





### United Nations Environment Programme

Distr. general

UNEP/NOWPAP/POMRAC/FPM10

25 April 2012

Original: ENGLISH

Northwest Pacific Action Plan Pollution Monitoring Regional Activity Center (POMRAC)

The Tenth NOWPAP POMRAC Focal Points Meeting

Kanazawa, Japan 24-25 April 2012

REPORT OF THE MEETING

#### Introduction

- 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, Republic of Korea, 14 September 1994). Resolution 1 identified five areas of priority for implementation of the Action Plan, one of which was NOWPAP/3: Establishment of a collaborative, regional monitoring programme.
- 2. Following the decision of the 3<sup>rd</sup> NOWPAP Intergovernmental Meeting, the responsibility for NOWPAP/3 (Regional Monitoring Programme) was jointly shared by the Special Monitoring and Coastal Environmental Assessment Regional Activity Center (CEARAC) and the Pollution Monitoring Regional Activity Center (POMRAC).
- 3. Following the results of discussions at the First NOWPAP/3 Meeting (Beijing, China, 21-22 May 2001), the 7<sup>th</sup> NOWPAP Intergovernmental Meeting (Vladivostok, 20-22 March 2002) approved the resolution 3.6, "the demarcation of the responsibilities and activities between CEARAC and POMRAC". Subsequently POMRAC was allocated with the responsibility to implement activities related to Working Group (WG) 1 "Atmospheric Deposition of Contaminants" and WG 2 "River and Direct Inputs of Contaminants".
- 4. The Tenth Intergovernmental Meeting of the Northwest Pacific Action Plan (Toyama, Japan, 24-26 November 2005) has approved plan of future actions "New Directions for the NOWPAP RACs and RCU". Regarding POMRAC, that IGM confirmed the following for 2006 and future years: "The Pollution Monitoring Regional Activity Center (POMRAC) in Vladivostok, Russia, currently has two Working Groups (WG1 on Atmospheric Input of Contaminants and WG2 on River and Direct Inputs of Contaminants). In 2005-2006, the experts of these working groups will prepare National Reports and then the Regional Overviews on these two issues. These documents might contribute to the State of Marine Environment Report in the NOWPAP Region which would be prepared in 2006-2007. Then, POMRAC might consider focusing on activities related to Integrated Coastal and River Basin Management which includes land-based sources of pollution. All activities related to land-based sources of pollution will be implemented in close collaboration with all NOWPAP RACs and with the UNEP/GPA".
- 5. The 4<sup>th</sup> NOWPAP POMRAC Focal Points Meeting (Qingdao, China, 25-26 April 2006) decided to implement several activities related to Integrated Coastal and River Basin Management in the NOWPAP Region in 2006/2007, namely:
- to create the Working Group for Integrated Coastal and River Basin Management (ICARM WG);
- to organize the 1<sup>st</sup> Meeting of ICARM WG;
- to prepare National Reports and Regional Overview on ICARM.
- 6. During January-June 2007 the NOWPAP POMRAC Working Group for Integrated Coastal and River Basin Management (ICARM WG) was created.
- 7. The 9<sup>th</sup> NOWPAP POMRAC FPM (Khabarovsk, Russia, 25-26 October 2011) has discussed the results of POMRAC activities in 2010/2011 and workplan and budget of POMRAC for 2012/2013 biennium, including discussion of future activities of the three working groups: WG1, WG2 and ICARM WG.

- 8. 16<sup>th</sup> Intergovernmental Meeting (IGM) has approved POMRAC report for 2010/2011 and POMRAC workplan and budget for 2012/2013 equal to US\$ 112,000. The Meeting provided POMRAC with additional funding for RAP MALI implementation (US\$ 2,000).
- 9. Focal Points and experts of the NOWPAP Members, namely: China, Japan, Republic of Korea and Russia, took part in the 10<sup>th</sup> NOWPAP POMRAC FPM. NOWPAP RCU representatives, as well as representatives of CEARAC, DINRAC, MERRAC and Kanazawa University also participated in the Meeting.

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

10. The 10<sup>th</sup> NOWPAP POMRAC Focal Points Meeting was opened at 9:00 am on 24 April 2012 at the Excel Hotel Tokyu in Kanazawa, Japan, by the Director of POMRAC, Dr. Anatoly KACHUR. He welcomed all participants and expressed special thanks to the colleagues from Kanazawa University who assisted POMRAC in the meeting organization along with NOWPAP RCU. NOWPAP Coordinator, Dr. Alexander TKALIN, also welcomed the participants.

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

#### Agenda Item 2.1: Election of the officers

11. The meeting was invited to elect the Chairperson and the Rapporteur for the 10<sup>th</sup> NOWPAP POMRAC Focal Points Meeting. As it had been decided during the previous POMRAC Focal Points Meetings the duty of the chairpersons for FPM would be performed on a rotational basis. This time the Chairperson was designated to be a representative of China, and the Rapporteur – a representative of Japan. Accordingly, Mr. Ruibin WANG was elected as the Chairperson and Mr. Yuya YUKISHIMA was elected as the Rapporteur.

#### Agenda Item 2.2: Organization of work

12. The rules of procedure of this Meeting were the same as of the UNEP Governing Council with necessary adjustments: the meeting was held in English and all decisions were made by consensus.

#### Agenda Item 3: Adoption of the Agenda

13. The Chairperson gave the floor to Director of POMRAC. Dr. Kachur presented the Provisional Agenda with the Annotated Provisional Agenda. The meeting adopted the agenda.

