

# NOWPAP DINRAC

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UNEP

## Report of 3rd NOWPAP DINRAC Focal Points Meeting

DINRAC, Busan, Republic of Korea

26 – 28 October 2004

**Editorial Note:**

The Third DINRAC FPM (Busan, Republic of Korea, October 26-28 2004) and the Ninth Intergovernmental Meeting of NOWPAP (Busan, Republic of Korea, November 2-4 2004) were held back to back. The finalization of this report was done after the 9th IGM and therefore reference is made to certain decisions and Resolutions of the 9th IGM. Specifically reference is made to Resolution 1, in which the 9th IGM decides to postpone the final decision on Activity K of the DINRAC revised work plan for 2004/2005, and to make a final decision during the Intersessional Workshop of NOWPAP planned to be held in mid 2005, before the 10th IGM.



## THE THIRD NOWPAP DINRAC FOCAL POINTS MEETING

(DINRAC, Busan, Republic of Korea, October 26-28 2004)

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## **REPORT OF THE MEETING**

### **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. The Second NOWPAP Intergovernmental Meeting held in Tokyo, Japan (20 November 1996) adopted the Program Document describing the implementation of NOWPAP projects. Regarding NOWPAP/1, Intergovernmental Oceanographic Commission (IOC) of UNESCO was designated as the implementing agency to prepare the project proposal for the second phase of the implementation.
3. Subsequently, the proposal for the second phase of the implementation for NOWPAP/1 was adopted at the Fourth NOWPAP Intergovernmental Meeting held in Beijing, China (6-7 April 1999). The Meeting also decided to establish a network of Regional Activity Centres (RACs) for the implementation of the Action Plan.
4. 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 two secretariats for NOWPAP/1 and the NOWPAP/1 Coordinating Working Group (CWG) and took on the responsibilities as defined in its Terms of Reference.
5. Resolution 1 adopted at the Fourth NOWPAP Intergovernmental Meeting also requested the NOWPAP Members to designate necessary members for participation in the NOWPAP/1 CWG. Following up on the nomination and designation of the members of the CWG, the NOWPAP/1 CWG was established. The First Meeting of the Coordinating Working Group for the Establishment of a Comprehensive Database and Information System (NOWPAP/1) was held in Beijing (23-25 May 2001). The meeting approved the workplan and budget for DINRAC for 2001-2003 and identified ten priority fields of activities developed by DINRAC.
6. The Seventh NOWPAP Intergovernmental Meeting held in Vladivostok, Russian Federation (20-22 March 2002) approved the recommendations of UNEP that a network of

Focal Points (FPs) for DINRAC has to be established by re-arranging the title, organization and the responsibilities of the existing Coordinating Working Group in order to improve the implementation of NOWPAP/1. The Seventh NOWPAP Intergovernmental Meeting also requested NOWPAP National Focal Points to nominate the DINRAC Focal Points for their respective countries.

7. Upon decision by the Seventh NOWPAP Intergovernmental Meeting, the CWG and the CWG Meeting for NOWPAP/1 evolved into the NOWPAP DINRAC Focal Points and the NOWPAP DINRAC Focal Points Meeting respectively as the institutional arrangement. The Focal Points Meeting would be organized once a year, starting with the First NOWPAP DINRAC Focal Points Meeting in 2002.

8. The First NOWPAP DINRAC Focal Points Meeting (FPM) was held in Shanghai, China (25-28 November 2002). The meeting presented the NOWPAP DINRAC Report of activities 2001/2002 and reviewed the progress made by DINRAC for specific tasks agreed at the First CWG Meeting and also approved the activities and budget for NOWPAP DINRAC for 2002-2003 (UNEP/ NOWPAP/ DINRAC/ FPM1/13 ANNEX 3).

9. The Second NOWPAP DINRAC Focal Points Meeting was held in Sanya, China (29 October-1 November 2003). Besides the routine DINRAC activity report 2002/2003, the meeting mainly discussed and reviewed the General NOWPAP Policy on Data and Information Sharing and Guidelines (Activity D) and the Establishment of Principles and Guidelines for NOWPAP Meta-database Management System (Activity E). The meeting also approved the workplan and budget for NOWPAP DINRAC for 2004/2005 (UNEP/NOWPAP/DINRAC/FPM2 /15 ANNEX 7).

10. The Eighth NOWPAP Intergovernmental Meeting held in Sanya, China (5-7 November 2003) approved the workplan and budget of NOWPAP for 2004/2005, including the budget of \$150,000 for DINRAC activities (UNEP/NOWPAP/IG.8/11 Annex I Resolution). The meeting also approved the Terms of Reference for the NOWPAP DINRAC Focal Points Meeting.

11. Based upon the agreement of the Second NOWPAP DINRAC Focal Points Meeting, the Third NOWPAP DINRAC Focal Points Meeting was held on 26-28 October, 2004 in Busan, Republic of Korea. Representatives of the NOWPAP Members: China, Japan, Korea and Russia participated in the meeting. The representative of United Nations Environment Programme (UNEP) and the Data and Information Network Regional Activity Centre (DINRAC) acted as secretariat for the meeting. Representatives of other three NOWPAP RACs, the Marine Environmental Emergency Preparedness and Response Regional Activity Centre (MERRAC), the Pollution and Special Monitoring & Coastal Environmental Assessment Regional Activity Centre (CEARAC) and the Pollution Monitoring Regional Activity Centre (POMRAC), participated in the meeting as observers. A full list of participants is attached in Annex I to the present report.

### **Agenda item 1: Opening of the meeting**

12. The meeting was opened at 10:00 a.m. on October 26, 2004 in Busan, Republic of Korea by Mr. Jianguo Wang, Director of DINRAC. Mr. Jianguo Wang expressed his welcome to all the participants and announced the opening of the meeting. In his opening remarks, he expressed his sincere appreciation to KODC and NFRDI for their great efforts and warm hospitality on organization of the Third NOWPAP DINRAC Focal Points Meeting in Busan. He also thanked UNEP for their kind supports and hoped that meeting would be fruitful and successful.

13. Dr. Chul Park, Director of Marine Environment Department, National Fisheries Research and Development Institute, Republic of Korea, extended a warm welcome to Korea to all the meeting participants. He stated that with the increasing need for regional harmonization of dataset and information system, development of database and networks for linking relevant institutions in the NOWPAP region, DINRAC was playing an important role in coordinating various relevant regional activities and offering reliable information services for coastal and marine environment in the NOWPAP region. He believed the DINRAC Focal Points Meeting could exert fruitful results and provide a solid foundation for strategy-making regarding data and information management and guidelines in the NOWPAP region. Then he expressed his hope for a successful and fruitful meeting.

14. On behalf of Dr. Klaus Töpfer, Executive Director of UNEP and Dr. Ellik Adler, Interim Coordinator of NOWPAP, Ms. Hanneke van Lavieren, Programme Officer, Regional Seas Unit, Division of Environmental Policy Implementation, UNEP, expressed her greetings to the participants of the meeting and also her sincere thanks to KODC and NFRDI for their hospitality. She stressed the importance of the Fifth Global Meeting of Regional Seas Programme in 2003 for the strategic directions of the whole Regional Seas Programme including NOWPAP. She also noted the opening of RCU offices would be historical and important event for the NOWPAP. In her remarks, Ms. Lavieren also expressed that DINRAC had made great progress through the implementation of activities since the Second NOWPAP DINRAC Focal Points Meeting.

### **Agenda item 2: Organization of the meeting**

#### **Agenda item 2.1: Election of the officers (Chairman, Rapporteur)**

15. Following the proposal by the Director of DINRAC, the meeting unanimously elected Dr. Igor Rostov, the DINRAC Focal Point from Russia, as the Chairman, and Dr. Xiangbin Pei, the DINRAC Focal Point from China, as the Rapporteur.

16. The meeting agreed to apply *mutates mutandis* 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).



17. The Director of DINRAC presented a provisional list of documents as presented in Annex II.

Agenda item 2.2: Adoption of the agenda

18. The Chairman introduced the Provisional Agenda (UNEP/NOWPAP/DINRAC/FPM 3/1) with the Annotated Provisional Agenda (UNEP/NOWPAP/DINRAC/FPM 3/2). The representatives of Japan suggested an order change of the Agenda item 5.1 and 5.2. They explained the discussion on the mechanism for implementation of the DINRAC activities was crucial and should be discussed before the specific projects discussions. The participants agreed with the suggestion and the meeting adopted the amended Agenda (Annex III).

**Agenda item 3: UNEP's presentation of interim coordination of NOWPAP**

19. The representative of UNEP presented an overview of UNEP's Regional Seas Programme (RSP) and the progress of the NOWPAP activities. She gave a general introduction to the Regional Seas Conventions and Action Plans, including main objectives and basic elements for the success of RSPs. She also reported to the meeting the main results of the Eighth IGM held in Sanya, the People's Republic of China, 5-7 November 2003. The NOWPAP Regional Oil Spill Contingency Plan and its associated MOU, the ToRs for the RACs Focal Points Meetings and Workplans and Budget for the biennium 2004/2005 were adopted and approved. Then Ms. Lavieren informed that the Regional Coordinating Unit (RCU) offices would be established in Toyama, Japan and in Busan, Republic of Korea. She also mentioned the RCU offices, possible activities of RACs and the future of NOWPAP after the establishment of RCU.

20. Subsequently, Dr. Igor Rostov, Russian Focal Point, presented a report on the status of data and information management systems in the Russian Federation during the intersessional period after the last DINRAC Focal Points Meeting. The presentation consisted of data holders, related regional issues and reports of 2004 and the new data and information products.

21. The Director of DINRAC expressed his thanks for the good presentation made by Dr. Rostov. Mr. Jianguo Wang was very appreciative for his working attitude and encouraged the other Focal Points of NOWPAP Members to actively participate in the DINRAC activities.

**Agenda item 4: Overview of the progress made in the inter-sessional period after the Second NOWPAP DINRAC Focal Points Meeting**

Agenda item 4.1: NOWPAP DINRAC activities report for 2003/2004 biennium

22. The Director of DINRAC reported on the activities implemented during the inter-sessional

period after the Second NOWPAP DINRAC Focal Points Meeting from November 2003 to October 2004(UNEP/NOWPAP/DINRAC/FPM 3/6)(Annex IV). After his presentation, Mr. Wang invited suggestions and comments on the activities from the participants.

