

## Report of the Seventeenth NOWPAP CEARAC Focal Points Meeting

### Background leading to this meeting

1. The Special Monitoring and Coastal Environmental Assessment Regional Activity Centre (CEARAC) is one of the four Regional Activity Centres (RACs) to coordinate activities relevant to specific components of the Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Action Plan (NOWPAP). Since its inception in 2002, CEARAC has been mainly working on monitoring and assessing harmful algal blooms (under Working Group 3) and application of remote sensing techniques to the study on the marine and coastal environment (Working Group 4).
2. In 2008, CEARAC implemented a series of activities on assessing eutrophication state as a joint work of Working Group 3 and Working Group 4, and then launched marine biodiversity-related activities in 2010. In more recent years, assessment of seagrass distribution in coastal areas in the NOWPAP region has been included in main projects of CEARAC.
3. CEARAC has implemented activities on marine biodiversity conservation, coastal environmental assessment and prevention of marine pollution in accordance with the listed high priority issues in the NOWPAP MTS 2012-2017 and 2018-2019. The Secretariat of CEARAC proposed at the 15<sup>th</sup> CEARAC Focal Points Meeting (FPM) in 2017 to conduct two marine biodiversity-related projects, one seagrass mapping project and some routine works for the 2018-2019 biennium, which were approved at the 22<sup>nd</sup> NOWPAP Intergovernmental Meeting (2017) as part of the NOWPAP Programme of Work for 2018-2019.
4. At the following 16<sup>th</sup> CEARAC FPM held in 2018, the meeting provided practical guidance on how to implement them in an efficient manner. In particular, for the project on developing a roadmap for Regional Action Plan for Marine and Coastal Biodiversity Conservation (RAP BIO), the meeting suggested explaining the activity to other RACs' FPs since RAP BIO itself would be a collaborative work for all RACs and RCU to be implemented after 2020.
5. Coming to the end of the current biennium, FPs of CEARAC gathered at the 17<sup>th</sup> NOWPAP CEARAC FPM (9-10 September 2019, Toyama, Japan) to review the

progress of on-going CEARAC activities as well as provide practical suggestions to the presented draft workplan for the next biennium, 2020-2021.

### **Agenda Item 1 Opening of the Meeting**

6. The meeting was opened at 9:00 in the Sky Gallery of Tower 111, Toyama, Japan, on 9 September 2019 by Mr. Michitaka YOKOI, Director of NOWPAP CEARAC. He announced that the Korean delegation unfortunately couldn't participate in the meeting due to flight cancellations caused by a typhoon. While all participants made self-introduction, Dr. Yegor VOLOVIK, Coordinator of NOWPAP RCU delivered welcoming remarks.

### **Agenda Item 2 Organization of the Meeting**

#### **2.1 Election of the officers**

7. The meeting elected Dr. Vladimir SHULKIN, FP of Russia as Chairperson and Ms. Ye DING, Alternate of Chinese FP as Rapporteur.

#### **2.2 Organization of work**

8. It was proposed by the Secretariat of CEARAC that, for the purposes of the CEARAC FPM, the rules used in the meeting be basically those of United Nations Environment Assembly (UNEA), adjusted as appropriate to suit the nature of the meeting. Decisions should be made by consensus and English was the working language of the meeting.
9. Dr. VOLOVIK proposed the Secretariat to communicate to the Korean FPs by e-mail correspondence to get their consent on the adoption of the discussed meeting agendas based on approval by the three member states present at the meeting. The Secretariat accepted the proposal.

### **Agenda Item 3 Adoption of the agenda**

10. The Secretariat of CEARAC introduced the Provisional Agenda (UNEP/NOWPAP/CEARAC/FPM 17/1) with the Annotated Provisional Agenda (UNEP/NOWPAP/CEARAC/FPM 17/2).

