Co-Chairs' Summary Report of the
ARF Seminar on the Regional Cooperation on Offshore Oil Spill
Qingdao, China, 27-28 March 2014

Introduction

1. Pursuant to the decision of the 20th ASEAN Regional Forum (ARF), held in Bandar Seri Begawan on 2 July 2013, the ARF Seminar on the Regional Cooperation on Offshore Oil Spill was convened in Qingdao on 27-28 March 2014. The Seminar was co-chaired by Mr. Haji Matnor Salleh, Director of Marine Department, Ministry of Communications of Brunei Darussalam, Mr. Wang Bin, Deputy Director General, North China Sea Branch of the State Oceanic Administration of China, Capt Chan Heng Lum, Manager of Port Marine Projects, Maritime and Port Authority of Singapore, and Mr. Christian Castro, Director, Office of Multilateral Affairs, Bureau of East Asian and Pacific Affairs of the United States Department of State.

2. The Seminar was attended by representatives from all ARF participants except Bangladesh, Canada, the Democratic People's Republic of Korea, Lao PDR, Malaysia, Mongolia, Myanmar, Pakistan, the Philippines, Papua New Guinea, Russia, Sri Lanka, Thailand and Timor-Leste. The Seminar was also attended by representatives of IPIECA and the ASEAN Secretariat as well as observers from the State Oceanic Administration of China (SOA), the oil industry and the academic sector. The List of Participants is attached as **ANNEX A**.

Opening Ceremony – Welcome and Opening Remarks

3. Mr. Liang Fengkui, Deputy Director-General of the Department of International Cooperation, State Oceanic Administration of China, delivered the keynote address. He stressed that with the increasing occurrence of offshore oil spill incidents globally, oil spill prevention, response managements and cleanup technologies and experiences were among the top concerns of today's government and oil and gas industry at the backdrop of recent oil spill incidents from Gulf of Mexico and Bohai Bay. It was of great urgency and necessity for all related states to deal with such a serious challenge and to promote information exchange and experience sharing on offshore oil spill response and management in this region. He hoped through this workshop, the participants could explore a possible way to make the cooperation and exchange closer and easier.

4. In his opening remarks, Capt Chan Heng Lum, co-chair from Singapore, said that the ARF Seminar was both timely and relevant. Capt Chan added that regional cooperation in the combat of offshore oil spill was essential because oil spill does not recognize boundaries. While essential, he cautioned that the cooperative mechanism had to be realistic and that expectations should be moderated.

5. Mr. Christian Castro highlighted the importance of the workshop and correlated the workshop held in China to the one held in Honolulu on pollution incidents and stated that the six co-chairs from the two workshops would propose a statement of cooperation for ministerial approval.

6. Mr. Haji Matnor Salleh, co-chair from Brunei Darussalam, in his opening remarks, believed the interesting, insightful and fruitful discussion will benefit in preparing and responding to oil pollution and in enhancing regional capabilities in safety and security in maritime activities. Mr. Matnor highlighted the example of the Malaysian Airlines MH370 and the explosion and oil spill of Deepwater Horizon Platform in Mexico Gulf in 2010 of the consequences of an oil spill can be more wide reaching to the ecosystems in the ocean, and said there is an urgency to formulate regional cooperation in the event of an offshore oil spill.

7. Mr. WANG Bin, Deputy Director General, North China Sea Branch, SOA and co-chair from China, in his opening remarks extended the warmest welcome to all the friends from around the world. Mr. WANG Bin pointed out that the marine environmental protection had been paid high attention by most countries and international organizations. He stated that great challenges in protecting the marine environment were faced by all coastal states. Mr. WANG Bin expressed his hope for the positive results that could be achieved by the joint cooperation.

Keynote Speeches

8. Mr. Robert Cox from IPIECA briefed the Seminar on the scope of IPIECA's work in facilitating government-industry partnerships in addressing oil spill incidents. He pointed out that over the years IPIECA has provided assistance in preparedness and response to oil spills caused by shipping and is now focusing on oil spills caused by offshore platforms. He focused on five key capabilities for prevention of offshore oil spills and underscored the importance of cooperation by all relevant stakeholders in managing the response to oil spill incidents. To that end, he highlighted the joint IPIECA-International Maritime Organization (IMO) Global Initiative in bringing both governments and the oil industry together for oil spill preparedness and response. He also touched on the Oil Spill Response Global Initiative for South East Asia (GI SEA) which was formally launched in Jakarta in March 2013. He emphasised that GI SEA would be beneficial to ASEAN Member States by facilitating the development of national capacity and capability in oil spill preparedness and response. His presentation appears as **ANNEX B**.

9. Mr. Wang Maojun, Deputy Director of Oceanic Environment Protection Division, North China Sea Branch of the State Oceanic Administration of China provided an overview of China's marine environmental protection management which falls under the ambit of the SOA. He elaborated on China's environmental protection and oil spill response management system and described the implementation of the system in the Bohai Sea oil exploration area, including during oil spill incidents occurred in 2010 and 2011. His presentation appears as **ANNEX C**.

10. Dr. Lyu Yan from the China National Offshore Oil Corporation (CNOOC) delivered a presentation on the offshore oil spill management response of the CNOOC. She provided an overview of CNOOC's scope of work and elaborated on the oil spill management mechanism in place in CNOOC. As the largest offshore oil & gas procedure and operator in China, CNOOC owns its own professional oil spill response group, China Offshore Environmental Services Ltd

(COES). COES has built 8 oil spill response bases with 5 Multipurpose Oil Recovery Vessels. She highlighted COES now works on several advanced technologies to prevent, monitor, detect and clear up oil spill, such as offshore oil spill three-dimensional monitoring—prediction technology, underwater (deep water area) oil spill response technology, extreme-condition oil spill response technology, etc. Her presentation appears as **ANNEX D**.

11. Mr. Christian Castro briefed the Seminar on the outcomes of the ARF Marine Environmental Protection Workshop which was held in Honolulu on 4-5 March 2014. The Workshop focused on the need to identify risks of marine pollution incidents, the harmful and multi-faceted nature of marine pollution incidents, look into past experiences and lessons learned, and stock take existing international, regional, and sub-regional legal frameworks in managing pollution incidents involving hazardous and noxious substances (HNS). The Workshop convened a moderated discussion session which discussed, among others, the importance of bringing together both the government and the industry sector in managing pollution HNS pollution incidents. He encouraged participants to consider forwarding the outcomes and recommendations of the Workshop as well as the current Seminar to develop a statement of cooperation for ARF ISG officials and Senior Officials endorsement.

12. The Seminar observed that oil spill response mechanisms have been historically aligned with shipping. The consequence of this alignment is that the IMO does not have the mandate in its charter to address oil spills caused by offshore platforms as opposed to the comprehensive mechanism that the IMO has in place to address oil spills caused by shipping. Furthermore, there is currently no intergovernmental organisation which addresses oil spills from offshore platforms. Participants noted that this oversight has led to, among others, the lack of financial compensation mechanisms for oil spills caused by offshore platforms.

Session 1 – Preparedness for Oil Spill Incidents including Monitoring, Early Warning and Forecasting

13. Capt. Kevin Wong, Deputy Port Master of the Maritime and Port Authority of Singapore (MPA), briefed the Seminar on Singapore's strategy and contingency planning in oil spill management. MPA is the lead agency in managing preparedness and response to oil spill incidents through a five-point strategy encompassing prevention, preparedness, response, recovery and review. He emphasised that cooperation by all stakeholders and concerned parties is necessary for effective response to oil spill incidents.

14. Ms. Linda Zhang, chairman of the Sino-Gas & Oil Technology Co., Ltd. (SGOT), has noted the absence of new oil spill recovery technology emerging in the current world market. The revelation of SGOT whirlpool oil spill recovery systems has risen to the mark to fill this void, way beyond the advanced international level. Through this technology Linda zhang has constructively raised the current recycle rate of physical spill from 3% to 85% and has strongly recommend a worldwide ban on the use of chemical dispersants. In order to reduce environmental pollution Linda Zhang has recommended oil extraction wastewater

discharge standards to be less than 10mg/L in Bohai Bay, for example, is reduced by 1mg/L to Sea oil content, and will reduce an annual crude oil discharge into the Bohai Sea by 10t. Her presentation is attached as **ANNEX E**

15. Mr. Nguyen Huy Trong, Permanent Deputy Director of the National Southern Oil Spill Response Center (NASOS) of Viet Nam, briefed the Seminar on Viet Nam's oil spill preparedness and response system. He outlined the government's coordinating body in managing oil spill response as well as the three regional oil spill response centres located in the northern, central and southern parts of Viet Nam. He touched on Viet Nam's national legislation in oil spill response management as well as several international cooperative arrangements on joint oil spill response, such as the Joint Statement on Partnership in Oil Spill Preparedness and Response in the Gulf of Thailand (GOT Program) between Cambodia, Thailand, and Viet Nam. His presentation appears as **ANNEX F**.

16. Dr. Xu Jiangling from the North China Sea Marine Forecasting Center (NMFC) of the State Oceanic Administration delivered a presentation on the operational monitoring and forecasting of oil spills in the Bohai Sea. She provided an overview of the work of the NMFC and its elaborate observation network on and around the Bohai Sea. She described several forecasting models used to detect movement of oil spills, including meteorological and wave models. Firstly, the operational monitoring and forecasting system for oil spill is introduced. Secondly, one decision support system of emergency response for oil production in the Bohai Sea is presented. This system combines satellite monitoring result, trajectory forecast, historical cases analysis, emergency resources management and proposal modification, to generate one emergency action plan. Her presentation is attached as **ANNEX G**.

17. The Seminar discussed the compensation method in the case of oil spills which is caused by a foreign company or entity. Participants recalled the "polluter pays" principle with the caveat that if the polluting company or entity is not able to pay the compensation, the government to which the company or entity belongs should bear the responsibility.

Session 2 – Emergency Response to Offshore Oil Spill

18. Mr. Haji Mohd Salihin bin Haji Aspar, General Manager of Brunei National Petroleum Company, provided an overview of Brunei Darussalam's National Oil Spill Contingency Plan (NOSCOP) which was first developed in 2003. He elaborated on Brunei Darussalam's ratification of international conventions and regulations on oil spill preparedness and response, as well as regional initiatives such as the 1993 MoU on ASEAN Oil Spill Response Action Plan (OSRAP) and the draft MoU on ASEAN Cooperation Mechanism for Joint Oil Spill Preparedness and Response which is currently under consideration by ASEAN Member States. He highlighted the tiered approach on oil spill response which is based on the size and scope of the spill. He informed the Seminar of the conduct of a 3-day live exercise later in the year called "Golden Shield" which will simulate a cross-border oil spill between Brunei and Malaysia. His presentation appears as **ANNEX H**.

19. Dr. Zhang Zhaokang, Advanced Supervisor for the China Offshore Environmental Services Ltd., outlined several actual case studies on oil spill response strategies. He focused on specific challenges presented by each case study and emphasised strategies based on pre-assessment and resources including good working relationship between the governmental agencies and industry with mutual interest and fully understanding; Efficient national tiered preparedness ensuring the fast responding time; Proper strategy with resources serve to achieve the strategy expection. And flexibility in adapting the strategy based on the situation at hand.His presentation appears as **ANNEX I**.

20. Ms. Sim Kai Jing, Spill Response Specialist from Oil Spill Response Limited (OSRL) Singapore, provided an overview of the OSRL in the implementation and planning for oil spill responses. The OSRL is an industry-owned cooperative with global remit which provides resources to its members to prepare for and respond to oil spills effectively and efficiently on a global basis. She elaborated on the OSRL's mechanisms and standard operating procedures in providing response resources and personnel. Her presentation appears as **ANNEX J**.

21. Mr. Leem Hyoung-jun, Assistance Director for the Korea Coast Guard, shared the experiences of the Republic of Korea in the planning and implementation of oil spill emergency response. He outlined Korea's national contingency plan for oil and hazardous and noxious substances (HNS) spills including the organisational structure and the inter-agency cooperation mechanisms. His presentation appears as **ANNEX K**.

22. Mr. Tan Junyao, Principal Staff Member of the Maritime Oil Spill Emergency Response Center of China, shared China's experiences in maritime oil spill emergency management. He elaborated on three aspects which deal with: 1) China's oil response organization and its responsibilities, inter-ministerial conference structure of major oil response; 2) Chinese oil spill response capacity building including the method of oil spill risk calculating, the distribution, character and trend of the oil spill risk, Chinese oil spill response equipment storages construction; 3) Chinese national contingency plan on oil spill preparedness and response including main contents of the plan, activation conditions, emergency response, comprehensive services, post response work and the exercises. His presentation appears as **ANNEX L**.

Session 3 – Identification, Assessment and Ecological Remediation of Offshore Oil Spill

23. Mr. Christian Castro shared the United States' experience in managing oil spill preparedness and response under the overall coordination of the National Response Team (NRT). The NRT has the responsibility to coordinate domestic responses with the two lead agencies being the Environmental Protection Agency (EPA) and the United States Coast Guard. He also elaborated on the roles of the State Department within the NRT, namely: 1) coordinator for offers of assistance from foreign governments to domestic incidents; 2) coordinator for requests of

assistance from foreign governments in which the NRT may provide technical and advisory assistance upon request; 3) the Office of Ocean and Polar Affairs in the Bureau of Oceans and International Environmental and Scientific Affairs represents the State Department on the NRT and provides diplomatic assistance; and 4) liaison with USAID and the Office for Foreign Disaster Assistance (OFDA) in providing humanitarian assistance and disaster relief.

24. Mr, Scott Lundgren, Technical Advisor for the Office of Marine Environmental Response Policy, United States Coast Guard, shared his views on achieving effective response and restoration. He outlined the United States National Response System (NRS) which manages both oil and chemical spill incidents from any source (shipping, offshore, etc.). The NRS adopts a top-down approach in which federal response to a spill incident is not contingent upon request from the local/state government; this is in comparison to natural disaster response which utilises a bottom-up approach. He emphasised the consensus-based ecological risk assessment tool which is based on a cost-benefit analysis for considering response and restoration techniques. His presentation appears as **ANNEX M**.

25. Dr. Kenneth Lee, Director of the Wealth from the Oceans National Research Flagship (WFO) of the Commonwealth Scientific and Industrial Research Organization of Australia (CSIRO) delivered a presentation on research on environmental pollution by offshore oil and gas exploration and production. He outlined the work of the WFO including the protection of the marine environment and the provision of scientific evidence to support regulatory decisions. He highlighted the need to establish baseline studies and identify sensitive marine life habitats in order to determine "state of the ocean" reports for future comparison and assessment of ecological risks in the event of oil and gas exploration in a particular area. His presentation appears as **ANNEX N**.

26. Dr. Sun Peiyan from the North China Sea Environmental Monitoring Center of the State Oceanic Administration delivered a presentation on the environmental impact monitoring and identification technology of offshore oil spills. She touched on the two types of monitoring, namely oil spill emergency monitoring and marine oil spill ecological impact monitoring, and highlighted the detail monitoring contents and several case studies where these monitoring types were utilised. She elaborated on the oil fingerprinting identification process and the development of a computerised oil fingerprinting database to determine the type and origin of the oil sample. Oil spill emergency and tracking monitoring aims at providing information for planning or execution of response operations as soon as possible and marine oil spill ecological impact monitoring is for short term environmental impact assessment, longer term ecological damage assessment and recovery, scientific study etc. Her presentation is attached as **ANNEX O**.

27. Mr. Roberto Cecutti from the Delegation of the European Union to China and Mongolia shared the European Union's perspective on oil spill detection and response capabilities to marine pollution incidents. He emphasised the "economy of scale" principle which underlines the EU's approach to oil spill response,

namely the maximisation of available resources according to the size and scope of the oil spill. He elaborated on the CleanSeaNet satellite-based oil spill monitoring and vessel detection service which is linked to national/regional response chains of all EU Member States. He described the response strategy under the ambit of the European Maritime Safety Agency (EMSA) which has, among others, a fleet of response vessels which are stationed at ports all over the European Union and cover the major maritime lanes. His presentation is attached as **ANNEX P**.

Session 4 – Roundtable on the Expert Network for Offshore Oil Spill Response on Monitoring, Early Warning, Identification and Assessment

28. The Seminar welcomed China's proposal for establishing an Expert Network of Oil Spill Response (ENOSR). The proposal aims to provide a forum for the provision of scientific and technical advice to support regional offshore oil spill response operations and the coordination of programmes to enhance the effectiveness and capacity of spill response agencies among ARF participants. The ENOSR would be a platform for open exchange on oil spill response technologies.

29. The draft proposal will be tabled at the 6th ARF Inter-Sessional Meeting on Maritime Security (ISM on MS) which is scheduled to be held in Indonesia on 22-23 May 2014 for further discussion and consideration. The draft proposal is attached as **ANNEX Q**.

Closing Remarks

30. The Co-Chairs expressed hope that the outcomes of the discussions on marine pollution incidents would enable ARF participants to accomplish the following key tasks:
    a. Encourage ways to determine gaps in regional protocols, awareness, capabilities and institutional capacity in oil spill preparedness and response;
    b. Increase the region's potential to prevent, prepare, respond and recover from offshore pollution incidents by creating opportunities to share best practices and provide training to alleviate shortcomings in capacity and capabilities, to understand regulatory frameworks through engagement with international organisations, and to facilitate government-industry collaboration and cooperation; and
    c. Encourage the provision of a cooperative approach for mutual assistance amongst ARF participants in the event of a major oil spill incident that exceeds the response capabilities of national governments or crosses the national boundaries.

31. In closing, the Co-Chairs conveyed their deep appreciation to all participants, speakers and the ASEAN Secretariat for their cooperation and invaluable contribution to the Seminar, which was convened for the first time to address the issue of preparedness and response to oil spill incidents from offshore platforms.

The Co-Chairs looked forward to further discussions on this issue by the ARF in the near future.

32. The Seminar expressed gratitude to Brunei Darussalam, China, Singapore and the United States for their effective co-chairmanship. The participants also thanked the Government of the People's Republic of China for their warm hospitality and excellent arrangements in hosting the ARF Seminar on the Regional Cooperation on Offshore Oil Spill.

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