23. The representative of UNEP expressed that DINRAC had made great progress especially in the biennium 2003/2004. She hoped that the products of DINRAC would be used practically in the future. Regarding to the cooperation with IOC, she stated the establishment of links between DINRAC and IOC would be the new task of RCU.

24. With regards to the two databases of NowpapExpert and NowpapInstitution, Ms. Lavieren suggested DINRAC should plan the frequency of the enrichment and update of records in the databases. Mr. Yudong Zhu of DINRAC also explained on the current status in NowpapExpert and NowpapInstitution and fully agreed to the suggestion of Ms. Lavieren and representative of Korea that the Focal Points in each NOWPAP Member should update data and information in the two databases directly through internet.

25. The representative of Korea suggested that DINRAC should continue its efforts on the coordination with the State Ocean Administration of China (SOA). DINRAC would report it to the Chinese government.

Agenda item 4.2: Report on the annual expenditure of DINRAC budget for 2002/2003 biennium

26. The report on the annual expenditure of DINRAC budget for 2002/2003 biennium was delayed to be discussed under Agenda item 7.

Agenda item 4.3: Discussion on the progress made on the draft policy document and principles and guidelines drafted by Dr. Suzuki

Agenda item 4.3.1: Introduction of progress made on the draft document of General NOWPAP Policy on Data and Information Sharing (Activity D)

27. Dr. Toru Suzuki made a brief introduction of the General NOWPAP Policy on Data and Information Sharing (UNEP/NOWPAP/DINRAC/FPM3/13)(Annex V). This policy document is mainly based on the IOC Oceanographic Data Exchange Policy (IOC-XXII/3 prov, Twenty-second Session of the Assembly, Paris, 24 June-4 July 2003) with some modifications. He indicated the present status and utilization of the existing oceanographic and meteorological data exchange systems and tasks of NOWPAP Members and DINRAC.

28. The Director of DINRAC expressed that the NOWPAP Policy on Data and Information Sharing was just a general policy for the whole NOWPAP including other RACs. He briefly reviewed the history of the policy document development and introduced three options for the resolution of policy document: 1) The Focal Points Meeting concluded its work on the texts of

the draft General NOWPAP Policy on Data and Information Sharing and agreed to forward the texts to the next Intergovernmental Meeting on NOWPAP. 2) There is no need for a much more elaborated document on the data and information (DIN) Sharing Policy. NOWPAP can adopt a DIN sharing policy which is basically the IOC policy or any other Action Plan Policy with some regional adaptations. DINRAC will finalize the document and present them as draft for approval during the next DINRAC FPM. 3) There is a need for more substance in both documents. Extra consultant/s will be hired with the guidance and direction from the FPs of the meeting and IOC/WESTPAC.

29. The representative of Korea suggested that the direction of DINRAC should be clarified and the statement on the tasks of DINRAC and NOWPAP Members should be revised in the policy document.

30. After a short discussion, the meeting unanimously accepted the option 1 and adopted the NOWPAP Policy on Data and Information Sharing with Section 5 of the policy document revised by Dr. Suzuki.

Agenda item 4.3.2: Introduction of progress made on the draft document of the Establishment of Principles and Guidelines for NOWPAP DINRAC Meta-database Management System (Activity E)

31. Dr. Toru Suzuki introduced the draft document on Principles and Guidelines for NOWPAP DINRAC Meta-database Management System revised after the Second DINRAC FPM (UNEP/NOWPAP/DINRAC/FPM3/14) and explained its contents.

32. The representative of Japan noted that the NOWPAP core metadata elements in the framework for the creation of NOWPAP DINRAC Meta-database should be taken into consideration in the metadata guideline document.

33. The representative of UNEP reminded Dr. Suzuki to compare the Principles and Guidelines for NOWPAP DINRAC Meta-database Management System and the draft framework for the creation of NOWPAP DINRAC Meta-database prepared by DINRAC for consistency.

34. After a lengthy discussion on the contents of guideline document, the meeting also agreed in principle with the Principles and Guidelines for NOWPAP DINRAC Meta-database Management System with some modification. It was decided that DINRAC should communicate with Dr. Suzuki and finish the revision and adjustment of the guideline document before its submission to the next Intergovernmental Meeting.

Agenda item 4.4: Report on the status of data and information management systems in Russia

35. It has been reported by Dr. Igor Rostov, the DINRAC Focal Point from Russia under

Agenda item 3.

**Agenda item 5: New suggested future activities**

Agenda item 5.1: Discussion on mechanisms for implementation of the DINRAC activities

36. The Director of DINRAC suggested to integrate the discussion on the mechanism of leading countries with the discussion on the draft ToR for NOWPAP DINRAC expert group. The meeting agreed with the suggestion.

37. The Director of DINRAC introduced the examples of working groups of POMRAC and CEARAC and expert group of MERRAC and emphasized the role of NOWPAP DINRAC expert group should be strengthened. Then he introduced the draft Terms of Reference for the NOWPAP DINRAC expert group (UNEP/NOWPAP/DINRAC/FPM3/9) and invited the meeting to consider the draft article by article and adopt the draft ToR.

38. Mr. Masanobu Miyazaki, the Director of CEARAC and Dr. Jeong-Hwan Oh, the representative of MERRAC were also invited to explain working group mechanisms and the leading country for expert group mechanism implemented in their RACs.

39. The representative of UNEP expressed that the ToR for the NOWPAP DINRAC expert group was good and quite necessary as the first step for a DINRAC mechanism to implement activities.

40. The representative of China proposed to invite suggestions and comments from experts on the draft ToR for the NOWPAP DINRAC expert group.

41. After considering and examining the draft document, the meeting basically agreed on the text of Terms of Reference for NOWPAP DINRAC Expert Group with minor modification (Annex VI).

42. Subsequently, the Chairman invited Dr. Nikolay A. Rykov to introduce the proposal of providing data on marine environment quality through national websites and requested the meeting to discuss it.

43. The Director of DINRAC and the representative of Korea both agreed that the proposal by Russian Focal Point should be more detailed before discussion and requested more explanation on the term of "national websites" into the proposal. The discussion on the proposal was postponed to the Agenda item 9.

Agenda item 5.2: New suggested specific activities

Agenda item 5.2.1: Framework for the creation of NOWPAP DINRAC Meta-database

44. The Director of DINRAC presented to the meeting the draft framework for the creation of NOWPAP DINRAC Meta-database (UNEP/NOWPAP/DINRAC/FPM3/11). He noted the framework was more detailed and different from the Principles and Guidelines for NOWPAP DINRAC Meta-database Management System drafted by Dr. Toru Suzuki.

45. Dr. Toru Suzuki, the representative of Japan expressed his thanks for the great work DINRAC had done. He stressed it was really complex but necessary for DINRAC to establish the Meta-database Management Center (MMC) in DINRAC.

46. Dr. Hee-Dong Jeong, the representative of Korea suggested the creation of NOWPAP DINRAC Meta-database should be linked with North Pacific Ecosystem Metadatabase (NPEM) implemented by North Pacific Marine Science Organization (PICES).

47. Ms. Hanneke van Lavieren agreed that the DINRAC's meta-database should serve the whole NOWPAP programme. She requested that the objective and the most practical way to implement Activity I should be made clear in the future.

48. The Director of DINRAC reiterated the framework was just the first step for the creation of NOWPAP metadata exchange network. The specific implementing mechanisms and procedures for the Activity I would be settled in the next step of the activity.

49. After a lengthy discussion, the meeting agreed with the contents of the framework for the creation of NOWPAP DINRAC Meta-database in principle. The option 3 to exchange metadata in the NOWPAP metadata exchange network was thought to be most acceptable.

Agenda item 5.2.2: Studies on existing GIS-type products from within and outside of NOWPAP

50. The Director of DINRAC presented to the meeting the draft Terms of Reference for the Studies on GIS-Type Products within and outside of NOWPAP Programme (UNEP/NOWPAP /DINRAC/FPM3/12).

51. According to the suggestions from the representatives of China and Japan, the title of the draft document should be changed to the Proposal for Activities on GIS-Type Products within and outside of NOWPAP Programme.

52. The representative of UNEP noted that the information collected in the national report on the current status of existing GIS-type Products in the NOWPAP region by NOWPAP Members should not be specific or limited to certain fields but be a general and comprehensive review. To avoid the duplication with national reports on remote sensing by CEARAC, she also

expressed it would be useful to coordinate between the RACs.

53. The Director of DINRAC expressed the national reports on remote sensing of CEARAC could be used or integrated into the DINRAC meta-database after discussion with RCU and CEARAC.

Agenda item 5.2.3: Cooperation with IOC on NEARGOOS activities

54. The Director of DINRAC emphasized the importance of cooperation between DINRAC and other relevant international organizations and expressed the good relationships should be established in the future.

55. The representative of UNEP noted that coordination and cooperation with other organizations would be the main task of RCU. She requested the meeting participants to keep in mind DINRAC was not the only one in the field of marine data and information exchange. It would be helpful for DINRAC to establish good links with other international agencies.

Agenda item 5.2.4: Development of coastal and marine biodiversity data and information activities

56. Mr. Yudong Zhu of DINRAC put forward a proposal for the compilation of a regional report on coastal and marine biodiversity data and information in the NOWPAP region with suggestions from interim secretariat of NOWPAP (UNEP/NOWPAP/DINRAC/FPM3/16). He noted the global status and requirements on the coastal and marine biodiversity data and information and emphasized the importance and necessity of related information research on coastal and marine biodiversity conservation in the NOWPAP region.

57. DINRAC suggested that Focal Points of each NOWPAP member should organize experts to conduct an initial survey and draft a national report on the current status of existing data and information concerning coastal and marine biodiversity in each country. Then DINRAC would hire a consultant to compile a regional report based on the national reports submitted.

58. The meeting participants confirmed the importance of this activity but also considered its difficulty and complexity.

59. The representative of UNEP noted that the Intergovernmental Meeting (IGM) would make the overall decision. One function of Focal Points Meeting is to put forward proposals for IGM to approve.

60. The meeting agreed that the proposal would be added into the workplan for DINRAC in the biennium 2004/2005.

**Agenda item 6: Discussion on the organization of the 2005 Expert Group Meeting**

61. It was also decided that an Expert Group Meeting should be held in the inter-sessional period after the Third NOWPAP DINRAC Focal Points Meeting. The Director of DINRAC noted that the 2005 Expert Group Meeting would be very important and it would focus on the project proposals made for DINRAC in the near future.