Agenda Item 4: Overview of the progress made during the intersessional period after the Ninth NOWPAP POMRAC Focal Points Meeting (FPM)

## Agenda Item 4.1: Report of NOWPAP RCU representative on the implementation of the Northwest Pacific Action Plan since the Ninth NOWPAP POMRAC FPM

14. Dr. Tkalin reported to the meeting the progress of the entire NOWPAP activities, except POMRAC, during the intersessional period including the 16<sup>th</sup> NOWPAP Intergovernmental Meeting. In conclusion he said that the IGM traditionally encouraged RACs to look for additional funding sources. No comments were provided by participants.

# Agenda Item 4.2: Report of POMRAC Director on the activities and the budget expenditures of POMRAC during the intersessional period after the Ninth NOWPAP POMRAC FPM

- 15. Director of POMRAC reported on the implementation of POMRAC activities in 2011/2012. According to him, the most time-consuming activities in the biennium was preparation of three Regional Overviews on Case studies of Atmospheric Deposition of Contaminants with Focus on the Anthropogenic and Natural Changes in the selected areas of the NOWPAP region", "River and direct inputs of contaminants in the NOWPAP region with special case studies on anthropogenic and natural changes", and Regional Overview on Ecosystem Valuation, Marine Spatial Planning and Ecosystem-Based Management in the Selected Areas of the NOWPAP Region.
- 16. He said that preparation of the Regional Overview on Ecosystem Valuation, Marine Spatial Planning and Ecosystem-Based Management in the Selected Areas of the NOWPAP Region, being finalized by International Expert, Prof. Michael D. PIDO, is of great concern. Until the Meeting it was not clearly determined if Republic of Korea will provide its Input for the Overview.
- 17. The draft of "Case studies of Atmospheric Deposition of Contaminants with Focus on the Anthropogenic and Natural Changes in the selected areas of the NOWPAP region" was prepared by the International Expert, Dr. Sergey A. GROMOV, just prior the Meeting due to delay with finalization of previous Regional Overview on Atmospheric Deposition. The only RO that is finalized and printed as a technical report is "River and direct inputs of contaminants in the NOWPAP region with special case studies on anthropogenic and natural changes".
- 18. Among other activities he mentioned are update of the Reference Databases performed in close cooperation with DINRAC, publication of Marine Litter Guidelines, update of POMRAC web-site and participation of POMRAC representatives in FPMs of other RACs, as well as in partner programs such as PICES, WESTPAC, etc.
- 19. Mr. Xiaodong ZHONG, NOWPAP Deputy Coordinator, pointed out that POMRAC web-site does not contain electronic versions of some POMRAC publications, including Marine Litter Guidelines.

# Agenda Item 4.3: Regional Overview on Ecosystem Valuation, Marine Spatial Planning and Ecosystem-Based Management in the selected areas of the NOWPAP region

- 20. Prof. Pido presented the draft version of the Regional Overview (without Korean National Report). He stressed that it would be desirable to include Masan Bay into the assessment. Also he mentioned that the Overview still lacks enough relevant information on ecosystem valuation, national legislations and pictures and maps reflecting the actual situation in the Region. He also proposed to delete the phrase "ecosystem valuation" from the title due to guite restricted data on this issue.
- 21. Dr. Won-Keun CHANG, the Focal Point from Korea, wondered if POMRAC is still waiting for the related Korean National Report because Dr. Chang was told that POMRAC discussed with Korean Expert that he didn't have to prepare National Report anymore because of deadline of the Report. After Dr. Kachur said that it would be useful

if the report could be submitted within 2-3 months, Dr. Chang asked POMRAC to fix this issue with Korean Expert.

- 22. Dr. Tkalin supported that it would be appreciated if the Korean Report could be prepared within two-three months.
- 23. Dr. Seong-Gil KANG, Director of MERRAC, suggested to pay special attention to the conclusion of the Regional Overview, informing that the regional oil spill cooperative system in the NOWPAP Region has been already established under the framework of MERRAC.
- 24. Dr. Tkalin wondered if Prof. Pido contacted national Experts who had prepared the National Reports with requests to provide more useful data for the Overview. Prof. Pido answered that he coordinated with POMRAC on this matter. In this connection Dr. Kachur said that some requests of Prof. Pido will be conveyed to National Experts and some lacking information will be added soon from the Russian side.
- 25. POMRAC Focal Point of China said that the expert who prepared the National Report of China is now engaged in other activities, so there will be another expert to get some additional information.

# Agenda Item 5: Review and discussion of major POMRAC activities in 2012/2013 in accordance with the decisions of the 16<sup>th</sup> NOWPAP Intergovernmental Meeting (IGM)

26. Dr. Kachur made his presentation on major POMRAC activities in 2012/2013 in accordance with the decisions of the 16<sup>th</sup> NOWPAP Intergovernmental Meeting. The meeting agreed in principle with the presented document.

# Agenda Item 6: Discussion of the structure and contents of NOWPAP POMRAC activity for 2012/2013 "Regional overview of PTSs and POPs issues of ecological concerns in the NOWPAP region"

27. Dr. Vladimir SHULKIN presented the document and he has noted that the draft structure of future overview was elaborated according to the comments made during the technical workshop on the persistent toxic substances (PTS) and persistent organic pollutants (POPs) ecological issues in the NOWPAP region which took place before the FPM. Participants of the FPM emphasized the usefulness of such preliminary workshop. After a discussion, member countries agreed with structure and contents of the Overview in principle.

