

1. Introduction and background

1. At the 14th NOWPAP Intergovernmental Meeting (IGM), member states requested Regional Coordinating Unit (RCU) to prepare, in close consultation with all Regional Activity Centers (RACs), the draft medium-term strategy for NOWPAP. After discussion at the 15th NOWPAP IGM, member states suggested to elaborate the draft and present it to the 16th NOWPAP IGM for further consideration, along with 2012-2013 biennium programme of work.
2. NOWPAP Medium-term Strategy (MTS) 2012-2017 is a strategic guidance for members, RACs and RCU to implement NOWPAP activities in order to achieve its overall goal.
3. The member states will use the NOWPAP 2012-2017 Medium-term Strategy (MTS) to prioritize NOWPAP projects and activities during 2012-2017.
4. The NOWPAP MTS is mainly based on the Action Plan adopted by member states in 1994; on the UNEP Medium-term Strategy 2010-2013; and on regional priorities agreed upon by NOWPAP member states in recent years.
5. The current marine environmental problems in the NOWPAP region, judging from recent assessments undertaken by GIWA, PICES, YSLME and NOWPAP itself, are as follows (in alphabetical order; there was no attempt to prioritize these issues comparing to each other):
 - Climate change;
 - Habitat destruction;
 - Invasive species;
 - Loss of biodiversity;
 - Overfishing and overexploitation;
 - Pollution.
6. The new and emerging marine environmental problems in the NOWPAP region are actually similar to those identified for the World Ocean (according to recently introduced UNEP Foresight Process), but perhaps more pronounced due to high population density along the coast in NOWPAP member states, rapid economic growth, and increasing demand for seafood as a main source of protein:
 - Ensuring food safety and food security;
 - Integrating biodiversity across the ecological and economic agendas;
 - Adaptive governance for addressing increasing pressure on coastal ecosystems;
 - Integrated ocean governance to address potential collapse of oceanic systems;
 - Climate change mitigation and adaptation: managing unintended consequences.
7. Among the global environmental issues identified in the Global Environment Outlook (produced periodically by UNEP), the Millennium Ecosystem Assessment (undertaken by a large group of well-known experts), and Global Biodiversity Outlook (produced by CBD), the following are relevant to the NOWPAP region:
 - Climate change (affecting physical and chemical parameters of marine ecosystems and marine organisms);
 - Invasive species (continuing to spread around the world due to intensive shipping and international trade in aquaculture products);

- Destruction of habitats, loss of biodiversity and ecosystem services (as a result of land reclamation and overfishing);
- Pollution (including due to poor management of chemicals and marine accidents).
- Inadequate environmental governance (including areas beyond national jurisdiction) and resource efficiency (need for sustainable consumption and production and life cycle approach).

2. NOWPAP history and evolution

3. During the NOWPAP establishment in 1994, the overall goal of the Northwest Pacific Action Plan was defined as “the wise use, development and management of the coastal and marine environment so as to obtain the utmost long-term benefits for the human populations of the region, while protecting human health, ecological integrity and the region’s sustainability for future generations”. Three complementary goals were also defined as follows:
 - i) The control, halting and prevention of any further degradation and deterioration of the coastal and marine environment and its resources;
 - ii) The recovery and rehabilitation of coastal and marine environments that have been degraded and which still have the potential for such a recovery;
 - iii) The long-term sustainability of coastal and marine environmental quality and resources as assets for the present and future human populations of the region.
4. The short- and medium-term objectives proposed for the Northwest Pacific Action Plan were:
 - i) To assess regional marine environmental conditions by coordinating and integrating monitoring and data-gathering systems on a regional basis, making the best use of the expertise and facilities available within the region on a consistent and collective basis;
 - ii) To collate and record environmental data and information to form a comprehensive database and information management system which will serve as a repository of all relevant available data, act as the sound basis for decision-making, and serve as a source of information and education for specialists, administrators, and other;
 - iii) To develop and adopt a harmonious approach towards coastal and marine environmental planning on an integrated basis and in a pre-emptive, predictive and precautionary manner;
 - iv) To develop and adopt a harmonious approach towards the integrated management of the coastal and marine environment and its resources, in a manner which combines protection, restoration, conservation and sustainable use;
 - v) To develop and adopt effective measures for mutual support in emergencies, collaboration in the management of contiguous bodies of water, and cooperation in the protection of common resources as well as in the prevention of coastal and marine pollution.
5. The overall goal of NOWPAP, its complementary goals and five objectives described above are still valid and were not achieved yet. Therefore, these objectives should be incorporated in the 2012-2017 NOWPAP MTS while reflecting current global and regional marine environmental issues.

