



REGIONAL ORGANIZATION
FOR THE PROTECTION OF
THE MARINE ENVIRONMENT
KUWAIT

ROPME/WG-173/2
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**First Meeting of the ROPME - EBM Working
Group on the Development of the Regional
EBM Strategy**

Tokyo, Japan 15-16 October 2016



REPORT OF THE MEETING

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I. Background

1. The first workshop entitled “Toward the Development of a Regional Ecosystem Based Management (EBM) Strategy for ROPME Sea Area” was held from 4-7 April 2016 in Dubai, UAE¹ . The workshop produced a set of recommendations² and initiated the process to develop the Regional EBM Strategy for the ROPME Sea Area (hereafter EBM Strategy).



2. Subsequently, the First Working Group Meeting for the Regional EBM Strategy was organized in Tokyo, Japan from 15 to 16 October 2016. The Meeting was held back to back with the First ROPME-Japan International Cooperation Agency (JICA) Seminar. The objectives of the First Working Group Meeting were to: (1) finalize the terms of reference (ToR) of the Working Group; (2) finalize the initial Work Plan of the Working Group; and (3) preliminary identify regional priority issues to be considered under the EBM Strategy.
3. The working documents and information documents were provided to the participants prior to the Meeting through the ROPME website³ . The Annex

¹ http://ropme.org/551_EBM_EN.clx

² ROPME/WD/EBM-7

³ http://ropme.org/552_EBM_WG1_EN.clx

section includes the list of Meeting documents (Annex I), the Meeting programme (Annex II), and the list of participants (Annex III).

Day 1 (15 October 2016)

II. Opening of the Meeting

4. Dr. Hassan Mohammadi, ROPME Coordinator, opened the Meeting at 9:20am and welcomed the participants from Member States, UNEP and JICA. He started the opening remarks by stating that EBM is a well-recognized management approach for sustainable development. He highlighted the importance of cooperation between the environment sector and other ocean-related sectors in achieving the Sustainable Development Goals (SDGs). The environmental management, oil industry, fisheries and coastal development sectors are particularly important ocean sectors in the ROPME Sea Area but ROPME has decided to take step-wise approach to engage the sectors. The first step, as agreed at the workshop in Dubai in April 2016, was to start working with the environmental management and Fisheries sectors to develop the EBM Strategy. He emphasized the importance of the Working Group members' engagement for national coordination, and concluded that the success depends on the efforts of the Working Group.
5. Ms. Diane Klaimi delivered the opening remarks on behalf of the UN Environment Programme. She thanked JICA for hosting the Meeting. She explained that under the new leadership, the UN Environment Programme had put oceans as one of the top priorities. She added that sustainable management of the oceans was also considered to be a regional priority in the West Asia region. She highlighted that the United Nations Environment Assembly held in May 2016 adopted various resolutions particularly relevant to the West Asia region, such as resolutions on oceans and seas, sand-storm, and desertification. She concluded her remarks by reaffirming that the UN Environment Programme would continue providing capacity building and training to support the Working Group.
6. Prof. Osamu Matsuda, Vice-chief Director of International EMECS, provided the last opening remarks. He recalled that the ROPME-JICA Seminar was well designed and provided background for the discussion in the Working Group. He commented that the Working Group would continue identifying priorities based on the key words⁴ identified during the ROPME-JICA

⁴ The key words were prepared by JICA and presented to the participants

Seminar. In order to facilitate such process, he shared the experiences with the Northwest Pacific Action Plan (NOWPAP), the Regional Seas programme in the Northwest Pacific region. He explained that NOWPAP had decided to set regional Ecological Quality Objectives. As of now, four targets had been identified: (1) biological and habitat diversity; (2) alien species are at levels that do not adversely alter the ecosystem; (3) eutrophication adverse effects are absent; (4) contaminants cause no significant impact on coastal and marine ecosystems and human health; and (5) marine litter does not adversely affect coastal and marine environments.

III. Organization of the Work

7. Dr. Mohammadi proposed designating four participants as the session chairs. Oman, Bahrain, Iraq and Saudi Arabia were nominated to be the session chairs for this Meeting. The Working Group members welcomed the proposal and agreed that each country would chair for a half-day.
8. Ms. Kanako Hasegawa, UN Environment Programme, was assigned as the Rapporteur.
9. The Meeting adopted the agenda without any changes.
10. The participants introduced themselves and their affiliations to the Meeting.

IV. Session I: Introduction of the Regional EBM Strategy

11. As the Chair, Mr. Badar Al Bulushi, Sultanate of Oman, opened the session. He stressed that the EBM Strategy would provide benefits to the ROPME countries and the engagement of the members would be the key for success.
12. Dr. Hassan Awad, ROPME, delivered the presentation on the workshop held in Dubai from 4-7 April 2016. He started the presentation by emphasizing the importance of the EBM in the Region to achieve regional and global targets. He explained that the workshop proposed to conduct three studies: 1) inventory; 2) scoping paper based on the inventory to identify gaps and needs, and 3) preliminary ecosystem assessment of the ROPME Sea Area. It was decided that JICA would prepare the inventory. ROPME faced challenges in identifying appropriate consultants for the ecosystem assessment but Five Oceans (5OES) agreed to prepare the Report. After the workshop, ROPME worked on the revision of the Work Plan considering

the delay in preparing the three studies. He also explained that ROPME had proposed to update the ToR during the intersessional period in order to clarify the responsibilities of the Working Group members. He concluded by stating that regional experts would join the process to help the Working Group.

13. Ms. Diane Klaimi provided updates from relevant regional and international processes during the intersessional period. She started the presentation by stating that development of the EBM Strategy is one of the initiatives that the Region should be proud of. She stressed that each country in the Region already had experts in EBM and collaboration and cooperation with these experts would be important. She further stated that stakeholder engagement, political will, and communication would be the key elements to develop the EBM Strategy. She also highlighted that the Global Biodiversity Outlook has pointed out that the fish catch does not meet the local needs in the Region. The National Biodiversity Strategies and Action Plans (NBSAPs) in the respective countries had set targets for fisheries but the Aichi Biodiversity Target 6 did not have enough data in the Region. She concluded the presentation by noting that the cooperation between ROPME and RECOFI had been well received at the Sustainable Ocean Initiative meeting held in Seoul from 26 – 29 September 2016.
14. Regarding the fish catch data, several participants commented that the national fish catch data existed but information on the fish stock trends was limited in the Region. Mr. Reza Shahifar, I.R. Iran, requested that the information on national data presented in the meeting be carefully handled. Responding to the comment, Dr. Mohammadi reminded that participants were welcome to provide any comments and corrections on the presentations and meeting documents. Dr. Awad added that the Working Group members would have opportunities to review the results from ecosystem assessment at the Second Working Group meeting.

V. Session II: Progress in the Development of the ROPME-EBM Strategy

15. Mr. Yoichi Harada, JICA study team, delivered the presentation on the progress of the inventory study. The first step of the study was to identify data availability. He explained that the study was planned to be concluded by 31 October 2016 and the Study Team worked with the local consulting companies in the eight countries. In addition to the information on legal framework, maps of environmental data would be developed on the

following aspects: 1) coral reef bleaching hotspot; 2) sea geomorphology; 3) marine protected areas; 4) chlorophyll-a; and 5) coastal habitat. He requested the members cooperation to complete and review the information collected for the inventory.

16. Ms. Klaimi presented the plan to prepare the preliminary ecosystem assessment. She described that the study would identify values of the ecosystem services for human well-being in the Region. It was decided that Dr. David Medio would work on the assessment under the supervision of Dr. Simon Wilson, Technical Director of 5OES. The report would be reviewed by the Working Group members and would help define priorities for the EBM Strategy. She informed that the draft report would be ready and be circulated for comments in December 2016. The outline of the report was presented.
17. With regard to the inventory study, Ms. Farnaz Shoaie, I.R. Iran, together with several other members requested clarification on the sub-contracted consulting firms in their respective countries. Some participants asked how the consultants were chosen without prior consultation with the Working Group members. Mr. Harada responded that the consulting firms were recommended by 5OES. He further explained that the inventory study had to start before the Working Group was formalized because the nomination of the working group members was delayed. Dr. Mohammadi commented that ROPME and JICA would liaise the working group members with their respective consulting firms. Mr. Harada emphasized that the consultants would only be able to access publicly available information.

VI. Session III : Review of the ToR of the EBM Working Group

18. Mr. Bassam Al Showakh, Bahrain, chaired the session. He invited Dr. Awad to deliver the presentation on the ToR of the Working Group. In his presentation, Dr. Awad emphasized that the responsibility section was added in order to clarify the roles of the Working Group members.
19. The Working Group members were invited to discuss the proposed ToR. They first review the responsibilities of the Working Group members. Subsequently, the meeting examined the section related to the Chairmanship. It was agreed that ROPME would assign a coordinator for the Regional EBM Strategy instead of assigning the Chair from the Working Group members. The chairs of the Working Group meeting sessions would

be rotated among the members, following the normal practice of ROPME meetings.

20. With regard to the organization of national cross-sectoral coordination meetings, some members stated that the existing mechanism could be used. Others commented that they might need to organize such meetings in their countries. Thus the members agreed that each member would organize such national meetings as appropriate in their respective countries.
21. Throughout the discussion on ToR, the Working Group members formulated a set of recommendations such as the establishment of an online clearing-house mechanism to disseminate and share information related to the Regional EBM Strategy. The recommendations were compiled by ROPME Secretariat and further discussed on the Second Day.
22. Mr. Jassim Al-Mohamedi, Qatar, recommended that the process of the EBM Strategy working group be presented at the upcoming RECOFI meeting in Qatar. This proposal was included in the list of recommendations.
23. The members finalized the ToR and adopted as in Annex IV.

VII. Session IV: Review of the Work Plan of the EBM Working Group

24. Dr. Hassan Award delivered the presentation on the Work Plan. While preliminary Work Plan was adopted on the fourth day of the workshop held in Dubai in April 2016, the ROPME Secretariat proposed several changes as the preparation of three studies had been delayed.
25. The Chair proposed that the meeting would discuss the Work Plan on the second day and closed the session at 5:30pm.

Day 2 (16 October 2016)

VIII. Welcome back to the Meeting

26. Dr. Mohammadi welcomed the members back to the meeting and summarized the discussion from the first day. He reiterated that the strategy would be developed through the Working Group and ROPME would serve as the Secretariat to assist the members in fulfilling the tasks. He invited Dr. Noori Al-Madhhachi, Iraq, to chair the session.

IX. Session V: Japanese experience in the implementation of EBM Strategy

27. Dr. Shirayama, Executive Director of Research (JAMSTEC) delivered the presentation on the experience of applying ecosystem based management in Japan. He gave an example of the Osaka Bay which included the management of watershed. He also provided an example of tree planting activities which improved productivity of oyster farms. Through the example, he showcased that the ecosystem management led to successful oyster farming business and community engagement. He commented that the top-down management approach might be effective at a larger-scale but at local levels, bottom-up approach might be more effective.
28. Mr. Al Bulushi, Oman, asked how the planting trees helped oyster farming. Dr. Shirayama explained that decaying of leaves provided acid-iron and phytoplankton used for chlorophyll-a formulation. He added that sea-grass and mangroves could serve for similar purposes in the ROPME Sea Area.
29. Responding the questions regarding the predictability of HABs raised by Mr. Al Showakh, Dr. Shirayama explained that it became possible to predict HABs after comprehensive monitoring in Japan. The aquaculture industry could be prepared for the HABs based on the prediction to minimize potential damages.

X. Session VI: Implementation of the Work Plan and Commitments

30. Based on the presentation delivered by Dr. Awad on the first day, the Working Group members were invited to discuss the proposed Work Plan of the Working Group.
31. The members reviewed the Work Plan and finalized it as in Annex V. The members noted that this Work Plan was a preliminary plan and they could revise the plan according to their needs during the process. They noted that three studies under the preparation would guide the Working Group for further actions.
32. The members agreed that the EBM Strategy would be submitted to the ROPME Council for approval while RECOFI might have a different decision making process.

Session VI: Implementation of the Work Plan and Commitments
– Identification of priority issues under the EBM Strategy

33. Ms. Hasegawa delivered the presentation on potential priority issues in the Region, based on the discussion paper circulated to the Meeting⁵. The paper identified issues related to ecological, legal, and social aspects. The eight issues were: (1) implementation of the ROPME legal instruments; (2) oil spills; (3) coastal development; (4) wastewater from desalination and other industries; (5) fisheries; (6) loss of biodiversity; (7) data and information sharing; and (8) education and capacity building. She stressed that these issues were listed for the purpose of discussion and not exhaustive or ranked in the order of priority. She further explained that the ecosystem assessments being conducted might point out different priority issues in the Region and the Working Group would need to continue consolidating the list of priority issues.
34. The Working Group members were divided into two breakout groups in order to facilitate discussions among the members. The two groups tried to preliminary set ranking of issues in the Region.

Session VI: Implementation of the Work Plan and Commitments
– Identification of priority issues under the EBM Strategy (Plenary)

35. Being chaired by Mr. Mohammed Alshehri, Director of GAMEP of Eastern Province, Saudi Arabia, Ms. Klaimi reported the discussion from the Group A to the Plenary. The group identified the priorities as 1) Conservation and sustainable management of biodiversity; 2) climate change; 3) coastal manipulation; 4) pollution; 5) sustainable fisheries; 6) invasive species from ballast water and HABs; 7) capacity building; and 8) enforcement of legal instruments.
36. Mr. Alaamri, Saudi Arabia presented the discussion among the Group B. Through the brainstorming discussion, the group identified priorities in the Region as following: (1) Fisheries; (2) wastewater; (3) oil spills; (4) conservation of biodiversity; (5) coastal development; (6) climate change; (7) data and information sharing; and (8) environmental management
37. Based on the discussions in the breakout groups, the Plenary decided to combine the two lists as the preliminary list of regional priorities. It was

⁵ http://ropme.org/552_EBM_WG1_EN.clx

stressed that this list was a work-in progress and would be revised depending on the findings from the ongoing three studies. The Working Group members agreed not to rank the issues at this stage.

38. The members examined the languages from the two lists identified by the break-out groups and finalized the preliminary list of regional priority issues to be addressed by the EBM Strategy as in Annex VI. It was agreed that the implementation of legal instruments and capacity development would be classified as cross-cutting principles. The members noted that these two aspects would be the foundation for the implementation of the EBM Strategy.

XI. Session VII: Technology transfer for the identified priority issues

39. Regarding the six identified Regional priorities, the Working Group was invited to brainstorm on the needs of capacity development and technology transfer at the Regional level. It was stressed that this discussion would focus on Regional needs rather than national needs because the national need had already been assessed by the questionnaire prepared by JICA during the ROPME-JICA Seminar (Annex VII)
40. The Working Group members discussed and identified capacity development needs in three areas as in Annex VIII: (1) conservation and sustainable management of biodiversity; (2) pollution mitigation and control; and (3) sustainable fisheries and aquaculture.
41. Due to the time constraints, the Chair proposed that the table be filled by JICA for future consideration by the Working Group members. The members welcomed the proposal.
42. All presentations of the meeting are included in Annex X

XII. Session VIII: Conclusions and recommendations

43. The Working Group members were invited to discuss the conclusions of the Meeting based on the draft prepared by the Secretariat.
44. The members readdressed the process of information compilation for the inventory study and agreed that they would review the information by 15 November 2016. Some participants questioned the relationship between the

information collection table provided by JICA and the inventory study. It was clarified that the table provided to the members was part of the inventory study. The ROPME Secretariat agreed to circulate the ToR for the three studies to the Working Group members for further clarification.

45. In terms of the budget of the Working Group, the members agreed that the Working Group would propose the necessary financial support to the ROPME Secretariat.
46. In addition to the recommendations compiled from the discussion on Day 1, it was proposed to include organization of a training course on EBM communication and a meeting with decision makers. The importance of engaging decision makers for developing the EBM Strategy was emphasized.
47. The members finalized and adopted the conclusions of the Meeting as in Annex IX.
48. Dr. Mohammadi thanked the members for the fruitful discussion and invited them for final comments. Mr. Al Showaikh, Bahrain, commented that it had been difficult to access data from ROPME. Responding to the comment, Dr. Mohammadi proposed that the access to the ROPME integrated information system be granted to the Working Group members. Dr. Al-Madhhachi, Iraq, reiterated his concern regarding the management of Shatt al-Arab which affects the fish nursery grounds. Dr. Mohammadi proposed that a regional study be made under the framework of ROPME if the respective countries wished to do so.
49. Closing the Meeting, Dr. Mohammadi expressed his gratitude to the Working Group members. He thanked JICA and the UN Environment Programme for the organization and facilitation of the Meeting together with the ROPME Secretariat. He highlighted that the preliminary identification of Regional priorities was a great achievement from the Meeting. The Meeting also finalized the ToR and the Work Plan of the Working Group. He stressed that the Working Group would continue its work during the intersessional period and that each member was expected to conduct national activities as agreed in the work plan.
50. The Meeting was closed at 6:30pm.

ANNEX I

LIST OF DOCUMENTS

List of Documents

Working Documents

- ROPME/WD/EBM-WG1-1 : Provisional Programme (updated)
- ROPME/WD/EBM-WG1-2 : Discussion paper on regional priority issues
- ROPME/WD/EBM-WG1-3 : Recommendations of Workshop on "Toward the Development of a Regional EBM Strategy for RSA"
- ROPME/WD/EBM-WG1-4 : Updated ToR for ROPME-EBM Strategy Working Group
- ROPME/WD/EBM-WG1-5 : Updated Work Plan for the ROPME-EBM Strategy Working Group

Information Documents

- ROPME/ID/EBM-WG1-1 : Information Note for Participants
- ROPME/ID/EBM-WG1-2 : Provisional List of Participants
- ROPME/ID/EBM-WG1-3 : Provisional List of Documents
- ROPME/ID/EBM-WG1-4 : State of the Marine Environment Report in the ROPME Sea Area 2013
- ROPME/ID/EBM-WG1-5 : Ecosystem Approach for Regional Seas

ANNEX II

PROVISIONAL PROGRAMME

Saturday, 15 October 2016		
08:30 - 9:00	Registration	
09:00 - 9:10	Opening of the Meeting: <ul style="list-style-type: none"> • Opening remark by ROPME - Dr. Hassan Mohammadi • Opening remark by UN Environment Programme - Ms. Diane Klaimi • Welcome remark by Dr. Osamu Matsuda 	
09:10 - 9:20	<ul style="list-style-type: none"> • Organization of the Work: • Objective of the meeting • Designation of Chairperson and Rapporteur • Introduction of Participants • Adoption of the Meeting Agenda 	
09:20 - 10:00	Session I: Introduction of the Regional EBM Strategy <ul style="list-style-type: none"> • Recap of the Dubai workshop outcomes in April 2016 • Intersessional period progress and related regional updates Synergies, SDGs, MEAs. • Questions and Answers 	ROPME UNEP
10:00 - 11:00	Session II: Progress in the Development of the ROPME-EBM Strategy <ul style="list-style-type: none"> • Presentation of the draft conclusions from the inventory study • Outlook of the preliminary ecosystem assessment • Discussions 	JICA UNEP/ROWA
11:00 - 11:15	<i>Coffee Break</i>	
11:15 - 12:30	Session III : Review of the TOR of the EBM Working Group <ul style="list-style-type: none"> • Discussions • Adoption of the ToR 	ROPME
12:30 - 14:00	<i>Lunch Break</i>	

14:00-15:00	Session IV: Review of the Work Plan of the EBM Working Group <ul style="list-style-type: none"> • Discussions 	ROPME
15:00-15:20	Coffee Break	
15:20 – 17:00	Session IV(Cont.): Review of the Work Plan of the EBM Working Group <ul style="list-style-type: none"> • Discussions • Adoption of the work plan 	Participants
17:00	<i>End of Day 1</i>	

Sunday, 16 October 2016		
09:00 - 09:15	Welcome back to the Meeting Recap of the discussions on the Day 1	
09:15 – 10:00	Session V: Japanese experience in the implementation of EBM Strategy <ul style="list-style-type: none"> • Presentation by JAMSTEC • Questions and answers 	JICA
10:00 - 11:30	Session VI: Implementation of the Work Plan and Commitments <ol style="list-style-type: none"> 1. Presentation on the discussion paper on priority issues 2. Identification of priority issues – breakout groups (Based on the discussion paper) 	UNEP Participants
11:30 - 11:45	<i>Coffee Break</i>	
11:45 - 12:30	Session VI (Cont.):Implementation of the Work Plan and Commitments <ol style="list-style-type: none"> 3. Identification of priority issues - reporting back 4. Priority issues as identified 	Participants

12:30 - 14:00	<i>Lunch Break</i>	
14:00 - 15:00	Session VII: Technology transfer for the identified priority issues – break out groups Matching of potential technology transfer for the identified issues	Participants
15:00 - 15:20	<i>Coffee Break</i>	
15:20 - 16:30	Session VII (cont.): Technology transfer for the identified priority issues Reporting back to the Plenary	JICA
16:30- 17:00	Session VIII: Conclusions and recommendations <ul style="list-style-type: none"> • Summary of the First Working Group Meeting • Future Work Plan and Time Frame • Other Matters • Recommendations 	ROPME
17:00	<i>Closure of the Meeting</i>	

ANNEX III

LIST OF PARTICIPANTS

LIST OF PARTICIPANTS

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ANNEX IV

TERMS OF REFERENCE OF THE WORKING GROUP

Terms of Reference of the Working Group on a Regional EBM Strategy for the ROPME Sea Area

Background

In April 1978 the eight Governments of the Region (Bahrain, I.R. Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and UAE) agreed on the Kuwait Convention and the Action Plan. Subsequently in 1979 the Regional Organization for the Protection of the Marine Environment (ROPME) was established to coordinate the Member States' efforts towards protection of the water quality in ROPME Sea Area, protect the environment system as well as marine life and to abate pollution caused by development activities of the Member States. Since then, ROPME has been playing an essential role to unify the exerted efforts of the Member States towards protection of marine environment and to follow up the procedures of each Member State.

