

Report on CEARAC activities in 2016-2017

NOWPAP CEARAC FPM16
10-11 May 2018

CEARAC Activities for 2016-2017

- ◆ 2 FPMs and 1 Expert Meeting
- ◆ Maintenance of Websites
- ◆ Specific Projects (2)
 - on marine biodiversity and seagrass
- ◆ Cooperation/Coordination with other RACs and regional/international organizations
- ◆ Activities on Marine litter (RAP MALI)

FPMs and Expert Meeting

- **15th FPM** (29-30 August 2017 in Toyama)
 - Reviewing progress of 2016-2017 activities
 - Discussing workplan of 2018-2019 activities
- **CEARAC Expert Meeting on Eutrophication Assessment in the NOWPAP Region** (18 Oct. 2017 in Qingdao, China)
 - Reviewing progress on trial application of screening procedure and discussed how to refine the current assessment method

Maintenance of Websites

- Renewing the web structure to be more user-friendly and updating posted information/data



Specific Projects in 2016-2017

- **Assessment of major pressures on marine biodiversity in the NOWPAP region**
- **Feasibility study towards assessment of seagrass distribution in the NOWPAP region**

Cooperation/Coordination with other RACs and regional/int'l organizations

- Attending meetings/workshops of other RACs and NOWPAP partners for sharing info./data
 - NOWPAP ICC (19-20 Sep.)



Marine Litter Activities (RAP MALI)

- Harmonizing/summarizing monitoring data from the member states and submitting to DINRAC
- Collecting info. on governmental measures for prevention of ML input



Budget (US\$146,000) and Expenditure

Activity	Budget & Expenditure	
	Budget	Expenditure
FPMs (14 th & 15 th) + Expert Meeting	54,000	53,215
Website Maintenance	12,000	12,098
Assessment of major pressures on marine BD	30,000	30,156
Feasibility study for seagrass assessment	40,000	40,288
Cooperation/Coordination	4,000	4,824
Marine Litter (RAP MALI)	6,000	5,419
TOTAL	146,000	146,000

Thank you very much



Workplan and budget for CEARAC Activities for the 2018-2019 biennium

NOWPAP CEARAC FPM16
10-11 May 2018

CEARAC Activities for 2018-2019

- ◆ FPMs (16th and 17th) + Expert Meeting
- ◆ Maintenance of Websites
- ◆ 3 Specific Projects: on marine biodiversity and seagrass
- ◆ Cooperation and Coordination
- ◆ Marine Litter (RAP MALI)

FPM and Expert Meeting

- **16th FPM** (May 2018)
 - Reviewing results of 2016-2017 activities and revised workplan of 2018-2019 activities
- **17th FPM** (fall 2019)
 - Reviewing progress of on-going activities
 - Discussing workplan of 2020-2021 activities
- **Expert Meeting on eutrophication assessment** (2018 and 2019)
 - Sharing latest info. on eutrophication status in the NOWPAP region

Maintenance of Websites

- Updating web contents
- Moving to cloud server



Specific Projects in 2018-2019

- Development of a CEARAC Medium-term Strategy on Marine Biodiversity (MTS on MB)
- Development of a roadmap for Regional Action Plan for Marine and Coastal Biodiversity Conservation in the NOWPAP region
- Development of a tool for mapping seagrass distribution in the NOWPAP region

Cooperation/Coordination with other RACs and regional/int'l organizations

- Participating NOWPAP meetings and other events
 - RAC FPMs, IGMs, ICC, etc..
- Organizing events with other RACs and NOWPAP partners



Enhancing regional capacity to conserve
the marine and coastal environment

Marine Litter activities (RAP MALI)

- Harmonizing/summarizing monitoring data by the member states and submitting to DINRAC
- Collecting information on countermeasures against microplastics in the member states
- Translating info. in the NW Regional Node into Japanese



Budget (US\$194,250)

Activity	Budget (USD)
FPMs + Expert Meeting	54,000
Web Maintenance including moving existing sites/data to cloud server	27,000
CEARAC MTS on marine BD	30,000
Roadmap for Regional Action Plan for Marine and Coastal Biodiversity Conservation	30,000
Tool for mapping seagrass distribution	40,000
Cooperation/Coordination	4,000
Total	185,000
Marine Litter (RAP MALI)	9,250

Thank you very much !



