EAS CONGRESS2024
XIAMEN, CHINA
6-8 NOVEMBER

WOW 19th
2024厦门国际海洋周
World Ocean Week in Xiamen

Blue Synergy for a Shared Future:
One Sustainable and Resilient Ocean

6-8 NOVEMBER 2024 • XIAMEN CITY, CHINA

SUBTHEME 1.5
OCEAN SCIENCE, POLICY, AND PRACTICE

Area-based Marine Ecosystem Management to cope with Kunming-Montreal Global Biodiversity Framework

PROCEEDINGS

CONVENER:

KOEM
Korea Marine Environment Management Corporation

中华人民共和国自然资源部
Ministry of Natural Resources of the People's Republic of China

厦门市人民政府
Xiamen Municipal People's Government

PEMSEA

Area-based Marine Ecosystem Management for the implementation of Kunming-Montreal Global Biodiversity Framework

7 November 2024, 1000H – 1200H
1C, International Conference Hotel, Xiamen, China

1.0 Introduction

- The session "Area-based Marine Ecosystem Management for the implementation of Kunming-Montreal Global Biodiversity Framework", held on November 7, 2024, in Xiamen, China, highlighted innovative strategies to advance marine biodiversity conservation across the East Asian Seas. By addressing the Kunming-Montreal targets, including the ambitious 30x30 objective, the session aligned seamlessly with the EAS Congress theme, "Connecting People and Ocean for Resilient and Sustainable Seas."
- The event brought together policymakers, researchers, and key stakeholders to foster collaboration, exchange expertise, and explore actionable pathways toward resilient and thriving marine ecosystems. With its focus on regional implementation linked to global biodiversity and ocean sustainability goals, the session contributed meaningfully to SDG 14, reaffirming a shared commitment to safeguarding marine resources for future generations.

2.0 Opening Ceremony

2.1 Speaker: Yongseok Kang, President of KOEM(Korea Marine Environment Management Corporation)

2.2 Key Highlights

- Leading efforts in KOEM's marine spatial planning and marine protected area policies and committed to establishing effective region-based marine management.
- Addressing the urgent challenge of biodiversity conservation and seeking practical solutions through shared expertise and collaboration.
- Appreciation for expert contributions on KMGBF implementation and emphasis on active participation to enhance biodiversity protection in East Asia and Asia at large.

3.0 Session Highlights

3.1 ATSEA-2 Contribution to the CBD KMGBF Targets

- Speaker: Handoko Adi Susanto / GEF/UNDP/PEMSEA ATSEA-2 Project
- Focus: This session provided an overview of regional efforts to align national policies with KMGBF objectives.

- Introduction to the ATSEA-II Project: The ATSEA-II project aimed to protect biodiversity and improve the quality of life for local communities through the conservation and sustainable management of marine-coastal ecosystems, with a focus on sustainable development. The importance of community participation, capacity building, and the connection between policy and science were emphasized.

3.2 MPA management direction for GBF 2030 in Korea

- Speaker: Woorack Suh, KOEM
- Focus: This session highlighted South Korea’s experiences in marine protected area (MPA) policy development and implementation.

- Overview of South Korea's MPA Designation and Management: An introduction was given to the current status of MPA designation and management in South Korea, including recent issues such as the second stage of the World Heritage listing in 2026, the National Marine Ecological Park, and medium-to-long-term goals leading up to 2030.

3.3 Achieving the GBF MAP 30% Target South Korea’s Marine Spatial Planning Strategy

- Speaker: Choong-Ki Kim, Korea Environment Institute
- Focus: The session explored the role of MSP as a practical tool for aligning biodiversity goals with socio-economic activities.

- Discussion on South Korea's MPA and MSP Status: A discussion was held on the current status of Marine Protected Areas (MPA) and Marine Spatial Planning (MSP) in South Korea, addressing challenges and solutions in designating MPA and MSP for the 30X30 initiative for both land and marine areas.

3.4 Achieving 30x30 target of Yellow Sea Ecoregion Based on the conservation of spotted seal

- Speaker: Linlin Zhao, First Institute of Oceanography, Ministry of Natural Resources

- Focus: This session presented a case study on the conservation of spotted seal habitats in the Yellow Sea.
- Impact of Climate Change on Protected Species: Due to climate change, the habitats of protected species were shrinking or disappearing. This session introduced the effectiveness of establishing MPA based on the results of monitoring the spatiotemporal distribution of seals living in the Yellow Sea.

3.5 The high seas Treaty: The Path to Achieving 30X30 targets

- Speaker: Rizza Sacra Dejucos, High Seas Alliance
- Focus: Introduction to the High Seas Alliance's ABNJ activities related to the designation of MPAs on the high seas.
- This Session introduced the key activities and collaboration of High Seas Alliance which is A multi-stakeholder platform to exchange expertise, training, and best practices for designing effective high seas MPAs. And also introduced major ongoing activities of High Seas Alliance: four MPA proposals (Expected to increase global ocean protection by 3% through agreements in CCAMLR), South Tasman sea (Scientific symposium to discuss protection efforts between Australia and New Zealand).

4.0 Panel Discussion

During the discussion, a question was raised about whether South Korea had provided incentives for the designation of Marine Protected Areas (MPAs). The response clarified that no specific incentives had been offered to local communities during the MPA designation process. As a result, only about 1.8% of South Korea's marine area had been designated as protected area. Instead, South Korea’s MPAs were not established as strictly no-take zones; some level of sustainable use activities was permitted within these areas.

Another question addressed the difference between Other Effective Area-based Conservation Measures (OECMs) and MPAs. It was explained that the definition of OECMs had not yet been fully established, but areas protected for military purposes or cultural heritage were considered OECMs, distinguishing them from MPAs.

ANNEX 1. Agenda

1.1 **Session Agenda**

Time	Agenda	Presenter
Opening session		
2’	Opening the Workshop	Sukhui Lee, KOEM
3’	Opening remarks	Yongseok Kang, President of KOEM
Session 1: Sharing GBF implementation efforts with the East Asian region		
15’	ATSEA-2 Contribution to the CBD KMGBF Targets	Handoko Adi Susanto, GEF/UNDP/PEMSEA ATSEA-2 Project
15’	MPA management direction for GBF 2030 in Korea	Woorack Suh, KOEM
15’	Achieving the GBF MAP 30% Target South Korea’s Marine Spatial Planning Strategy	Choong-Ki Kim, Korea Environment Institute
15’	Achieving 30x30 target of Yellow Sea Ecoregion Based on the conservation of spotted seal	Linlin Zhao, First Institute of Oceanography, Ministry of Natural Resources(China)
15’	The high seas Treaty: The Path to Achieving 30X30 targets	Rizza Sacra Dejucos, High Seas Alliance
Session 2: To explore ways to develop regional-based ecosystem management policies		
30’	-Q&A related to establishing regional management policies	Chairperson: Kwon Suk-Jae, vice-chair of PEMSEA Technical Session
10’	Closing the Workshop	Sukhui Lee, KOEM

1.2. **Participant Information**

The event was attended by around 20 participants, including MPA and marine biodiversity experts from South Korea, China, Indonesia, the Philippines, and other countries.

1. 3. Presentation Materials

(1) Handoko Adi Susanto

ATSEA-2 Contributions to the CBD KMGBF Targets

Dr. Handoko Adi Susanto
Regional Project Manager
GEF/UNDP/PEMSEA ATSEA-2 Project

OUTLINE

01 ATSEA-2 Project Overview

02 ATSEA-2 Achievements in Coastal and Marine Biodiversity Conservation

03 Follow up actions

04 Lessons Learnt

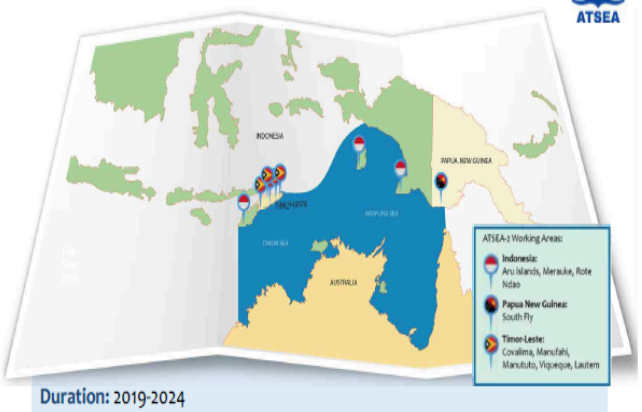
OVERVIEW AND GEOGRAPHICAL COVERAGE

ATSEA

- Second phase of the GEF-financed, UNDP-supported ATSEA program, building upon the foundational results of first phase of the ATSEA program
  - ✓ Transboundary Diagnostic Analysis (TDA) (2012)
  - ✓ Strategic Action Programme (SAP) and NAPs adopted through a Ministerial Declaration in 2014

- **PROJECT OBJECTIVE**

  To enhance sustainable development of the ATS region to protect biodiversity and improve the quality of life of its inhabitants through conservation and sustainable management of marine-coastal ecosystems. (Adopted from the SAP)



Duration: 2019-2024
Country Implementing Partners: MMAF (ID), MALFF (TL), NFA (PNG); & DCCEEW (NFP for AUS)
Implementing Agencies:
UNDP COs in ID and TL, and PEMSEA
Total GEF Grant: $9,745,662
Total Co-Financing Commitmen$33,818,412

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ATSEA-2 FOCUS

Support the implementation of the ATS Strategic Action Program (SAP) and National Action Programs (NAPs), including:

- **Strengthening regional governance structures,** enabling policies and capacities of institutions and individuals in the participating countries
- **Supporting actions** to address the 5 priority transboundary environmental problems identified by the TDA

- Unsustainable fisheries and decline and loss of living coastal and marine resources
- Modification, degradation and loss of coastal and marine habitats
- Marine and land-based pollution
- Decline and loss of threatened and migratory species
- Impacts of climate change on the ATS

1 HIGH LEVEL OBJECTIVE
3 COMPONENTS
9 OUTCOMES

COMPONENT 1	COMPONENT 2	COMPONENT 3
GOVERNANCE FOR LME MANAGEMENT	**IMPROVING LME CARRYING CAPACITY**	**KNOWLEDGE MANAGEMENT**
1.1 Regional & national mechanisms	2.1 Improved management of fisheries & coastal resources for livelihoods, nutrition, ecosystem health	3.1 Improved monitoring of status of ATS and dissemination of information
1.2 Strengthened institutional & human resource capacity	2.2 Reduced marine pollution	
1.3 Better understanding of climate change impacts	2.3 Conserved Coastal & Marine Biodiversity	
1.4 Updated TDA, SAP and NAPs	2.4 ICM incorporating CCA implemented at local level	

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INITIATIVES & ACHIEVEMENTS IN COASTAL AND MARINE BIODIVERSITY CONSERVATION

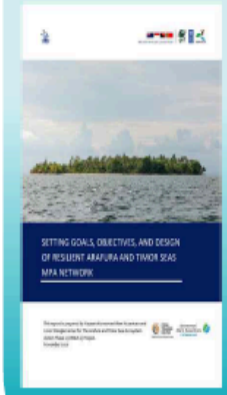
ATSEA

ATS PROFILE OF ECOSYSTEM ASSETS & VALUATION OF ECOSYSTEM SERVICES

USD7.3 billion/yr

Estimated total economic value of ATS region

REGIONAL MPA NETWORK DESIGN DEVELOPED AND ENDORSED



Identified 93 existing and proposed MPAs allocated in National Marine Spatial Plans (271,588 km²), and 20 Areas of Interest for establishing new MPAs (29,385 km²)

