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NOWPAP



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**Report on Implementation of the NOWPAP Regional Action Plan on
Marine Litter (RAP MALI) in 2018-2019**

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**Regional
Seas**

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List of Acronyms

ALDFG	Abandoned, Lost or Otherwise Discarded Fishing Gear
APEC	Asia-Pacific Economic Cooperation
APML	Asia Pacific Civil Forum on Marine Litter
CEARAC	Special Monitoring and Coastal Environmental Assessment Regional Activity Centre
COBSEA	Coordinating Body on the Seas of East Asia
CRAES	Chinese Research Academy of Environmental Sciences
DINRAC	Data and Information Network Regional Activity Center
FP	Focal Point
FPM	Focal Points Meeting
ICC	International Coastal Cleanup Campaign
IGM	Intergovernmental Meeting
GPML	Global Partnership on Marine Litter
MALI	Marine Management Center
MALITA	Marine Litter Activity
MERRAC	Marine Environmental Emergency Preparedness and Response Regional Activity Center
ML	Marine Litter
MTS	Medium-Term Strategy
NGO(s)	Non-Governmental Organization(s)
NOWPAP	Northwest Pacific Action Plan
OSEAN	Our Sea of East Asia Network
POMRAC	Pollution Monitoring Regional Activity Center
PoW	Programme of Work
RAC(s)	Regional Activity Center(s)
RAP MALI	Regional Action Plan on Marine Litter
RCU	Regional Coordination Unit
SDG	Sustainable Development Goal
TEMM	Trilateral Environmental Ministers Meeting
ToR	Terms of Reference
UMINARI	A student activist group on plastic in Japan
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme
WWF	World Wildlife Fund
UNEP RSP	UNEP Regional Seas Programme
YSLME	UNDP-GEF Yellow Sea Large Marine Ecosystems Project

1. Introduction

1. One of the significant outcomes of NOWPAP Marine Litter Activity (MALITA), the NOWPAP Regional Action Plan on Marine Litter (RAP MALI), was approved and being implemented since March 2008. NOWPAP RAP MALI consists of three key elements, namely: (1) prevention of marine litter input to marine and coastal environment; (2) monitoring of marine litter quantities and distribution; and (3) removing existing marine litter and its disposal. National efforts by the NOWPAP Member States are expected to lead to the improvement of the overall situation with marine litter pollution in the Northwest Pacific region. This document contains a brief presentation of the progress of implementation of the NOWPAP RAP MALI in 2018-2019.

1.1. Prevention of Marine Litter Input to Marine and Coastal Environment – Efforts of the Member States

2. Based on the information on national activities on marine litter prevention and management presented at the joint NOWPAP-Trilateral Environmental Ministers Meeting (TEMM) workshops on marine litter management in [2018](#) and [2019](#) (held together with NOWPAP International Coastal Cleanup (ICC) campaigns), the progress of NOWPAP member states is summarized in this section. The joint 2019 NOWPAP-TEMM workshop focused on the ways to improve waste management for addressing marine litter at the source.

3. P.R. China issued technical specifications for waste plastics recycling in 2019, technical specifications for plastics waste recycling and sorting – in 2016 and ship pollutant emission standards in 2018. In April 2012, the State Council issued the “12th Five-Year Plan for the Construction of Harmless Treatment Facilities for Urban Domestic Wastes. On 21 January 2019, the State Council issued a work plan on the Zero-Waste City Pilot Program in China, which promotes the reduction, recycling and environmentally sound disposal of solid wastes. By the end of 2020, 46 major cities are required to complete their waste sorting and processing system. Before 2025, prefectural-level cities are expected to complete the domestic waste classification and treatment systems. Shanghai has already introduced strict regulations on classifying domestic waste, enacted on 1 July 2019.

4. China pursued an integrated management plan for the Bohai Sea and its coastal cities. By the end of 2019, all Bohai coastal cities are encouraged to develop systems to sort and classify waste in addition to the efforts on capacity building to dispose marine litter and remove domestic waste along the coast.

