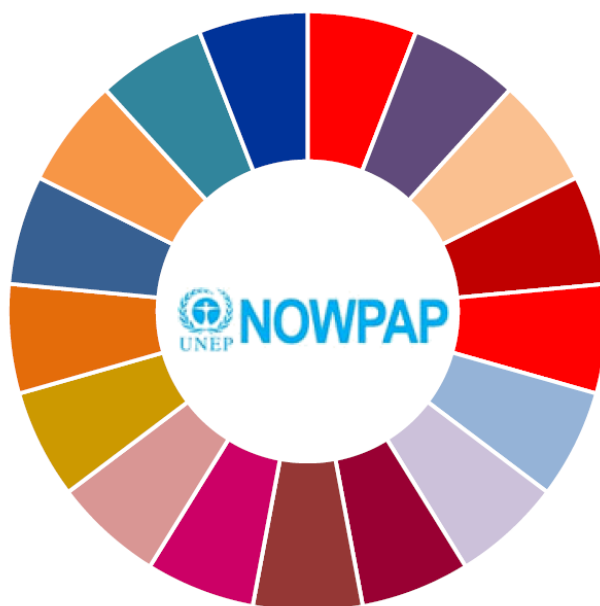


Draft NOWPAP Medium-term Strategy (MTS) 2018-2023



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Acronyms

AEWA	African-Eurasian Migratory Waterbird Agreement
BWM	The International Convention for the Control and Management of Ships' Ballast Water and Sediments
CAFF	Conservation of Arctic Flora and Fauna (CAFF) [of the Arctic Council]
CBD	Convention on Biological Diversity
CEARAC	The Special Monitoring & Coastal Environmental Assessment Regional Activity Centre [of NOWPAP]
COBSEA	Coordinating Body on the Seas of East Asia
DINRAC	Data and Information Network Regional Activity Centre [of NOWPAP]
EAAFP	East Asian-Australasian Flyway Partnership
EBSA	Ecologically or Biologically Significant Marine Area
EcoQO	Ecological Quality Objective
EEZ	Exclusive Economic Zone
FPM	Focal Points Meeting
GEF	Global Environment Facility
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection
GloFouling Partnerships	GEF-UNDP-IMO project "Building Partnerships to Assist Developing Countries Minimize the Impacts from Aquatic Biofouling"
GPA	Global Programme of Action for the Protection of the Marine Environment from Land-based Activities
GPML	Global Partnership on Marine Litter
GPNM	Global Partnership on Nutrient Management
HAB	Harmful Algal Bloom
HELCOM	Baltic Marine Environment Protection Commission
HLPF	High-Level Political Forum on Sustainable Development
HNS	Hazardous and Noxious Substance
ICARM	Integrated Coastal Area and River Management
ICZM	Integrated Coastal Zone Management
IGM	Intergovernmental Meeting
IMO	International Maritime Organization
IOC-WESTPAC	Sub-Commission for the Western Pacific of the Intergovernmental Oceanographic Commission of UNESCO

IPIECA	International Petroleum Industry Environmental Conservation Association
ITOPF	International Tanker Owners Pollution Federation Limited
IUCN	International Union for Conservation of Nature
LME	Large Marine Ecosystem
MALITA	Marine Litter Activity [of NOWPAP]
MARPOL	International Convention for the Prevention of Pollution from Ships
MEF	Monitoring and Evaluation Framework
MERRAC	Marine Environmental Emergency Preparedness and Response Regional Activity Centre [of NOWPAP]
MPA	Marine Protected Area
MSP	Marine Spatial Planning
MTS	Medium-term Strategy
NEAMPAN	North-East Asian Marine Protected Areas Network
NEASPEC	North-East Asian Subregional Programme for Environmental Cooperation
NGO	Non-governmental organization
NOWPAP	Northwest Pacific Action Plan
NPEC	Northwest Pacific Environment Cooperation Center
OPRC	International Convention on Oil Pollution Preparedness, Response and Co-operation
PEMSEA	Partnerships in Environmental Management for the Seas of East Asia
PICES	North Pacific Marine Science Organization
POMRAC	Pollution Monitoring Regional Activity Centre [of NOWPAP]
PTS	Persistent Toxic Substance
RAC	Regional Activity Centre
RAP MALI	Regional Action Plan on Marine Litter
RCP	Regional Contingency Plan
RCU	Regional Coordinating Unit
SDG	Sustainable Development Goal
SOMER	State of the Marine and Coastal Environment Report
TEMM	Tripartite Environmental Ministers Meeting among Japan, People's Republic of China, and Republic of Korea
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme

UNEP-WCMC	United Nations Environment Programme-World Conservation Monitoring Centre
UNESCO	United Nations Educational, Scientific and Cultural Organization
WG	Working Group
YSLME	Yellow Sea Large Marine Ecosystem

1. Introduction and background

1. The Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region (NOWPAP) was adopted in September 1994 as one of the 18 Regional Seas Programmes of the United Nations Environment Programme (UNEP). The geographical scope of the NOWPAP covers the marine environment and coastal zones of the following States: [Democratic People's Republic of Korea], Japan, People's Republic of China, Republic of Korea, and the Russian Federation from about 121°E to 143°E longitude, and from approximately 52°N to 33°N latitude, without prejudice to the sovereign right of any State.
2. Through the NOWPAP, members agreed on a common framework for regional marine and coastal cooperation built on principles of trust, cooperation, partnership and solidarity. Throughout their common history, they have shown success in living and dealing with change, embracing the possibilities and opportunities when faced with challenges.
3. The NOWPAP leaders showed great foresight in establishing the intergovernmental mechanism mandate - "wise use, development and management of the coastal and marine environment to obtain the utmost long-term benefits for the human populations of the region" – that remains strong and relevant as when it was formulated more than twenty years ago. Since the adoption, NOWPAP has been addressing all five elements of the NOWPAP, namely: (i) assessment of regional environmental conditions, (ii) environmental data and information management, (iii) development and application of ecosystem-based approach towards coastal and marine environmental planning, (iv) implementation of effective measures for mutual support in emergencies (associated with oil and hazardous and noxious substances (HNS) spills) and coastal and marine pollution prevention, and (v) strengthening NOWPAP institutional framework.
4. There has been a long history of ecosystem modification and degradation in the Northwest Pacific; this trend has accelerated with recent development pressures. NOWPAP region today is one of the most densely populated world's areas with a total population of about 300 million people, most of them living in the coastal areas. Based on the results of the UNEP Transboundary Waters Assessment (2016), two major Large Marine Ecosystems (LME) of the NOWPAP region are characterized by "high" to "highest" scores with respect to cumulative human impacts globally.
5. The Second Report on the State of the Marine Environment for the NOWPAP Region (SOMER-2) (NOWPAP POMRAC, 2014) identified eight major regional environmental issues:

- ✓ *Fragmentation, degradation and loss of habitats and landscapes;*
- ✓ *Chemical contamination of waters, sediments and biota resulting from pollution from land-based sources;*
- ✓ *High risk of oil and Hazardous and Noxious Substances (HNS) pollution incidents on the sea;*
- ✓ *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; and*
- ✓ *Marine litter pollution.*

Only two among those - *overfishing and destructive fishing practices and global climate change impacts on socio-ecological systems* - remained outside of the NOWPAP scope due to the limited internal capacity and existence of other regional institutions and mechanisms addressing these issues.

