NOWPAP DINRAC

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Report of 10th NOWPAP DINRAC Focal Points Meeting

DINRAC, Beijing, the People's Republic of China

23 - 24 May 2012

UNEP/NOWPAP/DINRAC/FPM 10/9

THE REPORT OF TENTH NOWPAP DINRAC FOCAL POINTS MEETING

(Beijing, People's Republic of China, 23 - 24 May 2012)

Background

1. The Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region (NOWPAP) and three Resolutions were adopted at the First Intergovernmental Meeting (Seoul, 14 September 1994; UNEP (OCA)/NOWPAP/IG.1/5) by the States in the Northwest Pacific region: People's Republic of China, Japan, Republic of Korea and Russian Federation (hereinafter referred to as China, Japan, Korea, Russia, respectively). Resolution 1 identified five areas of priority for implementation of the Action Plan, one of which was NOWPAP/1: Establishment of a Comprehensive Database and Information Management System.

2. In December 2000, the Data and Information Network Regional Activity Center (DINRAC) hosted by the Environmental Information Center of State Environmental Protection Administration of China (SEPA) was established in Beijing based on the Resolution 2 of the Fourth NOWPAP Intergovernmental Meeting (ANNEX VI OF UNEP(WATER)/NOWPAP IG.4/7). DINRAC was designated to function as the Secretariat for NOWPAP/1 and the NOWPAP/1 Coordinating Working Group (CWG) and took on the responsibilities as defined in its Terms of Reference.

3. The NOWPAP DINRAC Focal Points Meeting (FPM) had been held for 9 times since its first meeting in Shanghai, China in 2002.

4. The Ninth DINRAC Focal Points Meeting was held on 26-28 April 2011 in Hangzhou, China with the kind support from RCU. The meeting mainly reviewed the progress made in the intersessional period after the Eighth NOWPAP DINRAC FPM, discussed and approved the adjusted DINRAC workplan and budget in 2011 (UNEP/NOWPAP/DINRAC/FPM 9/13 ANNEX IV), and discussed and approved the proposed DINRAC workplan and budget for the 2012-2013 biennium (UNEP/NOWPAP/DINRAC/FPM 9/13 ANNEX VII) and agreed to submit the workplan and budget for the 2012-2013 biennium to the Sixteenth IGM of NOWPAP for final approval.

5. This Tenth DINRAC Focal Points Meeting was held during 23-24 May 2012 in Beijing, China with the kind support from RCU. The meeting mainly reviewed the progress made during the 2010-2011 biennium, discussed and approved the Implementation plan for the annual summary of major marine environmental data available in member states (UNEP/NOWPAP/DINRAC/FPM 10/9 Annex III), and the implementation plan for the summary of the policies and measures for the prevention of coastal and marine pollution in NOWPAP member states (UNEP/NOWPAP/DINRAC/FPM 10/9 Annex IV).

Agenda item 1: Opening of the meeting

Agenda item 1.1: Opening and welcome by Director of DINRAC

6. The Meeting was opened at 9:30 a.m. on 23 May 2012 in Beijing. Mr. Miyaka, on behalf of the Chairperson of Ninth DINRAC FPM, opened the meeting and welcomed all participants. He asked two new China Focal Points, Dr. LEI Kun and Ms. LI Qian, to introduce themselves. And he expressed his wish for a successful meeting. The Director of DINRAC, Mr. Shang Hongbo, made opening remarks to the meeting. He thanked all participants for their participation to the meeting and appreciated NOWPAP RCU and DINRAC Focal Points for their strong support and contribution to DINRAC activities during the past year. He said DINRAC will continue to work with full efforts in the future.

Agenda item 1.2: Statements by representatives of NOWPAP/UNEP and of the participating States

7. Mr. Sangjin LEE, representative of NOWPAP RCU, delivered an opening statement to the meeting. He expressed appreciation to DINRAC for its good job in the past years, and also thanked experts for their contribution. In DINRAC's following work plan, such as summary of the policies and measures for the prevention of coastal and marine pollution in NOWPAP member states, he hoped that it could promote information sharing among the member states. And he wished a good outcome of this meeting.

Agenda item 2: Organization of the meeting

Agenda item 2.1: Election of the officers (Chairperson and Rapporteur)

8. According to the Terms of Reference for the NOWPAP DINRAC Focal Points Meeting (UNEP/NOWPAP/DINRAC/FPM 3/17), the Meeting unanimously elected Dr. Hee-Dong JEONG, DINRAC Focal Point of Korea, as the Chairperson, and Mr. Igor ROSTOV, DINRAC Focal Point of Russia, as the Rapporteur respectively.

