1. Background

- 1.1 The 10th NOWPAP Intergovernmental Meeting (IGM) (Toyama, Japan, 24-26 November 2005) approved the workplan and budget of NOWPWP for the 2006-2007 biennium including the budget of US\$150,000 for the CEARAC activities (UNEP/NOWPAP/IG.10/8). The meeting also approved the new directions for the NOWPAP RACs including the new activities of CEARAC such as Land Based Sources of Pollution (with other RACs) and Marine Litter (with other RACs)
- 1.2 The 4th NOWPAP CEARAC Focal Points Meeting (FPM) (Toyama, Japan, 8-9 March, 2006) acknowledged the report on the implementation of CEARAC activities in 2005 and the expenditures on **CEARAC** budget for the 2004-2005 biennium (UNEP/NOWPAP/CEARAC/FPM 4/3) and adopted the revised workplan and budget for the 2006-2007 biennium (UNEP/NOWPAP/ CEARAC/FPM 4/12) based on the decision of the 10th NOWPAP IGM. Following the 10th NOWPAP IGM decisions, the revised Terms of Reference (TOR) for the CEARAC FPM, which enables the FPM to establish and disband Working Groups of CEARAC, was submitted by the Secretariat and agreed to submit to the 11th NOWPAP IGM. It was also agreed to prepare the "Guidelines on establishment and disbanding of Working Groups of CEARAC" for the 5th CEARAC FPM. There was a request to prepare a document on long-term objectives of CEARAC regardless of budget, and it was decided to discuss this issue in WG meetings and the 5th CEARAC FPM.
- 1.3 The 11th NOWPAP IGM (Moscow, Russian Federation, 20-21 December, 2006) approved the revised TOR for the CEARAC FPM with minor amendments that were made at the 4th CEARAC FPM.
- 1.4 The 5th CEARAC FPM (Toyama, Japan, 18-19 September 2007) reviewed implementation and expenditure of CEARAC activities for the 2006-2007 biennium. As for undecided Intersessional Work, the Secretariat proposed to prepare the documents for the 6th CEARAC FPM. The meeting agreed on the entire report. After the draft workplan including 5 proposals of new activities and budget of CEARAC activities for the 2008-2009 biennium were explained, the meeting requested some changes during the discussion and agreed on submission of them to the 12th NOWPAP IGM. The draft mid- and long-term strategies of CEARAC and goals of NOWPAP WG3 and WG4 were presented based on the request at the 4th CEARAC FPM, and the meeting agreed on the documents in general. The draft guidelines on establishment and disbanding of Working Groups of CEARAC, which had also been requested for its preparation in the 4th CEARAC FPM, were presented. After discussion, the

meeting agreed on the draft guidelines. Discussion on the operation of the present WG3 and WG4 will be scheduled for the next biennium.

1.5 The 12th NOWPAP IGM (Xiamen, China, 23-25 October 2007) approved the report of CEARAC on the progress in implementation of NOWPAP during the 2006-2007 biennium. The meeting also approved the presented workplan and revised budget for NOWPAP for the 2008-2009 biennium. In line with the shrink of the total budget of NOWPAP, new budgetary allocation of CEARAC activities during the biennium 2008-2009 was reduced from US\$150,000 to US\$140,000. The meeting also approved in principle the NOWPAP Regional Action Plan on Marine Litter (RAP MALI), a major outcome of the NOWPAP Marine Litter Activity (MALITA) which was implemented for the last two years.

2. Proposal for activities for the 2008-2009 Biennium

Upon the beginning of the 2008-2009 biennium, the 6th CEARAC FPM is kindly requested to review and approve the workplan and budget for CEARAC for the biennium.

2.1 Organization of the CEARAC Focal Points Meetings

The 6th and 7th CEARAC Focal Points Meetings will be held in Toyama, Japan in March 2008 and September 2009 respectively in order to carry out its designated goals and purposes, which are described in the Terms of Reference (TOR) for the CEARAC FPM.

The 6th CEARAC FPM will discuss the finalized budget of CEARAC for the 2008-2009 biennium after the 12th NOWPAP IGM and review the progress in implementation of CEARAC activities including the intersessional activities of NOWPAP WG3 (HAB) and WG4 (RS).