Biodiversity Activity I: Development of a CEARAC Medium-term Strategy on marine biodiversity

16th CEARAC FPM
10-11 May 2018
Toyama, Japan

Background

Past CEARAC Marine Biodiversity Activities

2010-2011

Development of a coastal environmental assessment tool for marine biodiversity conservation (in-kind by NPEC)

2012-2013

Publishing "Monitoring and management of MPAs in the NOWPAP region"

2014-2015

Pilot assessment of the impacts of major threats on marine biodiversity
Case studies on seagrass mapping in the selected sea areas in the NOWPAP region

2016-2017

Assessment of major pressures on marine biodiversity in the NOWPAP region
Feasibility study towards assessment of seagrass distribution in the NOWPAP region

NOWPAP

NOWPAP Medium-term Strategy 2012-2017

Theme 4: Biodiversity conservation (Including NIS)
Development of a NOWPAP Action Plan for Biodiversity Conservation

NOWPAP Medium-term Strategy 2018-2023

Publishing "Monitoring and management of MPAs in the NOWPAP region"

Regional Action Plan has not been developed yet

➔ Biodiversity Activity I

No clear vision for marine biodiversity conservation in the NOWPAP region

Future direction is necessary for CEARAC ASAP

Objective

- ▶ To develop the CEARAC Medium-term Strategy on marine biodiversity

CEARAC Medium-term Strategy on marine biodiversity shows following elements

- ▶ Basic policy on marine biodiversity activities of CEARAC
- ▶ Role of CEARAC for marine biodiversity conservation in NOWPAP
- ▶ Future direction and priorities in CEARAC's marine biodiversity activities
- ▶ Workplans on CEARAC's marine biodiversity activities in 2020-2021 & 2022-2023 biennia

Comments from CEARAC FPs at the 15th CEARAC FPM

- ▶ Narrowing down the target of topics on marine biodiversity
- ▶ Reflecting national needs of member states in activities

Task 1: Development of a list of potential topics for future CEARAC activities

Proposed country	Potential topics	Potential activities
China	Assessment of Marine biodiversity	Development of assessment methodology and indicator
China	List of marine biological species and its distribution	Development of list Collection of information
Japan/Korea	Specific migration species	Conservation of specific species
Japan	Tidal flat, salt-marsh and seagrass/seaweed bed	Habitat mapping
Korea/Russia/China	Harmful species and invasive species	Monitoring and assessment
Korea	Marine litter	Monitoring and assessment
Korea	Ballast water	Assessment
Russia	Plankton	Monitoring
Expert	Environmental DNA	Training course

Task 2: Feasibility study of potential topics and activities

- ▶ CEARAC FPs nominate expert
- ▶ CEARAC Secretariat prepares the feasibility study report format
Question-and-answer format
- ▶ Nominated experts conduct feasibility study on proposed 9 topics and make a report
- ▶ Feasibility study report includes following points
 - need/situation in your country on each proposed topic
 - data availability
 - feasible activity

Assessment of marine biodiversity:

- Development of methodology and indicators of marine biodiversity assessment

First Question (feasibility/need of proposed topics/activities)

- ▶ Is this topic/activity feasible in your country?
- ▶ Relationship to the national strategy, basic plan and law

Second Question (Reason of feasible/unfeasible)

- ▶ What kind of data/information on diversity of marine species is available?
- ▶ Situation of submission of data to OBIS/BISMaL/other international database
- ▶ Is there any specific species/genus/family that assessment can be done?
- ▶ Is there any experts who implement this topic/activity

Third Question (Candidate activity)

- ▶ What kind of activity can be implemented as CEARAC activity?

List of marine biological species and its distribution:

- Development of a list of the main marine biological species and invasive species
- Understanding of distribution and quantity of the main marine biological species and invasive species

First Question (feasibility of proposed topics/activities)

- ▶ Is this topic/activity feasible in your country?
- ▶ Relationship to the national strategy, basic plan and law

Second Question (Reason of feasible/unfeasible)

- ▶ What kind of data/information on marine species and/or invasive species is available?
- ▶ Situation of submission of data to OBIS/BISMaL/other international database
- ▶ Is there any experts who implement this topic/activity

Third Question (Candidate activity)

- ▶ What kind of activity can be implemented as CEARAC activity?

Remark

- ▶ Differences from DINRAC/PICES database? Can we update them?

Specific migration species:

- Detection of migratory endangered species
- Environmental assessment of sea areas where endangered species migrate
- MPA network for conservation of migratory species

First Question (feasibility of proposed topics/activities)

- ▶ Is this topic/activity feasible in your country?
- ▶ Relationship to the national strategy, basic plan and law

Second Question (Reason of feasible/unfeasible)

- ▶ What kind of data/information on specific migration species is available?
- ▶ How many species (from list of species of The Convention on the Conservation of Migratory Species of Wild Animals) is found in your country?
- ▶ Is there any experts who implement this topic/activity

Third Question (Candidate activity)

- ▶ What kind of activity can be implemented as CEARAC activity?

Remark

- ▶ NOWPAP member states don't adopt the CMS
- ▶ YSLME implement MPA network on migration species, NEASPEC has NEAMPAN

Conservation of tidal flat, salt-marsh and seagrass/seaweed beds:

- Seagrass/seaweed mapping

First Question (feasibility of proposed topics/activities)

- ▶ Is this topic/activity feasible in your country?
- ▶ Relationship to the national strategy, basic plan and law

Second Question (Reason of feasible/unfeasible)

- ▶ What kind of data/information on tidal flat and salt-marsh is available?