Agenda item 2.2: Organization of work

9. The Meeting agreed to apply the rules of procedures for the meeting in line with the provision in the Terms of Reference of the NOWPAP DINRAC Focal Points Meeting (UNEP/NOWPAP/DINRAC/FPM 3/17). English was the working language of the meeting.

Agenda item 2.3: Adoption of the agenda

10. Upon the invitation of the Chairperson, the Director of DINRAC made a brief introduction to the Provisional Agenda (UNEP/NOWPAP/DINRAC/FPM 10/1) and the Annotated Provisional Agenda (UNEP/NOWPAP/DINRAC/FPM 10/2). All the delegates agreed to

proceed with the suggested Agenda.

Agenda item 3: Progress report on the implementation of NOWPAP activities since the Ninth DINRAC Focal Points Meeting

11. The NOWPAP RCU representative briefed the meeting on the progress of the NOWPAP activities during the intersessional period since the Ninth DINRAC FPM, including the results of the Sixteenth NOWPAP Intergovernmental Meeting held in Beijing, China, 20-22 December 2011 (UNEP/NOWPAP/DINRAC/FPM 10/3). He briefly introduced current activities of CEARAC, MERRAC and POMRAC, and efforts made by RCU and RACs on building partnerships with other international mechanisms and programmes, raising public awareness, and the work under the Regional Action Plan on Marine Litter (RAP MALI).

12. The meeting expressed concern that the work on MPAs being implemented by CEARAC may duplicate with DINRAC work. CEARAC representative explained their workplan in this biennium. The meeting understood the difference of two RACs' activities.

13. The Chairperson said NEAR GOOS will discuss about the support to the next CEARAC remote sensing training course in the next NEAR GOOS Coordinating Committee meeting to be held in Seoul in this year. CEARAC representative said they will provide more information for that.

Agenda item 4: Progress made in the implementation of DINRAC workplan for the 2010-2011 biennium

14. The Director of DINRAC presented the report on the overall implementation of DINRAC activities and budget during the 2010-2011 biennium (UNEP/NOWPAP/DINRAC/FPM 10/4, UNEP/NOWPAP/DINRAC/FPM 10/5, UNEP/NOWPAP/DINRAC/FPM 10/6). In his presentation, the specific activities implemented by DINRAC during the 2010-2011 biennium were introduced briefly.

15. Japan representative appreciated DINRAC's work on WebGIS, but he found it was difficult to connect it through internet. DINRAC Secretariat explained that it was because the version of ArcGIS server used by the WebGIS system expired in May 12th, and this problem would be solved soon with collaboration of Chinese Academy of Sciences.

16. Japan representative introduced Japan's "Marine Biodiversity Conservation Strategy" formulated in March 2011.

17. Chinese representative appreciated DINRAC's work on MPAs, and they noticed that some MPAs are out of the boundary of NOWPAP region, they suggested that DINRAC's work should focus on NOWPAP region.

18. RCU representative said some MPAs are not located in sea area, and wanted to make sure how to define MPA. Russian representative said that the definition of MPA was not so clear, and they suggested that, although some Russian Far East MPAs are not located in the sea area, they are close to the sea area and should be in the MPAs database.

19. Chinese representative suggested to enlarge the WebGIS functions in the future, such as to include environmental quality data, thus to make the WebGIS more useful. DINRAC representative responded that they are also considering adding more topics in the WebGIS.

20. RCU representative asked Japan the cause of delay for collection of national data and information for the work on MIS Atlas. Russian experts said it was a difficult job to collect the images of MIS due to copyright concern, and he thought the overall work on MIS Atlas might be finished in two months. Japan representative said they will contact their national expert.

21. POMRAC representative expressed the hope to have more collaboration with DINRAC in future work.

22. RCU representative suggested DINRAC to contact experts as soon as possible for their participation in its planned regional workshop on MIS problems. The Chairperson asked all representatives to support DINRAC fully in this regard.

Agenda item 5. Implementation plan for the annual summary of major marine environmental data available in member states

23. The Director of DINRAC made an introduction of the draft implementation plan for the annual summary of major marine environmental data available in NOWPAP member states (UNEP/NOWPAP/DINRAC/FPM 10/7).

24. Russian representative asked for explanation on the marine environmental standard category in the data collection form example. DINRAC representative answered that the standard refers to the Chinese national sea water quality standard.

25. Russian representative said some data collection work shown in the data collection form might duplicate with the work of POMRAC and CEARAC. DINRAC representative said POMRAC's work on river and direct input and CEARAC's work on HAB were a part of the sources for their data collection, and they were not sufficient to meet the demands of the data collection work. When national experts collect data, they could refer to and use the data from POMRAC and CEARAC to avoid duplicated work.