6. NOWPAP works to provide its Member States with technical advice and support for capacity building for the region's environment and development priorities. It also promotes sustainable development and co-operation in the region through partnerships and joint activities. NOWPAP is a member of the UNEP Regional Seas Programmes and it has recently signed the Agreement of Cooperation between the UNEP and the International Maritime Organization (IMO) (2014). It is a non-country partner or collaborator in a number of regional institutions such as the North Pacific Marine Science Organization (PICES) (*ex-officio* member in several thematic groups), Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) (non-country partner), North-East Asian Subregional Programme for Environmental Cooperation (NEASPEC) (partner), the IOC-UNESCO Sub-Commission for the Western Pacific (WESTPAC) (partner), the UNDP/GEF Yellow Sea LME Project Phase II (partner), and the Coordinating Body on the Seas of East Asia (COBSEA) (partner). On marine litter issues NOWPAP works closely with the Tripartite Environmental Ministers Meeting (TEMM).
7. Specialized contributions from four NOWPAP Regional Activity Centers (RACs)¹

¹ Special Monitoring and Coastal Environment Assessment Regional Activity Centre (CEARAC) is hosted by the Northwest Pacific Region Environmental Cooperation Centre (NPEC) in Toyama, Japan; Data and Information Network Regional Activity Centre (DINRAC) is based in the China-ASEAN Environmental Cooperation Center (CAEC), which is affiliated with the Ministry of Ecology and Environment of People's Republic of China (MEE) in Beijing, P. R. of China; Marine Environmental Emergency Preparedness and Response Regional Activity Centre (MERRAC) is established in the Korea Research Institute of Ships and Ocean Engineering (KRISO) of Korea Institute of Ocean Science and Technology (KRISO/KIOST) in Daejeon, the Republic of Korea, and Pollution

hosted by national institutions and the Secretariat provided by UNEP through the Regional Coordinating Unit (RCU) with two offices (in Toyama, Japan and Busan, Republic of Korea) ensures implementation of activities biannually agreed by Member States and coordination within the system and with NOWPAP regional and global partners. Established financial sustainability of the NOWPAP Trust Fund through the restructuring of the RCU is one of the important achievements. The NOWPAP Trust Fund reached 100% replenishment level in 2017 and is based on voluntary contributions of Member States. Additional resources are provided by Member States and various partners to support specific activities of the NOWPAP.

2. NOWPAP Medium-term Strategy (MTS) 2012-2017: Achievements and lessons learned

8. NOWPAP MTS 2012-2017 consists of five substantive themes: 1) integrated coastal and river basin management; 2) regular assessments of the state of marine environment; 3) pollution prevention and reduction (including harmful substances, hazardous waste and marine litter); 4) biodiversity conservation (including invasive alien species); and 5) climate change impacts. These five themes are underpinned by the additional operational themes focused on strengthened regional cooperation, information management, public awareness, and resource mobilization. Many activities proposed in the NOWPAP MTS 2012-2017 are completed or on track by the end of 2017.
9. During 2012-2017 NOWPAP established the baseline to measure the effectiveness of the NOWPAP by setting up regional Ecological Quality Objectives (EcoQOs) and is continuing working on EcoQO indicators. During the last six years, NOWPAP made important progress in the provision of technical information about the state and trends in eutrophication and hypoxia, incidences and extent of harmful algal blooms (HABs), understanding of major threats to marine and coastal biodiversity in some pilot areas, invasive species, and marine litter. The data inform national policy- and decision-makers of NOWPAP Member States on how to improve conservation and management of marine and coastal environment in the region.
10. SOMER-2 report (2014) summarized information about the status of the marine environment and identified major threats from human activities in the NOWPAP region. NOWPAP produced *Regional overview of PTS and POPs issues of ecological concern in the NOWPAP region* (NOWPAP POMRAC, 2015a) and the

report on *integrated coastal planning and ecosystem-based management of the northwest Pacific region* (NOWPAP POMRAC, 2015). The latter provided overview of marine spatial planning and regional guidelines for integrated coastal planning and management. NOWPAP Regional Action Plan on Marine Litter (RAP MALI) (2008) has been successfully implemented through national and regional actions; the Northwest Pacific Regional Node of the Global Partnership on Marine Litter (GPML) was established in 2014 by the NOWPAP and the Northwest Pacific Region Environmental Cooperation Center (NPEC). Close to a dozen of sector-specific guidelines (for fisheries, aquaculture, tourism, ports and others) addressing threats from marine litter were developed and published by NOWPAP during the last six years to inform various policy processes.

11. NOWPAP members continued developing and implementing measures against marine pollution emergencies through the NOWPAP Regional Oil and HNS Spill Contingency Plan (RCP). Oil spill exercises and training supported on a regular basis kept competent authorities ready for effective preparedness and response in case of a major oil/HNS spill accident. Members were provided with a sophisticated information database in support of the RCP that is developed and hosted by the NOWPAP.
12. NOWPAP continued updating and collecting information about the coastal and marine environment available online in various databases. New databases on environmental standards, invasive and endangered species, marine protected areas, and marine litter have been created. NOWPAP also increased its public outreach and communication activities and was actively engaged in various global, regional, national and sub-national fora. Various partners were working with NOWPAP reflecting on the institution's important role in a wider regional environmental network.
13. The increasing impacts of climate change on ecosystems, economies and the society are making achievement of environmental goals and management response more challenging and uncertain in the NOWPAP region. Loss of biodiversity and introduction of invasive species, including with ballast waters are significant. Marine protected areas and other forms of spatial protection of biodiversity cover only 4% of marine and coastal areas in the region, which is significantly below the global target of 10% set by the Convention on Biological Diversity (CBD) (Aichi Target 11). While the number of oil spills exceeding 1,000 tons has been decreasing over the years, the number of smaller spills does not show such downward tendency. Eutrophication is on the rise caused by the increased input of nutrients resulting in higher incidence of harmful algal blooms and hypoxic events. Pollution by persistent toxic substances is prevalent but continues to be limited to "hot spots" in the coastal areas. Finally, marine litter, including microplastics remains an important issue of regional concern.

14. Notwithstanding progress achieved by NOWPAP across various priority areas of the MTS 2012-2017, a few important activities were not implemented fully or completed, i.e., development of Regional Action Plan on Marine and Coastal Biodiversity Conservation, insufficient progress on building capacities for integrated coastal zone management and marine spatial planning, prevention of alien species invasions through ballast waters, and the regional assessment of climate change impacts on marine and coastal ecosystems. Collection and sharing of various environmental data also continues to be challenging. There is a need to advance NOWPAP actions addressing these issues.
15. Furthermore, there are also some operational challenges that should be addressed by the new MTS. Among them is insufficient translation of results of NOWPAP assessments into policy and management action on the ground. There is also a lack of capacity and sufficient resources available to RACs while integration of activities and collaboration on integrated ecosystem management between them should be strengthened. This deficiency is particularly important in addressing such complex issues as biodiversity conservation and climate change adaptation. Potential to improve NOWPAP outreach to sub-national and business communities as well as non-governmental organizations (NGOs) and to work closer with traditional and new partner institutions is not yet fully realized.
16. Over time NOWPAP mechanism has been transformed from a “project-based” into a “RAC-based” institution that limits its ability as a whole to secure additional funding and develop projects and activities with external partners. NOWPAP has put significant efforts to attract additional resources from outside the Trust Fund, but they are perceived to be insufficient. At the same time, no effort was made to assess leveraged resources secured by NOWPAP RACs and partners for the implementation of NOWPAP activities.
17. Financial and to a certain extent administrative management of the NOWPAP Trust Fund was not as efficient as it should be. Results-based management with clear performance indicators and identification of lessons and best practices was not fully embedded into the MTS 2012-2017 making robust assessment of NOWPAP achievements and processes challenging.

3. Medium-term Strategy 2018-2023 Vision and Coherence with the UN 2030 Agenda for Sustainable Development

18. The MTS 2018-2023 Vision is:

A resilient Northwest Pacific marine and coastal environment², supporting sustainable development for the long-term benefit of present and future generations.

19. The 2030 Agenda for Sustainable Development (the 2030 Agenda) adopted by the UN Member States in 2015 acknowledges the integrated nature of the many challenges that humanity faces. Halting and reversing environmental degradation requires systemic actions across all three domains of sustainable development: environmental, economic and social. The major focus of NOWPAP is to contribute to the achievement of SDG 14 “Conserve and sustainably use the oceans, seas and marine resources for sustainable development”, which emphasizes the importance of seas and oceans for sustainable development.
20. At the regional level, NOWPAP is best suited to apply the ecosystem-based approach and to form multi-stakeholder partnerships for protecting marine and coastal environment and to enhance cross-sectoral cooperation. NOWPAP already contributes to SDGs implementation. The major focus of the NOWPAP MTS 2018-2023 will be on *the coordination of the regional implementation of the ocean-related SDGs using NOWPAP mechanism*. NOWPAP will contribute concretely to achieving SDG 14 (particularly targets 14.1, 14.2, 14.5, and 14.c) and SDG 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development. NOWPAP activities will also support the achievement of SDGs 6, 8, 11, 12, 13, and 15.
21. *Strengthening implementation of the NOWPAP based on ecosystem approach and achieving regionally agreed Ecological Quality Objectives (EcoQOs)* is necessary to support achieving SDGs targets and fulfill the 2030 Agenda. Future NOWPAP agenda will be geared towards SDGs implementation focusing on issues of regional concern and interest.
22. Towards achievement of target SDG 14.1, NOWPAP will strengthen implementation of its two Regional Action Plans – the Regional Oil and HNS Spill Contingency Plan and the Regional Action on Marine Litter, increasingly focusing on microplastics. It will continue assessing the spatial scale and evolution of eutrophic and hypoxic zones, but also strengthen and enhance activities contributing to mitigation of harmful algal blooms.
23. To address targets SDG 14.2 and 14.5, NOWPAP will initiate a range of activities leading to the development of a Regional Action Plan on Marine and Coastal Biodiversity Conservation, including the identification of critical habitats and species

² Ecosystem resilience is a term coined for “the capacity of socio-ecological system to absorb disturbance and re-organize so as to retain essentially the same function, structure and feedbacks – i.e., to have the same identity.”