11. The meeting adopted both documents.

**Agenda Item 4 Report of the Regional Coordinating Unit (RCU) on the progress of the Northwest Pacific Action Plan (NOWPAP)**

12. Dr. Ning LIU, Programme Officer of NOWPAP RCU, reported the progress of the entire NOWPAP activities since the 16<sup>th</sup> CEARAC FPM which was held on 10-11 May 2018, Toyama, Japan (UNEP/NOWPAP/CEARAC/FPM 17/3). He introduced a new RCU website which is now part of the website of UNEP. He also introduced one CEARAC activity on eutrophication assessment that was shown as a cover story on the UNEP website, and expected more featuring NOWPAP outputs in the cover story section of the website.
13. Dr. VOLOVIK, while emphasizing the importance of integrated work among research institutions, society, and business entities and others to tackle marine litter problems, emphasized that one of RCU's jobs is to connect NOWPAP's activities to other organizations and the society.
14. The meeting acknowledged the report.

**Agenda Item 5 Report on CEARAC Activities for the 2018-2019 biennium**

**5.1 Overall Progress report on CEARAC activities**

15. Mr. YOKOI reported the implementation and the expenditure of CEARAC activities for the 2018-2019 biennium (UNEP/NOWPAP/CEARAC/FPM 17/4).
16. The meeting adopted the report on the implementation and the expenditure of CEARAC activities for the 2018-2019 biennium.

**5.2 Report on development of the CEARAC Medium-term Strategy on Marine Biodiversity Conservation (MTS)**

17. Dr. Takafumi YOSHIDA, Senior Researcher of CEARAC, reported the progress of one on-going project: development of the CEARAC Medium-term Strategy on Marine Biodiversity Conservation (UNEP/NOWPAP/CEARAC/FPM 17/5). Since there has been some delay, the secretariat had revised the workplan and received agreement of the revision from the FPs before the meeting.

18. Dr. VOLOVIK suggested to cooperate more closely and share resources with other agencies, especially in regards to invasive and migratory species research. Dr. YAGI answered to Dr. VOLOVIK's suggestion that since Japan is not a member of the Convention on Migratory Species, and the convention's targets and actions are beyond NOWPAP's work. Dr. YOSHIDA added that working on tidal flats and salt marshes can help conservation of migratory species in an indirect way.
19. The Chairperson requested to clarify how the proposed MTS can contribute to actual conservation using marine spatial planning such as marine protected areas (MPAs). The Secretariat agreed to modify the MTS.
20. Dr. Akihide KASAI, expert of Japan, explained the potential and usefulness of environmental-DNA (e-DNA) for projects on marine biodiversity. Since it is a new technique, he explained the details of the technique and its application to biodiversity conservation to the meeting participants.
21. Dr. Tatiana ORLOVA, FP of Russia, asked whether e-DNA techniques can be applied to marine species other than fish. Dr. KASAI answered that the technique can be applied to other marine species if proper primers are available. Dr. Jingfeng FAN, FP Alternate of China, asked about e-DNA research progress in countries other than Japan. Dr. KASAI replied that Japan is a leading country in application of e-DNA; however, the USA and European countries have already started using e-DNA as well, and China has also started using it.
22. Dr. Jie SU, FP Alternate of China, asked about its application to identify abundance of species. Dr. KASAI explained the difference of two techniques and answered that e-DNA can be applicable to identify biomass of species.
23. Dr. ORLOVA asked about data source, either from Gene Bank or national own database. Dr. KASAI answered the data is from Gene Bank.
24. The meeting adopted the report and asked the Secretariat to prepare a revised Medium-term strategy with input of feasibility assessment from Korea by the end of October.

### **5.3 Report on development of a roadmap for Regional Action Plan for Marine and Coastal Biodiversity Conservation (RAP BIO)**

25. Dr. YOSHIDA reported the progress of another on-going project: development of a roadmap for Regional Action Plan for Marine and Coastal Biodiversity Conservation (RAP BIO) (UNEP/NOWPAP/CEARAC/FPM 17/6).
26. Dr. LIU explained that the reason for the suspension of this activity is the delayed approval of a national expert. The meeting discussed the possible timeline to complete this activity and suggested an extension of the activity for another six months, if necessary.
27. The meeting adopted the report noting the possible postponement of the RAP BIO activity.
28. The Secretariat suggested to organize a workshop in the 4<sup>th</sup> quarter of 2019 in order to finalize the CEARAC MTS, discuss a roadmap for RAP BIO in more details, and develop a detailed workplan for the next biennium. The meeting supported this suggestion.