**Agenda item 7: Revision of the proposed workplan and budget for the 2004/2005 biennium**

62. The Director of DINRAC presented a detailed report on the expenditure and budget of DINRAC for the 2002/2003 biennium (UNEP/NOWPAP/DINRAC/FPM 3/7). The meeting reviewed and approved the final budget of DINRAC for 2002/2003.

63. The Director of DINRAC presented the draft workplan and budget for the DINRAC activities for the 2004/2005 biennium (UNEP/NOWPAP/DINRAC/FPM3/8), which was revised taking into account the decisions of the Second NOWPAP DINRAC Focal Points Meeting (UNEP/NOWPAP/DINRAC/FPM2/15) and the Eighth NOWPAP Intergovernmental Meeting (UNEP(DEC)/NOWPAP/IG.8/11 Resolution 1). He requested the meeting to review the new suggested activities and budget for DINRAC for 2004/2005.

64. Upon the suggestion of Dr. Jeong, the representative of Korea, a side meeting was held on the decisions of workplan with attendance of only one representative from each NOWPAP Member. The Chairman, Dr. Igor Rostov announced the decisions unanimously made by the side meeting: 1) Activity K is changed from "Exchange of Detailed Information and Publication of a Regional Review" to "Compilation of a Regional Report on Coastal and Marine Biodiversity Data and Information"; 2) The budget for the Activity K remains the same as before; 3) The Activity D and Activity E had be completed and the left budget for these two Activities (total US\$9,000) should be divided into two parts (The budget of US\$7,000 would be allocated to the Activity I and the budget of US\$2,000 to the Activity J).

65. Following the decisions of the side meeting and discussions on the relevant issues, priorities and activities of DINRAC, the meeting agreed on the modification of the Workplan and Budget for the DINRAC Activities in Biennium 2004/2005 as presented in Annex VII.

**Agenda item 8: Preparations for the Fourth NOWPAP DINRAC Focal Points Meeting**

66. The meeting reached an agreement on the venues and dates of the Fourth NOWPAP DINRAC Focal Points Meeting. The Fourth NOWPAP DINRAC Focal Points Meeting will be held in the People's Republic of China in autumn of 2005.

**Agenda item 9: Other matters**

67. Mr. Yudong Zhu of DINRAC explained the final version of the ToR for the DINRAC Focal Points Meeting approved by the Eighth Intergovernmental Meeting (UNEP/NOWPAP/DINRAC/FPM 3/17).

68. The Director of DINRAC presented the Draft Arrangement of Existing Tasks and Identification of Additional Tasks for Inter-sessional Period (UNEP/NOWPAP/DINRAC/FPM3/15).

69. The meeting agreed on the routine tasks and the specific projects coordinated by DINRAC for 2004/2005, as detailed in the Existing Tasks, Leading Country/Institution, Required Actions and Expected Outputs for 2004/2005 Biennium (Annex VIII).

70. The meeting also decided on the leading country/institution responsible for each specific project. In particular, the Republic of Korea is the leading country to implement the Activity I: Framework for the Creation of NOWPAP DINRAC Meta-database; DINRAC is the leading institution to implement Activity J: Activity on Existing GIS-type Products from within and outside NOWPAP Programme and Activity K: Compilation of a Regional Report on Coastal and Marine Biodiversity Data and Information.

71. With regard to the proposal of providing data on marine environment quality through national website by the Russia Focal Point, it was decided to be further developed and discussed more in detail at the expert group meeting held in 2005.

**Agenda item 10: Adoption of the report of the meeting**

72. The draft report of the Third NOWPAP DINRAC Focal Points Meeting was prepared for consideration and adoption. Dr. Xiangbin PEI, the meeting rapporteur hosted the approving of the meeting report. The report was adopted by the meeting as the record of its deliberations.

**Agenda item 11: Closure of the meeting**

73. After the customary exchange of courtesies the Director of DINRAC declared the meeting closed at 11: 00 a.m. on Thursday, 28 October 2004.



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<b>Annex IV</b>	NOWPAP DINRAC Activities Report for 2003/2004 Biennium
<b>Annex V</b>	General NOWPAP Policy on Data and Information Sharing
<b>Annex VI</b>	Terms of Reference for the NOWPAP DINRAC Expert Group
<b>Annex VII</b>	Workplan and Budget for the DINRAC Activities in the Biennium 2004/2005
<b>Annex VIII</b>	Existing Tasks, Leading Country/Institution, Required Actions and Expected Outputs for 2004/2005 Biennium

## **Annex I**

### **List of Participants to the Third NOWPAP DINRAC Focal Points Meeting**

## **Annex I**

### **List of Participants to the Third NOWPAP DINRAC Focal Points Meeting (Busan, Korea, October 26 - 28 2004)**

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## **Annex II**

### **List of Documents for the Third NOWPAP DINRAC Focal Points Meeting**

## Annex II

### List of Documents for the Third NOWPAP DINRAC Focal Points Meeting

#### Working Documents

UNEP/NOWPAP/DINRAC/FPM 3/1	Provisional Agenda
UNEP/NOWPAP/DINRAC/FPM 3/2	Annotated Provisional Agenda
UNEP/NOWPAP/DINRAC/FPM 3/3	List of Documents
UNEP/NOWPAP/DINRAC/FPM 3/4	List of Participants
UNEP/NOWPAP/DINRAC/FPM 3/5	List of DINRAC Focal Points
UNEP/NOWPAP/DINRAC/FPM 3/6	Report on the Activities of DINRAC in the Biennium 2003-2004
UNEP/NOWPAP/DINRAC/FPM 3/7	Report on the Annual Expenditure of DINRAC Budget for the 2002/2003 Biennium
UNEP/NOWPAP/DINRAC/FPM 3/8	Workplan and Budget for the DINRAC Activities for the 2004/2005 Biennium
UNEP/NOWPAP/DINRAC/FPM 3/9	Terms of Reference for the NOWPAP DINRAC Expert Group
UNEP/NOWPAP/DINRAC/FPM 3/10	Progress Report on the DINRAC Projects
UNEP/NOWPAP/DINRAC/FPM 3/11	Framework for the Creation of NOWPAP DINRAC Meta-database
UNEP/NOWPAP/DINRAC/FPM 3/12	Terms of Reference for the Studies on GIS-type Products within and outside of NOWPAP
UNEP/NOWPAP/DINRAC/FPM 3/13	General NOWPAP Policy on Data and Information Sharing
UNEP/NOWPAP/DINRAC/FPM 3/14	Principles and Guideline for NOWPAP DINRAC Meta-database Management System
UNEP/NOWPAP/DINRAC/FPM 3/15	Draft Arrangements of the Existing Tasks and Identification of Additional Tasks for Intersessional Work

UNEP/NOWPAP/DINRAC/FPM 3/16	Proposal for the Compilation of a Regional Report on Coastal and Marine Biodiversity Data and Information
UNEP/NOWPAP/DINRAC/FPM 3/17	Report on the Terms of Reference for the NOWPAP DINRAC Focal Points Meeting Approved by the Eighth NOWPAP Intergovernmental Meeting
UNEP/NOWPAP/DINRAC/FPM 3/17/1	Changes of the Revised Terms of Reference for the NOWPAP DINRAC Focal Points Meeting at the Eighth NOWPAP Intergovernmental Meeting
UNEP/NOWPAP/DINRAC/FPM 3/18	Report of 3rd NOWPAP DINRAC Focal Points Meeting

#### **Reference Documents**

UNEP/NOWPAP/DINRAC/FPM 2/15	Report of Second NOWPAP DINRAC Focal Points Meeting (Sanya, the People's Republic of China, 29 October-1 November 2003)
UNEP/IMO/NOWPAP/MERRAC/FPM 7/4	Report on the Annual Expenditure of MERRAC Budget for the Biennium 2002/2003
UNEP/IMO/NOWPAP/MERRAC/FPM 7/19 Annex V	The Budget for MERRAC Activities in 2004/2005 biennium
UNEP/NOWPAP/CEARAC/FPM 2/10 Annex IV	The Workplan and Budget for CEARAC for 2002/2003
UNEP/NOWPAP/CEARAC/FPM 2/10 Annex X	The Workplan and Budget for CEARAC for 2004/2005
FGDC-STD-001-1998	Content Standard for Digital Geospatial Metadata
IOC User Manual, UNESCO 2002	MEDI: The IOC Metadata System Software User Manual

### **Annex III**

#### **Agenda of the Third NOWPAP DINRAC Focal Points Meeting**

## Annex III

### Agenda of the Third NOWPAP DINRAC Focal Points Meeting

1. Opening of the meeting
2. Organization of the meeting
  - 2.1. Election of the officers (Chairperson, Rapporteur)
  - 2.2. Adoption of the agenda
3. UNEP's presentation of interim coordination of NOWPAP
4. Overview of the progress made in the inter-sessional period after the Second NOWPAP DINRAC Focal Points Meeting
  - 4.1. NOWPAP DINRAC activities report for 2003/2004 biennium
  - 4.2. Report on the annual expenditure of DINRAC budget for 2002/2003 biennium
  - 4.3. Discussion on the progress made on the draft policy document and principles and guidelines drafted by Dr. Suzuki
    - 4.3.1. Introduction of progress made on the draft document of General NOWPAP Policy on Data and Information Sharing (Activity D)
    - 4.3.2. Introduction of progress made on the draft document of the Establishment of Principles and Guidelines for NOWPAP DINRAC Meta-database Management System (Activity E)
  - 4.4. Report on the status of data and information management systems in Russia
5. New suggested future activities
  - 5.1. Discussion on mechanisms for implementation of the DINRAC activities
  - 5.2. New suggested specific activities
    - 5.2.1. Framework for the creation of NOWPAP DINRAC Meta-database
    - 5.2.2. Studies on existing GIS-type products from within and outside of NOWPAP
    - 5.2.3. Cooperation with IOC on NEARGOOS activities
    - 5.2.4. Development of coastal and marine biodiversity data and information activities
6. Discussion on the organization of the 2005 Expert Group Meeting
7. Revision of the proposed workplan and budget for the 2004/2005 biennium

8. Preparations for the Fourth NOWPAP DINRAC Focal Points Meeting
9. Other matters
  - 9.1. Report on the Terms of Reference for the NOWPAP DINRAC Focal Points Meeting
  - 9.2. Arrangement of existing tasks and identification of additional tasks for inter-sessional period
  - 9.3. Discussion on the proposal of providing data on marine environment quality through national website by the Russian Focal Point
10. Adoption of the report of the meeting
11. Closure of the meeting

**Annex IV**

**NOWPAP DINRAC Activities Report for 2003/2004 Biennium**

## **Annex IV**

### **NOWPAP DINRAC Activities Report for 2003/2004 Biennium**

#### **1. Introduction**

Based on the Project Proposal for Phase II of the Establishment of a Comprehensive Database and Information Management System (NOWPAP/1) and the Resolution 2 of the Fourth Intergovernmental Meeting on the NOWPAP (Beijing, 6-7 April 1999), Institutional Arrangements for Implementation of NOWPAP, “decided to designate the Regional Activity Centre, as described in Annex VII of the UNEP (Water)/NOWPAP IG.4/7”, the NOWPAP Data and Information Network Regional Activity Centre (NOWPAP DINRAC) was designated to established.