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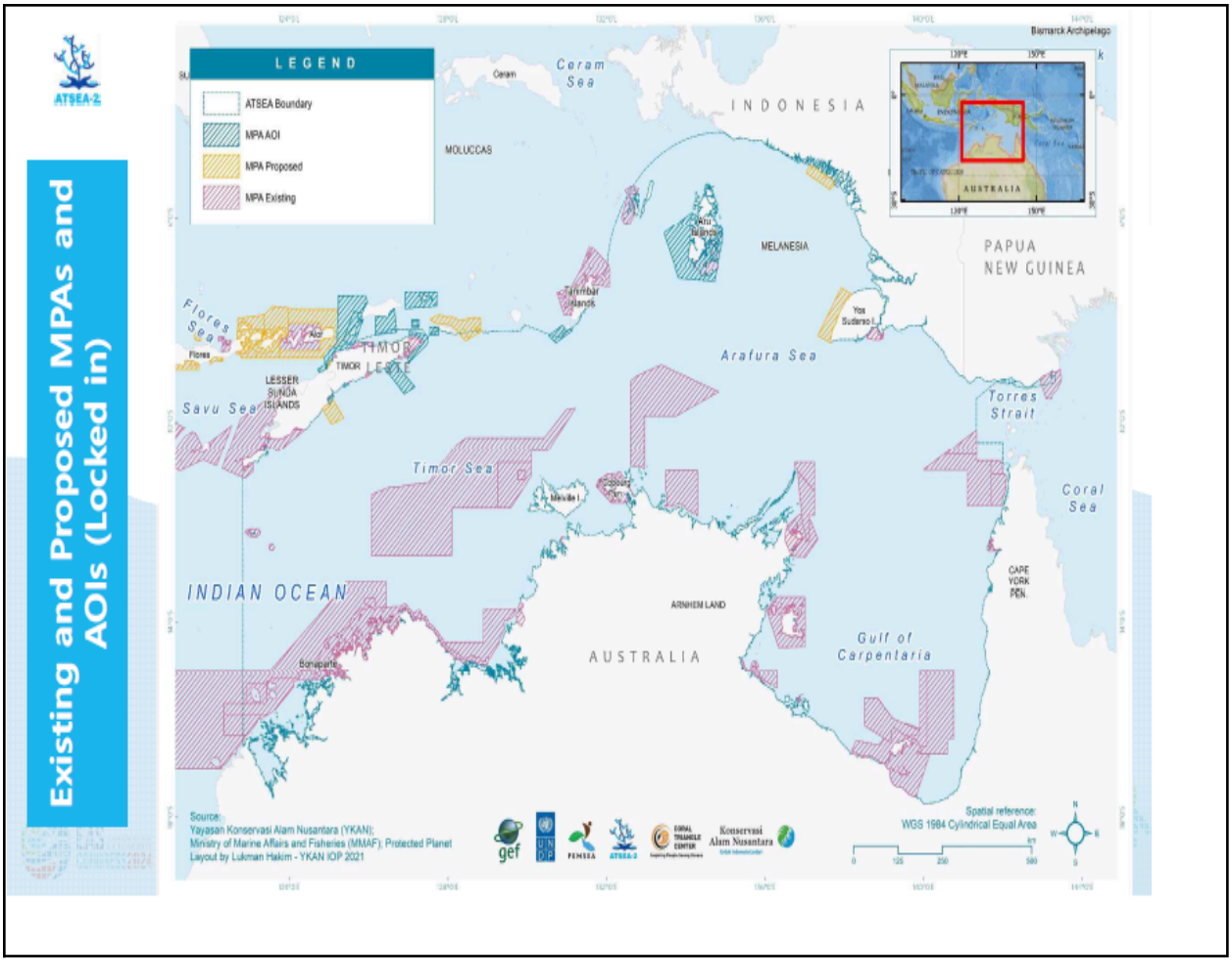
Existing and Proposed MPAs and AOIs (Locked in)



INITIATIVES & ACHIEVEMENTS IN COASTAL AND MARINE BIODIVERSITY CONSERVATION

ATSEA

MARINE PROTECTED AREAS (MPAs) COVERAGE INCREASED

815,564.9ha

Total hectare of MPA Coverage

Support to existing MPAs

- Southeast Aru: 114,000 ha
- Nino Konis Santana National Park (NKSNP): 123,600 ha

New MPA established in

- Kolepom, South Papua: 526,986 ha (+ cooperation with Dolok 170,627 ha)

New MPA being established in

- Manufahi-Manatuto: 51,000 ha

MPA MANAGEMENT EFFECTIVENESS IMPROVED

39 to 72 METT score

(SE Aru MPA, INDONESIA)

24 to 46 METT score

(NKSNP, TIMOR-LESTE)

(Review and updating of MPA Management Plans and Financial Plans; Capacity & awareness building of management bodies and surrounding communities; enhanced monitoring, etc.)

INITIATIVES & ACHIEVEMENTS IN COASTAL AND MARINE BIODIVERSITY CONSERVATION

ATSEA

MARINE TURTLE PROTECTION ENHANCED

- Regional Status Report on Sea Turtles
- RPOA for Sea Turtle Protection endorsed
- Regional learning exchange

COMMUNITY-BASED ALTERNATIVE LIVELIHOODS & MONITORING LINKED TO BIODIVERSITY PROTECTION

Aru Archipelago alternative livelihoods to reduce direct illegal harvesting and bycatch of sea turtles and overuse of marine resources

Additional income ranging from IDR 2,816,000 – 13,060,000 net/month per group in the Economic Development of Communities who use conservation areas

COM Turtle Conservation Center;
Salara Beach Turtle Conservation Sub-Center

COM: 1,200 turtles conserved; 400 turtle hatchlings (2023 data)
SALARA: 570 olive ridley & 454 hawksbill successful hatchling and release (Feb-June 2024)
(Includes establishment of turtle conservation ponds, protection fence, nest relocation site, recreational picnic areas, handicraft training, mini café, and trainings)

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INITIATIVES & ACHIEVEMENTS IN COASTAL AND MARINE BIODIVERSITY CONSERVATION

ATSEA

CORAL AND MANGROVE RESTORATION (LINKED TO ICM)

Landu Tii and Daiama in Rote Ndao District (2023 data)

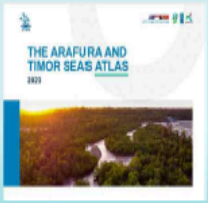
MANGROVES

- IN LANDU TII
  - 500 SAPLINGS PLANTED
  - 93.6% GROWTH PERCENTAGE
- IN DAIAMA
  - 500 SAPLINGS PLANTED
  - 14.8% GROWTH PERCENTAGE

SPIDERWEBS & FISHDOMES

- 50 SPIDERWEBS INSTALLED
- 52% GROWTH PERCENTAGE OF CORAL FRAGMENTS
- 8 FISHDOMES INSTALLED
- 6.25% GROWTH PERCENTAGE OF CORAL FRAGMENTS

OTHER RELATED KNOWLEDGE PRODUCTS



ATS ATLAS (formally launched at 4th ICMMBT Conference in 2023)

ATSEA-2 Special Issue in Coastal Management Journal (includes articles on Coastal and Marine Ecosystems of ATS and MPA Network Design)

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FOLLOW UP ACTIONS

Initiate implementation of SAP 2024-2033

(Component 4: Important regional populations of priority ETP species and their critical habitats are stabilised - *in target sites*)

Initiate implementation of SAP 2024-2033

(Component 1: Reduction of the levels of marine and coastal plastic pollution including ALDFG in the ATS – ALDFG AUS Project)

As part of ATSEA-2 Exit Strategy

(Continue community-based initiatives with support/commitment from local governments in Indonesia and Timor-Leste)

Conduct final METT score assessment under the ATSEA-2 Project for existing MPAs

(SE Aru and NKSNP)

LESSONS LEARNT

Local ownership/community engagement and capacity building is crucial

Successful implementation of MPA/biodiversity/habitat conservation initiatives need support and engagement of local stakeholders to foster trust and ownership

Consideration of traditional knowledge that aligns with conservation approaches

Recognition of traditional/indigenous knowledge (i.e., *Tara bandu*) promotes cultural sensitivity and respect

Linking policy and science in biodiversity conservation enhances sustainability

Adoption of supporting policies/regulation combined with application of integrated approaches increases chances of mainstreaming and continuity of efforts (i.e., regulations on establishment of MPAs in ATSEA-2 sites)

Introduction of alternative sustainable livelihoods increases community resilience to climate change impacts and reduces overexploitation of coastal and marine resources

Regular monitoring and evaluation increases effectiveness and supports adaptive management

(2) Shu, Woorack

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MPA management direction for GBF2030 in Korea

- Motivated from Getbol (Korean Tidal Flats)

SUH, Woorack
Director
Korea Marine Environment Management Corporation

Content

Global Ocean Alliance: 30by30 initiative

GLOBAL OCEAN ALLIANCE

The Global Ocean Alliance is a 54 country strong alliance, led by the UK.

Its aim is to protect at least 30% of the global ocean in Marine Protected Areas (MPAs) and Other Effective area-based Conservation Measures (OECMs) by 2030. This is known as the "30by30 target".

MPAs and OECMs will provide a higher level of protection than currently exists and allow both the marine environment and sustainable marine economies to thrive.

I. Designation and management of MPA

II. Recent issues and changes in the community

III. Sustainable and successful policy directions

I. Designation and management of MPA

4 MPA categories of designation in Korea

① Areas subject to marine ecosystem protection

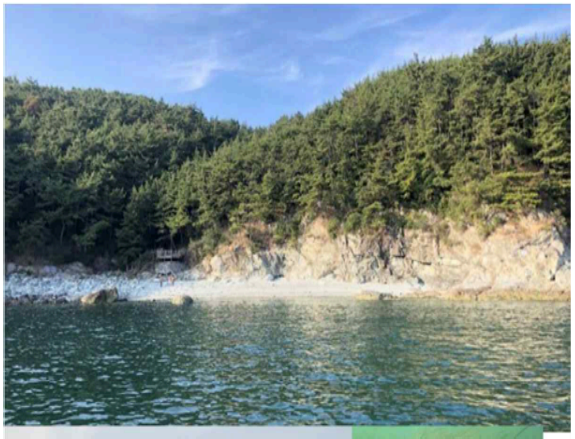
② Areas subject to marine organism

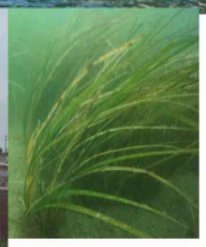
③ Areas subject to marine landscape protection

based upon the Act of conservation and management of marine ecosystems

④ Areas subject to coastal wetland protection

based upon the Act of Wetlands conservation





MPA status (2001 ~ 2024)