(including endangered and invasive species) and the expansion of area-based biodiversity conservation measures such as marine protected areas (MPAs). NOWPAP will accelerate its activities to ensure mutual learning and capacity building towards closer regional cooperation on integrated coastal zone planning and management as well as marine spatial planning in the region. Finally, during the period of 2018-2023, as a baseline for SDG implementation, NOWPAP will produce an integrated assessment of the state of the NOWPAP marine and coastal ecosystems (SOMER-3) that will be used to review the existing and set up new NOWPAP priorities, until 2030.

24. In response to growing and inter-connected environmental challenges and towards the achievement of targets SDG 17.6 and 17.16, NOWPAP will *increasingly strengthen regional and global partnerships*. NOWPAP will continue collaboration with major regional partners (COBSEA, IOC-WESTPAC, NEASPEC, PEMSEA, PICES, TEMM, and YSLME GEF Phase II project), with other Regional Seas Conventions and Action Plans, other multilateral institutions and mechanisms to share lessons learned and support each other in efforts addressing SDGs issues.
25. NOWPAP will *continue engaging in global processes and mechanisms supporting effective measures towards achieving SDGs*, particularly SDG 14. NOWPAP's inputs will contribute to reporting on relevant SDG 14 indicators and progress towards implementation. NOWPAP members may use it as a platform to report on the SDG 14 implementation in national inputs to voluntary national reviews of the United Nations High Level Political Forum on Sustainable Development (HLPF). Through Regional Seas Programme, NOWPAP will continue providing inputs to various reporting and implementation mechanisms at the global level, including annual reports of the UN Secretary-General on oceans and the law of the sea, reports for and resolutions of the United Nations Environment Assembly (UNEA), the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA), and others.
26. NOWPAP will *monitor and report on the implementation of the voluntary commitments registered by NOWPAP at the 2017 UN Conference "Our oceans, our future: Partnering for the implementation of SDG 14"*.

4. Operating principles of the Strategy

27. Operating principles define the approach to achieving the Vision. They guide the way NOWPAP organizes its work and the choices it makes. NOWPAP will coordinate internally and externally with partners to focus its actions based on the six principles described below.
28. NOWPAP's mandate for improved environmental management and sustainable

development of the coastal and marine ecosystems is defined by the founding document of the Action Plan (1994). During 2018-2023, NOWPAP activities will focus on the four priority areas related to the achievement of SDG 14 and other relevant SDGs, as outlined in the next section (paragraph 35). NOWPAP will deliver its mandate through strategic use of or combination of technical assistance, capacity building, data and information management, mobilization of financial resources, and public awareness and outreach.

29. **(i) Relevance to regional and national contexts and priorities:** NOWPAP will prioritize work that supports delivery of national priorities or strategies, regional strategies, and obligations under multilateral environmental agreements.
30. **(ii) Leveraging science for policy- and decision-making:** Through RACs supported by RCU, NOWPAP will continue bringing together various stakeholders, particularly academia, in data gathering, analysis and assessment at the regional level and continue improving quality of its deliverables (data, technical reports and guidelines). NOWPAP's focus will continue to be on (i) provision of policy-relevant assessments, (ii) facilitation of science-policy dialogues (through meetings of RACs and technical workshops), and (iii) contribution to science-policy interface through supporting agenda setting at the national (through NOWPAP Focal Points), regional (through participation in regional fora), and global (through the UNEP Regional Seas Programme, IMO, and other UN-led processes) levels. All NOWPAP entities will contribute to the effective data and information management.
31. **(iii) Synergy through strategic collaboration and partnerships:** NOWPAP will engage diverse stakeholders from regional and national institutions, including central and local governments, major groups, private sector, and regional and global institutions in issue-based collaboration and partnerships built on common principles and values and shared goals of protecting the marine and coastal environment.
32. **(iv) Sustainability and leveraging of resources:** NOWPAP will adopt approaches and pursue only those activities that have higher likelihood of sustained outcomes and represent good value for money. NOWPAP will work to ensure the financial sustainability and leverage its Trust Fund with new and additional financial resources.
33. **(v) Results-based management:** NOWPAP will continue strengthening planning and delivery process, based on the progressive use of results-based management. It will strengthen connection and synergies of activities between RACs and between RACs and RCU through internal arrangements for planning, delivery and budgeting, and performance indicators.
34. **(vi) Communication and public outreach:** NOWPAP will enhance public advocacy and digital engagement strategies to better inform, influence and mobilize stakeholders and resources for the protection of marine and coastal environment. Communication and public outreach will be an integral part of NOWPAP RCU and

RACs activities.

5. Priority Areas and Proposed Outcomes

35. Producing sound environment and development outcomes³ and creating impacts⁴ takes considerable time. Therefore, NOWPAP MTS 2018-2023 uses results-focused, longer-term outcome planning approach aligned with the target date of the 2030 Agenda. NOWPAP strategic focus and priority areas for the period of 2018-2023 are as follows:

1. Support integrated coastal and river basin management;
2. Assess status of the marine and coastal environment;
3. Prevent and reduce land- and sea-based pollution;
4. Conserve marine and coastal biodiversity;

36. For each priority area and relevant objectives of the MTS 2018-2023, Annex 3 lists their relevance to specific SDG targets.

37. Each priority area has specific objectives and corresponding outcomes/expected accomplishments. The adoption of two-year biennial programmes of work and budget in a broader context of the six-year MTS will outline activities towards achieving the longer-term impacts (EcoQOs and relevant SDG targets). MTS will allow for the adaptive approach to incorporate emerging issues and lessons learned to be reflected in the biennial work programs. These programs of work and budgets will be reviewed every two years as a part of the NOWPAP program development cycle.

38. The objectives under each priority area define the intention, while activities in the biennial work programs show logical steps towards achieving the outcomes/expected accomplishments in the period 2018-2023. The impact indicators (indicators for EcoQOs and relevant SDG 14 indicators) explain how environmental change would be measured in 2030 (SDG target year) and beyond. They are beyond the capacity of NOWPAP alone. The sub-sections 5.1 to 5.4 below provide an overview of priority areas. Annex 1 includes a summary of regional priorities, objectives, and outcomes/expected accomplishments, while Annex 2 lists indicative outputs for the period of 2018-2023.

³ Outcomes are defined as the uptake, adoption or use of NOWPAP intervention that is observed as a change of behavior, attitude, condition, knowledge or skill. Negotiated and agreed outcomes become expected accomplishments.

⁴ Impacts are the ultimate ambition to be realized and represent environmental change. In the NOWPAP context they are linked to Ecological Quality Objectives (EcoQOs) and SDG targets that NOWPAP could not achieve alone.

5.1. Support ecosystem-based integrated coastal and river basin management (ICARM)

39. The coastal areas of NOWPAP region are characterized by varying and often contrasting social, economic, geographical and geopolitical features. There are differences in political systems among the neighboring countries, density and numbers of population, natural resource potential, natural and climatic conditions and in levels of industrial development along the coasts. Under these conditions the application of the ecosystem-based Integrated Coastal and River Basin Management (ICARM) as an overarching approach to the region's integrated management is particularly relevant (NOWPAP POMRAC, 2010).
40. This priority area responds directly to Objectives 3 and 4 of the NOWPAP that focus on ecosystem-based planning and management. The expected 2030 Impact is **SDG 14.2** and corresponding indicators:

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.

Implementation of activities under this priority area will also contribute to the achievement of SDGs 6, 11, 13, 14, and 15 (Annex 3).

