

## 1. Background

**NOWPAP Medium-term Strategy 2012-2017 (MTS) is a strategic guidance for Regional Activity Centres (RACs) of NOWPAP when developing their workplans for each biennium. The Special Monitoring and Coastal Environmental Assessment Regional Activity Centre (CEARAC) has developed and implemented its recent core projects to align with the themes and objectives of the NOWPAP MTS, related to marine biodiversity and seagrass distribution while recognizing its responsibility for monitoring and assessment in the marine and coastal environment.**

In the 13<sup>th</sup> NOWPAP CEARAC Focal Points Meeting (FPM) held in August 2015, the Secretariat of CEARAC proposed a draft workplan and budget of its activities for the 2016-2017 biennium with two specific projects. The meeting agreed to submit it to the 20<sup>th</sup> NOWPAP Intergovernmental Meeting (28-30 October 2015, Beijing, China), where the entire NOWPAP budget and workplan for the 2016-2017 biennium was approved.

Then, in the 14<sup>th</sup> FPM, the meeting reviewed the implementation of the planned activities of CEARAC. Then, the meeting concerned about difficulty of CEARAC biodiversity project (development of a draft common procedure for assessment of the impacts of major pressures on marine biodiversity in the NOWPAP region). The meeting discussed and changed the title of the activity to “Assessment of the major pressures on marine biodiversity in the NOWPAP region” and the contents of the activity was changed accordingly.

Approaching the end of the 2016-2017 biennium, the Secretariat of CEARAC will report expected outputs and outcomes of the planned activities for the current biennium to be reviewed by CEARAC Focal Points (FPs) at the 15<sup>th</sup> CEARAC FPM (29-30 September 2017).

CEARAC activities such as CEARAC FPMs and specific projects are funded by the NOWPAP Trust Fund, supplemented by in-kind contribution from the Northwest Pacific 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.

CEARAC is operated by the following staff members:

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## 2. CEARAC activities for the 2016-2017 Biennium

Summary of CEARAC activities for the 2016-2017 biennium is shown in Table 1.

**Table 1 CEARAC activities for the 2016-2017 biennium**

Activity
<p><b>Organization of Meetings</b></p> <ul style="list-style-type: none"> <li>- Organizing 14<sup>th</sup> FPM (2016) and 15<sup>th</sup> FPM (2017)</li> <li>- Organizing an Expert Meeting (2017)</li> </ul>
<p><b>Maintenance of Websites</b></p> <ul style="list-style-type: none"> <li>- Renewing the structure of CEARAC websites, including regular update of contents</li> <li>- Upgrading Marine Environmental Watch System</li> </ul>
<p><b>Specific projects</b></p> <p><b>Assessment of the major pressures on marine biodiversity in the NOWPAP region</b></p> <ul style="list-style-type: none"> <li>- Developing a report on assessing major pressures on marine biodiversity</li> <li>- Reviewing the developed report</li> <li>- Collecting information on scientific papers on impacts of major pressures and on national strategies/plans/laws on marine biodiversity conservation</li> <li>- Organizing a workshop</li> </ul>
<p><b>Feasibility study towards assessment of seagrass distribution in the NOWPAP region</b></p> <ul style="list-style-type: none"> <li>- Collecting/reviewing literatures on seagrass distribution and changes</li> <li>- Evaluating applicability of remote sensing techniques for assessing threats to seagrass</li> <li>- Estimating image analysis cost</li> <li>- Organizing an international workshop</li> <li>- Developing a feasibility study report</li> </ul>
<p><b>Cooperation and coordination with other NOWPAP RACs and/or relevant local/regional/international organizations</b></p> <ul style="list-style-type: none"> <li>- Exchanging/sharing information by inviting relevant people to CEARAC events and/or participating in events by other RACs and/or NOWPAP partners and other relevant organizations</li> </ul>
<p><b>Marine Litter activities (RAP MALI)*</b></p> <ul style="list-style-type: none"> <li>- Compiling and harmonizing marine litter monitoring data on beaches and submitting the collected data to DINRAC</li> <li>- Enhancing the Northwest Pacific Regional Node (marine litter website)</li> </ul>

\* The budget for marine litter activities is not included in the budget for CEARAC activities.