- 37 MPAs

marine ecosystem : 16

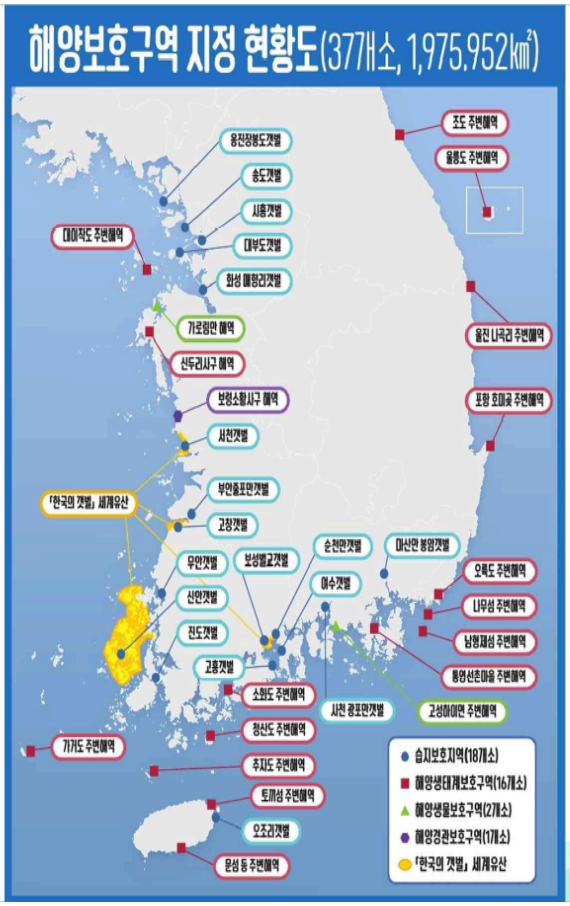
marine organism : 2

marine landscape protection :1

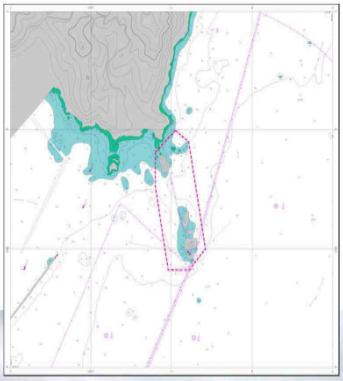
coastal wetland protection : 18

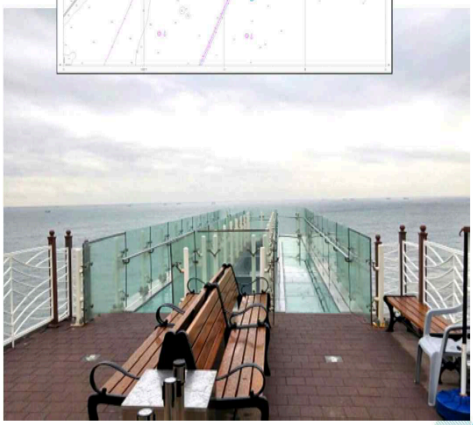
- Total 1,975㎢

- SINAN coast wetland occupied 56% of whole square



Marine Ecosystem Protection



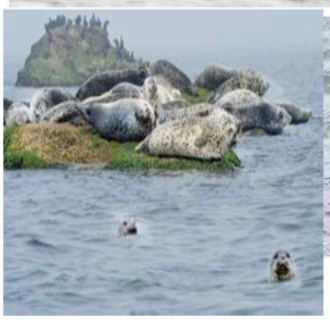


✓ Oryuk island in Busan

- square : 0.35㎢
- Designation date : Dec 2003
- Skywalk and connected to park
- Purpose : Highly unique rock formation and stones.

  Designated to protect the organisms inhabiting the very cliff and marine ecosystems from development activities in nearby waters.

Marine Organism(Spotted seal)

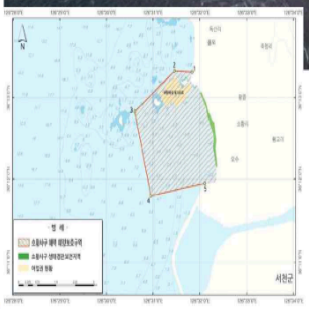


✓ Garorim bay in Chungnam region(Marine Organism)

- square : 92.04㎢
- Designation date : Jul. 2016
- Purpose : Highly unique rock formation and stones. Designated to protect the organisms which includes Spotted Seal for their habitat and breeding place.

I am a **small seal** with a body **length 1.4 to 1.7m** and weight of 82 to **123kg**. Designated as a natural monument

The only Marine Landscape



✓ Boryung Sohwang Coastal Dunes

- square : 5.23㎢
- Designation date : Dec. 2018
- Purpose : The area where is unique sand dunes of 2.5㎞ of length and nesting place of various of water birds such as Yellow egret, Oystercatcher and Eastern Curlew

Various MPA project in the regions

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Various MPA project in the regions

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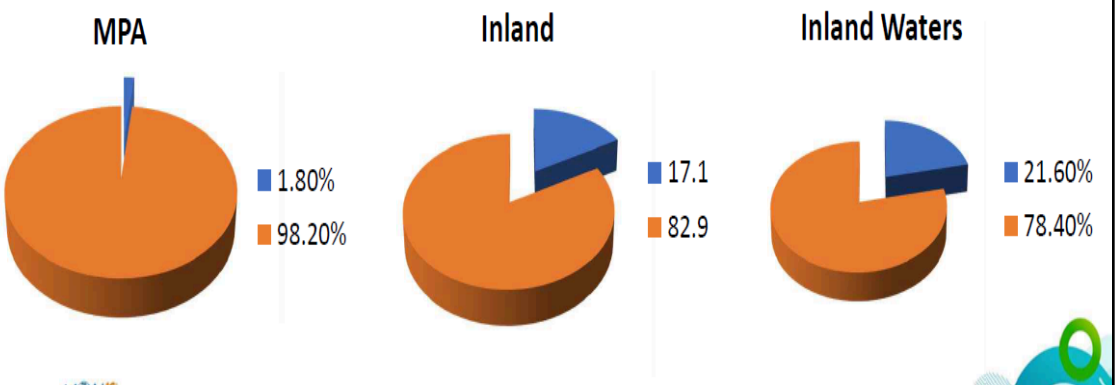
Globally 8% for Aichi Target of sea

Total 5.2% designation at the moment

- Marine protected areas : 7,967/438,991㎢ (1.8%)
- Inland protected areas : 16,561/96,638㎢ (17.1%)
- Inland water : 789/3,658㎢ (21.6%)

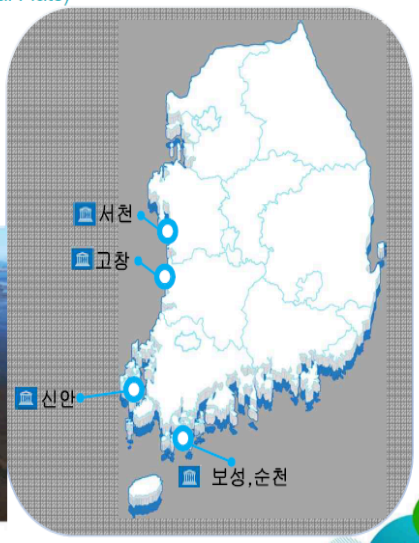
*resource : KDPA



II. Recent issues and changes in the community

UNESCO world natural heritage : GETBOL (Korea Tidal Flats)

- inscribted in July 2021 in the 44th world heritage committee
- on the basis of criterion 10
- 5 regions(1,284㎢) 2,030㎢ including barriers
- Seocheon(68㎢), Gochang(55㎢), Sinan(1,100㎢)
  Boseong & Suncheon(59㎢)



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II. Recent issues and changes in the community

2nd Phase of nomination of world natural heritage in 2026

- OUV

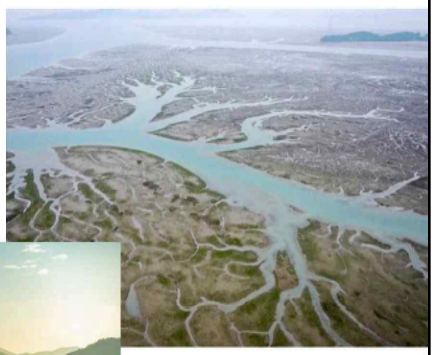
① **Include 9 additional components**

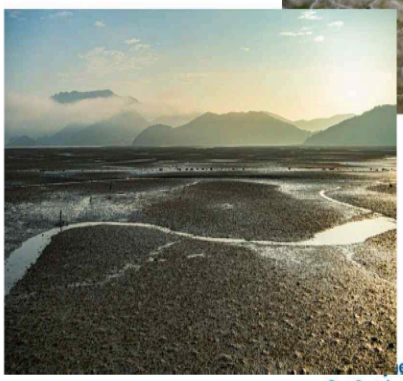
② Demonstrate the boundaries of each component in Phase 2

③ Present an integrated management system

④ No further development

⑤ Cooperate with IUCN, EAAFP, China.....





II. Recent issues and changes in the community

✓Getbol center in Sinan region

- Design being proceeding
- Construction will be completed and open in 2027
- Main Purpose

  - common secretariat for 5 UNESCO regions
  - Exhibition place
  - Education facility
  - Research and development

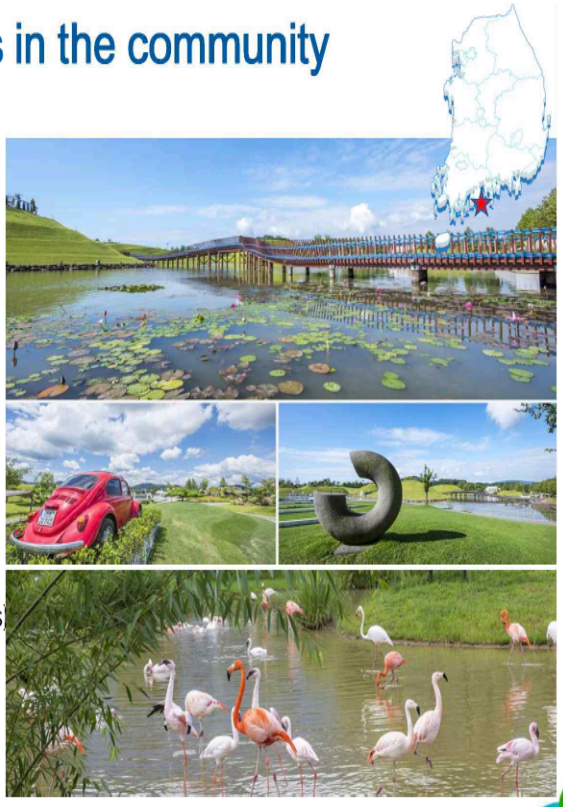
II. Recent issues and changes in the community

National Marine Ecosystem Park

- ✓ Regional base of Marine Ecotourism
- ✓ Regional Coexistence and Economic Revitalization
  - experience center, marine eco-school, Sea observe facility, marine eco place for artists, exhibition hall, observatory, trail deck.....
- ✓ Restoration Projects of closed tidal flat and damaged marine natural environments

*3~4 regional governments are actively preparing for their projects

II. Recent issues and changes in the community



Suncheon National Eco Park

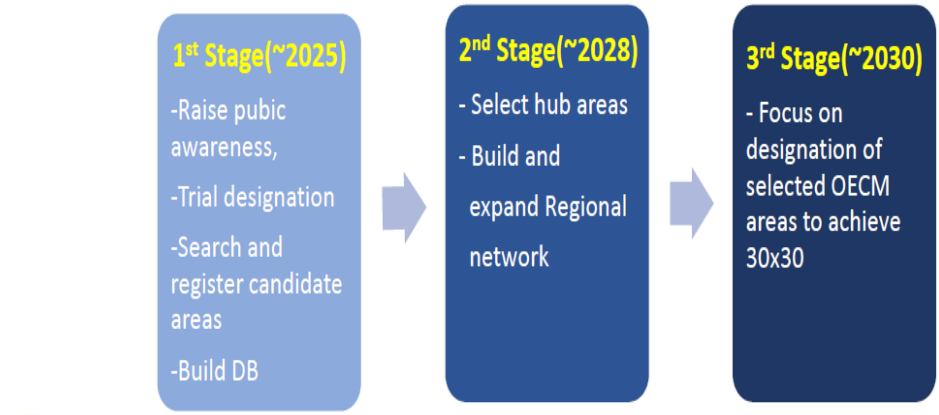
- ✓ Area : 926,992㎡
- ✓ The Park project began when Int'l Garden Expo was held in 2013
- ✓ 1st National Park of Korea in 2015
- ✓ 6 million tourist visit every year
- ✓ Consist of 61 locations

