Report of the Fourth NOWPAP Working Group 3 and 4 Joint Meeting (Toyama, Japan, 10-12 September 2008)

Background leading to this meeting

- 1. The 10th NOWPAP IGM (24-26 November, 2005, Toyama, Japan) approved the workplan and budget of the entire NOWPAP for the 2006-2007 biennium including the budget of US\$150,000 for CEARAC activities (UNEP/NOWPAP/IG.10/8).
- 2. The 4th CEARAC FPM (8-9 March, 2006, Toyama, Japan) adopted the revised workplan and budget for CEARAC 2006-2007 biennium activities (UNEP/NOWPAP/CEARAC/FPM 4/8)
- 3. The 3rd Meetings of NOWPAP Working Group 3 and Working Group 4 (6-7 July 2006, Toyama, Japan) were organized in a partial collaborated manner. The participants acknowledged the importance of cooperation between WG3 and WG4.
- 4. The 5th CEARAC FPM (18-19 September 2007, Toyama, Japan) reviewed implementation and expenditure of CEARAC activities for the 2006-2007 biennium. The meeting also discussed the draft workplan including 5 proposals of new activities and budget of CEARAC for the 2008-2009 biennium and adopted them with some changes.
- 5. The 12th NOWPAP IGM (23-25 October 2007, Xiamen, China) approved the report of CEARAC on the progress in implementation of NOWPAP during the 2006-2007 biennium. The meeting also approved the presented workplan. In line with the decrease of the total budget of NOWPAP, new budgetary allocation of CEARAC activities during the 2008-2009 biennium was reduced from US\$150,000 to US\$140,000.
- 6. The 6th CEARAC FPM (6-8 March 2008, Toyama, Japan) approved the revised workplan and budget for the 2008-2009 biennium with minor modifications.

Agenda Item 1. Opening of the meeting

7. The 4th NOWPAP Working Group 3 and 4 Joint Meeting was opened in Toyama, Japan at 9:00 on 10 September 2008 by the Director of CEARAC, Mr. Hidemasa YAMAMOTO. Welcoming remarks were made by Mr. Norio BABA, a representative of NOWPAP RCU.

Agenda Item 2. Organization of the meeting

- 8. The meeting was invited to elect the chairpersons and the rapporteurs. As agreed by the participants, Dr. Yasuwo FUKUYO was elected as the chairperson for the 10th and Dr. Ling SUN for the 12th, and Dr. Sang-Woo KIM as the rapporteur for the 10th and Dr. Tatiana ORLOVA for the 12th.
- 9. The Secretariat introduced a timetable of the meeting and a list of the documents. English was set to be the working language of the meeting.

Agenda Item 3. Adoption of the Agenda

10. The Secretariat introduced the Provisional Agenda (UNEP/NOWPAP/CEARAC/WG3&4/4/1) with the Annotated Provisional Agenda (UNEP/NOWPAP/CEARAC/WG3&4/4/2). The meeting adopted the agenda.

Agenda Item 4. Report of CEARAC activities in the 2006-2007 biennium and Workplan and Budget for the 2008-2009 biennium

11. The Director of CEARAC reported implementation and expenditure of CEARAC activities for the 2006-2007 biennium and workplan and budget of CEARAC for the 2008-2009 biennium (UNEP/NOWPAP/CEARAC /WG3&4/4/3), which had been approved at the 6th CEARAC FPM.

Agenda Item 5. Report of the NOWPAP Working Group 3 (Harmful Algal Blooms) activities in the 2006-2007 biennium

- 12. The Secretariat reported implementation of NOWPAP Working Group 3 (Harmful Algal Blooms) activities for the 2006-2007 biennium (UNEP/NOWPAP/CEARAC/WG3&4/4/4)
- 13. The chairperson mentioned that the booklet of Countermeasures against HABs in the NOWPAP Region is highly appreciated by scientists. Dr. Hak-Gyoon KIM also stressed that this booklet is the first one to introduce countermeasures against HABs in the world, so it is very useful.
- 14. The meeting asked about any remaining copies. The Secretariat answered that there are no books left; however, 300 of CDs and downloadable PDF version is available on CEARAC website. The chairperson expressed his concern about access difficulty in some developing countries and suggested providing more book versions. He also asked the Secretariat to seek possibility to reprint and distribute useful booklets jointly with other

organizations.

- 15. The meeting recommended that the CEARAC website be revised to a new structure which is easier for visitors to find information and materials.
- 16. Dr. Leonid MITNIK asked about statistics such as the number of visitors to the CEARAC website. The Secretariat answered that the statistics will be notified through e-mail soon.