## Agenda Item 7: Discussion of NOWPAP POMRAC activity for 2012/2013 "Regional guidelines for integrated coastal planning/management"

28. Prof. Pido made a presentation on this issue. After a discussion, participants generally agreed that as this document is planned to be prepared in 2013, it will be distributed among FPs and Experts via e-mail and undergo polishing before the next FPM of POMRAC.

# Agenda Item 8: Review, discussion and adoption of structure and contents of the second NOWPAP "State of Marine Environment Report" (SOMER-2)

- 29. Dr. Shulkin presented to the meeting draft structure and contents of the second NOWPAP "State of Marine Environment Report" (SOMER-2).
- 30. Dr. Kang raised a concern about RACs lacking some data beyond their roles and mandates, and the necessity to hire additional experts to fill the gaps. He also wondered if the chosen working approach is the best one. To discuss in detail, RAC and RCU representatives held a short meeting where working methods were agreed upon.
- 31. The Meeting agreed with the modified structure and contents of the SOMER-2 report in principle and the role of each RAC for the specific parts of the Report.
- 32. Mr. Hiroshi ONO, the Director of CEARAC, suggested to extend the time for the preparation of different parts of the Report by the end of 2012.
- 33. The Meeting agreed that the detailed future plan on preparation of SOMER-2 Report including the modified structure, budget allocation and time schedule, will be circulated among the RACs and Focal Points for the final refinement.

# Agenda Item 9: Discussion of intersessional activities of POMRAC: NOWPAP Regional Action Plan on Marine Litter (RAP MALI)

34. Dr. Kachur reported on the progress in the RAP MALI implementation and plans for 2012/2013. No comments from participants followed.

## Agenda Item 10. Review of POMRAC workplan and budget for 2012/2013 with consideration of the decisions of the 16<sup>th</sup> NOWPAP IGM

- 35. Dr. Kachur presented to the meeting the Workplan and Budget for POMRAC in 2012/2013 biennium which was amended based on the decisions of the 16<sup>th</sup> NOWPAP IGM.
- 36. Mr. Wang mentioned that POMRAC will not hold Regional WS on Regional guidelines for integrated coastal planning/management for NOWPAP region in 2013 as it was planned at the 9<sup>th</sup> POMRAC FPM. Dr. Kachur explained that due to reduced budget of POMRAC it was decided to hold the 11<sup>th</sup> FPM without the WS.

# Agenda Item 11. Date and venue of the Eleventh NOWPAP POMRAC Focal Points Meeting

- 37. The meeting was invited to discuss the venue and date of the Eleventh NOWPAP POMRAC FPM.
- 38. Upon suggestion from POMRAC secretariat, it was tentatively decided that the meeting will take place in China (dates and place will be confirmed pending approval by the Ministry of Environmental Protection of China).

#### Agenda Item 12. Other matters

39. The meeting was invited to raise any other issues relevant to POMRAC activities. None was suggested.

#### Agenda Item 13. Adoption of the report of the meeting

40. The report of the meeting was prepared by the Rapporteur and the Secretariat and adopted by all meeting participants.

### Agenda Item 14. Closure of the 10<sup>th</sup> NOWPAP POMRAC FPM

41. The meeting was closed by the Chairperson at 11:05 on 25 April 2012, after customary exchange of closing remarks

### **ANNEX 1**

PROVISIONAL LIST OF PARTICIPANTS

#### 1. POMRAC Focal Points (FP) and Experts

#### <u>Japan</u>

#### Mr. Yuya YUKISHIMA - FP

Official

Office of Marine Environment, Water Environment Division,

Environmental Management Bureau,

Ministry of the Environment Government of Japan

TEL: +81-3-5521-9025 FAX: +81-3-3593-1438

E-mail: YUYA\_YUKISHIMA@env.go.jp

#### Dr. Yasuyuki SHIBATA

Senior Principal Researcher and Program Leader Center for Environmental Measurement and Analysis National Institute for Environmental Studies (NIES) 16-2 Onogawa, Tsukuba, Ibaraki 305-8506, Japan

TEL: +81-29-850-2450 FAX: +81-29-850-2573 E-mail: <u>yshibata@nies.go.jp</u>

#### People's Republic of China

#### Dr. Ruibin WANG -FP

Professor, Director

Dept. of Ambient Air Quality Monitoring, China National Environmental Monitoring Center

No. 8B, Anwai Dayangfang, Chaoyang District

Beijing 100012, China Tel: 0086-10-84943123 Fax: 0086-10-84650863 E-mail: wangrb@cnemc.cn

#### Ms. Ye DING

Engineer,

China National Environmental Monitoring Center No. 8B, Anwai Dayangfang, Chaoyang District Beijing 100012. China

Tel: 0086-10-84943028; Fax: 0086-10-84943131 Email: dingye@cnemc.cn

#### Ms. Yibing LV

Senior Engineer, Deputy Director, Dept. of Analysis China National Environmental Monitoring Center No.8B, Anwai Dayangfang, Chaoyang District

Beijing 100012, China Tel: +86-10-8494-3183 Fax: +86-10-8494-3190 E-mail: lvyb@cnemc.cn

#### Republic of Korea

#### Dr. Won-Keun CHANG- FP

Associate Research Fellow Korea Maritime Institute 1262 Sangam-dong, Mapo-gu Seoul 121-270, Rep. of Korea