(13 world gardens, 16 theme garden-theme parks which has 11 countries style, 32 participation gardens)

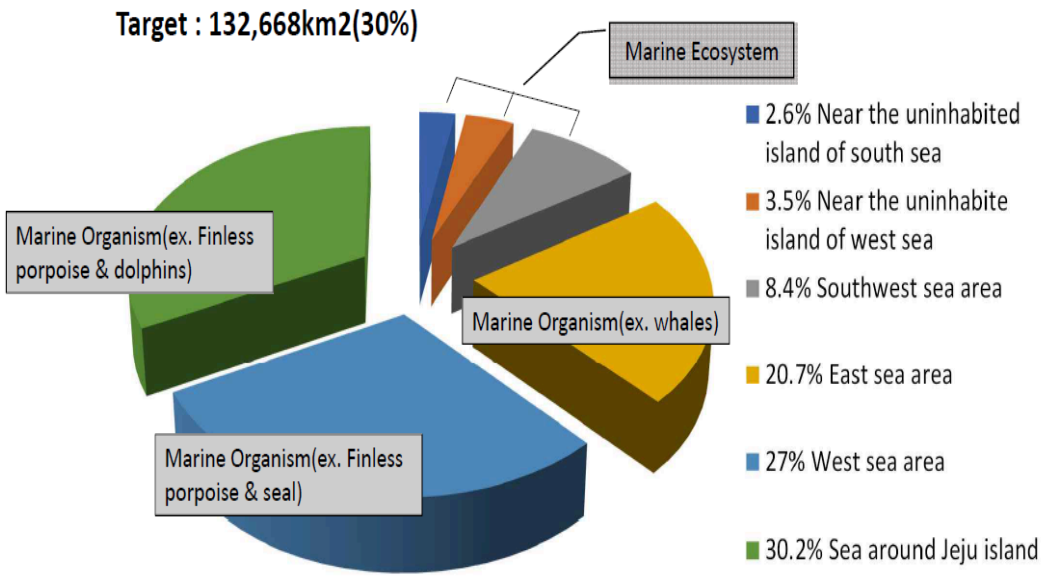
II. Recent issues and changes in the community

OECM

- ✓ MOE(ministry of environment) preparing manual and guidelines for OECM application in Korea
- ✓ Application procedures



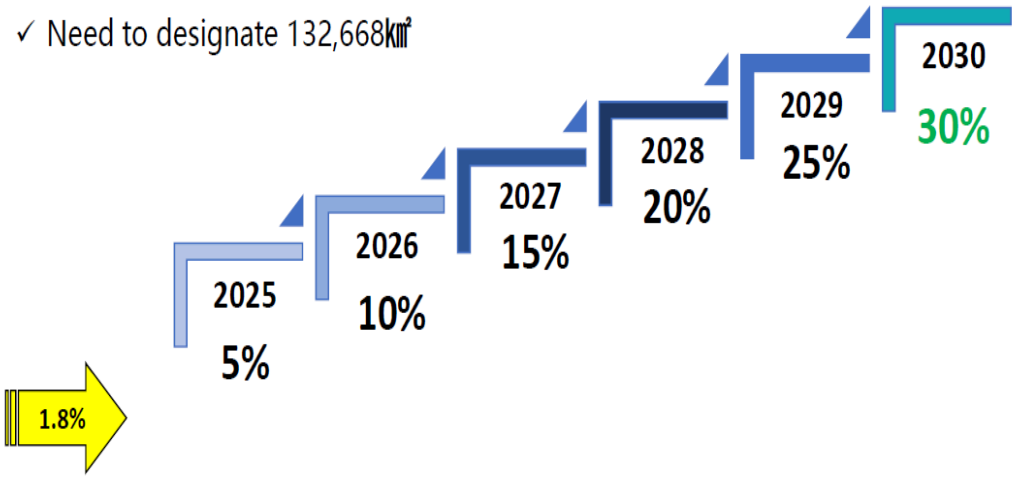
III. Sustainable and successful policy direction



* IF OECM includes positively, the designated area may be increased from 30%, or it may be excluded from other target areas.

III. Sustainable and successful policy direction

✓ Need to designate 132,668㎢



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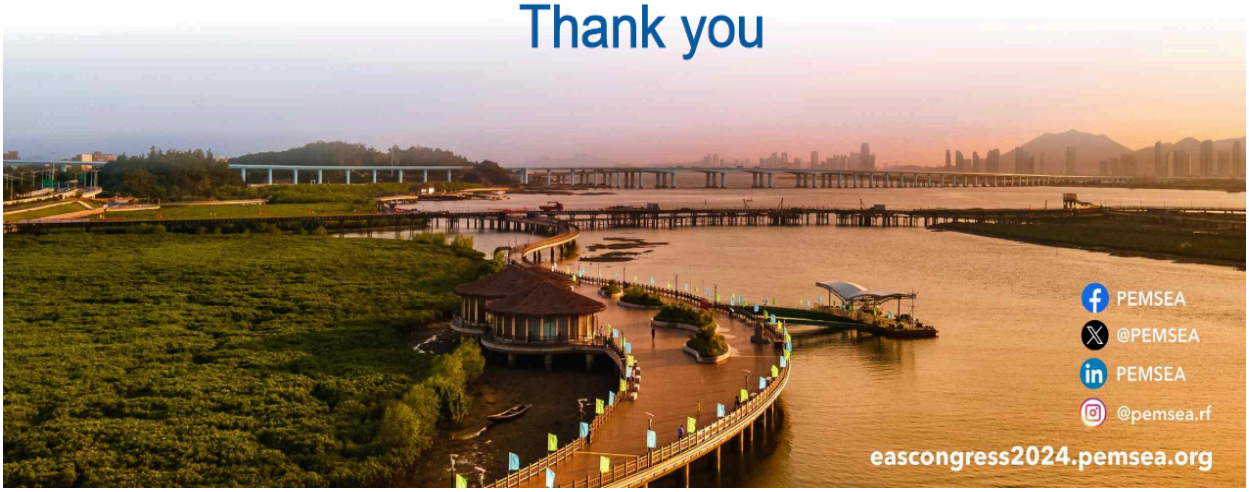
Thank you



(3) Choong-Ki Kim

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Achieving the GBF MAP 30% Target

South Korea's Marine Spatial Planning Strategy

Dr. Choong-Ki Kim
Director of the Division for Natural Environment
Korea Environment Institute

Contents

PART I | Biodiversity Kunming-Montreal Framework

PART II | The MPAs in South Korea

PART III | The MSP in South Korea

PART IV | Designating MPAs with MSPs to Achieve 30X30

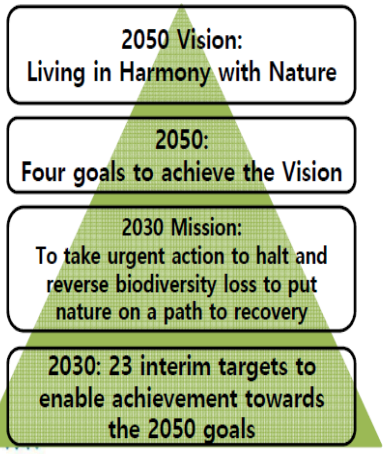
* MPA: Marine Protected Area; MSP: Marine Spatial Planning

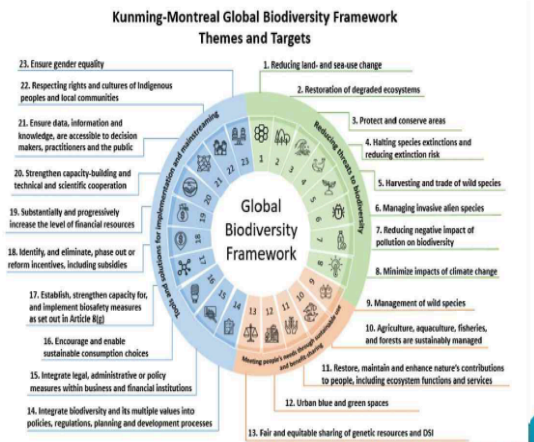
Biodiversity Kunming-Montreal Framework

Global Biodiversity Framework – Kunming-Montreal Framework

- The international community recognizes that biodiversity is declining due to climate change, habitat loss, and overconsumption of resources

- Post-2020 Global Biodiversity Framework for Biodiversity Conservation, adopted in Montreal in 2022, have been launched launched



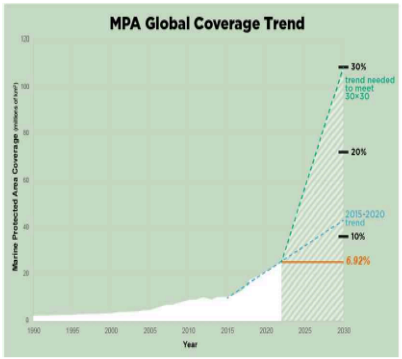


Biodiversity Kunming-Montreal Framework

The 30x30 goals and global trends

- One of the key targets for biodiversity conservation and ecosystem coverage is the Interim target 3 "Designate 30 percent of land and oceans as protected areas (30X30)"

- 120 countries (based on membership in the High Ambition Coalition) are committed to the 30X30 goal, and countries can contribute to achieving the goal by developing national plans to expand protected areas.



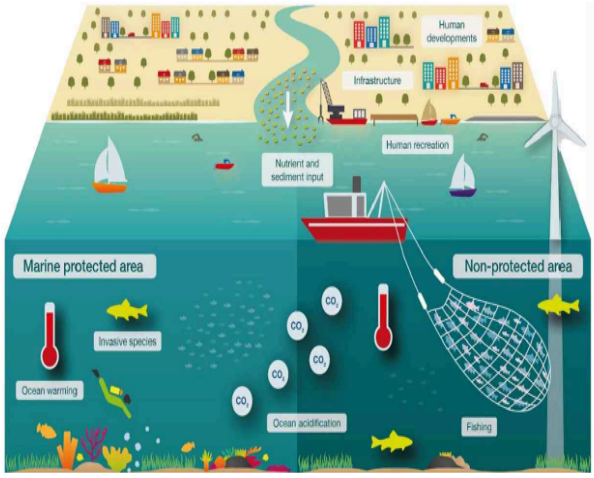
MPA Global Coverage Trend
(Marine Conservation Institute, 2022)