5. In the Hainan Province, actions have been taken to minimize plastic consumption from February 2019. By the end of 2019, local laws are established and improved to prohibit the production, sale, and use of single-use non-degradable plastic products working towards a complete ban by the end of 2025 of all plastic products outlined in the Catalogue issued by the Provincial Government.

6. In Japan, the ‘G20 Implementation Framework for Actions on Marine Plastic Litter’ was adopted at the Ministerial Meeting on Energy Conversion and Global Environment for Sustainable Growth, which preceded the 2019 Osaka Summit. Adopted voluntary initiatives for sharing and updating effective measures and results include the proper waste management, the recovery of marine plastic litter, the development of innovative solutions and international cooperation for capacity building with other G20 countries. Initiatives were also approved to engage with various stakeholders to raise awareness within the G20 and in countries beyond, sharing knowledge and promoting innovation.

7. The cabinet of Japan approved the 4th Fundamental Plan for Establishing a Sound Material-Cycle Society on 19 June 2018. It sets a medium- to long-term strategy for the establishment of a sound material-cycle society in Japan. The measures for further implementation include regional circular and ecological sphere, proper waste management and environmental restoration, international resource circulation, resource circulation throughout the entire lifecycle and disaster waste treatment systems.

8. As part of the Resource Circulation Strategy for Plastics, Japan aims to reduce by 25% of single-use plastics, recycle 60% of containers and packaging, to double the use of recycled content and to introduce approximately 2 million tons of bio-based plastics by 2030. Eventually, by 2035 Japan plans to achieve 100% reuse of used plastics.

9. In the Republic of Korea, the 3rd National Marine Litter Management Plan for 2019 – 2023 was established in 2019 and focused on tackling the management of marine waste at each stage. It encompasses the entire lifecycle of marine plastics from generation through collection to treatment, aiming to reduce marine plastics by 30 percent by 2022 and 50 percent by 2030. The plan envisages to reduce marine debris generation, increase the volume of marine debris collection through reenergizing the existing schemes, recycling marine plastics, enacting marine waste management laws, as well as significantly expanding public participation. The plan will also focus on the scientific and prevention-orientated management methods of approach. Some of the specific tasks include building and operating garbage collection and disposal sites on the islands to prevent island waste from entering the ocean, improving marine litter collection in intermediate border areas, installing compressors on waste buoys, studying the distribution and assessing risks of microplastics, as well as developing marine litter pilot villages aimed to recycle marine litter to produce energy.

10. A new law 'Marine Waste Management Act' is under processing in 2019 to reinforce the accountability of polluters, eco-friendly handling of marine litter and scaling-up of marine waste recycling efforts. The law will also enact legislation to ensure preventing entering of marine litter into the ocean and further investigating the present state and challenges related to marine litter.

11. In the Russian Federation, reforms of the waste management system have been implemented in the Far Eastern Federal District. A regional operator is to be appointed to be responsible for the waste management from landfill to recycling. Thirteen waste management facilities have been approved in the Primorsky Krai, eight sites are waiting for approval, and eight temporary waste storage facilities are being built. The tax on waste management has also been increased. It is planned to increase the proportion of material reuse and recycling to 60 percent. Cleanup campaigns are organized in the Russian Federation on a regular basis, along with the efforts to raise the awareness on recycling. Such campaigns are often implemented in close cooperation with environmental companies and activists.

1.2. Monitoring of Marine Litter Quantities and Distribution

12. In China, in 2018, monitoring of marine litter was conducted in 57 areas with account of types and quantities of various types of litter – beach, seabed and floating litter. As a part of the Zero-waste City Pilot Program in China, the programme also aims to establish by 2020 a quantitative indicator system and, thereby, to be able to develop improved models from evaluations of the pilot cities waste management.

13. In Korea, the Marine Management Center (MALI) was established in 2011 within the Korea Marine Environment Management Corporation, which hosts the Marine Litter Information System. This System was designed to provide up-to-date information to the public. The Center works together with an Advisory Panel, which includes representatives from the Ministry of Oceans and Fisheries, research institutes, local administrations and NGOs. The main task of the Advisory Panel is fostering international collaboration, monitoring, policy support, and information management. Korea collected national-wide marine litter data from 40 different sites. The data for 2018 show that plastic and Styrofoam accounts for 82% of marine litter, followed by glass(5%), metal (4%), and wood (4%).