Agenda Item 6. Report of the NOWPAP Working Group 4 (Remote Sensing) activities in the 2006-2007 biennium

- 17. The Secretariat reported implementation of NOWPAP Working Group 4 (Remote Sensing) activities for the 2006-2007 biennium (UNEP/NOWPAP/CEARAC/WG3&4/4/5).
- 18. Dr. Ichio ASANUMA asked the Secretariat how the performance of the training course was evaluated. The Secretariat replied that questionnaires were distributed to the trainees at the end of the training course and the results were sent to WESTPAC. The general impression of the answers was positive, but it also indicated that there were gaps among the participants' knowledge.
- 19. Dr. Hak-Gyoon KIM mentioned the oil spill accident in Korea in 2007 and asked about cooperation with MERRAC on utilization of the remote sensing technique. The Secretariat mentioned that CEARAC staff attended the 11th MERRAC FPM (June 2008) and presented the updating and modification plan of the website on oil spill monitoring by remote sensing. The Secretariat replied to continue to work with MERRAC to satisfy this requirement of potential users, in particular, stakeholders of MERRAC.
- 20. Mr. Jianguo WANG introduced the successful launch of two Chinese small environmental satellites on 6 September 2008 and encouraged the regional cooperation with the Chinese relevant organizations. The meeting also encouraged the Secretariat to work close with other space agencies, relevant organizations and groups such as YSLME and IOC/WESTPAC.

Agenda Item 7. Review of HAB Case Studies

- 21. The meeting appreciated the reports from member states but expressed the difficulties to standardize and harmonize contents in a limited time during the meeting.
- 22. The meeting asked the Secretariat to take some steps to facilitate the review. First, the Secretariat will prepare a comparison sheet for the reports of HAB

Case Studies by the end of September. Then, they will ask the experts to review the reports of HAB Case Studies with this sheet and to submit their comments by the end of October. The Secretariat will summarize and send the comments to the experts. The experts will revise and submit their final reports by the end of 2008. The meeting agreed on this proposal.

- 23. Dr. Osamu MATSUDA asked the Secretariat to clarify the meaning of "final report" in the document. The Secretariat explained that they will publish the final report of HAB Case Studies in 2008. After 2009, they will add the latest information to the report.
- 24. The meeting agreed that each member state can focus on a specific sea area which is included in the target area selected by CEARAC Focal Points to collect HAB-related information effectively.
- 25. Dr. ASANUMA and Dr. Joji ISHIZAKA pointed out that the inclusion of remote sensing information to these reports is the most unique activity among CEARAC activities since it is a joint activity between WG3 and WG4. The meeting asked to add positive information on the utilization of the remote sensing technique for observation of HABs.
- 26. The meeting agreed that this activity should be carried out with taking into account the comments, which have been done by member states' experts during workshop on September 11, 2008.

Agenda Item 8. Review of development of HAB integrated Website

- 27. The Secretariat explained the activities of development of HAB Integrated Website and a draft outline of the website (UNEP/NOWPAP/CEARAC/WG3&4/4/7).
- 28. The meeting requested more detailed information on HAB Integrated Website for review. The Secretariat proposed to send a document which includes detailed information of the structure of this website to the Working Group 3 experts by October 2008. The Secretariat will receive comments in November, and a consultant contracted with CEARAC will establish the website based on the comments. The meeting agreed on this proposal.
- 29. The chairperson suggested that there should be clearer definition of this website such as objectives, features and linkage to relevant information.

Agenda Item 9. Review of development of educational materials for utilization of remote sensing data for marine environment conservation

- 30. The Secretariat explained the activities for development of educational materials for utilization of remote sensing data for marine environment conservation (UNEP/NOWPAP/CEARAC/WG3&4/4/8) and reported interim progress of the activities. The meeting was invited to review the progress.
- 31. Dr. ISHIZAKA suggested making a portal or gateway for easier access to existing useful information in the languages of each NOWPAP member state, rather than only in English.
- 32. Dr. Hak-Gyoon KIM and the chairperson suggested reconsidering the working scope and the title of this activity with focus on regional unique issues, taking into account of the time and budget constraints.
- 33. Following the discussion, the Secretariat presented a direction of how to revise the workplan on the development of educational materials on 12 September, 2008 and proposed to send a revised workplan document to the experts of NOWPAP WG4 for approval within a month. The meeting supported this presented direction and agreed on revising the proposal.