26. RCU representative said the critical objective was to promote information exchange. To meet the objective, the content of the form should be uniform with clear explanation and also asked an explanation on standards in different countries and suggested not to use some ambiguous terms in the data collection form. DINRAC representative replied that all

information in that example was from the national or provincial reports on marine environmental status in China, and there was no specific data for some items. He added that this is just an example, and in actual work the data items could be adjusted and changed on the basis of data availability in different member states.

27. After discussion on the data collection form, the meeting decided that, first, getting this work started is more important than doing it in a perfect way since it is in the beginning stage of this work; second, as all member states had data basis for this work, this work could be done in the following way: The format for data collection should be data table. As for the types of data, each country will collect major data with parameters in its country depending on data availability. For the next year, the data collection work will be improved based on this year's work. The time scale of the data to be collected should be annual.

28. Russian representative asked if more types of data could be provided. DINRAC representative answered that experts were encouraged to provide more types of data such as maps or diagrams except for data tables. Also, he emphasized that if collected data refer to marine environmental standards, a brief explanation on the standards should be provided.

29. According to the discussion at the meeting, the implementation plan was adopted with revision by the meeting, as shown in Annex III.

Agenda item 6. Implementation plan for the summary of the policies and measures for the prevention of coastal and marine pollution in NOWPAP member states

30. The Director of DINRAC made an introduction of implementation plan for the summary of the policies and measures for the prevention of coastal and marine pollution in NOWPAP member states (UNEP/NOWPAP/DINRAC/FPM 10/8).

31. RCU representative suggested some modification to the implementation plan. He asked to add indication of time period for information collection on page 3, namely, the time period of 2008-2013. Also, the agency or department responsible for a policy or measure should be added in the '*Template for the Summary of Policies and Measures*'. The Chairperson suggested to add more information on author. For *'Major conclusions or points of the review or commentary made by researchers, academics or news media',* all participants agreed to delete that information item.

32. According to the discussion at the meeting, the implementation plan was adopted with revision by the meeting, as shown in Annex IV.

Agenda item 7: Arrangement of the Eleventh DINRAC Focal Points Meeting

33. The meeting agreed that the Eleventh NOWPAP DINRAC Focal Points Meeting will be

held in Busan, Korea in the latter half of May 2013.

Agenda item 8. Other matters

34. DINRAC representative reiterated its need for assistance from the Focal Points and national experts in inviting experts from member states to participate in the planned regional workshop on MIS problems.

35. Korean representative suggested RCU to consider North Korea's participation in NOWPAP as North Korea is in the NOWPAP region. RCU representative said he would bring this information back to his office.

Agenda item 9: Adoption of the report of the meeting

36. The draft report of the Tenth NOWPAP DINRAC Focal Points Meeting (UNEP/NOWPAP/DINRAC/FPM 10/9), with its annexes, were prepared by the Secretariat and Rapporteur for consideration and adoption by the meeting. After minor amendments, the report was adopted by the meeting as the record of its deliberations.

Agenda item 10: Closure of the meeting

37. After the customary exchange of courtesies, the Chairperson declared the Meeting closed at 12:00 am on Thursday, 24 May 2012.

LIST OF ANNEXES

Annex I

List of Participants to the Tenth NOWPAP DINRAC Focal Points Meeting

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Annex II

List of Documents for the Tenth NOWPAP DINRAC Focal Points Meeting

List of Documents for the Tenth NOWPAP DINRAC Focal Points Meeting

Working Documents	
UNEP/NOWPAP/DINRAC/FPM 10/1	Provisional Agenda
UNEP/NOWPAP/DINRAC/FPM 10/2	Annotated Provisional Agenda
UNEP/NOWPAP/DINRAC/FPM 10/3	Report of the NOWPAP Regional Coordinating Unit (RCU) on the implementation of NOWPAP activities since the 9th DINRAC Focal Points Meeting
UNEP/NOWPAP/DINRAC/FPM 10/4	Progress made in the implementation of DINRAC workplan in the 2010-2011 biennium
UNEP/NOWPAP/DINRAC/FPM 10/5	Progress Report on WebGIS Visualization of Marine Environmental Data in the 2010-2011 Biennium
UNEP/NOWPAP/DINRAC/FPM 10/6	Progress Report on Update of the Database on Marine Protected Areas
UNEP/NOWPAP/DINRAC/FPM 10/7	Implementation plan for the annual summary of major marine environmental data available in member states
UNEP/NOWPAP/DINRAC/FPM 10/8	Implementation plan for the summary of the policies and measures for the prevention of coastal and marine pollution in NOWPAP member states
UNEP/NOWPAP/DINRAC/FPM 10/9	Report of 10th NOWPAP DINRAC Focal Points Meeting
Reference Documents	
UNEP/NOWPAP/DINRAC/FPM 10/Ref.1	Announcement of the Tenth NOWPAP DINRAC Focal Points Meeting
UNEP/NOWPAP/DINRAC/FPM 10/Ref.2	Logistic Information for the Tenth NOWPAP DINRAC Focal Points Meeting
UNEP/NOWPAP/DINRAC/FPM 10/Ref.3	List of Documents
UNEP/NOWPAP/DINRAC/FPM 10/Ref.4	List of Participants
UNEP/NOWPAP/DINRAC/FPM 10/Ref.5	Tentative Timetable for the Tenth NOWPAP DINRAC Focal Points Meeting
UNEP/NOWPAP/DINRAC/FPM 9/13	Report of 9th NOWPAP DINRAC Focal Points Meeting
UNEP/NOWPAP IG. 16/12	Meeting Report of the 16th NOWPAP IGM