### 2.1 Organization of Meetings

NOWPAP CEARAC Focal Points Meeting (FPM) is held annually for the purpose of reviewing and giving practical advice on implementation of CEARAC activities as well as on draft workplans and potential activities for future biennia.

In the 14<sup>th</sup> FPM (7-8 April 2016), the meeting reviewed the workplan and budget of CEARAC activities for the 2016-2017 biennium which had been adopted at the 20<sup>th</sup> NOWPAP Intergovernmental Meeting (IGM) in 2015. Since some activities for 2014-2015 were not completed by the end of 2015, the Secretariat of CEARAC asked their FPs for agreeing on incorporation of these activities into the 2016-2017 ones. The meeting requested the Secretariat to improve the time management of CEARAC activities, taking account of the volume of planned tasks in respective activities.

Besides FPMs, CEARAC plans to organize an expert meeting in Qingdao in October 2017 with national experts from the NOWPAP members who have involved in CEARAC's activities on eutrophication assessment in the past biennia.

## **2.2 Maintenance of CEARAC websites**

CEARAC is working to renew the structure of CEARAC websites to make them more user-friendly. The Secretariat of CEARAC has made a contract with a local company to re-design the current websites, and now reviewing a draft design of them.

Website is actually a powerful tool to disseminate/collect information easily, and CEARAC tries to maximize its advantages as much as possible. In case of one activity for the 2014-2015 biennium, CEARAC implemented trial application of the screening procedure of the NOWPAP Common procedure for eutrophication assessment, and constructed an interactive web-based map of potential eutrophic zones in the NOWPAP region on the website of Marine Environmental Watch. As long-term continuation of eutrophication assessment was recommended in the 14<sup>th</sup> CEARAC FPM (April 2016), an expert meeting on eutrophication assessment in the NOWPAP region will be organized in October 2017 in Qingdao, China with the national experts of the NOWPAP member states. They will review the progress and future actions to be taken for updating information and improving accuracy of the developed map of eutrophication assessment. Starting with this expert meeting, CEARAC proposes the constructed map to be reviewed every five years or so.

Considering the printing and shipping cost and time, CEARAC has stopped distribution of printed materials as much as possible, and now, all CEARAC technical reports are available online as well as annual CEARAC newsletters.

## **2.3 Specific Projects**

CEARAC has been implementing following two specific projects in the 2016-2017 biennium.

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

The regional report on the pilot assessments of impacts of major threats (eutrophication, indigenous species and habitat alteration) on marine biodiversity was prepared by the Secretariat of CEARAC. After modification of the first draft based on the review by the CEARAC FPs, the second draft was circulated among the NOWPAP National FPs for finalization of the report in June 2017. Then, applying some editorial check, the report will be published in the second half of 2017. At the same time, the Secretariat is preparing another report on assessment of major pressures on marine biodiversity in the NOWPAP region. The first draft will be reviewed during a workshop which is planned in late October or November in 2017. After added some refinement based on the discussion at the workshop, the second draft will be circulated among the CEARAC FPs for their review. Then, the report will be finalized after review by the NOWPAP National FPs in accordance with the guidance on the quality of NOWPAP technical reports.

The information on scientific papers on impacts of the major pressures on marine biodiversity and strategies on marine biodiversity conservation of each member state was collected by the experts nominated by the CEARAC FPs. Using the national reports submitted by them to CEARAC, the Secretariat has developed summaries to introduce impacts and strategies of each member state. Some of submitted information will also be utilized for the report on assessment of major pressures on marine biodiversity.