6. During the early history of NOWPAP, until the network of Regional Activity Centers (RACs) was established, work plans were designed based on specific projects. Between 1994 and 2002, seven projects were defined as follows:
 - NOWPAP/1 – Establishment of a comprehensive database and information management system;
 - NOWPAP/2 – Survey of national environmental legislation, objectives, strategies and policies;
 - NOWPAP/3 – Establishment of a collaborative, regional monitoring programme;
 - NOWPAP/4 – Development of effective measures for regional cooperation in marine pollution preparedness and response;
 - NOWPAP/5 – Establishment of regional activity centers and their networks;
 - NOWPAP/6 – Public awareness raising on the marine, coastal and associated freshwater environment;
 - NOWPAP/7 – Assessment and management of land-based activities.
7. Some of these projects were completed (2, 5), some are ongoing and are expected to be continued (1, 3, 4, 6) and some were not implemented (7), according to the decisions of NOWPAP Intergovernmental Meetings or because of the lack of available funds. It is worth noting here that NOWPAP member states eventually decided that regional assessments will be made based on national monitoring efforts; so there was no intention to create a new regional monitoring network.
8. NOWPAP Regional Activity Centers (RACs) were established in the following sequence:

June 2000	–	POMRAC (Pollution Monitoring RAC) in Vladivostok, Russia;
July 2000	–	MERRAC (Marine Environmental Emergency Preparedness and Response RAC) in Daejeon, Korea;
January 2001	–	DINRAC (Data and Information Network RAC) in Beijing, China;
July 2002	–	CEARAC (Special Monitoring and Coastal Environmental Assessment RAC) in Toyama, Japan.
9. As a result of the setting up of a network of RACs, the 7th and 8th IGMs made a conclusion that NOWPAP has been transformed from “project-based” to “RAC-based” organization.
10. The establishment of NOWPAP RACs as well as their Focal Points Meetings and Working Groups has been implemented taking into account marine environmental issues which NOWPAP member states considered as important for the region in 2000-2002: oil spills, harmful algal blooms, chemical pollution.

3. Elements of medium-term strategy

11. While preparing this draft, the following documents were used, among others:
 - Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region (1994);
 - UNEP Medium-term Strategy 2010-2013 (2009);

- UNEP Marine and Coastal Strategy (2009);
 - Mediterranean Action Plan Five-Year Programme of Work 2010-2014 (2009);
 - New Strategic Direction for COBSEA 2008-2012 (2008);
 - SPREP Strategic Plan 2011-2015 (2010 draft);
 - Major findings of the YSLME TDA and SAP (2007-2009).
12. As requested by the 14th NOWPAP IGM, both operational (programmatic) and thematic strategy elements were considered. The operational elements are quite similar for both global (e.g., UNEP MTS) and regional (e.g., MAP and COBSEA) level and can be summarized for NOWPAP as follows:
- Information management (*Objective II of the Action Plan*);
 - Capacity building;
 - Regional cooperation;
 - Public awareness raising;
 - Resource mobilization.
13. Unlike operational, thematic elements might be different for UNEP, as a leader of global environmental governance, and for regional organizations such as NOWPAP, COBSEA, SPREP and MAP, where marine and coastal environmental issues could be region-specific.
14. For example, UNEP MTS is built on six thematic sub-programmes: 1) climate change; 2) disasters and conflicts; 3) ecosystem management; 4) environmental governance; 5) harmful substances and hazardous waste; and 6) resource efficiency – sustainable consumption and production. UNEP Marine and Coastal Strategy (MCS) has four broad objectives: 1) land-ocean connections; 2) ecosystems for humanity; 3) reconciling use and conservation; and 4) vulnerable people and places.
15. For many regions, including NOWPAP, more specific issues still have high priority, such as marine and land-based pollution; coastal and marine habitat conservation; marine litter; marine and coastal invasive species; land reclamation. Therefore, while considering the global environmental agenda (e.g., issues like climate change or biodiversity conservation), regional priorities should not be disregarded.
16. According to the Action Plan adopted in 1994 and the decisions of recent Intergovernmental Meetings, NOWPAP member states agreed to apply the principles of integrated coastal and river basin management (ICARM) to many of priority environmental issues, including climate change adaptation and biodiversity conservation.
17. Taking into account marine environmental problems in the NOWPAP region (see part 1 above) as well as the Action Plan adopted in 1994, the following thematic elements are suggested for NOWPAP medium-term strategy:
- Integrated coastal and river basin management;
 - Regular assessments of the state of the marine environment;
 - Pollution prevention and reduction, including harmful substances, hazardous waste and marine litter;
 - Biodiversity conservation (including alien invasive species);

