

1. Background

1. While recognizing its responsibility for monitoring and assessment in the marine and coastal environment, the Special Monitoring and Coastal Environmental Assessment Regional Activity Centre (CEARAC) has developed and implemented its specific projects on eutrophication, marine biodiversity, and seagrass distribution in recent years as well as other regular works such as organizing Focal Points Meetings (FPM).
2. In the 2016-2017 biennium, CEARAC implemented two specific projects on marine biodiversity and seagrass distribution in the NOWPAP region and organized an expert meeting on eutrophication assessment.
3. Approaching the end of the 2016-2017 biennium, the Secretariat of CEARAC reported the progress with expected results of its activities at the 15th CEARAC FPM in August 2017.
4. At the end of 2017, most of planned CEARAC activities were completed by the end of 2017 in a satisfactory manner while some activities are now in the final stage and waiting for practical deliverables such as publication of technical reports.
5. CEARAC activities are funded by the NOWPAP Trust Fund, supplemented by in-kind contribution from the Northwest Pacific Region Environmental Cooperation Center (NPEC) which is originated from the support of the Ministry of the Environment of Japan, Toyama Prefectural Government and other external sources. The operation of the Secretariat of CEARAC including personnel salaries and other miscellaneous costs is financially supported by Toyama Prefectural Government.

2. Implementation of activities after the 15th CEARAC FPM

2.1 Organization of Meetings

2.1.1 Fifteenth CEARAC Focal Points Meeting (FPM)

6. The Fifteenth NOWPAP CEARAC FPM was held on 29-30 August 2017 in Toyama, Japan. The meeting reviewed the progress of 2016-2017 activities focusing on two main projects: assessment of major pressures on marine biodiversity in the NOWPAP region; and feasibility study towards assessment of seagrass distribution in the NOWPAP region. At the same time, the Secretariat presented a draft

workplan for the 2018-2019 biennium. Since the new activities are to be developed and implemented based on the results of the 2016-2017 activities, the meeting stressed smooth implementation and successful completion of the on-going work as planned.

7. Since Regional Coordinating Unit (RCU) of NOWPAP suggested all RACs prepare two budget plans, the Secretariat of CEARAC also developed two workplans with the budget 140,000 US dollars and 180,000 US dollars including additional activities. The meeting reviewed and discussed the draft workplan and agreed to submit it after some modification to the 22nd NOWPAP Intergovernmental Meeting (IGM) in December.

2.1.2 Expert Meeting on Eutrophication Assessment in the NOWPAP Region

8. CEARAC implemented trial application of the screening procedure of the NOWPAP Common Procedure for eutrophication assessment in the 2014-2015 biennium. As an outcome of this activity, a web-based map on potential eutrophic zone in the NOWPAP region was constructed in the website of the Marine Environmental Watch Project (<http://ocean.nowpap3.go.jp/WebGIS/>).
9. Then, CEARAC Expert Meeting on Eutrophication Assessment in the NOWPAP Region was held on 18 October 2017 in Qingdao, China as a follow-up activity, and national experts reviewed the progress of this CEARAC activity. The participants discussed future actions to be taken and agreed on continuation of the assessment and holding expert meetings regularly in the following biennia.

2.2 Maintenance of CEARAC websites

10. CEARAC renewed its websites to make them more user-friendly (<http://cearac.nowpap.org/>). Arrangement of icons and structure and the image of the top page were changed in the renewal work along with regular update of posted data and information.

2.3 Specific Projects

2.3.1 Assessment of major pressures on marine biodiversity in the NOWPAP region

11. Nominated experts of the member states collected information on scientific papers on impacts of three major pressures (eutrophication, non-indigenous species, and habitat alteration) on marine biodiversity as well as central/local governments'

strategies on marine biodiversity conservation. Then, the Secretariat of CEARAC compiled submitted national reports and developed a draft report which was reviewed by the related experts at the 1st workshop on Major Pressures on Marine Biodiversity in the NOWPAP Region (24 October 2017, Tokyo, Japan).