The 7th CEARAC FPM will also review and approve the progress in implementation of the workplan and budget for the 2008-2009 biennium. Other matters related to the special monitoring and coastal environmental assessment and so on may be discussed on recommendation from the CEARAC Focal Points. During the meeting, the frame of workplan for CEARAC for the 2010-2011 biennium will be expected to be presented by the CEARAC Secretariat.

Taking into consideration the limited budget allocated to CEARAC, FPMs will be held back to back with workshops organized by NPEC. In fact, the First Coastal Environmental Assessment Workshop will be held back to back with the 6th CEARAC FPM.

2.2 Organization of the 4th WG3 (HAB) and WG4(RS) Meetings

The Fourth NOWPAP WG3 (HAB) and WG4 (RS) Meetings are planned to be held simultaneously in Toyama in summer 2008 to exchange information each other in an effective manner because the activities of WG3 (HAB) and WG4 (RS) are closely related and the cost for meetings will be reduced by joint organization.

The meeting will review the outcomes of the intersessional work of WG3 and WG4 adopted at the 6th FPM. Furthermore, the meeting will discuss the detailed workplan for the 2008-2009 biennium.

2.3 Specific Projects - CEARAC Projects

CEARAC will continue to work for implementing activities designated by NOWPAP WG3 (HAB) and WG4 (RS) in cooperation with CEARAC Focal Points, experts of WGs and related regional and international organizations. Especially CEARAC will emphasize implementation of HAB case studies and development of HAB Integrated Website as the intersessional work of WG3 and development of educational materials for utilization of remote sensing data for marine environment conservation, organization of the second NOWPAP training course on remote sensing data analysis as the intersessional work of WG4. Besides respective work of each working group, procedures for assessment of eutrophication status including evaluation of land based sources of nutrients for the NOWPAP Region will be developed as a joint activity of WG3 and WG4.

2.3.1 Implementation of HAB Case Studies

CEARAC plans to implement HAB case studies to establish the most effective and laborsaving way for sharing information on HAB occurrence and oceanographic and meteorological conditions and to summarize common concerned items.

In 2008, CEARAC will select several sea areas in the NOWPAP region, where HAB monitoring has already been implemented. Experts will implement case studies there based on the approved implementation plan, and summarize the outcomes in reports by the end of 2008. In 2009, these reports will be updated by collecting latest information. The information will be also posted on the database of HAB Integrated Website for the purpose of sharing information among the NOWPAP member states and other regional seas and international organizations.

2.3.2 Development of HAB Integrated Website

CEARAC plans to develop a website to provide and share information on HAB occurrences, countermeasures, oceanographic conditions and HAB-related issues in order to enhance activities against HAB in the NOWPAP region.

In 2008, CEARAC will prepare a draft outline of the website. Based on review of the draft outline by WG3 experts and Focal Points, CEARAC will coordinate development of this website with other international organizations such as PICES in 2008.

After that, CEARAC will develop HAB Integrated Website with the rules for data updating. After test operation and enhancement of database, the website will start its operation officially by the end of 2009.

2.3.3 Development of educational materials for utilization of remote sensing data for marine environment conservation

CEARAC plans to develop educational materials for utilization of remote sensing data for marine environment conservation for students, young researchers and coastal managers in the NOWPAP region.

The materials consist of guidance on acquisition, analysis and assessment of remote sensing data for the marine environment depending on the purpose of data use. The educational materials will be constructed based on materials and lectures in the First NEAR-GOOS - NOWPAP Joint Training Course for Remote Sensing Data Analysis and other existing educational materials.

Experts will develop the educational materials based on the workplan approved by FPs. The materials will be disclosed on CEARAC website for wider dissemination.

- 2.3.4 Organization of the second NOWPAP training course on remote sensing data analysis Based on the experiences of the First NEAR-GOOS NOWPAP Training Course on Remote Sensing Data Analysis, CEARAC plans to conduct the second NOWPAP training course on remote sensing data analysis for students, young researchers and coastal managers to obtain useful skills and knowledge to utilize remote sensing data in monitoring and assessment of marine environment.
- 2.3.5 Development of procedures for assessment of eutrophication status including evaluation of land based sources of nutrients for the NOWPAP Region

As a joint activity between NOWPAP WG3 and WG4, CEARAC plans to develop useful procedures for assessment of eutrophication status by utilizing remote sensing techniques that can be shared among the NOWPAP member states, based on lessons learned from a pilot study conducted in Toyama Bay.