14. In Japan, a special study carried out by a joint research team led by Kyushu University. The team has been able to scientifically predict (using computer simulations) future trends in the quantity of microplastics floating in the upper ocean layer over the Pacific Ocean. Findings of the study predict the number of pieces of microplastics to double by 2030 and quadruple by 2060. These forecasts and findings have been published in the Nature Communications.

15. Three international expert meetings organized in Japan discussed two pilot projects on microplastic monitoring methods (held in December 2016, February 2018, March 2019). Following discussions at these meetings, in May 2019, the Ministry of the Environment published the first, version 1.0, of the Guidelines for Harmonizing Ocean Surface Microplastic Monitoring Methods. The key feature of the Guidelines was to harmonize methods of sampling, processing, measuring and reporting of microplastics, so the data can be generated in a comparable manner. Field surveys were ongoing in 2019 to investigate sampling methods and to provide additional supporting information. Besides, a reporting form on microplastics recommended by the Guidelines is being prepared for the distribution to relevant parties to collect data to map the proliferation of microplastics. The Guidelines have been published on the Ministry of the Environment and the Ocean Best Practice websites. Marine litter monitoring has been conducted at 28 sites for the last five years. Information on the amount, resin composition and source-based labeling of collected plastic items is accumulated and categorized. Floating marine litter is also being monitored from vessels in coastal waters and open ocean by measuring its density and quantity. Seabed marine litter is being measured using trawl nets in coastal waters and open ocean.

1.3. Removing existing marine litter and its disposal

16. In China, measures have been taken to clean up about forty million tons¹ of solid waste in the Clear Waste Action organized by the Ministry of Ecology and Environment in 2018. China focused extensive efforts on removing solid wastes in the nearshore and coastal areas of the Bohai Sea. In 2018 alone, China redressed 47 percent of 24,000 informal dumping sites throughout the country.

17. In Japan, following the dialogues on the marine litter issue at the G20 Meeting, the Ministry of the Environment continues to support action against marine litter through subsidies and cooperation with the Fisheries Agency. Local governments work with fishermen to establish a system for the collection and disposal of marine litter during their operations. Since 2016, the removal of floating and seabed litter has been subsidized by the Government of Japan.

¹ The exact amount is 38.012 million tons.

18. In Korea, from 2012 to 2018, an average of 80 thousand tons² of marine litter were removed each year at the cost of approximately US\$ 46 million. In 2018, over 85 thousand tons³ of marine litter were removed. The majority of marine litter is found at the shoreline, making up over 65%, followed by about 30% from the ocean floor.

19. In Russia, in 2019, six large illegal dumps were removed, along with several smaller dumps. The government of the Primorsky Krai, together with 40 schools, organized a campaign and collected over 55 tons of paper, 1 ton of plastic and 0.5 tons of batteries. 257 activists participated in six coastal cleanup events and collected approximately 3 tons of litter.

20. Students and teachers of the Far Eastern Federal University located on the Russky Island in the Peter the Great Gulf off Vladivostok on the Northwest Pacific coast of the Russian Federation marked the World Environment Day 2018 by removing 200 kg of marine litter from the island. The coastal cleanup, organized by Ekostart Ltd, an NGO supported by the Vladivostok City Administration, covered a 300 m section of the coastline and collected 50 kg of plastic and nearly 100 kg of glass and other types of waste. The collected litter was sorted by the students and removed for further recycling and processing. NOWPAP provided information support for the 5 June World Environment Day activity on the Russky Island in 2018.

2. NOWPAP RAP MALI: RACs and RCU activities in 2018-2019

21. CEARAC: NOWPAP CEARAC identified three main activities to conduct in the 2018-2019 biennium. Firstly, CEARAC collected, reviewed and added information about national actions on marine microplastics and prepared a summary report. Secondly, CEARAC completes the translation of the Northwest Pacific Regional Node website into Japanese for Japanese users. And thirdly, CEARAC continues to compile and harmonize marine litter monitoring data on beaches from the Member States and submits the collected data to DINRAC.