In December 2000, NOWPAP DINRAC was formally established in Environmental Information Center (EIC) of State Environmental Protection Administration of China (SEPA). The purpose of the establishment of NOWPAP DINRAC is to coordinate various regional activities relevant to DINRAC and to offer the reliable and up-to-date information services for coastal and marine environment in NOWPAP region. Especially, the Centre is currently functioning as secretariat for the NOWPAP DINRAC Focal Points Meeting, Experts Meeting, and the NOWPAP Regional Policy on Data and Information Sharing and NOWPAP Regional Marine and Coastal Meta-database with assistance from UNEP. The Center also manages the NOWPAP DINRAC Homepages.

DINRAC has the specific objective to coordinate regional activities, as specified in the terms of reference decided at the Fourth Intergovernmental Meeting. DINRAC was established recognizing that the activities under NOWPAP produce information on a number of different topics from several sources, the need for regional harmonization of data sets and information system, development of databases and networks for linking relevant institutions in the region and providing coherent information to serve the needs of the regions, as well as the need to develop protocols on data sharing. The development of a comprehensive database and information management system for the region through activity is coordinated and implemented by DINRAC. Other priority activities included building further data management capacity in the region and developing guidelines and a regional policy on data and information sharing.

DINRAC activities are carried out in consultation with the other NOWPAP RACs for efficient information exchanges as well as in close collaboration with e.g. the IOC of UNESCO and UNEP on specific topics.



## **2. Organization, Staff and Budget**

DINRAC is a division within the premises of Environmental Information Center of SEPA. Five staff members are currently employed at DINRAC with the financial support from the government of China. SEPA sponsors all DINRAC staffs salary and facilities on a total USD \$50,000 annually. DINRAC is also funded by NOWPAP Trust Fund approved by Eighth NOWPAP Intergovernmental Meeting on a total USD \$150,000 for the biennium 2004/5 for the DINRAC activities such as Focal Points Meeting, Experts Meeting, Specific Projects and others.

## **3. Major Activities of DINRAC in the Biennium 2003-2004**

### **1) The Second NOWPAP DINRAC Focal Points Meeting:**

The Second NOWPAP DINRAC Focal Points Meeting with the DINRAC Experts meeting took place in Sanya, Hainan province of China, from 29, October to 1 November 2003, with kind support from UNEP. The first day of the meeting discussed the draft of the DINRAC important documents on the "Establishment of the NOWPAP Policy on Data and Information Sharing" and on the "Establishment of Principles and Guidelines for NOWPAP Meta-database Management System" among the experts from 4 NOWPAP Members. The draft Terms of Reference for the NOWPAP DINRAC Focal Points Meeting was discussed and it was adopted by the Meeting. The report on the Activities of DINRAC in the Biennium 2002/03, the workplan and budget for DINRAC in the biennium 2004/05 were also discussed, revised and approved by the meeting.

### **2) Harmonization and Completion of National Reports on Coastal and Marine Environmental Data and Information Networks in the Northwest Pacific Region:**

In line with the agreement of the First DINRAC Focal Points Meeting, DINRAC has developed an outline for National Reports based on the format of IOC National Report on Data and Information Networks. The new format was then distributed to UNEP and Focal Points of four Members for their review. As a result four Members report on the status of data and information management system in their countries respectively following by the consistent new National Report Format. The collecting and printing of the final National Reports will be finished before the Third DINRAC FP Meeting.

### **3) Develop, Update, Maintenance and Enrichment of NOWPAP DINRAC Website:**

The URL of NOWPAP DINRAC website is <http://dinrac.nowpap.org>. The layout was updated in June, 2003. There are 9 categories as: Regional Seas, About NOWPAP, NOWPAP DINRAC, NowpapInstitution, NowpapExpert, Related Organizations, Activities, Documents and Contact

us. Sitemap, Feedback and the Internal Website were also developed in the website. All documents for the DINRAC Focal Points Meeting and Intergovernmental Meeting on NOWPAP could be downloaded.

#### **4) Finalized the NOWPAP Institutions and Experts Database on Coastal and Marine Environment:**

NowpapExpert and NowpapInstitution, NOWPAP Institutions and Experts Database on Coastal and Marine Environment, are intended to be a tool for scientists, policy-makers and anyone else who is interested in getting information on coastal or marine environmental experts and/or institutions in NOWPAP region. The focal points of four member countries have submitted their questionnaires to DINRAC before March 2004 respectively. The databases of NOWPAP expert and NOWPAP Institutions have been created and some searching programs for the databases also developed for convenient using. Records of NOWPAP expert and NOWPAP Institutions reached to 744 and 167 in two databases in the member countries respectively. The data accessing, addition and modification in the databases are also available through DINRAC Website.

#### **5) Participated in the NOWPAP Intergovernmental Meetings and RACs FP Meetings:**

The director of DINRAC attended at the Eighth IG Meeting held in Sanya, Hainan Province of China from 5 to 7 November 2003. Ms. Shang Yi of DINRAC participated in the second NOWPAP CEARAC Focal Points Meeting, held on 15-17 March 2004 in CEARAC (Toyama, Japan). Ms. Liu Liyuan of DINRAC participated in the Seventh NOWPAP MERRAC Focal Points Meeting, held on 18-21 May 2004 in MERRAC (Daejeon, the Republic of Korea). Mr. Yudong ZHU of DINRAC participated in the Working Group 2 Meeting held on 24-25 and the second NOWPAP POMRAC Focal Points Meeting held on 26-28 May 2004 in Vladivostok, Russia.

#### **6) Publication of DINRAC Newsletter:**

The Second issue of the DINRAC Newsletter has been published in August 2004 and distributed to all persons who are directly concerned with DINRAC's activities and with marine environmental data and information network in the NOWPAP region.

#### **7) The Third NOWPAP DINRAC Focal Points Meeting:**

The Third NOWPAP DINRAC Focal Points Meeting will take place in Busan, the Republic of Korea, from 26 to 28 October 2004, with kind support from UNEP. The meeting will overview of the progress made in the inter-sessional period after the Second NOWPAP DINRAC Focal Points Meeting. The Report on the Activities of DINRAC in the Biennium 2003/4, the work plan and budget for DINRAC in the biennium 2004/5 will also be discussed, revised and approved

by the Meeting. New suggested future activities: Framework for the creation of NOWPAP DINRAC Meta-database, Studies on existing GIS-type products from within and outside of NOWPAP, Cooperation with IOC on NEAR-GOOS activities and Biological oceanographic data will be established. The new mechanisms for implementation of new DINRAC activities will be created by the meeting consensus. The organization of the 2005 Experts Meeting, Revision of the proposed DINRAC workplan and budget for 2004/2005 biennium, the Fourth DINRAC Focal Points Meeting are the main topics of the meeting.

**8) Sixth IOC/WESTPAC International Scientific Symposium and Eighth Session of IOC/WESTPAC Coordinating Committee for the NEAR-GOOS:**

Mr. Jianguo Wang and Ms. An Tong of DINRAC participated in the Workshop on Development of Data and Products in Operational Oceanography, held on 21-22 April 2004 in conjunction with the Sixth IOC/WESTPAC International Scientific Symposium in Hangzhou, China. The workshop aims to discuss the implementation of the NEAR-GOOS strategy at its second phase and strengthening collaboration with related organizations/programs in the region.

Mr. Jianguo Wang participated in the Eighth Session of IOC/WESTPAC Coordinating Committee for the NEAR-GOOS, held on 8-10 December 2003 in Beijing, China. He presented a paper regarding the activities of DINRAC. The main objective of the session was to discuss the Second Phase (2002-2007) NEAR-GOOS Strategy Plan.

## **Annex V**

### **General NOWPAP Policy on Data and Information Sharing**

## Annex V

### General NOWPAP Policy on Data and Information Sharing

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## **1. Introduction**

The Action Plan for the protection, management and development of the marine and coastal environment of the Northwest Pacific Region (NOWPAP) was adopted at the First Intergovernmental Meeting (Seoul, R. Korea, 14 September 1994) by representatives of the People's Republic of China, Japan, the Republic of Korea and Russian Federation (hereafter as NOWPAP Members). The geographical scope for this Action Plan is the marine and coastal zone from about 121°E to 143°E and from approximately 33°N to 52°N (hereafter as NOWPAP Region), without prejudice to the sovereign right of any NOWPAP Members.

The contents of seven priority activities include:

- NOWPAP/1: Establishment of a comprehensive database and information management system;
- NOWPAP/2: Survey of national environment legislation, strategies and policies;
- NOWPAP/3: Establishment of a collaborative, regional monitoring programme;
- NOWPAP/4: Development of effective measures for regional co-operation in marine pollution preparedness and response;
- NOWPAP/5: Commence the establishment of Regional Activity Centers and their network;
- NOWPAP/6: Raising public awareness regarding marine, coastal and associate with freshwater environment;
- NOWPAP/7: Assessment and management of land-based activities.

Four Regional Activity Centers have been established to implement the above NOWPAP activities:

- DINRAC, Beijing: Data and Information Network Regional Activity Centre, to support the implementation of NOWPAP1;
- POMRAC, Vladivostok: Pollution Monitoring Regional Activity Centre, to support the implementation of NOWPAP3;
- CEARAC, Toyama: Special Monitoring and Coastal Environmental Assessment Regional Activity Centre, to support the implementation of NOWPAP3;
- MERRAC, Taejon: Marine Environmental Emergency Preparedness and Response Regional Activity Centre, to support the implementation of NOWPAP4.