Annex III
Implementation Plan for the Annual Summary of Major Marine Environmental Data Available in NOWPAP Member States

1. Background

The work of Annual Summary of Major Marine Environmental Data Available in Member States was agreed by the Ninth DINRAC Focal Points Meeting (UNEP/NOWPAP/DINRAC FPM 9/13 Annex V) as one of DINRAC's work during the 2012-2013 biennium and approved by the Sixteenth NOWPAP Intergovernmental Meeting. This draft Implementation Plan was approved by the Tenth DINRAC Focal Points Meeting to facilitate work.

2. Objective

The objective of Annual Summary of Major Marine Environmental Data Available in Member States is to promote information exchange and mutual learning of marine environmental data among the Member States of NOWPAP, thus to assist the Member States to better understand the marine environmental protection efforts taken by each other, and to contribute to marine environmental protection in the Member States.

3. Contents of Work

In order to reach the objective, the work will mainly include the following two parts:

1) Annual collection of data and information according to the designed Data Collection Framework and Data Collection Form

   In principle, the collection of marine environmental data will be done according to the Data Collection Framework (Annex 1) and in the format of the Data Collection Form (Annex 2). In such case that there are more data types or data parameters than listed in the Data Collection Form, or the data types or data parameters listed in the Data Collection Form do not exist, the Data Collection Form can be revised by adding or deleting certain data types according to the data availability in different member states. Annex 3 of this document is an example demonstrating a way to fill in the Data Collection Form, in which some Chinese data in 2010 and 2009 were filled in as an example.

   In such case that the collected data refer to certain marine environmental standards in the member states, a brief description of the standards needs to be provided.

   In 2012, the work will include the collection of marine environmental data in 2010 and 2011 respectively. In 2013, the work will include the collection of marine environmental data in 2012.

2) Organize these data by different categories; upload them to the website of DINRAC in the form of databases for public access and dissemination of the data in hard copies

   The collected data will be compiled together by different categories, thus to have a better

expression of the marine environmental situation in NOWPAP area. A webpage will be designed to accommodate the data in the form of databases with search function. The compilation of the data will be printed out in hard copies for dissemination.

4. Allocation of Work, Budget and Schedule

The work will be carried out on an annual basis. The total budget is estimated to be 16,000 USD for 2012 and 4,000 USD for 2013. The detailed schedule, allocation of work and budget plan are as follows:

1) Annual collection of data (June-September 2012, April-September 2013)

   DINRAC FPs or the Nation Experts designated by FPs will carry out this work during June-September in 2012 and April-September in 2013. The budget for this work in 2012 will be 3,000 USD for each country and 12,000 USD in total. The budget for this work in 2013 is estimated to be 1,000 USD for each country, and 4,000 USD in total.

2) Compilation of the data by different categories; upload to the website of DINRAC in the form of databases for public access and dissemination of the data in hard copies. (October 2012, October 2013)

   DINRAC secretariat would carry out this task in October 2012 and 2013 respectively. The budget for the compilation of the data by different categories and webpage design will be 2,000 USD in 2012. And the budget for the dissemination of the data in hard copies is estimated to be 2,000 USD in 2012.