41. NOWPAP started activities addressing ICARM in 2007 when it established the ICARM Working Group under NOWPAP POMRAC. This group was instrumental in setting up regional dialogue and produced the Regional overview of marine spatial planning and ecosystem-based management in the selected areas of the NOWPAP region and the Regional guidelines for integrated coastal planning and management in the Northwest Pacific region - NOWPAP ICARM regional guidelines (NOWPAP POMRAC, 2015). Recognizing the need for enhanced regional capacities, NOWPAP continues working with PEMSEA on training for integrated coastal zone management (ICZM) and marine spatial planning (MSP). While NOWPAP's individual Member States made significant progress at the national level to advance legal, policy and management frameworks for coastal zone management and marine spatial planning, institutional development and organizational strengthening of ICARM at the regional level has barely started and remains the necessity (NOWPAP POMRAC, 2015).
42. During 2018-2023 NOWPAP will re-establish the ICARM Working Group (ICARM WG) under the framework of POMRAC to provide a forum for regional, trans-boundary and cross-sectoral dialogue on ICZM and MSP in the NOWPAP region. As initial tasks, WG will update national information on ICZM and MSP developments and best practices, especially on the elements covered by the

NOWPAP ICARM regional guidelines (NOWPAP POMRAC, 2015). The Group will exchange experience on the mainstreaming of ICZM and MSP into national SDG frameworks. NOWPAP will continue close co-operation with PEMSEA providing regular training opportunities on ICZM and MSP. ICARM WG will also look for opportunities to exchange experience and lessons learned with relevant regional organizations and Regional Seas Programmes. The group could revise NOWPAP ICARM regional guidelines when deemed necessary in order to have a common regional vision and agree on principles of transboundary cooperation on ICZM and MSP in the NOWPAP region. Finally, the Group will start identifying ICZM and MSP sites and cases that could benefit from transboundary co-operation and common experiences as well as evaluate possible project ideas and funding sources to support these activities. UNDP/GEF YSLME Project Phase II will undertake several activities related to site-based integrated coastal management plans and NOWPAP will explore further opportunities for collaboration with this project.

43. POMRAC will provide secretariat services for the ICARM WG under the RCU guidance. Other NOWPAP RACs will provide inputs and benefit from activities and results of the ICARM WG: MERRAC will support activities focused on environmental sensitivity mapping; CEARAC will provide related information on marine biodiversity; DINRAC could support information needs of ICZM and MSP in the NOWPAP region as deemed appropriate by the ICARM WG.
44. POMRAC will lead further development indicators for EcoQOs. In 2014, NOWPAP members agreed on the list of five following EcoQOs for the NOWPAP region:

- (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 ecosystems;
- (3) Adverse effects of eutrophication (such as loss of biodiversity, ecosystem degradation, harmful algal blooms, and oxygen deficiency in bottom waters) 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.

45. In 2016, regional overview and preliminary list of possible indicators for EcoQOs to define and monitor "Good Environmental Status" (the term used in the Marine Strategy Framework Directive of the European Union) of the NOWPAP region were proposed. During 2018-2023 NOWPAP will finalize the EcoQOs indicator list and will start collecting data and reporting on these indicators. While the methodological work will be completed by POMRAC, data collection and presentation in a user-friendly form will be done by DINRAC. RACs will provide advice on the selection of EcoQOs indicators and facilitate data collection

(DINRAC – data and information management, invasive alien species (EcoQO 2) and endangered species, which is included in the International Union for Conservation of Nature Red List species; CEARAC – major indicators (to be determined) for EcoQOs 1 and 3, POMRAC – on land-based sources of pollution (EcoQO 4), and CEARAC and MERRAC on marine litter – EcoQO 5).

46. The indicative list of potential partners for implementation of the priority area will include relevant national and local authorities, scientific and research institutions in the NOWPAP Member States as well as the following global and regional partners: PEMSEA, UNDP/GEF YSLME Project Phase II, UNEP Regional Seas Programme (Commission on the Marine Environment Protection of the Baltic Sea – HELCOM, in particular), and UNESCO/IOC (on global dialogue).

5.2. Assess status of the marine and coastal environment

47. NOWPAP's regular assessment work is instrumental in informing environmental management actions and identifying emerging issues of regional and global concern in the NOWPAP region. Instead of establishing a regional environmental monitoring system, NOWPAP Member States agreed to use the results of national monitoring and assessments. NOWPAP assessments played an important role to inform Member States about the status and impacts of marine litter and micro-plastics, invasive species, eutrophication and hypoxia, climate change impacts and others. During the last few years NOWPAP conducted several important regional assessments, including State of Marine Environment Report for the NOWPAP Region (SOMER-2) (NOWPAP POMRAC, 2014), Regional Overview of the PTS in the Coastal Environment of the NOWPAP Region (NOWPAP POMRAC, 2015a), Monitoring and Management of Marine Protected Areas in the NOWPAP Region (NOWPAP CEARAC, 2013), Integrated Report on Harmful Algal Blooms for the NOWPAP Region (NOWPAP CEARAC, 2011), and several reports on the status of land-based and sea-based marine litter produced by CEARAC and MERRAC.
48. Environment assessment work will continue having a prominent role in the MTS 2018-2023 with its focus shifting towards more policy-based advisory documents, identification of emerging environmental threats as well as forecasting. Priority area responds directly to Objectives 1 and is also related to Objective 2 of the NOWPAP. The expected 2030 Impact is:

Evidence-based policy making by NOWPAP Member States informed by robust data and assessments fully integrates the environmental dimension of sustainable

development of the coastal and marine environment.

Implementation of activities under this priority area will also contribute to the achievement of several targets of SDGs 6, 12, 14, 15, and 17 (Annex 3).

49. Assessments of marine and coastal environment and its components are integral part of all priority areas of the NOWPAP and all four NOWPAP RACs supported by RCU will be involved in these activities. Thematic assessments are included under other priority areas. The major undertaking under this area during the period of 2018-2023 will be planning, development and publication of the holistic Third Assessment “State of the Marine Environment Report for the NOWPAP region” (SOMER-3). Several working groups will be established to develop SOMER-3 and various national and regional institutions will be involved. POMRAC will provide leadership during planning and synthesis of results as well as lead working group(s) addressing issues on atmospheric and land-based pollution and integrated management. CEARAC will support preparation of chapters addressing pressures on marine biodiversity and eutrophication. MERRAC will assist in delivering SOMER-3 activities assessing impacts of maritime activities on the environment. DINRAC’s role in SOMER-3 will concern identification of knowledge management and capacity gaps. Overall activity will be implemented in close partnership with all RACs and RCU and involve inputs from various national, regional and global institutions as well as individual scientists and specialists. SOMER-3 will provide an important contribution to the second cycle of the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socioeconomic Aspects. It will follow Regular Process methodology by adopting it for NOWPAP conditions. The major external partner for SOMER-3 assessment is PICES and its relevant working groups and advisory panels. NOWPAP RACs and RCU will continue working jointly with PICES, including alignment and “cross-fertilization” between SOMER-3 and the Third North Pacific Ecosystems Status Report to be finalized by PICES in 2019. NOWPAP and PICES may mutually support other relevant scientific assessments and outreach activities of mutual interest.
50. Recognizing the importance of climate change impacts on NOWPAP socio-ecological systems and acknowledging the lack of expertise in this area among RACs, RCU will take a lead in exploring possibilities for necessary regional work on climate change impacts that has not been yet considered by other institutions, identified as priorities by NOWPAP Member States and contributing tangibly to implementation of the NOWPAP. Some specific activities with PICES and the Asia-Pacific Network for Global Change Research (APN) will be explored. Among specific activities are PICES relevant work on the socio-ecological systems and global change, impacts of climate change on biodiversity, SOMER-3 preparation, and carbon sequestration (blue carbon) as a follow up to seagrass mapping activities by CEARAC.
51. The indicative list of potential partners for the implementation of activities for this priority area includes relevant national and regional institutions, particularly scientific

and research institutions in the NOWPAP Member States as well as the following regional and global partners: PICES, UNEP Science Division, and UNEP-WCMC.