- Climate change impacts.
18. Details of NOWPAP 2012-2017 MTS are described below and in Annex I showing MTS objectives, suggested (indicative) activities and expected accomplishments under each theme.
 19. Details of the implementation mechanism are described below (part 4) and will be reflected in RAC work plans and budgets for each biennium.

3.1. Integrated coastal and river basin management

20. Integrated coastal and river basin management was indicated in the Action Plan objectives (iii) and (iv) in 1994 and still is a valid concept worldwide used to ensure the sustainable development of the coastal areas. In spite of differences in the terminology (e.g., integrated coastal management, ICM; integrated coastal zone management, ICZM; integrated coastal area management, ICAM; etc.), the overall idea is to apply an ecosystem approach (or ecosystem-based management, EBM) while developing coastal areas and river basins, i.e. taking into account economical development needs, associated environmental issues and social factors in their complex inter-relations. Applying ICARM principles in practice, NOWPAP member states will be able to avoid conflicts in marine and coastal resource use and conserve coastal habitats and biodiversity while continuing economic activities in the coastal areas and river basins.
21. Within NOWPAP, activities related to integrated coastal and river basin management (ICARM) have been started in 2007, with the establishment of ICARM Working Group. It is expected that POMRAC will be playing a leading role in ICARM activities with participation of all RACs and under the RCU guidance. Ideally, the outcomes of thematic and integrated assessments (see below) should be taken into account while implementing ICARM activities, which might include (but not be limited to) ecosystem valuation, marine spatial planning, biodiversity conservation and climate change adaptation (through functional zoning).
22. In the global context, NOWPAP ICARM activities are related to UNEP MTS (“Ecosystem Management” sub-programme and others) and UNEP Marine and Coastal Strategy (“Land-ocean Connections”, “Ecosystems for Humanity” and “Reconciling Resource Use and Conservation” themes).
23. In the regional context, several organizations are implementing activities where mutual benefits are possible through close collaboration and coordination: North Pacific Marine Science Organization (PICES); Partnerships in Environmental Management of the Seas of East Asia (PEMSEA); and Coordinating Body for the Seas of East Asia (COBSEA).

3.2. Regular assessments of the state of the marine environment

24. The assessment of the state of marine environment was indicated as the first objective of the Action Plan in 1994. Since that time, NOWPAP member states agreed to use the results of existing national monitoring systems instead of trying to establish a new, regional monitoring system. Such assessments are expected to be done regularly in order to decide where management actions are needed and also to understand whether such management actions achieved the results intended.

