Marine and Coastal Spatial Planning Legal and Policy Frameworks in the East Asian Seas:

Assessment, Lessons Learned and Recommendations towards ecosystem-based management and sustainable blue economy

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What is MCSP?

What is MCSP?

Recognized definition of MSP:

"... a public process of analyzing and allocating the spatial and temporal distribution of human actives to achieve ecological, economic and social objectives that are usually specified through the political process."

MCSP(Marine and Coastal Spatial Planning), an expansion of the MSP concept, that extends the sphere of planning to coastal areas.



2 Assessment objectives and methods

Objectives of the assessment

- To understand the MCSP development context in East Asian seas
- To provide inspiration to the forming of a sustainable MCSP research paradigm and theoretical system
- To identify the legal and policy gap for MCSP
- To identify key recommended actions towards an enabling policy environment for MCSP and ecosystem-based approaches



Methods

- Compilation and analysis of policy documents, white papers, publications and legal frameworks and regulations
- Standardized questionnaire survey
- Review of practical experiences pertinent to the research
- Data analysis to produce conclusions, recommendations and gain insights on barriers
- Comparative examination of national experiences with MCSP in COBSEA participating countries



- Overview of MCSP research progress in EAS region
- Research on MCSP in East Asian seas has developed rapidly, and the upward trend is obvious.
 - □ before 1999, less attention received
 - □ 2000-2011, increasing trend
 - □ 2011-2013, cliff-like decline
 - □ 2015-2018, explosive growth

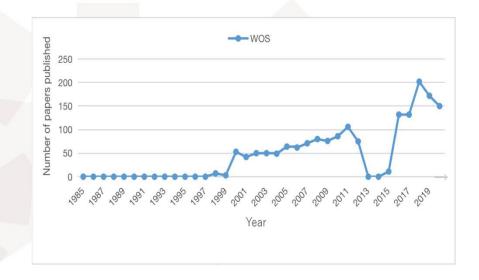


Fig 1. The number of papers published referring to MCSP in EAS

Overview of MCSP research progress in EAS region

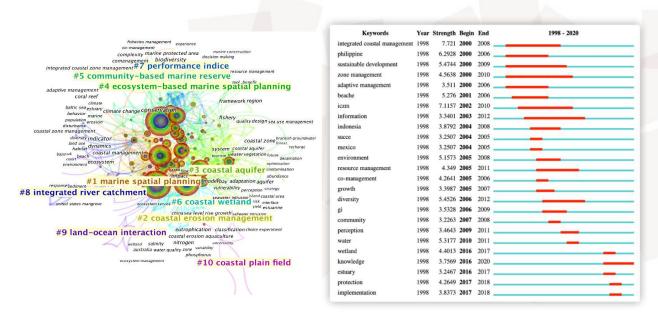


Fig 2. Keywords coexistence networks

Fig 3. Keywords burst detection

- Multi-disciplinary and multiperspective exploration has been carried out.
- Research content is scattered.
- The characteristics of the resources and environment of the East Asia region, the regional development stage and the status quo have not yet been systematically sorted out.

Legal and policy frameworks

- Strong foundation of legal and policy instruments in support of MCSP.
- Yet a significant gap between having in place most or all of the necessary laws, policies, institutional structures, and funding and seeing them implemented, evaluated and sustained for intended effect.

Status of MCSP Development

 $\textbf{Pre-planning} \rightarrow \textbf{Analysis} \rightarrow \textbf{Development of management plan} \rightarrow \textbf{Completion} \rightarrow \textbf{Approval} \rightarrow \textbf{Implementation and revision}$

 Most steps of MCSP in COBSEA countries have been completed, with some plans already been revised.

 Degree of national alignment with MCSP core principles and best practice guidance

Degree of National Alignment with	MCSP Core	Principles and Best Practice Guidance
Fully •	Partially ①	Not at All o

MCSP Principles and Best Practices	COBSEA Countries								
	CAMB	CHINA	INDO	MALY	PHIL	SING	S.KOR	THAI	VIET
Employ an ecosystem- based approach	•	•	•	•	•	•	•	•	•
Incorporates climate change adaptation, mitigation and resiliency objectives and strategies	•	•	•	•	•	•	•	•	•
Support and incorporate the development of sustainable, resilient and inclusive Blue Economies	•	•	•	•	•	•	•	•	•

 Most principles were either fully or partially aligned with.