22. DINRAC: In 2018, DINRAC has completed the website of the Northwest Pacific Regional Node of the Global Partnership on Marine Litter (GPML). The Node continues to work to promote networking, conduct research studies, improve the database, explore practical case studies and form a publicity platform for public participation. DINRAC developed a software system on a monitoring and management platform for marine litter data enabling participating organizations to access remotely and manage their information securely. The platform system supports multiple classifications and monitoring standards and can customize new ones. It also includes publicity and education platform and a marine litter monitoring application containing statistical modules to input data. The application improves efficiency, accuracy and reduces paper use and currently only supports the Chinese language with the potential to support other languages. Information on national and local governments' and NGOs' efforts for marine litter prevention in Japan, Korea, and Russia is available on the NOWPAP DINRAC website.

23. MERRAC: MERRAC has initiated for the 2018-2019 biennium the NOWPAP RAP MALI project on "Understanding of Floating Marine Litter sources and flows" in collaboration with experts from the Our Sea of East Asia Network (OSEAN). The report reviews the literature on floating marine litter in the NOWPAP region up to February 2019 to provide context, then examines current methodologies used to sample marine litter, providing insight into sources and recommendations for better

² The exact amount is 78,022 tons.

³ The exact amount is 86,621 tons.

management to reduce marine litter. The draft report has been completed and will be finalized upon approval from RCUs and other Focal Points. MERRAC also published in 2018 a technical report: Review and Analysis of Existing Floating Marine Litter Prediction Models in the NOWPAP region.

24. POMRAC: In the 2018 - 2019 biennium POMRAC continued its work surveying microplastics in the Peter the Great Gulf. POMRAC added several sampling locations and extended monitoring periods to capture broader data. Following these efforts, POMRAC was able to map the distribution of micro- and mesoplastic concentrations in the Gulf. The map was used to trace back possible sources of pollution. It was also found that the plastic contamination level in littoral water was almost 20 times higher than that in the coastal water. POMRAC also surveyed rivers discharging directly into the marine water area of study and proposed further surveys in the coastal area for the future.

25. A more detailed information about marine litter activities of RACs is provided in relevant sections of the RACs' progress reports (UNEP/NOWPAP IG. 24/4/1-4).

26. The 2019 NOWPAP-TEMM Joint Workshop on Marine Litter Management, held in September in Dalian, China, was organized by NOWPAP, the Ministry of Ecology and Environment of China with China, Japan, Korea and Russia as participants. This year's workshop focused discussions on ways to improve waste management to reduce marine litter at the source. Delegates from each Member State presented updates on their respective initiatives to tackle waste management. The 2018 NOWPAP-TEMM Marine Litter Management Workshop was held on 4 June 2018 in Busan, Korea. A special session was devoted to addressing the abandoned, lost or otherwise discarded fishing gear (ALDFG) in fisheries and aquaculture. The next NOWPAP-TEMM Marine Litter Management Workshop will be held in Vladivostok, Russian Federation in late September 2020.

27. The NOWPAP International Coastal Cleanup Campaign (ICC) was organized on 25 September 2019 in Dalian, China. Representatives of the government agencies and research institutes from China, Japan, Korea, Russia, as well as participants from UNEP, the Trilateral Cooperation Secretariat, and NGOs teamed up with volunteers from China to clean up the Bangchui Beach in Dalian, China. More than 150 people joined this event and collected 76 kilograms of litter, which included 220 plastics items (weighing a total of 16.6 kilograms), 93 rubber items (26.6 kilograms), 17 metal items (8.5 kilograms) and four glass items (0.4 kilograms). On 5 June 2018, about 70 local people, together with NOWPAP officials and civil society groups, took part in ICC in Busan, Korea. A total of 51 kg of litter, including fishing rods and nets and Styrofoam boxes were collected.

28. RCU organized the Second Experts Group Meeting on Microplastic Research in Dalian on 27 September 2019. The meeting discussed ways to harmonize methods of monitoring of microplastics pollution in the region. The scientists from China, Japan, Korea, and Russia agreed to continue working on a project proposal to harmonize monitoring methodologies for microplastics in the marine environment in the Northwest Pacific region. To succeed, pollution criteria of microplastics in the marine environment need to be studied, such as the contents of microplastics in the water column, sediments, aquatic organisms, as well as the detection ratio in various media and biota. The first expert group meeting was held in Busan, Korea, on 3 June 2018.