Tel. 82-2-2105-2909 Fax 82-2-2105-2779

E-mail: wkchang@kmi.re.kr

#### Dr. Hyobang MOON

Assistant Professor Hanyang University 1271 Sa3-dong, Sangrok-gu, Ansan, Gyeonggi-do, 426-791, Republic of Korea Tel. +82-31-408-6255 Fax +82-31-400-5534

E-mail: hbmoon@hanyang.ac.kr

#### **Russian Federation**

#### Dr. Vladimir M. SHULKIN- FP

Head of Laboratory Pacific Geographical Institute Far Eastern Branch of Russian Academy of Sciences 7 Radio St., Vladivostok 690041

Tel.: 7-4232-320652 E-mail: shulkin@tig.dvo.ru

#### 2. INTERNATIONAL EXPERTS

#### Dr. Michael Daňo PIDO

Professor VI
Palawan State University
Center for Strategic Policy and Governance
Palawan State University
G/F Medical Building, Tiniguiban Heights
5300 Puerto Princesa City, Palawan, Philippines

Tel.: (+63-48) 434-9524 Fax: (+63-48) 433-5303 E-mail: mdpido@yahoo.com

#### Dr. Kazuichi HAYAKAWA

Professor

Kanazawa University

E-mail: hayakawa@p.kanazawa-u.ac.jp

#### 3. REGIONAL COORDINATION UNIT

#### Dr. Alexander TKALIN

Coordinator

Northwest Pacific Action Plan (NOWPAP) of UNEP

Postal address:

NOWPAP RCU, 152-1 Haean-ro, Gijang-up, Gijang-gun, Busan 619-705, Republic of Korea

Phone: +82-51-720-3001 Fax: +82-51-720-3009

E-mail: alexander.tkalin@nowpap.org

Web: www.nowpap.org

#### Mr. Xiaodong ZHONG

**Deputy Coordinator** 

Northwest Pacific Action Plan (NOWPAP) of UNEP NOWPAP Regional Coordinating Unit Toyama Office 5-5 Ushijimashin-machi, Toyama City, 930-0856 Japan

Tel: +81-(0)76-444-1611 Fax: +81-(0)76-444-2780

E-mail: xiaodong.zhong@nowpap.org

#### Mr. Masakatsu OHYAMA

Administrative Officer

Northwest Pacific Action Plan (NOWPAP) of UNEP NOWPAP Regional Coordinating Unit Toyama Office 5-5 Ushijimashin-machi, Toyama City, 930-0856 Japan

Tel: +81-(0)76-444-1611 Fax: +81-(0)76-444-2780

E-mail: masakatsu.ohyama@nowpap.org

#### 4. REGIONAL ACTIVITY CENTERS OF NOWPAP

#### **NOWPAP CEARAC**

#### Mr. Hiroshi ONO

Director

Northwest Pacific Region Environment Cooperation Centre

5-5 Ushijimashin-machi, Toyama 930-0856, Japan

Tel: +81-76-445-1571 Fax: +81-76-445-1581 E-mail: ono@npec.or.jp

#### Mr. Genki TERAUCHI

Senior Researcher

Northwest Pacific Region Environment Cooperation Centre

5-5 Ushijimashin-machi, Toyama 930-0856, Japan

Tel: +81-76-445-1571 Fax: +81-76-445-1581 E-mail: <u>terauchi@npec.or.jp</u>

#### Dr. Takafumi YOSHIDA

Senior Researcher Northwest Pacific Region Environment Cooperation Centre

5-5 Ushijimashin-machi, Toyama 930-0856, Japan

Tel: +81-76-445-1571 Fax: +81-76-445-1581 yoshida@npec.or.jp

#### NOWPAP DINRAC

#### Ms. Tong AN

Senior Consultant NOWPAP DINRAC

**Environmental Information Center** 

State Environmental Protection Administration (SEPA)

No.1 Yuhuinanlu, Chaoyang District, Beijing, 100029, People's Republic of China

Tel.: 86-10-8464-0869 Fax: 86-10-8463-0849 E-mail: an@mep.gov.cn

#### **NOWPAP MERRAC**

#### Dr. Seong-Gil KANG

Director

Marine Environmental Emergency Preparedness and Response Regional Activity Centre (MERRAC)

P.O. Box 23, Yuseong, Daejeon 305-600, Republic of Korea

Tel: +82-42-866-3620 Fax: +82-42-866-3698 E-mail: kangsg@moeri.re.kr

#### NOWPAP POMRAC

#### Dr. Anatoly N. KACHUR

Director of POMRAC

Pollution Monitoring Regional Activity Center

Pacific Geographical Institute

Far Eastern Branch of Russian Academy of Sciences

7 Radio St., Vladivostok 690041, Russian Federation

Tel./Fax: 7-4232-312833

E-mail: akachur@mail.primorye.ru; kachur@tig.dvo.ru

#### Mr. Nikolay KOZLOVSKIY

Translator

Pacific Geographical Institute

Far Eastern Branch of Russian Academy of Sciences 7 Radio St., Vladivostok 690041, Russian Federation