25. Pollutants are being introduced to the region via rivers, with direct input from point and non-point sources, through atmospheric transport and deposition as well as from sea-based sources. Therefore, assessing pollution sources and transboundary transport of pollutants are still issues of high priority for the NOWPAP region.
26. Within NOWPAP, several RACs are dealing with assessment of the state of the marine environment: CEARAC is addressing eutrophication and harmful algal blooms (HAB), including by using remote sensing; DINRAC has compiled several assessments related to legal issues, biodiversity data and information, nature reserves, GIS applications, and invasive species; MERRAC is addressing pollution from sea-based sources; and POMRAC is concerned with estimating inputs of pollutants to the marine environment through different pathways, respectively. All RACs will continue contributing to the subsequent assessments of the marine environment in the region, including eutrophication (wide-spread phenomenon in the NOWPAP region), HAB, marine litter, etc.
27. In 2007, NOWPAP POMRAC has compiled the first “State of Marine Environment Report” (SOMER), based on inputs provided by all NOWPAP RACs and also using the results of global and regional projects, programmes and organizations, such as GIWA, PICES, PEMSEA, YSLME and others. It is expected that CEARAC and POMRAC will cooperatively lead subsequent assessments with participation of all RACs and under the RCU guidance.
28. In the global context, NOWPAP assessments are related to the Regular Process under the United Nations for global reporting and assessments of the state of marine environment, including socio-economic aspects (UN Regular Process), UNEP GEO (Global Environmental Outlook), GEF TWAP (Transboundary Waters Assessment Programme) as well as UNEP MTS and MCS (Marine and Coastal Strategy). The next NOWPAP SOMER might contribute to the implementation of the UN Regular Process. Outcomes from the UN Regular Process and other global initiatives will be used while implementing NOWPAP activities.
29. In the regional context, PICES is producing regular assessments, “Marine Ecosystems of the North Pacific”. So far, two reports were published in 2004 and 2010. As PICES is a scientific organization, its products are useful for NOWPAP member states and collaboration between NOWPAP and PICES is mutually beneficial. NOWPAP RACs and RCU will continue close collaboration with PICES.

3.3. Pollution prevention and reduction, including harmful substance, hazardous waste and marine litter

30. Pollution prevention was indicated in objective (v) of the Action Plan in 1994 and is still a priority issue for the NOWPAP region. Unfortunately, catastrophic spills of oil and chemicals are still happening in the region (as well as worldwide). In order to respond to the spills within the NOWPAP region, MERRAC has carried out activities related to marine pollution preparedness and response since 2000, and the NOWPAP Regional Oil Spill Contingency Plan (RCP) has been adopted at the ministerial level of NOWPAP member states in 2004. The NOWPAP Regional Oil and HNS Spill Contingency Plan has been finally adopted at the 13th NOWPAP IGM in 2008, by adding HNS issues to the existing NOWPAP RCP.
31. Adoption and practical implementation of the RCP has increased regional capacity of NOWPAP member states through the development of technical guidelines and manuals,

conduction of regular exercises, and information sharing. CEARAC has also been trying to address oil spills through providing images observed by satellites. Therefore, future collaboration between CEARAC and MERRAC seems mutually beneficial (e.g. through possible development of a prototype early warning system for oil spill detection using remote sensing techniques).

32. In the global context, marine pollution preparedness and response activities are closely related to OPRC Convention and OPRC-HNS protocol. In the regional context, NOWPAP member states are parties of OPRC Convention, and three NOWPAP member states (China, Japan and Republic of Korea) are parties of OPRC-HNS Protocol. Therefore, regional cooperation is expected to be strengthened in order to facilitate compliance with OPRC Convention and OPRC-HNS Protocol and enhance regional capacity to respond to emergencies. It is expected that activities related to oil and HNS spill prevention and response, including risk assessment, will be continued within the NOWPAP framework.
33. NOWPAP activities related to pollution prevention and reduction also contribute to the UNEP MTS (“Harmful Substances and Hazardous Waste” sub-programme), UNEP Marine and Coastal Strategy (“Land-ocean Connections” and “Ecosystems for Humanity” themes), relevant activities of the International Maritime Organization (IMO) and Global Programme of Action (GPA) for the Protection of Marine Environment from Land-based Activities.
34. Oil and gas as well as maritime transport industries in the NOWPAP region have strong interest to develop and maintain high level of preparedness against spills of oil and hazardous and noxious substances (HNS) and therefore can be strong partners for NOWPAP activities. Together with IMO and IPIECA, NOWPAP could launch the Global Initiative (GI) Programme in this region.
35. NOWPAP might also focus on the activities relevant to the MARPOL Convention addressing harmful substances carried by sea in packaged form, sewage and garbage as well as the London Convention addressing pollution of the sea by dumping of wastes.
36. Marine litter issue is one of global concerns related to the marine environment. Due to a strong commitment of the NOWPAP member states, Marine Litter Activity (MALITA) and Regional Action Plan on Marine Litter (RAP MALI) have been implemented by all RACs under the overall guidance of RCU. NOWPAP will continue RAP MALI implementation to mitigate the marine litter pollution.
37. In the regional context, three NOWPAP member states (China, Japan and Republic of Korea), through Tripartite Environmental Ministers Meeting (TEMM) and other mechanisms (e.g., regular Eco Asia meetings), address the issue of resource conservation, recycling, “circular economy” and “sound material cycle society” by promoting 3R approach (reduce, reuse, recycle). These countries also introduce new legislation related to marine litter, including solid waste management in general, and economic instruments (e.g., bans on plastic bags; fishing litter buy back; etc.). NOWPAP should continue working closely with national authorities as well as with researchers, industry sectors, NGOs, in order to advance its pollution prevention and reduction measures.