29. NOWPAP cooperated closely with OSEAN to develop the Third Overview of Marine Litter in the Northwest Pacific Region a decade after the last review. The importance of reflecting the current resolutions on marine litter adopted by the United Nations Environmental Assembly (UNEA) in the last few years and the gaps identified by the UNEP at the global level were highlighted. OSEAN has

completed a preliminary draft of the Third Overview presented at the Joint NOWPAP-TEMM Workshop in September 2019 Dalian, China. The Third Overview compiled data from RACs and the Member States to identify gaps and possibilities to improve RAP MALI. Recommendations were developed to include “impact” in the prevention and monitoring activities; to change “removing existing marine litter and its disposal” to “the reduction of quantity and impact of existing marine litter” and to add “implementation of adaptive management”. The Third Overview will be published in early 2020.

30. In 2020-2021, NOWPAP RCU will continue supporting the coordination and public outreach activities of the RAP MALI, including supporting, where feasible, participation of NOWPAP experts and contributions to relevant regional and global events.

31. RCU will also support the lead national agency, CRAES of China, to further develop a NOWPAP Special Project: “Monitoring and Assessment Methods for Microplastics pollution”.

3. RAP MALI Focal Points Meetings

32. On 5 and 6 June 2018, NOWPAP marked the 10th anniversary of RAP MALI with a meeting of the RAP MALI Focal Points to review progress, to promote regional cooperation on tackling marine litter, including microplastics, and to provide strategic guidance for further development of the Northwest Pacific Regional Node of GPML.

33. The Focal Points reviewed RAP MALI progress and proposed specific activities related to the Regional Action Plan for the NOWPAP RACs and RCU in 2019-2020. NOWPAP RCU also informed the meeting of the progress in developing GPML. The meeting made the following recommendations:

1) Implementing Resolution 4: RAP MALI of the 23rd NOWPAP IGM, RAP MALI Focal Points reviewed and agreed on the revised Terms of Reference (ToR) for the RAP MALI Focal Points Meeting as presented in Annex 1⁴. RCU is requested to submit draft ToR to NOWPAP FPs within a week after the meeting for adoption by correspondence.

2) RAP MALI Focal Points reviewed the progress made and proposed RAP MALI related activities of NOWPAP RACs and RCU in 2018/2019 and provided the following recommendations:

- POMRAC Secretariat is requested to provide regular updates about the progress and consult with RAP MALI Focal Points requesting their feedback on the report and participation in the planned workshop, where applicable, concerning the Activity “Microplastics Abundance in River Runoff and Coastal Waters of the NOWPAP Region with a Case Study in the Russian Coastal Waters”;
- To avoid confusion with the allocation of funds for marine litter activities from RAP MALI budget and budget for RAC regular PoW, RAP MALI Focal Points recommend 24th NOWPAP IGM to consider abolishing a separate budget envelope for RAP MALI activities. Instead, technical and budget clearance of all marine litter related activities of RACs and RCU before the adoption of the biannual work programme and budget by IGM should be within the purview of RAP MALI FPs. The practice should be applied from the NOWPAP PoW 2020-2021 onwards.

⁴ Annex 1 is not included in this document as it is available in the RAP MALI Focal Points Meeting report (UNEP/NOWPAP/2019 RAP MALI Meeting).