Tel./Fax: 7-4232-312833

E-mail: geo@tig.dvo.ru

**ANNEX 2** 

**AGENDA** 

#### **Day 1 (24 April 2012, Tuesday)**

- 1. Opening of the Meeting
- 2. Organization of the Meeting
  - 2.1. Election of the officers
  - 2.2. Organization of work
- 3. Adoption of the Agenda
- 4. Overview of the progress made during the intersessional period after the 9<sup>th</sup> NOWPAP POMRAC Focal Points Meeting (FPM)
  - 4.1. Report of NOWPAP RCU representative on the implementation of the Northwest Pacific Action Plan since the Ninth NOWPAP POMRAC FPM
  - 4.2. Report of POMRAC Director on the activities and the budget expenditures of POMRAC during the inter session period after the Ninth NOWPAP POMRAC FPM
  - 4.3 Regional Overview on Ecosystem Valuation, Marine Spatial Planning and Ecosystem-Based Management in the selected areas of the NOWPAP region
- 5. Review and discussion of major POMRAC activities in 2012-2013 in accordance with the decisions of the 16<sup>th</sup> NOWPAP Intergovernmental Meeting (IGM)
- Review, discussion and adoption of structure and contents of the second NOWPAP "State of Marine Environment Report" (SOMER-2)
- 7. Discussion of the structure and contents of NOWPAP POMRAC activity for 2012-2013 "Regional overview of PTSs and POPs issues of ecological concerns in the NOWPAP region"
- 8. Discussion of NOWPAP POMRAC activity for 2012-2013 "Regional guidelines for integrated coastal planning/management"
- 9. Discussion of intersessional activities of POMRAC: NOWPAP Regional Action Plan on Marine Litter (RAP MALI)
- 10. Review of POMRAC workplan and budget for 2012-2013 with consideration of the decisions of the 16<sup>th</sup> NOWPAP IGM

#### Day 2 (25 April 2012, Wednesday)

- 11. Date and venue of the 11th NOWPAP POMRAC Focal Points Meeting
- 12. Other matters
- 13. Adoption of the report of the meeting
- 14. Closure of the 10<sup>th</sup> NOWPAP POMRAC FPM

### **ANNEX 3**

Structure and contents of second "State of Marine Environmental Report for the NOWPAP region" (SOMER-2)

#### 1.Background

According to the decision of 16<sup>th</sup> NOWPAP Intergovernmental Meeting, one of the NOWPAP POMRAC activities for 2012-2013 biennium will be the preparation of the second "State of Marine Environment Report for the NOWPAP region" (SOMER-2).

First "State of Marine Environment Report for the NOWPAP region" (SOMER) has been compiled by POMRAC in close cooperation with other RACs in 2006 and published in 2007. The main goal of that report was to give a holistic description, analysis and overview of marine environmental problems of the NOWPAP sea area.

The specific objectives of the State of the Marine Environment Report (2007) included:

- Assessment of the current state of the marine environment in the NOWPAP area, with attention to recent changes in the environmental conditions and the impacts of human activities on the marine environment and coastal areas:
- Identifying current regional concerns and emerging issues which present major challenges;
- Presentation of actions and measures (including those suggested by different relevant programs/projects) to help decision makers to address these challenges at the national and regional level.

First SOMER for the NOWPAP region was based on the results obtained through the NOWPAP RACs activities before 2005. The achievements of other regional and international programs/projects, and information from the scientific literature were broadly used as well.

During the last 6 years since 2005, there is significant progress in the activities of all NOWPAP RACs. CEARAC has carried out the joint WG3 and WG4 activity on the assessment of the eutrophication status in the selected coastal sea areas. MERRAC continues their fruitful activity on the oil spills issues and also expands their efforts to deal with other ecological problems of the sea: marine litter, hazardous and noxious substances, ballast waters. POMRAC is carrying out the activity on the ICARM applications in our region. Other activities of POMRAC help to find relationships between the changes of river and direct inputs of contaminants, ecological situation in the adjacent sea areas and socio-economical factors on the watersheds, and to assess in detail the atmospheric input of different substances. The main goals of DINRAC continue to carry out information support and integration of other RACs results, but DINRAC is also finalizing very important work on marine invasive species in the NOWPAP region.

In fact, the activities of all NOWPAP RACs are already implemented in more and more holistic way. Therefore, the regular compilation or synthesis of environmental problems, status and trends connected with natural and socio-economical conditions seems logical stage in the NOWPAP activities. The regular assessments of the state of marine environment is proposed as one of the key thematic element of the NOWPAP medium-term strategy (Annex 1).

The regularity of the assessment procedure is in line with the UN approach ("the UN Regular Process for Global Reporting and Assessment"). The SOMER-2 might contribute to the implementation of the UN Regular Process. And vice-versa outcomes from the UN Regular Process and other global initiatives will be used while implementing NOWPAP activities. Thus, POMRAC Secretariat believes that preparation of second "State of Marine Environment Report for the NOWPAP Region" (SOMER-2) will be timely and appropriate activity.

#### 2.Objective

The synthesis of environmental problems, status and trends connected with existing and changing natural and socio-economical conditions in the NOWPAP region.

#### 3 Main features

#### 3.1 The consistency with the "UN Regular Process"

The main peculiarity of the proposed SOMER-2 compare with the previous SOMER (2007) should be intrinsic consistency with the "UN Regular Process". For the time being the structure and content of the "Regular process" still continue to be under consideration and discussion (<a href="http://www.un.org/Depts/los/global reporting.htm">http://www.un.org/Depts/los/global reporting.htm</a>), but the main features are already clear and available. The approach based on the "ecosystem services" concept is one important feature. The including of the regulatory frameworks and capacity building aspects to the environmental issues is another feature. The presented draft structure and contents of SOMER-2 is prepared taking into account these peculiarities of "UN Regular process", though the international experts on Regular process stressed the inevitable contradictions at any attempts to implement "tripartite" approach combined ecosystems services, human activities and stresses induced by these activities, and biodiversity/habitats issues.