For the three core principles:

- Ecosystem-based approach was employed across all nine COBSEA countries.
- □ Climate change and mitigation, adaptation and resiliency strategies have not been fully incorporated.
- Sustainable, resilient and inclusive Blue Economies in COBSEA countries are partially developed.

Degree of National Alignment with MCSP Core Principles and Best Practice Guidance Fully • Partially • Not at All •

MCSP Principles and Best Practices	COBSEA Countries								
	CAMB	CHINA	INDO	MALY	PHIL	SING	S.KOR	THAI	VIET
Consider social, economic and environmental objectives as equally important	•	•	•	•	•	•	•	•	•
Emphasize the protection and restoration of the marine ecosystem and biodiversity	•	•	•	•	•	•	•	•	•
Create natural resource base economic and social opportunities and benefits	•	•	•	•	•	•	•	•	•
Encourage and enable conservation measures, e.g. MPAs	•	•	•	•	•	•	•	•	•

 Encouragingly, most countries consider equally social, economic and environmental objectives.

Emphasis has been put on:

- □ the protection and restoration of coastal and marine ecosystems and biodiversity
- conservation measures, including marine protected areas and other effective areabased conservation measures.

Other MCSP Core Principles and Best Practice Guidance

Provide a top-level MCSP law

Reflect sufficient national budget allocations to keep the MCSP process going

Dependent on external/donor support

Based on clear process design and unambiguous goals

Ensure that decision-making processes are clear and transparent

Require and enable vertical and horizontal integration

Encourage and support engagement of private sector

Emphasize and enable regional cooperation and transboundary planning

Provide effective policy and planning integration between land- and sea

Encourage links with ICM initiatives in the region

- Lack of a comprehensive legal and policy framework across the region, but new or revised instruments are being passed and rising.
- Insufficient national budget allocations, and some rely on external donor support.

Work remains to be done regarding:

- clear process and unambiguous goals design, ensuring clear and transparent decision-making processes
- explicit and effective vertical and horizontal
 engagement and integration within national
 governments, among sectors, between governments,
 the private sector and civil society, between land and
 sea, and among nations in a shared ocean ecosystem

Other MCSP Core Principles and Best Practice Guidance

Meaningful stakeholder engagement

Traditional knowledge and participatory mapping

Emphasize gender equality

Emphasize human rights

Prioritize and invest in institutional training and capacity building

Emphasize and enable science-policy integration

Incorporate monitoring, evaluation, enforcement and adaptive management

Require data availability and regional data sharing

Consider the impacts of population growth, urbanization, and movement to and further development of the coast

Understand and respond to changing coastal and ocean conditions and shifting living resource distributions

Place an emphasis on energy transition from fossil fuels to renewables

Strengthen resilience to health crises and economic downturns

Supportive of the 2030 Agenda for Sustainable Development and the SDGs

Ensure alignment with the UN Decade of Ecosystem Restoration

Ensure alignment with the UN Decade of Ocean Science for Sustainable Development

- Stakeholder engagement and use of traditional knowledge is only partially achieved.
- Stakeholders should include those usually marginalized.
- Gender equality and human rights, fundamental principles in all international agreements, must be further recognized and supported.
- Monitoring, evaluation, and adaptive management approaches are partially fulfilled, but there is momentum and ambitious targets to 2030.
- Good and shared data is the foundation and should be generated during the ocean decade.

MCSP and sustainable, ecosystem-based and equitable blue economies

Blue Economy:

A sustainable ocean economy emerges when economic activity is in balance with the long-term capacity of ocean ecosystems to support this activity and remain resilient and healthy (World Ocean Summit, 2015).



Economic, social and ecosystem objectives must be given equal weight and emphasis, yet there is increasing stress and conflicts in limited ocean space.

MCSP and sustainable, ecosystem-based and equitable blue economies

Successful and sustainable blue economy strategies must be:

- Ecosystem-based
- Place- or area-based
- Integrated
- Adaptive
- Strategic and anticipatory
- Science- and technology-based
- Participatory



- Can overcome traditional and still dominant sector-by-sector approach
- Must be attentive to representation, power dynamics and how new boundaries, rights and activities can impact the tenure, rights, livelihoods and food security of local communities.

MCSP and sustainable, ecosystem-based and equitable blue economies

EAS countries' Blue Economy strategies should focus on:

- Working toward healthy, resilient and productive marine and coastal ecosystems.
- Reducing land- and sea-based pollution of the coastal and marine environments.
- <u>Taking mitigating climate action</u>, in reducing emissions, <u>building resilience</u> of coastal and ocean ecosystems, communities and infrastructure, and taking anticipatory adaptation measures.
- <u>Supporting innovation and investments</u> through sustainable ocean finance, regional data management and sharing, and <u>use of the best available science and technology</u>, including indigenous and local knowledge, in the development of new or expanding ocean industries.
- Enhancing ocean literacy at all levels throughout the region.
- Develop national Sustainable Ocean Plans by 2030 or sooner.