- 3) Having considered the NOWPAP special project “Monitoring and Assessment Methods for Microplastics Pollution” and considering comments provided, recommend further development of the project according to a proposed approach and timeline.
 - 4) The meeting discussed maintenance and further development of the Northwest Pacific Regional Node of GPML, including visual identity, categories of data and information, national inputs of relevant data and information from member states, and cooperation with RCU and RACs. The recommendations of the meeting will be compiled and submitted to DINRAC by RCU. The meeting requested RAC Secretariats and RCU to nominate a contact point for the Regional Node. DINRAC is requested to compile categories and develop a format for data and information on marine litter in the NOWPAP region to be further used for the Regional Node.
 - 5) NOWPAP RCU is requested to submit a specific proposal for the Third Overview of Marine Litter (purpose, primary directions, etc.) to RAP MALI Focal Points for comments within a month after the meeting.
 - 6) Having considered RCU and the Asia-Pacific Civil Forum on Marine Litter proposal on establishing closer cooperation for facilitation of the participation of civil society in marine litter activities in the region and beyond, requested RCU to develop further terms of cooperation in the next two months and submit to RAP MALI FPs for review.
 - 7) Recommends updating NOWPAP RAP MALI (2008) in principle and agrees to initiate the process after completing the Third Overview of Marine Litter in the NOWPAP region that should, inter alia, identify gaps and needs of RAP MALI (2008).
 - 8) Recommends including Agenda item 8: Follow up and review of SDG 14.1 using NOWPAP mechanism for consideration by the 23rd NOWPAP IGM.
 - 9) Notes with appreciation the invitation of P.R. China to hold 2019 RAP MALI Focal Points Meeting together with 2019 NOWPAP-TEMM Marine Litter Management Workshop, and 2019 NOWPAP ICC in Dalian, P.R. China (tentatively in September 2019).
34. The 2019 RAP MALI Meeting was held in the Dalian International Finance Conference Center in Dalian, China, on 26th September 2019. NOWPAP Marine Litter (ML) Focal Points (FPs), representatives of NOWPAP RACs and RCU attended the meeting. Representatives from the National Marine Environment Monitoring Center of China, Coordinating Body on the Seas of East Asia (COBSEA), and WWF China Office also attended the meeting as observers.
35. The meeting reviewed the progress reports of NOWPAP RCU and RACs, the draft Third Regional Overview of Marine Litter in the NOWPAP region and discussed the Work Plan and budget on RAP MALI for 2020-2021. The meeting made the following recommendations:
- 1) The meeting reviewed the progress reports of the NOWPAP Regional Coordinating Unit (RCU) and Regional Activity Centers (RACs) and suggested
 - RACs to link their work with UNEA resolutions on marine litter,
 - DINRAC to revise their progress report to avoid overlapped (repeated) reporting;
 - RACs to help translate the Regional Nodes into local languages, if possible;
 - DINRAC to share the knowledge related NGO activities with member states;

- CEARAC, MERRAC, and POMRAC to circulate their reports for comments, when they are ready, and finalize the reports by the end of 2019.
- 2) The meeting discussed the draft Third Overview of Marine Litter in the NOWPAP Region, and requested:
- OSEAN to collect more information from scientific reports, official reports and reports of citizen scientists, and compare and analyze them;
 - The Marine Litter Focal Points and RACs to provide their inputs and comments by the end of November 2019. The inputs and comments should include updated data, more resources and references, evaluation of RAP MALI, and future directions of RAP MALI;
 - RACs to provide OSEAN with information on what has been done, lessons learned, what could be future directions to revise RAP MALI by 20 October 2019.
 - The Third Overview will be published in early 2020.
- 3) The meeting discussed the work plan and budget for 2020-2021 (see below), China, Korea and Russia agreed on the proposed work plan and budget in annex 2. Japan will provide their opinion by 20 October 2019. RCU will circulate opinion of Japan among member states for further consultations. The work plan and budget should be finalized by 10 November 2019. (Japan agreed to the work plan and budget in October 2019).
- 4) RCU, DINRAC, with the support of OSEAN, will prepare for the data reporting format and circulate among member states for comments and finalize it by the end of March 2020.
- 5) The next RAP MALI focal points meeting will be held in Vladivostok, Russian in late September 2020.