#### 3.2 The integrative nature

The most important feature of SOMER-2 activity is its integrative nature. It means SOMER-2 could be prepared only at the close collaboration of all NOWPAP RACs as it

has been done during the implementation of activity on SOMER. Moreover compare with first SOMER preparation the earlier collaboration will be realized at the SOMER-2 activity. In fact joint work has already began from the stage of structure discussion and will be continued at the stage of drafts of separate chapters.

#### 4. Main tasks

Each NOWPAP member state as well as all RACs will be required to cooperate with POMRAC in this activity, because many aspects and results which should be included in SOMER-2 will be obtained during the ongoing activities of NOWPAP RACs, or have been obtained already.

#### 4.1. Preparation of the different chapters of the SOMER-2

According to schedule (see table below), it is expected that different chapters of SOMER-2 will require the input of the different experts, NOWPAP RACs, and maybe other organizations. The list of the experts involved will be determined after the discussion, finalization and approval of the structure of SOMER-2 during POMRAC 10th FPM. Upon the preparation of the separate chapters, the review and harmonization of them will be carried out.

#### 4.2. Compilation and preparation of SOMER-2

After finalization of the separate chapters, they will be compiled according to the approved structure. The prepared SOMER-2 will be reviewed by the FPs, RACs and RCU.

#### **5. Expected Outcomes**

After preparation, discussion and approval by the FPs and RACs, the SOMER-2 will be published and available for the public, organizations and officials. Even if the SOMER-2 will not coincide with the future "UN Regular Process" assessment in detail, POMRAC Secretariat believes that the SOMER-2 will be necessary step forward.

#### 5. Schedule

Time		Actions	Main Body	
2012	Q1	Discussion of the involvement of	POMRAC	
		other RACs in the preparation of		
		SOMER-2 through		
		correspondence		
	Q2	Approval of workplan and budget	POMRAC and	
	10 <sup>th</sup> POMRAC	by POMRAC FPM	FPs	

	FPM			
	Q2 to Q3	Preparation of the different	Experts, RACs	
		chapters of SOMER-2	and relevant	
			organizations	
	Q4	Review and improvement of the	POMRAC, FPs	
		different chapters of SOMER-2	and	
2013	Q1 to Q2	Preparation and Compilation of	POMRAC consult	
		SOMER-2		
	Q3	Review of Draft SOMER-2	POMRAC, FPs	
			and RACs	
	Q3,	Presentation of Draft SOMER-2	POMRAC	
	11 <sup>th</sup> POMRAC			
	FPM			
	Q4	Publication of SOMER-2	POMRAC	

### 6. Budget

Contract	Timing	Output	To be completed	Counterpart	Budget
Preparation	2012 Q2	Different	2012 Q4	CEARAC,	6,000
of the		chapters of		DINRAC,	
different		SOMER-2		MERRAC	
chapters of		Different		Experts of	14,000
SOMER-2		chapters of		external	
		SOMER-2		organizations	
Preparation	2013 Q1	Draft	2013 Q2	POMRAC and	5,500
and		SOMER-2		consult	
compilation of					
SOMER-2					
Publication of	2013 Q4	SOMER-2	2013 Q	POMRAC	4,000
SOMER-2					
Total					29,500

According with schedule some discussion of the structure of SOMER-2 has been carried out during 2012 Q1. POMRAC appreciate the input of other RACs especially CEARAC to this work. For the time being the Structure of SOMER-2 is as follow:

#### Draft Structure of the SOMER-2 as for 26 March 2012

#### **Executive Summary**

1. Introduction (including objectives, scope, information sources and procedures) (P)

#### 2. Current Status

- 2.1 Geographical features of the NOWPAP Marine and Coastal Areas (including characteristics and features of population, land use, industrial and agricultural activities) (P)
- 2.2. Assessment of the supporting and regulating ecosystem services
  - 2.2.1. The main hydrological and hydrochemical features of the region and its parts (P, D)
  - 2.2.2. Sea/Atmosphere and Sea/Sediment interactions (P)
  - 2.2.3. Primary production (C)
- 2.3. Assessment of the provisioning and cultural ecosystem services
  - 2.3.1. NOWPAP marine and coastal areas as sources of food (including fisheries, aquaculture, etc.) (C)
  - 2.3.2. Other provisioning ecosystem services (mineral resources, energy, transport, etc.) (M)
  - 2.3.3. Cultural ecosystem services (recreation, cultural heritage) (All RACs)

#### 3. Problems /Issues

- 3.1 Human impacts (including negative consequences of transport, oil and gas production, agricultural and industrial wastewaters, etc.) (P, M)
- 3.2 . Assessment of ecological problems connected with biodiversity issues and climate change impacts (including HAB, MPAs, invasive species, endangered species, overfishing etc.). (C,D)
- 3.3 Overall assessment and evaluation of marine and coastal areas of NOWPAP Region (including marine litter, persistent toxic substances, etc.) (P, M, C)
- **4. Conclusions** (including recommendations on policy and legislation, data exchange and management, ICARM, etc.) (All RACs)