Pursuant to Decision CM16/7 of the 16th ROPME Council, the ROPME Secretariat has been promoting a shift towards more integrated ecosystem-based approaches to the management of the ROPME Sea Area (RSA). Traditional sector-based management often overlooked connectivity and interaction of different activities conducted in the same ecosystems. The current environmental status shows that the sectoral approach has not been successful in preventing degradation of the marine and coastal ecosystems. The ecosystem-based management, on the other hand, takes the ecosystem as whole and recognised interactions of various human activities with the environment. This approach, thus, calls for cooperation of various sectors sharing the same ecosystem in order to move towards a more sustainable management. Today, the ecosystem-based ocean management is seen as a prerequisite for maintaining health of oceans and seas.

The ROPME Secretariat identified the need for cooperation at the regional level to take a consistent approach towards the implementation of the ecosystem-based management in the ROPME Sea Area. Sustainably managed, healthy ROPME Sea will in turn continues the delivery of ecosystem goods and services essential for the life of people in the Region. Thus the ROPME Secretariat is to develop a Regional EBM Strategy for the ROPME Sea Area, which will be shared between all the eight Member States of the Kuwait Convention.

The first workshop "*Toward the Development of a Regional Ecosystem Based Management Strategy for ROPME Sea Area*" was then organised from 4 to 7 April 2016 in Dubai, UAE, in order to explore opportunities and processes for

the development of a regional strategy, identifying gaps of existing policies and mechanisms. At the workshop, the representatives of Member States agreed to form a Working Group for the development of the Regional EBM Strategy.

Scope

The Working Group will prepare a draft Regional EBM Strategy for the ROPME Sea Area to be submitted to the ROPME Council.

Activities

The Working Group, in relation to the development of a Regional EBM Strategy will:

- ✓ Collect and compile information on relevant national and regional policies, plans and projects relevant to development of a future Regional EBM Strategy with particular attention to relevant EBM national and regional sectoral policies and strategies whenever possible. Initially, environment and fisheries sectors will be the focus with future participation of other sectors.
- ✓ Identify gaps in the existing national and regional mechanisms in developing an integrated ecosystem-based and cross sectoral strategy and methods to address the gaps;
- ✓ Prepare with the support of the ROPME Secretariat, an outline of the Regional EBM Strategy to be discussed among relevant stakeholders;
- ✓ Conduct a consultation on the draft outline with relevant stakeholders;
- ✓ Prepare the first draft of the Regional EBM Strategy incorporating inputs from stakeholders;
- ✓ Prepare a proposal on potential monitoring of the Strategy and its implementation mechanisms;
- ✓ Form a Scientific Review subgroup for the Regional EBM Strategy to review monitoring of the Strategy and its implementation mechanisms;
- ✓ Conduct a wider public consultation on the Regional EBM Strategy in respective countries involving local authorities, academia, private sectors and non-governmental organisations;
- ✓ Finalize the Regional EBM Strategy document to be submitted to the ROPME Ministerial Council Meeting for consideration and adoption.

Membership

Each of the eight Member States of the Kuwait Convention will nominate members to the working group. Each Member State may designate two representatives one from environment sector and one from fisheries sector.

In addition, inter-disciplinary experts will be suggested by the Working Group or by the ROPME Secretariat to provide specific inputs.

All members will participate in the Working Group with an equal footing.

Coordination

The ROPME Secretariat shall assign a coordinator for the Regional EBM Strategy.

Secretariat /Administrative support

The ROPME Secretariat will function as the secretariat for the Working Group. Within the available resources, the secretariat will provide administrative and secretarial services.

The ROPME Secretariat will ensure that ROPME has enough resources for the Working Group.

Modality of communication

The Working Group will agree on a schedule, frequency of meetings and work plan. The Working Group will conduct all the meetings through telephone conferences during the inter-sessional period with potential in-person meetings depending on the availability of funds.

The Working Group will start working as a Plenary. It is proposed to organize a Scientific Review subgroup, and in addition to this group, the Working Group may organize other activity groups for specific activities. External experts may be involved to facilitate activities of the Working Group and its activity groups.

Responsibilities of the Working Group Members

In order to prepare a draft Regional EBM Strategy, the Working Groups members will:

- Participate in Working Group meetings in person and engage in discussions organized through electronic means during inter-sessional periods;

- Work with other affiliated sub-Working Groups in a collaborative manner in order to fulfill the activities of the Working Group;
- Allocate necessary time for the tasks as adopted by the Working Group;
- Undertake national cross-sectoral consultative meetings for the Regional EBM Strategy to ensure collection of national data including information on national policies, programmes, and projects that are relevant to the Strategy;
- Maintain regular communication with the ROPME Secretariat and provide timely inputs as requested;
- Identify and nominate national experts and scientific institutions to carry out specific tasks as assigned by the Working Group;
- Prepare specific reports and documents as agreed by the Working Group with the assistance of the ROPME Secretariat, UN Environment Programme and other partners;
- Propose a capacity-development programme for Ecosystem-Based Management and Ecosystem-based Adaptation (EBA) related issues.

ANNEX V

WORK PLAN OF THE WORKING GROUP

Work Plan of the Working Group

Timeline	Remarks	Responsible members	Remarks
April 2016	Agreement on the Work Plan	Working Group members	
August – September 2016	ROPME will send an official letter to designate members Finalization of initial membership of the WG	ROPME Secretariat	
May 2016	Preparation of terms of reference for a scoping study and inventory	ROPME and UNEP	
May – September 2016	Preparation of a report which includes: Scoping study, which will identify elements for the Strategy; Inventory of existing policies, activities, projects and institutions relevant to EBM based on information provided by the countries.	ROPME Secretariat	
May – September 2016	Preparation of a preliminary ecosystem assessment report	UNEP/ ROWA and ROPME will decide on a partner organization	
October 2016	Organization of the First Working Group Meeting. Formalized Working Group to decide on Chairmanship; Clarify the responsibilities of the Working Group Members; Review preliminary results of the inventory study; Identify regional priorities.	ROPME and Working Group members	
November 2016	Preparation of national information gathering form	ROPME Secretariat	

May – June 2017	Draft an outline of the Strategy	ROPME and UNEP	
	Preparation of national report on existing policies and activities related to the EBM Strategy	Working Group members	
March – October 2017	Organization of national inter-ministerial committees for the EBM Strategy in each country Information gathering in each country based on the format prepared by the ROPME Secretariat	Working Group members	
	Finalization of the preliminary ecosystem assessment report, inventory report, and scoping study	ROPME Secretariat	
July 2017	Hold the Second Meeting of the Working Group Review of the scoping study, inventory and ecosystem assessment report; Identify stakeholders; Identify common goals, interests and objectives; Identify areas for further studies; Review and finalize the draft outline of the strategy; Decide on stakeholder consultation methods (e.g. unified questionnaire; public hearing); ROPME will establish a module for the network of regional professionals for EBM.	Chair and the Working Group members	Agree on the draft outline of the Strategy.
	ROPME will send out the draft outline of the Strategy to countries	ROPME Secretariat	
July – September 2017	Conduct the first round of stakeholder consultation to start preparing national inputs as decided at the Second Working Group Meeting	Working Group members	
October – December 2017	Prepare the first draft of the Strategy	ROPME will decide on partner organizations	

February 2018	Organize the third Working Group Meeting for the EBM Strategy Review the first draft of the Strategy; Working Group will prepare ToR for a Scientific Review subgroup	Coordinator and the Working Group members	
February - May 2018	Incorporate feedbacks from the third Working Group Meeting for the EBM Strategy and prepare second draft of the Strategy according to the agreed outline	Second draft will be prepared by the ROPME Secretariat and partner organizations The Working Group will review and provide comments	
June 2018	Organize a Scientific Review subgroup meeting to assess needs and prepare assessments and implementation mechanisms (plans) of the Strategy	Working Group	Note: assessments include performance review of the Strategy (based on the targets and indicators set by the Strategy)
September - December 2018	Conduct a wider second round of consultation on the second draft of the Strategy	Working Group members	
January – March 2019	Finalize the Strategy incorporating comments from stakeholders including the network of regional technical professionals (a subgroup of the Working Group)	Working Group members	National, regional and international entities across sectors for consultation
April 2019	Organize the Second Regional EBM Workshop to adopt the Strategy	ROPME Secretariat	
May 2019	Incorporate comments for submission to the ROPME Council	Working Group and the ROPME Secretariat	

ANNEX VI

**PRELIMINARY LIST OF THE REGIONAL PRIORITIES
FOR THE EBM STRATEGY**

**List of issues raised during the EBM Workshop in Dubai
(4-7 April 2016)**

What are the elements to be included in the future EBM Strategy?

Data management

- *Centralized repository of information (online)*
 - o Integration of fishery and environment data
 - o Open access to research findings / data
 - o Experience sharing on implementation methods

Institutional settings

- o Research centers collaboration /network of scientists
- o Inter-sectoral arrangements linking environment and fisheries
- o Regional marine council / national marine institute

Other thematic issues

- **Baseline situation** to understand the ecosystems and habitats
 - o **Fish stock assessments** at the national and regional level
 - o Assessment of ecosystem services
 - o Economic **valuation of ecosystems**
 - o Socioeconomic studies
- Identification of **emerging threats**
- Effects of **dust storms** and its impact on fish, plankton and coral communities
- The impact of the **land reclamation** and **dredging**
- **MPAs** and **fish refuge** to maintain or enhance fish stock
- **Artificial corals** and their impacts
- **Pollution** and its impacts
 - o Eutrophication
 - o harmful algal bloom (HABs)
 - o marine litter
 - o thermal pollution from nuclear power plants and desalinization plants

- **Monitoring and assessment** on the impacts of the **fisheries**-related activities
 - impacts of **single species harvesting**
 - **small scale fisheries**
 - **Bycatch** (gill nets, gear size etc) and its reporting
 - impact and size of **recreational fisheries**
 - impacts of **aquaculture** on the environment
 - bacteria and excessive nutrients, destruction of habitats, pathogens
 - **Ballast water** management and introduction of **invasive species**
 - **Climate change** impacts
 - Fish habitats
 - Socio-economic conditions
 - River hydrology and change in estuary morphology
 - Salinity changes affecting the fish habitats
- Regional **Red List** for all the marine species

Technical trainings and technology transfer

- Scientists from the region to attend and learn from relevant processes in other regions
- Capacity building to better monitor and collect basic fishery / environment data
- Identification of relevant and suitable technologies

**Common issues raised on the questionnaire and discussions during the
ROPME – JICA Seminar
(11-14 October 2016)**

- Characterization of habitats, species
- Aquaculture including mariculture
- Red tides
- Sewage
- Oil pollution
- Desalination plants
- Ballast water
- Conservation / restoration of vulnerable habitats (coral reefs, mangroves)
- Fish stock management / enhancement
- Land reclamation and dredging
- Coastal zone management

Preliminary list of the regional priorities for the EBM Strategy

Preliminary regional priority issues

- 1) Conservation and sustainable management of biodiversity
- 2) Climate change mitigation and adaptation
- 3) Integrated coastal area management (ICAM)
- 4) Pollution mitigation and control
- 5) Sustainable fisheries and aquaculture
- 6) Prevention and control of Invasive species and HABs

Cross-cutting principles

- Implementation effectiveness of national, regional and international legal instruments
- Capacity development

ANNEX VII

**QUESTIONNAIRE ON EXISTING ACTIVITY AND CHALLENGES
ON ROPME SEA AREA**



Questionnaire on Existing Activity and Challenges on ROPME Sea Area

The Memorandum of Understanding (MOU) between ROPME and JICA was signed in 2014 to cooperate each other to ensure the sustainability and improvement of the marine environment. Based on the MOU, A Three Year Partnership Program (2015-2018) has been implemented and the objectives of the Program are 1) Sharing knowledge and experience on Management of Marine Environment between ROPME, Member States and Japan for future cooperation and 2) Promoting regional/bilateral cooperation among ROPME Member States and Japan.

In this context, the questionnaire has been developed and main purpose of the questionnaire is to identify regional and national challenges of ROPME Sea Area(RSA) related to marine environment, and find out potential cooperation fields between ROPME Member States and JICA.

After fill out the form, please submit it to the following contacts.

Your comments and opinions are highly appreciated.

Contact:

Mr. YoichiHARADA
Team Leader/JICA Study Team
harada-y@ides-inc.co.jp
+81-3-3434-0038

Mr. Satoshi SASAKURA
Sub Leader/JICA Study Team
ssatoshi@ideacon.co.jp
+81-6-4703-2810

First, please give your information. Then, start answering the questions

Date:
Country:
Name:
Organization:
Department:
Position:
Email:
TEL:



Part 1. Questionnaire on major activities to protect the marine environment/resource

- (1) Please describe the major activities which your organization carry out on protection of the marine environment/resource.

- (2) Does your country/organization have any policies, master plans, strategies for the protection of the marine environment/resource?
If yes, please provide such documents and described related activities or projects which your country/organization carry out.

- (3) Does your country/organization carry out regular environmental monitoring?
If yes, please describe responsible organizations, frequency, monitoring items (water quality, sediment, flora/fauna, fish stock etc.).

- (4) Does your country/organization have any Environmental Database (including baseline data of water quality, sediment, flora/fauna, fish stock and pollution source inventory etc.)?
If yes, please describe responsible organizations, items to be managed.



- (5) Does your country set up any marine protected area(MPA)?
If yes, please provide a map on MPAs and describe how to manage the MPAs
- (6) Does your country/organization utilize satellite images for marine environmental analysis?
If yes, please describe description of the satellite (MODIS etc.) and how to utilize.
- (7) Does your country/organization conduct any coordination activity (meeting, workshop, or monitoring) with relevant ministries/organizations such as environmental sector, fishery sector, or oil & energy sector?

Part 2. Questionnaire on environmental challenges and expectations to JICA

- (1) Please describe any institutional and technical challenges which your country/organization is facing related to the marine environment

Institutional Challenges

(e.g. lack of laws/regulations which support the Kuwait Action Plan/Protocols, lack of water quality standards)

Technical Challenges

(e.g. waste water from Desalination plants, red tide, heavy metal pollution on sediments)



- (2) What kind of technology or experience do you expect to cooperate with JICA to overcome the above mentioned challenges?

Followings are examples of Japanese technology and experience

Law/Regulation:	Total pollution control, Water quality standard for the aquatic life
Desalination/Waste water treatment:	High-efficiency desalination system, Eco-friendly Seawater intake system, Advanced waste water treatment,
Monitoring:	Automated waste water monitoring, Automated oceanographic monitoring
Data base/analysis	Database system (Clearing House), Hydrological/Water quality modelling, Satellite image data analysis (identification of coral reef or tidal front)
On-site technology	Thin-layer dredging, Eco-friendly revetment
Marine life protection	Biotelemetry, Coral transplantation, Artificial tidal flat/sea glass bed
Fishery	Advanced aquaculture technology, Fishing regulation such as TAC
Marine litter:	Drifting simulation model using the data of satellite image and HF radar, cleanup vessel with monitoring equipment

Thank you very much for your cooperation!

ANNEX VIII

**PRELIMINARY LIST OF REGIONAL NEEDS FOR TECHNOLOGY
TRANSFER AND CAPACITY DEVELOPMENT ON PRIORITY ISSUES**

**Preliminary list of regional needs for technology transfer
and capacity development on priority issues**

Priority issue	Required technology / capacity building activities relevant to EBM
Conservation and sustainable management of biodiversity	Habitat restoration through slope structures Artificial tidal flats using dredged sub-production SAR images for EBSA identification
Climate change mitigation and adaptation	
Integrated coastal area management (ICAM)	
Pollution mitigation and control	AIS and satellite images (remote sensing) for tracing pollutants in the ROPME Sea Area (with MEMAC)
Sustainable fisheries and aquaculture	Designation of Essential Fish Habitats (including methodology development)
Prevention and control of Invasive species and HABs	

ANNEX IX

**CONCLUSIONS AND RECOMMENDATIONS OF THE FIRST
WORKING GROUP MEETING**

**First Meeting of the ROPME- EBM Working Group on the Development
of the Regional EBM Strategy**
Tokyo, Japan 15-16 October 2016

Conclusions and Recommendations

1. The Working Group will initiate the tasks with immediate effect to prepare the Regional EBM Strategy as described in the Terms of Reference.
2. The Working Group recommended that the ROPME Secretariat assign a coordinator for the coordination of the Working Group activities. The coordinator will lead the process based on the Work Plan as agreed by the Working Group.
3. The Working Group members, together with the ROPME Secretariat, will present the Regional Ecosystem-Based Management Strategy to regional and international fora including the Regional Commission for Fisheries meetings.
4. The Ecosystem-Based Management Working Group members will review the information as provided by the inventory study and submit comments by 15 November 2016 to the ROPME Secretariat.
5. The ROPME Secretariat and the Japan International Cooperation Agency will liaise the Working Group members with the inventory study consultants in their respective countries.
6. The Working Group requested the ROPME Secretariat to develop an online clearing-house mechanism to disseminate and share information on the Regional Ecosystem-Based Management Strategy.
7. Each Working Group member will allocate sufficient time to conduct activities required to implement the activities of the Working Group according to the adopted Work Plan.
8. The Chair of the Working Group meetings will be rotated among the Working Group members.

9. The Working Group will propose to the ROPME Secretariat the necessary resources including financial support for the activities of the Working Group and affiliated sub-groups.
10. The Working Group will establish a mailing list of the Working Group members for the intersessional correspondence. The mailing list will be administered by the ROPME Secretariat.
11. The Working Group proposed that the United Nations Environment Programme would organise training for the Working Group members on communication methods¹ to facilitate the process before June 2017.
12. The ROPME Secretariat will organise brainstorming meetings with decision makers on Ecosystem-Based Management. The participants for the meetings will be proposed by their respective countries.

¹ Including modules, festivals

ANNEX X


PRESENTATIONS

List of Presentations

1	<i>Updated Draft TORs of the Working Group & Working Plan</i> <i>Dr. Hassan Awad, ROPME Expert</i>
2	Progress of Inventory Study JICA Study Team
3	Experience to Seek Prioritized Commonality in NOWPAP (NOWPAP: North West Pacific Action Plan, one of Regional Sea Programs of UNEP: China, Korea, Russia and Japan)
4	Presentation of United Nations Environment Programme - Regional Office West Asia (ROWA) Diane Klaimi, Regional Coordinator, Ecosystem Management
5	Ecosystem Based Management in Japan - some successful examples Yoshihisa Shirayama, Japan Agency for Marine-Earth Science and Technology
6	Priority Issues in the ROPME Sea Area Kanako Hasegawa, Ecosystems Division, Regional Seas Programme, United Nations Environment Programme

UPDATED DRAFT TORs OF THE WORKING GROUP & WORKING PLAN

**DR. HASSAN AWAD
ROPME EXPERT**



Updated Draft
TORs of the Working Group & Working Plan

Presented by
Hassan Awad
hbawad@ropme.org

First Meeting of the ROPME- EBM Working Group on the Development of the Regional EBM Strategy, Tokyo, Japan 15-16 October 2016



*Towards the Development of a Regional Ecosystem Based Management Strategy
for ROPME Sea Area*

Dubai, UAE, 4-7 April 2016

ROPME Council Decision No. CM16/7:

***“ROPME Secretariat has to promote a shift towards
more integrated ecosystem-based approaches to the
management of the ROPME Sea Area (RSA)”***

Sustainable Development Goals (SDGs)
(Adopted by the World Leaders Summit of Sept.2015)

GOAL 1 End poverty in all its forms everywhere

GOAL 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture

GOAL 3 Ensure healthy lives and promote well-being for all at all ages

GOAL 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

GOAL 5 Achieve gender equality and empower all women and girls

GOAL 6 Ensure availability and sustainable management of water and sanitation for all

GOAL 7 Ensure access to affordable, reliable, sustainable and modern energy for all

GOAL 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

GOAL 9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

GOAL 10 Reduce inequality within and among countries

GOAL 11 Make cities and human settlements inclusive, safe, resilient and sustainable

GOAL 12 Ensure sustainable consumption and production patterns

GOAL 13 Take urgent action to combat climate change and its impacts*

GOAL 14 Conserve and sustainably use of the oceans, seas and marine resources for sustainable development

GOAL 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

GOAL 16 Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

GOAL 17 Strengthen the means of implementation and revitalize the global partnership for sustainable development

SDG -14 for Oceans SD:
“Conserve and sustainably use of the oceans, seas and marine resources for sustainable development”

Targets	
14.1 by 2025	Prevent and significantly <u>reduce marine pollution</u> of all kinds, particularly from land-based activities, including marine debris and nutrient pollution
14.2 by 2020	Sustainably manage, and <u>protect marine and coastal ecosystems</u> to avoid significant adverse impacts, including by strengthening their resilience and take action for their restoration, to achieve healthy and productive oceans
14.3	<u>Minimize and address the impacts of ocean acidification</u> , including through enhanced scientific cooperation at all levels
14.4 by 2020	Effectively regulate harvesting, and end overfishing, illegal, unreported and unregulated (IUU) fishing and destructive fishing practices and implement science-based management plans, to <u>restore fish stocks</u> in the shortest time feasible at least to levels that can produce maximum sustainable yield as determined by their biological characteristics
14.5 by 2020	Conserve at least 10 % of <u>coastal and marine areas</u> , consistent with national and international law and based on best available scientific information
14.6 by 2020	Prohibit certain forms of <u>fisheries subsidies</u> which contribute to overcapacity and overfishing, and eliminate subsidies that contribute to IUU fishing, and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization (WTO) fisheries subsidies negotiation*
14.7 by 2030	Increase the economic benefits to SIDS and Least Developed Countries (LDCs) from the sustainable <u>use of marine resources</u> , including through sustainable management of fisheries, aquaculture and tourism
14.a	Increase <u>scientific knowledge</u> , develop research capacities and transfer marine technology taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular SIDS and (LDCs)
14.b	Provide access of small-scale artisanal fishers to marine resources and markets
14.c	Ensure the full implementation of <u>international law</u> , as reflected in UNCLOS for states parties to it, including, where applicable, existing regional and international

Role of the Regional Seas in Oceans SDG

14.1 by 2025, prevent and significantly reduce marine pollution of all kinds, particularly from land-based activities, including marine debris and nutrient pollution

Setting specific regional targets for key pollutants; linking state of environment reporting to SDGs where possible as well as linking to LBS protocols; supporting national actions to address key pollution issues including developing innovative financing mechanisms.

14.2 by 2020, sustainably manage, and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience and take action for their restoration, to achieve healthy and productive oceans

Linking to the Specially Protected Area and Wildlife (SPA) and other biodiversity related protocols where relevant; consider strengthening support to member states to implement the protocols; where the protocol does not exist consider suggesting the development of one; consider supporting member states to undertake the ecosystem approach and in the use of management tools such as integrated coastal management, marine spatial planning and ecosystem valuation.

14.3 minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

Increase member state capacity to undertake ecosystem management to improve ecosystem resilience of marine and coastal areas; also increase the understanding of the impacts of acidification and the appropriate interventions among science and technology groups under the RSCAPs.

14.5 by 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on best available scientific information

Use of SPAW and other biodiversity related protocols to support member state in establishing regional and national MPA targets and networks.

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14.7 by 2030, increase the economic benefits to SIDS and LDCs from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism

Using protocols and other management tools such as innovative financing mechanisms, marine spatial planning, integrated assessments, ecosystem valuation and others to support member states in strengthening management measures including policies and regulations for improved sustainable use of marine resources.

14.a increase scientific knowledge, develop research capacities and transfer marine technology taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular SIDS and LDCs

Strengthen knowledge sharing platforms of the various RSCAPs; strengthen the capacity and knowledge of Science and Technology communities within RSCAPs for improved use of the tools and information for the sound decision making related to the sustainable management and use of marine resources; strengthen science-to-policy dialogues.

14.c ensure the full implementation of international law, as reflected in UNCLOS for states parties to it, including, where applicable, existing regional and international regimes for the conservation and sustainable use of oceans and their resources by their parties

Continue to strengthen the ratification of protocols and their implementation by member states as well as the supporting the development and functioning of Compliance Committees where relevant; consider the development or updating of existing protocols to reflect current management trends or to strengthen support for policy development.

6



*Towards the Development of a Regional Ecosystem Based Management Strategy for ROPME Sea Area
(In Cooperation with UNEP/DEPI & UNEP/ROWA)*

Objectives:

- *To explore opportunities and processes for the development of a Regional Strategy, identifying gaps of existing policies and mechanisms*
- *To form a Regional Working Group for the development of the Regional EBM Strategy*


The following recommendations were made by the participants of the workshop. It should be noted that these recommendations are not legally binding:

1. Recognizing the importance of the Ecosystem Based Management (EBM) for the sustainable management of the ROPME Sea Area as adopted by the 16th Meeting of ROPME Council in 2013, the process of developing a Regional EBM Strategy (hereafter EBM Strategy) for the ROPME Sea Area should be continued for the final approval of the Strategy by the ROPME Council.
2. The EBM Strategy will set clear regional ecological objectives and associated targets and indicators. The EBM Strategy will provide overarching framework to inspire national marine strategies and plans.
3. A Working Group should be established comprised of the government designated representatives as well as of relevant regional and international organizations for the development of the EBM Strategy.
4. The EBM Strategy should be consistent with the 2030 Agenda and the Sustainable Development Goals (SDGs) as well as Aichi Biodiversity Targets of the Convention of Biological Diversity so that the EBM Strategy will serve as a regional implementation strategy for these in the ROPME Sea Area.

5. Recognizing the current level of understanding of the marine and coastal ecosystems in the ROPME Sea Area and the existence of knowledge gaps, coordinated ecosystem assessments in accordance with existing national assessments are necessary as part of the EBM Strategy. The assessments will form the baseline against which further strategy implementation will be measured.
6. Recognizing the need for enhanced data and information sharing, existing data should be collected and gaps should be identified.
7. In order to create further synergies between different policies and projects across the region, an inventory of policies, legislation, organizations, projects and initiatives at the national and regional level needs to be utilized.
8. A network of regional technical professionals for EBM in the ROPME Sea Area should be established by ROPME affiliated with the Working Group for the EBM Strategy in order to mobilize and support scientific information for the development of the EBM Strategy.

9. Cooperation with other regional and appropriate organizations should be made for the development of the EBM Strategy, given the range of human activities in the ROPME Sea Area.
10. Considering the identical geographical coverage and membership of ROPME and RECOFI, it would be highly desirable and advisable to establish an effective and viable cooperation framework. In this regard, ROPME and RECOFI should discuss areas for cooperation through a joint meeting.
11. Recognizing the range of scientific and technical fields that need to be involved for the development of the EBM Strategy, the process should be accompanied by relevant trainings and transfer of relevant marine technologies.
12. Pilot projects in support of the EBM Strategy should be developed and implemented with financial support by ROPME.

In the name of GOD the Compassionate, the Merciful



**REGIONAL ORGANIZATION FOR THE PROTECTION
OF THE MARINE ENVIRONMENT (ROPME)**

REMINDER

**We sincerely appreciate to receive your kind
nominations by 20 June 2016, at the latest,
for the First Meeting of the Working Group.**

Date: 20 April 2016
Ref.: 113/2016

Dear Dr. Bin Daina,

Sub: **Towards the Development of an Ecosystem Based Management
Strategy for ROPME Sea Area
Dubai, UAE, 4-7 April 2016**

May I have the pleasure to refer to the above important Workshop which was successfully convened, as planned and provide the texts of the Workshop recommendations and the presentations as well as the Terms of Reference (TOR) and the Workplan for the Working Group on Regional EBM Strategy. The documents are now available through download at URL: http://ropme.org/651_EBM_EN.clx.

In accordance with the recommendation of the Workshop, a Working Group of Senior Experts from Environment and Fisheries should be initially established as the main vehicle for the development of the EBM Strategy. Members of the Working Group should be technically competent and familiar with National Policies, Strategies, Plans, Programmes, Governance Mechanisms and Management in their respective fields. They should work with a team of National experts and liaise with other Members of the Working Group, as stipulated in the TOR and the Workplan.

It would be highly appreciated if you kindly could confirm the names and designations of two Senior Experts, one from Environment Sector and one from Fisheries Sector for the Working Group at an early date.

Meantime, I would like to inform that the Reports of the following events will be available soon through download, upon the request of a large number of participants:

- 1) First Scientific Committee Meeting for the Four Season Oceanographic Cruise – 2016 Doha, State of Qatar, 13-14 September 2015
URL: http://www.ropme.org/431_1stSCMtg_4SeasonOceanCruise_2016_EN.clx
- 2) Technical Workshop on Monitoring and Assessment of Sand and Dust Storms in the Marine Environment of ROPME Sea Area Dubai, UAE, 11-12 October 2015
URL: http://www.ropme.org/432_Sand_Storm_Oct_2015_EN.clx

Yours sincerely,
H. Al-Hammadi
Dr. Hassan Mohammadi
Coordinator

Dr. Mohamed Mubarak Bin Daina
Chief Executive
Supreme Council for Environment
P.O. Box 18233
Isa Town
KINGDOM OF BAHRAIN

P.O.Box: 26388, Safat 13124, KUWAIT – Tel: 25312146, Fax: 25324172 – 25335243, E-Mail: ropme@ropme.org
www.ropme.org – www.ropme.com – www.ropme.net

**Terms of Reference of the Working Group on
a Regional EBM Strategy for the ROPME Sea Area
(Updated Draft)**

First Meeting of the ROPME- EBM Working Group on the Development of the Regional EBM Strategy, Tokyo, Japan 15-16 October 2016

Activities:

The Working Group, in relation to the development of a Regional EBM Strategy will:

1. **Collect and compile information** on relevant national and regional policies, plans and projects relevant to development of a future Regional EBM Strategy with particular attention to national and regional sectoral policies and strategies in environment and fisheries sectors;
1. **Identify gaps** in the existing national and regional mechanisms in developing an integrated ecosystem-based and cross sectoral strategy and methods to address the gaps;
2. Prepare with the support of the ROPME Secretariat, an **outline of the Regional EBM Strategy** to be discussed among relevant stakeholders;
3. **Conduct a consultation** on the draft outline with relevant stakeholders;

5. Prepare the **first draft of the Regional EBM Strategy** incorporating inputs from stakeholders;
6. **Prepare a proposal** on potential monitoring and implementation mechanisms of the Strategy;
7. **Organise a Scientific Review subgroup** for the Regional EBM Strategy to review monitoring and implementation mechanisms of the Strategy;
8. **Conduct a wider public consultation** on the Regional EBM Strategy in respective countries involving local authorities, academia, private sectors and non-governmental organisations;
9. Finalize the Regional EBM Strategy document to be submitted to a ROPME Council meeting.

Membership:

- Each Member State designate two representatives, one from environment sector and one from fisheries sector in order to ensure multi-sectoral participation.
- Representatives from the relevant Regional Organizations
- Any other partners including research institutions interested in providing technical inputs are invited to join.

(All members will participate in the Working Group with an equal footing)

Chairmanship

The Working Group will elect its Chair and the person will continue the function until the Group fulfills its tasks.

The Working Group members as and when selected by their respective countries will decide on coordination mechanisms.

It is suggested here to have a chair and co-chair, the co-chair representing regional organizations to ensure full integration and stakeholder engagement by all relevant sectors. Both ROPME and UNEP will continue to monitor and ensure adequate functioning of the WG.

Secretariat /Administrative support

The ROPME Secretariat will function as the secretariat for the Working Group. Within the available resources, the secretariat will provide administrative and secretariat services to the Working Group, including maintenance and distribution of meeting documents.

Modality of the Working Group

-The Working Group will agree on a schedule, frequency of meetings and work plan.

- The Working Group will conduct all the meetings though telephone conferences during the inter-sessional period with potential in-person meetings depending on the availability of funds.

- The Working Group will start working as a Plenary. It is proposed to organize a Scientific Review subgroup, and in addition to this group.

--The Working Group may organize other activity groups for specific activities.

- External experts may be involved to facilitate activities of the Working Group and its activity groups.

Responsibilities of the Working Group Members

In order to prepare a draft Regional EBM Strategy, the Working Group members will:

1. Participate in Working Group meetings in person and engage in discussions organized through electronic means during inter-sessional periods;
2. Ensure that the Contracting Parties are represented at the Working Group meetings;
3. Work with other Working Group members in a collaborative manner in order to fulfill the activities of the Working Group;
4. Ensure sufficient time and resource are allocated to complete necessary tasks of the Working Group;
5. Establish and chair national inter-ministry committee for the Regional EBM Strategy to ensure preparation of national data including information on national policies, programmes, and projects that are relevant to the Strategy;
6. Maintain regular communication with the Chair and the ROPME Secretariat and provide timely inputs as requested;
7. Organize consultation on the Regional EBM Strategy with the stakeholder at the national level;
8. Disseminate information on and promote the process of the Regional EBM Strategy at the national level;
9. Identify and nominate national experts and scientific institutions when decided by the Working Group;
10. Write specific documents as agreed by the Working Group with assistance from the ROPME Secretariat, UNEP and other partners;
11. Secure financial contribution to the work of the Working Group with the amounts to be recommended by the Working Group itself.

Crucially important...

a) **Members from Member States** to be sufficiently senior to have the permission of senior government

b) **Members from Regional Agencies** to be with the technical expertise to be able to articulate and embrace the value of enhanced and novel management, who also have the support of senior people in their agencies.

//

*Provisional Work Plan of the Working Group on a
Regional EBM Strategy for ROPME Sea Area*

(Updated)

2016			
Timeline	Activity	Responsible members	Remarks
Apr	Agreement on the work plan	Working Group members	Achieved
Aug - Sept	ROPME will send an official letter Finalization of initial membership of the WG	ROPME Secretariat	Achieved
May	Preparation of terms of reference for a scoping study and inventory	ROPME and UNEP	Achieved
May – Sept	Preparation of a report which includes: <ul style="list-style-type: none"> Scoping study, which will identify elements for the Strategy; Inventory of existing policies, activities, projects and institutions relevant to EBM based on information provided by the countries. 	ROPME Secretariat	Ongoing
May – Sept	Preparation of a preliminary ecosystem assessment report	UNEP ROWA (ROPME will decide on a partner organisation)	ongoing
Oct	Organization of the First Working Group Meeting. <ul style="list-style-type: none"> Formalized Working Group to decide on Chairmanship; Clarify the responsibilities of the Working Group Members; Review preliminary results of the inventory study; Identify regional priorities. 	ROPME and Working Group members	Achieved
Nov	Preparation of national information gathering form	ROPME Secretariat	

¹¹ Recommendation Paragraph 7 ¹² Recommendation Paragraph 5 ¹³ Initial consultation with AGEDI was proposed

2017			
Timeline	Activity	Responsible members	Remarks
Mar– June	Draft an outline of the Strategy	ROPME will decide on a partner organization	
	Preparation of national report on existing policies and activities related to the EBM Strategy	Working Group members	
Mar -Oct	<ul style="list-style-type: none"> Organization of national inter-ministerial committees for the EBM Strategy in each country Information gathering in each country based on the format prepared by the ROPME Secretariat 	Working Group members	
	Finalization of the preliminary ecosystem assessment report, inventory report, and scoping study	ROPME Secretariat	
July	Hold the Second meeting of the Working Group <ul style="list-style-type: none"> Review of the scoping study, inventory and ecosystem assessment report; Identify stakeholders; Identify common goals, interests and objectives; Identify areas for further studies; Review and finalize the draft outline of the strategy; Decide on stakeholder consultation methods (e.g. unified questionnaire; public hearing); ROPME will establish a module for the network of regional professionals for EBM. 	Chair and the Working Group members	Agree on the draft outline of the Strategy.
	ROPME will send out the draft outline of the Strategy to countries	ROPME Secretariat	
July–Sept	Conduct the first round of stakeholder consultation to start preparing national inputs to the decided at the Second Working Group meeting	Working Group members	
Oct – Dec	Prepare the first draft of the Strategy	ROPME will decide on a partner organisation	

¹¹ Recommendation Paragraph 5 ¹² Recommendation Paragraph 8

2018			
Timeline	Activity	Responsible members	Remarks
Feb	Organize the third Working Group meeting for the EBM Strategy <ul style="list-style-type: none"> Review the first draft of the Strategy; Identify ToR for a Scientific Review subgroup 	Chair and the Working Group members	
Feb - May	Incorporate feedbacks from the third Working Group meeting for the EBM Strategy and prepare second draft of the Strategy according to the agreed outline	Working Group members	
June	Organize a Scientific Review subgroup to assess needs and prepare assessments and implementation mechanisms of the Strategy	Working Group	Note: assessments includes performance review of Strategy (based on the targets and indicators set by the Strategy)
Sept - Dec	Conduct a wider second round of consultation on the second draft of the Strategy	Working Group members	

2019			
Timeline	Activity	Responsible members	Remarks
Jan - Mar	Finalize the Strategy incorporating comments from stakeholders including the network of regional technical professional (a subgroup of the Working Group)	Working Group members	National, regional and international entities across sectors for consultation
Apr	Organize the Second Regional EBM Workshop to adopt the Strategy	ROPME Secretariat	
May	Incorporate comments for submission to a High-level regional forum (such as the ROPME Council meeting)	Working Group and the ROPME Secretariat	

**ToR of a Scoping Study for
the Regional EBM Strategy for ROPME SEA Area**

Elements of the scoping study report:

- **Analysis of the existing regional and national policies, gap analysis, institutions, mandates, mechanisms and activities across ocean related sectors in the RSA;**
- **Identification of potential implementation mechanisms at the national level;**
- **Identification of elements to be included in the future Strategy; and**
- **Preparation of a potential outline of the future Strategy.**



Thank You...

PROGRESS OF INVENTORY STUDY

JICA STUDY TEAM



Progress of Inventory Study

JICA Study Team



Outline of the Study

- Duration: 25th Aug. – 3st Oct. 2016
- Target Area: ROPME member countries
- Target Sectors: Environment and Fishery sectors + others

Outline of the Study (cont.)

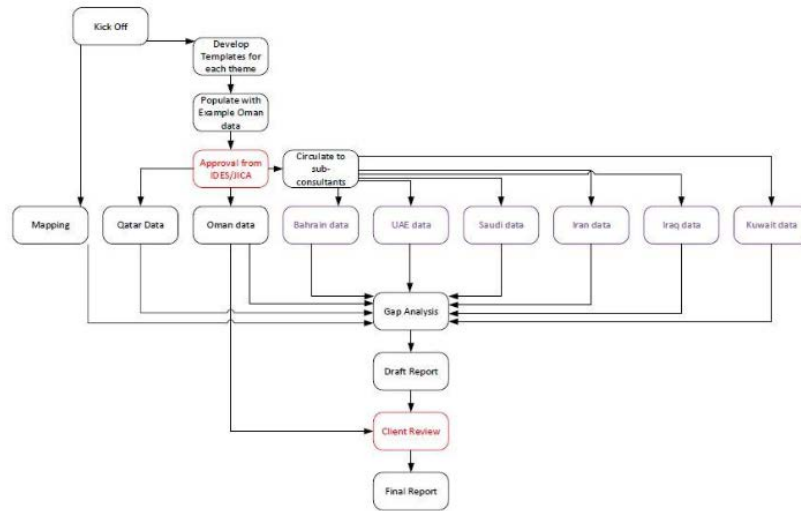
- Scope
 - Information listing -> database
 - Regulation
 - Organization
 - Existing data
 - Data Processing
 - Mapping
 - Basic gap analysis

Study Team

	Iran			Iraq			Kuwait			Saudi			Bahrain			Qatar			UAE			Oman		
	L	S	D	L	S	D	L	S	D	L	S	D	L	S	D	L	S	D	L	S	D	L	S	D
KS & MR	.	.	.																					
EAME				.	.	.																		
SAD							.	.	.															
TEP										.						.								
CEDARE										.	.													
EA													.	.	.									
5OES															
AGEDI																			.	.				

L = Law, regulatory framework and policies
 S = Stakeholders and Activities
 D = Data and Databases

Wrok flow

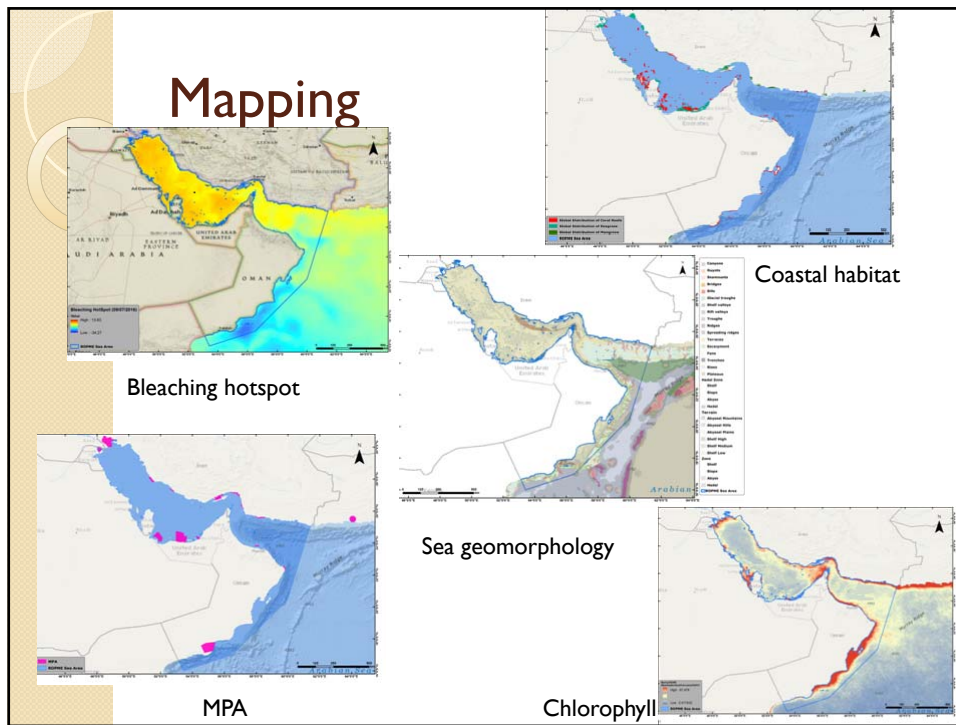


Database -organization-

No.	Organization	Department	Contact Details	Mandate/Interests/Activities/Projects
1	Ministry of Environment and Climate Affairs	Directorate General of Environmental Affairs	Acting Director General: Mr. Ahmed Al Hinai Tel: +968 24404500 deic.meca@gmail.com	<ul style="list-style-type: none"> Environmental Impact Assessment (EIA) and Permitting, licenses Audit and Inspection Marine Pollution
2		Directorate General of Nature Conservation	Director General: Mr. Suleiman Al Akhzami Tel: +968 24404825 alakhzami@meca.gov.om	<ul style="list-style-type: none"> Management of Protected Areas Biodiversity related issues EIA for natural resource related projects (e.g. aquaculture) Coastal Zone Management
3	Ministry of Agriculture and Fish Wealth	DG Fisheries	Minister: H.E. Dr Fuad Al Sajwani Tel: +968 24952067 DG Fisheries Resource Development: Dr Ahmed Mohammed Al Mazrouai Tel: +968 24688256 / 99333483 Ahmed.almazrui20@gmail.com MAFW Tel: +968 24694666 / 24952062 / 24688318 / 24688317 cs@maf.gov.om	<ul style="list-style-type: none"> Fisheries statistics Registration of and outreach to fishermen Development and operation of fishing harbours Development of aquaculture sector Management of fisheries research fund Authority on agricultural related legislation

Organizational chart





EXPERIENCE TO SEEK PRIORITIZED COMMONALITY IN NOWPAP

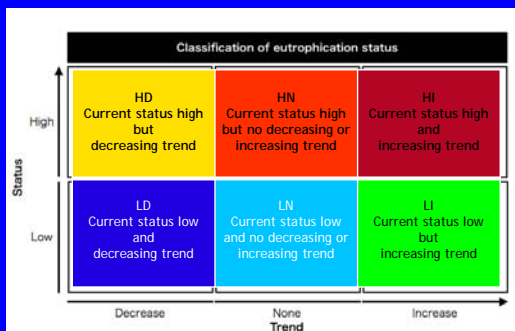
Experience to Seek Prioritized Commonality in NOWPAP



NOWPAP: North West Pacific Action Plan
One of Regional Sea Programs (UNEP):
China, Korea, Russia and Japan

1

NOWPAP established Common Procedure for eutrophication assessment (2009)



Reddish: high level of eutrophication
Bluish: less eutrophic

Classification based on the Common Procedures (NOWPAP CEARAC, 2009)

The Common Procedures

Procedures for assessment of eutrophication status including evaluation of land-based sources of nutrients for the NOWPAP region (Developed in June 2009)

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4 sea areas were selected in 4 countries
for case studies in 2010-2011 biennium



Common parameters and their tentative assessment results in selected areas

Nation	Selected area	Sub-area	Eutrophication assessment results of common parameters					
			DIN conc.	DIP conc.	DIN/DIP ratio	Max. Chl-a	Mean Chl-a	DO
China	Changjiang/Yangtze River estuary and adjacent sea	-	HI	LI	HN	HN	LI	LN
Japan	Northwest Kyushu sea area	A: Hakata Bay	HI	LN	HI	HD	HD	LN
		B: Dokai Bay and Kanmon Strait	-	-	-	HN	HN	LN
		C: Intermediate area	LN	LD	HN*	LN	LN	LN
		D: Offshore area	-	-	-	N	N	HN
	Toyama Bay	A: Coastal area	LN	LN	HN*	LN	LN	LN
		B: Intermediate area	LN	LN	HN*	LN	LN	LN
C: Offshore area		LN	LN	HN*	LN	LN	LI	
Korea	Jinhae Bay	A: Jinhae Bay	LD	LD	LD	-	HD	LD
		B: Masan-Haengum Bay	LD	LD	LD	-	HD	LD
Russia	Peter the Great Bay	A: Amursky Bay	HI	HI	-	-	LI	HD
		B: Ussurilsky Bay	LN	LN	-	LN	LN	LN
		C: Southern part of the Peter the Great Bay	LN	LN	-	HN	LN	LN

Parameters:

- DIN, DIP
- DIN/DIP ratio
- Max Chl.a
- Mean Chl.a
- DO

*Parameter identification of the winter DIN/DIP ratio was not used for category identification, because winter DIN concentration and winter DIP concentration were lower than reference concentrations.

NOWPAP/POMRAC: Ecosystem Based Management
Ecological Quality Objectives (EcoQOs)

Targets and indicators common to 4 countries selected

1. **Biological and habitat diversity** are not changed significantly due to anthropogenic pressure
2. **Alien species** are at levels that do not adversely alter the ecosystem
3. **Eutrophication** adverse effects are absent
4. **Contaminants** cause no significant impact on coastal and marine ecosystems and human health
5. **Marine litter** does not adversely affect coastal and marine environments

**PRESENTATION OF UNITED NATIONS ENVIRONMENT PROGRAMME -
REGIONAL OFFICE WEST ASIA (ROWA)**

**DIANE KLAIMI, REGIONAL COORDINATOR, ECOSYSTEM
MANAGEMENT**

First Meeting of the ROPME- EBM Working Group on the Development of the Regional EBM Strategy

Tokyo, Japan 15-16 October 2016

Diane Klaimi
Regional Coordinator
Ecosystem Management
United Nations Environment Programme- Regional Office West Asia (ROWA)
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skype: diane.klaimi



UNEP IN THE REGIONS The Regional Office for West Asia (ROWA)


ROWA promotes collaboration and partnerships with organizations to develop relevant programmes to respond to the needs of the region, and disseminates environmental knowledge at the national and regional levels.

7 Sub-Programmes:


1. Climate Change
2. Ecosystem management
3. Conflicts and Disasters
4. Environmental Governance
5. Harmful Substances
6. Resource Efficiency
7. Environment under review


12 member states:

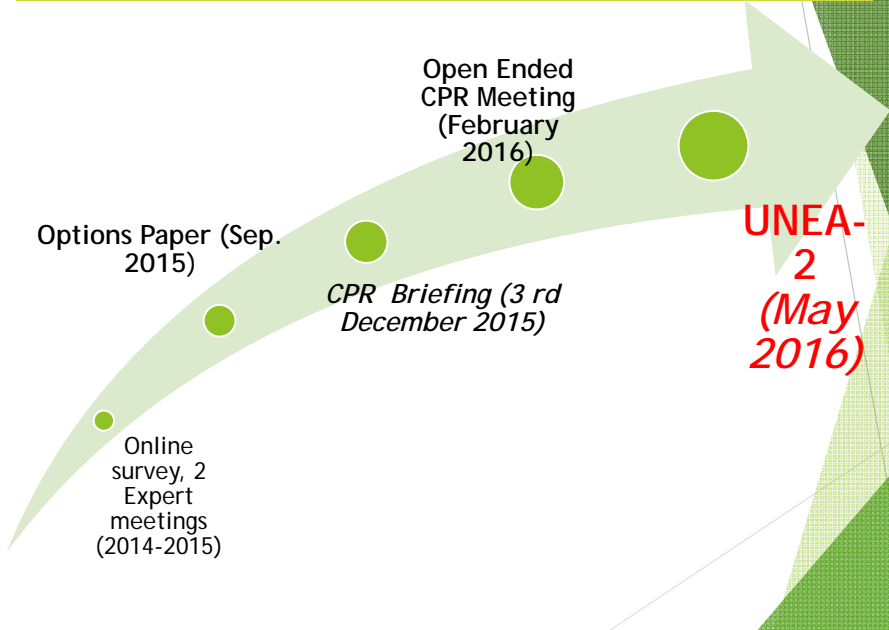
- ▶ Bahrain
- ▶ Iraq
- ▶ Jordan
- ▶ Kuwait
- ▶ Lebanon
- ▶ Oman
- ▶ Palestine
- ▶ Qatar
- ▶ Saudi Arabia
- ▶ Syria
- ▶ U.A.E.
- ▶ Yemen

 **RIO +20 Strengthened UNEP**

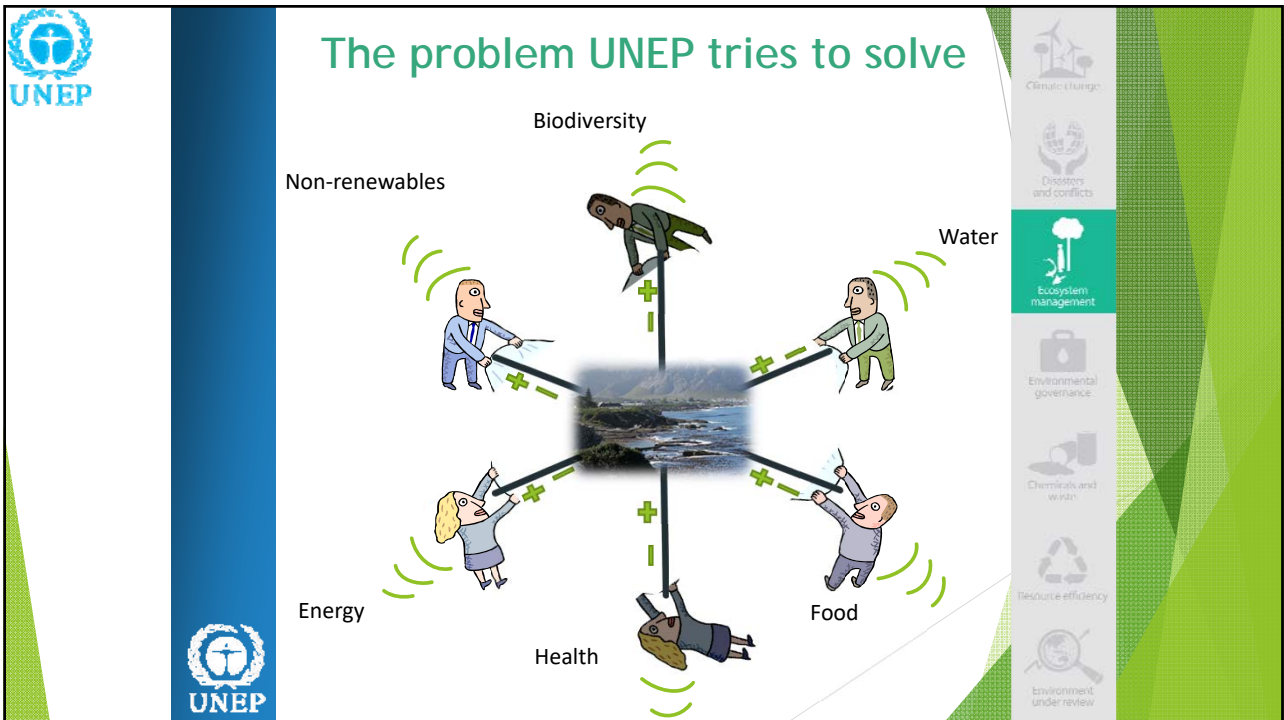
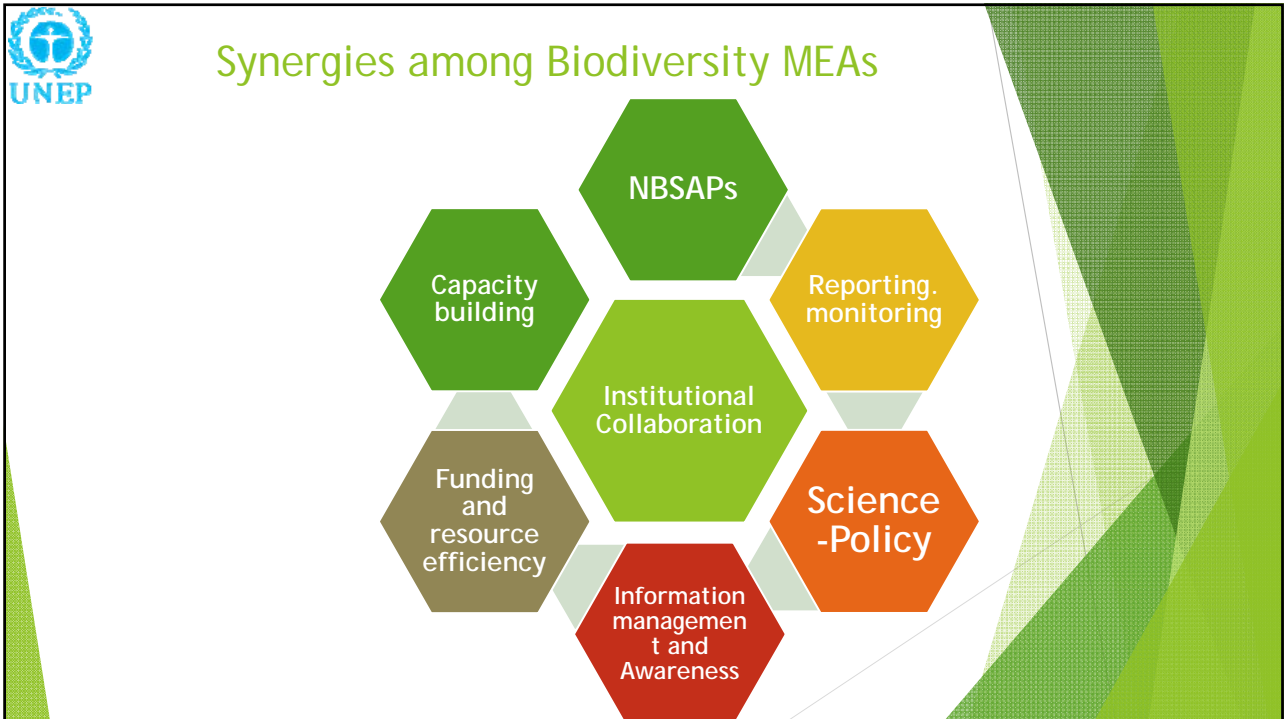
 **UNEA**
United Nations Environment Assembly
of the United Nations Environment Programme
Delivering on the 2030 Agenda

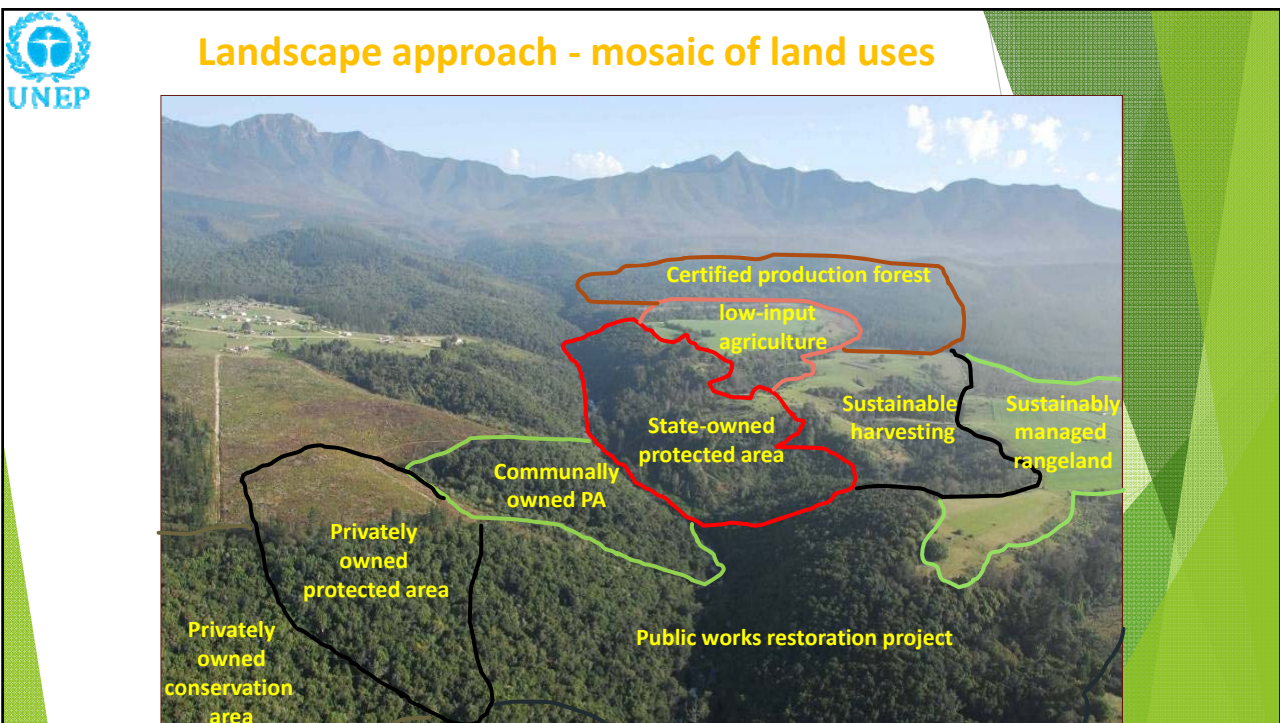
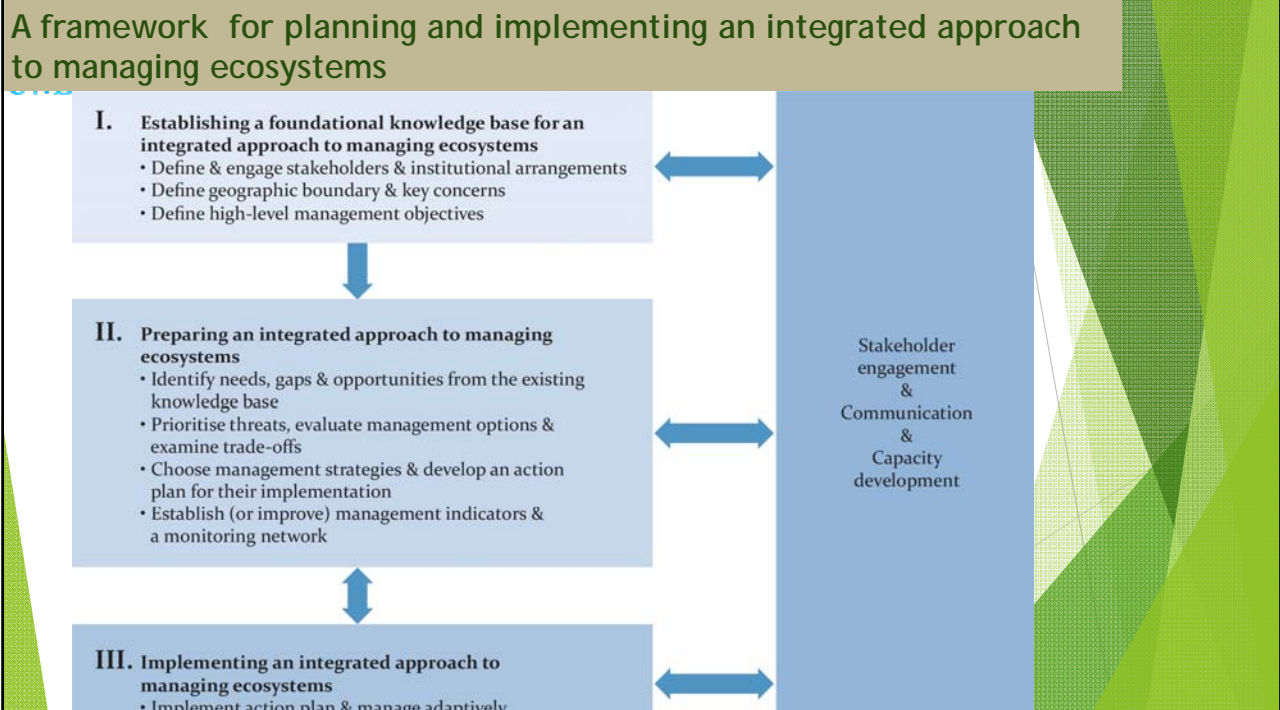


 **Process for elaboration of options for further collaboration and cooperation**



- Online survey, 2 Expert meetings (2014-2015)
- Options Paper (Sep. 2015)
- CPR Briefing (3rd December 2015)
- Open Ended CPR Meeting (February 2016)
- UNEA-2 (May 2016)**







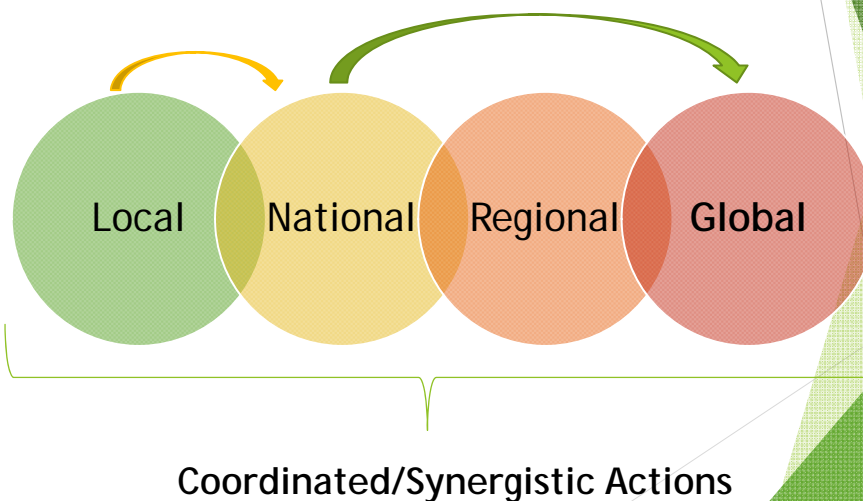
Regional Ecosystem Based Management Strategy for ROPME Sea Area

- ▶ ROPME and UNEP (Regional Office of West Asia (ROWA), and Regional Seas Programme (RSP)) embarked on a new initiative, for the "Promotion of Ecosystem Based Management Approach", for the ROPME Sea Area
- ▶ as a Road Map to protect and improve the marine environment, its resources and sustainable development partnership.
- ▶ to address the imminent threats of climate change, acidification and loss of biodiversity.
- ▶ to seek a unified governance structure for one common water body and management mechanism enabling cross sectoral cooperation, (*fisheries, environment, navigation, development, mining, tourism...etc*)

Driven by the
Regiona






Governing Natural Resources - Future Actions





THE AICHI BIODIVERSITY TARGETS Conservation and Development

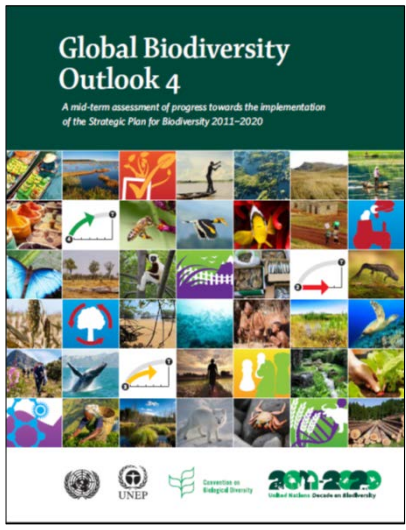
 1 Awareness increased	 2 Biodiversity values integrated	 3 Incentives reformed	 4 Sustainable consumption and production	 5 Habitat loss halved or reduced
 6 Sustainable management of marine living resources	 7 Sustainable agriculture, aquaculture and forestry	 8 Pollution reduced	 9 Invasive alien species prevented and controlled	 10 Pressures on vulnerable ecosystems reduced
 11 Protected areas increased and improved	 12 Extinction prevented	 13 Genetic diversity maintained	 14 Ecosystems and essential services safeguarded	 15 Ecosystems restored and resilience enhanced
 16 Nagoya Protocol in force and operational	 17 NBSAPs adopted as policy instrument	 18 Traditional knowledge respected	 19 Knowledge improved, shared and applied	 20 Financial resources from all sources increased



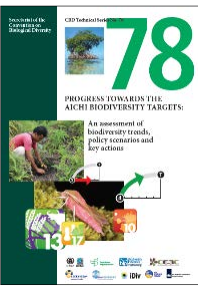
Global Biodiversity Outlook - GBO4

Launched at the CBD COP meeting in South Korea 2014

A mid term review of progress towards the 20 Aichi Biodiversity Targets

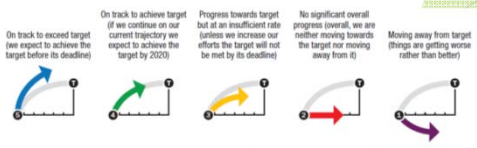


Global Biodiversity Outlook 4
A mid-term assessment of progress towards the implementation of the Strategic Plan for Biodiversity 2011–2020



78
PROGRESS TOWARDS THE AICHI BIODIVERSITY TARGETS
An assessment of biodiversity trends, policy scenarios and key actions

GB0 3: fish catch is not meeting local needs, "Fish catch per capita for the Arabian Peninsula took a sharp plunge from 20kg per capita in 1975 to 11kg per capita in 1977, and was at 9 kg per capita in 1998".



On track to exceed target (we expect to achieve the target before its deadline)

On track to achieve target (if we continue on our current trajectory we expect to achieve the target by 2020)

Progress towards target but at an insufficient rate (unless we increase our efforts the target will not be met by its deadline)

No significant overall progress (overall, we are neither moving towards the target nor moving away from it)

Moving away from target (things are getting worse rather than better)



Aichi Biodiversity Target 6: Sustainable management of marine living resources



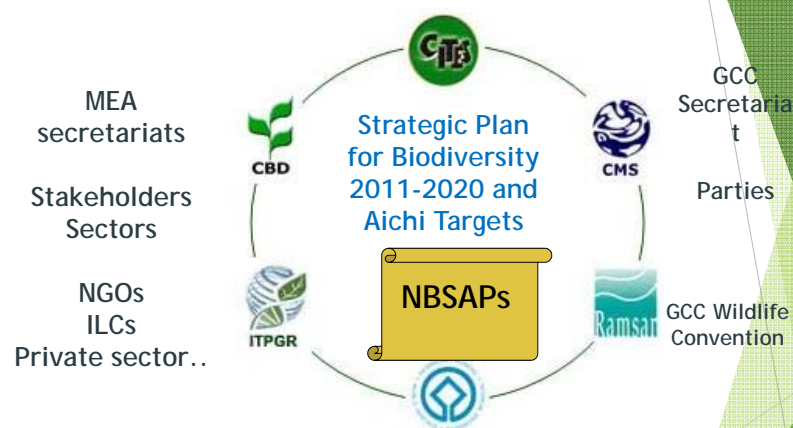
- ▶ Relevant to decisions on sustainable use of biodiversity marine and inland water
- ▶ UNEP-ROWA supported regional governments and CBD Parties to develop NBSAPs responding to the Aichi target framework and Strategic Plan for Biodiversity 2011-2020.

West Asia Responses to this target,  Working with
FAO/RECOFI to address:

- ▶ management of fishing capacity
- ▶ eliminate destructive fishing practices
- ▶ Establish responsible fisheries and reduce unsustainable fisheries and their impact on marine ecosystem, **regionally**.



UNEP-ROWA support to biodiversity MEAs CBD COP 10 Decision X/2



LAS Arab Working Group on biodiversity MEAs



The State of Biodiversity reports – what’s new: case studies

Oman’s National Plan for mangrove conservation

“The Omani Ministry of Environment and Climate Affairs has collaborated with the Japanese government to launch a national plan to conserve and re-plant mangroves. Oman began its mangrove conservation and management project in 2000. By 2014 about 571,000 mangrove trees had been planted over ten hectares of land. The project succeeded in engaging the local community, students and staff from the Ministry of Environment and Climate Affairs. The project aims to plant over a million mangrove trees by 2022Local communities can use and manage the mangroves sustainably to acquire economic benefits by designating some areas for apiaries, recreational use, and fisheries. “



Action	Output	Aichi Target
Conserving mangroves	Incorporated into national planning	2
Mangrove ecosystem management	Fisheries managed sustainably	6
Sustainable management of mangroves	Area under forestry managed sustainably	7
Conserving mangroves	Increase ecosystem resilience	15
Mangroves are managed by local communities	Engagement of local communities in preserving ecosystems	18



Stakeholders: Who is involved?

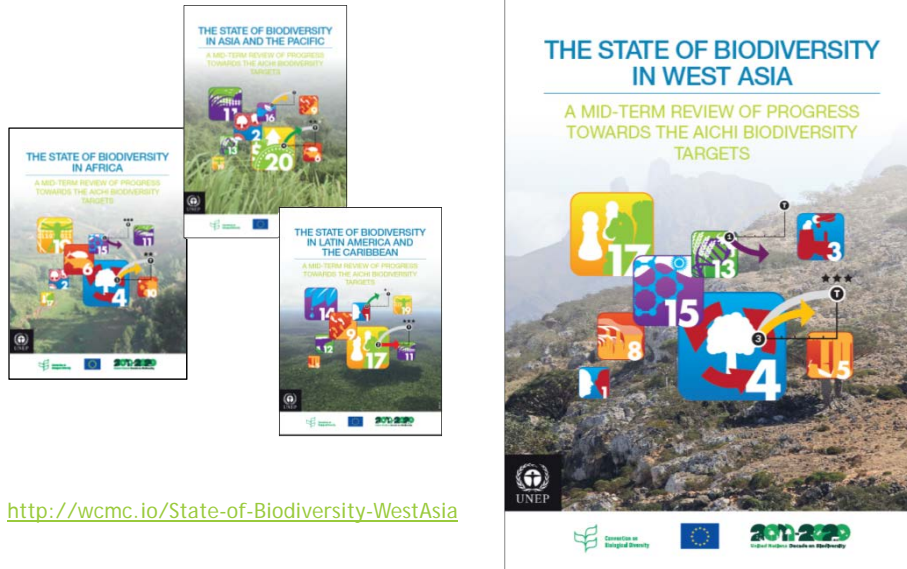
- Governmental ministries
- Private sector
- Scientific community
- Non governmental organizations
- Indigenous and local communities
- Women





The State of Biodiversity reports

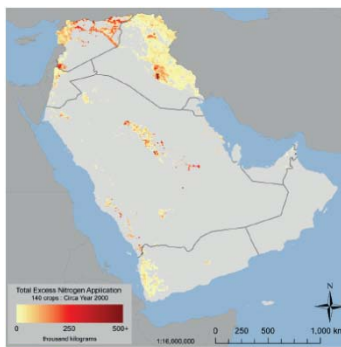
Reports have now been produced for four UNEP regions:



<http://wcmc.io/State-of-Biodiversity-WestAsia>



The State of Biodiversity reports – what’s new: inclusion of spatial data



Target 8: Pollution reduced

Nitrogen excess application 2000 (source: *Global Landscapes Initiative, Institute on the Environment, University of Minnesota*)




Target 10: Ecosystems vulnerable to climate change






Severity of coral bleaching coral reefs and areas of high thermal stress (source: Reef Base 2014)




Satellite-detected Severe Thermal Stress (1996-2007)
Severity of bleaching occurrences (1998-2006)
● Low
● Medium
● High



The State of Biodiversity reports – GBO-4 similarities Dashboards of progress by Aichi Target

Target	Notes	Progress
Target 1 - Awareness increased	Data is limited to measure progress towards this target. There is some evidence of progress, but there is much to do, and many countries have other immediate challenges to resolve.	
Target 2 - Biodiversity values integrated	Countries in the West Asia region have started to engage in natural resource accounting systems and there is some progress. But it is hard to measure the speed of progress as data are lacking.	
Target 3 - Incentives reformed	There is very limited data available to measure progress on this target, and there are few examples of progress.	Insufficient data to assess progress
Target 4 - Sustainable production and consumption	Oil rich countries in the region have been moving further away from sustainable production and consumption in recent years. Other countries have more sustainable production and consumption systems in place.	
Target 5 - Habitat loss halved or reduced	The data to measure this target is not readily available in the region. For forests and wetlands there is a decline. For other habitats the status and trends are not known.	
Target 6 - Sustainable management of marine living resources	There is almost no information available to measure progress towards this Target in the region.	Insufficient data to assess progress
Target 7 - Sustainable agriculture, aquaculture and forestry	National reports suggest that countries are making progress but at a rate that will not achieve the target. Independent data are lacking to measure progress.	



The future

Looking to the future, it is clear that attaining most of the Aichi Biodiversity Targets will require implementation of a package of actions typically including legal and policy frameworks that are coherent across government ministries and across sectors, socio-economic incentives, monitoring, enforcement, and public and stakeholder engagement.

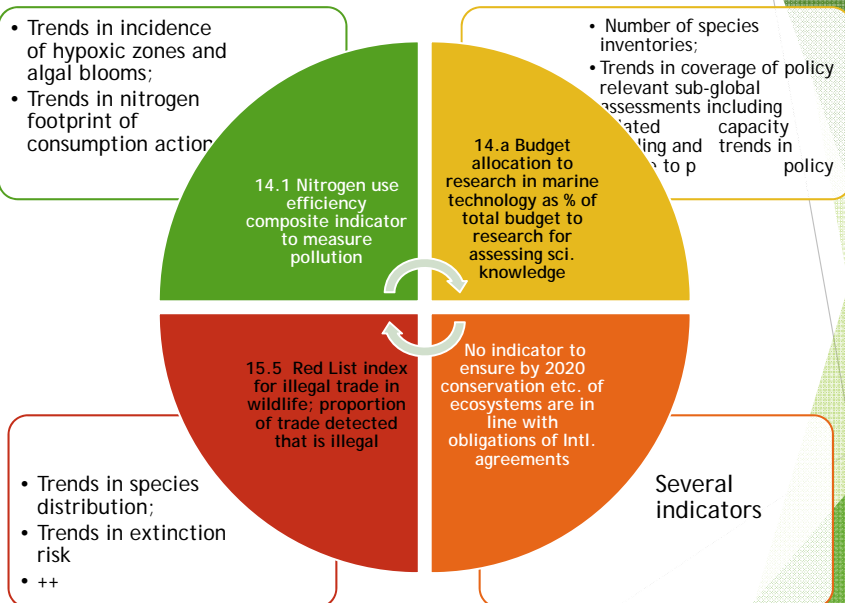


Proposed actions in the short and longer term include

- Improve data availability
- Complete national and regional ecosystem assessments
- Invest in raising public awareness.
- Pursue integrated resource management.
- Further enhance regional cooperation to overcome shared environmental problems.
- Mainstream biodiversity across government sectors
- Strengthen protected areas networks
- Enhance the implementation of biodiversity-related conventions to build institutional capacity.
- Increase available resources for biodiversity



SDG Indicators and Biodiversity Indicators




Sustainable Development Goals:
SDG 14: Conserve and sustainably use the oceans, seas and marine resources.

- 14.1 ... prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution
- 14.2 ... sustainably manage and protect marine and coastal ecosystems ... , including by strengthening their resilience, and take action for their



The image shows the 17 Sustainable Development Goals (SDGs) arranged in a grid. Each goal is represented by a colored square with a white icon and text. The goals are: 1. No Poverty, 2. Zero Hunger, 3. Good Health and Well-being, 4. Quality Education, 5. Gender Equality, 6. Clean Water and Sanitation, 7. Affordable and Clean Energy, 8. Decent Work and Economic Growth, 9. Industry, Innovation and Infrastructure, 10. Reduced Inequalities, 11. Sustainable Cities and Communities, 12. Responsible Consumption and Production, 13. Climate Action, 14. Life Below Water, 15. Life on Land, 16. Peace, Justice and Strong Institutions, 17. Partnerships for the Goals. The UN logo and the text 'SUSTAINABLE DEVELOPMENT GOALS' are at the top.





UNEP

State of Biodiversity reports and the Sustainable Development Goals


The regional State of Biodiversity reports are an important contribution to enhanced regional dialogue and review of efforts towards achieving the Aichi Biodiversity Goals.

There are close linkages between the Aichi Targets and many of the SDGs in particular with Sustainable Development Goals and Targets linked to 6 (water) 14 (oceans) 15 (terrestrial biodiversity) as well as several others such as 11 (cities) 13 (climate), and therefore potential for mutually supportive implementation





A photograph showing a small boat on a body of water, with a person visible in the boat. The background shows a shoreline with reeds and a thatched-roof structure.



The image shows the 17 Sustainable Development Goals (SDGs) arranged in a grid, identical to the one in the first slide. It includes the UN logo and the text 'THE GLOBAL GOALS' at the bottom.



Some Examples of SDG Indicators

SDG Target	Indicator
13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	Number of deaths, missing people, injured, relocated or evacuated due to disasters per 100,000 people
14.7 By 2030, increase the economic benefits to SIDS and LDCs from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism	Fisheries as percentage of GDP
15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity, and by 2020, protect and prevent the extinction of threatened species	Red List Index
17.3 Mobilize additional financial resources for developing countries from multiple sources	FDI as percentage of total FDI and ODA; Volume of remittances as percentage of GDP



Sustainable Development Goals:

This concept is well linked to SDG 14: Conserve and sustainably use the oceans, seas and marine resources.

- Oceans cover three quarters of the Earth's surface, contain 97 per cent of the Earth's water, and represent 99 per cent of the living space on the planet by volume
- Over three billion people depend on marine and coastal biodiversity for their livelihoods
- Globally, the market value of marine and coastal resources and industries is estimated at \$3 trillion per year or about 5 per cent of global GDP
- Oceans contain nearly 200,000 identified species, but actual numbers may lie in the millions
- Oceans absorb about 30 per cent of carbon dioxide produced by humans, buffering the impacts of global warming
- Oceans serve as the world's largest source of protein, with more than 3 billion people depending on the oceans as their primary source of protein
- Marine fisheries directly or indirectly employ over 200 million people
- Subsidies for fishing are contributing to the rapid depletion of many fish species and are preventing efforts to save and restore global fisheries and related jobs, causing ocean fisheries to generate US\$ 50 billion less per year than they could
- As much as 40 per cent of the world oceans are heavily affected by human activities, including pollution, depleted fisheries, and loss of coastal habitats



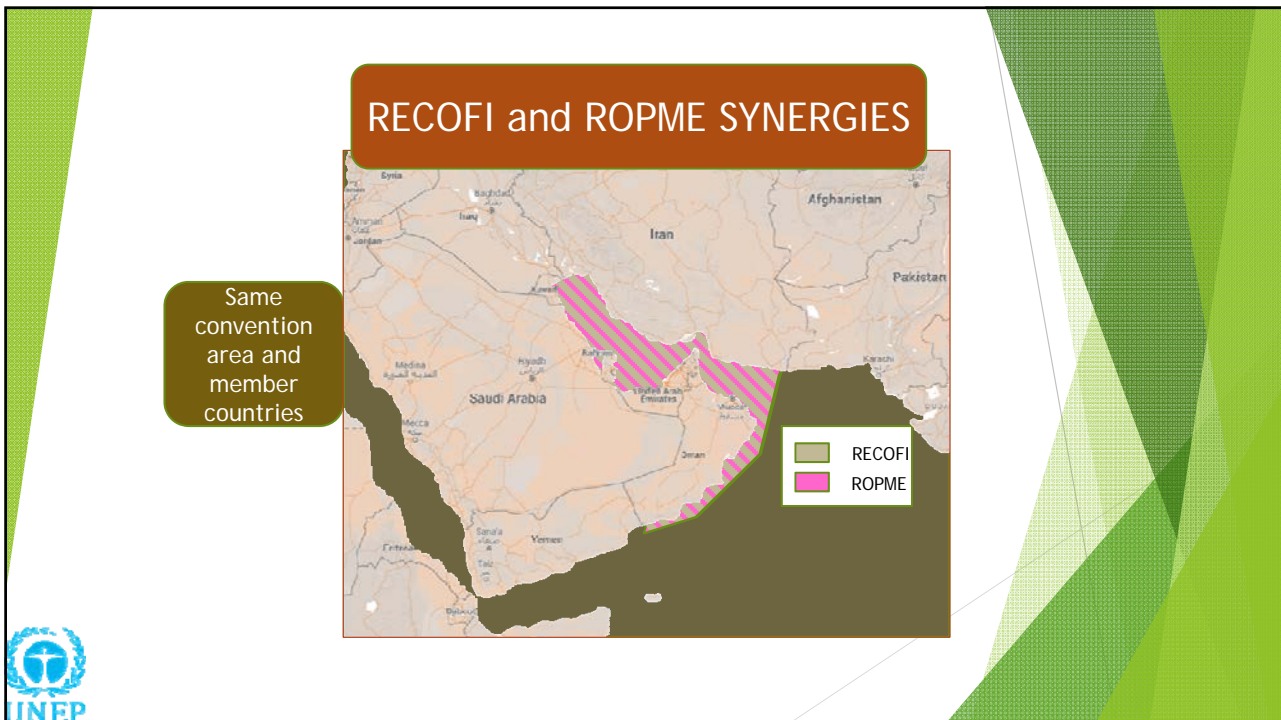
ROPME EBM Strategy Intersessional Progress...



Seoul Outcome

Sustainable Ocean Initiative Global Dialogue with Regional Seas Organizations and Regional Fisheries Bodies on Accelerating Progress Towards the Aichi Biodiversity Targets
Seoul, Republic of Korea, from 26 to 28 September 2016

- ▶ biodiversity, a healthy environment and resilient ecosystems underpin sustainable fisheries and food security
- ▶ the ecosystem approach to fisheries contributes to sustained environmental functions and the provisioning of ecosystem services...
- ▶ ambition posed by the **Aichi Biodiversity Targets and the Sustainable Development Goals** necessitates action at multiple scales, including at the regional and national levels
- ▶ challenges facing the achievement of these global goals including gaps in capacity, issues related to governance, lack of cross-sectoral coordination, limited information base, and constraints related to monitoring, assessing and reporting progress in implementation.



- ### Some perspectives and challenges
- ▶ Establishment of effective regional scientific and institutional cooperation;
 - ▶ Impact of regional geo-political sensitivities;
 - ▶ Weak government support to fisheries sector;
 - ▶ Critical role of national focal points;
 - ▶ Institutional capacity strengthening is a slow process;
 - ▶ Lack of consensus and sharing of the common goal towards coherent regional fishery management approach and strategy;
 - ▶ New key partnership to be established (i.e. ROPME)
- 



Recommendations from the participants of the workshop "Toward the Development of a Regional Ecosystem Based Management Strategy for ROPME Sea Area", Dubai, April 2016

7. In order to create further synergies between different policies and projects across the region, an inventory of policies, legislation, organizations, projects and initiatives at the national and regional level needs to be utilized.
8. A network of regional technical professionals for EBM in the ROPME Sea Area should be established by ROPME affiliated with the Working Group for the EBM Strategy in order to mobilize and support scientific information for the development of the EBM Strategy.
9. Cooperation with other regional and appropriate organizations should be made for the development of the EBM Strategy, given the range of human activities in the ROPME Sea Area.
10. *Considering the identical geographical coverage and membership of ROPME and RECOFI, it would be highly desirable and advisable to establish an effective and viable cooperation framework. In this regard, ROPME and RECOFI should discuss areas for cooperation through a joint meeting.*
11. Recognizing the range of scientific and technical fields that need to be involved for the development of the EBM Strategy, the process should be accompanied by relevant trainings and transfer of relevant marine technologies.
12. Pilot projects in support of the EBM Strategy should be developed and implemented with financial support by ROPME.

http://ropme.org/551_EBM_EN.clx



► Participants also noted that there are many ongoing initiatives to enhance cooperation between regional seas conventions and action plans and regional fishery bodies, including in the North-East Atlantic, the Mediterranean, the Western Indian Ocean, West and Central Africa, and the ROPME/RECOFI region, as presented during the meeting. For some regions, such cooperation is also facilitated by the regional scientific bodies and Large Marine Ecosystem projects, including through cross-sectoral ecosystem-based scientific assessment.

- ROPME = Regional Organization for the Protection of the Marine Environment
- RECOFI = Regional Commission for Fisheries

The Ecosystem Assessment of the ROPME Sea Area

Terms of Reference for a Consultant



Ecosystem Assessment of the RSA.

Based on the discussion on the provisional work plan of the Working Group, it was agreed that the Group would prepare three studies:

- ▶ (1) Scoping study that identifies elements to be included in the Strategy;
- ▶ (2) Inventory of existing strategies, policies, programmes, projects and organizations;
- ▶ (3) **ecosystem assessments to set the baseline of the RSA.**

In addition the Consultant is expected to prepare a draft outline of the Strategy based on the analysis.

The document should be submitted to the First Meeting of the Working Group to be held in October 2016 for the review by the ROPME Member States.

- ▶ http://ropme.org/551_EBM_EN.clx
- ▶ [ROPME/WD/EBM-5](#) ToR of the Working Group
- ▶ [ROPME/WD/EBM-6](#) Work Plan of the Working Group



- ▶ The Ecosystem Assessment of the ROPME Sea Area is a three monthly study to be undertaken as part of setting a baseline of the status of the marine ecosystems in the RSA as a planning step to develop the ROPME EBM Strategy.
- ▶ In order to know what EBM will achieve, it is necessary to know how the ecosystem operates what values it provides human well beings, how it is being used and impacted, and how it is doing under existing management.

Hence there is a need to assess:

- ▶ Key ecosystem functions
- ▶ Status of ecosystem services
- ▶ Factors driving human impacts on those services



The key aspects of any assessment are to understand how communities and economies depends on their uses of marine and coastal ecosystems. The threats to ecosystem structure, functioning and processes.

Ecosystem Assessments need to be integrated across three elements:

- ▶ **Ecosystem characteristics**- such as biophysical boundaries, the way its components are connected, the overall status and projected trends.
- ▶ **Different uses and industry sectors**- including how they impact ecosystems and drive change, and what social and economic benefits these sectors provide.
- ▶ **Social economic and environmental dimensions** of what it means for a particular ecosystem to be used sustainably.



An ecosystem assessment is a social process through which the findings of science concerning the causes of ecosystem change, their consequences for human well-being, and the management and policy options are evaluated.

Ecosystem assessments can play an important role in synthesizing and communicating complex information and can both inform and influence decision-making processes.

For an ecosystem assessment to achieve policy impact, three attributes are key to increasing the likelihood that the knowledge contained in an assessment will have influence.

- **relevance**, refers to the ability of an assessment and its findings to address the particular concerns of a user
- **Credibility** refers to the perceived scientific and technical soundness of an assessment
- **Legitimacy** refers to the degree of political acceptability or perceived fairness of an assessment



Marine and coastal Ecosystem Assessments

- ▶ Marine and coastal Ecosystem Assessments are **integrated assessments** which look at **processes leading to change**, **impacts** of and **responses** to change in the marine environment.
- ▶ They focus on the concept of **ecosystem services** and therefore provide the connection between environmental issues in the marine environment and **people** depending on them, considering both the ecosystems from which services are derived and the people who depend on and are affected by changes in the supply of services.



The RSA Ecosystem Assessment EA:


- ▶ Give us a clear view of the current and possible future state of the marine environment and the provision of ecosystem services, mainly by synthesizing and coordinating existing evidence, benefits and negative drivers of change, exploring future scenarios and possible policy responses.
- ▶ create a compelling and coherent narrative on the state and value of the marine Environment and ecosystem services, to help raise awareness of their importance to human Well-being and future economic prosperity
- ▶ be achieved through an inclusive process that encourages different stakeholders, Communities and sectors of interest to interact and share learning, and in particular to foster better Inter-disciplinary cooperation.
- ▶ Consider all relevant information from scientific papers, MEA COP reports and national reports, UN related project and technical reports, regional mechanism reports workshop and conference reports. (In coordination with UNEP and its Regional Office).



5 Oceans Proposal

- ▶ Dr David Medio and project managed by Dr Simon Wilson
- ▶ An annotated contents page will be prepared by 10 October in time for the first EBM workshop in Japan.
- ▶ draft report will be circulated to ROPME member states for comment 5 Dec

RSA Ecosystem Assessment - Table of Content	
1. A brief synopsis of the current state of the marine environment of the RSA including its living and non-living resources.	Describe and summarize the current state of marine environment and living and non-living resources in the RSA, based on the State of the Marine Environment (ROPME 2013) ¹ and UNU's report
2. The ecosystem services in the RSA: a preliminary description and valuation.	Carry out a preliminary outline of ecosystem services in the RSA. This will include a preliminary description and valuation of ecosystem services based on the information made available by the relevant parties.
3. The interaction between socio-economic activities and marine resources and marine ecosystem services	Conduct a preliminary study of socio-economic activities that affect and are affected by the use of marine resources and marine ecosystem services.
4. The marine environment of the ROPME region: a future outlook based on a global and regional perspective	Prepare a preliminary future outlook of the ROPME marine environment and living and non-living resources based on the global and regional studies and research including those on blue economy, marine environment and biodiversity outlooks.
5. A summary outline of the stakeholders, communities and sectors in the RSA and their roles and relevance in the marine environment, its living and non-living resources, ecosystem services and socio-economic activities.	Identify the range of stakeholders, communities and sectors of relevance in the RSA and their roles in items 1, 2, 3 and 4



THANK YOU!

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Ecosystem Management
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**ECOSYSTEM BASED MANAGEMENT IN JAPAN- SOME SUCCESSFUL
EXAMPLES**

**YOSHIHISA SHIRAYAMA, JAPAN AGENCY FOR MARINE - EARTH
SCIENCE AND TECHNOLOGY**

Ecosystem based management in Japan- some successful examples

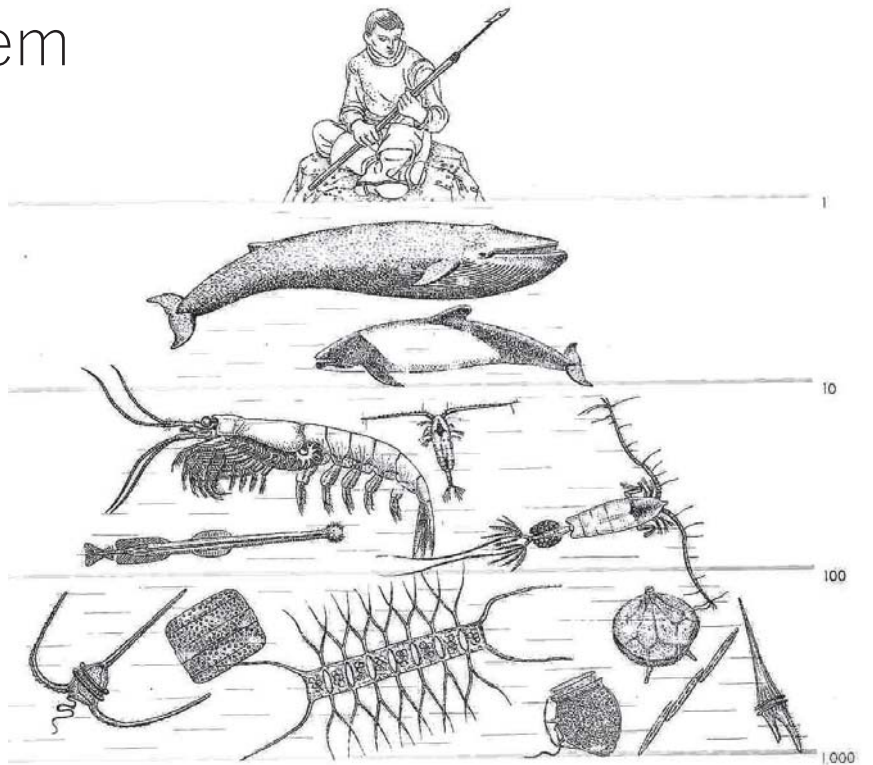
Yoshihisa Shirayama
Japan Agency for Marine-Earth
Science and Technology



contents

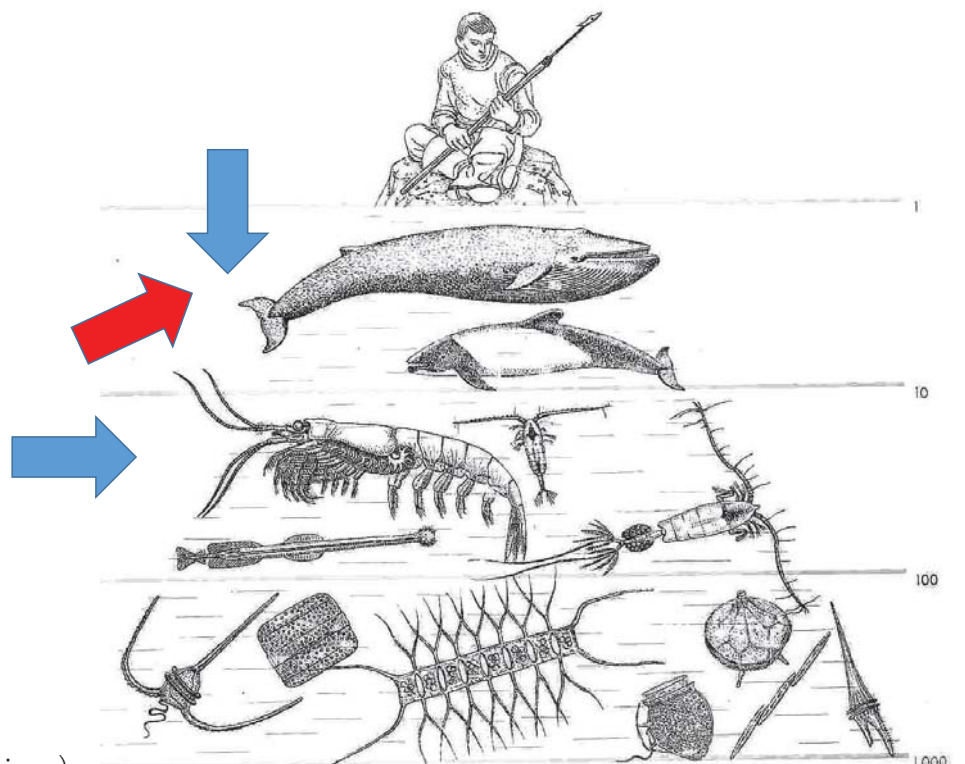
- Why Ecosystem Based Management?
 - Sustainable use focusing on target resource is not feasible
 - Restoration and conservation of biodiversity need holistic approach
- Successful examples
 - Top down approach
 - Seto Inland Sea especially Osaka Bay
 - Bottom up approach
 - The Sea is longing for the forest
 - Shiretoko World Natural Heritage
- Summary

Elton's ecosystem concept



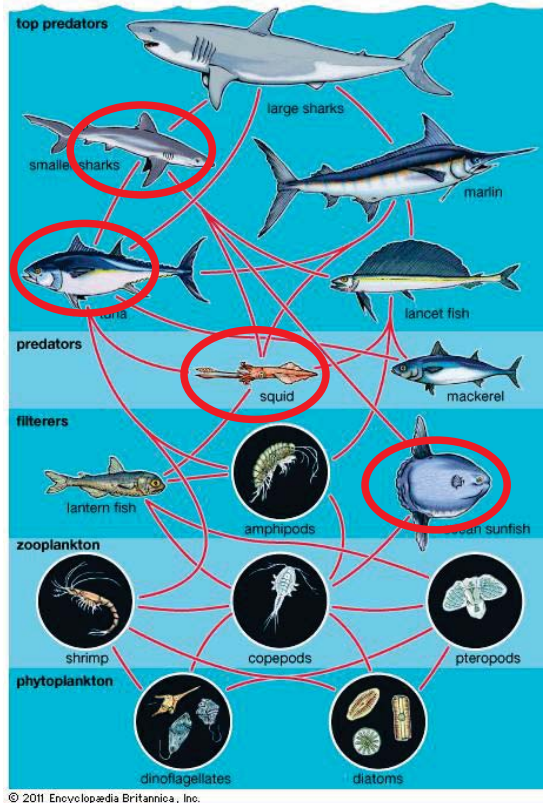
(Source: Scientific American)

Food Web



(Source: Scientific American)

Food Web is complicated



Seto Inland Sea (Osaka Bay) management

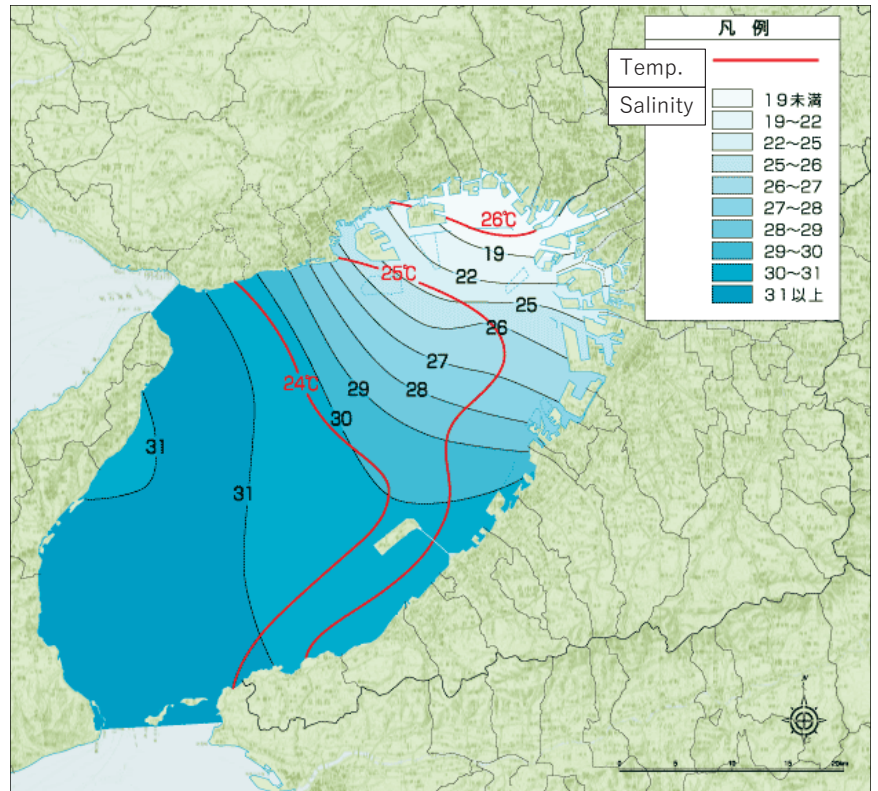
- Serious Eutrophication problem
- Harmful Algal Bloom
- Negative impacts on Fisheries
- Especially Aquaculture
- Regulation of Nutrient Inflow
 - Concentration
 - Total Quantity
- Recovery of environment
- Too Strict Regulation?



Source: Osaka Bay Environment Clearing House

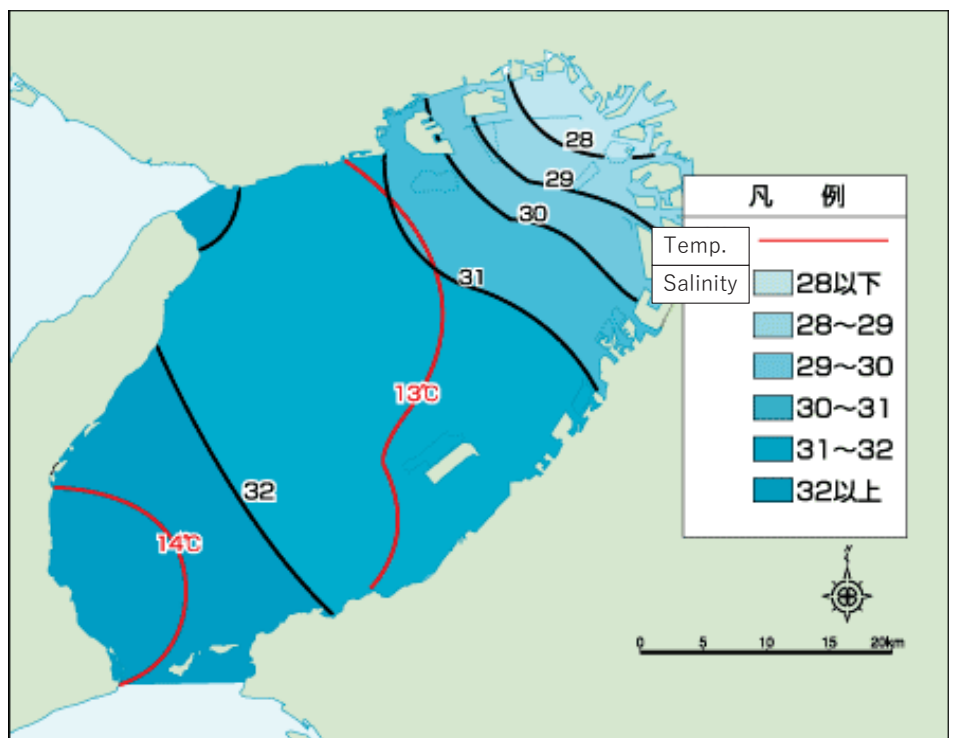
Impact of river influx to the sea condition (summer)

Source: Osaka Bay Environment Clearing House

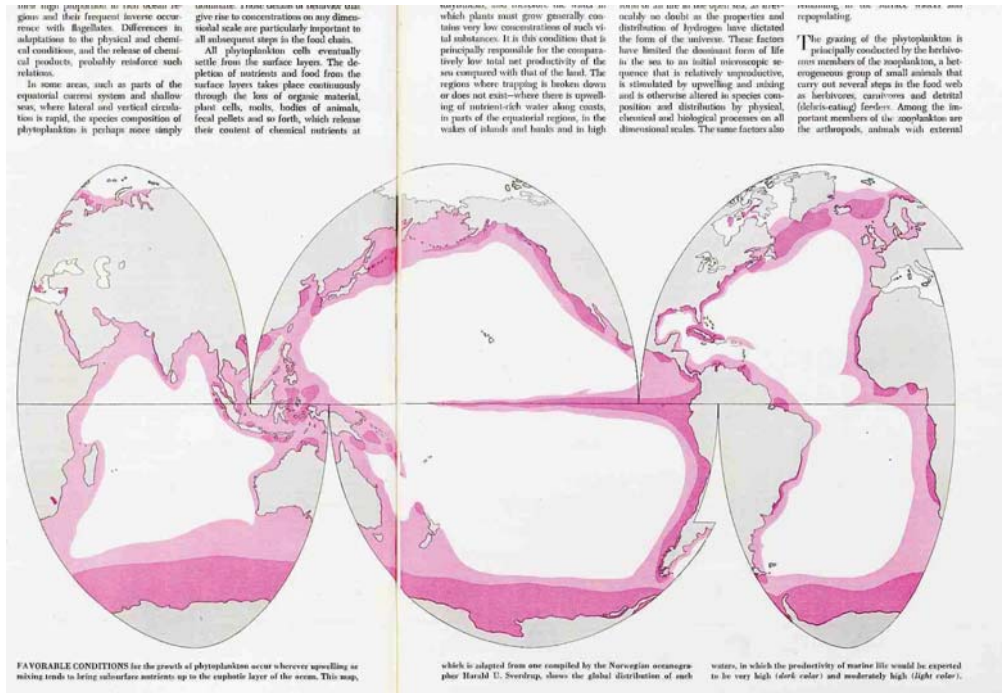


Impact of river influx to the sea condition (Winter)

Source: Osaka Bay Environment Clearing House

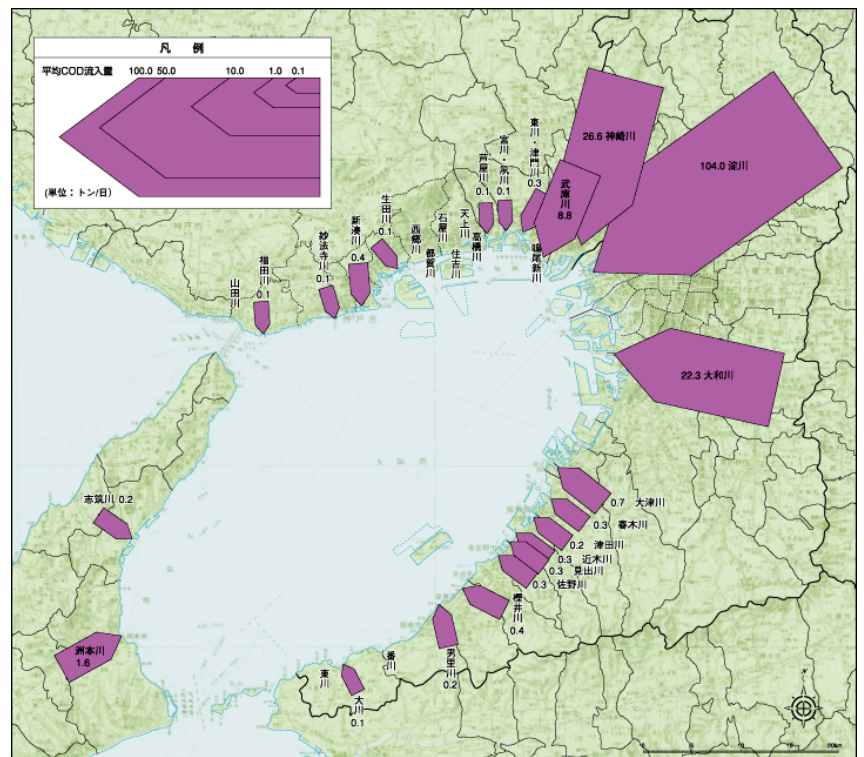


Water from land is the major source of nutrient



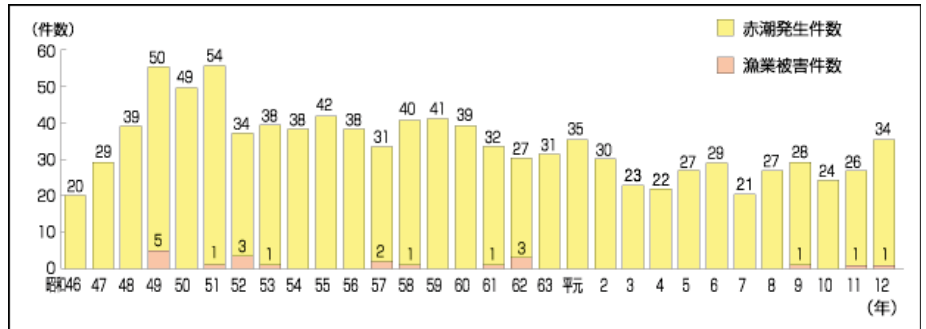
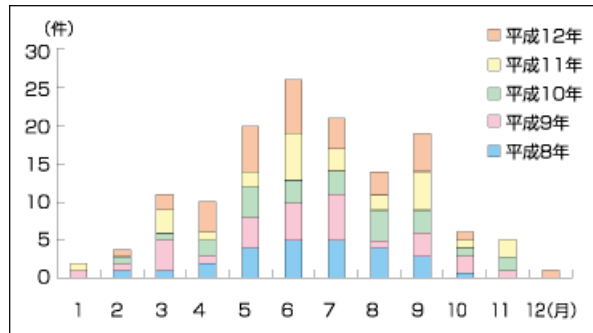
(Source: Scientific American)

Huge influx of nutrient into Osaka Bay



Source: Osaka Bay Environment Clearing House

HABs in Osaka Bay



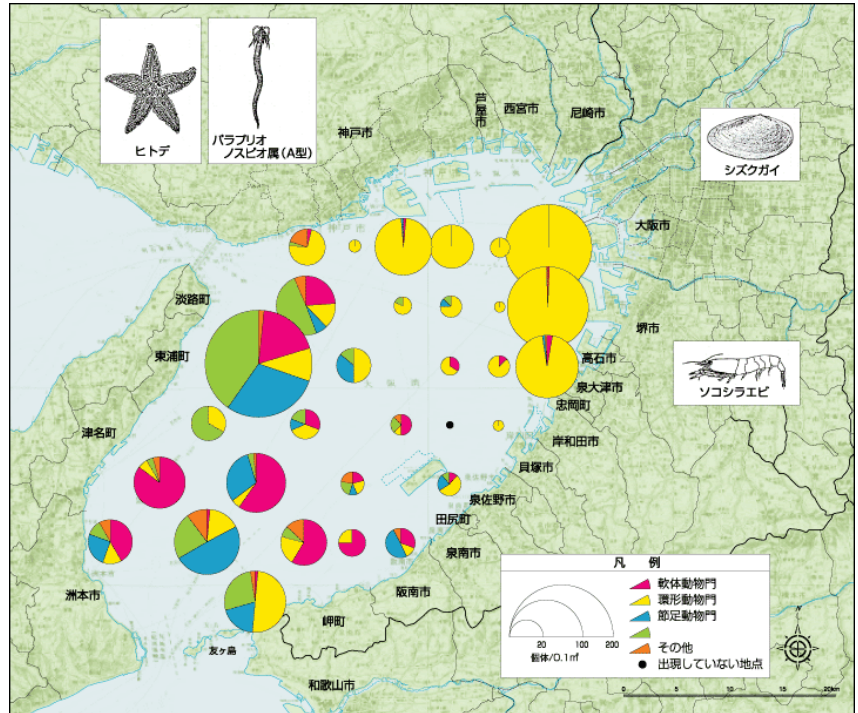
Source: Osaka Bay Environment Clearing House



Eutrophication causes hypoxia

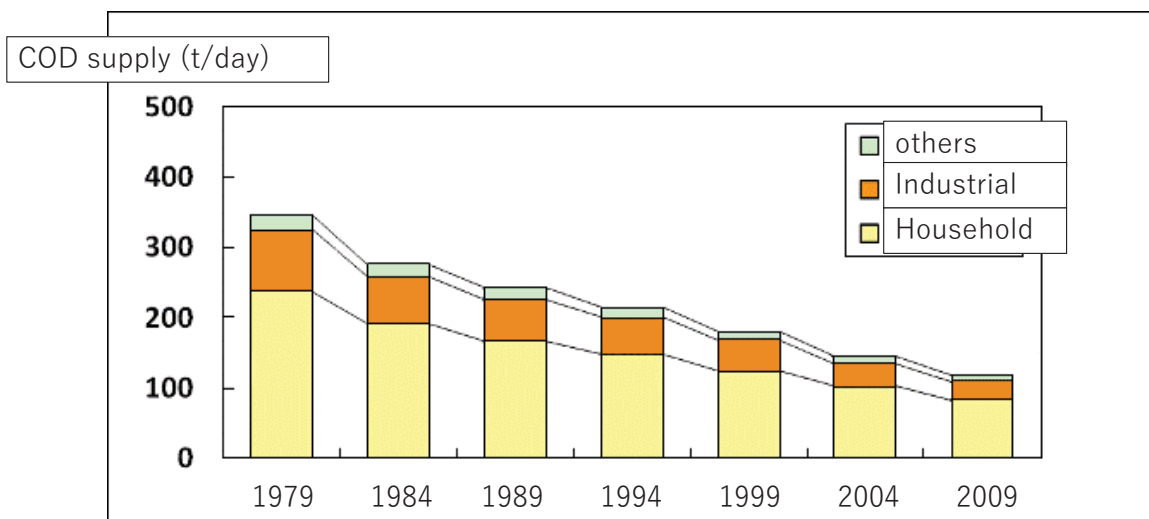
Source: scientific american

Hypoxia damages biodiversity



Source: Osaka Bay Environment Clearing House

Recent progress of controlling eutrophication

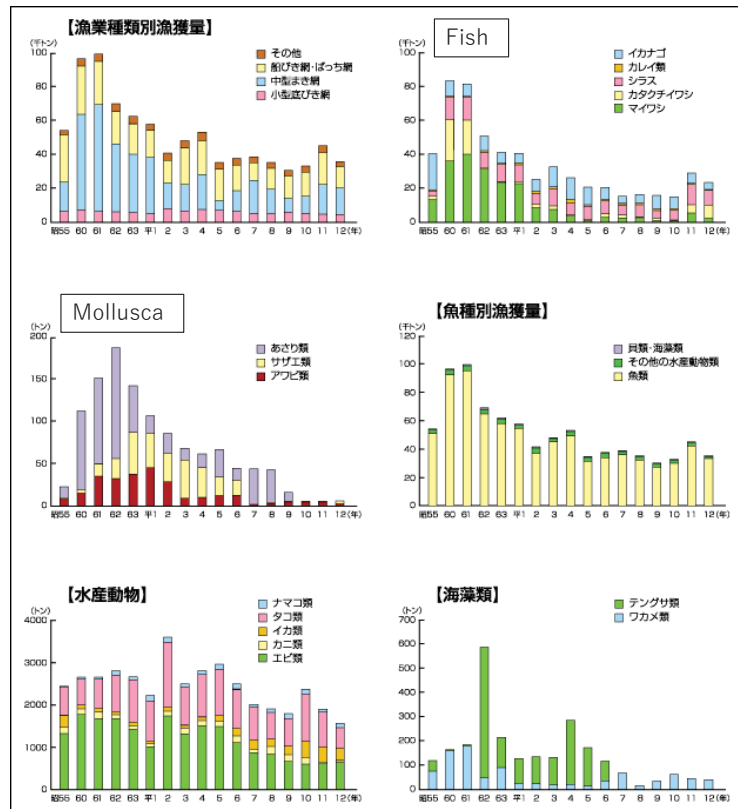


Source: Osaka Bay Environment Clearing House

Recent recovery of fisheries

- Pelagic fishes getting better
- Benthic fisheries still in low level

Source: Osaka Bay Environment Clearing House



The Sea is longing for the Forest

- Oyster Farmer Mr. Hatakeyama founded NGO
- It is planting trees on the mountain of watershed
- The wide leaves plant species seems important
- Probably increase Iron concentration
- Reduces HAB
- Getting popular throughout Japan



Photo: Y. Shirayama

His aquaculture is very successful



Photo: Y. Shirayama

He planted trees in the watershed



Photo: NPO "Mori ha Umi no Koibito"

Forest he planted is still young



Photo: Y. Shirayama

Communication with local community



Photo: NPO "Mori ha Umi no Koibito"

Working with community is the key



Photo: Y. Shirayama



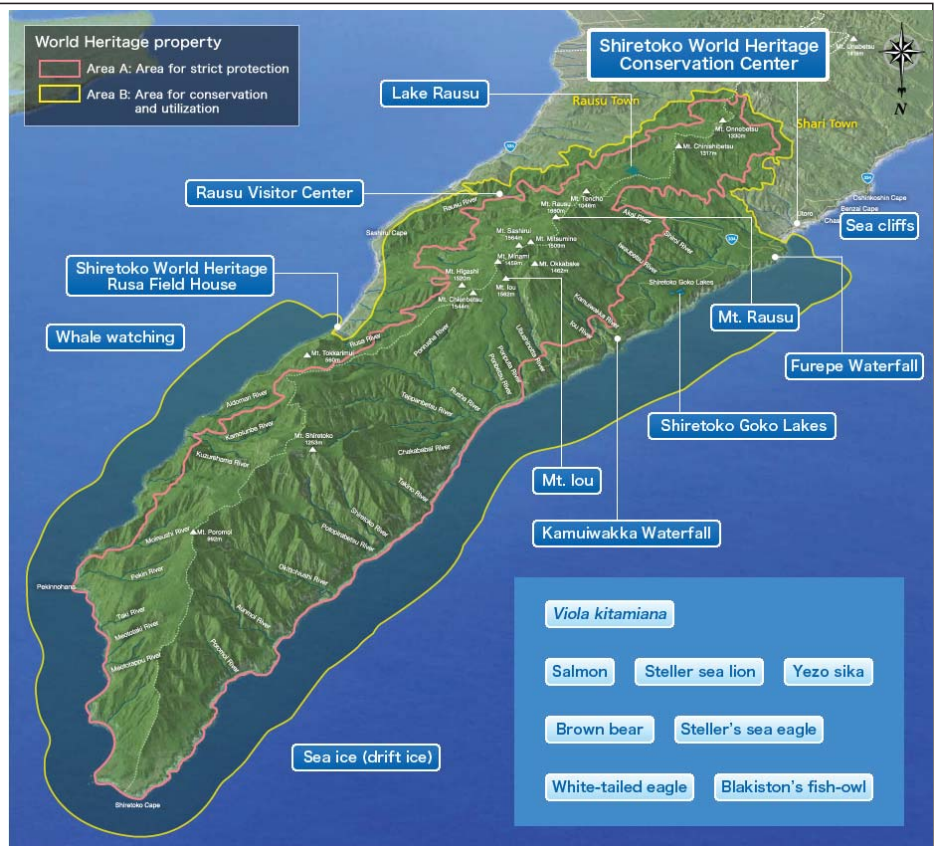
Shiretoko: World Nature Heritage

- Floating Ice brings nutrient to the area
- Rich Forest also brings rich nutrient
- UNESCO World Heritage
- Self regulation of fish harvesting by local fishermen
- Regulating deer population to maintain good forest
- PDCA cycle with scientists advice
- Holistic understanding of the ecosystem through scientific field survey
- Selected good practice in nature management

MAP

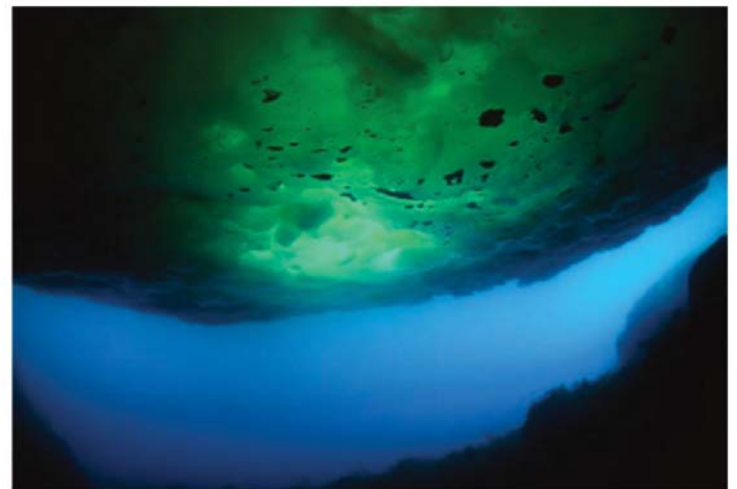


Source: MOEJ



The Sea Ice Sustains an Abundance of Life

The coastal areas of Shiretoko in the Sea of Okhotsk are located in the lowest latitude in the world where sea ice can form. The formation of sea ice promotes upwards and downwards convection in the ocean water by cooling the surface layer of ocean water, which raises the nutritive salts that accumulate at the lower levels of the sea up to the surface level. Once spring arrives, the surface layer is bathed in enough sunlight for photosynthesis, and phytoplankton proliferates explosively using nutritive salts. The vast quantities of plankton produced in this way form the starting point for the food chain that sustains the rich ecosystems of Shiretoko, linking the ocean, rivers and forests.