Table 1. Work plan and budget for RAP MALI for 2020-2021

Activities	Budget (Thousand US\$)			
	2018-2019	Notes	2020-2021	Notes
Organize annual NOWPAP-TEMM Marine Litter Management Workshops and International Coastal Cleanup campaigns (RCU supported by RACs)	40	Two workshops were organized back to back with two microplastic expert meetings. The actual expenditure for 2018 was 36 thousand US\$, for 2019 was 30 thousand US\$. RCU borrowed funds from China to organize the 2019 workshop due to the delayed funds transfer by UNEP. The funds have not paid back to China till 30 January 2020.	40	

Activities	Budget (Thousand US\$)			
	2018-2019	Notes	2020-2021	Notes
Enhance the Northwest Pacific Regional Node of GPML (RCU and DINRAC/other RACs)	20 from GPML in 2018		22	Two for each member state, DINRAC to develop a format for data collection and sharing; DINRAC to maintain operation of the Node.
Revision of RAP MALI (RCU and RACs)			29	Two meetings back to back with NOWPAP marine litter management workshop to be organized; More international consultants and NGOs will be invited.
Undertake Regional overview of national efforts to address microplastics (CEARAC)	9.25			
Update marine litter information and databases (DINRAC, CEARAC, RCU)	9.25			
Assess floating marine litter sources and flows (MERRAC)	9.25			
Conduct research on microplastics content and migration in the Peter the Great Gulf, Russia (POMRAC)	13.25	POMRAC actually received 9,250 US\$, which is the same amount as other RACs.		
Third Regional Overview of marine litter in the NOWPAP region (RCU supported by RACs)	6	The actual expenditure is 15,000 US\$		
Total	91	The approved budget is 91 thousand. The total of breakdown was 87 thousand US\$. which was a mistake in calculation. The actual expenditure is 118.	91	

4. NOWPAP contribution to international global and regional efforts addressing marine litter

36. Worldwide, attention to the marine litter issues, notably the plastics, has been growing rapidly, with many focused efforts initiated by international organizations and governments to address challenges caused by marine litter. Despite efforts to prevent and reduce the impacts of marine litter in many countries, there is evidence that marine litter problems are still persistent and continue to grow. Population growth, urbanization, as well as intensive economic development, have resulted in changing the consumption and production patterns and lead to a rapid increase in volumes and types of wastes. Numerous initiatives aimed at tackling marine litter problems are being carried out by various stakeholders all over the world through regional frameworks and global agreements.

37. NOWPAP was invited to a training workshop organized by Asia-Pacific Economic Cooperation (APEC) on marine debris in Busan, Korea, in October 2019. The workshop participants were trained in various methods of monitoring and assessment of marine debris, and also took part in the fieldwork within a marine debris shoreline survey. The workshop presented a unique opportunity for the participants to share their experience of addressing these issues in their countries. As marine litter is one of the key focus areas of NOWPAP, the key achievements and lessons learned in the past decade in the fight against marine litter were presented during this workshop. It was emphasized that regional cooperation, sharing of knowledge, experience, and best practices, as well as science-informed policy recommendations, are critically important to address marine litter at a regional or global scale.

38. In August 2019, the Korea Association for UN Environment Programme initiated two-day 2019 Beat Plastic Pollution: Save the Sea – Clean-up Marine Litter Camp, in which NOWPAP officials also participated. The camp allowed 30 university students to participate in marine litter cleanup activities and learn about marine litter. The students came from 17 different Korean universities. NOWPAP representatives highlighted that marine litter was a fundamental environmental governance issue encouraging students to explore better policy options and technology solutions to address marine litter.

39. NOWPAP participated in the Science Conference organized by the UNDP GEF Yellow Sea Large Marine Ecosystems Project (YSLME) in Qingdao, China, in July 2019. Scientists, policymakers, representatives from international organizations and non-governmental organizations gathered to explore ways to address marine environmental protection and sustainable development of the Yellow Sea. The conference hosted four events on fisheries, biodiversity, marine litter and microplastics, and nutrients. NOWPAP in the marine litter session highlighted sharing of best practices among member states helped the region address litter originating from member nations. Despite many reports published, and a variety of meetings organized, there are still challenges in addressing marine litter, including the lack of engagement of the private sector.

40. Experts from China, Korea and international organizations gathered in Busan, Korea, on 4-5 June 2019 to explore ways to address marine pollution in the Yellow Sea. They compared the baseline survey research on marine litter, reviewed related legislation and regulation, and discussed measures to address marine litter in the Yellow Sea. A representative for NOWPAP highlighted the importance of controlling marine litter from its sources, commenting on and comparing the waste management systems in China and the Republic of Korea.