5.3. Prevent and reduce land- and sea-based pollution

52. Chemical pollution of water, sediments and biota in the coastal and marine environment is coming from both, land-based (including discharges of the industrial enterprises, cities and municipalities, flows from agricultural fields, riverine and atmospheric transport) and sea-based sources due to intensive shipping, aquaculture and port activities in the NOWPAP region. Environmental conditions are improving for some pollutants in some NOWPAP areas, but contamination linked to hazardous substances remains a problem in many others. The NOWPAP region is particularly vulnerable to marine pollution incidents due to its high shipping density (more than half of the 20 top container terminals are in the region) and to higher risk of oil and HNS pollution incidents. Eutrophication caused by human-mediated input of nutrients into coastal waters is also a major concern, especially in coastal areas near large rivers and/or cities. Consequences of eutrophication may be linked to the increasing incidence of harmful algal blooms and hypoxia. NOWPAP has been addressing land-based and sea-based sources of marine litter since mid-2000s through the implementation of the NOWPAP Regional Action Plan on Marine Litter (2008) (RAP MALI) with the involvement of all NOWPAP RACs. Leadership is provided by the NOWPAP Marine Litter Focal Points. Succeeding from NPEC, DINRAC will maintain a regional node of the UNEP-administered Global Partnership on Marine Litter (GPML) that represents a depository of regional data and information on marine litter.
53. Responding to a threat of oil and HNS spills within the NOWPAP region, MERRAC supported by UNEP and IMO was carrying out activities addressing oil and HNS spill preparedness and response since 2000. The NOWPAP Regional Oil and HNS Spill Contingency Plan (RCP) adopted by NOWPAP Member States in 2009 provides a framework for the regional cooperation on oil and HNS spills preparedness and response. As a secretariat of the NOWPAP RCP, MERRAC has enhanced the regional capacity through practical implementation of the RCP, such as development of technical guidelines and manuals, information sharing, and regular field exercises.
54. The priority area responds directly to Objective 4 and 5 of the NOWPAP. The expected 2030 Impacts are as follows:

SDG 14.1: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.

and

NOWPAP EcoQO 3: Adverse effects of eutrophication are absent, EcoQO 4: Contaminants cause no significant impact on coastal and marine ecosystems and human health and EcoQO 5: Marine litter does not adversely affect coastal and marine environment.

Implementation of activities under this priority area will also contribute to the achievement of several targets of SDGs 6, 8, 11, 12, and 14 (Annex 3).

55. NOWPAP Member States are parties to the OPRC Convention, and three NOWPAP Member States (P.R. China, Japan and Republic of Korea) are parties to the OPRC-HNS Protocol. In order to facilitate compliance with the OPRC Convention and the OPRC-HNS Protocol and enhance regional capacity to respond to emergencies through NOWPAP RCP, MERRAC will continue playing a leading role in activities related to oil and HNS spill prevention and response, including risk assessment. Through MERRAC, NOWPAP will contribute to the implementation of the IMO Strategic Plan for the six-year period 2018 to 2023 (Resolution A.1110 (30)), in particular, Strategic Direction 1 “Improve implementation”, which focuses, *inter alia*, on other aspects of implementation of OPRC Convention and reducing pollution from shipping. MERRAC will continue supporting effective measures against marine pollution emergencies through cooperation between competent national authorities (CNAs).
56. Marine litter issue is one of the global concerns. Thanks to a strong commitment of NOWPAP Member States, the Marine Litter Activity (MALITA) and the Regional Action Plan on Marine Litter (RAP MALI) were implemented by all RACs under the overall guidance of RCU since 2006. NOWPAP will continue RAP MALI implementation to prevent and reduce marine litter pollution through annual marine litter management workshops and International Coastal Cleanup campaigns. NOWPAP will continue collaboration with the Tripartite Environmental Ministers Meeting (TEMM, with the participation between Japan, P.R. China and the Republic of Korea) and other mechanisms (e.g., regular Eco Asia meetings) to effectively address resource conservation, recycling, “circular economy” and “sound material cycle society” by promoting 3R approach (reduce, reuse, recycle) as well as continue working with Asia-Pacific Economic Cooperation Oceans and Fisheries Working Group on marine litter issues. NOWPAP will continue engaging various stakeholders in and beyond the region working with other regional programs: COBSEA, PEMSEA, and YSLME on marine litter activities through participation in joint meetings, technical assistance and capacity building support. NOWPAP will maintain and update Northwest Pacific Regional Node of the GPML - the major information portal on marine litter data in the NOWPAP region.
57. As a new focus for 2018-2023 period, NOWPAP will strengthen efforts assessing microplastics pollution and its impacts through assessments, methodology development and capacity building. This work to be supported by RAP MALI Focal Points and experts

from Member States and RCU will be implemented through joint workshops, harmonization of methodology (including through cooperation with the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP)), scientific exchanges and site visits, and other means. Supervised by NOWPAP Marine Litter Focal Points and led by RCU, NOWPAP intends to develop a special project to address issues of microplastics in the NOWPAP region and seek additional funds to implement this activity.

58. CEARAC will continue collecting data and regularly update regional maps of eutrophication status and trends using NOWPAP Common Procedure on eutrophication assessment (NOWPAP CEARAC, 2011a).
59. The indicative list of potential partners for the implementation includes relevant national and local authorities and institutions, scientific and research institutions in the NOWPAP Member States as well as the following regional and global partners: UNEP Regional Office for Asia and Pacific, UNEP/GPA, Global Partnership on Marine Litter Management (GPML) and Global Partnership on Nutrient Management (GPNM), IMO, the International Tanker Owners Pollution Federation Limited (ITOPF), the International Petroleum Industry Environmental Conservation Association (IPIECA), PICES, UNDP/GEF YSLME Project Phase II, the Asia-Pacific Economic Cooperation (APEC), COBSEA and others.

5.4. Conserve marine and coastal biodiversity

60. Among major threats to marine and coastal biodiversity in the region are over-fishing, impacts from nutrient overloading, introduction of non-indigenous and invasive species, negative impacts from aquaculture, destruction and modification of habitats, and impacts of climate change. While the total number of coastal and marine areas conserved is continuously increasing in the region, the rate of increase is among the lowest in the world and the total regional coverage of those areas does not exceed 4% of the total Exclusive Economic Zone (EEZ), which is well below the SDG 14.5 and the CBD Aichi Biodiversity Target of 10% coverage of coastal and marine areas combined (IOC-UNESCO and UNEP, 2016; IPBES, 2018, NOWPAP CEARAC, 2013).
61. Recognizing the utmost importance of biodiversity conservation in the NOWPAP region, in recent years NOWPAP conducted a few biodiversity related assessments (e.g., "Monitoring and Management of MPAs in the NOWPAP Region" (NOWPAP CEARAC, 2013) and CEARAC's on-going work on seagrass bed mapping). NOWPAP collaborated with NEASPEC that launched North-east Asia MPAs network in 2013. In 2014, NOWPAP supported the identification of Ecologically or Biologically Significant Marine Areas (EBSA) in the North Pacific region facilitated by the

Convention on Biological Diversity. In 2017 CEARAC completed the assessment of major impacts on marine and coastal biodiversity in pilot area of the NOWPAP region.

62. Biodiversity conservation, including invasive alien species management was included in the NOWPAP MTS 2012-2017 as one of the priorities with the ultimate expected output – Regional Action Plan on Marine and Coastal Biodiversity Conservation. The strategy noted that most of the activities would be implemented using external resources. Unfortunately, progress was slow and the Regional Plan was not developed. Major constraints for tardy progress in this priority area were lack of NOWPAP resources dedicated to biodiversity related activities due to other priorities, lack of mobilization NOWPAP technical expertise and lack of leadership from Member States to prioritize these activities.
63. Recognizing the transboundary nature of many biodiversity issues in the region and NOWPAP's comparative advantage to address conservation of marine and coastal biodiversity, MTS 2018-2023 emphasizes this issue by allocating funds to this area to be supplemented by leveraged financing. The ultimate goal of NOWPAP activities in this area is to undertake a number of assessments and activities that should lead ultimately to the development of Regional Action Plan on Marine and Coastal Biodiversity Conservation by the end of MTS period – the year of 2023.
64. This priority area responds directly to Objectives 3, tasks (e) and (f); Objective 4, task (g) of the NOWPAP that focus on biodiversity conservation measures. The expected 2030 Impacts are as follows:

SDG 14.2: By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant impacts, including by strengthening their resilience, and taking action for their restoration in order to achieve healthy and productive oceans;

SDG 14.5: By 2020, conserve at least 10% of coastal and marine areas, consistent with national and international law as well as relying on the best available scientific information;

NOWPAP EcoQO 1: Biological and habitat diversity are not changed significantly due to anthropogenic pressure;

and

NOWPAP EcoQO 2: Alien species are at levels that do not adversely alter the ecosystems.

Implementation of activities under this priority area will also contribute to the achievement of several targets of SDGs 6, 13, 14, and 15.

65. NOWPAP DINRAC will continue collecting national data on International Union for Conservation of Nature (IUCN) Red List species (Phase 3) followed by the assessment of their status and major threats. CEARAC will establish Medium-term Strategy on marine biodiversity conservation to guide future direction of CEARAC's

biodiversity-related activities. In parallel, NOWPAP RCU supported by RACs will work with regional and national partner institutions on the development and implementation of Species Conservation Plans (with a focus on threatened migratory bird species), the work to be supported largely by leveraging external funds.