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

Using the developed manual for seagrass and seaweed mapping with satellite images, CEARAC investigated its applicability in selected sea areas in the NOWPAP region in the 2014-2015 biennium. Then, to apply the same methodology to the entire NOWPAP region, CEARAC has conducted a feasibility study towards assessment of seagrass distribution in the NOWPAP region in the current biennium.

Firstly, nominated experts of the member states collected and reviewed literatures on seagrass distribution and threats to seagrass. Then, the first international workshop on assessment of seagrass distribution in the NOWPAP region was organized on 3 August 2017 in Himi City, Toyama Prefecture with inviting researchers in and out of the

NOWPAP region, including a representative of UNEP. The participants introduced on-going initiatives and/or studies on seagrass as well as national reports on the literature review. A provisional table of contents of a feasibility study report was also introduced at the workshop and discussed among the participants.

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

CEARAC takes every opportunity to communicate with other RACs of NOWPAP and relevant local/regional/international organizations including NOWPAP partners to cooperate and coordinate activities and to exchange/share information on the marine and coastal environment.

In the 2016-2017 biennium, staff members of CEARAC participated/will participate in:

(Annual meetings and events)

- DINRAC FPM (2016 and 2017)
- MERRAC FPM (2016 and 2017)
- DINRAC FPM (2016 and 2017)
- NOWPAP ICC (Russia in 2016 and Toyama, Japan in 2017)
- NOWPAP IGM (Korea in 2016 and Toyama, Japan in 2017)
- PICES Annual Meeting (U.S.A. in 2016 and Russia in 2017)

(Other meetings and events)

- G7 Toyama Environment Ministers' Meeting (Toyama, Japan in 2016)
- 26th Training Course of International Hydrological Programme (IHP) of UNESCO (Japan, 2016)
- Sustainable Ocean Initiative Global Dialogue with Regional Seas Organizations and Regional Fisheries Bodies on Accelerating Progress towards the Aichi Biodiversity Targets (Korea, 2016)
- 10<sup>th</sup> WESTPAC International Scientific Conference (China, 2017)
- Toyama NOWPAP-PICES Science Dialogue (Toyama, Japan, 2017)
- Google Earth Engine Summit 2017 (U.S.A. 2017)

### **3. Budget and expenditures for the 2016-2017 biennium .**

The 20<sup>th</sup> NOWPAP IGM (October 2015) adopted the entire workplan and budget for

NOWPAP for the 2016-2017 biennium, in which US\$140,000 were allocated to CEARAC for its 2016-2017 activities along with another US\$6,000 for CEARAC's marine litter activities. The detailed breakdown of the budget and expenditures are shown in Table 2 below.

**Table 2 Budget and expenditures for CEARAC activities for the 2016-2017 biennium**

Activity	Budget (US\$)			Expenditure (US\$) as of Aug 2017
	2016	2017	Total	
<b>Organization of meetings</b> - 14 <sup>th</sup> and 15 <sup>th</sup> FPM (2016 and 2017) - Expert Meeting (2017)	27,000	27,000+ external	54,000+ external	17,885
<b>Maintenance of Websites</b> - CEARAC websites - Marine Environmental Watch System	6,000 in-kind	6,000 in-kind	12,000 in-kind	1,532
<b>Assessment of major pressures on marine biodiversity</b> - Developing a report on assessing major pressures on marine biodiversity - Reviewing the developed report - Collecting information from member states - Organizing a workshop	5,000		30,000	0
<b>Feasibility study towards assessment of seagrass distribution</b> - Collecting/reviewing literatures on seagrass distribution and changes - Estimating image analysis cost - Organizing an international workshop - Developing a feasibility study report	16,000	4,000 15,000 5,000	40,000	0 11,370 0
<b>Cooperation/coordination with other RACs and relevant organizations</b>	2,000	2,000	4,000	2,636
<b>TOTAL</b>	<b>60,000</b>	<b>80,000</b>	<b>140,000</b>	<b>58,423</b>
<b>Marine litter activities</b>	0	6,000	0	0