## **2. Background and Objectives**

The marine and coastal environmental data and information are fundamental for all scientific research projects and management programme. The NOWPAP Members have collected these data and information, and data and information exchange systems have been developed by international organizations such as Intergovernmental Oceanographic Commission (IOC) of

UNESCO. In order to improve the marine and coastal environmental data and information exchange among the NOWPAP Members, a policy on data and information sharing is necessary for all NOWPAP activities. A project of "Establishment of the NOWPAP Policy on Data and Information Sharing" was agreed at the first DINRAC Focal Points Meeting (Shanghai, China, 25-28 November 2002), as one of activities in biennium 2002-2003.

### **3. General Policy**

Cooperation and coordination in data and information sharing among the specialists, researchers, managers, and decision-makers in NOWPAP Members are essential to the success of the NOWPAP programmes. In order to activate and accelerate the marine and coastal environmental data and information exchange and sharing in NOWPAP Members and also non-NOWPAP Members, the following general policy based upon the IOC oceanographic data exchange policy except Clause 6, which was adopted in IOC twenty-second session of the assembly (Paris, 24 June – 4 July, 2003), is highly respected among NOWPAP Members. Status of the IOC oceanographic data exchange policy is shown in Appendix A.

#### **Preamble**

The timely, free and unrestricted international exchange of marine and coastal environmental data is essential for the efficient acquisition, integration and use of ocean observations gathered by the NOWPAP Members for a wide variety of purposes of NOWPAP programmes including the prediction of weather and climate, the operational forecasting of the marine and coastal environment, the preservation of life, the mitigation of human-induced changes on the marine and coastal environment, as well as for the advancement of scientific understanding that makes this possible.

**Recognizing** the vital importance of these purposes to all humankind and the role of NOWPAP and its programmes in this regard, the NOWPAP Members agree that the following clauses shall frame the NOWPAP policy for the sharing of marine and coastal data and information and its associated metadata.

#### **Clause 1**

NOWPAP Members shall provide timely, free and unrestricted access to all data, information, associated metadata and products generated under the auspices of NOWPAP programmes.

#### **Clause 2**

NOWPAP Members are encouraged to provide timely, free and unrestricted access to relevant data, information and associated metadata from non-NOWPAP programmes that are essential for application to the preservation of life, beneficial public use and protection of the ocean environment, the forecasting of weather, the operational forecasting of the marine and coastal environment, the monitoring and modelling of climate and sustainable development in the marine and coastal environment.

### **Clause 3**

NOWPAP Members are encouraged to provide timely, free and unrestricted access to the marine and coastal environmental data, information and associated metadata, as referred to in Clauses 1 and 2 above, for non-commercial use by the research and education communities, provided that any products or results of such use shall be published in the open literature without delay or restriction.

### **Clause 4**

With the objective of encouraging the participation of governmental and non-governmental marine and coastal data and information gathering bodies in international marine and coastal environmental data and information exchange and maximizing the contribution of marine and coastal environmental data and information from all sources, this Policy acknowledges the right of NOWPAP Members and data originators to determine the terms of such exchange, in a manner consistent with international conventions, where applicable.

### **Clause 5**

NOWPAP Members shall, to the best practicable degree, use data centers linked to IODE's NODC and WDC network as long-term repositories for the marine and coastal environmental data, information and associated metadata. NOWPAP programmes and DINRAC will co-operate with data contributors to ensure that data can be accepted into the appropriate systems and can meet quality requirements.

### **Definitions**

**'Free and unrestricted'** means non-discriminatory and without charge. "Without charge", in the context of this resolution means at no more than the cost of reproduction and delivery, without charge for the data and products themselves.

**'Data'** consists of oceanographic observation data, derived data and gridded fields.

**'Metadata'** is "data about data" describing the content, quality, condition, and other characteristics of data.

**'Non-commercial'** means not conducted for profit, cost-recovery or re-sale.

**'Timely'** in this context means the distribution of data and/or products, sufficiently rapidly to be of value for a given application.

**'Product'** means a value-added enhancement of data applied to a particular application.

## **4. Present Status and Utilization of the Existing Oceanographic and Meteorological Data Exchange Systems**



For oceanographic data exchange and management, the system of International Oceanographic Data Exchange (IODE) of Intergovernmental Oceanographic Commission (IOC) of UNESCO comprises the World Data Centers (WDC) which have established under the guidance of the International Council of Scientific Unions (ICSU) and the National Oceanographic Data Centers (NODC). All NOWPAP Members constitute the NODC, and also China and Russia constitute WDC for Oceanography. Japan Oceanographic Data Center (JODC) manages the oceanographic data of WESTPAC (IOC Sub-Commission for the Western Pacific Region) programme as the Responsible National Oceanographic Data Center (RNODC). In fact the oceanographic data exchange and sharing goes into effect among NOWPAP and non-NOWPAP Members for a long time.

The North-East Asian Regional GOOS (NEAR-GOOS) which is implemented by NOWPAP Members, as a regional pilot project of the Global Ocean Observing System (GOOS), provides the oceanographic data through the Internet widely and freely. Overview of existing oceanographic data and information exchange systems are shown in Appendix B.

In addition the meteorological and oceanographic data have been exchanged in real-time under the World Meteorological Organization (WMO). The WMO/IOC Joint Technical Commission for Oceanography and Marine Meteorology (JCOMM) is an intergovernmental body of experts, which provides the international, intergovernmental coordination, regulation and management mechanism for an operational oceanographic and marine meteorological observing, data management and services system. Until the formation of JCOMM in 1999, the coordination of these activities was provided by two separate bodies: the WMO Commission for Marine Meteorology (CMM) and the Joint IOC/WMO Committee for the Integrated Global Ocean Services System (IGOSS). JCOMM is the result of the recognition of the increasing demand for integrated marine meteorological and oceanographic data and services, and the efficiencies that may be achieved by combining the expertise and technological capabilities of the WMO and IOC systems.

In NOWPAP Region, there are already several intergovernmental, regional and domestic systems dealing with oceanographic data and information exchange and sharing. Therefore it is also strongly encouraged to utilize the existing data exchange and sharing policy and systems, in order to facilitate exchange, and activate and accelerate the marine and coastal environmental data and information sharing in NOWPAP Members and also non-NOWPAP Members.

## **5. Tasks of NOWPAP Members and DINRAC**

NOWPAP Members and DINRAC shall carry out their responsibility for the following tasks in order to activate and accelerate the marine and coastal environmental data and information exchange and sharing in NOWPAP Members.

1. NOWPAP Members shall provide all marine and coastal environmental data, information, associated metadata and products under the auspices of NOWPAP

programmes to the DINRAC and the relevant Regional Activity Centers, and provide timely, free and unrestricted access to them.

2. NOWPAP Members shall be encouraged to provide timely, free and unrestricted access to all marine and coastal environmental data, information, associated metadata and products from non-NOWPAP programmes that are essential for application to the protection of marine and coastal environment.
3. DINRAC shall be responsible to disseminate free and unrestricted access to all marine and coastal environmental data, information, associated metadata and products which are submitted by NOWPAP Members.
4. DINRAC shall maintain contact with the monitoring programmes of CEARAC and POMRAC, and MERRAC and other relevant NOWPAP activities.

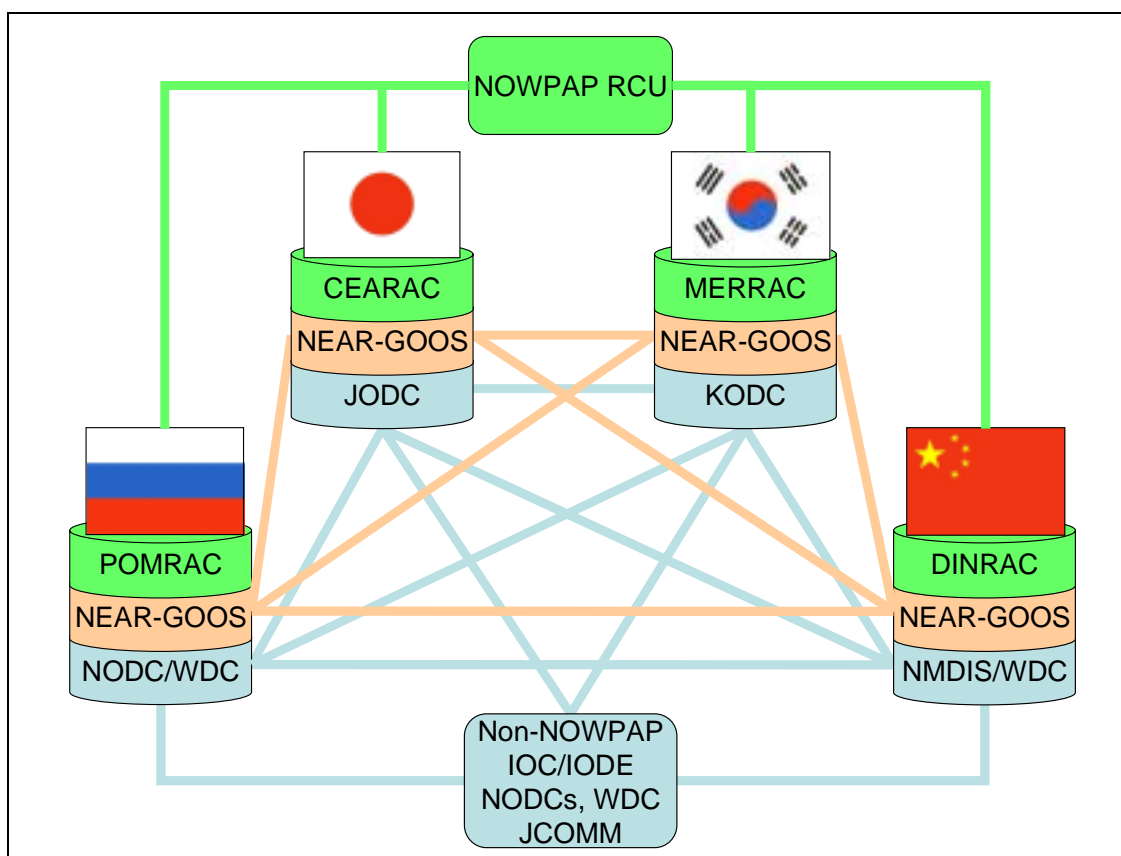


Fig.1: Schematic view of exchange and sharing of marine and coastal environmental data, information and NOWPAP programmes using existing system.