66. During 2018-2023, NOWPAP will look into effective ways and assess available resources to address (through information exchange, technical assistance and capacity building) adverse impacts of marine invasive species. Biological invasions in the sea include species introductions due to changing climatic conditions and human-mediated introduction. The latter includes to a large extent introduction related to shipping (through ballast waters and hull fouling) and aquaculture activities. For example, ballast water discharge from ships are regulated by the International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (BWM Convention). The latter is ratified by the three NOWPAP members (Japan, R. Korea and the Russian Federation) and entered into force in September 2017. Under the Convention, all ships in international traffic are required to manage their ballast water and sediments to a certain standard. Led by RCU and in cooperation with RACs, NOWPAP may develop a regional approach for harmonized implementation of the BWM Convention.
67. The third area of focus is harmful algal species and blooms. The work to be led by CEARAC would aim to increase understanding about the distribution and impacts of HABs in the region, including maintaining HABs reference database.
68. During 2018-2023 NOWPAP activities will focus on data and information sharing and regional dialogue on the use of area-based management tools to conserve marine and coastal biodiversity. These activities will be undertaken by the ICARM Working Group. On area-based biodiversity protection measures, NOWPAP will cooperate with the NEASPEC project "Strengthening the subregional cooperation through knowledge sharing on sustainable management of MPAs". The project will analyze and improve management practices in member sites of North-East Asia Marine Protected Area Network (NEAMPAN) and support knowledge sharing among the sites. Activities addressing MPA networks in the YSLME are complementary and NOWPAP will explore opportunities for cooperation on data sharing and learning with the UNDP/GEF YSLME Project Phase II.
69. The indicative list of potential Partners for the implementation of the above priority area includes relevant national and local authorities and institutions, scientific and research institutions in the NOWPAP Member States as well as the following regional and global partners: CBD, UNEP-WCMC, Convention on Migratory Species and the African-Eurasian Migratory Waterbird Agreement (AEWA), Ramsar Convention, BirdLife International, GEF-INDP-IMO GloFouling Partnerships, East Asian-Australasian Flyway Partnership (EAAFP), Arctic Council Conservation of Arctic Flora and Fauna working group (CAFF), UNDP/GEF YSLME Project, and

the UNEP Regional Seas.

6. Strengthening regional cooperation through partnership building and resource mobilization

70. MTS 2018-2023 will strengthen and where necessary upgrade all core functions of the NOWPAP - environmental assessment, environmental management, environmental legislation, institutional and financial arrangements – while moving towards further integration of various activities, operational integration between four RACs and stronger coordinating role of the RCU. NOWPAP will continue aligning further its activities with regional and global priorities and institutions, while expanding its partnership base. Communication and outreach will become an integral part of this priority area.
71. These activities correspond to NOWPAP Objective 5, tasks (b), (d), and (e), also making contribution to the achievement of several targets of SDG 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development.
72. NOWPAP progress in this area would be measured against several criteria as follows:
- NOWPAP network of Regional Activity Centers is managed effectively and strengthened by well-functioning multi-stakeholder partnerships;
 - NOWPAP Trust Funds are managed efficiently and effectively through improved administrative, financial and human resources management;
 - NOWPAP communications, public advocacy and digital engagement products better inform, influence and mobilize stakeholders and resources for the protection of marine and coastal environment;
 - External capacity and financial resources are mobilized for the implementation of NOWPAP activities.
73. NOWPAP will continue focusing on scientific and technical assessments, capacity building measures, and data and information exchange. During MTS 2018-2023, NOWPAP will particularly strengthen the implementation of the NOWPAP, making the following expanded efforts: (i) science-policy interface and the role of RACs as primary conduits for policy- and decision-relevant environmental information and advice for policy and decision-makers, (ii) expansion of multi-stakeholder partnerships supporting NOWPAP mandate at the global, regional, national and where feasible - sub-national levels, (iii) public advocacy, outreach and communications, and (iv) increased mobilization of external technical expertise and financial resources. NOWPAP will also strengthen monitoring and reporting mechanisms using results-based management framework (see chapter below).

74. Particular emphasis will be placed on enabling existing capacity to address complex environmental challenges. NOWPAP will continue leveraging its partnerships to support training of specialists and young scientists within the region on priority issues of the NOWPAP. RACs supported by RCU will increase efforts to produce technical assessments, guidelines and best practices for policy- and decision-making by NOWPAP Member States and provide clear set of recommendations and proposed actions to achieve goals of the NOWPAP.
75. NOWPAP partnerships with major regional and global institutions are horizontal element of all NOWPAP activities. NOWPAP will seek new partners and opportunities in the region and globally to leverage its expertise and financial resources.
76. NOWPAP RCU and RACs will enhance public advocacy and progressively employ digital engagement strategies to better inform, influence and mobilize stakeholders and resources for the protection of marine and coastal environment. NOWPAP website will be redesigned and regularly updated with the information about NOWPAP activities as well as provide relevant environment information. Social media tools such as Facebook, Twitter, LinkedIn and others will be used in very proactive manners. RACs will also maintain their own websites and enhance use of digital tools as well. DINRAC website will be re-designed to serve as a repository of environmental data and information for the NOWPAP region, to become more user-friendly targeting general public, policy- and decision-makers, and specialists. Taking account of the recent development in the data system and communication technology, led by RCU and in cooperation with DINRAC, NOWPAP will explore the enhanced role of DINRAC, by providing more visualized data analysis and related services.
77. NOWPAP RCU was established to ensure integrated and well-managed execution of activities and projects under the NOWPAP through provision of secretariat services and administrative and financial support of NOWPAP operations. During 2018-2023 period, RCU will play a substantial or pivotal role in (i) assuring coordination and integration of RACs activities, (ii) enhancing partnership and collaboration with regional and global institutions, (iii) leading and supporting public outreach and advocacy for regional and international priorities with Member States, and (iv) providing leadership in the identification and preparation of special project proposals in areas where RAC expertise is limited. NOWPAP major activities will continue to be implemented by RACs. RCU will lead mobilization of project management expertise and work closely with RACs and other entities on the mobilization of additional/leveraged financial resources.
78. Some of the NOWPAP's present and past projects required additional human resources and expertise not available in the RACs. NOWPAP Marine Litter Activity

(MALITA) was implemented using project-specific implementation mechanism that included oversight provided by member-states through Marine Litter Focal Points that are responsible for national and regional coordination to this day, while major activities are implemented by NOWPAP RACs and coordinated by RCU.

79. With NOWPAP moving increasingly into technical areas that require strong cross-sectoral expertise (such as ICZM, marine biodiversity, marine litter, including microplastics, potentially climate change impacts and others), this project-based approach will be increasingly employed by NOWPAP. Depending on issues and project ideas proposed by Member States and focal points, NOWPAP may establish Expert or Project Groups consisting of representatives of Member States with relevant expertise. RCU and/or RAC Secretariat (depending on the issue) will provide secretariat services to these groups. Using this modality during 2018-2023 period, specific projects will be developed. Preparation of special project proposals (including mobilization of technical expertise, identification of resources and funds mobilization) will be supported by NOWPAP Trust Fund resources to develop full project proposals. Their implementation will be supported largely by mobilized external resources with some limited contributions from the Trust Fund to secure NOWPAP ownership. The proposed operational modality of special projects or NOWPAP Strategic Initiatives will become a major source of external funding for NOWPAP activities. Additional resources will continue to be leveraged by RACs and RCU for the implementation of core activities using resources of the NOWPAP Trust Fund.

7. Monitoring and Evaluation of NOWPAP MTS 2018-2023

80. Monitoring, evaluation, and reporting on the MTS 2018-2023 implementation will be the responsibility of the RCU, in collaboration with Member States and RACs. Through a structured and integrated planning, implementation and reporting process, NOWPAP will ensure higher levels of transparency and accountability. NOWPAP approach to planning, implementation and reporting will be defined by two documents:
- a. Biennial Programme of Work, and
 - b. MTS Monitoring and Evaluation Framework (MEF).
81. NOWPAP Programme of Work for the two-year cycle will describe the approach to progress towards achievements of the MTS objectives. It will set targets, indicators and activities as well as budget for each biennial cycle. Biennial activities and budgets are outlined based on decisions made at Focal Points Meetings (FPMs) of each RAC a year preceding the biennial cycle and consequently approved by the NOWPAP Intergovernmental Meeting (IGM). The biennial programmes of work

adopted by the IGM will serve as a basis for detailing annual work programmes and budgets of RACs and RCU. RACs' work plans will include responsibilities and major partners, budget allocation from the Trust Fund and external resources (where applicable) as well as specific performance indicators derived from the Biennial Programme of Work. Progress on the implementation of the Biennial Programme of Work will be reported annually and realignment or re-adjustments in activities and budgets will be made at the NOWPAP IGM. NOWPAP will adopt a procedure for monitoring and reporting on financial matters leveraged by RACs, RCU and other partners where applicable.