3.4. Biodiversity conservation (including invasive alien species)

38. The Millennium Ecosystem Assessment and other recent assessments, based on scientific publications, have demonstrated significant loss of biodiversity during the last decades caused by overexploitation, destruction of habitats, pollution, bio-invasions and climate change.
39. The 10th Conference of the Parties to the Convention on Biological Diversity (CBD COP10) confirmed that the 2010 biodiversity targets were not met and the loss of biodiversity is continued. At the Conference, parties adopted Aichi Targets in which by 2020 at least 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures.
40. Taking into account global significance of the biodiversity conservation, NOWPAP RACs and RCU have started activities related to this issue since 2007. After the 14th IGM decision in 2009, biodiversity conservation is being reflected as one of the major themes in the NOWPAP 2012-2017 MTS.
41. Within NOWPAP, several RACs will deal with activities related to biodiversity conservation (including invasive species), under the overall guidance of the NOWPAP RCU. In order for member states to take actions effectively, developing a NOWPAP action plan for biodiversity conservation is necessary. As NOWPAP financial resources are limited, it is expected that most of the activities related to biodiversity conservation will be implemented using external funds (mobilized from donors, including UNEP and IMO). NOWPAP RACs and RCU could implement relevant activities at a later stage, taking into account budgetary situation as well as priorities of designated activities, approved by RAC Focal Points (e.g., activities related to marine protected areas, coastal habitats, invasive species/ballast waters).
42. In the global context, NOWPAP activities related to biodiversity conservation (including invasive species) might contribute to the implementation of the CBD 2011-2020 Strategic Plan and 2020 biodiversity targets. NOWPAP activities will be also relevant to the UNEP MTS ("Ecosystem Management" sub-programme and others) and UNEP Marine and Coastal Strategy ("Land-ocean Connections", "Ecosystems for Humanity" and "Reconciling Resource Use and Conservation" themes) as well as related activities of the International Maritime Organization (IMO) and Global Invasive Species Programme (GISP).
43. In the regional context, several organizations and projects are implementing activities where mutual benefits are possible through close collaboration and coordination: North Pacific Marine Science Organization (PICES), including its Working Group on ecosystem indicators (WG 28); Partnerships in Environmental Management of the Seas of East Asia (PEMSEA); Yellow Sea Large Marine Ecosystem (YSLME) project; IOC UNESCO Sub-Commission for the Western Pacific (WESTPAC); and Coordinating Body for the Seas of East Asia (COBSEA).

3.5. Climate change impacts

44. Changes in the marine and coastal environment related to climate change are already being observed in the NOWPAP region (e.g., increasing sea surface temperature; decreasing content of dissolved oxygen in deep waters; replacement of previously dominant species by new, warm-water ones; etc.). In order to develop optimum adaptation strategies, NOWPAP member states should have more detailed and reliable information on climate change impacts on marine and coastal ecosystems. Therefore, climate change is suggested as a major theme of the NOWPAP 2012-2017 MTS. As a supplementary mechanism on this issue, NOWPAP will implement its activities related to climate change in accordance with relevant decisions and outcomes of UNFCCC negotiations (avoiding any possible duplication).
45. Within NOWPAP, several RACs will deal with activities related to climate change impacts under the overall guidance of the NOWPAP RCU. As NOWPAP financial resources are limited, it is expected that most of the activities related to climate change will be implemented using external funds (mobilized from donors, including UNEP and IMO). NOWPAP RACs and RCU could implement relevant activities at a later stage, taking into account budgetary situation as well as priorities of designated activities, approved by RAC Focal Points (e.g., activities related to climate change impacts on the marine environment: sea surface temperature, chlorophyll-a, etc.).
46. In the global context, NOWPAP activities related to climate change impacts might contribute to the development of national and regional adaptation strategies and targets. NOWPAP activities will be also relevant to the UNEP MTS ("Climate Change" sub-programme) and UNEP Marine and Coastal Strategy ("Land-ocean Connections" and "Ecosystems for Humanity" themes).
47. In the regional context, several organizations are implementing activities where mutual benefits are possible through close collaboration and coordination: North Pacific Marine Science Organization (PICES), including its Working Groups; IOC UNESCO Sub-Commission for the Western Pacific (WESTPAC); and Coordinating Body for the Seas of East Asia (COBSEA).