The MPAs in South Korea

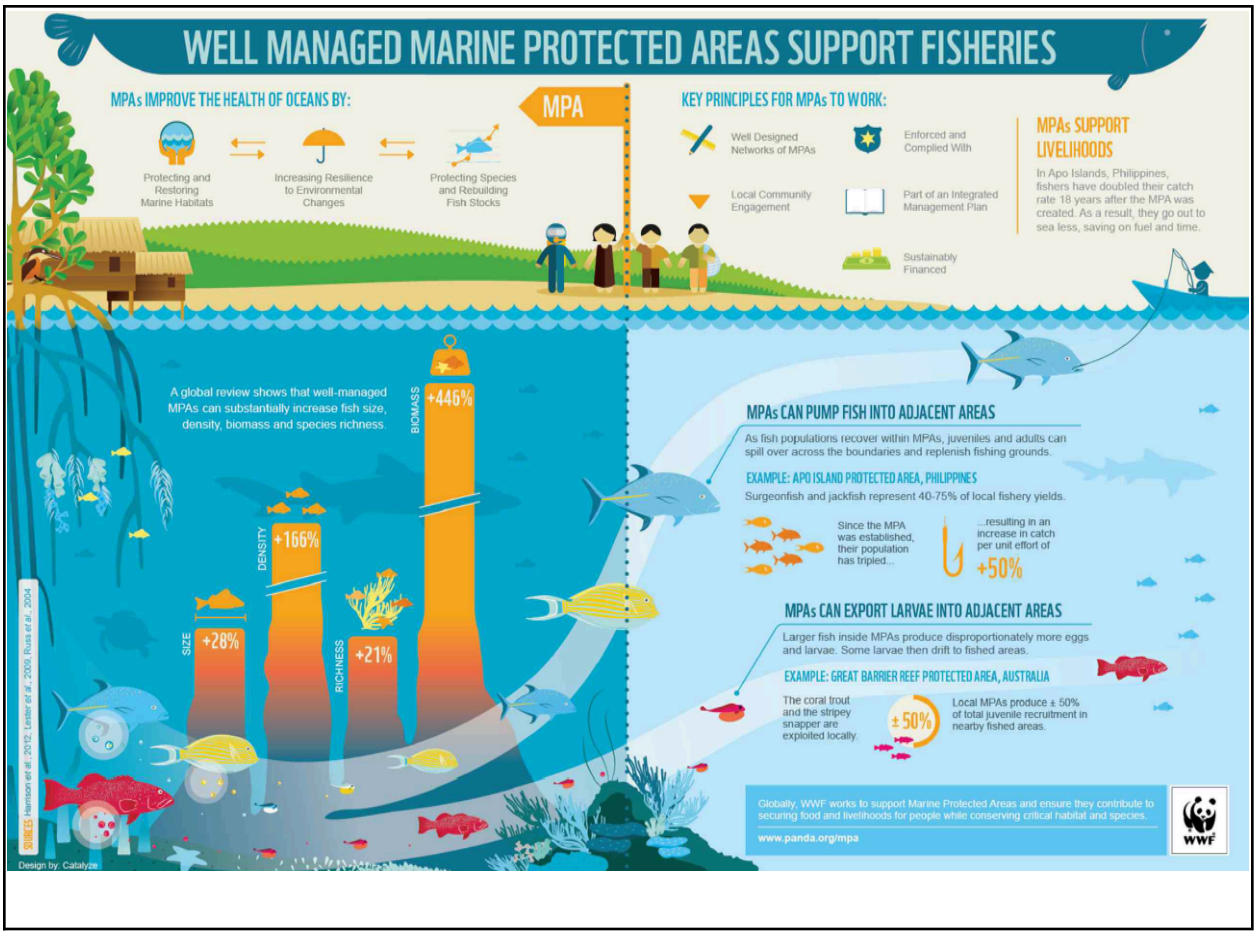
The importance of Marine Protected Areas(MPAs)

- Marine protected areas play a key role in maintaining biodiversity by protecting living habitats, and in ensuring carbon sinks and ecosystem services.

- MPAs help populations recover by preventing overfishing, which can have spillover effects and benefit neighboring local fisheries



Marine protected areas against climate change impacts (Hoppit et al, 2022)


WELL MANAGED MARINE PROTECTED AREAS SUPPORT FISHERIES
MPAs IMPROVE THE HEALTH OF OCEANS BY:
MPA
Protecting and Restoring Marine Habitats
Increasing Resilience to Environmental Changes
Protecting Species and Rebuilding Fish Stocks
KEY PRINCIPLES FOR MPAs TO WORK:
Well Designed Networks of MPAs
Enforced and Complied With
Local Community Engagement
Part of an Integrated Management Plan
Sustainably Financed
MPAs SUPPORT LIVELIHOODS
In Apo Islands, Philippines, fishers have doubled their catch rate 18 years after the MPA was created. As a result, they go out to sea less, saving on fuel and time.
A global review shows that well-managed MPAs can substantially increase fish size, density, biomass and species richness.
BIOMASS +446%
DENSITY +166%
SIZE +28%
RICHNESS +21%
MPAs CAN PUMP FISH INTO ADJACENT AREAS
As fish populations recover within MPAs, juveniles and adults can spill over across the boundaries and replenish fishing grounds.
EXAMPLE: APO ISLAND PROTECTED AREA, PHILIPPINES
Surgeonfish and jackfish represent 40-75% of local fishery yields.
Since the MPA was established, their population has tripled...
...resulting in an increase in catch per unit effort of +50%
MPAs CAN EXPORT LARVAE INTO ADJACENT AREAS
Larger fish inside MPAs produce disproportionately more eggs and larvae. Some larvae then drift to fished areas.
EXAMPLE: GREAT BARRIER REEF PROTECTED AREA, AUSTRALIA
The coral trout and the stripey snapper are exploited locally.
± 50%
Local MPAs produce ± 50% of total juvenile recruitment in nearby fished areas.
Globally, WWF works to support Marine Protected Areas and ensure they contribute to securing food and livelihoods for people while conserving critical habitat and species.
www.panda.org/mpa
WWF
SOURCES Harrison et al., 2012; Lester et al., 2009; Russ et al., 2004
Design by: Catalyze

The MPAs in South Korea

Marine Protected Areas (MPAs) in South Korea

- In South Korea, MPA is defined as "Areas highly worthy of conservation, as they are ecologically important due to diverse marine organisms or excellent marine assets, including marine landscape" under law "CONSERVATION AND MANAGEMENT OF MARINE ECOSYSTEMS ACT".

- The percentage of terrestrial protected areas is about 17%, which is relatively good but short of the 30% target. Marine protected areas are about 1.8%, below the global average of about 7.7%.

육상 보호지역
17,505.0 km²

해양 보호지역
7,951.7 km²

MPA in South Korea
(Kim et al, 2024)

The MPAs in South Korea

Why marine reserves are falling short of targets

- Lack of policy interest in expanding marine protected areas

- Community opposition to fishing restrictions is high and stakeholder alignment is challenging

- Lack of infrastructure and expertise to effectively manage marine protected areas, confusing jurisdictions between central and local governments, etc.

How to fix the problem

- Developing cooperation models and benefit-sharing plans to engage residents' cooperation

- Need a framework that is led by central government to provide a consistent legal and policy framework, with local governments having the flexibility to implement it according to their local context

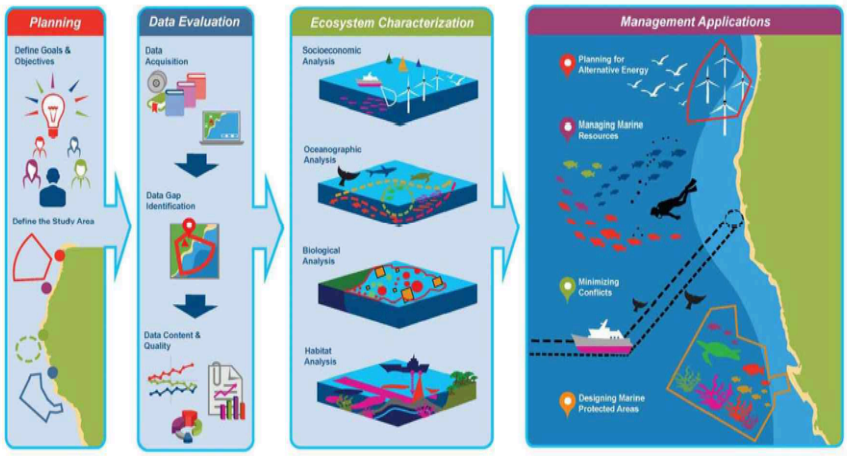
The MSP in South Korea

Marine Spatial Planning (MSP)

- MSP refers to spatial planning that integrates marine activities and resources.

- Coordinate different activities to ensure they don't conflict with each other to make efficient use of space

- Ultimately, the goal is to meet both long-term conservation and economic benefits for marine resources

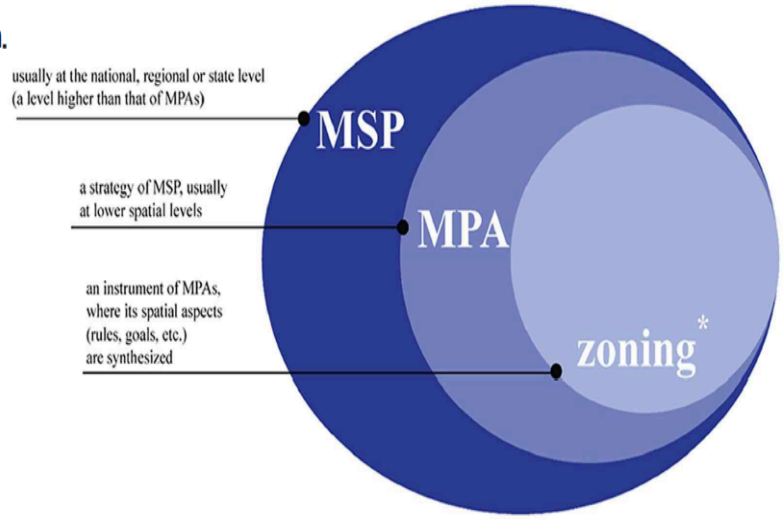


Marine Spatial Planning in practice (Caldow et al, 2015)

The MSP in South Korea

MSP, MPA & Zoning

– Effective MPA establishment requires spatial integration and coordination of protected areas within the strategic framework of MSP, which enables management that balances ecosystem protection and economic utilization.



Relationship between key concept in marine area-based management (Borges et al, 2022)

The MSP in South Korea

Marine Spatial Planning (MSP) in South Korea

- South Korea has been implementing the "ACT ON MARINE SPATIAL PLANNING AND MANAGEMENT" since April 2019.

- The Ministry of Oceans and Fisheries is responsible for MSP and establishes the marine spatial master plan and marine spatial management plan, and local governments then establish specific marine spatial management plans for the waters under their jurisdiction.

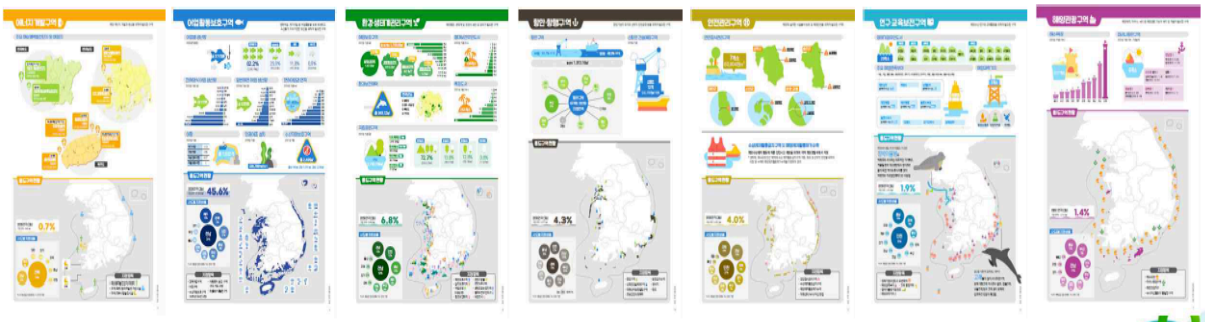
Collecting and analyzing spatial information and establishing a system for spatial planning in pilot areas

Applying marine spatial analytics and technologies based on ecosystem services

The MSP in South Korea

Nine marine use zones of MSP in South Korea

Fishery activity protection zones	Marine tourism zones	Port and navigation zones
Aggregate and mineral resource development zones	Environment and ecosystem management zones	Military action zones
Energy development zones	Research and education conservation zones	Safety management zones



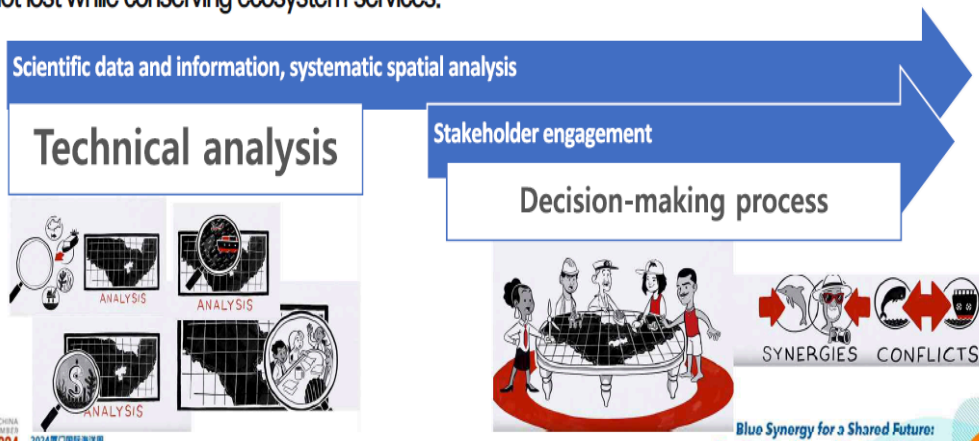
Designating MPAs with MSPs to 30X30

Using MSP to manage and expand protected areas

- South Korea uses MSP as an important tool to achieve its 30X30 goals

- Scientific data-driven decision-making is needed to ensure that ecologically important waters are designated as protected areas.