Experts will review and refine the draft procedures prepared by CEARAC based on the workplan approved by FP. The result of the review and refinement work will be harmonized and compiled into the common procedures for assessment of eutrophication status for the NOWPAP region by a consultant hired by CEARAC.

The developed procedures for assessment of eutrophication status will be used to conduct a case study in each NOWPAP member state in the near future.

2.4 CEARAC activities on RAP MALI

CEARAC prioritized assigned activities in consultation with NOWPAP RCU and decided main tasks for the 2008-2009 biennium: (1) Development of public awareness materials in cooperation with NOWPAP RCU and NPEC; (2) Compilation and harmonization of marine litter monitoring data on beaches, and submission of collected data to DINRAC; (3) Interpretation of results of marine litter monitoring on beaches; and (4) Development of technical materials and introduction of best practices on solid waste management, including removal of marine litter on beaches.

2.5 Intersessional Work

CEARAC will conduct activities other than the above mentioned Specific Projects – CEARAC Projects (2.3) in close consultation with Focal Points and WG members.

2.6 Cooperation, coordination of CEARAC activities throughout the 2008-2009 biennium CEARAC will keep close contact with NOWPAP RCU, other RACs, UNEP and relevant regional and international organizations in order to promote development of Regional Seas Programme and implementation and development of NOWPAP.

2.7 Publicity activities

CEARAC will update and maintain CEARAC website to promote awareness rising for wider public on CEARAC activities and special monitoring and coastal environmental assessment. Publicity activities include publication of reports, and/or leaflets and pamphlets in digital and/or printed format within the budget. Also, CEARAC will strengthen information dissemination through CEARAC website.

3. Proposal for new activities for the 2008-2009 biennium

The budget of each RAC for this biennium was decreased from US\$150,000 to US\$140,000 at the 12th NOWPAP IGM. To meet the strict new budget, CEARAC decided to reduce budget for organization of meetings by holding them back-to back with workshops organized by NPEC. On the other hand, organization of the second NOWPAP training course on RS data analysis may need more budget than originally planned, so the budget breakdown was changed. In addition to the CEARAC budget, US\$ 10,500 is allocated for implementing designated activities in RAP MALI. Therefore, the final estimated budget for the 2008-2009 biennium is US\$150,500. The proposed workplan, budget and timetable are shown in Table 1

Table 1 Workplan and Budget of CEARAC for the 2008-2009 biennium

	Planned Budget (US\$)			Tentative
Activity	2008	2009	Total	Time
Organization of CEARAC Focal Points Meeting	18,000	18,000	36,000	6 th FPM Mar. 2008 7 th FPM Sep. 2009
Organization of WG3 (HAB) and WG4 (RS) Meetings	31,000	-	31,000	Summer 2008
Specific project WG3(HAB)	39,000	16,000	55,000	
-HAB case studies -HAB Integrated Website WG4(RS)	8,000	2,000 10,000	10,000 10,000	
-educational materials for utilization of remote sensing data for marine environment conservation	8,000	2,000	10,000	
 2nd training course on remote sensing data analysis WG3 and WG4(joint) 	15,000	-	15,000	
 procedures for assessment of eutrophication status including evaluation of land based sources of nutrients.for the NOWPAP Region 	8,000	2,000	10,000	
Intersessional work	3,000	3,000	6,000	
Cooperation, coordination of CEARAC activities	4,000	4,000	8,000	
Publicity activities	2,000	2,000	4,000	
Sub-total			140,000	

CEARAC activities on RAP MALI -Develop public awareness materials	4,500 2,500	6,000 -	10,500 2,500	
-Compile and harmonize marine litter monitoring data on beaches	2,000	2,000	4,000	
-Interpret results of marine litter monitoring on beaches	-	4,000	4,000	
- Develop technical materials and introduce best practices on solid waste management, including removal of marine litter on beaches	In-kind	In-kind		
Sub-total			10,500	
TOTAL			150,500	