The following is a table of the schedule, allocation of work and budget:

Table 1 Schedule, Allocation of Work and Budget

No.	Contents of Work	Task Allocation	Budget (USD)	Schedule of Work						
				2012				2013		
				5	6	6-9	10	3	4-9	10
1	Discussion on the Implementation Plan	FPs		➡						
2	Signing MOUs	DINRAC FPs or Experts			➡			➡		
3	Annual collection of data	FPs or Experts	12,000 in 2012 4,000 in 2013			➡			➡	
4	Organize the data by different categories and upload data to the website and dissemination	DINRAC	4,000 in 2012				➡			➡

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Annex 1: Data Collection Framework for the Annual Summary of Major Marine Environmental Data Available in Member States

	Data Category	Geographical Coverage of Data	Source of Data	Frequency of Update
1	Occurrence of Harmful Algal Bloom (through cooperation with CEARAC)	Sea Areas in NOWPAP region	Public Official Documents in Member states and other published sources	Annually
2	River Inputs of Pollutants (through cooperation with POMRAC)			
3	Direct Inputs of Pollutants (through cooperation with POMRAC)			
4	Waste Dumping			
5	Atmospheric Deposition of Pollutants			
6	Sea Water Quality and Major Sea Water Pollutants			
7	Bottom Sediments Quality and Major Pollutants			
8	Other relevant data			

Annex 2: Data Collection Form for the Annual Summary of Major Marine Environmental Data from Public Official Documents

	Data Category	Data Items						
1	**Sea Water Quality and Major Sea Water Pollutants**	**Sea Area**	**Overall Quality**	**Major Pollutants**	**Total Polluted Area (km^2)**	**Major Locations of Major Polluted Areas**		
		Sea Area 1						
		Sea Area 2						
		Sea Area X						
2	**Quantity of River Inputs of Pollutants**	**River Name**	**COD_{Cr}**	**NH_3-N**	**T P**	**Petroleum**	**Heavy metal**	**As**
		River 1						
		River 2						
		River X						
3	**Quantity of Direct Inputs of Pollutants**	**Sea Area**	**Quantity of Waste Water**	**T P**	**SS**	**COD_{Cr}**	**NH_3-N**	
		Sea Area 1						
		Sea Area 2						
		Sea Area X						
4	**Waste Dumping**	**Sea Area**	**Number of Dumping Sites**	**Quantity of Dumping**	**Types of Major Wastes**	**Major Locations**	**Source**	
		Sea Area 1						
		Sea Area 2						
		Sea Area X						
5	**Atmospheric Deposition of Pollutants**	**Sea Area**	**TSP**	**Cu**	**Pb**	**Cd**		
		Sea Area 1						
		Sea Area 2						
		Sea Area X						
6	**Occurrence of**	**Sea Area**	**Number of**	**Total Area**	**Major**	**Major**	**Duration**	

	Harmful Algal Bloom		**occurrence**	**(Km^2)**	**Causative Organisms**	**Locations**		
		Sea Area 1						
		Sea Area 2						
		Sea Area X						
7	**Bottom Sediments Quality and Major Pollutants**	**Sea Area**	**Overall Quality**	**Types of Major Pollutants**				
		Sea Area 1						
		Sea Area 2						
		Sea Area X						
8	**Other data**	**Sea Area/ Location**	**Indicator**	**Indicator**	**Indicator**	**Indicator**		
9	**Data Filled by**	Name: Organization: Address: Email:						

Annex 3: An Example for Filling in the Data Collection Form

Marine Environmental Data in China (2010)

	Data Category	**Data Items**						
1	**Sea Water Quality and Major Sea Water Pollutants**	**Sea Area/Province/City**	**Overall Quality**	**Major Pollutants**	**Total Polluted Area (km^2)**	**Major Polluted Areas**	…	
		Bohai Sea (Total Area: around 77,000km^2)	*Sea Area meeting Category II, III, IV Quality Standard: 15740km^2, 8670 km^2, 5100 km^2* *Sea Area worse than Category IV Quality Standard: 3220 km^2*	*Inorganic nitrogen;* *Active phosphate;* *Petroleum*	*Heavily polluted area: 3220*	*Liaodong Bay;* *Bohai Bay;* *Laizhou Bay* **(2009)**		
		Yellow Sea (Total Area: around 380,000km^2)	*Sea Area meeting Category II, III, IV Quality Standard: 15620km^2, 8100 km^2, 6660 km^2;* *Sea Area worse*	*Inorganic nitrogen;* *Active phosphate;* *Petroleum*	*Heavily polluted area: 6530*	*Dalian Bay,* *Seacoast around Jiangsu* **(2009)**		

			than Category IV Quality Standard: 6530 km^2					
		Shandong(coastal area)	*Sea Area meeting Category II, III, IV Quality Standard: 5726km^2, 2633 km^2, 549 km^2;* *Sea Area worse than Category IV Quality Standard: 554km^2*	*Inorganic nitrogen;* *Active phosphate;* *Petroleum*	*Heavily polluted area: 554*	*Southwest of Laizhou Bay* **(2009)**		
		Jiangsu(coastal area)	*Sea Area meeting Category I & II, III, IV Quality Standard: 21536 km^2, 6836 km^2, 4473 km^2;* *Sea Area worse than Category IV Quality Standard: 4655km^2*	*Inorganic nitrogen;* *Active phosphate;* *Petroleum,* *As, Cu, Zn, Cd, Cr*	*Heavily polluted area: 4655*	*Estuary of Guan River, Estuary of Zhongshan River, Estuary of Sheyang River, Estuary of Liangduonan River, Seacoast around*		