- A range of activities should be planned to be compatible with protected areas, so that economic opportunities are not lost while conserving ecosystem services.

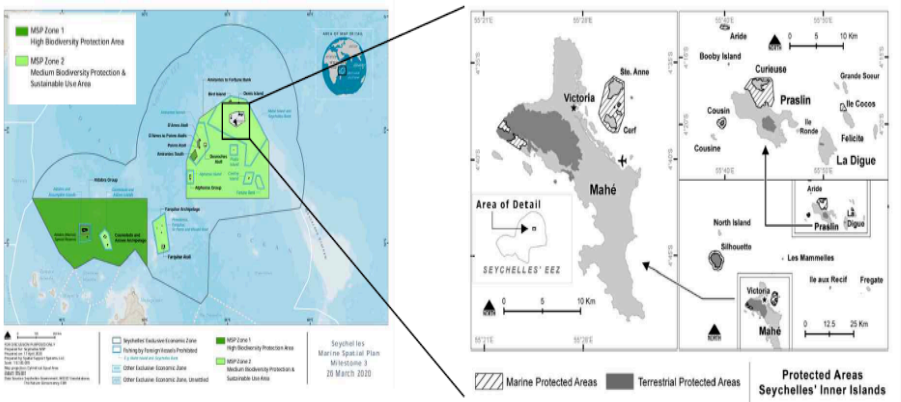


Designating MPAs with MSPs to 30X30

Designating MPAs with MSP (Seychelles case)

- The Seychelles utilized MSP tool to designate marine protected areas across the country in order to meet its 30% marine protected area target by 2020

- High Biodiversity Protection Areas, which are strictly protected areas where no extractive activities are allowed, and Medium Biodiversity Protection and Sustainable Use Areas, which allow appropriate use of certain areas with proper management and consultation.



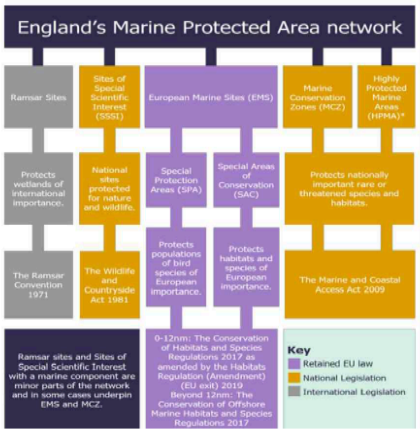
Designated MPAs of Seychelles with MSP (Commonwealth Secretariat, 2020; Baker et al, 2022)

Designating MPAs with MSPs to 30X30

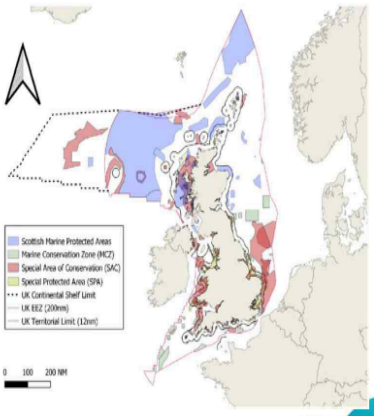
Designating MPAs with MSP (United Kingdom case)

- Since the 2000s, the UK has applied the MSP framework to the management of its existing MPAs, continuously expanding its MPA network to include stakeholders (fishermen, oil companies, renewable energy operators, etc.)

- As of April 2023, 40% of the UK's waters were designated as protected, including areas of strict protection such as "Highly Protected Marine Areas (HPMAs)"



UK MPA designation criteria and underlying legislation (UK Parliament, 2023)



UK MPA Network (Hoppit et al, 2022)

Designating MPAs with MSPs to 30X30

Directions for achieving 30X30

- In order to designate areas of high ecological value as protected areas, accurate scientific data is needed

- Need to use marine spatial planning to systematically establish protected areas and develop strategies to harmonize them with economic activities

- Improve the legal system to clearly define legal authority and divide responsibilities among central government departments and local governments

- Reliable scientific data is the foundation for establishing protected areas and requires accurate monitoring of marine ecosystems and climate change impacts

- Need to engage local stakeholders, raise awareness of the importance of protecting the environment and educate and promote the economic benefits of establishing protected areas

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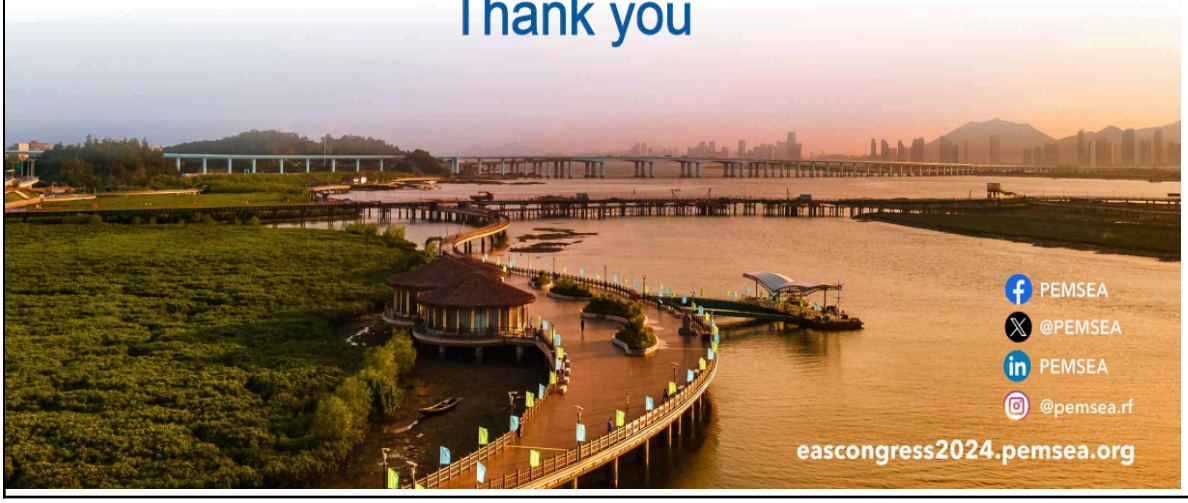
Thank you



(4) Linlin Zhao

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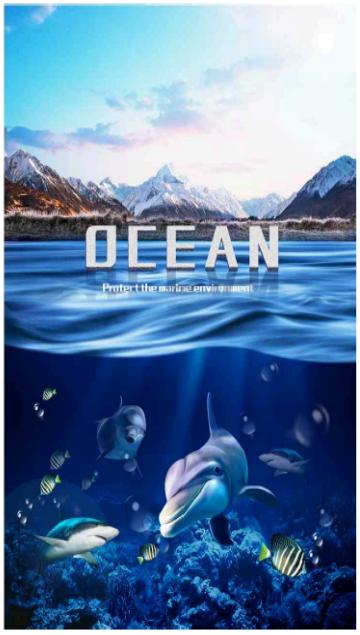
Achieving 30x30 target of Yellow Sea Ecoregion based on the conservation of spotted seal

Linlin Zhao
Associate Professor
First Institute of Oceanography, Minstry of Natural Resources

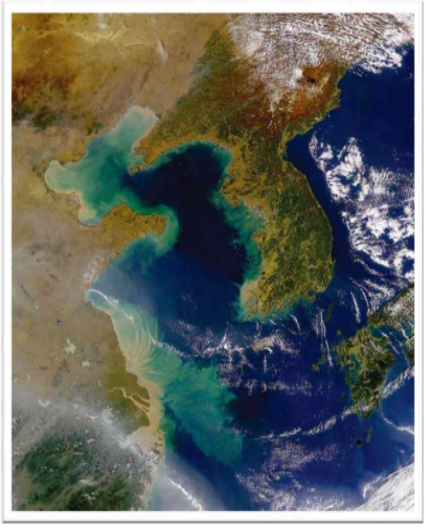
10/11/2024 Xiamen China

Outlines

1. Background
2. Spatial-temporal distribution patterns
3. Umbrella effect evaluation
4. Research planning



Backgroud



- The Yellow Sea Ecoregion is located between the Asian continent and the Pacific Ocean. It covers an area of 460,000 km², with an average depth of 46 meters, and is a semi-enclosed shallow sea.
- The Chinese part of the Yellow Sea Ecoregion includes the Bohai Sea, the Yellow Sea, and the northern part of the East China Sea. The coastline is over 6,500 km long.
- The main rivers flowing into the sea include the Yellow River, the Yangtze River, the Yalu River, and the Liao River.

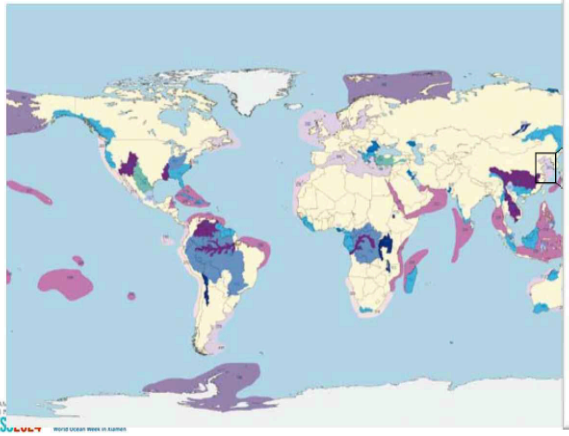
Diverse ecosystems: coastal wetlands, islands , bays and estuaries

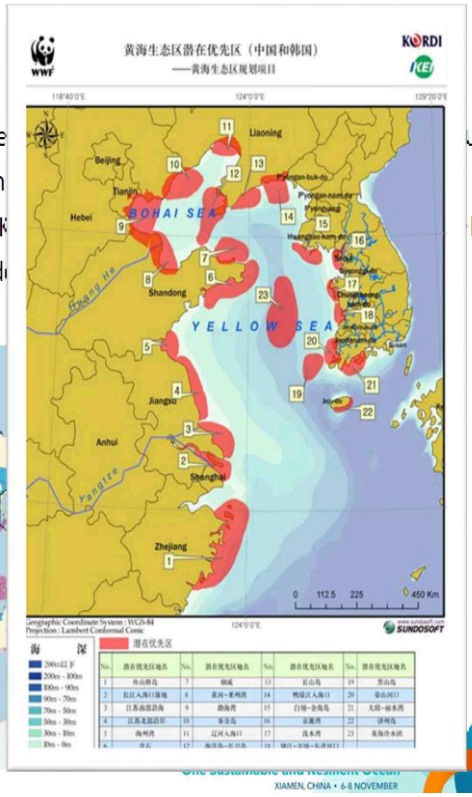
Abundant biological resources

Under significant threats: habitat loss, overfishing, pollution and unsustainable mariculture

Backgroud

- Among the 238 terrestrial and aquatic ecoregions selecte…uable for global biodiversity conservation, the Yellow Sea Ecoregion …the only one in China. Scientists from China, Japan, and South K…llow Sea Ecoregion Biodiversity Assessment Report' in 2008, and id…promote conservation of this region.