## 6. References

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- WESTPAC, [www.jodc.go.jp/projecct\\_westpac.html](http://www.jodc.go.jp/projecct_westpac.html)
- World Data Center (WDC), [www.ngdc.noaa.gov/wdc/wdcmain.html](http://www.ngdc.noaa.gov/wdc/wdcmain.html)

## **Appendix A Status of Data Exchange Policy of IOC**

The Second Session of the Intergovernmental Working Group on IOC Oceanographic Data Exchange Policy was held at UNESCO Headquarters, Paris on 17 and 18 June 2002, immediately following the 35th Session of the IOC Executive Council. After short presentations and discussions, the Meeting decided to create a policy statement including a preamble and six clauses:

Preamble: to outline the fundamental principles;

Clause 1: statement on exchange related to IOC programmes;

Clause 2: statement on exchange related to non-IOC programmes;

Clause 3: statement referring to research and education communities;

Clause 4: statement on associated rights of the data originators and Member States;

Clause 5: statement referring to long-term repositories for oceanographic data;

Clause 6: statement on capacity building.

Finally the Second Session of the Intergovernmental Working Group on IOC Oceanographic Data Exchange Policy agreed on the draft policy.

The above IOC Oceanographic Data Exchange policy has been discussed since 1961 and adopted IOC/IODE-XVII meeting and will be made a decision at 22nd session of IOC assembly. All IOC regional programme such as WESTPAC and NEAR-GOOS and activities of World Data Center (WDC) and National Oceanographic Data Center (NODC) follow the IOC policy.

## **Appendix B Overview of Existing Oceanographic Data and Information Exchange Systems**

### **B.1 World Data Centers for Oceanography**

Scientific data gathering has a long history, but mechanisms for data distribution and exchange are more recent. The first large-scale international scientific enterprises were the International Polar Years of 1882-1883 which eventually led to the International Geophysical Year of 1957-1958. Planning of the IGY was coordinated by CSAGI, the Special Committee for the IGY set up by the International Council for Science. CSAGI established the World Data Center system to serve the IGY, and developed data management plans for each IGY scientific discipline. Because of its success, the WDC system was made permanent and used for post-IGY data.

Over the years the tally of WDCs has changed. A comprehensive set of WDCs was established in China in 1988. The WDC in the U.S.A. has expanded and WDC in Russia is now operated by three different organizations. Some of the WDC centers in Europe and Asia have moved or have closed, but new centers have opened. In 1999, the method of naming WDCs was modified to remove the -A, -B, -C, and -D references. World Data Centers are now referenced by the type of center without reference to the country operating the center, i.e. WDC for Glaciology. If there is more than one WDC for a discipline, the name of the city where the WDC resides is appended, i.e. WDC for Glaciology, Boulder. All centers now have computer facilities and most use electronic networks to meet requests, exchange catalog information and transfer data.

Today the WDC system is healthy and viable. Most centers are maintaining their funding, though not without struggle. Data acquisition, storage and distribution are expensive, WDCs cost money, but they are cost-effective in transferring data to users, and their operational costs represent a tiny fraction of worldwide scientific activity. The ICSU Panel on World Data Centers hopes that this Guide will provide a useful overview of the system.

For NOWPAP Members, there are two WDCs for Oceanography. WDC for Oceanography, Tianjin, China is maintained by State Oceanographic Administration (SOA) collocated with National Oceanographic Data and Information Center and provides many kinds of oceanographic data by magnetic tapes and/or disks.

WDC for Oceanography, Obninsk, Russia is maintained by Federal Service of Russia for Hydrometeorology and Monitoring of the Environment and provides copies of data and information products, information on incoming data; use of library, e-mail, fax and post. Web is available: <http://www.meteo.ru/>.

## **B.2 National Oceanographic Data Centers in the IOC/IODE System**

The IOC was established in UNESCO to increase the knowledge on marine science and marine resources with the aim of promotion of scientific researches through Member States activities. The following recommendations were made at the first General Assembly in 1961 to encourage the system of International Oceanographic Data Exchange (IODE): (i) to promote data exchange in the framework of World Data Center (WDC) system under the guidance of the International Council of Scientific Unions (ICSU); (ii) to promulgate the concept of Declared National Programmes (DNP) and National Oceanographic Data Center (NODC) as national activities being carried out with the intention to exchange the data; (iii) to standardize the format for international exchange of marine scientific data; (iv) to assist the development of NODC.

The IODE system consists of three WDCs Oceanography; in Silver Spring, Maryland, U.S., in Obninsk, Russia, and in Tianjin, China as core of IODE system. National Oceanographic Data and Information Center, Japan Oceanographic Data Center (JODC; [www.jodc.go.jp](http://www.jodc.go.jp)), Korea Oceanographic Data Center (KODC; [www.nfrda.re.kr/kodc/index\\_e.html](http://www.nfrda.re.kr/kodc/index_e.html)) and Oceanographic Data Center of All-Russian Research Institute of Hydrometeorological Information (RIHMI-WDC; [www.meteo.ru/index\\_e.html](http://www.meteo.ru/index_e.html)) established as the National Oceanographic Data Centers in China, Japan, Korea and Russia, respectively, in the IODE system. The RIHMI-WDC also has a Regional Oceanographic Data Center (RODC) in Vladivostok, operated by the Far Eastern Regional Hydrometeorological Research Institute (FERHRI).

## **B.3 WESTPAC (IOC Sub-Commission for the Western Pacific Region)**

The WESTPAC programme started in 1979 with 19 Member States as a semi-permanent project for comprehensive marine research in the western Pacific area. The fields of observation and investigation in this project are physical oceanography, biology, geology, geophysics and pollution.

As the Responsible National Oceanographic Data Center (RNODC) for WESTPAC, the JODC assists the development of the programme by publishing "WESTPAC Data Management Guide". In addition JODC holds a training course on oceanographic data management for the staff of the oceanographic data center in the developing countries in the WESTPAC region.

## **B.4 NEAR-GOOS**

As a regional pilot project of the Global Ocean Observing System (GOOS), the North-East Asian Regional GOOS (NEAR-GOOS) is being implemented by China, Japan, Korea and Russia. NEAR-GOOS is intended to provide a regional framework for gathering and distributing oceanographic data in the North-East Asian region (Fig. 1), almost covered in NOWPAP Region, in enabling participating countries to make better use of their investments in ocean observations and research towards the establishment of the Global Ocean Observing

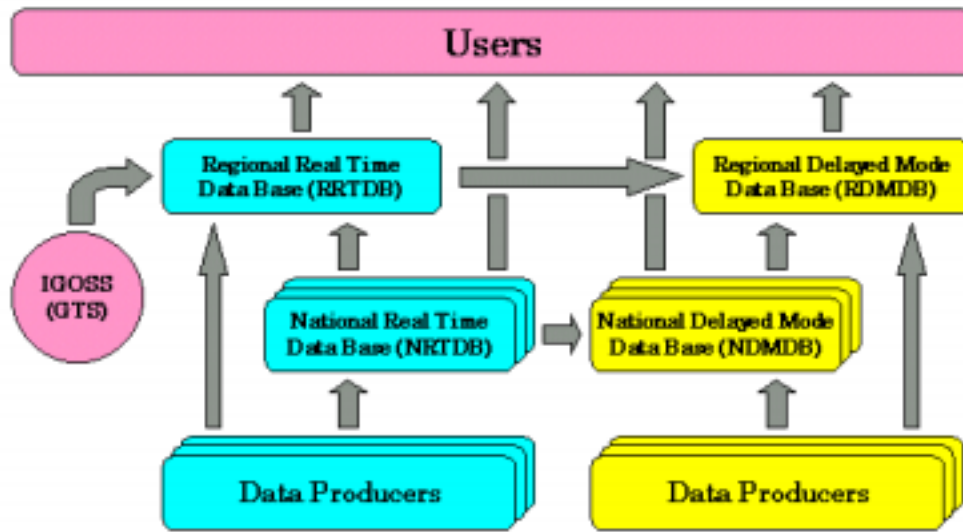
System. Oceanographic data and relevant products generated within NEAR-GOOS system will be open at free cost through electronic communications for various forms of marine uses. The oceanographic/marine meteorological data in the NEAR-GOOS region are maintained at the Regional Delayed Mode Data Base (RDMDB). The Regional Delayed Mode Data Base receives the data from the Regional Real Time Data Base (RRTDB) 30 days after they are collected. The Regional Delayed Mode Data Base also collects the data/products from the National Delayed Mode Data Bases (NDMDB) except those collected through Regional Real Time Data Base (Fig.2). National Data Bases of NEAR-GOOS are shown in Table 1.

Table 1: National Data Bases of NEAR-GOOS.

	Regional Real Time Data Base (RRTDB)	Regional Delayed Mode Data Base (RDMDB)
China	dell1500sc.nmefc.gov.cn	near-goos.coi.gov.cn
Japan	goos.kishou.go.jp	near-goos1.jodc.go.jp
Korea	near-goos.kordi.re.kr	kodis.nfrdi.re.kr/near_goos
Russia	hydromet.com/project/near-goos	www.pacificinfo.ru/en/near-goos



Fig.B1: Map of NEAR-GOOS region and member states.



Data Flow in the NEAR-GOOS Data Exchange System

Fig.B2: Data flow in the NEAR-GOOS Data Exchange System



## **Annex VI**

### **Terms of Reference for the NOWPAP DINRAC Expert Group**

## **Annex VI**

### **Terms of Reference for the NOWPAP DINRAC Expert Group Meeting**

#### **1. Background**

1.1 The Fourth Intergovernmental Meeting on NOWPAP (IGM) (Beijing, 6-7 April 1999) adopted the Workplan and Budget for Implementation of NOWPAP in the Biennium 1999-2000 {ANNEX VI of UNEP(WATER)/NOWPAP IG.4/7}, in which the establishment of a NOWPAP/1 Coordinating Working Group (CWG) was expected as an activity in the biennium 1999-2000 for NOWPAP/1. Resolution 1 adopted at this meeting requested the NOWPAP Members to designate members of the CWG {ANNEX VIII of UNEP(WATER)/NOWPAP IG.4/7}.