82. MEF to be developed after the adoption of the MTS 2018-2023 will describe how NOWPAP results will be monitored and reported, and how lessons learned will be identified and applied. The framework will (i) define NOWPAP planning cycle with clear division of responsibilities and linkages between planning and reporting; (ii) define what NOWPAP will monitor, evaluate and report on the progress towards achieving objectives of the MTS; (iii) describe NOWPAP approach to learning and continuous improvement; and (iv) align NOWPAP achievements with relevant international frameworks, including reporting on relevant SDGs. This framework will be developed within a year following the adoption of the MTS 2018-2023.
83. The MTS 2018-2023 will be governed and monitored by Member States through NOWPAP IGMs. Implementation of specific elements of the MTS will be reviewed at the annual meetings of RAC Focal Points. Half-way, in 2020, RCU will undertake internal review of the progress achieved under the MTS using inputs from Member States, RACs and other NOWPAP stakeholders and in accordance with the MTS MEF. Recommendations and necessary adjustments will be considered and if necessary, adopted by the IGM. During the last year of MTS, 2023, NOWPAP RCU will commission an independent review of the progress achieved, identify challenges and propose recommendations for future action.

References

IOC-UNESCO and UNEP (2016). Large Marine Ecosystems: Status and Trends. United Nations Environment Programme (UNEP), Nairobi.

IPBES (2018): Summary for policymakers of the regional assessment report on biodiversity and ecosystem services for Asia and the Pacific of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. M. Karki, S. Senaratna Sellamuttu, S. Okayasu, W. Suzuki, L. Acosta, Y. Alhafedh, J. A. Anticamara, A. G. Ausseil, K. Davies, A. Gasparatos, H. Gundimeda, F. H. Ibrahim, R. Kohsaka, R. Kumar, S. Managi, N. Wu, A. Rajvanshi, G. S. Rawat, P. Riordan, S. Sharma, A. Virk, C. Wang, T. Yahara and Y. Youn (eds.). IPBES secretariat, Bonn, Germany.

NOWPAP CEARAC (2011). Integrated report on harmful algal blooms in the NOWPAP region. Toyama, Japan, 97 pp.

NOWPAP CEARAC (2011a). Integrated report on eutrophication assessment and selected sea areas in the NOWPAP region: Evaluation of the NOWPAP common procedure. Toyama, Japan, 111 pp.

NOWPAP CEARAC (2013). Monitoring and management of marine protected areas in the NOWPAP region. Toyama, Japan, 21 pp.

NOWPAP DINRAC (2010). The regional overview and national reports on the marine invasive species in the NOWPAP region. Ed.: K. Lutaenko. Beijing, P.R. China, 149 pp.

NOWPAP POMRAC (2010). Regional overview on integrated coastal and river basin management in the NOWPAP region Vladivostok, Russia, 62 pp.

NOWPAP POMRAC (2014). State of the marine environment report for the NOWPAP region (SOMER-2). Eds.: V.M. Shulkin and A.N. Kachur. Vladivostok, Russia, 140 pp.

NOWPAP POMRAC (2015). Integrated coastal planning and ecosystem-based management in the Northwest Pacific region. Eds.: A.N. Kachur and S.I. Kozhenkova. Vladivostok, Russia, 188 pp.

NOWPAP POMRAC (2015a). Regional overview of PTS and POPs issues of ecological concern in the NOWPAP region. Eds.: V.M. Shulkin and A.N. Kachur. Vladivostok, Russia, 250 pp.

Annex 1: NOWPAP MTS 2018-2023 Objectives, 2030 Impact and Outcomes

2018-2023 MTS Objectives	2030 Impact	Outcomes / Expected Accomplishments
1. Support ecosystem-based integrated coastal and river basin management (ICARM)		
1.1. NOWPAP Member States increasingly apply ecosystem-based approach to planning and management as a basis to achieve healthy and productive coastal and marine ecosystems.	<p>Priority area responds directly to Objectives (3) and (4) of the NOWPAP that focuses on ecosystem-based planning and management, respectively. The expected 2030 Impact is SDG 14.2 and corresponding indicators:</p> <p><i>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.</i></p> <p>Implementation of activities under this priority area will also contribute to the achievement of SDGs 6, 11, 13, 14, and 15.</p>	<p>1.1.1. NOWPAP Member States are developing and applying ecosystem-based management policies, tools and practices to support sustainable development of coastal zones and the marine environment;</p> <p>1.1.2. Planning and decision-making processes for ICZM and MSP by NOWPAP Member States enhance inter-connectedness between the land and the sea and promote cross-sectoral cooperation;</p> <p>1.1.3. Planning mechanisms, including integrated water resources management, ICZM and MSP in NOWPAP Member States contribute to reduced pressures on</p>

the coastal and marine environment.

1.1.4. “Good environmental status” of the NOWPAP is defined and provides a baseline and direction for Member States action

2. Assess status of the marine and coastal environment

2.1. NOWPAP Member States are presented with and use reliable information and data on the state of marine and coastal environment to support evidence-based policy making process.

Priority area responds directly to Objectives (1) and is also related to Objective (2) of the NOWPAP.

The expected 2030 Impact is:

Evidence-based policy making by NOWPAP Member States informed by robust data and assessments fully integrates the environmental dimension of sustainable development of the coastal and marine environment.

Implementation of activities under this priority area will also contribute to the achievement of several targets of SDGs 6, 12, 14, 15, and 17.

2.1.1. NOWPAP Member States are provided with integrated periodic assessments of state of marine and coastal environment and its individual components, including (but not limited to) biodiversity, eutrophication, chemical and biological pollution, harmful algal blooms, marine litter, oil and HNS threats, and climate change impacts to inform and foster policy action;

2.1.2. NOWPAP Member States, through the NOWPAP Information Portal, have free and user-friendly access to data and reliable information on coastal and marine environment collected from members,

NOWPAP RACs, other institutions and projects;

2.1.3. New and emerging environmental issues, including climate change impacts on socio-ecological systems in the NOWPAP region, are identified and addressed by Member States, as appropriate.

3. Prevent and reduce land- and sea-based pollution

3.1. NOWPAP Member States develop and adopt effective measures for mutual support in marine pollution emergencies and in the prevention and mitigation of land- and sea-based pollution.

The priority area responds directly to Objective (4) and (5) of the NOWPAP. The expected 2030 Impacts are as follows:
SDG 14.1: *By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.*

and
NOWPAP EcoQO 3: Eutrophication adverse effects are absent, EcoQO 4: Contaminants cause no significant impact on coastal and marine ecosystems and human health and

3.1.1. NOWPAP Member States have effective measures in place against marine pollution emergencies through the NOWPAP Regional Oil and HNS Spill Contingency Plan (RCP), including information sharing, improved response capacity, and the implementation of specific projects;

3.1.2. NOWPAP Member States are provided with reliable information, guidelines and best practices addressing prevention and mitigation of land- and sea-

	<p><i>EcoQO 5: Marine litter does not adversely affect coastal and marine environments.</i></p> <p>Implementation of activities under this priority area will also contribute to the achievement of several targets of SDGs 6, 8, 11, 12, and 14.</p>	<p>based pollution, including eutrophication;</p> <p>3.1.3. NOWPAP Member States address marine litter, including microplastics, through the effective implementation of the NOWPAP Regional Action Plan on Marine Litter (RAP MALI).</p>
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4. Conserve marine and coastal biodiversity

<p>4.1. NOWPAP Member States are provided with reliable information and analysis of the status of biodiversity and conservation measures and recommendations for action as expressed in the Regional Action Plan for Marine and Coastal Biodiversity Conservation</p>	<p>This priority area responds directly to Objectives 3, task (e), (f); Objective 4 (g) of the NOWPAP that focus on biodiversity conservation measures.</p> <p>The expected 2030 Impacts are as follows:</p> <p><i>SDG 14.2: By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant impacts, including by strengthening their resilience, and taking action for their restoration in order to achieve healthy and productive oceans;</i></p> <p><i>SDG 14.5: By 2020, conserve at least 10% of coastal and marine areas, consistent with national and international law and based on the</i></p>	<p>4.1.1. NOWPAP Member States are provided with information and data, including on the status and major threats to Red List species and invasive alien species and sensitive habitat mapping in the region;</p> <p>4.1.2. NOWPAP Member States effectively address marine and coastal biodiversity conservation through planning and application of area-based management tools, including marine protected areas (MPAs) and Ecologically or Biologically Significant Marine Areas (EBSAs);</p> <p>4.1.3. NOWPAP Member States adopt Regional Action Plan for Marine and</p>
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best available scientific information;

Coastal Biodiversity Conservation.