Backgroud

Flagship species

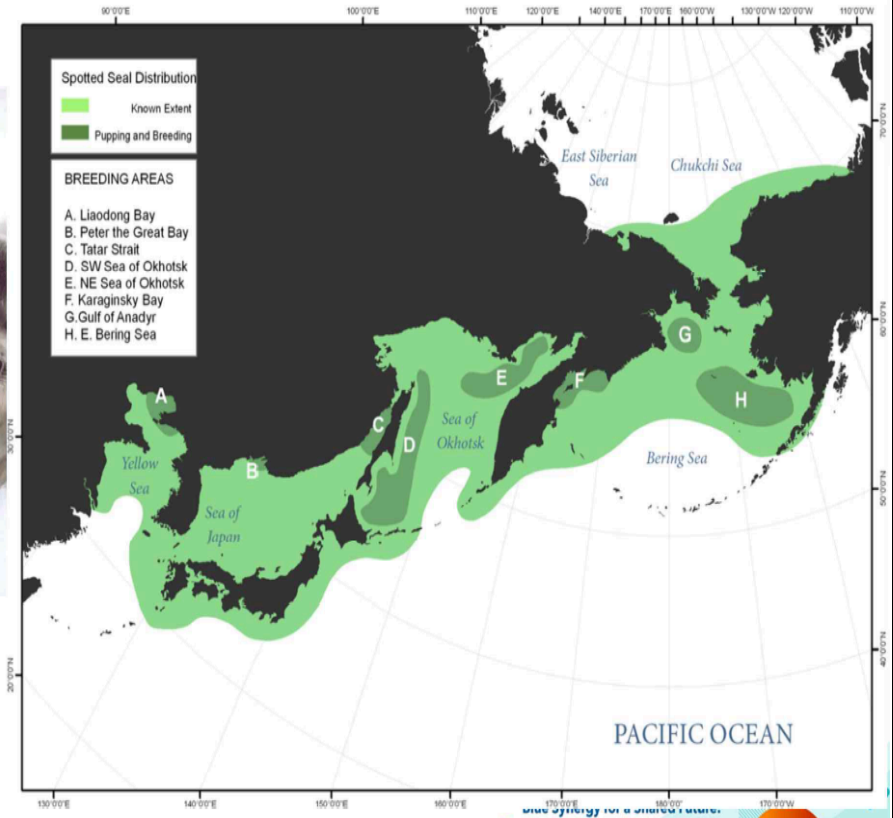
中华人民共和国国家标准

GB/T 39737—2021

国家公园设立规范

Specification for national park establishment

POPULATION SIZE	LIFE SPAN
640,000	35 YEARS



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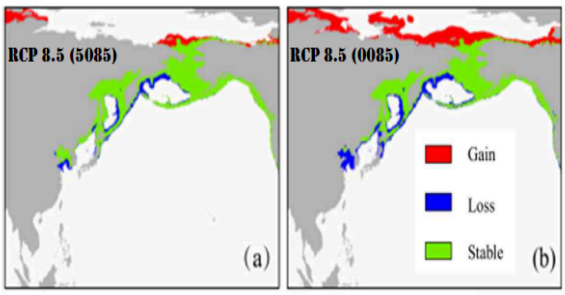
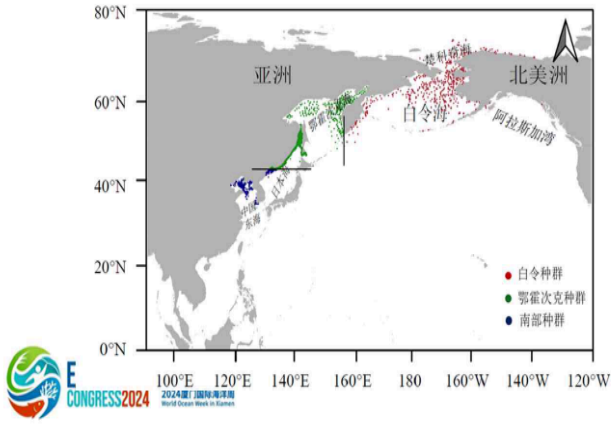
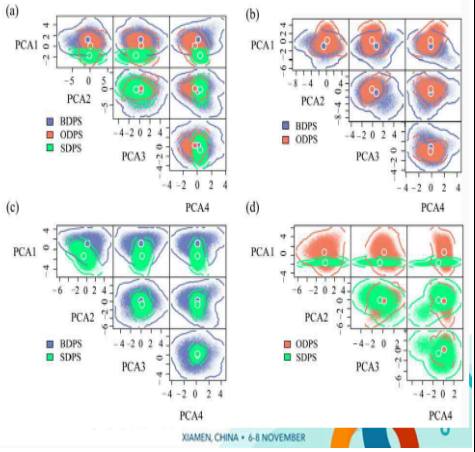
Spatial-temporal distribution patterns

- Global scale

- Habitat tended to migrate to higher latitudes under climate change.
- Yellow population faced the greatest risk of losing habitats due to climate change.
- There were obvious niche differences among different populations.



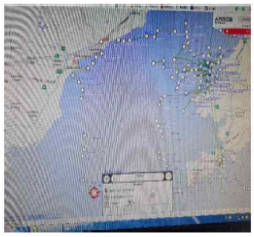


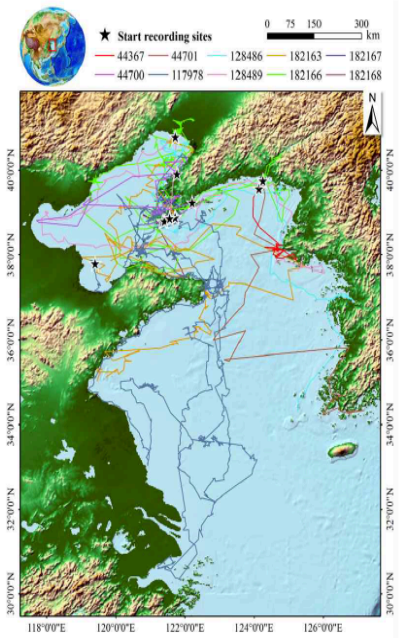


Spatial-temporal distribution patterns

Spatial-temporal distribution patterns

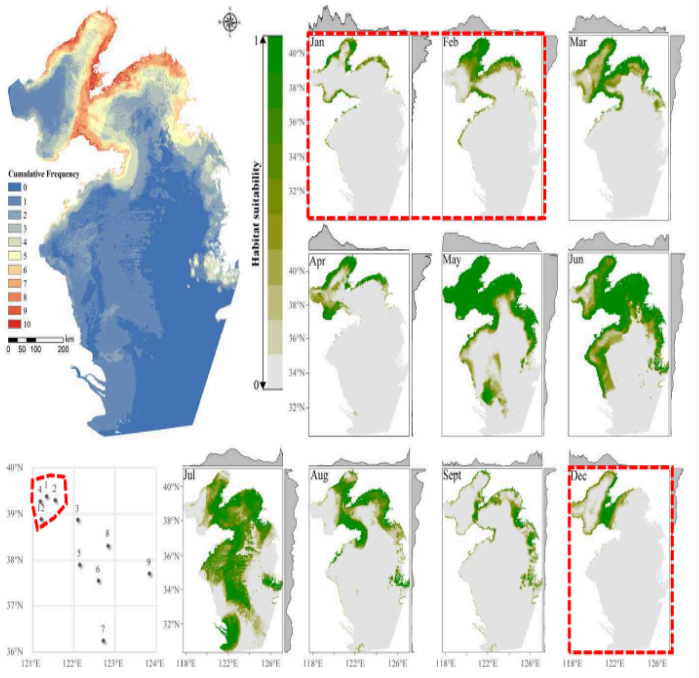
- Satellite beacon tracking survey
  - Tracking individuals: 10 (2010-2020, recording time ≥ 1month).
  - Active sites: 7,447 valid sites.
  - System: ARGOS.

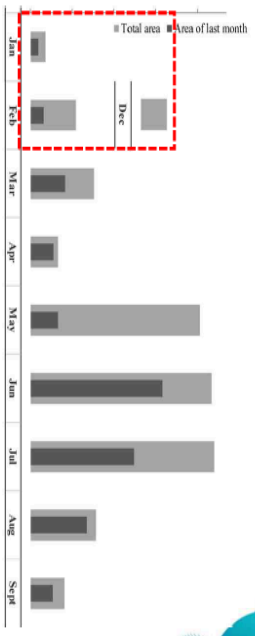




Spatial-temporal distribution patterns

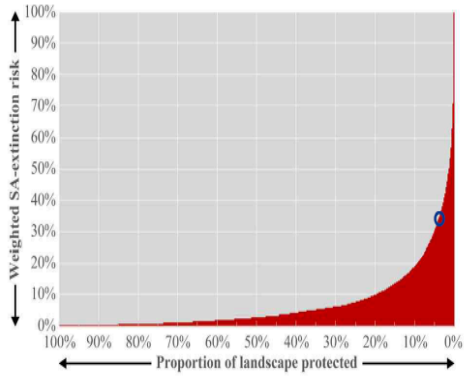
- Monthly potential habitat(SDM)

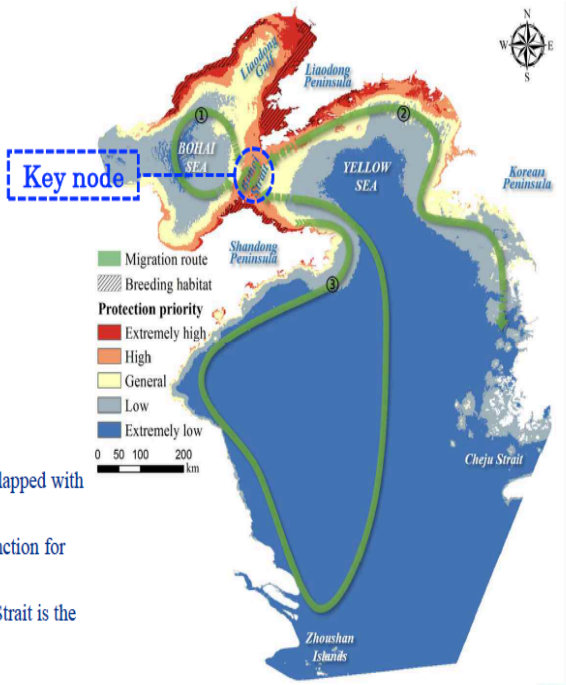




Spatial-temporal distribution patterns

- Conservation priority areas (SCP)



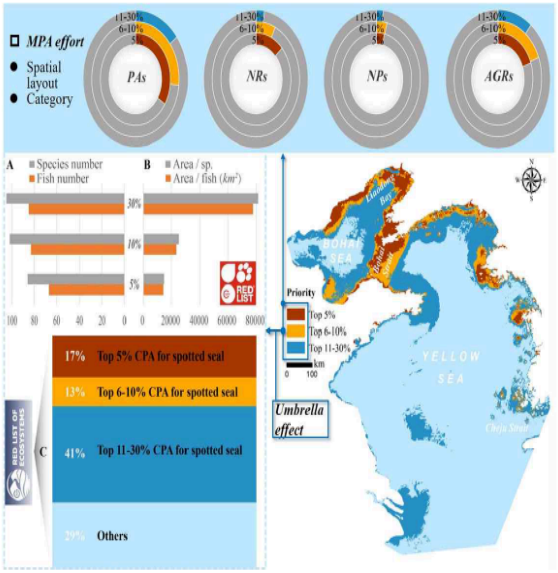


- CPA covered an area of 19,632 km^2 (4%), almost completely overlapped with the breeding habitat, mainly distributed in Liaodong Bay.
- When these areas were effectively protected, the risk of local extinction for spotted seals is reduced to 35%.
- There were three main migration routes, among which the Bohai Strait is the key node of spotted seal migration.