1.2 Following up on the nomination and designation of the members of the CWG, the NOWPAP/1 CWG was established. The First Meeting of the CWG was held in Beijing, 23-24 May 2001 with the technical assistance from UNEP and IOC of UNESCO. The Terms of Reference (TOR) for the NOWPAP/1 CWG drafted by DINRAC was discussed and adopted at the meeting {Annex 7 of UNEP(DEC)/NOWPAP WG 17/3}.

1.3 The Seventh IGM (Vladivostok, 20-22 March, 2002) in Resolution 3 requested the Directors of the Regional Activity Centres (RACs) and the secretariat {UNEP as interim before the establishment of the NOWPAP Regional Coordinating Unit (RCU)} to establish appropriate Fora of National Focal Points for each RAC {UNEP(DEC)/NOWPAP/IG.7/10}.

1.4 After the nomination and designation of National Focal Points for DINRAC, the NOWPAP DINRAC Focal Points were established in October of 2002. The First NOWPAP DINRAC Focal Points Meeting was held in Shanghai of China, 25-28 November 2002. Correspondingly, the CWG and the CWG meeting for NOWPAP/1 have been evolved into the NOWPAP DINRAC Focal Points and the NOWPAP DINRAC Focal Points Meeting respectively in the institutional arrangement.

1.5 The First DINRAC Focal Points Meeting agreed that an Expert Meeting should be held in May-June 2003 (UNEP/NOWPAP/DINRAC/FPM 1/13).

1.6 After the First DINRAC Focal Points Meeting, national expert from four member countries were nominated and designated for DINRAC.

1.7 The Second NOWPAP DINRAC Focal Points Meeting (Sanya, Hainan Province, the People's Republic of China, 29 October – 1 November, 2003) adopted the terms of reference for the DINRAC Focal Points Meeting.

## **2. Objectives**

The main objectives of the NOWPAP DINRAC Expert Group Meeting will be to identify, recommend and evaluate activities regarding coastal and marine environmental data and information network in the NOWPAP region.

## **3. Function**

The function of NOWPAP Expert Group will be to:

- a) Identify concrete cooperative actions in the NOWPAP region regarding the application of coastal and marine database and information management system;
- b) Carry out concrete cooperative actions in the NOWPAP region for the purpose of exchanging information on the application of coastal and marine database and information management system;
- c) Evaluate the outcomes of the cooperative actions and propose further activities; and
- d) As an advisory board for NOWPAP DINRAC.

## **4. Participation**

4.1 NOWPAP Members will be invited to participate in the Expert Group. Both of the representatives of each NOWPAP Member and the experts for Expert Group should have sound scientific and administrative knowledge and experience in data/database and information management system. DINRAC Focal Points could be also experts for the Expert Group.

4.2 Other relevant international and/or regional bodies and organizations concerned with database and information management system may be invited to participate in the expert meeting as observers.

## **5. Qualifications**

The expert candidate should be highly motivated, enthusiastic and capable of working independently. He/she should have a strong and up to date scientific and technical background in adaptation to marine and coastal data exchange and information management. He/she must be fluent in English.

## **6. Sessions**

It is expected and recommended that the expert meeting should be held once a year.

## **7. Tasks**

The Expert Group will carry out the following tasks:

- a) To develop and implement the workplans;
- b) To prepare reports of its outcomes and present them to DINRAC;
- c) To organize and develop projects and/or activities to facilitate database and information management system;
- d) To make efforts for cooperation with other regional programmes in view of coastal and marine environmental database and information management system;
- e) To initiate project implementation, advise on a leading expert of country (expert) for each project, action to be required, expected outputs for the specific projects, allocate specific projects budgets and report to Focal Points Meeting;
- f) To undertake specific advisory functions relating to scientific and technical issues; and
- g) To ensure that specific projects are developed with supervision and quality control.

## **8. Intersessional Work**

In principle, all intersessional works will be carried out by correspondence among the experts.

## **9. Secretariat**

The Expert Group will be served by a secretariat provided by DINRAC.

## **10. Decisions**

The Expert group achieves decisions by consensus among the Expert Group members. If consensus cannot be reached on administrative and procedural matters, voting may be taken. Each member country will have one vote. Such decision will be taken by a majority of those country members present and voting. The final decisions will be made by the DINRAC Focal Points Meeting.

## **11. Procedure**

The Expert Group Meeting shall adopt the rule of procedures of the UNEP Governing Council.

## **12. Agenda**

The secretariat, in consultation with and under the guidance of the Chairperson, will prepare a provisional agenda for each session of the meeting. Any participant in the meeting may request the secretariat to include specific items in the provisional agenda prior to the final one.

### **13. Budget and Expenses**

The NOWPAP Trust Fund supports the initial budget for the Expert Group. Other external funds shall also be sought in accordance with the development of the Expert Group.

### **14. MoU**

14.1 A Memorandum of Understanding (MoU) between DINRAC and experts of leading country or institution of experts on each specific project should be signed.

14.2 The general form of “MoU” is used in line with a guideline made by Director of DINRAC and NOWPAP regional Coordinator. It defines the workplans and time tables, financial procedures on the use of the allocated budget for each of the specific projects including the purpose, scope and expected results of the each project, etc. An example of general form of MoU is attached as Annex I.

14.3 The respective MoU is made under the perception of the DINRAC Focal Point of leading country.

### **15. Report**

The Expert Group Meeting will consider and adopt a report at each of their session. The report will be circulated to all experts through intersessional communication among the Expert Group.

### **16. Language**

The working language of the Expert Group is English.

**Annex VII**

**Workplan and Budget for the DINRAC Activities  
in the Biennium 2004/2005**

## **Annex VII**

### **Workplan and Budget for DINRAC Activities for the Biennium 2004/2005**

#### **I. Review of the activities for the last 2002/2003 Biennium**

1. The Seventh IGM (Vladivostok, Russian Federation, 20-22 March 2002) agreed the workplan and budget of entire NOWPAP for the 2002/2003 biennium including the budget of US\$ 125,000 for the DINRAC activities {UNEP(DEC)/NOWPAP/IG.7/10}. Based on the decision by the 7th IGM, the First DINRAC Focal Points Meeting (Shanghai, China, 25-28 November 2002) adopted the revised Activities and Budget for NOWPAP DINRAC for 2002/3 (Annex 3 of UNEP/NOWPAP/DINRAC/FPM 1/13).
2. The First DINRAC Focal Points Meeting was held in November of 2002 in Shanghai, China. Also, two specific projects coordinated by 4 NOWPAP Members and DINRAC have been carried out by the Focal Points of the NOWPAP Members and DINRAC in 2003. In order to carry out the designated projects and activities, total US\$87,797 has been spent in 2002 and 2003. Also, all the proposed activities of DINRAC for the 2002/2003 Biennium were completed by the end of September of 2004.
3. Regarding the detailed expenditures for the 2002/2003 biennium is reported in the Report on the Annual Expenditure of DINRAC Budget for the 2003/2003 Biennium (UNEP/NOWPAP/DINRAC/FPM 3/7).
4. The agreed activities identified in the Activities and Budget for NOWPAP DINRAC for 2002/3 (Annex 3 of UNEP/NOWPAP/DINRAC/FPM 1/13) have been completed except the expert meeting planned to be held in April of 2003, which is suspended due to the outbreak of SARS.
5. As the 2002/2003 Biennium was completed, the Second DINRAC Focal Points Meeting agreed with the activities and budget of DINRAC for the next biennium 2004/2005, prior to the Eighth Intergovernmental Meeting organized in November, 2003.
6. The Workplan and budget of DINRAC for the 2004/2005 biennium has been agreed on the allocation of US \$150,000 by the 2nd DINRAC Focal Points Meeting.
7. The Workplan and budget of DINRAC for the 2004/2005 biennium has been approved on the allocation of US \$150,000 by the Eighth Intergovernmental Meeting (Sanya, China, 5-7 November 2003).

## II. Activities for the 2004/2005 Biennium

8. *Activity B: Update, Maintenance and Enrichment of DINRAC website (continue)*

The website of DINRAC (Activity B) will be updated and enriched continuously in the 2004/2005 biennium. The purpose of the DINRAC Website is to store and disseminate the results of the DINRAC activities regarding marine data and information network. The Website will be used for making documents relevant to DINRAC Focal Points meetings accessible and for distributing DINRAC newsletters. The news and events relating to marine data and information will also be provided on the Website. In order to keep the site dynamic, regular updating and expansion with new information materials will be executed by DINRAC. The Website will also contribute to raising public awareness, in particular, of populations directly concerned with marine data and information in the NOWPAP region. English language will be used for the Website.

Budget:

Contract with one of the companies for the maintenance of the website: USD \$9,000 in the biennium 2004/2005.

9. *Activity F: Organization of DINRAC Expert Meeting*

Experts meeting on the policy and guideline on data sharing, meta-database management, GIS-type product and the proposals for the future activities

A three-day Experts Meeting to be organized around April 2005 in the form of workshop or any other technical meeting will discuss technical issues on the General NOWPAP Policy on Data and Information Sharing which have been studied by the first, second and third DINRAC Focal Points Meetings during the year of 2002, 2003 and 2004. At this expert group meeting recommendations on the strategic guidelines for the NOWPAP Policy and Data Information Sharing will be invited. The action plan for establishing the NOWPAP Policy and Data Information Sharing should be taken in the future at the regional level within the framework of NOWPAP activities.

The finalized draft principles for meta-database will be submitted to the Experts Meeting. The proposals for the DINRAC activities in the next years will also be conducted.

If other members of the Focal Points wish to host this workshop, it could be held in another venue than DINRAC. DINRAC will publish the workshop report.

Budget:

Convening of a Workshop: USD\$28,000 (two participants from each of the members).

10. *Activity G: Organization of Focal Points Meetings*

The Third and Fourth DINRAC Focal Points Meetings (three days) will be annually held in October or November of 2004 and 2005 respectively, to carry out their designated goals



and purposes, which are described in the Terms of Reference (ToR) for the DINRAC Focal Points Meeting. To provide periodical review and approval on the progress in implementation of the workplan, budget as approved by the IGM, and to give advice and recommendation to the IGM on the workplan and budget and other matters on which the Focal Points interested are the major tasks DINRAC Focal Points Meeting carry out. The Third DINRAC Focal Points Meeting (three days) is planned to be held in October in Busan, the Republic of Korea requested by Dr. Jeong Hee-Dong, the DINRAC Focal Point of the Republic of Korea. The venue of the fourth DINRAC Focal Points Meetings will be in China, unless other members request to host the meeting.