						Qidong						
		Liaoning(coastal area) **(2008)**	*Sea Area meeting Category II, III, IV Quality Standard: 1780 km^2,2173 km^2, 1898 km^2;* *Sea Area worse than Category IV Quality Standard: 1754km^2*	*Inorganic nitrogen;* *Active phosphate;* *Petroleum* *Heavy metals*	*Heavily polluted area: 1754*	*From estuary of Shuangtaizi River to Liao River, Dalian Bay*						
		…										
2	**Quantity of River Inputs of Pollutants**	**River Name**	**COD_{Cr} (ton)**	**NH_3-N (ton)**	**T P (ton)**	**Petroleum (ton)**	**Heavy metal (ton)**	**As(ton)**	**Nutrients (ton)**	**Total amount of Pollutants (ton)**	…	
		Shuangtaizi River	*13 444*	*415*	*2 128*	*217*	*72*	*12*	*717*	*16 287*		
		Yellow River	*549 032*	*12 492*	*1 587*	*5 849*	*692*	*30*	*14 080*	*569 683*		
		Biliu River	*1 288*	*9*	*1*	*2.4*	*0.1*	*0.1*	*10*	*1 241*		
		Rushan River	*2 363.5*	*21.3*	*2.3*	*0.6*	*0.7*	*0.03*	*24*	*2 388*		
		Muzhu River	*1 737.9*	*218.7*	*6.9*	*0.7*	*0.9*	*0.05*	*226*	*1 965*		
		Daliao River	*70 764*			*219*	*76*	*104*	*843*	*75 884*		
		Daling River	*27 295*			*15*	*6.1*	*2.2*	*972*	*27 941*		
		…										
3	**Quantity of**	**Sea**	**Quantity of**	**T P**	**SS**	**COD_{Cr}**	**NH_3-N**	**Pb**	**BOD**	**Number of**	**Total**	…

	Direct Inputs of Pollutants	**Area/Province/City**	**Waste Water**	**(ton)**	**(ton)**	**(ton)**	**(ton)**	**(ton)**	**(ton)**	**monitoring sites**	**amount of pollutants (ton)**	
		Bohai Sea		*Trend: Less, Up-to-Standard Rate: 77.1%*	*Trend: Less, Up-to-Standard Rate:78.2%*	*Trend: Less, Up-to-Standard Rate: 69.3%*	*Trend: less,*			*94*		
		Yellow Sea		*Trend: less*	*Trend: less*	*Trend: less*	*Trend: less*					
		Shandong Province in Bohai Sea		*Up-to-Standard Rate: 54.5%*	*Up-to-Standard Rate:74.2%*	*Up-to-Standard Rate: 45.8%*				*19*		
		Jiangsu Province								*14*		
		Liaoning Province in Bohai sea		*Up-to-Standard Rate: 77.9%*	*Up-to-Standard Rate: 74.4%*	*Up-to-Standard Rate:68.3%*				*30*		
		Shandong province in Yellow Sea		*Up-to-Standard Rate: 56.8%*	*Up-to-Standard Rate: 57.2%*	*Up-to-Standard Rate: 57.8%*				*84*		
		Liaoning Province in Yellow sea		*Up-to-Standard Rate: 79.8%*	*Up-to-Standard Rate: 77.2%*	*Up-to-Standard Rate: 94.9%*				*33*		
		…										
4	**Waste Dumping**	**Sea Area/Province/City**	**Number of Dumping Sites**	**Quantity of Dumping (million m^3)**	**Types of Major Wastes**	**Major Locations**	*…*					

		Bohai Sea	*5*		*Dredged materials*	*Huludao Port, Dalian*		
		Yellow Sea			*Dredged materials*	*Yantai Port*		
		Shandong	*4*	*2 059.6*	*Dredged materials*	*Yantai Port*		
		…						
5	**Atmospheric Deposition of Pollutants(2009)**	**Sea Area**	**TSP**	**Cu**	**Pb**	**Cd**	*…*	
		Bohai Sea	*no obvious change*	*no obvious change*	*no obvious change*	*less*		
		Yellow Sea	*no obvious change*	*no obvious change*	*less*	*less*		
		…						
6	**Occurrence of Harmful Algal Bloom**	**Sea Area/Province/City**	**Number of occurrence**	**Total Area (Km^2)**	**Major Causative Organisms**	**Major Locations**	**Duration**	*…*
		Bohai Sea	*7*	*3 560*	*Pyrrophyta species*	*Sea Area around Qinhuangdao, Tianjin, Liaodong Bay*	*May-July*	
		Yellow Sea	*9*	*735*	*Pyrrophyta species*	*Dalian Bay, Sea Area around Yantai*	*June-September*	