- MCSP and sustainable, ecosystem-based and equitable blue economies
- **■** Policy windows EAS countries could embrace:
- e.g. The High-Level Panel for a Sustainable Ocean Economy

Commitments

■ Manage 100% of the ocean area under their national jurisdiction by 2025



- □ Protect 30% of the ocean by 2030
- □ Achieve 14 outcomes in five critical areas: ocean wealth/health/equity/knowledge/finance



- ✓ Achieve goals of the 2030 Agenda
- ✓ Support objectives of the UN Decade of Ecosystem Restoration (2021-2030)

Central process: MCSP



Rich and diverse research content: multi-disciplinary and multi-perspective inquiry

✓ MCSP is a highly intersecting field, which requires experts and scholars in different disciplines to look at issues from different perspectives and put forward ingenious opinions.



Planning and management technology have been constantly updating: the application of 3S technology and data drive innovation

- ✓ 3S technology has made the practice of integrated marine and coastal management more efficient.
- ✓ Remote sensing technology has vividly demonstrated the coastal land use status.
- ✓ Geographic information technology is very important in comprehensive geographic zoning decisions at the regional level.



Cross-cutting cooperation and stakeholder participation: key factors for effective marine management

Cross-departmental management and stakeholder participation are essential in order to combat pressure and will enable the management plan to be more effectively implemented.



Coastal resource management: development and sustainable development under ecological protection

- ✓ Integrated, sustainable resource management measures considering ecological protection and costbenefit balance could enable better and effective outcomes.
- ✓ Yet, terms regarding sustainable management practices or sustainable resource use lacks clarity and consensus in practice



The importance of integrated disaster risk management: prevention and governance

- ✓ Coastal areas are facing greater disaster risk due to climate change.
- ✓ The planning and response of MCSP to the integrated disaster risk management should be comprehensively analyzed and planned.
- ✓ Smarter coastal protection strategies which are adaptable, sustainable, multifunctional and economically feasible and incorporated ecology and ecosystem service are needed.



Comparison of policy changes and legal frameworks related to MCSP: rational review and criticism

✓ The development of MCSP and changes and updates of related policy and legal framework have always been the focus of academic circles, which could provide inspirations to the evolvement of related mechanisms.

Conclusions

Legal and policy frameworks of MCSP in the EAS region are robust

<u>S</u>trengths

- ✓ Abundant legal instruments
- ✓ Becoming more integrated and cross-sectoral
- ✓ Advanced MCSP development
- ✓ Either fully or partially aligned with core principles and best practices
- More emphasizes on EBM, blue economy and balanced social, economic and environmental objectives
- ✓ Sufficient national budget allocations for the most part
- ✓ Good process design and unambiguous goals

Weaknesses

- ✓ Weak vertical and horizontal integration
- ✓ Inadequate stakeholder engagement
- ✓ Partially fulfilled Regional cooperation and transboundary planning
- Inadequate training and capacity building in institutions and for managing professionals and engaged stakeholders
- ✓ Partially realized science-policy integration
- Needed improvements in monitoring, evaluation, enforcement and adaptive management and data
- ✓ Inadequate anticipating, planning for, and adjusting to challenges such as climate change

____pportunities

- MCSP develops, improves and becomes more effective when responsible authorities and concerned stakeholders see practical success and benefits to their interests.
- ✓ Strong tradition of coordination and collaboration among member countries of COBSEA and PEMSEA
- ✓ Blue economy
- ✓ UN Decade of Ocean Science
- ✓ MSPglobal Initiative

hreats

- ✓ Pollution
- ✓ Degraded and lost habitats
- ✓ Overfishing
- ✓ Climate change
- ✓ Shifting distributions and productivity levels among living marine resources
- ✓ Population growth
- ✓ Further development and urbanization of the coast
- ✓ New or expanded coastal and ocean uses

- Develop the techniques for marine and coastal spatial planning in COBSEA countries
 - Guidelines for MCSP have been developed by different countries or international organizations, which provide a reference for the compilation of regional marine spatial planning.
 - Although COBSEA countries are still in different stages of development, they
 have similar levels of economic development and regional management
 systems, and the corresponding technical guidelines for marine spatial
 planning need further research and development in order to better adapt to
 the needs and characteristics of the region.

Enhance capacity development

- The ongoing development and implementation of MCSP in the EAS region requires high levels of training and capacity development at all levels.
- Training through a broad and inclusive structure is recommended, in which actors from different sectors and levels should learn together and about each other's responsibilities and objectives in the MCSP process.
- Train-the-trainer courses are recommended, which could be delivered at both the national and regional levels.
- The train-the-trainer course that was delivered for COBSEA in Phuket in 2011 should be updated and revived.

Strengthen vertical and horizontal integration

- Vertical and horizontal integration within government administrations and between government, the private sector and civil society is a long-standing core principle of MCSP.
- Experience consistently shows that such integration remains stubbornly difficult to achieve.
- It is recommended to focus on and highlight the benefits of MCSP to each sector's particular interests that could not be achieved by working in isolation, which would provide for a much more coordinated approach to MCSP and enhanced mutual benefits.

Increase transboundary/ regional collaboration

- Regional collaboration across the EAS region can bring benefits in terms of data and information sharing, learning from diverse experiences, and marine and coastal spatial planning across transboundary ecosystems.
- It is recommended that COBSEA strengthen its already strong collaboration with the coordination, research and planning efforts led by PEMSEA, and pursue stronger partnerships with regional fisheries management organizations.

- Invest in coastal and ocean science and strengthen science-policy integration
 - UN Decade of Ocean Science will help ensure that ocean science can fully support countries' actions to sustainably manage coasts and oceans, and 2030 Agenda for Sustainable Development, and also provide the opportunity to create a new foundation across the science-policy interface.
 - COBSEA member states should embrace the Ocean Decade as an unprecedented opportunity to enhance the scientific knowledge and understanding of coastal and marine ecosystems within their national territories and across the EAS region, strengthen the flow of advanced information across the science-policy interface, and be recognized internationally as key actors in advancing this and complementary agendas.

Enhance data sharing and coordination

- The identified shortcomings in data collection, coordination and sharing among sectors and regional government, constrain the development and implementation of well-informed policies and decisions related to marine and coastal spatial planning.
- A priority should be placed on enhancing the sharing of the newly-generated knowledge throughout the decade through a stronger regional data processing and sharing collaboration, focused on data integration and interpretation.

- Anticipate and respond to global and regional development trends
 - The EAS region is under considerable pressure today from multiple pressures, both existing ones such as unsustainable exploitation of living and non-living marine resources, and emerging ones such as Population growth.
 - COBSEA countries should look into the future and gain an informed understanding of how the region will continue to change in the coming decades.
 - A fact-based overview assessment of the emerging and more serious demographic and development trends should be conducted, shared and built into planning and management frameworks and regimes throughout the region.

- Highlight and share success stories and practical benefits from MCSP development and implementation
 - There is a growing cadre of such success stories from within the region and throughout the world – that can give confidence and inspiration for successful outcomes through MCSP in practice, such as MSP Roadmap, MSP Forum and the MSPglobal Initiative.
 - EAS member countries are encouraged to track, contribute to and learn from these efforts to learn best and adopt more effective approaches to planning and managing coastal and marine environments.

Suggested follow-up actions

Establish a cooperation platform for MCSP in EAS region



- Promote the establishment of international cooperation platforms such as the "Marine and Coastal Spatial Planning Cooperation Center" under the COBSEA and IOC/WESTPAC framework.
- Activities such as cooperative research on marine and coastal spatial planning system, preparation and implementation of national marine and coastal spatial planning, preparation of marine spatial planning in areas under the perspective of large marine ecosystems, training in marine and coastal spatial planning, regular exchange and discussion could be organized.

Suggested follow-up actions

Develop a technical manual on marine and coastal spatial planning



 Taking the concept of ecosystem-based ocean management as the core, taking into account the characteristics of the EAS region, integrating, developing multi-objective decision support technology, integrated ocean big data analysis and key information identification technology and scenario simulation technology, and developing a technical manual for marine space planning applicable to the EAS region.

Suggested follow-up actions

 Launch a marine and coastal spatial planning project within the framework of the UN Ocean Decade



- Launch and implementation of the EAS
 Regional Marine and Coastal Spatial
 Planning Project to take advantage of the major opportunity of the United Nations.
- Conduct periodic marine and coastal spatial planning assessments in EAS region, to issue technical tools for the preparation of MCSP, to conduct regular technical exchanges and training in MCSP.