#### **5.4 Report on development of a tool for mapping seagrass distribution in the NOWPAP Region**

29. Dr. Genki TERAUCHI, Senior Researcher of CEARAC, reported the progress of one more on-going project: developing a tool for mapping seagrass distribution in the NOWPAP region (UNEP/NOWPAP/CEARAC/FPM 17/7).
30. Dr. YAGI commented that conservation of seagrass is an important topic in Japan. He also mentioned the importance of involving the general public in this topic and encouraged the Secretariat to continue this activity.
31. The meeting adopted the report.

### **Agenda Item 6 Proposals on CEARAC Activities for the 2020-2021 biennium**

#### **6.1 Proposals for Specific Projects**

##### **6.1.1 Proposal on CEARAC's activities for marine biodiversity conservation for the 2020-2021 biennium**

32. Based on the approved CEARAC MTS, Dr. YOSHIDA presented the proposal on CEARAC's activities for marine biodiversity conservation for the 2020-2021 biennium listing three potential activities (UNEP/NOWPAP/CEARAC/FPM 17/8).

33. After consideration of the proposed potential activities and with the consent from a Korean FP received by email that supported all three activities, the meeting recommended that CEARAC would implement all three proposed activities in the 2020-2021 biennium.

#### **6.1.2 Proposal for case studies on estimating seagrass blue carbon in selected sea areas in the NOWPAP region**

34. Dr. TERAUCHI presented the proposal for case studies on estimating seagrass blue carbon in selected sea areas in the NOWPAP region (UNEP/NOWPAP/CEARAC/FPM 17/9).
35. Dr. FAN suggested setting a guideline for estimating captured carbon by seagrass. Dr. TERAUCHI answered that the methodology proposed in Stankovic et al. (2018) will be used as a reference and be adjusted to the NOWPAP region.
36. Dr. SHULKIN suggested use of mainly existing survey results instead of conducting field sampling of seagrass due to budget constraint of this activity. Dr. TERAUCHI replied that the existing survey results can be used in the case studies.
37. The Secretariat presented a revised workplan and budget, then it was supported by the meeting participants.

#### **6.1.3 Proposal for improvement of the NOWPAP Eutrophication Assessment Tool (NEAT) for assessment and monitoring of eutrophication using satellite chlorophyll-a**

38. Dr. Eligio de Raus MAURE, Researcher of CEARAC, presented the proposal for improvement of the NOWPAP Eutrophication Assessment Tool (NEAT) for assessment and monitoring of eutrophication using satellite chlorophyll-a (UNEP/NOWPAP/CEARAC/FPM 17/10).
39. Dr. SU suggested adding some new monitoring parameters such as water color and water transparency because colored dissolved organic matter is not a routine water monitoring parameter in China. She also recommended organization of a training course on remote sensing and eutrophication related activities. Dr. MAURE answered that Dr. TERAUCHI would introduce a training course in the following agenda, 6.1.4.

40. Dr. ISHIZAKA asked whether CEARAC plans to improve the current chlorophyll algorithm or use a different algorithm. Dr. MAURE answered that in this proposal, CEARAC will only develop a match-up tool. Data collected from the match-up tool will be used in the future for improving the currently used chlorophyll algorithm. Dr. ISHIZAKA also asked about the type of data used for the match-up tool. Dr. MAURE answered that CEARAC is planning to use Level-2 data.

41. The meeting participants agreed on the workplan and budget

#### **6.1.4 Proposal for organization of the Fifth NOWPAP Training Course on Remote Sensing Data Analysis**

42. Dr. TERAUCHI presented the proposal for organization of the Fifth NOWPAP Training Course on Remote Sensing Data Analysis (UNEP/NOWPAP/CEARAC/FPM 17/11).