Budget:

Convening of the Third Focal Points Meeting: USD\$28,000 and Fourth Focal Points Meeting: US \$22,000 (two Focal Points and one expert from each of the member).

11. *Activity H: Cooperation, Communication of DINRAC activities*

DINRAC will continuously carry out the activities relating to the coordination with NOWPAP RCU and RACs, UNEP and other Regional Seas.

Specific requirements on data and information management arise from the other NOWPAP activities such as CEARAC, POMRAC on monitoring programme, and MERRAC on marine pollution preparedness and response. DINRAC will maintain contacts with other RACs to facilitate data and information exchange among the NOWPAP programmes. DINRAC will also maintain contacts with other programmes such as IODE and NEAR-GOOS, so that coordination and cooperation will be ensured.

Budget:

Travel on official business: USD \$3,000 for each year.

Publication, communications and others: USD \$5,000 for each year.

12. *Activity I: Framework for the Creation of NOWPAP DINRAC Meta-database*

It is proposed that specific project on the Framework for the Creation of NOWPAP DINRAC Meta-database be carried out in the biennium 2004/5 in order to have a practical step to provide the platform of data products, sharing and exchange.

Korea Oceanographic Data Center (KODC) will be responsible for the development and implementation of the activity I. The leading expert(s) of the activity I will be found in the leading country, Republic of Korea.

Budget:

A leading country, to complete the development of NOWPAP DINRAC meta-database management system: USD \$17,000

13. *Activity J: Reports on GIS-type Products Within and Outside of NOWPAP*

It is suggested that the studies on the GIS-type products on coastal and marine environmental protection in the NOWPAP Region in the NOWPAP Members should be conducted in order to give a review and understanding on the development and current situation of GIS & RS applications, as well as the existing related products in coastal and marine environmental protection in the NOWPAP Region so as to promote information exchange and distribution.

Necessary Actions:

- (a) Development of the Formats of Questionnaires and the National Report
- (b) Data collection, check and harmonization
- (c) Establishment of the databases
- (d) Compilation of the National Reports
- (e) Development of related Web programs
- (f) Harmonization, completion and print of the National Reports
- (g) Development of the CD-ROM

Expected Outcomes:

- (a) Meta-database on GIS-type Data Products
- (b) Database on GIS-type Derivative Products
- (c) National Reports on the Current Status of Existing GIS-type Products
- (d) CD-ROM

Budget:

Data collection & harmonization and Compilation of the National Reports: USD \$8,000  
(USD \$2,000 for each member)

Development of formats for Questionnaires and National Report; Establishment of databases, data conversation, web-programming, harmonization and print of the National Reports and CD-ROM: USD \$4,000 (DINRAC)

14. *Activity K: Compilation of a Regional Report on Coastal and Marine Biodiversity Data and Information)*<sup>1</sup>

It is proposed to initiate an activity of compilation of a Regional Report on Coastal and Marine Biodiversity Data and Information Systems in the NOWPAP region

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<sup>1</sup> The FPM agreed in principle on this activity however with the understanding that the revised workplan and budget for DINRAC would be presented to the 9th IGM (Busan, Republic of Korea, November 2-4 2004) and final approval would be made based upon the decision of the 9<sup>th</sup> IGM. The 9th IGM, in Resolution 1, decided to postpone a decision on this activity until the Intersessional Workshop in 2005, to be held before the 10th IGM.

corresponding with the suggestion made by the NOWPAP interim secretariat (UNEP). The Regional Report should be compiled based on National reports submitted by NOWPAP Members.

Budget:

USD \$18,000 (USD \$4,000 for each member and USD\$2,000 for compilation and publication of a regional overview).

15. Workplan, budget and timetable for the DINRAC activities in biennium 2004/2005:

Activities	Actions	Tentative Time	Unit: USD\$	
			Budget (in USD)	
			In 2004	In 2005
<u>Activity B:</u> Update, Maintenance and Enrichment of DINRAC website (continue)	1. DB of Marine Experts and Institutions; 2. Meeting Reports; 3. Regional Seas 4. etc.		5,000	4,000
<u>Activity F:</u> Organization of DINRAC Experts Meeting/workshop	Expert meeting/workshop on evaluation of DINRAC current activities and proposal for the future activities	Mid 2005		28,000
<u>Activity G:</u> Organization of FPM	Organization of the 3rd Focal Points Meeting	October, 2004	28,000	
	Organization of the 4th Focal Points Meeting	Autumn 2005		22,000
<u>Activity H:</u> Cooperation, Communication of DINRAC activities	Coordination, travel, meetings, communication, publications of DINRAC activities		8,000	8,000
<u>Activity I:</u> Framework for the Creation of NOWPAP DINRAC Meta-database	Framework establishment, System development	September, 2005		17,000
<u>Activity J:</u> Activity on existing GIS-type products from within and outside of NOWPAP	1. Activity on existing GIS-type products to be applied for NOWPAP programmes 2. A proposal for creation of GIS-type products in the network system under DINRAC	November 2005	8,000	4,000
<u>Activity K*:</u> The compilation of a regional report on Coastal and Marine Biodiversity Data and Information	1. National report on Coastal and Marine Biodiversity data and information 2. Compilation and publication of a regional report	September, 2005		18,000
<b>Sub-total</b>			<b>49,000</b>	<b>101,000</b>
<b>Total</b>			<b>150,000</b>	

\*: The FPM agreed in principle on this activity however with the understanding that the revised workplan and budget for DINRAC would be presented to the 9th IGM (Busan, Republic of Korea, November 2-4 2004) and final approval would be made based upon the decision of the 9<sup>th</sup> IGM. The 9th IGM, in Resolution 1, decided to postpone a decision on this activity until the Intersessional Workshop in 2005, to be held before the 10th IGM.

## **Annex VIII**

### **Existing Tasks, Leading Country/Institution, Required Actions and Expected Outputs for 2004/2005 Biennium**

**Annex VIII**

**Existing Tasks, Leading Country/Institution, Required Actions and Expected Outputs for 2004/2005 Biennium**

Tasks	Lead Country / Institution	Actions	Expected Outputs
<b>1. Routine Tasks carried out by DINRAC</b>			
1. Update and Maintenance of DINRAC website	DINRAC	<ul style="list-style-type: none"> <li>- Continuous collection and dissemination of information</li> <li>- Update and Finalization of databases of Marine Experts and Institutions</li> </ul>	<ul style="list-style-type: none"> <li>- Updated DINRAC website</li> <li>- NOWPAP Experts &amp; Institutions Databases</li> </ul>
2. Expert Group Meeting	DINRAC	<ul style="list-style-type: none"> <li>- Coordinate and organize annual Expert Group Meeting on implementation of projects agreed upon by the FPM</li> </ul>	<ul style="list-style-type: none"> <li>- Expert Group Meeting / Reports and recommendations submitted to Focal Points Meeting</li> </ul>
3. Focal Points Meeting	DINRAC	<ul style="list-style-type: none"> <li>- Coordinate and organize annual Focal Points Meeting</li> </ul>	<ul style="list-style-type: none"> <li>- Focal Points Meetings / Reports submitted to Intergovernmental Meetings</li> </ul>
4. Communications	DINRAC	<ul style="list-style-type: none"> <li>- Maintain routine communication links between relevant authorities in the NOWPAP region</li> </ul>	<ul style="list-style-type: none"> <li>- Facilitation of data and information exchange relevant to coastal and marine environment among the NOWPAP programmes</li> </ul>
5. Publications	DINRAC	<ul style="list-style-type: none"> <li>- Compile the third issue of the NOWPAP DINRAC Newsletter</li> </ul>	<ul style="list-style-type: none"> <li>- Third issue of the NOWPAP DINRAC Newsletter</li> </ul>

6. Other Routine Tasks as described by the TOR of DINRAC or decided upon by the FP Meetings	DINRAC		
<b>2. Specific projects coordinated by DINRAC</b>			
1. Framework for the Creation of NOWPAP DINRAC Meta-database	KOREA	<ul style="list-style-type: none"> <li>- Development of a document containing core elements of NOWPAP DINRAC Meta-Database System including data archiving and distribution</li> <li>- Development of a new meta-database production for the region including management system and application system (data archive management system)</li> <li>- Development of a dissemination, search, exchange platform used by NOWPAP DINRAC Website</li> <li>- Submission and transfer of all systems and operation manual to DINRAC for the test running</li> </ul>	<ul style="list-style-type: none"> <li>- To establish and develop framework for creation of NOWPAP DINRAC meta-database system as part of a comprehensive environmental database and information management system for the region</li> </ul>
2. Activities on GIS-Type Products within and outside of NOWPAP Programme	DINRAC and NOWPAP Members	<ul style="list-style-type: none"> <li>- Development of formats for Questionnaires and National Report</li> <li>- Data-collection, harmonization and Compilation of the National Report</li> <li>- Establishment of meta-database &amp; database and data conversion</li> <li>- Harmonization and print of the National Reports</li> <li>- Development of CD-ROM</li> </ul>	<ul style="list-style-type: none"> <li>- Meta-database on GIS-type Data Products</li> <li>- Database on GIS-type Derivative Products</li> <li>- National Reports on the Current Status of Existing GIS-type Products</li> <li>- CD-ROM</li> </ul>
3. Development of coastal and marine biodiversity data and information activities	DINRAC and NOWPAP Members	<ul style="list-style-type: none"> <li>- Drafting national reports on current status on coastal and marine biodiversity data and information</li> <li>- Compiling a regional report on coastal and marine biodiversity data and information in the NOWPAP region</li> </ul>	<p>* According to the RESOLUTION 1 of the 9<sup>th</sup> IGM of NOWPAP, a decision of on this activity is postponed, pending the decision of Intersessional Workshop of NOWPAP to be held in 2005)</p>

4. Other specific projects as decided by the FP meeting	DINRAC	Make the necessary preparations for future consideration of DINRAC FPM and of NOWPAP IGM of additional projects, such as - Cooperation with IOC on NEARGOOS activities	
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