3.6. Other elements of the strategy

48. Other elements of the NOWPAP 2012-2017, as mentioned above, include information management, public awareness raising, regional cooperation and administrative support (Annex I).
49. Capacity building is incorporated in most of the NOWPAP activities and therefore is not shown as separate theme.
50. Details of possible projects and activities within the framework of NOWPAP 2012-2017 MTS are shown in Annex I and will be included in the NOWPAP Programme of Work prepared every biennium.

4. Implementation mechanism

51. During 2002-2005, all NOWPAP projects were implemented by Regional Activity Centers. Nevertheless, soon it became clear that the network of RACs has not only advantages, but also disadvantages. With limited human and financial resources, as well as without adequate technical capacity and expertise of RACs and NOWPAP as a whole, it is difficult to address new and emerging issues. Issues related to biodiversity conservation, climate change impacts, invasive species and others were also not addressed by RACs until recently.
52. Another difficulty with having four RACs is related to equal allocation of limited financial resources. Since 2005, each RAC is receiving equal budget allocation from the NOWPAP Trust Fund to implement its activities. Changes to such practice were recommended in the independent RACs evaluation report (2007) and were also suggested by some member states. The development of the overall NOWPAP MTS was suggested by the 14th IGM partly in order to change such practice of equal allocations.
53. Some projects require additional human resources and expertise not available at RACs. An example was a project addressing persistent toxic substances (PTS) where existing RACs did not have required expertise (that project was not implemented due to different reasons). In 2006-2007, NOWPAP Marine Litter Activity (MALITA) was executed using different implementation mechanism. In addition to all NOWPAP RACs and RCU which were involved in the implementation, each member state nominated so called Marine Litter Focal Points who were responsible for coordination of MALITA implementation within their country, being in touch with different ministries, agencies, research institutions and NGOs. Similar implementation mechanism was expected to be used while executing the GEF project with a focus on persistent toxic substances (PTS).
54. New projects related to such global and cross-cutting issues as climate change or biodiversity conservation may have similar arrangements, when, in addition to RACs and RCU, involvement of designated "focal points" or "project coordinators" from each member state, as well as additional experts will be required. Consultants (preferably from the region) might be also needed to implement specific tasks. During 2007-2010, NOWPAP RACs and RCU have already used such consultants, including those dealing with ICARM and biodiversity conservation. In addition, more cooperation among RACs, as well as making best use of outcomes from the past and ongoing NOWPAP activities, are expected for efficient implementation of NOWPAP.
55. It is necessary to further strengthen the coordination among RACs and make integrated work plan for NOWPAP as a whole, where the activities are carried out by the RACs and coordinated by the RCU. Such integrated Programme of Work was first presented to the 16th NOWPAP IGM in 2011.
56. According to the 14th IGM decisions, more detailed biennium Programme of Work was prepared for 2012-2013, reflecting expected outputs, specific activities and performance indicators. RAC work plans might also include responsibilities and implementing agents (partners), budget from the Trust Fund and external sources, and indicators of achievement.
57. External sources of funds to implement the NOWPAP MTS will be sought by the RCU and RACs in accordance with the NOWPAP Resource Mobilization Strategy (approved by the 15th IGM). The MTS implementation will also contribute to enhancing visibility and relevance of NOWPAP, in accordance with the Public Awareness Building Strategy (also approved by

the 15th IGM).

58. For each biennium after 2012-2013, RCU will prepare NOWPAP Programme of Work for the IGM approval, based on RACs proposals, prioritizing the suggested activities in accordance with the NOWPAP MTS.
59. This strategy will be reconsidered by NOWPAP member states periodically, taking into account new and emerging issues related to marine and coastal environment. The MTS implementation will be also periodically reviewed by the NOWPAP Intergovernmental Meetings.