Umbrella effect evaluation

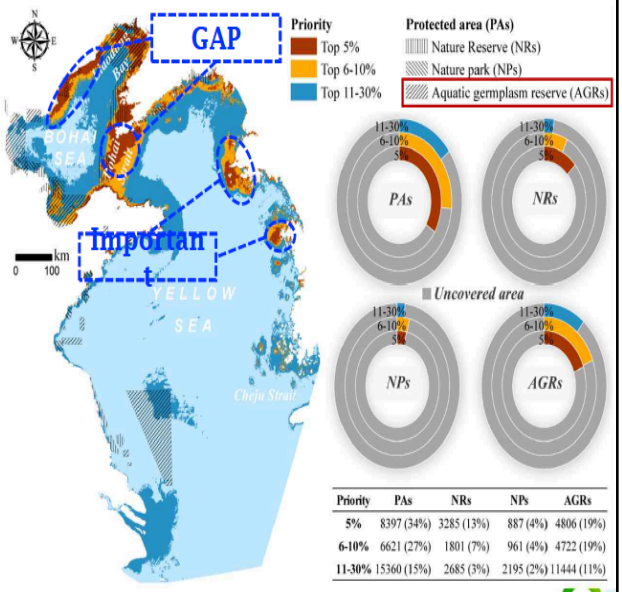
- Yellow Sea coastal wetlands was listed in the IUCN Red List of Threatened ecosystems (EN). There were also 108 IUCN threatened species inhabiting here.
- Is it worth continuing to invest in spotted seals, which are receiving increasing attention from society?

- According to the protection priorities of spotted seals, 5% of the marine area is designated as protected (TOP 5% CPA):
  - About 80% of IUCN threatened species and 17% of coastal wetlands will benefit.
- 30% is designated as protected (TOP 30% CPA):
  - 97 % of IUCN threatened species and 71% of coastal wetlands will benefit.
- Protecting spotted seals is a cost-effective approach, "achieve multiple goals with a single action".



Umbrella effect evaluation

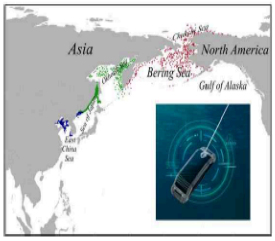
- **34% of TOP 5% CPA** were currently covered by
- **15% of TOP 30% CPA** were currently covered by
- There was still a big conservation gap of spotted seals, and future efforts in MPA establishment (especially in achieving the 30×30 target) should increase the focus on AGRs management.



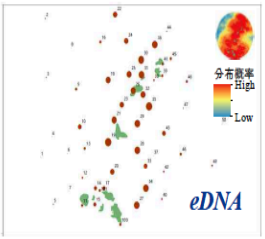
Priority	PAs	NRs	NPs	AGRs
5%	8397 (34%)	3285 (13%)	887 (4%)	4806 (19%)
6-10%	6621 (27%)	1801 (7%)	961 (4%)	4722 (19%)
11-30%	15360 (15%)	2685 (3%)	2195 (2%)	11444 (11%)

Research planning

- **Strengthening the investigations and monitoring:** habitat and population observation, individual satellite tracking , environment DNA, especially in CPA, breeding habitat, as well as the key node in the migration route.
- **Promoting data and technology sharing to identify the biodiversity distribution pattern.**
- **Assessing the effectiveness of existing in-situ conservation measures.**
- **Let us collaborate more closely and take concrete and effective measures to achieve the 30×30 target.**







(5) Rizza Sacra Dejucos


The High Seas Treaty:
The Path to Achieving
30x30 targets
Rizza Sacra-Dejucos
Asia Regional Coordinator
High Seas Alliance
EAS CONGRESS2024
XIAMEN, CHINA
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WON19
2024厦门国际海洋周
World Ocean Week in Xiamen
High Seas Alliance

OUR MISSION TO CONSERVE THE WORLD'S HIGH SEAS WHICH COVER HALF OF OUR PLANET

The High Seas Alliance was established in 2011 and is a partnership of organizations and groups aimed at building a strong common voice and constituency for the conservation of the high seas.

62 members plus the International Union for the Conservation of Nature (IUCN).

WHAT IS ABNJ?

Areas Beyond National Jurisdiction

71% of Earth is covered by ocean

64% of the ocean is considered the high seas / international waters

45% of the earth's surface is covered by the high seas

Jurisdictional waters

High Seas

WHY THE HIGH SEAS?

High Seas Alliance

HALF of the planet's surface

Teeming with LIFE

REGULATES the CLIMATE

STORES excess CARBON

Provides FOOD

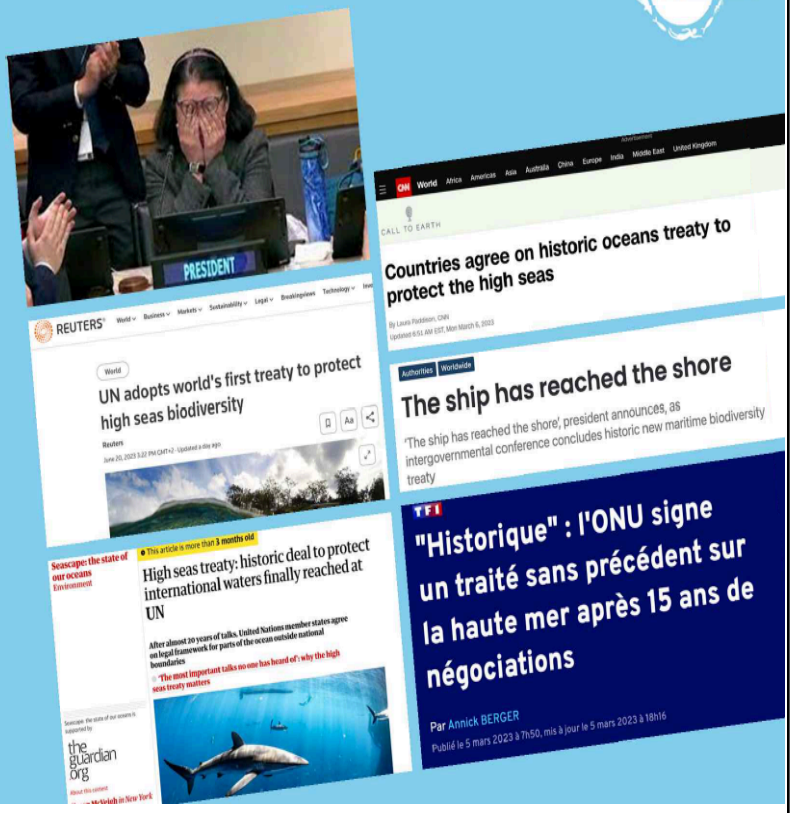
Supports LIVELIHOODS

Essential for REACHING 30x30

ON 4TH MARCH 2023

A NEW TREATY WAS AGREED

THAT CHANGED THE COURSE OF OCEAN HISTORY



WHAT IS IN THE TREATY?

PROMOTE EQUITY through fair and equitable rules on accessing and sharing of benefits from MARINE GENETIC RESOURCES (Part II)

A pathway to help deliver 30x30 through CLEAR RULES AND PROCESS to establish HIGH SEAS MARINE PROTECTED AREAS (Part III)

Prevent harmful activities through ENVIRONMENTAL IMPACT ASSESSMENTS (Part IV)

Support implementation **CAPACITY BUILDING AND TRANSFER OF MARINE TECHNOLOGY**, including through a finance mechanism (Part V)

Link to other MEAs

CMS/ACAP: a network of high seas MPAs to enhance connectivity and protection of migratory species

ISA: environmental impact assessments in the high seas will help control activities on the seabed (ex., deep sea mining)

RFMOs: collaboration with RFMOs is needed to improve the sustainable use of resources in the high seas

UNFCCC: protecting the ocean will feed into the global climate agenda.

CBD Target 3: A pathway towards 30x30


High Seas Alliance
THE BBNJ AGREEMENT
The Treaty's legal framework for the creation of Marine Protected Areas is crucial to delivering the Kunming-Montreal Global Biodiversity Framework and political commitments to protect 30% of all seas by 2030.
bitly

First Generations of High Seas MPA

bitly

PROGRESS…

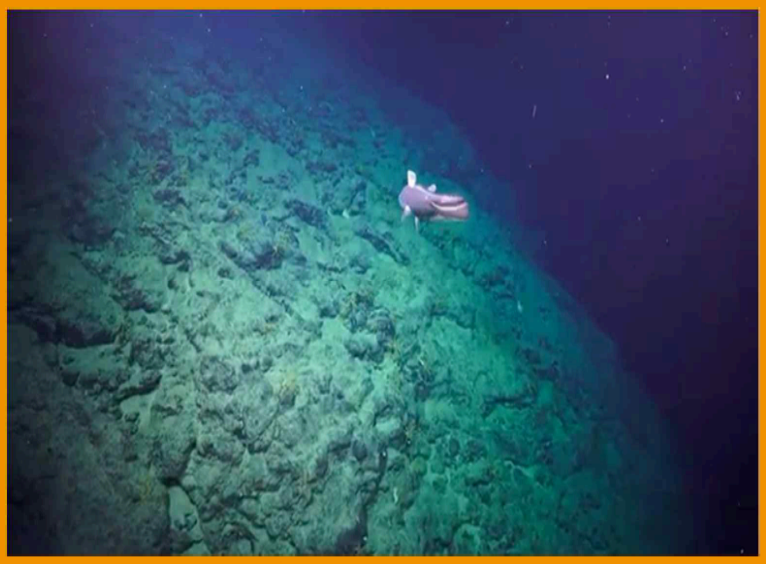
FOUR large-scale MPAs proposals are up for agreement in the international body responsible for Antarctic marine protection- CCAMLR- the Commission for the Conservation of Antarctic Marine Living Resources. Combined with existing MPAs in CCAMLR waters, this would increase protection of the global ocean by nearly 3%.

What is being done?

PROGRESS...

South Tasman Sea between Australia and New Zealand – the High Seas Alliance, WWF Australia, and the Deep Ocean Stewardship Initiative announced the collaboration with the Australian Government to hold a landmark science and knowledge symposium to map the extraordinary values of this area and begin stakeholder discussions about its future management and protection under the High Seas Treaty.

Emperor Seamount



Source: *Leading Women for the Ocean Network*

HIGH SEAS MARINE PROTECTED AREA ACCELERATOR: FAST-TRACKING EFFECTIVE OCEAN PROTECTION

The High Seas MPA Accelerator

led by civil society, aims to **create a diverse and inclusive multi-stakeholder network** that facilitates the exchange of technical expertise, lessons learned, best-practices, training, and tools to support governments in designing high quality and effectively managed High Seas MPA proposals.

Resources

DEEP DIVE

SYNERGIES BETWEEN THE CONVENTION ON BIOLOGICAL DIVERSITY AND THE HIGH SEAS TREATY

POSITION PAPER

KEY RECOMMENDATIONS TO PROMOTE THE SYNERGIES BETWEEN CBD AND THE HIGH SEAS TREATY

www.highseasalliance.org

1.4 **Documentation**

	
Opening ceremony	The venue for Workshop

Group photo of thee Chairman and workshop presenters