#### References

C, D, M, P means CEARAC, DINRAC, MERRAC, and POMRAC responsibility

#### The "annotated" Draft Structure of the SOMER-2 as for 26 March 2012

- 1. Introduction will include objectives, scope, information sources and procedures POMRAC
- **2. Current Status –** first of the two main parts of SOMER-2 with major objective to describe the present situation of the environmental features and qualities from the point of view "ecosystem services" approach. This is also the place to give the data on the temporal trends, especially if it is not clear anthropogenic origin of these trends.
- **2.1 Geographical features**..... conventional chapter including characteristics and features of population, land use, industrial and agricultural activities etc. **POMRAC**
- **2.2 Assessment of the supporting and regulating ecosystem services –** Supporting services include peculiarities of nutrient cycling and primary production in the NOWPAP sea areas and regulating services include climate regulation and such related with climate issues as river discharge and water currents.
- **2.2.1.** The main hydrological and hydrochemical features of the water bodies in the region and its parts. .... This chapter will include characteristics of sea currents, water structures, hydrochemical parameters of the different sea areas and region as a whole. Second subchapter will describe the main characteristics of river discharge in terms of concentrations and fluxes, and will give main features of water balance within region. The existing temporal trends will be described as well.  **POMRAC.**
- **2.2.2. Sea/Atmosphere and Sea/Sediment interaction**.... The existing data on the role of atmosphere input in the water balance and nutrient input within different parts of the region will be presented. The contribution of sea/sediment interface to the nutrient cycling will be assessed.  **POMRAC**.
- **2.2.3. Primary production (Plankton production?)....** The level and main features of seasonal and spatial variability of phytoplankton production will be described for the main parts of region and for the region as a whole. The existing synthesis on zooplankton component of sea areas within NOWPAP region will be also presented. **- CEARAC**
- **2.3. Assessment of provisional and cultural ecosystem services –** Provisional services of ecosystems include providing by food, water, energy, mineral resources, transport routes. Cultural ecosystem services include first of all recreational services, and non-material benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experience. The major

attention could be concentrated on the recreation due to difficulties of the assessment of non-material benefits.

- **2.3.1. NOWPAP marine and coastal areas as sources of food**... This chapter will give the characteristics of fisheries and aquaculture in the different parts of NOWPAP sea area and for the region as a whole. The data of the catches for different groups(species) and dynamic during last 20-30 years could be presented for the east and west parts of the NOWPAP region. Some synthetic data on the aquaculture production will be presented also  **CEARAC**
- **2.3.2. NOWPAP** marine and coastal areas as a provider of mineral resources, energy and transport routes... This chapter will outline the role of different parts of NOWPAP region in the oil and gas production, other mineral resources (sands, stones). Second important issue of this chapter is an assessment of marine routes density within region and assessment of the coastal construction/infrastructure/urbanization in the transformation of coastal zones.  **MERRAC.**
- **3. Problems/Issues** second main part of SOMER-2 with major objectives to describe the human influence with possible negative consequences on the different ecosystem services, and to assess the ecological problems on biodiversity issues and climate change impacts. Another important chapter of this part is overall assessment of marine and coastal areas of NOWPAP region.
- **3.1 Human impacts** (including negative consequences of transport, oil and gas production, agricultural and industrial wastewaters, etc.) ... This chapter will describe in separate subchapters the main human pressures and impacts which can lead to the negative ecological consequences.
- 3.1.1. Contamination by hazardous substances (heavy metals, PTS, POPs, radionuclides) from all sources
  - 3.1.1.1. River runoff and direct inputs POMRAC
  - 3.1.1.2. Maritime transport and operations MERRAC
  - 3.1.1.3. Offshore Oil and gas production DINRAC
- 3.1.2. Nutrient and organic matter enrichment, HAB, eutrophication and hypoxia CEARAC
- 3.1.3. Marine litter MERRAC, CEARAC
- **3.2** . Assessment of ecological problems connected with biodiversity issues, habitat disturbance and climate change impacts (including HAB, MPAs, invasive species, endangered species, overfishing etc.).

- 3.2.1. Non-indigenous and invasive species DINRAC
- 3.2.2. Impact of fisheries and aquaculture on the biodiversity and habitats DINRAC
- 3.2.3. Habitat transformation due to constructions and urbanization (POMRAC, CEARAC?, MERRAC?)
- 3.2.4. Endangered species DINRAC
- 3.2.5. Climate change impacts and emerging issues- POMRAC.
- **3.3 Overall assessment and evaluation of marine and coastal areas of NOWPAP Region....** This chapter will use existing approaches to the spatial planning and functional zoning of the sea areas in the NOWPAP member states along with results of international (YSLME) and national projects. **all RACs**
- **4. Conclusions** (including recommendations on policy and legislation, data exchange and management, ICARM, etc.) (All RACs)

References

### **ANNEX 4**

Discussion of the structure and contents of "Regional overview of PTS and POPs issues of ecological concerns in the NOWPAP region"

#### 1. Background

The ecological problems connected with the generation, distribution and harmful effects of persistent organic pollutants (POPs) and persistent toxic substances (PTS) continue to be in the focus of the society worldwide. NOWPAP region is not an exception. Dense population and intensive economical development in some of the countries, broad usage of some POPs with strict ban for others provide very contrast distribution of POPs issues in the region, but the possibility of the transboundary transport of POPs makes these problems important for all countries. The GEF Project on POPs issues "Enabling activities for the Stockholm Convention on Persistent Organic Pollutants (POPs): Development of a National Implementation Plan for The Russian Federation" has been implemented in Russia in 2009-2011. but major attention has been concentrated on the European and Siberian parts of Russia. At the same time comprehensive overview of the POPs issues status and trends is not prepared for the NOWPAP region. There were the reasons of the initiation some years ago the NOWPAP project "Addressing Land-Based Activities that Affect the Marine and Coastal Environment of the Northwest Pacific Region." This regional project has been submitted (GEF Project Database, GEF Project ID 2961), but unfortunately has not been implemented.