Agenda Item 10. Report on the Second NOWPAP training course on remote sensing data analysis

- 34. The Secretariat explained preparation status of the second NOWPAP training course on remote sensing data analysis to be held on 1-5 November 2008 in Jeju, Korea (UNEP/NOWPAP/CEARAC/WG3&4/4/9).
- 35. The chairperson pointed out that the world HAB conference will be organized in Hong Kong during the same time period, and it may result in losing many potential trainees to participate in the training course. Therefore, the chairperson suggested considering the time of related events more carefully so that more people can participate in the future training course.
- 36. The meeting wished for the successful organization of the training course.

Agenda Item 11. Review of development of procedures for assessment of eutrophication status including evaluation of land based sources of nutrients for the NOWPAP region

- 37. The Secretariat explained the activities for development of procedures for assessment of eutrophication status including evaluation of land based sources of nutrients for the NOWPAP region (UNEP/NOWPAP/CEARAC/WG3&4/4/10) and reported on interim progress of the activities. The meeting was invited to review the progress.
- 38. Dr. Vladimir SHULKIN appreciated the holistic approach of the procedures

- and the importance of the joint activity of Working Group 3 and 4. However, he suggested stressing the relationship between eutrophication status and satellite data including verification of satellite data with in-situ data; and the relationship between eutrophication status and nutrient input.
- 39. The chairperson mentioned the uniqueness of the procedures because it includes not only the current status of eutrophication but also the trend of it, and the procedures uses the remote sensing technique which enables providing wider spatial and temporal coverage of data in category 2.
- 40. In addition to the satellite data currently used in the draft procedures, Dr. MITNIK emphasized the usefulness of other remote sensing data to understand physical phenomena of the ocean which may relate to eutrophication.
- 41. Dr. SHULKIN questioned if annual data is good enough to conduct assessment. The Secretariat replied that it would be enough to start the assessment. Dr. ISHIZAKA stressed that it is important to carefully analyze obtained data if averaging is necessary and suggested further revision of the Draft Procedures.
- 42. Dr. Hak-Gyoon KIM introduced his experiences as a consultant in YSLME for data collection and harmonization, and suggested limiting the number of data for collection.
- 43. The meeting asked for clarification of the roles of the procedures. The Secretariat replied that the procedures will provide a methodology for NOWPAP member states to conduct the assessment of eutrophication status in each country. The meeting then requested to revise some terminology in Fig. 1 and 7.2, in order to clarify how the result of assessment is to be dealt with within the NOWPAP framework to improve the eutrophication status.
- 44. Dr. Hiroshi KAWAMURA emphasized the importance of working together with relevant organizations in the region, in particular, NEAR-GOOS that started to collect parameters that can be used for assessment by the developed procedures.
- 45. The meeting agreed on the proposed future work, and the Working Group experts will continue the review and refinement work through correspondence by e-mail. This activity should be carried out with taking into account the comments, which have been done by member states' experts during workshop on September 11, 2008.

Agenda Item 12. Review of Updating and modification of website on oil spill monitoring

46. Dr. MITNIK presented progress on updating and modification of the website

on oil spill monitoring.

47. The meeting appreciated the intricate work of the oil spill website using such a small budget, and emphasized strengthening cooperation internationally, especially with MERRAC, for better use of this useful information on the website.

Agenda Item 13. Report of Guidelines on establishment and disbanding of Working Groups

- 48. The Secretariat explained the Guidelines on establishment and disbanding of Working Groups (UNEP/NOWPAP/CEARAC/WG3&4/4/Inf5), which had been adopted at the 5th CEARAC FPM.
- 49. The meeting suggested continuing the structure of Working Group 3 and Working Group 4 in the future because both their individual and joint activities are very useful.
- 50. The chairperson mentioned that "eutrophication" could be a key word for the possibility of a merge of the two working groups or practical cooperation of the two working groups. More suggestions and discussions of the future structure of Working Groups will be continued through correspondence.

Agenda Item 14. Other matters

51. The meeting agreed that HAB studies and remote sensing are useful for eutrophication assessment, and urge Focal Point Meeting to take necessary actions to get relevant budget for consecutive implementation of these activities.

Agenda Item 15. Adoption of the meeting report

52. A draft report of the meeting prepared by the Secretariat was presented for consideration and adoption.

Agenda Item 16. Closure of the meeting

53. The meeting was closed by the Director of CEARAC at 11:00 on 12 September 2008.