Third Question (Candidate activity)

- ▶ What kind of activity can be implemented as CEARAC activity?

Remark

- ▶ CEARAC implements seagrass mapping project

Impact of marine litter:

- Distribution of foreign marine litter

First Question (feasibility of proposed topics/activities)

- ▶ Is this topic/activity feasible in your country?
- ▶ Relationship to the national strategy, basic plan and law

Second Question (Reason of feasible/unfeasible)

- ▶ Is there any pressures on marine biodiversity?
- ▶ Is there any specific sea areas/habitats where marine litter influence
- ▶ Is there any experts who implement this topic/activity?

Third Question (Candidate activity)

- ▶ What kind of activity can be implemented as CEARAC activity?

Remark

- ▶ NOWPAP Marine Litter Monitoring

Impact of Ballast water:

- Effect of ballast water on introduction of invasive species

First Question (feasibility of proposed topics/activities)

- ▶ Is this topic/activity feasible in your country?
- ▶ Relationship to the national strategy, basic plan and law

Second Question (Reason of feasible/unfeasible)

- ▶ Is there any data/information on ballast water?
- ▶ Is there any survey on introduction of NIS through ballast water?
- ▶ Is there any experts who implement this topic/activity

Third Question (Candidate activity)

- ▶ What kind of activity can be implemented as CEARAC activity?

Remark

- ▶ MERRAC's activity

Plankton species which related to aquaculture and fisheries:

- Monitoring system in order to control the possible emergence of microalgae
- Control the impact of nutrient
- Development of monitoring tool using remote sensing

First Question (feasibility of proposed topics/activities)

- ▶ Is this topic/activity feasible in your country?
- ▶ Relationship to the national strategy, basic plan and law

Second Question (Reason of feasible/unfeasible)

- ▶ Is there any data/information on plankton?
- ▶ Is there any expert who implement this topic/activity

Third Question (Candidate activity)

- ▶ What kind of activity can be implemented as CEARAC activity?

Remark

- ▶ Fishery issue

Environmental DNA

- Spread methodology of biodiversity monitoring using environmental DNA

First Question (feasibility of proposed topics/activities)

- ▶ Is this topic/activity feasible/need in your country?
- ▶ Relationship to the national strategy, basic plan and law

Second Question (Reason of feasible/unfeasible)

- ▶ Is there any researches/activities on e-DNA in your country?
- ▶ Is there any experts who implement this topic/activity?

Third Question (Candidate activity)

- ▶ Is there needs of training course?

Remark

- ▶ Japanese scientists group plans to establish an academic society
- ▶ They also plan to develop manual on monitoring using e-DNA

Task 3: Organization of a marine biodiversity workshop and a meeting for development of CEARAC Medium-term Strategy on marine biodiversity

- ◆ Marine Biodiversity Workshop:
 - Objectives are to share information on
 - (1) National actions/needs, and (2) Feasibility of proposed topics and to identify the common foci in the NOWPAP region
 - Expected participants: Governmental officials and experts
- ◆ Meeting for development of CEARAC MTS on marine biodiversity
 - Objectives are to prioritize the proposed topics/activities and to develop the outline of CEARAC MTS
 - This meeting will be held back-to-back with the workshop above

Task 4: Development of CEARAC Medium-term Strategy on marine biodiversity

- ▶ Objective is to develop the CEARAC Medium-term Strategy on marine biodiversity which shows basic policy and future vision of CEARAC marine biodiversity activities
- ▶ The draft MTS will be reviewed by CEARAC FPs and be submitted to the IGM to be held in 2019.
- ▶ Draft table of contents
 - Background (Past activities and Responsibilities of CEARAC, NOWPAP MTS)
 - Basic policy and future direction of CEARAC's marine BD activities
 - Expected roles of CEARAC in NOWPAP
 - Draft workplan for the 2020-2021 and 2022-2023 biennium

Expected outcomes

- ▶ Future vision of CEARAC marine biodiversity activities
- ▶ Future workplans (after 2020) of CEARAC marine biodiversity activities
- ▶ Contribution to the NOWPAP Regional Action Plan on Marine and Coastal Biodiversity Conservation (Biodiversity Activity II)
- ▶ Expectation of CEARAC Secretariat: Smooth operation of future activities
 - ✓ Priority of marine biodiversity activities based on its feasibility and national needs
 - ✓ Strong support on collection of sufficient data/information from member states and experts