*NOWPAP EcoQO 1: Biological and habitat
diversity are not changed significantly due to
anthropogenic pressure;*

and

*NOWPAP EcoQO 2: Alien species are at
levels that do not adversely alter the
ecosystems.*

Implementation of activities under this priority
area will also contribute to the achievement of
several targets of SDGs 6, 13, 14, and 15.

Annex 2: Indicative Outputs of the NOWPAP MTS 2018-2023

2017-2023 MTS Objectives	Outputs (leading RAC/RCU)	Timeframe
1. Support ecosystem-based integrated coastal and river basin management (ICARM)		
1.1. NOWPAP Member States increasingly apply ecosystem-based approach to planning and management as a basis to achieve healthy and productive coastal and marine ecosystems.	Establishment of ICARM WG (POMRAC)	2018
	Regional overview of ICZM and MSP policies, practices and lessons learned (ICARM WG, POMRAC and DINRAC)	2018-2022
	ICZM/MSP biannual training organized (ICARM WG, POMRAC and DINRAC together with PEMSEA)	2019-2023
	Regional overview of best practices of mainstreaming ICZM/MSP into national SDG frameworks (ICARM WG, POMRAC and DINRAC)	2022-2023
	Identification of ICZM/MSP sites of transboundary importance/vulnerable areas and development of project proposals to support management of these sites (ICARM WG, POMRAC and DINRAC)	2019-2023
	Adoption of indicators for Ecological Quality Objectives (EcoQOs) (POMRAC supported by all other RACs on specific indicators)	2019
	Collection of information on EcoQOs and SDG indicators (roles of individual RACs and RCU to be discussed)	2020-2023
	Regular collection of data and information (EcoQOs and SDG 14	2023-

	indicators) (DINRAC)	
2. Assess status of the marine and coastal environment		
2.1. NOWPAP Member States are presented with and use reliable information and data on the state of marine and coastal environment to support evidence-based policy making process.	Establishment of expert WG(s) for development of SOMER-3 (POMRAC)	2020
	Assessment of pollutants input with river discharge (POMRAC)	2018-2019
	Third Report State of the Marine Environment Report for the NOWPAP region (POMRAC)	2020-2021
	NOWPAP SDG Outlook 2030 (POMRAC supported by RCU and UNEP Regional Seas)	2020
	Regular update of existing databases and establishing new databases through DINRAC websites (DINRAC)	2018-2023
	Regular update of potential eutrophication zones in the NOWPAP region using Common Procedure and further development of remote-sensing methods for seagrass distribution (CEARAC)	2019-2023
3. Prevent and reduce land- and sea-based pollution		
3.1. NOWPAP Member States develop and adopt effective measures for	Updating and maintaining the NOWPAP RCP, updating information on marine pollution response resources, including equipment, institutions and experts. Organizing expert meetings to discuss technical issues on oil and HNS spill preparedness and response (MERRAC)	2018-2023

mutual support in marine pollution emergencies and in the prevention and mitigation of coastal and marine pollution.	Collection and dissemination of information related to oil/HNS spill preparedness and response (MERRAC)	2018-2023
	Development of operational and technical guidelines and manuals related to marine pollution preparedness and response by implementing specific projects (MERRAC)	2018-2023
	Organization of oil/HNS spill exercises and training courses (MERRAC)	2018-2023
	New projects supporting implementation of NOWPAP relevant IMO Conventions (MERRAC special projects)	2018-2023
	Organization of annual marine litter management workshops and International Coastal Cleanup Campaigns (ICC) (Marine Litter Focal Points supported by RCU) – RAP MALI	2018-2023
	Northwest Pacific Regional Node of the Global Partnership on Marine Litter (DINRAC) – RAP MALI	2018-2023
	NOWPAP special project on microplastics - led by RCU with RACs and other entities – RAP MALI	2018-2023
4. Conserve marine and coastal biodiversity		
4.1. NOWPAP Member States are provided with reliable information and	Collection of national data on IUCN Red List of species (Phase 3, DINRAC)	2018-2019
	Development of habitat maps using remote-sensing methods (focused on seagrass beds, CEARAC)	2018-2019

analysis of the status of biodiversity and conservation measures and recommendations for action as expressed in the Regional Action Plan for Marine and Coastal Biodiversity Conservation	Assessment of the status and threats to identified Red List species of regional concern	2022-2023
	National reports and regional overview of area-based tools used to protect coastal and marine biodiversity in the region (MPAs, IBA, EBSAs, NOWPAP environmental sensitive areas, fishing closures, MSP zoning etc.) (ICARM WG and CEARAC supported by POMRAC)	2022-2023
	Capacity building supporting regional network of MPAs in the NOWPAP region (together with NEASPEC)	2018-2023
	Updating HABs reference database (CEARAC, jointly with DINRAC in building databases)	2020-2021
	Development of Regional Action Plan for Marine and Coastal Biodiversity Conservation (RCU with CEARAC leading and other RACs contributing)	2022-2023

Annex 3: Relevance of NOWPAP MTS 2018-2023 Objectives to Sustainable Development Goals (SDGs) targets⁵

8 SDGs (6, 8, 11, 12, 13, 14, 15, and 17) and 21 SDG targets

MTS 2018-2023 Objective	Sustainable Development Goal	SDG Target #	SDG Target description
1.1. NOWPAP Member States increasingly apply ecosystem-based approach to planning and management as a basis to achieve healthy and productive coastal and marine ecosystems	SDG 6: Ensure availability and sustainable management of water and sanitation for all	6.5	By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate
		6.6	By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
	SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable	11.3	By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries
		11.A	Support positive economic, social and environmental links between urban, per-urban and rural areas by strengthening national and regional development planning
	SDG 13: Take urgent action to combat climate change and its impacts	13.2	Integrate climate change measures into national policies, strategies and planning
	SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development	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.
	SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land	15.9	By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts

⁵ Direct contribution of MTS 2018-2023 to the achievement to SDG target(s) is marked in grey.

	degradation and halt biodiversity loss		
2.1. NOWPAP Member States are presented with and use reliable information and data on the state of marine and coastal environment to support evidence-based policy making process	SDG 6: Ensure availability and sustainable management of water and sanitation for all	6.3	By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
	SDG 12: Ensure sustainable consumption and production patterns	12.4	By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment
		12.5	By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
	SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development	14.1	By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution
		14.a	Increase scientific knowledge, develop research capacity 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 small island developing States and least developed countries
		14.c	Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of "The future we want"
	SDG 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	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
		15.8	By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species
	SDG 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development	17.6	Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge-sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism

		17.16	Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries
3.1. NOWPAP Member States develop and adopt effective measures for mutual support in marine pollution emergencies and in the prevention and mitigation of coastal and marine pollution	SDG 6: Ensure availability and sustainable management of water and sanitation for all	6.3	By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
	SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	8.4	Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead
	SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable	11.6	By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management
	SDG 12: Ensure sustainable consumption and production patterns	12.5	By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
	SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development	14.1	By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.
4.1. NOWPAP Member States are provided with reliable information and analysis of the status of	SDG 6: Ensure availability and sustainable management of water and sanitation for all	6.6	By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
	SDG 13: Take urgent action to combat climate change and its impacts	13.2	Integrate climate change measures into national policies, strategies and planning
	SDG 14: Conserve and sustainably use the oceans,	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 in order to achieve healthy and productive oceans

biodiversity and conservation measures and recommendations for action as expressed in the Regional Action Plan for Marine and Coastal Biodiversity Conservation	seas and marine resources for sustainable development	14.5	By 2020, conserve at least 10% of coastal and marine areas, consistent with national and international law as well as relying on the best available scientific information
	SDG 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	15.1	By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements
		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
		15.8	By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species
		15.9	By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts