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NOWPAP



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Pacific
Action Plan**



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**Report of the 22nd NOWPAP MERRAC Focal Points Meeting & the
14th Competent National Authorities Meeting**

**Seoul, Republic of Korea
27-30 August 2019**

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**Regional
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Contents

Background	5
The Twenty-second NOWPAP MERRAC Focal Points Meeting & the Fourteenth Competent National Authorities Meeting for NOWPAP Regional Oil and HNS Spill Contingency Plan	6
Agenda item 1. Opening of the meeting.....	6
Agenda item 2. Organization of the meeting	7
Agenda item 3. Adoption of the agenda.....	7
The Twenty-second NOWPAP MERRAC Focal Points Meeting	7
Agenda item 4. Overview of the progress made during the intersessional period after the Twenty-first NOWPAP MERRAC Focal Points Meeting	7
Agenda item 5. Review of the progress made for each task agreed at the 21 st NOWPAP MERRAC Focal Points Meeting, and their future works	9
5.1. Routine Tasks	9
5.2. Specific Projects	10
Development of guidelines on the assessment of oil spill response capability in the NOWPAP region	10
Development of regional overview on the use of unmanned aircraft during (UAV) marine pollution response in the NOWPAP region	11
Assessment of oil spill emergency preparedness and response for the offshore platforms in the NOWPAP region.....	11
5.3. 2019 NOWPAP MERRAC Expert Meeting	11
Agenda item 6. Updates of the NOWPAP Regional Oil and HNS Spill Contingency Plan including its Annexes	12
The Fourteenth Competent National Authorities Meeting for NOWPAP Regional Oil and HNS Spill Contingency Plan	12
Agenda item 7. NOWPAP trainings and/or exercises	12
Agenda item 8. Exchange of latest information on marine pollution preparedness and response	13
The Fourteenth Competent National Authorities Meeting for NOWPAP Regional Oil and HNS Spill Contingency Plan	14
Agenda item 9. Workplan and budget for the 2020/2021 biennium and other future activities	14
Assessment of the implementation of OPRC Convention and OPRC-HNS Protocol in the NOWPAP region (proposed by China)	15
Study on the possible cooperation for MARPOL Convention in the frame of NOWPAP MERRAC (proposed by Korea)	15
Cooperation system for rapid-response oil spill modeling between NOWPAP and world-leading international modeling groups (proposed by MERRAC)	15
Response options for condensate spill in the context of update of NOWPAP MERRAC Regional Report on HNS Preparedness and Response, 2012 (proposed by Russia)	16
Development of MERRAC Strategic Plan for better implementation of regional cooperation on marine pollution preparedness and response in the NOWPAP region(proposed by MERRAC).....	16

Agenda item 10. Arrangement of intersessional work and venue and dates of the Twenty-third NOWPAP MERRAC Focal Points Meeting and the Fifteenth Competent National Authorities for NOWPAP Regional Oil and HNS Spill Contingency Plan	16
The Twenty-second NOWPAP MERRAC Focal Points Meeting	17
Agenda item 11. Other matters	17
Agenda item 12. Adoption of the report of the meeting	17
Agenda item 13. Closure of the meetings	17
Annex 1. 2019 MERRAC Brainstorming.....	18
Annex 2. List of Participants to the 2019 MERRAC Brainstorming Workshop.....	20
Annex 3. List of Participants to the 22nd NOWPAP MERRAC Focal Points Meeting & the Fourteenth Competent National Authorities Meeting.....	25
Annex 4. List of Documents for the 22nd NOWPAP MERRAC Focal Points Meeting & the Fourteenth Competent National Authorities Meeting.....	30
Annex 5. Agenda of the 22nd NOWPAP MERRAC Focal Points Meeting and the Fourteenth Competent National Authorities Meeting	31
Annex 6. Proposals for MERRAC Specific Projects in 2018-2019.....	34
a) Assessment on the implementation of OPRC Convention and OPRC-HNS Protocol in the NOWPAP region	34
b) Identification of regional cooperation activities for MARPOL convention under NOWPAP MERRAC framework.....	36
c) Response options for condensate spill in context of update of NOWPAP MERRAC Regional Report on HNS Preparedness and Response, 2012	38
d) Development of MERRAC strategic plan for better implementation of regional cooperation on marine pollution preparedness and response in the NOWPAP region	42
Annex 7. Draft Workplan for MERRAC Activities for the 2020/2021 Biennium	45
Annex 8. Proposed Budget for MERRAC Activities for the 2020/2021 Biennium.....	46
Annex 9. The List of the Tasks, and its Lead Country/Agency, Required Actions and Expected Outputs for 2019-2020.....	47
Routine Tasks carried out by MERRAC.....	47
Specific projects and/or activities coordinated by MERRAC during the intersessional period	50
Annex 10. List of files on the CD-ROM	52

List of Acronyms

AFS	Anti-Fouling Systems
CG	Correspondence Group
CNA	Competent National Authorities
FP	Focal Point
FPM	Focal Points Meeting
JCG	Japan Coast Guard
HELCOM	Convention on the Protection of the Baltic Sea Area
HNS	Hazardous and Noxious Substances
IGM	Intergovernmental Meeting
IMO	International Maritime Organization
ITOPF	International Tanker Owners Pollution Federation Ltd
KCG	Korea Coast Guard
KOEM	Korea Marine Environment Management Corporation
KR	Korea Register
MARPOL	International Convention for the Prevention of Pollution from Ships
MARPOLEX	Regional Marine Pollution Exercise
MEPC	Marine Environment Protection Committee
MERRAC	Marine Environmental Emergency Preparedness and Response Regional Activity Center
MoU	Memorandum of Understanding
MRS	Marine Rescue Service
MTS	Medium-Term Strategy
NOAA	National Oceanic and Atmospheric Administration
NOWPAP	Northwest Pacific Action Plan
OPRC	International Convention on Oil Pollution Preparedness, Response and Co-operation
OSEAN	Our Sea of East Asia Network
OSRL	Oil Spill Response Limited
POLREP	Online Pollution Reporting system
POLWARN	Part I of POLREP
POLFAC	Part III of POLREP
RAC(s)	Regional Activity Center(s)
RAP MALI	Regional Action Plan on Marine Litter
RCP	Regional Oil and HNS Spill Contingency Plan
RCU	Regional Coordination Unit
REMPEC	Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea
REMPTEIC-Carib	Oil Spills Regional Activity Centre of the Cartagena Convention
RITAG	Region Industry Technical Advisory Group
TOR	Terms of Reference
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UNEA	United Nations Environment Assembly
UNEP	United Nations Environment Programme

**THE TWENTY-SECOND NOWPAP MERRAC FOCAL POINTS MEETING &
THE FOURTEENTH COMPETENT NATIONAL AUTHORITIES MEETING
FOR NOWPAP REGIONAL OIL AND HNS SPILL CONTINGENCY PLAN
(Seoul, Republic of Korea, 28-30 August 2019)**

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 in September 1994 at the First Intergovernmental Meeting (IGM) by the NOWPAP Members, namely the People's Republic of China, Japan, the Republic of Korea, and the Russian Federation (hereinafter referred to as China, Japan, Korea and Russia). In order to implement NOWPAP activities related to the development of effective measures for regional cooperation on marine pollution preparedness and response, it was recommended that a regional Forum be created under the NOWPAP framework.
2. In March 2000, the Marine Environmental Emergency Preparedness and Response Regional Activity Center (MERRAC) was established in Daejeon, Korea. Based on the decision of the Fourth Forum Meeting, the name of the Forum has been changed to "NOWPAP MERRAC Focal Points Meeting (FPM)" and MERRAC serving as a Secretariat for the meeting.
3. The Seventh NOWPAP MERRAC FPM (2004) decided to organize "Competent National Authorities (CNA) Meeting" once a year for the NOWPAP Regional Oil Spill Contingency Plan (hereinafter referred to as Plan) which had previously been adopted at the Eighth NOWPAP IGM (2003), in conjunction with the NOWPAP MERRAC FPM, in order to discuss the issues related to the Plan. Since 2001, MERRAC has also been organizing Expert Meetings to discuss and review, at a technical level, various topics related to MERRAC activities.
4. The Ninth NOWPAP MERRAC FPM (2006) agreed to amend relevant parts of the Plan to cover the HNS (hazardous and noxious substances) and the amended Plan came into effect at the Thirteenth NOWPAP IGM (2008).
5. The Seventeenth NOWPAP MERRAC FPM (2014) agreed to adopt the new paragraph 5.2.1 of the NOWPAP Regional Oil and HNS Spill Contingency Plan (RCP) to enhance the interactive communication on oil and HNS spill information among NOWPAP Members and accordingly the adopted paragraph entered into force upon the adoption of the meeting report on 13 June 2014.
6. The Twentieth NOWPAP MERRAC FPM (2017) agreed and the Twenty-second NOWPAP IGM (2017) approved the budget and work plan for MERRAC activities for the 2018/2019 biennium, and it has been decided to allocate USD 194,250 as MERRAC budget for the 2018/2019 biennium.
7. Upon the agreement of Twenty-first NOWPAP MERRAC FPM and the intersessional communication among the member states, back to back with the MERRAC Brainstorming Workshop (27 August 2019, the meeting minutes are attached as Annex 1), the Twenty-second NOWPAP MERRAC FPM and the Fourteenth CNA Meeting were held from 28 to 30 August 2019 in Seoul, Korea.

The Twenty-second NOWPAP MERRAC Focal Points Meeting & the Fourteenth Competent National Authorities Meeting for NOWPAP Regional Oil and HNS Spill Contingency Plan

Agenda item 1. Opening of the meeting

8. The meeting was opened at 10:00 a.m. on 28 August 2019 in Seoul, Korea by the welcome remarks made by Dr. Seong-Gil KANG, Director of MERRAC. He welcomed all the participants, highlighting that the brainstorming meeting was meaningfully held back to back with this FPM in order to assess the last activities and identify new activities/tasks/projects to be done in the future under the MERRAC framework in order to better implement MERRAC's designated missions. He also mentioned that this meeting would discuss the new work plan and budget for the 2020/21 biennium, after reviewing that the activities for 2018-2019 are generally well on-going as being planned due to the active supports from members states, IMO and RCU.

9. Dr. Chunchang ZHANG, Deputy Director of China Maritime Safety Administration (MSA) stated that he was able to witness a good spirit of cooperation among the member states during both the Hebei Spirit and SANCHI incidents, which was possible due to the regional cooperation built gradually through twenty years of history of cooperative activities. He also mentioned that without the NOWPAP RCP member states they would not have been able to build a foundation for such strong regional cooperation.

10. Dr. Hyunjin CHO, Director of Marine Pollution Response Planning Division, Korea Coast Guard (KCG) stated that it was a great pleasure to participate in the meeting and meet focal points and participants of the meetings for the first time. She also mentioned that she was grateful to hear that active and fruitful discussions were made during the brainstorming workshop and expressed her wishes for the MERRAC FPMs to continue to build a solid platform for further practical regional cooperation in the future.

11. Dr. Natalia KUTEVA, Counsellor to the Director of Federal State Budgetary Institution "Marine Rescue Service" (MRS), Russia, expressed her appreciation to the MERRAC Secretariat and KCG for organizing the meetings. She highlighted that the achievements of the MERRAC activities were very successful and beneficial for mutual cooperation in the region and also expressed her wishes for a continuous regional cooperation in the future.

12. Mr. Keisuke YAMANE, Special Assistant to the Director, Guard and Rescue Department, Japan Coast Guard (JCG) expressed his appreciation to the MERRAC Secretariat for organizing the meetings and stated that he hopes the level of oil spill response capacity in the NOWPAP region will continue to strengthen through cooperation among the member states.

13. Dr. Ning LIU, Programme Officer of NOWPAP RCU, stated that governments around the world have been working proactively to achieve UN SDG: during the 2017 UN Ocean Conference more than 1,400 voluntary commitments have been registered to advance the implementation of SDG 14, and the UN Decade proclaimed by the UN General Assembly in December 2017 endeavors to provide countries full supports to achieve the 2030 Agenda SDGs through ocean science. He ended his statement by emphasizing that the NOWPAP Regional Coordination Unit (RCU) believes that MERRAC can play an important role in helping member states to achieve the SDGs and wished both meetings great success.

14. Mr. Roel HOENDERS, Technical officer of IMO, expressed his appreciation to the MERRAC secretariat for preparation of the meetings and underlined the importance of the work and framework of MERRAC through which twenty years of cooperation has been built in the region. He also congratulated the member states for successfully organizing the brainstorming workshop where a collective willingness to address new and emerging environmental challenges in the NOWPAP region and to assess the past efforts for further improvement was clearly demonstrated.

Agenda item 2. Organization of the meeting

15. In accordance with paragraph 5.2 of the Terms of Reference (TOR) of the NOWPAP MERRAC Focal Points Meeting (FPM), the meeting elected a Chairperson and a Rapporteur as follows:

- Chairperson: Dr. Se Jin PARK, Deputy Director, Marine Pollution Response Planning Division, Korea Coast Guard (KCG)
- Rapporteur: Dr. Natalia KUTAEVA, Counsellor to the Director, Federal State Budgetary Institution "Marine Rescue Service" (MRS), Russia

16. The meeting agreed to apply the rules of procedure in line with the provisions in the Terms of Reference of the NOWPAP MERRAC Focal Points Meeting. The meeting also agreed that English would be the working language and all decisions would be made by consensus.

17. Dr. KANG (MERRAC) introduced the list of working and information documents (UNEP/IMO/NOWPAP/MERRAC/FPM 22/INF1), as listed in Annex 4.

Agenda item 3. Adoption of the agenda

18. The annotated provisional agenda (UNEP/IMO/NOWPAP/MERRAC/FPM 22/1) was introduced by Dr. KANG (MERRAC). The meeting adopted the agenda as shown in Annex 5.

The Twenty-second NOWPAP MERRAC Focal Points Meeting

Agenda item 4. Overview of the progress made during the intersessional period after the Twenty-first NOWPAP MERRAC Focal Points Meeting

19. Dr. LIU (RCU) reported the progress of the entire NOWPAP activities made during the intersessional period including the activities of NOWPAP RACs, NOWPAP RAP MALI, Special Projects, building partnership and also the outcomes of the Twenty-third NOWPAP IGM held in October 2018 in Moscow, the Russian Federation (UNEP/IMO/NOWPAP/MERRAC/FPM 22/2).

20. As Mr. Peng GUO (China) kindly requested clarification on the role of the RAP MALI Focal Points and its ToR adopted during the last IGM, Dr. LIU (RCU) explained how the role of the RAP MALI FPs and MERRAC FPs for the RAP MALI activities are being distinguished, and that the MERRAC FPs will be reported on the results of the RAP MALI activities and their comments and recommendations will be conveyed to the RAP MALI FPs who will be making decisions on the RAP MALI activities.

21. Ms. Young-Hwa YEO (Korea) stated that marine litter and marine biodiversity are important issues globally and kindly requested RCU to continuously share the results of the related projects in the future.

22. Mr. HOENDERS (IMO) was invited to introduce the IMO's works on marine pollution prevention, preparedness and response, based on the major outcomes of the 73rd and 74th MEPC and 6th PPR meeting. Mr. HA (Korea) commented that the RACs including MERRAC were invited to present their works and achievements during the last PPR meeting and thanked IMO for providing such a good platform for information sharing among the RACs and members of different RACs. In addition, Dr. KANG (MERRAC) stated that MERRAC would like to continue to participate in the IMO activities in the future and also to make efforts to implicate IMO activities in the MERRAC activities. Dr. KANG (MERRAC) also proposed participation of IMO in the NOWPAP IGM and providing supports in developing NOWPAP long-term strategy.

23. In response, Mr. HOENDERS (IMO) stated that IMO will continue to make its utmost efforts to provide supports to the MERRAC activities in the future and would consider IMO's participation to the next NOWPAP IGM.

24. By taking this opportunity, Dr. KUTAEVA (Russia) expressed her sincere gratitude to the member states for their participation to the Correspondence Group on Development of Guidelines on Measures to Reduce Risks of Use and Carriage of Heavy Fuel Oil as Fuel by Ships in Arctic Waters established by PPR 6.

25. Subsequently, Dr. KANG (MERRAC) briefly reported on the activities of MERRAC implemented during the intersessional period after the Twenty-first NOWPAP MERRAC FPM (UNEP/IMO/NOWPAP /MERRAC/FPM 22/4). He also presented the expenditure of MERRAC for the 2018/2019 Biennium (UNEP/IMO/NOWPAP /MERRAC/FPM 22/5).

26. Ms. YEO (Korea) commented on the cost of maintenance of the new MERRAC website and format for the budget, kindly requested MERRAC for more active involvement in other international forums and to develop MoUs with domestic/international entities such as CEDRE, NOAA, SINTEF and Korea Register (KR) to overcome the problem on the shortage of human resources in the MERRAC Secretariat. Dr. Kang, in response, replied that the comments made will be reflected in the future and that a small amount of extra budget will be required to maintain the new MERRAC website and in terms of expenditure of MERRAC for 2018-2019 biennium, she also commented the contents of the activities on table 1 and 2 should be modified to be the same.

27. The meeting also requested the MERRAC Secretariat to share more information about the business trips (i.e. PPR meeting) under the Agenda 8 and also to make clearer budget and work plan tables to avoid any confusion in the future. Concerning the list of in-kind contribution, the meeting was informed that the list would be re-circulated to the member states after the FPM for review before submitting to the next NOWPAP IGM.

**Agenda item 5. Review of the progress made for each task agreed at the 21st
NOWPAP MERRAC Focal Points Meeting, and their future works**

5.1. Routine Tasks

28. Ms. Joung-Yun LEE (MERRAC) reported the general progress made for each task during the intersessional period (UNEP/IMO/NOWPAP/MERRAC/FPM 22/6). The NOWPAP Member States have submitted to MERRAC the up-to-date information on each issue below, which has been addressed during the intersessional period in their respective countries. The tasks and relevant documents are as followings:

- Focal Points (Annex 1 of UNEP/IMO/NOWPAP/MERRAC/FPM 22/6)
- Information system (Annex 2 and 3 of UNEP/IMO/NOWPAP/MERRAC/FPM 22/6)
- Report on oil and HNS pollution incidents (Annex 4 and 5 of UNEP/IMO/NOWPAP/MERRAC /FPM 22/6)

29. Ms. LEE (MERRAC) informed the meeting on the changes of Focal Points of Japan and Korea, Coordinator of NOWPAP RCU and Director of Marine Environment Division of IMO as follow:

- From Mr. Nobuhisa KANEKO to Mr. Norihiro ISHIZAKI (Japan)
- From Mr. Chan Geun LEE to Dr. Hyun Jin CHO (Korea)
- From Dr. Lev NERETIN to Dr. Yegor VOLOVIK (NOWPAP RCU)
- From Dr. Stefan MICALLEF to Mr. Hiroyuki YAMADA (IMO)

30. She also presented the updated lists on equipment, related institutions and experts of the NOWPAP members and oil and HNS spill incidents in the NOWPAP region.

31. Dr. KUTAEVA (Russia) requested clarification on the format of the Information System, which has no standards and instruction for the subsection to record information on equipment (velocity: maximal or optimal, skimmer: what kind of rate of recovery, velocity of oil, capability options, etc.) and marine pollution incidents.

32. The meeting recognized the need for a technical guideline to add information and be shared among the NOWPAP Member States easily. Concerning the format of the Information System, Mr. HA (Korea) recommended MERRAC to change the list of major resources in the IOA format for long-term use and he mentioned the necessity of information sharing with other Regional Sea Programs for international assistance.

33. After a discussion on the format of Information System, the meeting requested the NOWPAP Member States to give suggestions for the development of a technical guideline to the MERRAC Secretariat during the intersessional period. The meeting also agreed to discuss on how to use the new format and how to accommodate the suggestions at the next MERRAC FPM.

34. The meeting also kindly requested the NOWPAP Members to promptly exchange information on oil and HNS spills in accordance with the NOWPAP RCP through the Online POLREP system for an active cooperation among the members and also asked the MERRAC Secretariat to continuously

maintain and update the list of Focal Points, Information system and oil and HNS incidents as Routine Tasks.

5.2. Specific Projects

35. Ms. LEE (MERRAC) reported the general progress of the following three Specific Projects that have been carried out during the intersessional period (UNEP/IMO/NOWPAP/MERRAC/FPM 22/7):

- Development of guidelines on the assessment of oil spill response capability in the NOWPAP region (leading country: China)
- Development of regional overview on the use of unmanned aircraft during marine pollution response in the NOWPAP region (leading country: China)
- Assessment of oil spill emergency preparedness and response for the offshore platform in the NOWPAP region (leading country: Russia)

36. She also reported the progress of the RAP MALI project carried out during the intersessional period and presented the draft report on 'Understanding of Floating Marine Litter sources and flows' (Annex 4 of UNEP/IMO/NOWPAP/MERRAC/FPM 22/7), mentioning details of the reports will be reviewed by the RAP MALI FPs later.

37. Ms. YEO (Korea) expressed thanks to the MERRAC Secretariat for dedication on the implementation of the Specific Projects. She also pointed out that the Specific Projects for the 2018/2019 biennium would be reviewed and finalized by the end of this year, and proposed that a small group would be organized in implementing the Specific Projects, if necessary. She also requested the overall management of MERRAC over the implementation of the Specific Projects.

38. Following the presentations, the meeting discussed the progress, expected achievements and/or recommendations on future works for each Specific Project as below.

Development of guidelines on the assessment of oil spill response capability in the NOWPAP region

39. Mr. Xudong CONG (China) presented the current progress and draft guidelines on the Assessment of Marine Oil Spill Response Capability in the NOWPAP Region (Annex 1 of UNEP/IMO/NOWPAP/MERRAC /FPM 22/7). He reported the current status collected for the assessment of the oil spill response capability in the NOWPAP region, and also introduced the principle, key indicators and calculative method for the assessment of oil spill response capability.

40. The meeting requested the leading expert to insert references on the assessment method, examples with real application and its results, and simple explanation on how the expert has reached this equation to develop the guidelines. In response, Mr. CONG (China) explained that the guidelines were developed based on previous studies, which were conducted in China during 2010-2013, and an industrial standard developed through the studies has been enacted by the Ministry of Transport of China.

41. Dr. KANG (MERRAC) suggested two proposals on the submitted formula 1) to insert more scientific basis, academic references or internal data on application results, and 2) to compare the results by applying it to actual cases such as the Hebei spirit incident, in order to clarify the calculations. In response, Dr. ZHANG (China) agreed that other explanations would be needed to

support the guidelines and emphasized that these guidelines were intended to be used for preparedness and capacity building, not for the response.

42. The meeting decided to conclude this project and to finalize the report in consultation with the MERRAC Secretariat after having reflected the additional comments raised during the meeting.

Development of regional overview on the use of unmanned aircraft during (UAV) marine pollution response in the NOWPAP region

43. Mr. GUO (China) presented the draft report on the Regional Overview on the Use of Unmanned Aircraft during Marine Pollution Response in the NOWPAP Region (Annex 2 of UNEP/IMO/NOWPAP/MERRAC/FPM 22/7). He briefly explained the related law and regulations, planning and scope of the application. He also presented the related response strategy, requirements on the functions of UAV, typical UAV equipped by the NOWPAP members and cases/experiences.

44. Dr. Tae Hwan JOUNG (MERRAC) inquired about the use of drone in severe weather and diplomatic issues that might be raised during transboundary pollution incidents. In response, Mr. GUO (China) explained that the existing international laws such as UNCLOS and the related domestic laws of Members might be considered if joint responses were conducted.

45. The meeting decided to conclude the project by the end of this year, and finalize the report by adding technical contents on the international/domestic laws and limitations on drone-use as a reference.

Assessment of oil spill emergency preparedness and response for the offshore platforms in the NOWPAP region

46. Dr. Valentine ZHURAVEL (Russia) presented the progress made on the assessment of oil spill emergency preparedness and response for the offshore platform in the NOWPAP region (Annex 3 of UNEP/IMO/NOWPAP/MERRAC/FPM 22/7). He reported the history of oil spill emergency preparedness, offshore activities/platforms, protective barrier concept and tiered response concept. He also briefly explained the minimum requirements and projected minimum recommendations, requesting that the report was not prepared yet due to lack of data from some national experts of NOWPAP countries.

47. After lengthy discussions, the meeting decided that the project will focus only on the Sakhalin area under the NOWPAP MERRAC Regional Oil and HNS spill Contingency Plan as a case study as it is difficult to get certain necessary data from all member states and finalize it as a technical tool which will be available to the member states in case it is needed. The meeting also decided to finalize the report after having reflected the comments made during the meeting and submit to the next FPM for review and finalization.

5.3. 2019 NOWPAP MERRAC Expert Meeting

48. Mr. YAMANE (Japan) presented the plan for the organization of the 2019 MERRAC Expert Meeting to be held on 18-19 December 2019 in Tokyo, Japan (Annex 1 of UNEP/IMO/NOWPAP/MERRAC/FPM 22/8). He emphasized the benefits of having public-private cooperation by exchanging information and knowledge on oil spill response. Furthermore, he requested each member country to nominate participants of the Expert Meeting, including private sectors and delivering presentations about public-private cooperation framework in their countries.

49. Ms. YEO (Korea) asked MERRAC how many experts can be financially supported to participate in the expert meeting. In response, Dr. KANG (MERRAC) replied that a total of three experts per country could be supported by the budget for organization of the expert meeting (USD 27,000), and expense for accommodation fee for Expert Meeting will be funded up to three persons per country.

50. Dr. KUTAEVA (Russia) also asked what kind of private institutions should be participating in the meeting. The meeting participants gave examples of private international institutions for the 2019 MERRAC Expert Meeting, such as ITOFF, RITAG and OSRL. In response, Mr. YAMANE (JCG) stated that JCG would send invitation letters to NOWPAP member countries and regional/international institutions such as ITOFF and OSRL as soon as possible. The domestic institutions in the NOWPAP Member States might be nominated by the MERRAC FP of each NOWPAP Member State.

Agenda item 6. Updates of the NOWPAP Regional Oil and HNS Spill Contingency Plan including its Annexes

51. Regarding the establishment of a procedure for the exchange of oil sample for transboundary marine pollution incidents, Ms. YEO (Korea) made a brief presentation on the overall progress made on the establishment of a procedure for the exchange of oil sample.

52. The NOWPAP Members were requested to discuss the 4 options suggested during the 21st MERRAC FPM (2018), to decide the future directions. Some concerns were raised by the member states regarding revision of the NOWPAP RCP such as legal challenges and its practicality during emergent situations (i.e. time constraint, transportation issue) and decided to adopt it as a guideline.

53. The meeting decided in principle to adopt the option for making the oil sample exchange in the format of a guideline after carrying out few editorial works during the intersessional period and to review the draft guideline at the next MERRAC FPM for finalization.

54. Mr. HA (Korea) pointed out that IOA was developed and is being used as a universal tool for international aids. Accordingly, he raised the need to revise the RCP to reflect the IOA at the later stage. The meeting requested Korea to present the content of IOA in more details at the next MERRAC FPM. He also suggested MERRAC to present an overview of IOA at the next NOWPAP IGM and Dr. KANG (MERRAC) agreed to it.

The Fourteenth Competent National Authorities Meeting for NOWPAP Regional Oil and HNS Spill Contingency Plan

Agenda item 7. NOWPAP trainings and/or exercises

55. Mr. YAMANE (Japan) was invited to present the outcomes of the 7th NOWPAP DELTA Exercise (Annex 1 of UNEP/IMO/NOWPAP/MERRAC/FPM 22/10), which was conducted in Maizuru city, Japan on 2-5 October 2018 led by Japan and Russia.

56. The NOWPAP Member States and MERRAC expressed their gratitude to Japan and Russia for organizing the NOWPAP DELTA Exercise successfully, and hoped to continue strengthening the cooperation.

57. Mr. GUO (China) was invited to present the results of the 20th NOWPAP BRAVO Exercise (Annex 2 of UNEP/IMO/NOWPAP/MERRAC/FPM 22/10). He also suggested that the frequency of the Exercise may be reduced to once a year and duration of individual exercise may be extended, according to the situation of the leading and the participating organizations and requested MERRAC to add the function of 'Save information/report' to the Online POLREP system. The meeting agreed to the proposals.

58. In addition, Mr. YAMANE (Japan) requested MERRAC to add a temporary save function when creating the report at the system. In response to the requests made by the delegation of China and Japan, the meeting decided that MERRAC would check the function of the POLREP system and conduct further maintenance during the intersessional period.

59. Next, Mr. HA (Korea) was invited to introduce the draft plan for the organization of the 8th NOWPAP DELTA Exercise, which will be conducted back to back with the 23rd MERRAC FPM in June, 2020 and led by Korea and China.

60. Expressing his thanks to Korea for leading the 8th NOWPAP DELTA Exercise, Mr. GUO (China) mentioned that China would closely cooperate with Korea for the implementation of the Exercise and discuss detailed arrangements including objectives, date and venue of the Exercise, and dispatch of the oil spill response vessel(s).

61. Subsequently, Dr. KUTAEVA (Russia) briefly introduce the draft plan of the 21st NOWPAP BRAVO Exercise, which will generally be conducted with the aim of strengthening regional cooperation on the marine pollution response under the NOWPAP RCP. The meeting requested MERRAC that any modifications to the POLREP system made would be corrected before the next BRAVO Exercise.

62. Regarding the extension of the duration of NOWPAP BRAVO Exercise, Dr. KUTAEVA (Russia) suggested that the first day for POLWARN, the second day for POLINF, and the third day for POLFAC. Consequently, the meeting decided to conduct 3 - 5 days of NOWPAP BRAVO Exercise to efficiently share incident information, mobilize other relevant institute and support international assistance/cooperation.

63. In this regards, Dr. KUTAEVA (Russia) informed that draft scenario of this exercise is planning to consider at the 24th SAR Operational Level Meeting which will be held from 21 to 25 October 2019 in Vladivostok, Russia.

Agenda item 8. Exchange of latest information on marine pollution preparedness and response

64. Based upon the request made by the Chairperson, NOWPAP Members give a total of 4 presentations regarding the latest information on marine pollution preparedness and response (UNEP/IMO/ NOWPAP/MERRAC/FPM 22/11) as follows¹:

- China: Research and Application of the Oil-Type Differentiation Technology for Oil Spill from Unknown Sources

¹ Above presentation files are provided by an electronic form of the CD, as listed in Annex 10.

- Japan: The report of the Marine Pollution Exercise (MARPOLEX) in Davao with the Philippines and Indonesia.
- Korea: 2018 Case Study M/T HANYU KOREA Incident
- Russia: Latest information on national oil spill preparedness and response system

65. Mr. GUO (China) presented oil-type differentiation technology for oil spill from unknown sources. He informed current methods which named “Oil Fingerprint”, and described the way develop the method of oil-type differentiation. He also mentioned that NOWPAP members are invited to promote the technical cooperation of the Oil Spill Identification.

66. Mr. YAMANE (Japan) presented about MARPOLEX, which is an oil response exercise conducted by Japan, the Philippines and Indonesia, in Davao on 1-5 July 2019. He also mentioned the concrete exercise scenario and contents of the MARPOLEX with the appropriate videos.

67. Mr. HA (Korea) presented the case study of M/T HANYU KOREA Incident. He described briefly about the information of the incident and response operations of the Korea Coast Guard, which was well organized and safe. From the case study, they learned the lessons and he suggested reviewing the “Salvage operation as a preventive measure for minimizing damages” to expand future working scope of MERRAC.

68. Dr. KUTAEVA (Russia) made a presentation on the Russian oil spill preparedness and response system. She also introduced MRS and its branches with geographically described locations of divisions as well as information about special vessels, new equipment and scope of OSR activities. A lot of trainings and exercises which were implemented during the intersessional period were also introduced to the meeting with relevant pictures.

The Fourteenth Competent National Authorities Meeting for NOWPAP Regional Oil and HNS Spill Contingency Plan

Agenda item 9. Workplan and budget for the 2020/2021 biennium and other future activities

69. Dr. KANG (MERRAC) presented the draft work plan and budget for the 2020/2021 biennium (UNEP/IMO/NOWPAP/MERRAC/FPM 22/12), describing the two budget options (A: USD 185,000, B: USD 205,000) for the approval of the next 24th NOWPAP IGM. He explained the background why he prepared two options: A option is the same amount with the previous biennium and B option is increased one by some portions (USD 20,000) compared to the previous one.

70. Regarding the development of Strategic Plan for MERRAC, NOWPAP Member States inquired on budget, purpose, detailed contents, expert group and need of ToR of Correspondence Group on the project.

71. In response, Dr. KANG (MERRAC) explained that MERRAC had accomplished a lot over the last 20 years and it is the moment to move on the next step under a more systematic and strategic umbrella, and he stressed the need to develop a new operational or working system for MERRAC in the long term. Dr. KANG (MERRAC) further explained that the review paper would be developed based on the various ideas and activities suggested in the brainstorming workshop from member states.

72. Stressing the importance of the direct inputs from MERRAC FPs, Dr. LIU (RCU) mentioned that Strategic Plan of MERRAC, rather than NOWPAP MTS, could specifically reflect the opinions of MERRAC FPs.

73. The meeting invited to make a presentation about proposals for new specific projects to be implemented during the next biennium and then considered them project by project.

Assessment of the implementation of OPRC Convention and OPRC-HNS Protocol in the NOWPAP region (proposed by China)

74. Mr. CONG (China) presented the proposal on the new MERRAC specific project for 2020/2021 biennium (Annex 2-1 of UNEP/IMO/NOWPAP/MERRAC/FPM 22/12), entitled on 'Assessment of the implementation of OPRC Convention and OPRC-HNS Protocol in the NOWPAP region'. He provided an introduction on necessity and the purpose for the assessment on the implementation of OPRC Convention and OPRC-HNS Protocol for the NOWPAP Members in accordance with the IMO Guide approved at MEPC74.

75. After reviewing the proposed project, the meeting recognized the need for implementing the convention and protocol in the NOWPAP region.

76. Mr. HOENDERS (IMO) commented that the OPRC Convention and OPRC-HNS Protocol in the NOWPAP region could be a good example on implementation of one of the IMO regulations, requesting that, as one content of this project, NOWPAP members and MERRAC would participate into their work for making a short video facilitating the ratification and implementation of OPRC Convention and OPRC-HNS Protocol. The meeting accepted the request.

Study on the possible cooperation for MARPOL Convention in the frame of NOWPAP MERRAC (proposed by Korea)

77. Mr. HA (Korea) presented a proposal for a new specific project for 2020/2021 biennium (Annex 2-3 of UNEP/IMO/NOWPAP/MERRAC/FPM 22/12), which is 'A study on the possible cooperation for MARPOL Convention in the frame of NOWPAP MERRAC'. He also briefly introduced the background, necessity and purpose of the project to the meeting, and discussed the detailed activities to be conducted.

78. As the MERRAC FPs has concerned about the title due to its gap of scope between international regulation (MARPOL) and MERRAC Strategic Plan, the meeting agreed to modify the title of the project as 'Identification of regional cooperation activities for MARPOL convention under NOWPAP MERRAC framework'.

Cooperation system for rapid-response oil spill modeling between NOWPAP and world-leading international modeling groups (proposed by MERRAC)

79. Regarding proposal made by MERRAC, 'Cooperation system for rapid-response oil spill modeling between NOWPAP and world-leading international modeling groups', Dr. JOUNG (MERRAC) made the presentation about the necessity and main content of a cooperation system for the rapid response when oil spill incidents occurred in the NOWPAP region (Annex 2-5 of UNEP/IMO/NOWPAP/MERRAC/FPM 22/12).

80. Dr. ZHANG (China) invited MERRAC secretariat to review the background information 10 years ago when the same topic discussed by MERRAC meetings, to analyze the necessity, feasibility, any sensitive issues to be involved in and out of the NOWPAP region.

81. In the questions from the Russian delegation on the reliability of the modelling and expert group, Dr. KANG (MERRAC) mentioned that the expert group could only be started after the agreement from MERRAC FPs first, and the modeling results would be used for internal verification of their national modelling results of each country as reference.

82. After a lengthy discussion, the meeting agreed that the project should be considered as a part of the proposal of MERRAC Strategic Plan.

Response options for condensate spill in the context of update of NOWPAP MERRAC Regional Report on HNS Preparedness and Response, 2012 (proposed by Russia)

83. Dr. ZHURAVEL (Russia) presented the proposal for the new MERRAC specific project for 2020/2021 biennium, entitled on 'Response options for condensate spill in the context of update of NOWPAP MERRAC Regional Report on HNS Preparedness and Response, 2012'. A brief introduction of background, necessity and purpose of the project were introduced, and the detailed activities were discussed at the meeting.

84. In order to concrete the activities of the project, Dr. KANG (MERRAC) suggested updating the previous report on 'Regional Report on HNS Preparedness and Response, 2012', especially, including the specific targets for condensate, cutting edge of technology and review of the related references.

Development of MERRAC Strategic Plan for better implementation of regional cooperation on marine pollution preparedness and response in the NOWPAP region(proposed by MERRAC)

85. The meeting decided to revise the proposals submitted by MERRAC Secretariat in order to reflect the discussion and conclusions made during this FPM, agreeing to modify the budget and scope of proposal of the MERRAC Strategic Plan to cover organization of expert groups on specific issues such as oil finger-print, oil spill modelling, emergency salvages, etc.

86. Following the presentation on the proposals for each project, discussions on detailed contents, working schedule and/or relevant budget, and technical purpose had been made among the participants. After the consultation among the head of delegations and MERRAC Secretariat, the meeting decided to submit four proposals with modifying title and/or contents of the projects as the new MERRAC Specific Projects for 2020/2021.

87. The meeting requested the leading country of each project to submit detailed proposals within a month after the meeting and MERRAC to circulate them to MERRAC FPs before submission to next IGM for their final approval.

88. After the lengthy discussions, the meeting decided the draft work plan and its budgetary plan for next biennium 2020-2021 as listed in Annex 8, and also agreed to submit them to the next NOWPAP IGM for their final approval.

Agenda item 10. Arrangement of intersessional work and venue and dates of the Twenty-third NOWPAP MERRAC Focal Points Meeting and the

Fifteenth Competent National Authorities for NOWPAP Regional Oil and HNS Spill Contingency Plan

89. Dr. KANG (MERRAC) explained the Routine Tasks and the Specific Project to be implemented during the intersessional period will be prepared after the meeting and then attached later in Annex 9.

90. The NOWPAP Member States decided that the Twenty-third NOWPAP MERRAC Focal Points Meeting and the Fifteenth Competent National Authorities Meeting would be held in June back-to-back with 8th NOWPAP DELTA Exercise to be led by Korea and China in the western coast of Korea and the exact venue and dates of the meeting would be communicated via email by January 2020.

The Twenty-second NOWPAP MERRAC Focal Points Meeting

Agenda item 11. Other matters

91. Upon the invitation of the Chairperson, Ms. Ga Young JU (KOEM) made a presentation on the international cooperation in the private sector for oil spill response, which is carried out under the framework of the RITAG (Region Industry Technical Advisory Group) and its activities. She also introduced the members of RITAG and their activities on response activities for oil spill incident in Asian countries.

92. Dr. Duarte SOARES (ITOPF) presented on the recent trends on spill response in the NOWPAP region and provided a worldwide overview of ITOPF's activities. He pointed out that ITOPF attended 32 incidents worldwide in the last 24 months of which bunker oil was 66%, crude oil 12% and others 22%. He highlighted that ITOPF had been involved in some of the accidents occurring in the NOWPAP region since 1980, and the data for the tanker spills in the NOWPAP region has been accumulated systematically.

Agenda item 12. Adoption of the report of the meeting

93. This summary report was adopted by the meeting. The full report, including Annex 3 - Annex 10 will be published after editorial correction via email communication among the Members within a month after the meeting.

Agenda item 13. Closure of the meetings

94. The meeting will be closed at 13:00 p.m. on 30 August 2019 by the Chairperson.

Annex 1. 2019 MERRAC Brainstorming

MINUTES OF THE 2019 BRAINSTORMING WORKSHOP MINUTES

(Seoul, Republic of Korea, 27 August 2019)

95. Upon the approval of the 22nd NOWPAP IGM (2017) and agreement of the 21st MERRAC FPM (2018), the 2019 MERRAC brainstorming workshop was held on 27 August 2019 in Seoul, prior to the 22nd FPM, in order to review regional cooperative activities made under the MERRAC framework over the past years since its establishment and identify new activities and/or tasks to be implemented by MERRAC in the future considering newly emerging global and regional issues in the field of on marine pollution preparedness and response.

96. Representatives of the NOWPAP member states of People's Republic of China, Japan, Republic of Korea, the Russian Federation, and representatives of IMO, NOWPAP RCU, ITOFF, OSRL and CEARAC attended the workshop. The list of participants at the workshop is attached in the last page of the minutes.

97. The Director of MERRAC reported the achievements of the MERRAC activities made during the past 20 years, and identification of the weakness and challenges that need to be overcome in the future. He briefly reported on the major achievements of MERRAC and results of the self SWOT analysis of the MERRAC activities and framework, with suggestions on possible follow-up activities which may result in strengthening the MERRAC activities and working framework.

98. Representative of IMO also introduced the IMO's activities including current regional cooperative activities of other regional seas with special reference to REMPEC and REMPTEIC-Carib. By indicating that some of the international shipping-related work of RACs which use to focus mainly on the promotion of ratification/implementation of the OPRC-90 and the OPRC-HNS Protocol have recently been extended to IMO's other environment-related Conventions i.e. MARPOL, port reception facilities, BW Management Convention and Convention on the Control of Harmful Anti-fouling Systems (AFS) on Ships, he made some important reflections proposing possible MERRAC activities to be implemented in the future in the NOWPAP region.

99. The Deputy Coordinator of NOWPAP RCU was also invited to present the recent works of UNEP, NOWPAP 2018-2013 MTS and the NOWPAP priorities in terms of regional cooperation activities relevant to the MERRAC framework. By introducing the recent outcomes of the UNEP's work which include resolutions of the UNEA 3 and 4, Blue economy conference and UN Decade of Ocean Science, he stressed the importance of linking the MERRAC activities with the global and UNEP environmental goals.

100. Followed by the presentations made by the representative of IMO and NOWPAP RCU, the member states discussed the proposals on new MERRAC activities, tasks and/or specific projects to be implemented by MERRAC in the future, by reviewing the answers of the questionnaire which was circulated to the member states prior to the workshop during the intersessional period.

101. During the discussions, the member states generally reviewed that the activities by MERRAC over last 20 years were very successful and contributed to increase the level of preparedness against oil and chemical spills in the NOWPAP region, including proposed some new topics to be covered by MERRAC in the future, as listed in Annex 7. Regarding the scope of activities to be covered under

the MERRAC frameworks, most participants expressed their view that MERRAC should stick to current scope on oil and chemical spill issues rather than expanding to other IMO convention-related issues.

102. The representatives also made several proposals regarding changes of the operational and/or working framework of MERRAC such as establishing an expert group meeting or technical workshop back-to-back with the MERRAC FPM for more in-depth/ technical discussions of the relevant topics to regional cooperative activities on marine pollution preparedness and response.

103. The participants of the workshop also discussed the possibility of developing a specific report as a new MERRAC specific task for the next biennium, which was brought to the 22nd MERRAC FPM for their consideration. It was proposed by secretariat that the report might mainly be comprised of the contents of the questionnaire circulated prior to the brainstorming workshop, the results of the discussions made during the brainstorming workshop and further comments/recommendations which may additionally be contributed during the intersessional period after the 22nd MERRAC FPM by the nominated correspondence group (CG), together with in-depth review of relevant global and regional activities (e.g. by REMPEC).

(Relevant presentation files are provided by an electronic form on the CD, as listed in Annex 10)

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Annex 4. List of Documents for the 22nd NOWPAP MERRAC Focal Points Meeting & the Fourteenth Competent National Authorities Meeting

Working Documents-FPM

UNEP/IMO/NOWPAP/MERRAC/FPM 22/1	Annotated provisional agenda
UNEP/IMO/NOWPAP/MERRAC/FPM 22/2	NOWPAP Implementation
UNEP/IMO/NOWPAP/MERRAC/FPM 22/3	IMO Activities
UNEP/IMO/NOWPAP/MERRAC/FPM 22/4	Progress report on the activities of MERRAC implemented during the intersessional period after the twenty-first MERRAC Focal Points Meeting
UNEP/IMO/NOWPAP/MERRAC/FPM 22/5	Report on the expenditure of MERRAC for 2018-2019
UNEP/IMO/NOWPAP/MERRAC/FPM 22/6	Report on the routine tasks (Focal Points, Information System, Oil and HNS Spill Incident, etc.)
UNEP/IMO/NOWPAP/MERRAC/FPM 22/7	Progress report on the implementation of the MERRAC specific projects
UNEP/IMO/NOWPAP/MERRAC/FPM 22/8	NOWPAP MERRAC Expert Meeting
UNEP/IMO/NOWPAP/MERRAC/FPM 22/9	Efficient Implementation of the NOWPAP RCP
UNEP/IMO/NOWPAP/MERRAC/FPM 22/10	NOWPAP Training and Exercise
UNEP/IMO/NOWPAP/MERRAC/FPM 22/11	Latest Progress Report on the Oil and HNS Pollution Preparedness and Response in the NOWPAP Region
UNEP/IMO/NOWPAP/MERRAC/FPM 22/12	Workplan and Budget for 2020-2021
UNEP/IMO/NOWPAP/MERRAC/FPM 22/13	Arrangements of the Existing Tasks and Identification of Additional Tasks

Reference Documents

UNEP/IMO/NOWPAP/MERRAC/FPM 22/INF1	List of Documents (BW/FPM)
UNEP/IMO/NOWPAP/MERRAC/FPM 22/INF2	Timetable (BW/FPM)
UNEP/IMO/NOWPAP/MERRAC/FPM 22/INF3	List of Participants
UNEP/IMO/NOWPAP/MERRAC/FPM 22/INF4	Logistics information
UNEP/IMO/NOWPAP/MERRAC/BW 2019/INF1	REMPEC Strategic Plan for 2016-2021
UNEP/IMO/NOWPAP/MERRAC/FPM 21/18	Report of the 21st NOWPAP MERRAC Focal Points Meeting and the 13th Competent National Authorities Meeting (Incheon, 17-20 July 2018)
UNEP/NOWPAP IG. 23/14	Report of the 23rd NOWPAP IGM

Annex 5. Agenda of the 22nd NOWPAP MERRAC Focal Points Meeting and the Fourteenth Competent National Authorities Meeting

- 1) Opening of the meeting
- 2) Organization of the meeting
 1. Election of the officers
 2. Organization of work
- 3) Adoption of the agenda

The Twenty-second NOWPAP MERRAC Focal Points Meeting

- 4) Overview of the progress made during the intersessional period after the Twenty-first NOWPAP MERRAC Focal Points Meeting
 1. Report of a representative of NOWPAP RCU on the implementation of Northwest Pacific Action Plan (NOWPAP) activities
 2. Report of a representative of IMO on the latest activities related to marine pollution prevention, preparedness and response
 3. Report of the Director of MERRAC on the activities and the budget expenditures made during the intersessional period
- 5) Review of the progress made for each task agreed at the Twenty-first NOWPAP MERRAC Focal Points Meeting, and identification of future work
 1. Routine Tasks
 - Focal Points
 - Information system (equipment, institutions, experts, and performance standards)
 - Report on oil and HNS pollution incidents
 2. Specific Projects
 - Development of guidelines on the assessment of oil spill response capability in the NOWPAP region
 - Development of regional overview on the use of unmanned aircraft during marine pollution response in the NOWPAP region
 - Assessment of oil spill emergency preparedness and response for the offshore platform in the NOWPAP region
 - Renew and consolidate MERRAC website and relevant information systems including enhancing the level of security
 - (RAP MALI project, only for report)

- Understanding of floating marine litter sources and flows (2017-2018)
3. The 2019 NOWPAP MERRAC Expert Meeting
- 6) The NOWPAP Regional Oil and HNS Contingency Plan
1. Efficient implementation of the NOWPAP Regional Oil and HNS Contingency Plan including revision and/or amendment of the NOWPAP RCP and its Annexes *(any revision of the text of the NOWPAP RCP should be submitted in written form with explanation 6 weeks prior to the meeting, if existed)*
 2. Establishment of a procedure for exchange of oil sample for transboundary marine pollution incidents in the NOWPAP region *(presentation by the leading country, Korea)*

The Fourteenth Competent National Authorities Meeting for NOWPAP Regional Oil and HNS Spill Contingency Plan

- 7) The NOWPAP training and exercises
1. Report of the 7th NOWPAP DELTA Exercise (Japan-Russia)
 2. Report of the 20th NOWPAP BRAVO Exercise (China)
 3. Future plan on NOWPAP trainings and exercises
 - 8th DELTA Exercise (Korea-China)
 - 20th BRAVO Exercise (Russia)
 - Other
- 8) Exchange of the latest information on marine pollution preparedness and response in the NOWPAP member states *(presentation by the representatives of CNAs)*
- National Contingency Plans & relevant national laws/regulations/policies
 - Case Studies of Recent National oil/HNS Spills
 - National/Sub-regional Training and Exercises
 - Others

The Twenty-second NOWPAP MERRAC Focal Points Meeting

- 9) Workplan and budget for the 2020/2021 biennium and other future activities
1. Organization of the 2021 Expert Meeting (by China)
 2. New MERRAC Specific Project for 2020/2021 biennium

- 10) Arrangement of intersessional work and venues and dates of the 23rd NOWPAP MERRAC FPM and the 15th CNA Meeting
- 11) Other Matters
- 12) Adoption of the report of the Meeting
- 13) Closure of the Meeting

Annex 6. Proposals for MERRAC Specific Projects in 2018-2019

a) Assessment on the implementation of OPRC Convention and OPRC-HNS Protocol in the NOWPAP region

A. PROPOSAL OUTLINE

1. Project Title: Assessment on the implementation of OPRC Convention and OPRC-HNS Protocol in the NOWPAP region
2. Leading country or RAC: China
3. Participating NOWPAP members: Japan, Korea, Russia and MERRAC
4. Supporting body of the Project: NOWPAP MERRAC
5. Project period: 2 years (2020-2021)
6. Total budget: US\$ 16,000

B. PROJECT DESCRIPTION

1. Background

1. Recalling that IMO MEPC 70 had approved a new output proposed by Norway (MEPC 70/15/2) to facilitate the ratification and implementation of the OPRC Convention and the OPRC-HNS Protocol through the development of a practical guidance document (MEPC 70/18, paragraphs 15.6 and 15.7).
2. Recalling also that PPR 5 had established the Correspondence Group on OPRC Guidelines, under the coordination of Norway, and had instructed it to develop a final draft of the Guide on practical methods for implementation of the OPRC Convention and the OPRC-HNS Protocol, and provide recommendations on how the Guide should be promoted once finalized (PPR 5/24, paragraph 17.4).
3. Recalling that IMO PPR 6 agreed (PPR 6/20) to the final draft of the Guide on practical methods for the implementation of the OPRC Convention and OPRC-HNS Protocol, for submission to MEPC 74 with a view to approval and subsequent publication; and
4. IMO PPR 6 put forward some recommendations on how to promote the Guide which include considering means of translating the Guide into other languages; and
5. IMO PPR 6 encouraged the Secretariat, Regional Seas Programmes, Member Governments, international organizations and other interested parties to seek opportunities to promote the Guide through awareness-raising at relevant workshops, training courses and capacity-building activities, as well as the triennial international conference series on oil spill preparedness and response as appropriate.
6. Recalling that MEPC 74 approved (MEPC 74/18) the Guide on practical methods for the implementation of the OPRC Convention and OPRC-HNS Protocol. In this connection, the Committee also endorsed the actions of the PPR Sub-Committee to promote the Guide on practical methods for the implementation of the OPRC Convention and OPRC-HNS Protocol once published.

2. Activities of the Project

7. The contents of the project include:

- Translate the IMO instrument - GUIDE ON PRACTICAL METHODS FOR THE IMPLEMENTATION OF THE OPRC CONVENTION AND THE OPRC-HNS PROTOCOL – into the languages (Chinese, Japanese, Korean and Russian) of the NOWPAP member States;
- Assess the implementation of OPRC Convention and OPRC-HNS Protocol in the NOWPAP member States in accordance with the IMO Guide;
- Develop national reports on the implementation of OPRC Convention and OPRC-HNS Protocol in the NOWPAP member States;
- Summarize the national reports and put forward recommendations to improve the implementation of OPRC Convention and OPRC-HNS Protocol in the NOWPAP region.
- Contribute to IMO's work on development of a short video to highlight good practice and experiences in the effective implementation of the OPRC Convention and the OPRC HNS protocol, upon the request of the IMO secretary.

b) Identification of regional cooperation activities for MARPOL convention under NOWPAP MERRAC framework

A. PROPOSAL OUTLINE

1. Project Title: Identification of regional cooperation activities for MARPOL convention under NOWPAP MERRAC framework
2. Leading country or RAC: Korea
3. Participating NOWPAP members: China, Japan, Russia and MERRAC
4. Supporting body of the Project: NOWPAP MERRAC
5. Project period: 2 years (2020-2021)
6. Total budget: US\$ 16,000

B. PROJECT DESCRIPTION

1. Background

8. NOWPAP MERRAC was established in 2000 for preparedness for and response to marine pollution in NOWPAP region related with the OPRC 90 and OPRC-HNS protocol. And the MERRAC's top priority which defined in the MERRAC TOR is "Development of effective measures for regional cooperation in marine pollution preparedness and response". For this NOWPAP Regional Oil and HNS spill Contingency Plan (RCP) was adopted among NOWPAP Member States at 2003, through the RCP, cooperation among the Members was promoted for minimizing damage from a marine pollution incident.

9. Internationally, in accordance with the MARPOL 73/78, the all parties to the Convention including NOWPAP Members are implementing many tasks regarding prevention pollution from ships. But MERRAC does not carry out the task related with prevention of marine pollution due to MERRAC TOR does not include these kinds of prevention part.

10. Recently, the importance and necessity of promoting international cooperation in marine pollution prevention part has been recognized within MERRAC frame. However, it is not easy to develop the possible international cooperation project items on marine pollution prevention in MERRAC. Because the scope of marine pollution prevention tasks which regulated in MARPOL 73/78 is very wide, on the contrary Focal Point of MERRAC is composed of the National Authority for the preparedness for and response to marine pollution according to the MERRAC TOR. And the work scopes of each Focal Point are different so it's difficult to find the common interest to prevention part under the MERRAC frame.

11. Therefore, prior to selecting and implementing projects of marine pollution prevention cooperation within the NOWPAP region, it is necessary to study and understand the scope of work of each MERRAC Focal especially related to MARPOL 73/78.

12. To this end, the R. O. Korea proposes the project "Study on the possible cooperation for MARPOL 73/78 in the frame of NOWPAP MERRAC" as the MERRAC Specific Project 20/21. Through this project, we will study the scope of work of each Focal Point of MERRAC and analyze

the cases related with international cooperation for prevention of marine pollution in other regional seas programs, etc.

2. Activities of the Project

13. The contents of the project include:

- Identify the tasks that require international cooperation among the regulations which were included in the MARPOL 73/78
- Study on the scope of each Member State's Focal Point regarding to marine pollution prevention tasks as regulated on MARPOL 73/78 (If necessary, figure out the relevant agencies work scope based on national regulations or codes)
- Analyze the cases related with international cooperation for prevention of marine pollution prevention in other regional seas programs (e.g. REMPEC, Bonn agreement, Helcom etc.)
- Develop the cooperation project items through close communications with Member States regarding prevention of marine pollution in the frame of MERRAC
- Produce the final report including contents and scope of possible cooperation projects

c) Response options for condensate spill in context of update of NOWPAP MERRAC Regional Report on HNS Preparedness and Response, 2012

A. PROPOSAL OUTLINE

1. Project Title: Response options for condensate spill in context of update of NOWPAP MERRAC Regional Report on HNS Preparedness and Response
2. Leading country or RAC: Russia
3. Participating NOWPAP members: China, Japan, Korea and MERRAC
4. Supporting body of the Project: NOWPAP MERRAC
5. Project period: 2 years (2020-2021)
6. Total budget: US\$ 16,000

B. PROJECT DESCRIPTION

1. Introduction

14. The increasing production, international trading and sea transport of natural gas condensate (NGC), as well as recent maritime NGC spill incidents deserve special attention in the context of harmful and noxious substance (HNS) spill contingency and response.

2. NOWPAP HNS Approach

15. NOWPAP MERRAC has paid a certain attention to highlight regional contingency planning and response to HNS spills since adoption and strengthening of international regulation of handling of HNS maritime transport. During last decade, NOWPAP MERRAC issued the following Technical Reports:

- HAZARDOUS & NOXIOUS SUBSTANCES (HNS) RESPONSE OPERATION GUIDELINE. MERRAC Technical Report No. 6, 2009 ISBN 978-89-93604-08-5
- HAZARDOUS & NOXIOUS SUBSTANCES (HNS) DATABASE IN THE NOWPAP REGION. MERRAC Technical Report No. 7, 2009 ISBN 978-89-93604-07-8
- MANUAL FOR HNS TRAINING. MERRAC Technical Report No. 8, 2011 ISBN 978-89-93604-15-3
- REGIONAL REPORT ON HNS PREPAREDNESS AND RESPONSE. MERRAC Technical Report No. 9, 2012 ISBN 978-89-93604-22-1

16. We consider it appropriate to note hereby that to date, natural gas condensate (NGC), while being a harmful good as per Code Maritime Organization Dangerous Goods (IMDG Code) has not been mentioned as a separate item in related NOWPAP MERRAC reports. In particular, neither NOWPAP Member states did announced, nor NOWPAP MERRAC HNS Database contain NGC as specific separate item. Consequently, NGC has not yet paid sufficient and appropriate attention as a subject of spill contingency and response.

3. NGC specific properties and regulations

17. NGC common definition is: "a low-density mixture of hydrocarbon liquids that are present as gaseous components in the raw natural gas as gas compounds which will condense to a liquid state if the temperature is reduced to below the hydrocarbon dew point temperature at a set [normal] pressure".

18. There is not an official interpretation and understanding to which groups of HNS NGS should be classified.

19. It is evident that NGC:

- is a broad mixture of flammable hydrocarbon compounds (normally C5-C20) with some residues of heavy fractions (normally in range of 5-10 %);
- is a dangerous good as per SOLAS Chapter VII - Carriage of dangerous goods and IMDG Code (Class 3.2 - 3.3 Inflammable liquids);
- is an HNS as per HNS Convention (liquid substances carried in bulk with a flashpoint not exceeding 60°C);
- previously it had UN No 1257, assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods, no longer in use.

20. But at the same time:

- should it be "oil" as per MARPOL 73/78 (Annex I, Appendix I. List of Oils) from where it could be classified (?) by present item named as "Casing head (natural)" ?
- should it be a "non-persistent oil" (Group 1: at least 50% by volume distill at a temperature of 340°C and at least 95% by volume distill at a temperature of 370°C) ? (see Note in below);
- should it be pure HNS as per IMO 2010 HNS convention?

Note:

Interpreting NGC as non-persistent oil draws NGC spills compensation out of the coverage of the 1992 CLC and the 1992 Fund Convention as per International Oil Pollution Compensation Funds Guidelines for presenting claims for clean-up and preventive measures, 2018 Edition.

21. Meanwhile NGS is a specific chemical item, and has as such:

- specific Registry Numbers by Chemical Abstract Service (CAS, A Division of the American Chemical Society): CAS No. 64741-48-6 Natural gas (petroleum), raw liquid mix; CAS No. 68919-39-1. Natural gas condensates;
- Material Safety Data Sheets (MSDS) developed and registered by majority of oil and gas producers and shippers, see an example of NGC related hazard labeling by Conoco.



4. NGC spill response particulars

22. Do we interpret NGC as oil or not, contingency response to and combatting NGC offshore spills is rather different from main provisions used in oil spill response.

- 1) Best option in open water could be in-situ burning, spontaneous, often inevitable, as in case of tanker Sanchi accident 2018, or intentional. This option looks as quite radical solution of the environmental contamination, except air pollution, but even in this case release of combustion products seems be better than free release of evaporating hydrocarbons causing greater green-house effect. In many cases, e.g. in narrow waters and in harbor areas, this option may be prohibited, unwanted or impossible due to safety consideration.
- 2) Containment of large NGC for further hydrocarbon recovery spill is not best option:
 - this assumes rapprochement of ships of OSR vessels or boom tracking boats, usually requiring approach from lee side, with evaporating spill building combustible atmosphere propagating windward;
 - even successful, this sharply reduces NGC spill evaporation and tails out delayed spill weathering and its prolonged life with continued potential fire hazard.
 - Nevertheless, containment can be required as a vital measure in views of safeguarding of present vessels, port facilities, sensitive areas like water intake, including fire water, etc.
- 3) Mechanical recovery of fresh NGC spill is likely to be difficult for responders safety reasons, because of low viscosity of substance and need of special OSR vessels to be classified to handle oil with flash point below 60 °C. The preparedness to be supported to enable recovery at a later stage, as the NGC spill wears out, and it should be necessary to recover its residues up to volume proportional to the content of heavy compounds in spilled NGC.
- 4) Application of dispersants is commonly recognized as non-effective for light oils and hydrocarbon product. Other chemical treatments, like herders' application, could be prospective but not well investigated yet.
- 5) Fire safety precautions and protection means have to play a dominant role primarily for exclusion of sources of spill and vapor cloud ignition and for other preventive measures, including advanced technologies (water-spray curtain to protect vessels and installations and/or wash-out hazardous vapor cloud, creation of phlegmatizing water mists over local dangerous water area, foam-on-water coverage, all not wide practiced up-to now).

23. There are only few Guidelines, Manuals and/or Recommendations for NGC and light hydrocarbon products spill response. Most recommendations in regards HNS spills are focused on safety provisions, as same as **HNS Response Operation Guideline 2010**, developed by MERRAC in 2009.

24. The most noteworthy, advanced and applicable seems to be **Chemical Response Guide Unleaded Gasoline Spill** developed by CEDRE (Centre of Documentation, Research and Experimentation on Accidental Water Pollution, France) in 2008. Please, note, CEDRE treats gasoline spill as chemical.

5. Proposed scope of work

25. This Specific NOWPAP MERRAC Project is intended to investigate and develop the following issues:

- investigate and propose to NOWPAP MERRAC place of NGC in the row of international regulations with regards to current national adoption;
- review of NOWPAP MERRAC position to specify NGC spills and response as either oil or HNS issue;
- request to NOWPAP MERRAC member states for share of their specific national regulations and practices on NGC production and transport statistics, NGC spill response, impacts and consequences, its comparative review and report to the NOWPAP MERRAC FPM for joint justification and decision making;
- assess publicly available data on NGC spills and their response and consequences;
- collect and summaries data about Best Available and Environmentally Friendly Technologies subject to response to NGC spills with reporting to the NOWPAP MERRAC FPM;
- prepare a set of proposals for the updates of NOWPAP MERRAC previously issued technical reports, as listed in p.1 of this project proposal, and, if any, in the matter of facilitation of NGC spills response technologies, contingency, training, etc.;
- inquire necessity, if any, to commence developments and opening of new specific projects on the subject under NOWPAP MERRAC management.

6. Participants, schedule and budget

- All NOWPAP states.
- The project is proposed for realization in 2020-21 with a potential to be prolonged, if required.
- Project's schedule to be established as per NOWPAP MERRAC discretion to facilitate time enough for:
 - enabling data collection, investigation and summarizing of all outer data sources during 1st year to be reported to NOWPAP MERRAC and prepared for:
 - development proposals and recommendations as per Scope of Work in p. 5 of this submission during 2nd year.
- Budget of the Project to be enough as per NOWPAP MERRAC rates for invitation and effective cooperation with experts of participating countries.

d) Development of MERRAC strategic plan for better implementation of regional cooperation on marine pollution preparedness and response in the NOWPAP region

A. PROPOSAL OUTLINE

1. Project Title: Development of MERRAC strategic plan for better implementation of regional cooperation on marine pollution preparedness and response in the NOWPAP region
2. Leading country or RAC: MERRAC
3. Participating NOWPAP members: China, Japan, Korea and Russia
4. Supporting body of the Project: NOWPAP MERRAC
5. Project period: 2 years (2020-2021)
6. Total budget: US\$ 27,000

B. PROJECT DESCRIPTION

1. Background and purpose of the Project

26. The NOWPAP region is globally regarded as one of the hot spot areas of oil and HNS spills in the world, due to fast economic growth and the consequential increase of maritime traffic in the region. In response to the increasing risk of oil and chemical spills in the region, the NOWPAP Members have introduced their national policies, strategies and relevant resources to strengthen oil and HNS spill response capacities and its effectiveness in their respective countries, especially coinciding with relevant global frameworks setting-up under the IMO OPRC Convention.

27. In parallel, at the regional level, NOWPAP Members have developed the regional cooperation mechanism on marine pollution preparedness and response in order to increase the level of preparedness to the major spill accidents in the NOWPAP region, as one priority of NOWPAP activities adopted in 1994 by P.R. China, Japan, R. Korea and Russia. Consequently, the Marine Environmental Emergency Preparedness and Response Regional Activity Center (MERRAC) was established in 2000 as one of the four Regional Activity Centers (RACs) of NOWPAP, with purpose of effective implementation of regional activities in the field of marine pollution prevention and response in the NOWPAP region. The secretariat office was hosted by the Korea Research Institute of Ships and Ocean Engineering (KRISO) in Daejeon, R. Korea under the MoU between KRISO, UNEP and IMO, since its establishment.

28. In accordance with the decisions made by the NOWPAP IGM and based upon the Terms of Reference (TOR) for NOWPAP MERRAC Focal Points Meeting (FPM) approved by NOWPAP IGM, MERRAC has been designated to carry out various activities related to regional co-operation on marine pollution preparedness and response in the NOWPAP region. In particular, MERRAC is currently functioning as secretariat for the NOWPAP Regional Oil and HNS Spill Contingency Plan (RCP), with assistance from NOWPAP Regional Coordinating Unit (RCU), UNEP and IMO. Especially, in order to facilitate the regional cooperation on oil and HNS spills under the RCP, as defined under the theme 3 on 'pollution prevention and reduction under the NOWPAP Medium-term Strategy (MTS) 2012-2017, MERRAC has carried out activities such as organization of MERRAC Focal Points Meeting and Competent National Authorities Meeting, conduction of NOWPAP

exercises, implementation of specific projects and routine tasks including relevant information exchange among members, etc.

29. During the development process of new NOWPAP MTS 2018-2023, the MERRAC Focal Points (FPs) have issued the possibility of developing new themes, tasks, activities and/or projects to be implemented within the framework of NOWPAP MERRAC in order to facilitate relevant regional cooperative activities more efficiently and promptly in the future. In this regard, based upon the decision of 22nd NOWPAP IGM and 21st MERRAC FPM, the MERRAC Brainstorming Workshop has been organized in August 2019, aiming to review the achievements during the last 20 years under current MERRAC-related cooperative regime and to diagnose any potential weaknesses and challenges to be overcome, and then to identify new activities and/or tasks to be implemented by MERRAC in the future considering newly emerging global and regional issues in the field of on marine pollution preparedness and response.

30. At the Brainstorming Workshop, NOWPAP Members acknowledged that the activities by MERRAC over last 20 years were very successful and contributed to increase the level of preparedness against oil and chemical spills in the NOWPAP region. However, they also pointed out that some possibilities still remain to develop new topics, projects and/or activities to be covered by the MERRAC-related cooperative mechanism in the near future. Regarding the scope of activities to be covered under the MERRAC frameworks, most participants expressed their view that MERRAC should stick to current scope on oil and chemical spill issues rather than expanding to other IMO convention-related issues. The workshop also proposed several proposals regarding changes of the operational and/or working framework of MERRAC such as establishing an expert group meeting or technical workshop back-to-back with the MERRAC FPM for more in-depth/technical discussions of the relevant topics to facilitate regional cooperative activities on marine pollution preparedness and response.

31. The 22th MERRAC FPM, held in back-to-back with the workshop, agreed to launch a new specific project for coming biennium of 2020-2021, which reviews the last achievements of MERRAC in detail and develops more precise MERRAC's new tasks, projects and/or activities to be implemented in the future, based upon the workshop's discussions, the replies of questionnaires from FPs and technical reviews by a correspondence group of nominated experts by Members, aiming to publish an outlook book in the form of systematically-arranged written documentation. Especially, commemorating that 2020 year is the 20th anniversary of the MERRAC secretariat, such documentation on the past, present and future of MERRAC's cooperative activities could be used for elevating the level of public acceptance and outreach on NOWPAP's activities and contributions for better protection of marine and coastal environments in the region.

2. Activities of the project

- Detailed records on MERRAC's history and their detailed activities over the last 20 years, together with collection of relevant materials such as reports, photos and other meaningful data/information;
- Assessments and reviews of the past MERRAC activities, based upon the comments and recommendations from MERRAC FPs, NOWPAP RCU, IMO and relevant international experts;

- Comparative analysis of other existing strategic plans and/or mid-term strategies of other regional seas programme/regional activity centers (such as HELCOM, REMPEC, etc.), taking into account the newly emerging marine environmental issues at the global and regional levels;
- Identification of possible activities/actions to be implemented by MERRAC in the future (e.g., oil finger print, oil spill modelling, emergency salvages, illegal discharges, etc., suggested during the Brainstorming Workshop)
- Consultation with the nominated correspondence group to develop the draft MERRAC strategic plan
- Publication of the report on MERRAC strategic plan with information package about MERRARC activities over the last 20 year

3. Implementation plan

Activities	2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1. Records in detail about MERRAC activities								
2. Assess and review the MERAC activities, based upon the comments/recommendation from MERRAC FPs, RCU, experts								
3. Review other strategic plans/mid-term strategies from other regional seas/regional activity center								
4. Identify possible activities/actions to be implemented by MERRAC in the future								
5. Develop draft MERRAC strategic plan with nominated CG								
6. Publish the report of MERRAC strategic plan with information package on MERRAC activities								

4. (Draft) Budget plan

Activities	Budget (US\$)
Consultancy fee to assess the review MERRAC activities and find possible activities/action to be implemented by MERRAC in the future. (if necessary, specific external expert(s) may be invited to develop the detailed action plan for the item)	US\$ 8,000 for the nominated expert (correspondence group-from Member States)
Consultancy fee for writing the report on MERRAC's last activities and draft strategic plan	US\$ 10,000 for external experts
Expert group meeting, back to back with FPM	US\$ 5,000
Publication and project management (MERRAC Secretariat)	US\$ 4,000
Total	US\$ 27,000

Annex 7. Draft Workplan for MERRAC Activities for the 2020/2021 Biennium

Date	Activities	Responsible Organizations
April, May or June 2020	23rd NOWPAP MERRAC Focal Points Meeting and 15th Competent National Authorities Meeting	MERRAC, NOWPAP RCU, UNEP, IMO
2020	8th NOWPAP DELTA (Joint Oil Spill Exercise) regarding the marine pollution preparedness and response (to be determined)	Lead country (Korea), NOWPAP Members, MERRAC, NOWPAP RCU, UNEP, IMO
-	Intersessional work	Leading country, MERRAC
2020	21st NOWPAP BRAVO exercise	Leading country (Russia), NOWPAP Members, MERRAC
April, May or June 2021	24th NOWPAP MERRAC Focal Points Meeting and 16th Competent National Authorities Meeting	MERRAC, NOWPAP RCU, UNEP, IMO
2021	An expert meeting on the technical issues regarding the marine pollution preparedness and response in the NOWPAP region (to be determined)	Host Country (China), MERRAC, NOWPAP RCU, UNEP, IMO, NOWPAP Members
2021	22nd NOWPAP BRAVO exercise	Leading country (Japan), NOWPAP Members, MERRAC
-	Intersessional work	Leading country, MERRAC
Jan 2020 - Dec 2021	Implementation of specific projects on scientific and technical issues, including marine litter activities	Leading country, MERRAC, UNEP, IMO

Annex 8. Proposed Budget for MERRAC Activities for the 2020/2021 Biennium

Activities	Budget (US\$)		
	2020	2021	Total
1. Focal Points Meeting & CNA Meeting	26,000	26,000	52,000
2. Expert Meeting	-	27,000	27,000
3. Specific projects			
1) Assessment of the implementation of OPRC Convention and OPRC-HNS Protocol in the NOWPAP region		16,000	16,000
2) Identification of regional cooperation activities for MARPOL convention under NOWPAP MERRAC framework (e.g. oil-waste discharge from ship, fuel-oil quality, etc.)		16,000	16,000
3) Response options for condensate spill in context of update of NOWPAP MERRAC Regional Report on HNS Preparedness and Response, 2012		16,000	16,000
4) Development of MERRAC strategic plan for better implementation of regional cooperation on marine pollution preparedness and response (<i>by organization of expert groups on specific issues such as oil finger-print, oil spill modelling, emergency salvages, etc.</i>)		27,000	27,000
4. Maintenance and management of MERRAC website	2,500	2,500	5,000
5. Coordination with IMO/UNEP and Regional Seas	11,000	11,000	22,000
6. Publications and other miscellaneous costs	2,000	2,000	4,000
7. NOWPAP Exercise -DELTA Exercise (to be led by Korea)			(In-kind)
Total	79,000	106,000	185,000

Annex 9. The List of the Tasks, and its Lead Country/Agency, Required Actions and Expected Outputs for 2019-2020

Routine Tasks carried out by MERRAC

Tasks	Lead Country/ Agency	Actions	Expected Outputs
1. Regional Contingency Plan	MERRAC	<ul style="list-style-type: none"> - Maintain or update the RCP including its Annexes - Maintain the networks among the relevant Competent National Authorities for the RCP in the NOWPAP region - Carry out regional activities as required by the RCP - In case of major pollution incident, if necessary, RCP is activated 	<ul style="list-style-type: none"> - Regional cooperation system regarding marine pollution preparedness and response - Increased regional capacity on marine pollution preparedness and response - Efficient implementation of the RCP for practical use and assistance procedure and system - Updated Annex to the RCP
2. Focal Points Meeting and Competent National Authorities Meeting	MERRAC	<ul style="list-style-type: none"> - Coordinate and organize annual FPM and CNA meetings - Develop the provisional agenda for the meetings, including the relevant meeting documents - Review the progresses made during the inter-sessional period, and identify the follow-up activities - Carry out the follow-up activities resulting from the two meetings 	<ul style="list-style-type: none"> - Exchange of relevant information on oil & HNS spill preparedness and response in the region - Increased regional capacities on marine pollution preparedness and response - Discussion on the implementation of the RCP and relevant regional co-operative activities
3. Expert Meeting	Japan & MERRAC	<ul style="list-style-type: none"> - Support in preparing the expert meeting to be held on 18-19 December 2019 in Tokyo, Japan - Prepare invitation of speakers, relevant logistics, etc. - Support in organizing the 2019 MERRAC Expert Meeting to be led by Japan (public-private cooperation) 	<ul style="list-style-type: none"> - Facilitating implementation of the NOWPAP RCP - Sharing information and knowledge on oil spill response among NOWPAP Members and private sectors - Sharing the latest technologies on oil spill and HNS response operation (AI, UAV, robotics, etc.) - Discussing future possibility of utilizing the new technologies in order to boost regional capability

Tasks	Lead Country/ Agency	Actions	Expected Outputs
4. Report on oil and HNS Pollution Incidents	MERRAC and NOWPAP Members	<ul style="list-style-type: none"> - Share oil and HNS spill incidents among the members using Online POLREP system when they occur - Overview oil and HNS spill cases occurred in the region with support from FPs and other relevant organizations - Collect lists of oil and HNS spill incidents over 10 tons in the NOWPAP member states - Maintain and update the relevant list on MERRAC website 	<ul style="list-style-type: none"> - Sharing prompt relevant information among the members - Updated database on oil and HNS spills in the NOWPAP region on regular basis
5. Information System	MERRAC and NOWPAP Members	<ul style="list-style-type: none"> - Update information of oil and HNS spill response equipment, institutions and experts - Maintain and update the information on MERRAC website and web-GIS system - Develop a technical guideline based upon the suggestions from Members and report to next FPM (as reference material to the Information System) - Discuss on how to use the new format and how to accommodate the suggestion at the next FPM 	<ul style="list-style-type: none"> - Updated Information System (in particular the list of available equipment which can be possibly assisted to each member when major spills occur within the framework of the RCP) - User friendly information system - Uploaded Information System
6. Training and Exercise	MERRAC and NOWPAP members	<ul style="list-style-type: none"> - Further maintain and improve the function of Online POLREP system - Carry out NOWPAP DELTA (Joint Operation) Exercise back to back with the 23rd MERRAC FPM in June under the leading role of Korea and China - Carry out NOWPAP BRAVO (communication) Exercise during the intersessional period for 3-5 days under the leading role of Russia - Report the results to the next FPM 	<ul style="list-style-type: none"> - Improved and practiced communication system among the members using the Online Pollution Reporting System - Improved functions of the POLREP system - Improved regional joint response capacity for oil and HNS spills in real incident

Tasks	Lead Country/ Agency	Actions	Expected Outputs
7. Communications	MERRAC	<ul style="list-style-type: none"> - Maintain and facilitate routine communication links between relevant authorities in the NOWPAP region - MERRAC shares its activities and information with Members and relevant organizations 	<ul style="list-style-type: none"> - Establishment of efficient communication system relevant to oil and HNS spill preparedness and response in NOWPAP area - Enhanced information sharing among the member states and relevant bodies
8. Other Routine Tasks as described by the TOR of MERRAC or decided upon by the FPM and/or IGM	MERRAC and NOWPAP members		

Specific projects and/or activities coordinated by MERRAC during the intersessional period

Tasks	Lead Country / Agency	Actions	Expected Outputs
<p>1. Development of guidelines on the assessment of oil spill response capability for the NOWPAP region (<i>On-going</i>)</p>	<p>MERRAC and NOWPAP Members (leading country: China)</p>	<ul style="list-style-type: none"> - Insert more scientific basis, academic references or internal data on real application results - Compare the results by applying it to actual cases (i.e. Hebei Spirit incident) in order to clarify the calculation - Finalize the report in consultation with the MERRAC Secretariat after having reflected the additional comments raised during the meeting - Submit the report to the next FPM for final review 	<ul style="list-style-type: none"> - Development of the guidelines on the assessment of oil spill response capabilities in the NOWPAP region which could provide a calculative method - Guidelines could assist Competent National Authorities of member states to assess oil spill response capability of specific areas, ports or organizations - Guideline could be used as a tool to develop capability building plans and/or programs - Enhancement of capability building on oil spill preparedness and response in the region
<p>2. Development of regional overview on the use of unmanned aircraft during marine pollution response in the NOWPAP region (<i>On-going</i>)</p>	<p>MERRAC and NOWPAP Members (leading country: China)</p>	<ul style="list-style-type: none"> - Finalize the report by adding technical contents on the international/domestic laws and limitations on drone-use as a reference - Conclude the project by the end of this year after circulating to the MERRAC FPs and national experts 	<ul style="list-style-type: none"> - Assistance of the Competent National Authorities of member states in equipping appropriate unmanned aircrafts and in the development of related response strategies and capability building plans - Guidance for industry to produce unmanned aircrafts suitable to the regional needs
<p>3. Assessment of oil spill emergency preparedness and response for the offshore platform in the NOWPAP region (<i>On-going</i>)</p>	<p>MERRAC and NOWPAP Members (leading country: Russia)</p>	<ul style="list-style-type: none"> - Reflect the comments made by FPM - Focus only on the Sakhalin area as a case study - Finalize the report as a technical tool which will be available to the Member States in case it is needed - Submit the report to the next FPM for final review 	<ul style="list-style-type: none"> - Development of the recommendations on the minimum response requirements for oil spill from the offshore units in the NOWPAP region

Tasks	Lead Country / Agency	Actions	Expected Outputs
4. RAP MALI <i>(On-going)</i>	MERRAC (and NOWPAP ML FPs)	<ul style="list-style-type: none"> - Report the draft report to the next RAP MALI FPM (September 2019) - Circulate the draft report to the RAP MALI FPs, NOWPAP RCU and MERRAC FPs and receive the feedback/comments for finalization of the report - Finalize and publish technical report by the end of this year 	<ul style="list-style-type: none"> - Update on information of the distribution of FML - Identification on the potential sources of FML - Development and publication of the Regional Report
5. Renew and consolidate of MERRAC website and relevant information system, including enhancing the level of security <i>(On-going)</i>	MERRAC	<ul style="list-style-type: none"> - Conduct further maintenance of the MERRAC website including information system (POLREP, Web-GIS) following the requests made from Member States during the FPM - POLREP: add function of save information /report (including temporary save when creating the report) - Correct any modification to the POLREP system before the next BRAVO Exercise 	<ul style="list-style-type: none"> - Enhance the level of security of MERRAC website and other developed systems - Enhancement of website accessibility and change of the design - Consolidation of the individual systems into one website - Upgrading of all the systems (Web GIS based information system, online POLREP system, Information sharing platform)
6. Other Specific projects as described by the TOR of MERRAC or decided upon by the FPM and/or IGM	MERRAC		

Annex 10. List of files on the CD-ROM

Report of the Twenty-second NOWPAP MERRAC Focal Points Meeting & the Fourteenth Competent National Authorities Meeting (Seoul, Republic of Korea, 27 - 30 August 2019)

[22nd NOWPAP MERRAC FPM and 14th CNA Meeting]**Agenda 4. Overview of the progress made during the intersessional period after the Twenty-first NOWPAP MERRAC Focal Points Meeting**

- Progress of NOWPAP activities (Dr. Ning LIU, NOWPAP RCU)
- Activities of the IMO on marine pollution preventions, preparedness and response (Mr. Roel HOENDERS, IMO)
- MERRAC activities and expenditure (Dr. Seong-Gil KANG, MERRAC)

Agenda 5. Review of the progress made for each task agreed at the Twenty-first NOWPAP MERRAC Focal Points Meeting, and their future works

- Report on MERRAC routine Tasks (Ms. Joung-yun LEE, MERRAC)
- Progress report on the implementation of the MERRAC specific projects (Ms. Joung-yun LEE, MERRAC)
- Draft report on guidelines on the assessment of oil spill response capability in the NOWPAP region (Mr. Xudong CONG, China)
- Draft report on regional overview on the use of unmanned aircraft during marine pollution response in the NOWPAP region (Mr. Peng GUO, China)
- Progress report on assessment of oil spill emergency preparedness and response for the offshore platform in the NOWPAP region (Dr. Valentine ZHURAVEL, Russia)
- Detailed plan for the 2019 NOWPAP MERRAC Expert meeting (Mr. Keisuke YAMANE, Japan)

Agenda item 6. Updates of the NOWPAP Regional Oil and HNS Spill Contingency Plan including its Annexes

- Discussion on Efficient Implementation of the NOWPAP RCP - Oil Sample exchange procedure for transboundary marine pollution incidents (Ms. Young Hwa YEO, Korea)

Agenda item 7. NOWPAP trainings and/or exercises

- Report on the NOWPAP training and exercise (Ms. Joung-yun LEE, MERRAC)
- Report on the 7th NOWPAP DELTA exercise led by Japan (Mr. Keisuke YAMANE, Japan)
- Report of the 20th NOWPAP BRAVO Exercise led by China (Mr. Peng GUO, China)
- Preliminary plan of the 8th NOWPAP DELTA Exercise to be led by Korea (Mr. Sun Bong HA, Korea)

Agenda item 8. Exchange of latest information on marine pollution preparedness and response

- Research and Application of the Oil-Type Differentiation Technology for Oil Spill from Unknown Sources (Mr. Peng GUO, China)
- The report of the Marine Pollution Exercise (MARPOLEX) in Davao with the Philippines and Indonesia (Mr. Keisuke YAMANE, Japan)
- 2018 Case Study M/T HANYU KOREA Incident (Mr. Sun Bong HA, Korea)
- Latest information on national oil spill preparedness and response system (Dr. Natalia KUTAEVA, Russia)

Agenda item 9. Workplan and budget for the 2020/2021 biennium and other future activities

- Draft workplan and budget for the 2020/2021 biennium (Dr. Seong-Gil KANG, MERRAC)
- Assessment of the implementation of OPRC Convention and OPRC-HNS Protocol in the NOWPAP region (Mr. Xudong CONG, China)
- Study on the possible cooperation for MARPOL Convention in the frame of NOWPAP MERRAC (Mr. Sun Bong HA, Korea)
- Response options for condensate spill in the context of update of NOWPAP MERRAC Regional Report on HNS Preparedness and Response, 2012 (Dr. Valentin ZHURAVEL, Russia)
- Proposal of MERRAC Strategic Plan for better implementation of regional cooperation on marine pollution preparedness and response (Dr. Tae Hwan Joung, MERRAC)

Agenda item 11. Other matters

- International cooperation in the private sector for oil spill response (Ms. Ga Young JU, KOEM)
- Recent trends on spill response in the NOWPAP region (Dr. Duarte SOARES, ITOFF)

[2019 MERRAC Brainstorming Workshop]**Agenda item 1. Opening of the workshop**

- Background of 2019 MERRAC Brainstorming Workshop (Dr. Seong-Gil KANG, MERRAC)

Agenda item 2. Review of the current MERRAC activities and discussion on its challenges to be overcome in the future

- Achievement from activities of MERRAC during the past 20 years and its challenges to be overcome in the future (Dr. Seong-Gil KANG, MERRAC)

Agenda item 3. Review of the latest global trends and/or issues emerged for International Organization

- IMO and cooperation with the Regional Seas Programme (Mr. Roel HOENDERS, IMO)
- Global and Regional new approach and NOWPAP MTS 2018-2023 (Dr. Ning LIU, NOWPAP RCU)

Agenda item 4. The proposal from the NOWPAP Members and MERRAC Secretariat on new activities, tasks and/or specific projects to be implemented by MERRAC in the future

- Response on the questionnaire (Dr. Seong-Gil KANG, MERRAC)
- Suggestions of MERRAC future work (Mr. Sun Bong HA, Korea)
- Cooperation system for rapid-response oil spill modelling between NOWPAP and world-leading international modelling groups (Dr. Tae Hwan Joung, MERRAC)