooperation**
 - Organize MPAs national forum
 - International cooperation





THANK YOU

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