Annex I

NOWPAP Medium-term Strategy 2012-2017

Theme 1. Integrated coastal and river basin management (ICARM)

2012-2017 MTS Objectives	Suggested Activities	Expected accomplishments
<p>1.1. To develop and adopt a harmonious approach towards coastal and marine environmental planning on an integrated basis and in a pre-emptive, predictive and precautionary manner. <i>Objective (iii) from Action Plan.</i></p> <p>1.2. To develop and adopt a harmonious approach towards the integrated management of the coastal and marine environment and its resources, in a manner which combines protection, restoration, conservation and sustainable use. <i>Objective (iv) from Action Plan.</i></p>	<ul style="list-style-type: none"> Setting Ecological Quality Objectives for marine and coastal environment based on the regular assessments Developing regional guidelines for integrated coastal planning/management Organizing regional workshops and training courses on ecosystem based management, marine spatial planning and ecosystem valuation 	<p>NOWPAP member states are practically applying principles of integrated coastal and marine environmental planning (coastal functional zoning and marine spatial planning, including designation of marine protected areas) and have coordinating mechanism among concerned ministries</p> <p>NOWPAP member states are practically applying principles of integrated coastal and river basin management (ecosystem-based management, ecosystem valuation, environmental impact assessment of marine and coastal engineering projects)</p>

Theme 2. Regular assessments of the state of the marine environment

<p>2.1. To assess regional marine environmental conditions, making the best use of the available expertise and information from NOWPAP member states, NOWPAP RACs and other organizations and projects. <i>Objective (i) from Action Plan, modified.</i></p>	<ul style="list-style-type: none"> Identification of ecologically significant marine and coastal areas by regular assessments Recommendations for ICARM actions based on scientific assessments 	<p>NOWPAP member states are provided with reliable information and analysis of the state of marine and coastal environment in the NOWPAP region, including (but not limited to) biodiversity, eutrophication, harmful algal blooms, chemical pollution, marine litter, oil and HNS spills, invasive alien species, climate change impacts</p>
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Theme 3. Pollution prevention and reduction (including harmful substances, hazardous waste and marine litter)

2012-2017 MTS Objectives	Suggested Activities	Expected accomplishments
<p>3.1. To develop and adopt effective measures for mutual support in emergencies, collaboration in the management of contiguous bodies of water, and cooperation in the protection of common resources as well as in the prevention of coastal and marine pollution. <i>Objective (v) from Action Plan.</i></p>	<ul style="list-style-type: none"> • Development of technical guidelines and manuals related to marine pollution prevention and response • Organization of regular oil spill exercises and training • Collection of information and experiences on the prevention and reduction of coastal and marine pollution in NOWPAP member states • Implementation of joint response activities in case that major oil/HNS spill accidents occur in the NOWPAP region • Development and operation of satellite based early warning system for oil spill monitoring • Organization of regular ML workshops and ICC campaigns • Setting pollution reduction targets 	<p>NOWPAP member states have effective measures in place against marine pollution emergencies through NOWPAP Regional Oil and HNS Spill Contingency Plan (RCP)</p> <p>The damage to the marine environment due to oil/HNS spill accidents in the NOWPAP region is minimized through prompt joint response activities</p> <p>NOWPAP member states effectively deal with marine litter through NOWPAP Regional Action Plan on Marine Litter (RAP MALL)</p> <p>NOWPAP member states are provided with reliable information and analysis of best practices and experiences on the prevention and reduction of coastal and marine pollution</p>
<p>4.1. To develop the Regional Action Plan on Marine and Coastal Biodiversity Conservation</p>	<p>Theme 4. Biodiversity conservation (including invasive alien species)</p> <ul style="list-style-type: none"> • Identification of endangered species in the NOWPAP region • Information sharing on current situation, including invasive alien species • Development of Ecological Quality Objectives for marine biodiversity conservation • Collection of information and experiences for the design of new Marine Protected Areas, MPAs) • Application of international regulations for the prevention of alien species invasions (through controlling ballast waters) • Development of habitat maps for coastal ecosystems using remote sensing and GIs techniques 	<p>NOWPAP member states are provided with reliable information and analysis of the status of marine and coastal biodiversity in the region with recommendations for further actions</p> <p>NOWPAP member states are practically applying NOWPAP Regional Action Plan on Marine Biodiversity Conservation</p>