Budget

Activities	Budget (US\$)	Main Body
Collecting information on other potential topics	1,000	CEARAC Secretariat Consultant
Implementing feasibility study	12,000 (3,000 * 3 member states expect for Japan)	Nominated experts
Organizing Marine Biodiversity Workshop and Meeting on development of CEARAC Medium-term Strategy on Marine Biodiversity	15,000	CEARAC FPs Governmental officials Experts CEARAC Secretariat
Developing a draft CEARAC Medium-term Strategy on marine biodiversity	2,000	CEARAC Secretariat
Total	30,000	

Schedule

2017

- December: 22nd NOWPAP IGM

2018

- May: 16th CEARAC FPM
- Q2: Nomination of experts, finalization of proposed topics/activities
- Q3-Q4: Implementation of feasibility study

2019

- Spring: Organizing of WS and Meeting
- Q2-Q3: Preparation of draft CEARAC MTS
- Q3: Review of draft CEARAC MTS by CEARAC FPs
- September: approval for submission to IGM at 17th CEARAC FPM
- Winter: 24th NOWPAP IGM

2020

- Starting activities based on MTS

Biodiversity Activity II: Development of a roadmap for Regional Action Plan for Marine and Coastal Biodiversity Conservation in the NOWPAP region

16th CEARAC FPM
10-11 May 2018
Toyama, Japan

Background

- NOWPAP Medium-term Strategy 2012-2017
Theme 4: Marine biodiversity
Development of Regional Action Plan for marine and coastal biodiversity
- Future direction of the NOWPAP marine biodiversity conservation
- Guidelines for member states and RACs activities
- Extended to the NOWPAP Medium-term Strategy 2018-2023
- CEARAC marine biodiversity activity 2018-2019
Development of the CEARAC Medium-term Strategy on marine biodiversity

Background (RAP MLI)

2004 → 2005 → 2006-2007

UNEP proposed IGM
to start ML project in
NOWPAP

RCU proposed IGM

Nomination of ML FPs
from member states

RAP MLI (2008)

2004-2005
Preparation of proposal of
Marine Litter Activity (MALITA)
by RCU/RACs/Experts

Implementation of MALITA
by RCU/RACs/ML FPs
Preparation of draft Regional
Action Plan on Marine Litter
(RAP MLI)

First WS on ML
by NPEC

Second WS
by MERRAC

Third WS
by CEARAC

It took 5 years to develop RAP MLI!!!

Objective

- To develop a roadmap for Regional Action Plan for Marine and Coastal Biodiversity Conservation in the NOWPAP region (RAP BIO) with NOWPAP RCU and all RACs.

To achieve this objective, the procedure of RAP MLI development will be applied

Image of a roadmap to RAP BIO

2017 → 2019 → 2020-2021

CEARAC proposed IGM
to develop roadmap

RCU will propose IGM

Nomination of BD FPs
from member states

RAP BIO (2022 or 23)

2018-2019
Preparation of **draft proposal of
NOWPAP Marine Biodiversity
Activity** leading by CEARAC
with RCU/RACs/Experts

Implementation of
Biodiversity Activity by
RCU/RACs/ML FPs
Preparation of draft Regional
Action Plan (RAP BIO)

WS on BD

Second WS
by RAC

Third WS
by RAC

It is possible to develop RAP BIO in period of MTS 2018-2023

Difference between RAP MLI and RAP BIO

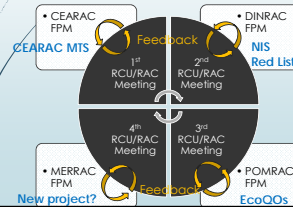
- International convention, national law
[Biodiversity]
Convention on Biological Diversity → Strategic Plan for Biodiversity 2011-2020
Each member state has own national strategies and/or policies
[Marine litter]
No direct convention, London Convention, MARPOL
All member states didn't have laws and/or strategies
- Position of RACs
[Biodiversity]
Some RACs have already implemented activities on BD
[Marine litter]
Role of RACs was decided before starting project, CEARAC=land-based sources

Task 1: Collection of relevant information on marine biodiversity conservation

- To collect information on past and current projects of marine biodiversity conservation and regional action plans on marine biodiversity in other Regional Seas Programmes
- To review the national reports on biodiversity submitted to CBD
The latest reports will be submitted by the end of 2018

Task 2: Organization of RCU and RAC Meeting on Marine Biodiversity

- To organize Marine Biodiversity RCU/RAC Meeting back-to-back with RACs' FPMs in order to discuss collaboration among RACs and roles of each RAC



- Points:
- Interesting Topics for each RAC
 - Collaboration among RACs/RCU
 - Role of each RAC/RCU in future on marine biodiversity conservation in the NOWPAP region

DINRAC FPM: 30-31 May
POMRAC FPM: 4-5 July
MERRAC FPM: 17-20 July

Task 3: Organization of Brainstorming Meeting

- To organize a brainstorming meeting back-to-back with the Marine Biodiversity Workshop to be held in Biodiversity Activity I.

Discussion points:

- ✓ Basic concept of marine biodiversity conservation in NOWPAP
- ✓ Future direction of NOWPAP marine biodiversity activities
- ✓ Draft outline of NOWPAP Marine Biodiversity Activity

Expected participants: Government officials and/or experts who will participate in the CEARAC Marine Biodiversity Workshop

Task 4: Organization of meeting for development of NOWPAP Marine Biodiversity Activity

- Organize a meeting to discuss and develop a draft NOWPAP Marine Biodiversity Activity

Based on the discussion at the RCU/RAC Meeting, Brainstorming Meeting and comments from each RAC FPM, the draft NOWPAP Marine Biodiversity Activity will be developed.

Expected participants:

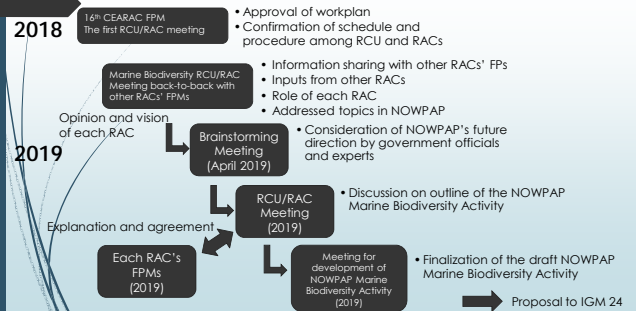
Representatives of RCU, RACs and each RAC FP

Outcome of project: Proposal of NOWPAP Marine Biodiversity Activity

Draft Contents

- Introduction
 - General information on marine biodiversity
 - Situation in the NOWPAP region and NOWPAP member states
- NOWPAP Marine Biodiversity Activity
 - Objective
 - Organizational arrangement
 - Workplan
- Proposed elements of the Regional Action Plan on Marine and Coastal Biodiversity Conservation (RAP BIO)

Schedule



Budget

Activity	Budget (US\$)	Main Body
Collection of relevant info. on marine biodiversity	5,000	CEARAC Secretariat Consultant
Marine Biodiversity RCU/RAC Meeting (1,000 x 2 in 2018 & 2019)	4,000	RCU and all RACs
Brainstorming Meeting	7,000	RCU, RACs and government officials/experts
Meeting for development of NOWPAP Marine Biodiversity Activity	14,000	RCU, RACs and representative of RAC FPs
Total	30,000	

Rationale and proposed steps for the development of the NOWPAP Regional Action Plan on Marine and Coastal Biodiversity: NOWPAP RCU Inputs

Lev Neretin, NOWPAP Coordinator

NOWPAP Biodiversity Issues Identified in SOMER-2 Report (2014)

- Fragmentation, degradation and loss of habitats and landscapes
- Chemical contamination of waters, sediments and biota resulting from pollution from land-based sources
- Eutrophication caused by the increased input of nutrients into marine waters and associated harmful algal blooms (HABs) and increased hypoxia
- Introduction of invasive non-indigenous species
- Marine litter pollution

Setting the Framework for NOWPAP Biodiversity Activities: Focus on species and habitat protection

NOWPAP → SDGs (and Aichi Targets) → Medium Term Strategy 2018-2023 → NOWPAP Good Environmental Status (EQOs)

Status of NOWPAP Knowledge

- 2005: NOWPAP Regional Seas Action Plan
- 2008: NOWPAP Regional Seas Action Plan
- 2010: NOWPAP Regional Seas Action Plan
- 2011, 2013: NOWPAP Regional Seas Action Plan
- 2013: NOWPAP Regional Seas Action Plan

- 2014:
 - Feasibility study towards assessment of seagrass distribution in the NOWPAP region (2017)
 - Assessment of major pressures on marine biodiversity in the NOWPAP region (2018)
 - Third Phase of Red List Species Project (2018-19)
 - NOWPAP Special Project "Identification of key indicator species and ecosystems of biodiversity change in the NOWPAP region" (2018-...)
 - Further development of SDG-related indicators for NOWPAP EQOs (2018-2019)

What could we learn from others: Experience of OSPAR and HELCOM

The North-East Atlantic Environment Strategy

Strategy of the OSPAR Commission for the Protection of the Marine Environment of the North-East Atlantic 2010–2020 (OSPAR Agreement 2010-3)

- guides OSPAR work towards 2020
- incorporates the Ecosystem Approach
- identifies objectives for 5 Thematic Strategies

Intermediate Assessment (IA) 2017

OSPAR Intermediate Assessment 2017: <https://oap.ospar.org/en/ospar-assessments/intermediate-assessment-2017/>

Spatial Coverage of Assessments (by Strategy)


Assessments by Theme	Count
Non-Indigenous Species	1
Marine Mammals	1
Marine Birds	1
Fish Communities	1
Marine Invertebrates	1
Pragmatic Indicators	1
Foodwebs	1
Marine Protected Areas	1
Marine Oceans	1
Waters (Estuaries)	1
Integrated Material	1
Contaminants / Pathogens	1
Deep-Sea Habitats (and Submarine Hydrothermal Vents)	11
Offshore Industry	1
Indicator Sub-Elements	1
Total	42

OSPAR COMMISSION
Protecting and conserving the North-East Atlantic and its resources

OSPAR List of Threatened and/or Declining Species and Habitats (Reference Number: 2008-6)

(a) Selection criteria for species

- Global importance:** Global importance of the OSPAR area for a species. Importance on a global scale, of the OSPAR Area, for the species is when a high proportion of a species at any time of the life cycle occurs in the OSPAR Area.
- Regional importance:** Importance within the OSPAR Area, of the region for the species where a high proportion of the total population of a species within the OSPAR Area for any part of its life cycle is restricted to a small number of locations in the OSPAR Area.
- Rarity:** A species is rare if the total population size is small. In case of a species that is sessile or of restricted mobility at any time of its life cycle, a species is rare if it occurs in a limited number of locations in the OSPAR Area, and in relatively low numbers. In case of a highly mobile species, the total population size will determine rarity.
- Sensitivity:** A species is "very sensitive" when:
 - it has very low resistance (that is, it is very easily adversely affected by human activity); and/or
 - it has very low resilience (that is, after an adverse effect from human activity, recovery is likely to be achieved only over a very long period, or is likely not to be achieved at all).
 A species is "sensitive" when:
 - it has low resistance (that is, it is easily adversely affected by human activity); and/or
 - it has low resilience (that is, after an adverse effect from human activity, recovery is likely to be achieved only over a long period).
- Recreation species:** a species which has a controlling influence on a community.
- Decline:** means an observed or indicated significant decline in numbers, extent or quality (quality refers to life history parameters). The decline may be historic, recent or current. "Significant" need not be in a statistical sense.




NOWPAP Regional Seas UN
Northwest Pacific Action Plan

OSPAR COMMISSION
Protecting and conserving the North-East Atlantic and its resources

OSPAR List of Threatened and/or Declining Species and Habitats (Reference Number: 2008-6)

(c) Selection criteria for habitats

- Global importance:** importance of the OSPAR Area for the habitat in a global context; a high proportion of the habitat occurs in the OSPAR Area.
- Regional importance:** importance of the sub-regions of the OSPAR Area for the habitat; a high proportion of the habitat occurs within a specific biogeographic region and/or region of national responsibility within the OSPAR Area.
- Rarity:** a habitat is assessed as being rare if it is restricted to a limited number of locations or to small, few and scattered locations in the OSPAR area.
- Sensitivity:** A habitat is "very sensitive" when:
 - it has very low resistance (that is, it is very easily adversely affected by human activity); and/or
 - it has very low resilience (that is, after an adverse effect from human activity, recovery is likely to be achieved only over a very long period, or is likely not to be achieved at all).
 A habitat is "sensitive" when:
 - it has low resistance (that is, it is easily adversely affected by human activity); and/or
 - it has low resilience (that is, after an adverse effect from human activity, recovery is likely to be achieved only over a long period).
- Ecological significance:** the habitat is very important for the wider significance of the ecological processes, functions and species that it supports.
- Status of decline:** Decline means a significant decline in extent or quality. The decline may be historic, recent or current. The decline can occur in the whole OSPAR maritime area or regionally.



NOWPAP Regional Seas UN
Northwest Pacific Action Plan

OSPAR List of Threatened and/or Declining Species and Habitats (Reference Number: 2008-6)

SPECIES HABITATS IN THE OSPAR MARITIME AREA

Final Final criteria

THREATENED/DECLINING SPECIES & HABITATS

OTHER QUALIFYING SPECIES & HABITATS

Criteria about with inventory of marine activities likely to have actual or potential adverse effect and absence of disturbance attributable to human activities

Sufficient knowledge about impact of activities?

Adaptive zoning measures in other areas?


OSPAR PRIORITY ACTION

OSPAR RESEARCH

OSPAR RESEARCH

OSPAR ACTION

OSPAR RESEARCH



NOWPAP Regional Seas UN
Northwest Pacific Action Plan

What could we learn from others: Experience of OSPAR and HELCOM

GOALS AND OBJECTIVES

Eutrophication

Baltic Sea overfertilized by eutrophication

- Clear water
- Natural level of algal blooms
- Natural distribution and occurrence of plants and animals
- Natural oxygen levels

Biodiversity

Favourable status of Baltic Sea biodiversity

- Natural marine and coastal landscapes
- Thriving and balanced communities of plants and animals
- Wide representation of species