43. Dr. VOLOVIK encouraged CEARAC to circulate the announcement of the training course in order to reach out to a wider potential audience including the Regional Sea partners.

44. The meeting participants agreed on the workplan and budget.

#### **6.2 Discussion on the draft workplan and budget of entire CEARAC activities for the 2020-2021 biennium**

45. Mr. YOKOI presented a draft workplan of entire CEARAC activities including four specific projects explained in the Agendas 6.1.1 to 6.1.4 (UNEP/NOWPAP/CEARAC/FPM 17/12).

46. Dr. SHULKIN asked about the budget line and Dr. LIU answered that the proposed amount is appropriate.

47. The meeting reviewed and supported the proposed workplan of CEARAC activities for the 2020-2021 biennium pending consent of the Korean FPs by e-mail correspondence later. The meeting then recommend to submit the proposed workplan to the 24<sup>th</sup> NOWPAP Intergovernmental Meeting (IGM) for approval.

### **Agenda Item 7 Activities on Marine Litter**

48. Dr. Ryota SHIBANO, Researcher of CEARAC, reported the progress of marine litter activities for the current 2018-2019 biennium (UNEP/NOWPAP/CEARAC/FPM 17/13). As the NOWPAP Marine Litter Focal Points Meeting is planned to be held on 26 September 2019, NOWPAP marine litter activities for the 2020-2021 biennium will be discussed there, and CEARAC will take its responsibility for the next biennium based on the meeting decision.
49. Dr. LIU encouraged all RACs to propose additional activities against marine litter for the next biennium for discussion in the coming Marine Litter Focal Points Meeting held in late September.
50. Dr. YOSHIDA expressed his concerns that it is difficult to propose any activity for the next biennium without any decision by Marine Litter FPs on updating the current RAP MALI. Dr. LIU mentioned that the same concerns were raised in other RAC's FPMs and RCU will propose updating RAP MALI at the next Marine Litter FPM to be held in late September.

### **Agenda Item 8 Consideration of potential collaborative areas with other RACs and other regional/international organizations**

51. Dr. Teruhisa KOMATSU, Representative of IOC Sub-Commission for the Western Pacific (WESTPAC), mainly introduced current activities of WESTPAC which are related to CEARAC's seagrass mapping project. He emphasized that the WESTPAC Ocean Remote Sensing Project will continue strong collaboration with CEARAC's seagrass mapping project.
52. Dr. SHULKIN presented POMRAC's work related to the State of the Marine Environment Report for the NOWPAP Region 3 (SOMER 3) report preparations. He also emphasized the cooperation among all RACs, compatibility with Ecological Quality Objectives (EcoQOs), and alignment with Sustainable Development Goals (SDGs).
53. In response to Dr. SHULKIN's presentation, Dr. YAGI noted that the gaps between the works of RACs should be minimized and he commended POMRAC's work in this light. Dr. SHULKIN then explained how POMRAC uses CEARAC's work in



many areas including their work on eutrophication assessment.

**Agenda Item 9 Arrangement of the 18<sup>th</sup> NOWPAP CEARAC FPM**

54. Mr. YOKOI proposed to hold the 18<sup>th</sup> NOWPAP CEARAC Focal Points Meeting in spring 2020 in Toyama, Japan, and the meeting agreed on the proposal.

55. Dr. YOSHIDA asked RCU about the timing of the next IGM. Then RCU suggested that the next CEARAC FPM should be held three months after the IGM.

**Agenda Item 10 Other matters**

56. The meeting was invited to raise any other issues relevant to CEARAC activities and no other issues were raised.

**Agenda Item 11 Adoption of the report of the Meeting**

57. A draft report of the Seventeenth NOWPAP CEARAC Focal Points Meeting was prepared by the Secretariat of CEARAC with the help of the rapporteur. After review, the report was adopted unanimously subject to minor editorial improvements.

**Agenda Item 12 Closure of the Meeting**

58. After the customary exchange of courtesies, the seventeenth NOWPAP CEARAC Focal Points Meeting was closed by the chairperson at 11:40 on 10 September 2019.