41. The 3rd Meetings of the Management, Science and Technical Panel and Interim Commission Council of YSLME has sought the cooperation with NOWPAP. Acknowledging the primary role of local governments in protecting the coastal and marine environment, the meeting held in Qingdao in March 2019 agreed to set up a 'Clean Beach City Alliance' linking coastal cities in China, Japan and the R. Korea with support from NOWPAP. The YSLME meeting identified one city in Shandong, Taean County, as well as a city in Japan to join the alliance. Participating cities will host annual forums on the prevention and control of marine debris pollution and work together to tackle marine litter by involving local governments, business, youth, and non-governmental organizations. NOWPAP advised the Qingdao meeting that the alliance would benefit from marine litter guidelines for the region developed by the UNEP Regional Seas Programme (UNEP RSP) and adopted by YSLME.

42. Civil society group UMINARI and NOWPAP teamed together to launch the Beat Plastic Pollution campaign during the 13 October 2018 Keio University festival held in Fujisawa – a city on the Midwestern Pacific Ocean coast of Japan. The campaign booth attracted significant interest from about 10,000 young visitors. Students from Keio and other universities, as well as pre-university students and activists from the public, were encouraged to change their lifestyles and reduce dependence on plastics. Reusable bags, drinking straws, and bottles were displayed at the booth along with material about UNEP RSP. The campaign was launched on behalf of the Onewave network, a nation-wide platform that brings together non-profit, civil society and private sector groups in Japan to promote public awareness of working together to protect the shared global environment.

43. NOWPAP RCU representatives spoke at the Korea-Japan Coastal Cities Marine Environment Meeting on 18 September 2018. It was organized by R. Korea's Busan Metropolitan City to reflect on and strengthen the Northwest Pacific Region's decade-old experience in promoting cooperation among its member countries in fighting marine litter. The RCU briefed the meeting on the achievements of NOWPAP RAP MALI launched in 2008 implemented by the four Northwest Pacific Region countries, pointing out the increasing trend of plastics production and use in the region was a growing concern. RCUs continue to foster collaboration and build partnerships with regional NGOs, government departments and international stakeholders in initiatives promoting marine litter awareness.

44. The Capacity Building for Marine Debris Prevention and Management in the APEC Region was held on 19-22 June 2018 in Busan, Korea. The draft Guidelines developed at the meeting provide a solid foundation for a common framework for marine debris management in APEC economies. The guidelines included a range of recommendations from policies to reduce plastic consumption through a mix of regulations and incentives targeting producers and consumers, support for research and innovation, financing and increased private sector role to making marine debris a priority for APEC leaders and developing an APEC Marine Debris Strategy and Action Plan. NOWPAP provided inputs to the Guidelines and, as a part of the UNEP family, would continue supporting APEC efforts in this critical area.

45. NGOs from Bangladesh, Japan, Korea and Viet Nam met at the NOWPAP-Asia Pacific Civil Forum on Marine Litter (APML) on 6 June 2018 to share experiences in mobilizing public support against marine litter. Representatives of NOWPAP and an observer from Russia also took part in this half-day forum. Participants discussed challenges to prevent the marine litter expansion and identified resources and opportunities for collaboration between civil society and the international community to address the growing problem of marine pollution from human activities.

46. NOWPAP has supported an expert from Korea to take part in the development of the Guidelines for the monitoring and assessment of marine litter in the ocean being drafted by the GESAMP Working Group 40 'Sources, fate and effects of plastics and microplastics in the marine environment'. The Guidelines were published in early 2019.

47. News and information related to marine litter in the region will continue to be posted at the Northwest Pacific Regional Node of GPML, RACs and NOWPAP RCU websites, shared by e-mail with NOWPAP RACs and Marine Litter Focal Points.

Annex 1. History of Revisions

Revision Number	Date	Changes Introduced	Comments
Rev 0	27 Dec 2019		
Rev 1	10 Jan 2020	Para 16 has been edited. The words “illegal dumping sites” were changed to “informal dumping sites”.	On request from China
Rev 2	30 Jan 2020	One column was added to Table 1 with additional explanations of the actual expenditures	