12. The Secretariat used the DPSIR framework in order to explain the current status of major pressures, which is one of the assessment methodologies to understand the relationships between DRIVERS, PRESSURES, STATES, IMPACTS and RESPONSES on environmental issues. The draft report was refined based on the comments provided in the workshop, went through the procedure for publication of NOWPAP technical reports, and will be finalized in spring 2018.

2.3.2 Feasibility study towards assessment of seagrass distribution in the NOWPAP region

13. Aiming at assessment of the seagrass distribution in the NOWPAP region, CEARAC carried out the feasibility study. Then, CEARAC with national experts has collected information on seagrass distribution and identified obstacles and required future actions towards assessment of seagrass distribution in the NOWPAP. Draft feasibility study report has been under review, which will be finalized for publication after the 16th CEARAC FPM. CEARAC also developed a prototype of Cloud GIS to be used to estimate distribution of seagrass (eelgrass) by analyzing satellite images in the future.

2.4 Cooperation and coordination with other NOWPAP RACs and/or relevant local/regional/international organizations

14. To enhance regional capacity for conservation of coastal and marine environment, CEARAC has cooperated with other RACs and RCU of NOWPAP as well as NOWPAP partners.
15. In addition, CEARAC staff members participated in other RACs' FPMs and the 22nd NOWPAP IGM held in December in Toyama to exchange information and increase face-to-face communication among the NOWPAP RACs, FPs and relevant regional and/or international organizations.

2.5 CEARAC activities on marine litter (RAP MALI)

16. In addition, CEARAC helped enhancing the Northwest Regional Node (website on marine litter in the NOWPAP region) by collecting and posting information on

prevention of marine litter input by central and local governments in Korea and Russia.

17. Also, NOWPAP-TEMM Joint Workshop on Marine Litter Management and International Coastal Cleanup (ICC) was held on 20 September in Toyama, Japan. CEARAC helped marine litter FPs and NOWPAP RCU organize the events. In the afternoon of 20 September, ICC was held on Rokudouji Beach in Imizu City in Toyama. After the 2-hour beach cleanup, about 500 kilograms of marine litter was collected, which was reported to Ocean Conservancy as the result of the 2017 NOWPAP ICC campaign.

3. Budget and Expenditure of CEARAC activities for the 2016-2017 biennium

18. The 20th NOWPAP IGM (2015) adopted the entire workplan and budget for NOWPAP for the 2016-2017 biennium, in which 140,000 US dollars were allocated to CEARAC for its 2016-2017 activities along with another 6,000 US dollars for marine litter activities of CEARAC. The budget and actual expenditure for CEARAC activities for the 2016-2017 biennium are shown in Table 1 below.

Table 1 Budget and Expenditure for CEARAC activities for the 2016-2017 biennium

Activity	Budget (US\$)			Expenditure (US\$)		
	2016	2017	Total	2016	2017	Total
Meetings - FPM 14+15 and Expert Meeting	27,000	27,000+ external	54,000+ external	17,745	35,470	53,215
Website maintenance - CEARAC websites - Marine Environ. Watch System	6,000 in-kind	6,000 in-kind	12,000 in-kind	1,532 in-kind	10,566 in-kind	12,098 in-kind
Assessment of major pressures on marine BD - Report development - Report review - National info. collection - Workshop	5,000	6,000 9,000 10,000	30,000	0	7,000 8,000 9,000 6,156	30,156
Feasibility study on seagrass distribution assessment - Literature info. collection - Image analysis cost estimation - Workshop	16,000	4,000 15,000	40,000	0	16,000 0 11,288	40,288

- Report development		5,000			13,000	
Cooperation/coordination	2,000	2,000	4,000	2,617	2,207	4,824
Marine litter activities	0	6,000	6,000	0	5,419	5,419
TOTAL	60,000	80,000	146,000	21,894	124,106	146,000