Hazardous Substances

Baltic Sea undisturbed by hazardous substances

- Concentrations of hazardous substances close to natural levels
- All BBNs are safe to eat
- Healthy wildlife
- Non-toxicity of the pre-Chernobyl level

Maritime activities

Environmentally friendly maritime activities

- Enforcement of international regulations – no flag challenges
- Safe maritime traffic without accidental pollution
- Efficient emergency and response capabilities
- Minimum sewage pollution from ships
- No introduction of alien species from ships
- Minimum air pollution from ships
- Zero discharges from offshore platforms
- Minimum threats from offshore installations



NOWPAP Regional Seas UN
Northwest Pacific Action Plan

HELCOM - Baltic Marine Environment Protection Commission - Helsinki Commission

1992 VERSION OF THE STATE OF THE BALTIC SEA REPORT - FOREWORD

HELCOM has adopted Ecological Objectives covering topics referring to:

- restoring and maintaining sea floor integrity at a level that safeguards the functions of the ecosystems;
- that habitats, including associated species, show a distribution, abundance and quality in line with prevailing physiographic, geographic and climatic conditions; and
- a water quality that enables the integrity, structure and functioning of the ecosystem to be maintained or recovered.

OSPAR OBJECTIVE	1. Biodiversity
OSPAR OBJECTIVE	1.1 Biodiversity
OSPAR OBJECTIVE	1.2 Fauna
OSPAR OBJECTIVE	1.3 Flora
OSPAR OBJECTIVE	1.4 Marine Mammals
OSPAR OBJECTIVE	1.5 Wetlands

NOWPAP Regional Seas UN
Northwest Pacific Action Plan

HELCOM - Baltic Marine Environment Protection Commission - Helsinki Commission

Baltic Sea Environment Proceedings No. 140

HELCOM Red List of Baltic Sea species in danger of becoming extinct

Baltic Sea Environment Proceedings No. 138

Red List of Baltic Sea underwater biotopes, habitats and biotope complexes

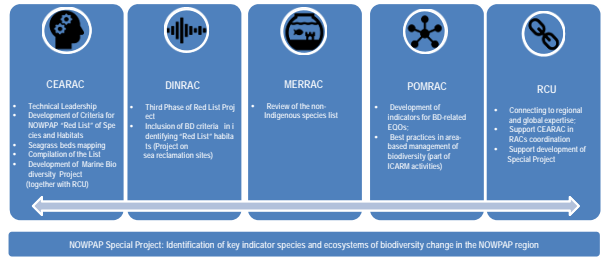



NOWPAP Regional Seas UN
Northwest Pacific Action Plan

Why does NOWPAP Need Regional Action Plan on Marine and Coastal Biodiversity?

- Biodiversity loss continues and will be exacerbated by the climate change impacts
- Action Plan does not have specific provisions and action items to conserve and sustainably use marine and coastal biodiversity
- SDG 14 calls for conservation and sustainable use of marine and coastal biodiversity
- NOWPAP MTS 2018-2023 has specific priority theme focused on marine and coastal biodiversity conservation
- NOWPAP needs Regional Action Plan to provide a framework for cooperation

RCU suggestions for the next steps in 2018-2019



Thank you for the attention!

EXTRA SLIDES

EcoQO 1: Biological and habitat diversity are not changed significantly due to anthropogenic pressure						
Operational criteria	Suggested indicators	Relevant SDG indicators	China	Japan	Korea	Russia
1.1. Species diversity of marine mammals and waterbirds	1.1.1. Abundance, distribution and population growth rates of marine mammals	14.4.1. Proportion of fish stocks within biologically sustainable levels (measures the % of the assessed stocks are within biologically sustainable levels?)	1.1.1. No available data	1.1.1. Not enough data (mostly scientific research)	1.1.1. Possible (protected species only)	1.1.1. No reliable data
	1.1.2. Abundance and productivity of key indicator species		1.1.2. Possible (abundance only, mostly data from scientific research)	1.1.2. Not enough data (mostly scientific research)	1.1.2. Possible (endangered species only)	1.1.2. Possible
1.2. Species, age and size structure of fish stocks	1.2.1. Catch/biomass ratio 1.2.2. Spawning Stock Biomass (SSB) 1.2.3. Proportion of large fish (for selected species at the top of food web)		1.2.1. Not enough data 1.2.2. Not enough data 1.2.3. Not enough data	1.2.1. Possible 1.2.2. Not enough data 1.2.3. Not enough data	1.2.1. Possible 1.2.2. Possible 1.2.3. Possible (for sturgeon only)	1.2.1. Possible 1.2.2. Possible 1.2.3. Possible
1.3. Distribution of benthic and pelagic species and communities and their status	1.3.1. Distribution	1.3.1. Possible	1.3.1. Possible	1.3.1. Possible	1.3.1. Possible	
	1.3.2. Condition of the typical species and communities	1.3.2. Possible	Not at this moment (some national/local scientific data might be available)	1.3.2. Possible	1.3.2. Possible	
	1.3.3. Hydrological and chemical conditions	1.3.3. Not enough data	1.3.3. Possible	1.3.3. Possible	1.3.3. Possible	