Since that the list of the POPs/PTS of ecological concern becomes longer, as well as the scientific research and publications on these problems in our region. This is a reason of POMRAC proposal to compile the "Regional overview of PTSs and POPs issues of ecological concerns in the NOWPAP region" as an POMRAC activity for the 2012-2013 biennium. The presence in our region high skilled specialists and experts on the POPs/PTSs issues is also taken into consideration.

16<sup>th</sup> IGM has approved this activity.

#### 2. Objective and tasks

The main objectives of this activity:

- To give the updated assessment on the regional ecological issues from the POPs included to the Stokholm Convention (PCDD, PCDF, PCBs, DDTs, HCHs);
- To obtain assessment on the ecological issues of the regionally significant PTS not covered by the Stokholm Convention (PAHs);
- To assess the transboundary aspects of POPs/PTS ecological issues within NOWPAP region.

#### 3. Expected outcomes

The implementation of the above mentioned tasks will create a scientifically sound basis for the future political and managerial agreement for regional collaboration to address POPs/PTS ecological issues. After preparation, discussion and approval by the FPs and RACs, the Regional overview will be published and available for the public, organizations and officials. Besides the results of this activity could help to initiate the application of GEF proposals.

#### 4. Potential partners

In order to best implement this activity the close cooperation with many scientific organization is needed because for many PTS state of art equipment and methods are used. The organizations in the NOWPAP states who are in charge to the routine monitoring of PTS will be also involved of course. The Kanazawa University is supposed to be a key partner at the implementation of this activity. The forthcoming joint Workshop have the goal to help in creation and discussion of the structure of Regional Overview. Therefore the submitted in this paper Structure should be regarded as preliminary draft.

#### 5. Schedule

Time		Actions	Main Body	
2012	Q2	PTS WS co-organized with Kanazawa	POMRAC, Russian	
		University	Academy of	
			Science	
	Q2	Approval of workplan and budget by	POMRAC and FPs	
	10 <sup>th</sup> POMRAC	POMRAC FPM		
PPM Q2 to Q3				
		Preparation of the national inputs to	National experts	
		the Overview	and RACs	
		Review of the national inputs	POMRAC, FPs and	
			experts/RACs	
2013	Q1 to Q2	Preparation of Regional Overview	POMRAC consult	
	Q3	Review of Regional Overview	POMRAC, FPs and	
			RACs	
	Q3, 11 <sup>th</sup>	Presentation of Draft Regional	POMRAC	
	POMRAC FPM	Overview		

Q4 Publication of Regional Overview	POMRAC
-------------------------------------	--------

### 6. Budget

Activity	Timing	Output	To be completed	Counterpart	Budget
PTS WS	2012 Q2	Detailed	2012Q2	Experts	11,000
		workplan			
Preparation of	2012 Q2	National input	2012 Q4	Expert and/or	3,000*
the national		to the		organization in	
inputs to the		Regional		China	
Regional		Overview			
Overview		National input		Expert or	3,000*
		to the		organization in	
		Regional		Japan	
		Overview			
		National input		Expert or	3,000*
		to the		organization in	
		Regional		Korea	
		Overview			
		National input		Expert or	3,000*
		to the		organization in	
		Regional		Russia	
		Overview			
Preparation	2013 Q1	Regional	2013 Q2	POMRAC and	4,000
and		Overview		consult	
Compilation of					
Regional					
Overview					
Publication of	2013 Q4	Regional	2013 Q	POMRAC	2,000
Regional		Overview			
Overview					
Total					29,000

<sup>\* 1,500</sup> USD for experts from WG1/WG2 from each state;

## Draft Structure of the "Regional overview of PTS and POPs issues of ecological concerns in the NOWPAP region"

#### 1. Introduction

- 1.1. Goals and objectives of the Overview
- 1.2. General background information on NOWPAP
- 1.3. Geographical scope of NOWPAP area related to this Overview

#### 2. General characteristics of PTS

- 2.1. Persistent Toxic Substances Pesticides
- 2.2. Persistent Toxic Substances Industrial Compounds
- 2.3. Persistent Toxic Substances Unintentional By-Products
- 2.4. Regionaly Specific PTS

#### 3. Characteristic of PTS sources in the NOWPAP region

- 3.1. General information on PTS sources
- 3.2. Generation, use and discharge/emission
- 3.2.1 Pesticides
- 3.2.2 Industrial Compounds
- 3.2.3 Unintentional by-Products
- 3.3. Hot spots
- 3.4. Data gaps

## 4. Concentration and ecotoxicological effects of PTS in the environment of the NOWPAP region

- 4.1. Air/Atmospheric deposition
- 4.2. Fresh and sea waters and sediments
- 4.3. Soils
- 4.4. Hydrobionts
- 4.5 Temporal trends of PTS concentration
- 4.6. Ecotoxicological effects of PTS within NOWPAP Region

#### 5. Pathways of PTS transport

- 5.1. Overview of existing modeling approaches for PTS transport research
- 5.2. Existing monitoring programs regarding PTS transport.
- 5.3. Transboundary aspects of PTS transport

#### 6. Regulatory frameworks and capacity buildings

- 6.1. Existing laws and regulations
- 6.2. Existing management structures
- 6.3. Monitoring methods, objects and standards
- 6.4. Measures to reduce intentionally and non-intentionally produced PTS

#### 7. Recommendations for future regional activities and priorities

- 8. Conclusions
- 9. References