		Shandong	*3*	*12.5*	*Heterosigma akashiwo, Chattonella marina, Pseudonitzschia pungens, Skeletonema costatum*	*Sea Area around Yantai*	*September*	
		Jiangsu	*2*	*220*	*Gymnodinium catenatum*	*Sea Area around Lianyungang*	*April&July*	
		*Liaoning***(2009)**	*1*	*1.5*	*Noctiluca Scintillans*	*Sea Area around Jinzhou*	*July*	
		…						
7	**Bottom Sediments Quality and Major Pollutants**	**Sea Area**	**Overall Quality**	**Types of Major Pollutants**	**Number of sites**	*…*		
		*Bohai Sea***(2009)**	*average*	*Petroleum, As, Cd, PCB*	*75*			
		*Yellow Sea***(2009)**	*good*	*Petroleum, DDT*				
		Liaodong Bay		*Petroleum, Heavy metal*				
		Bohai Bay		*PCB*				
		Laizhou Bay		*Heavy metal*				

		…						
8	**Other Data**	**Sea Area/ Location**	**Parameter**	**Parameter**	**Parameter**	**Parameter**		
9	**Data Filled by**	Name: *Hou Wenwen* Organization: *DINRAC* Address: *No. 1, Yuhuinanlu, Chaoyang District, Beijing 100029, china* Email: *dinrac@mep.gov.cn*						

Annex IV

Implementation Plan
for the Summary of the Policies and Measures on the Prevention of Costal and Marine Pollution in NOWPAP Member States

1. Background

The work of Summary of the Policies and Measures on the Prevention of Costal and Marine Pollution in NOWPAP Member States was agreed by the Ninth DINRAC Focal Points Meeting (UNEP/NOWPAP/DINRAC FPM 9/13 Annex VI) as one of DINRAC's work during the 2012-2013 biennium and approved by the Sixteenth NOWPAP Intergovernmental Meeting. This draft Implementation Plan was approved by the Tenth DINRAC Focal Points Meeting to facilitate work.

2. Objective

The objectives of the Summary of the Policies and Measures on the Prevention of Costal and Marine Pollution in NOWPAP Member States is to promote the exchange of information on policies and measures among NOWPAP Member States regarding the prevention and control of coastal and marine pollution, thus to enable NOWPAP member states know more about each other and learn from each other, and to contribute to the marine environmental protection in the NOWPAP region and in the Member States.

3. Contents of Work

In order to reach the objective, the work will mainly include the following two parts:

1) Summarization of the policies and measures in NOWPAP Member States

   In 2013, latest policies and measures (2008-2013) on the prevention and control of costal and marine pollution in the member states will be summarized according to the Scope of the Summaries of Policies and Measures (Annex 1) and the Template for the Summary of Policies and Measures (Annex 2). The information on policies and measures to be collected will include central and local Laws, regulations, policies, government strategies or plans, government decisions, government measures and activities, government reports on the lasted progresses or difficulties in implementing the regulations and decisions, government reports on the lasted progresses or difficulties in implementing the measures and activities.

2) Compilation of these information by different categories, upload them to the website of DINRAC in the form of databases for public access, and dissemination of the information in hard copies

   After the summarization of each policy or measure is finished and submitted to DINRAC Secretariat, all the summaries will be compiled together and organized by different categories and uploaded to the website of DINRAC in the form of databases. The compilation of the summaries will be printed out in hard copies with the title of "NOWPAP Marine Environmental Policy Brief" and disseminated to

relevant stakeholders.

4. Allocation of Work, Budget and Schedule

The work will to be carried out in 2013. The total budget will be 16,000 USD. The detailed schedule, allocation of work and budget are as follows:

1) Summarization of the policies and measures in NOWPAP Member States (March-October, 2013)

   DINRAC FPs or the Nation Experts designated by FPs will carry out this work in 2013. The budget for this work in 2012 will be 3,000 USD for each country and 12,000 USD in total.

2) Compilation of these information by different categories, upload them to the website of DINRAC in the form of databases for public access, and dissemination of the information in hard copies (2013)

   DINRAC secretariat would carry out this task in 2013. The budget for the compilation of the data by different categories and webpage design will be 2,000 USD in 2013. And the budget for the dissemination of the data in hard copies is estimated to be 2,000 USD in 2013.

The following is a table of the schedule, allocation of work and budget plan.