Theme 5. Climate change impacts

2012-2017 MTS Objectives	Suggested Activities	Expected accomplishments
5.1. To assess/understand climate change impacts on marine and coastal ecosystems in the NOWPAP region	<ul style="list-style-type: none"> • Compilation and analysis of information on warming of sea surface temperature, ocean acidification, sea level rise and associated impacts on ecosystems 	NOWPAP member states have reliable information on climate change impacts on marine and coastal ecosystems in the NOWPAP region with recommendations for further actions
5.2. To mitigate climate change in the NOWPAP region	<ul style="list-style-type: none"> • Regional modeling of parameters related to climate change • Regional workshop on Blue Carbon initiative • Recommendations to reduce CO₂ emissions from ships • Analysis of marine environmental issues related to offshore carbon capture and storage (CCS) applications in the region 	NOWPAP member states learn more on the international guidelines regarding CO ₂ emission reduction

Theme 6. Information management

6.1. To collate and record environmental data and information at the DINRAC website which will serve as a repository of all relevant available data and as a source of information for specialists, administrators, decision-makers and general public. <i>Objective (ii) from Action Plan, modified.</i>	<ul style="list-style-type: none"> • Regular collection of data and information on major marine environmental issues • Regular update of existing databases and maintaining links through DINRAC website 	NOWPAP member states, through DINRAC website, have free access to reliable information on coastal and marine environment in the NOWPAP region collected from members, NOWPAP RACs and other organizations and projects
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Theme 7. Public awareness raising

2012-2017 MTS Objectives	Suggested Activities	Expected accomplishments
7.1. To develop more strategic approach for better communications and enhanced public awareness in the NOWPAP region (from 14 th IGM resolutions)	<ul style="list-style-type: none"> • Attending regional and global meetings to increase NOWPAP visibility • Preparing and distributing promotional goods, publications, etc. 	NOWPAP visibility and relevance are increased as well as public awareness about marine environmental issues being addressed by NOWPAP

Theme 8. Regional cooperation (including coordination of RACs, RAC operations, implementation of NOWPAP and partnership building)

<p>8.1. Integrated and well-managed execution of projects and activities under the NW Pacific Action Plan</p>	<ul style="list-style-type: none"> Regular meetings between RAC Directors and RCU Attending each other Focal Points Meetings for better information exchange and coordination 	<p>NOWPAP RCU and RACs are implementing member states decisions regarding the operation of the Action Plan in close collaboration with each other and with global and regional partners</p> <p>RCU is coordinating activities among RACs and providing assistance and support in developing projects and in assuring quality of deliverables</p>
<p>8.2. Efficient network of Regional Activity Centers addressing marine environmental issues of regional and global priority</p>	<ul style="list-style-type: none"> Cooperation among RACs on the collection and sharing of data and information as well as through joint activities 	<p>NOWPAP RACs are working in close coordination with each other and with RCU, through regular communication, addressing marine environmental issues according to priorities set by NOWPAP IGMs</p>

Theme 9. Administrative, financial and operational support (including operation of RCU and resource mobilization)

<p>2012-2017 MTS Objectives</p>	<p>Suggested Activities</p>	<p>Expected accomplishments</p>
<p>9.1. Integrated and coordinated approach to financial control, human resource management, financial and administrative reporting and consolidated decision-making</p>	<ul style="list-style-type: none"> Provision of financial transactions/record keeping and administrative services in accordance with UN rules 	<p>Efficient operation of RCU and enhanced coordination among RCU and RACs</p> <p>Increased level of satisfaction expressed by RACs (with services rendered by RCU and UNON)</p>
<p>9.2. Efficient use of resources through improved monitoring and control of programme budget and extrabudgetary resources</p>	<ul style="list-style-type: none"> Maintaining positive financial balance while implementing NOWPAP PoW Timely reporting and recording of expenditures 	<p>Minimized difference between budgetary allocations and actual expenditures</p> <p>Increased proportion of service requests completed within standard turnaround times</p>
<p>9.3. Mobilization of external funds</p>	<ul style="list-style-type: none"> Search for external funds and submission of project proposals to appropriate donors 	<p>Funds for NOWPAP activities are mobilized from sources external to the NOWPAP Trust Fund</p>