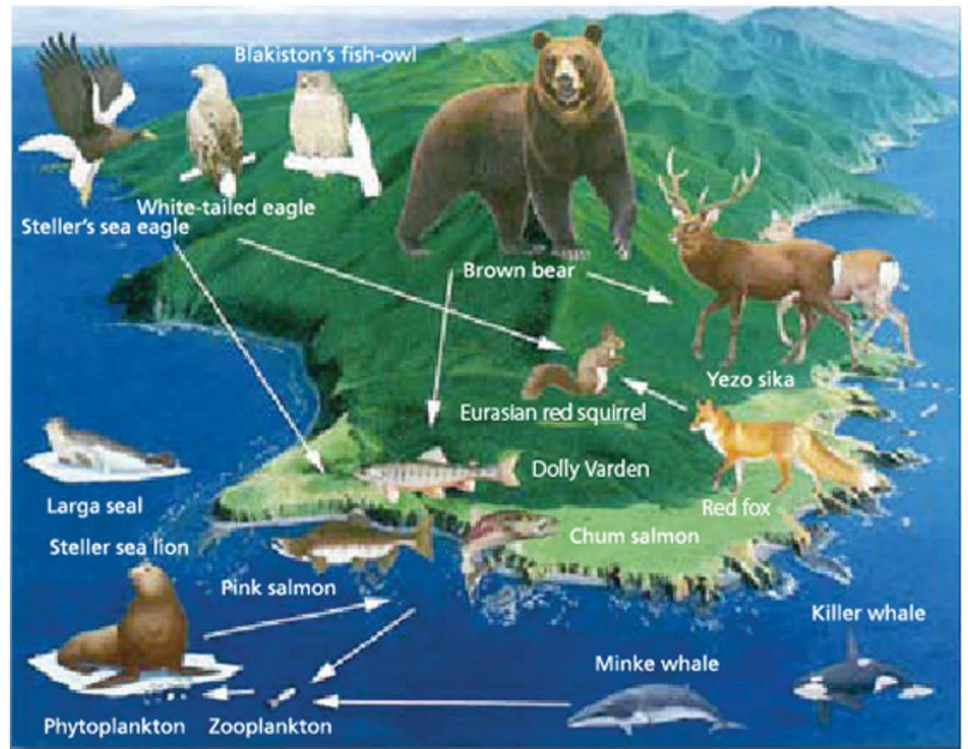


Sea ice seen from the bottom
© Ikuo Nakamura

Source: MOEJ

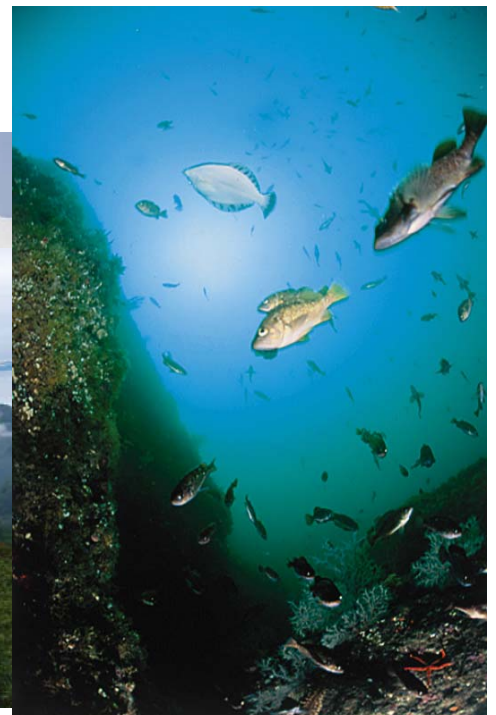
- Life Supported by Integrated Ecosystems of Ocean, Rivers, and Forests

Source: MOEJ



Characteristics of Shiretoko

- Sea Ice
- Forest
- Rich marine fauna



Source:
UNESCO

Many endangered species

Management (1)



Countermeasures against Yezo Sika

In recent years, there has been a sharp increase in Yezo sika within the World Heritage property, leading to effects on the ecosystem that include changes to the vegetation. In order to mitigate their impact, the Ministry of the Environment and others from the national government, as well as the relevant local governments have been controlling the deer population by harvesting, based upon the Sika Deer Management Plan in the Shiretoko Peninsula and advice from the Sika Deer and Terrestrial Ecosystem WG. In areas where population control is being carried out, it has been confirmed that the vegetation is gradually recovering.

Source: MOEJ

Management (2)

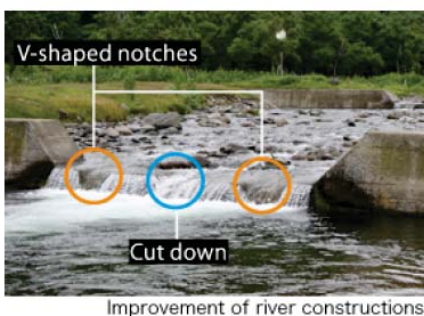


Balance between Maintaining Marine Biodiversity and Fishing Activities

The Multiple Use Integrated Marine Management Plan, which aims to reconcile the conservation of ecosystems with a sustainable fishing industry, was formulated in 2007 by the Ministry of the Environment and the Hokkaido Prefectural Government. Through this plan, "voluntary restrictions by fishery operators" were incorporated into the management of the World Heritage property and a management style was achieved that strikes a balance between maintaining marine biodiversity and fishing, which is a regular vocation in the region. This management style is highly appraised internationally as the "Shiretoko style," to be a new model for heritage site management techniques.

Source: MOEJ

Management (3)



Improving River Constructions

On some of Shiretoko's rivers, salmon and other fish species could not swim upstream to spawn because of check dams, weirs, and other artificially constructed structures (river constructions). Therefore, based on the recommendations of the River Construction WG (currently River Construction Advisory Committee), improvement works were carried out such as by installing fishways for 13 river constructions for which improvements were deemed to be appropriate. As a result, the spawning ranges upstream of the constructions have expanded and the numbers of eggs produced have increased.

Source: MOEJ

Management (4)



The Elevated Boardwalk and the Regulated Utilization Areas

The walkways at Shiretoko Goko Lakes had problems including such examples as they were often closed on account of the frequent appearance of brown bears and the negative impact on vegetation resulting from visitor congestion. In order to resolve these issues, an elevated boardwalk that could be safely walked without the danger of coming into contact with brown bears was installed in 2011. In the same year, regulated utilization system was adopted pursuant to the Natural Parks Law. Visitors are required to apply for permission to go to the aboveground walkways during congested periods. Through these efforts, the impact on vegetation is reduced while also natural landscapes and biodiversity are maintained.

Source: MOEJ

Management (5)



Drift ice walk

Shiretoko Ecotourism Strategy

In 2013, the Shiretoko World Natural Heritage Site Proper Usage / Ecotourism Investigative Commission prepared the Shiretoko Ecotourism Strategy. It aims at sharing future objectives for promoting tourism to Shiretoko and methods for achieving this among all of the stakeholders. The Strategy invites anyone to freely offer proposals on new tourism uses and the establishment of new rules so that more open local initiatives will be promoted.

Source: MOEJ

Best Practice

Shiretoko

[Description](#)[Maps](#)[Documents](#)[Gallery](#)[Video](#)[Indicators](#)[Best Practice](#)

Shiretoko, proposed by Japan as a best practice, is interesting as a case study for the following aspects: establishment of Shiretoko WNH Site Regional Liaison Committee, bottom-up approach, scientific council, self-management measures, involvement of local communities / stakeholders.

UNESCO

Summary

- In the large scale management, top down approach is necessary.
- In the small scale case, bottom up approach is more effective, detailed, flexible, and cost saving for government.
- For the success of EBM, PDCA cycle is indispensable.
- Involvement of diverse stakeholders should be pursued.

- Dialogue and mutual understanding among stakeholders leads to the success.

Thank you for your attention!

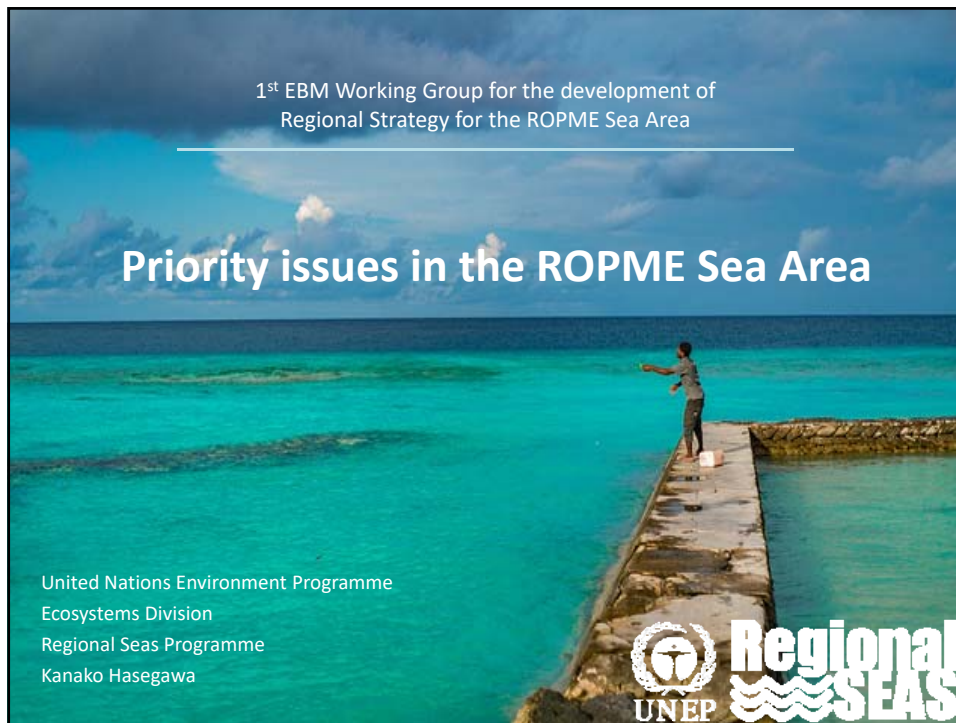
Shiretoko

Source: MOEJ



PRIORITY ISSUES IN THE ROPME SEA AREA

**KANAKO HASEGAWA
ECOSYSTEMS DIVISION, REGIONAL SEAS PROGRAMME, UNEP**



Background

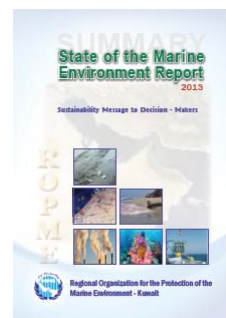
Background document:

- Discussion paper on Regional Priorities in the ROPME Sea Area (RSA)

[ROPME/WD/EBM-WG1-2](http://ropme.org/552_EBM_WG1_EN.clx)

http://ropme.org/552_EBM_WG1_EN.clx

- State of the Marine Environment Report
http://ropme.org/551_EBM_EN.clx
- Final Report of the ROPME-EBM Strategy Workshop
http://ropme.org/551_EBM_EN.clx



Regional Vision

Vision:

Healthy and sustainable ROPME Sea Area consistent with the 2030 Agenda for Sustainable Development

Aim:

To sustainably manage the use of the marine and coastal ecosystem for the benefits of the current and future generations and biodiversity

Objectives:

The ROPME EBM strategy for the RSA will:

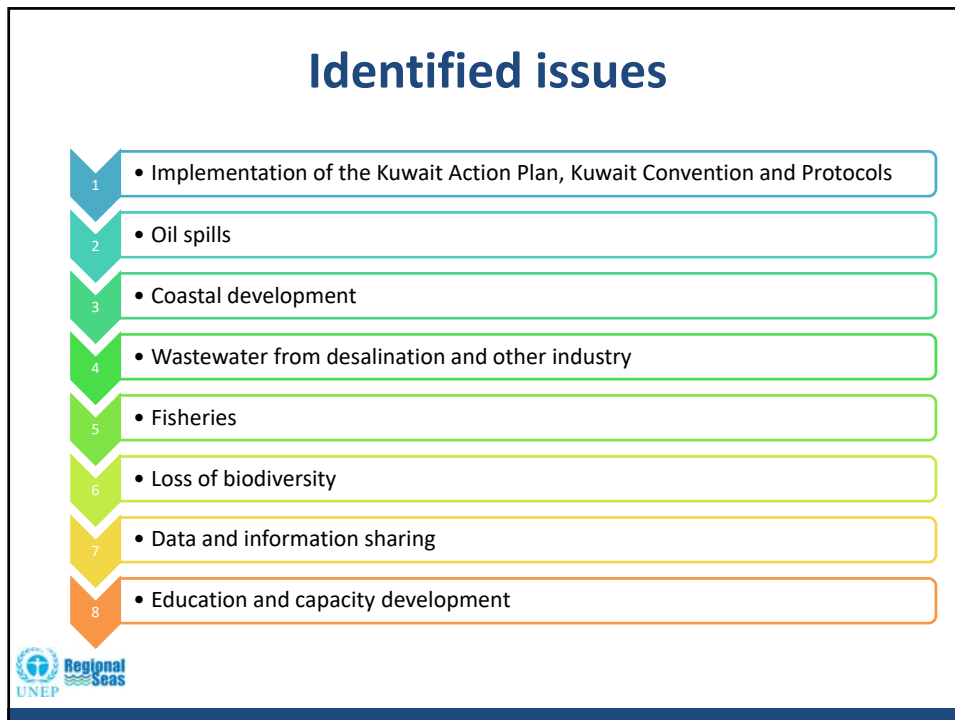
1. Set consistent and common ecological quality objectives for the ROPME Sea Area (RSA), which are consistent inter alia with the Sustainable Development Goals and their targets as well as Aichi Targets;
2. Guide the national level action in the incorporation of EBM in their marine areas and integrated coastal zones management plans and action programmes, and in achieving the ecological quality objectives; The national action should address the causes and threats to the marine and coastal ecosystem services in the RSA;
3. Give priority to ecosystem services to ensure environmental, economic and social pillars of sustainable food security;
4. Engage relevant stakeholders and promote partnership with other sectors, such as fisheries, oil/gas, transportation, coastal development, tourism and water resources.



Questions

- What are the **REGIONAL** priority issues that the Regional EBM Strategy needs to address?
- How the Regional EBM Strategy can help achieve ocean-related SDGs in the ROPME countries?





Implementation of ROPME instruments

Convention

- Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution (Kuwait Convention)

Action Plan

- Action Plan for the Protection and Development of the Marine Environment and the Coastal Areas of Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (Kuwait Action Plan)

Protocols

- Protocol concerning Regional Cooperation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency (1978)
- Protocol concerning Marine Pollution resulting from Exploration and Exploitation of the Continental Shelf (1989)
- Protocol for the Protection of the Marine Environment against Pollution from Land-Based Sources (1990)
- Protocol on the Control of Marine Trans-boundary Movements and Disposal of Hazardous Wastes and Other Wastes (1998)

UNEP Regional Seas

ROPME instruments

- **ROPME Instruments: The Context of EBM**

http://www.ropme.org/workshops/2016_ebm/docs/D1_2.ROPME-Dr.H.Mohammadi.pdf



UNITED ARAB EMIRATES
MINISTRY OF CLIMATE CHANGE
& ENVIRONMENT
الإمارات العربية المتحدة
وزارة التغير المناخي والبيئة



Towards the Development of a Regional Ecosystem Based Management Strategy (EBM)
in the ROPME Sea Area
Dubai, UAE, 04 – 07 April 2016



Oil spills

- A major source of pollution
- Sources: offshore oil wells, underwater pipelines, oil tanker incidents, oil terminals, landing and handling operation etc.
- Level of oil spills heightened during wartimes



Coastal development

- Rapid urbanization, Economic growth
- Dredging and reclamation resulted in habitat alternation and destruction (coral, mangrove forests, seagrass beds)
- Careful planning is needed



Wastewater

- Desalination (70-90% of population)
 - High salinity of the ROPME Sea Area
- Wastewater with treatment chemicals
- Thermal pollution
- Increasing volume of domestic wastewater
- Red tides



Fisheries

- 2nd most important natural resources
- Provide employment to 100,000 people (Largely artisanal)
- Commercially important fish species are in decline
- Impact of mariculture? By catch, ghost fishing, mortality of immature fish



Loss of biodiversity

- Habitat destruction
- Climate change and coral bleaching
- 176 MPAs in the region
- Effectiveness of the MPAs?
- Regional network of MPAs?



Data and information sharing

- Limited environmental data and information sharing in the region
- Level of researchers, governments, managers
- Best practices in the region?
- Professional networks



Education and capacity development

- Human resource development for integrated management of coastal and marine ecosystems
- Awareness and support from stakeholders
- Local capacity and expertise on environmental management














Questions

- What are the **regional** priority issues?
- What are other issues that could be listed as priorities?
 - Other socio economic issues in the region?
 - Climate change as cross-cutting issues?



Mediterranean EcAP

 1- Biological diversity	 2-Non-indigenous species	 3-Harvest of Commercially exploited fish and shellfish	 4-Marine food webs	 5-Eutrophication	
 6-Sea floor integrity	 7-Hydrography	 8-Coastal ecosystems and landscapes	 9-Pollution	 10-Marine litter	 11-Energy including underwater noise


<http://www.rac-spa.org/ecap>

http://ropme.org/551_EBM_EN.clx

**Ecosystem Approach:
the UNEP MAP experience**

TOWARD THE DEVELOPMENT OF A REGIONAL
ECOSYSTEM BASED MANAGEMENT STRATEGY FOR
ROPME SEA AREA

Dubai, UAE, 5 April 2016




Breakout groups

Groups

Group A	Group B
Mr. Bassan (Bahrain)	Ms. Fanaz (Iran)
Mr. Reza (I.R. Iran)	Mr. Faisal (Kuwait)
Mr. Noori (Iraq)	Mr. Jassim (Qatar)
Mr. Homod (Kuwait)	Mr. Ahmed (SA)
Mr. Badar (Oman)	Mr. Mohammed (SA)
Ms. Fareeda (Qatar)	Mr. Saad Aldeen (SA)
Mr. Mohammadi (ROPME)	Mr. Hassan (ROPME)
Ms. Diane (UNEP)	Ms. Kanako (UNEP)
Mr. Harada (JICA)	Mr. Sasakura (JICA)
Mr. Yoshida (JICA)	Mr. Sakaguchi (JICA)



Breakout groups

Task : Rank 8 items in order of the priorities. Please add any other items in the list as necessary.

No.	Issue
1	
2	
3	
4	
5	
6	
7	
8	
other	
other	



Breakout groups

	1	2	3	4	5	6	7	8
1		●	x	x				
2	x							
3	●							
4								
5								
6								
7								
8								



Identified issues

- 1 • Implementation of the Kuwait Action Plan, Kuwait Convention and Protocols
- 2 • Oil spills
- 3 • Coastal development
- 4 • Wastewater from desalination and other industry
- 5 • Fisheries
- 6 • Loss of biodiversity
- 7 • Data and information sharing
- 8 • Education and capacity development