Table 1 Schedule, Allocation of Work and Budget Plan

No.	Contents of Work	Task Allocation	Budget (USD)	Schedule of Work			
				2012	2013		
					1-2	3-10	11
1	Discussion on the Implementation Plan	FPs		➡			
2	Signing MOUs	DINRAC FPs or Experts			➡		
3	Summarization of Policies and Measures	FPs or Experts	12,000			➡	
4	Compilation of these information by different categories, upload of the summary to DINRAC website and dissemination of the compilation	DINRAC	4,000				➡

Annex 1: Scope of the Summaries of Policies and Measures (2008-2013)

1. Central and local Laws, regulations or policies related to marine environmental protection and biological conservation in NOWPAP region
2. Central and local government strategies or plans related to marine environmental protection and biological conservation in NOWPAP region
3. Central and local government decision related to marine environmental protection and biological conservation in NOWPAP region
4. Central and local government reports on the latest progresses or lessons in implementing the laws, regulations, policies or decisions related to marine environmental protection and biological conservation in NOWPAP region
5. Central and local government measures and activities related to marine environmental protection and biological conservation in NOWPAP region, such as the launch of various kinds of big projects
6. Central and local government reports on the latest progresses or lessons in implementing the measures and activities related to marine environmental protection and biological conservation in NOWPAP region

Annex 2: Template for the Summary of Policies and Measures

Summary No.	*Country-Year-Number (Example: Korea-2012-1)*
Title of the Policy or Measure	*Government plans, major decisions, activities, etc.*
Date of Start/Entry into Force	
Agency Responsible for the Implementation of the Policy or Measure	
Duration of Implementation/Action	
Main Objectives	*Within 50 words*
Main Contents of the Policy or Measure	*Within 500 words*
Expected Results of the Policy or Measure	*Within 100 words*
Latest progress or difficulties reported by government **(Optional)**	
Author of the Summary	*Name:* *Address:* *Email:*
Time of Summary	

Annex 3: Examples for filling the form

Summary No.	*China-2012-1*
Title of the Policy or Measure	*Monitoring System of Air-Carbon Dioxide Flux*
Date of Start/Entry into Force	*2008*
Agency Responsible for the Implementation of the Policy or Measure	*State Ocean Administration of China*
Duration of Implementation/Action	*2008-present*
Main Objectives	*Research on global carbon cycle and global climate change*
Main Contents of the Policy or Measure	*Monitoring CO2 pressure difference and mean of CO2 pressure difference in surface water(μatm), and also mean of Air-Carbon Dioxide Flux(mmol·m-2·day-1).*
Expected Results of the Policy or Measure	*Save energy, reduce CO2 emissions, and respond to climate change*
Latest progress or difficulties reported by government **(Optional)**	*By 2010, the air-sea CO2 flux monitoring system has 20 monitoring sections, 5 shore/island based stations and 5 special monitoring buoys, which constitute a preliminary three-dimensional monitoring and long term monitoring.*
Author of the Summary	*Name: Hou Wenwen* *Organization: DINRAC* *Address: No. 1, Yuhuinanlu, Chaoyang District, Beijing 100029, china* *Email: hou.wenwen@prcee.org*
Time of Summary	*2012-2*

Summary No.	*China-2012-2*
Title of the Policy or Measure	*China Digital Ocean Prototype System (CDOPS)*
Date of Start/Entry into Force	*2003/10*
Agency Responsible for the Implementation of the Policy or Measure	*State Ocean Administration of China*
Duration of Implementation/Action	*2003/10-2011/12*
Main Objectives	*Explore and manage ocean from the perspective of sustainable development.*
Main Contents of the Policy or Measure	*CDOPS is an information system which is based on ocean fundamental geographic data, ocean monitoring data and ocean business data and supported by an interactive and three dimensional visualization platform sphere, realize digital reappearance, forecast and prediction for ocean natural elements, phenomena and their change processes, such as sea bottom, water, sea surface, and islands and coastal zone. It involves technologies and methods such as wideband network, satellite remote sensing imagery data acquisition, mass data storage and compression, interoperability, scientific computing, distributed objects, and virtual reality, spatial data warehouse, metadata database and WebGIS, etc.*
Expected Results of the Policy or Measure	*Benefit China ocean administrations, military departments, professionals, and the general public.*
Latest progress or difficulties reported by government (Optional)	*It broke through pivotal and prospective technologies, and established technology foundation for the digitization of ocean exploitation, management, decision, maintenance for rights and interests.*
Author of the Summary	*Name: Hou Wenwen* *Address: No. 1, Yuhuinanlu, Chaoyang District, Beijing 100029, china* *Email: hou.wenwen@prcee.org*
Time of Summary	*2012-2*