EcoQO 2: Alien species are at levels that do not adversely alter the ecosystems						
Operational criteria	Suggested indicators	Relevant SDG indicators	China	Japan	Korea	Russia
2.1. Abundance and state characterization of alien species	Trends in spatial distribution and biomass of alien species	Indicator is proposed only for alien species on land and water ecosystems and could be applied only for coastal river systems:	Data are limited	Not at this moment (some national/local scientific data might be available)	Under development	Data are limited
2.2. Environmental impact of alien species	Ratio between alien species and native species and their interaction at the level of ecosystem, habitats and species	15.8.1. Proportion of countries adopting relevant national legislation and adequately resourcing the prevention or control of invasive alien species	Data are limited	Not at this moment (some national/local scientific data might be available)	Under development	Data are limited

EcoQO 3: Eutrophication adverse effects are absent						
Operational criteria	Suggested indicators	Relevant SDG Indicators	China	Japan	Korea	Russia
3.1. Nutrients concentration	3.1.1. Nutrients concentration in the water column 3.1.2. Nutrient ratio (silica, nitrogen and phosphorus)	14.1.1. Index of coastal eutrophication (indicator with established methodology and standards is absent, but initial proposal is to focus on Chlorophyll a as a core parameter with progressive identification of additional parameters)	3.1.1. Possible 3.1.2. Possible (though data are limited, mostly from scientific studies)	3.1.1. Possible 3.1.2. Possible (mostly from scientific studies)	3.1.1. Possible	3.1.1. Possible 3.1.2. Possible (though data are limited)
3.2. Direct effects of nutrient enrichment	3.2.1. Chlorophyll a concentration in the water column 3.2.2. Species composition and abundance of toxic microalgae 3.2.3. Harmful algal blooms (HABs) 3.2.4. Abundance of opportunistic macroalgae		3.2.1. Possible 3.2.2. Data are limited 3.2.3. Possible 3.2.4. Possible (though data are limited)	3.2.1. Possible 3.2.2. Possible 3.2.3. Possible 3.2.4. Data not available	3.2.1. Possible (though data are limited) 3.2.2. Possible (though data are limited) 3.2.3. Possible (though data are limited) 3.2.4. Data not available	3.2.1. Possible (though data are limited) 3.2.2. Possible (though data are limited) 3.2.3. Possible (though data are limited) 3.2.4. Possible (though data are limited)
3.3. Indirect effects of nutrient enrichment	Seasonal hypoxia, dissolved oxygen changes and size of the area concerned		Data are limited	Possible	Possible (though data are limited)	Possible (though data are limited)



EcoQO 4: Contaminants cause no significant impact on coastal and marine ecosystems and human health						
Operational criteria	Suggested indicators	Relevant SDG Indicators	China	Japan	Korea	Russia
4.1. Concentration of contaminants	4.1.1. Concentration of the contaminants in sediments, water and organisms 4.1.2. Exceeding of MPC in aquatic organisms and frequency of such cases	None at this moment	4.1.1. Possible (in sediments and water only) 4.1.2. Not at this moment (some national/local scientific data might be available)	4.1.1. Possible 4.1.2. Not at this moment (some national/local scientific data might be available)	4.1.1. Possible (in sediments and organisms) 4.1.2. Possible	4.1.1. Possible (in sediments and organisms) 4.1.2. Possible
4.2. Effects of contaminants	Levels of pollution effects on the ecosystem components concerned, where a causal effect relationship has been established		Not at this moment	Not at this moment (some national/local scientific data might be available)	Possible	Not at this moment



EcoQO 5: Marine litter does not adversely affect coastal and marine environments						
Operational criteria	Suggested indicators	Relevant SDG Indicators	China	Japan	Korea	Russia
5.1. Characteristics of litter in the marine and coastal environment	5.1.1. Trends in the amount and composition of litter washed ashore 5.1.2. Trends in the amount of litter in the water column and deposited on the seafloor 5.1.3. Trends in the amount, distribution and composition of micro-particles	14.1.1. Floating plastic debris density (indicator with established methodology and standards is absent, but initial proposal is to focus on beach litter as a proxy indicator)	5.1.1. Possible 5.1.2. Data are very limited 5.1.3. Under development	Possible (using data from national/local surveys)	5.1.1. Possible 5.1.2. Possible 5.1.3. Possible	5.1.1. Possible 5.1.2. Data are very limited 5.1.3. Data are very limited
5.2. Impacts of litter on marine life	Trends in the amount and composition of litter ingested by marine animals		Not at this moment	Data not available	Not at this moment, under development	Not at this moment

