EAS CONGRESS 2021

THE EAST ASIAN SEAS CONGRESS

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Collab 7

Net Environmental Benefit Analysis (NEBA) And Spill Impact Mitigation Assessment (SIMA): Engaging Key Local Stakeholders Effectively To Prepare And Respond To An Oil Spill Incident

9 September 2021, 1:00 PM - 4:30 PM (GMT+7)
Online via Zoom

ORGANIZER:

Oil Spill Response Limited (OSRL)

The Global Initiative for Southeast Asia (GISEA)

Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) Resource Facility

Collab 7: Net Environmental Benefit Analysis (NEBA) and Spill Impact Mitigation Assessment (SIMA): Engaging Key Local Stakeholders Effectively to Prepare and Respond to an Oil Spill Incident

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PROCEEDINGS

I. INTRODUCTION

As the largest international industry-funded oil spill response organization, Oil Spill Response Limited (OSRL) plays a significant role in the promotion of the use of industry good practices to prepare for and respond to any oil spill incidents, through engaging various key stakeholders which may be involved in an incident.

OSRL collaborated with Partnerships in Environmental Management for the Seas of East Asia (PEMSEA) and Global Initiative – South-East Asia (GISEA) to deliver a virtual workshop on Net Environmental Benefit Analysis (NEBA) and Spill Impact Mitigation Assessment (SIMA) to support the Gulf of Thailand (GoT) Cooperation.

Purpose of the workshop is to introduce the concept of Net Environmental Benefit Analysis (NEBA) and Spill Impact Mitigation Assessment (SIMA) as an engagement tool to understand impacts of oil spill to the local community, compare the benefits of different response strategies and thereby reducing the overall impact to cultural, ecological, and socio-economic resources during an oil spill incident.

This workshop was held from 2:00 PM to 5:30 PM on 9th Sept 2021 and consists of presentations, worked examples walkthrough and scenario-based discussions. Please refer to Annexes A and B for the workshop programme and link to the presentations, respectively.

The workshop was attended by thirty-six participants from the littoral states of GoT sub-region, namely Cambodia, Thailand, and Vietnam. The delegation was headed by the national contact points and was also well-represented by a diverse group of stakeholders to provide an alternative perspective to the NEBA/SIMA discussion. Please refer Annex C for the full list of participants.

A team of five resources speakers and moderator were headed by OSRL and GISEA, with technical support from PEMSEA.

II. OPENING MESSAGE

The workshop was graced by Mr. Phuripat Theerakulpisut, Deputy Director General of Marine Department of Thailand.

In his opening speech, Mr. Phuripat stressed on the importance of GoT sub-region as vital area of mutual interest shared between the coastal states i.e., Cambodia, Thailand and Vietnam and encouraged the participants to actively participate in the workshop to explore the potential use

of NEBA/SIMA for inclusive stakeholder engagement, as part of the preparation to respond to an oil spill incident.

Lastly, before proceeding to the workshop, he reiterated on the importance of collaborative efforts between the three countries, to respond effectively to a potential large-scale incident and hoped for a successful delivery of the workshop.

III. MAIN WORKSHOP

Mr. Lee Nai Ming, Project Manager for the GISEA program kicked off the session to discuss on the significance of NEBA and SIMA within the context of regional and subregional cooperation in South-East Asia region.

In his presentation titled, "Considerations for Mutual Assistance in Oil Spill Preparedness and Response", he briefly introduced the structure, remit, vision and mission of Global Initiative (GI) program, a government – industry partnership headed by International Maritime Organisation (IMO) and IPIECA, the global oil and gas industry association for advancing environmental and social performance.

Mr. Lee also shared that GISEA was established to address the unique oil spill risk in the region to support Association of South-East Asian Nations (ASEAN) members to build capacity in the six key elements of oil spill preparedness and response, namely legislation, contingency planning, resources, training, exercises and cooperation.

To understand the significance of NEBA and SIMA concept in regional/sub-regional mutual assistance, Mr. Lee first provided an overview of the regional and subregional cooperation in this region and touched on the Memorandum of Understanding on ASEAN Cooperation Mechanism for Joint Oil Spill Preparedness and Response (ASEAN MoU) which was entered into force on 28 Nov 2014 during the ASEAN Maritime Technical Working Group Meeting. Article 2 of the ASEAN MoU stipulates the development of Regional Oil Spill Contingency Plan (ROSCP) to coordinate and integrate response to oil spill incident that is beyond the response capacity of any Member and/or likely to affect one or more Members.

The Regional Oil Spill Contingency Plan, which was formally adopted on 8th November 2018 during the 24th ASEAN Transport Ministers' meeting, Thailand, aims to strengthen regional and national preparedness and responses by providing a mechanism enabling mutual offer and acceptance of support in response to an oil spill incident. He further emphasized that the ROSCP does not replace existing national framework and encouraged the development of a robust preparedness and response capacity at national and local level to underpin the successful implementation of the ROSCP.

Focusing on the Gulf of Thailand sub-region, Mr. Lee talks about the "Joint Statement of Cambodia, Thailand and Vietnam on Partnership in Oil Spill Preparedness and Response in the Gulf of Thailand", a long-standing agreement between the littoral states that predates the ASEAN MoU, which contains a sub-regional oil spill contingency plan, modelled after the ROSCP.

With the context discussed above, Mr. Lee moved to discuss the significance of NEBA concept for cooperation between countries and shared that, fundamentally, NEBA underpins the development of national and local oil spill preparedness and response capacity by providing a structured and robust approach to compare the environmental benefits of potential response tools which leads to the development of response strategy that will reduce the overall impact of an oil spill on the environment. By adopting a common approach in NEBA, policy planning

can be harmonized across the regions and various stakeholders to enhance regional integration and inter-operability. An example on the guidelines for use of dispersants within the sub-regional oil spill contingency plan was quoted.

Mr. Lee also discussed how NEBA serves as an important tool to develop response strategies and identify response resources which, together with the mutual assistance mechanism, enables a cost-effective way to build local and national response capacity without maintaining excessive levels of equipment stockpile.

Towards the end of his presentation, Mr. Lee outlined the significance of NEBA in supporting oil spill preparedness and response and discussed on the challenges in aligning the plans across the hierarchy from national to regional level. He further identified the potential areas of collaboration at the national and sub-regional level such as ratification of key conventions, common dispersant policy etc.

Mr. John Butac, OSRL's Senior Trainer, commenced the first part of presentation on NEBA and SIMA with a short video clip, explaining its definition, key principles and purpose. In talking about the historical relationship between NEBA and SIMA, he explained that the industry transition from NEBA to SIMA and emphasized that the principles of NEBA remained unchanged, while the name change better reflects the objectives, decision framework and shared values and removes any misperception associated with the word "benefit". To enable participants to have a better grasp of the terminology in the later discussion, Mr. Butac provided a quick overview on the response options such as at-sea containment and recovery, dispersant application, in-situ burning etc., before diving into the SIMA process.

SIMA is a four-staged process, which provides a transparent methodology to consolidate stakeholder inputs and enable meaningful discussions and conclusions. Mr. Butac commented that while it is possible to utilize SIMA under both "preparedness" and "response" context, it should be noted that it would require an expedition of the process, which may be less comprehensive.

Stage 1 of the SIMA process starts with the evaluation of data. Mr. Butac elaborated that typical input data such as spill scenario, environmental setting, spill trajectory and information on ecological, socio-economic and cultural resources will help the identification of resources-at-risk and formulate a list of feasible response options for protection or damage mitigation. After which, he introduced the idea of resource compartmentalization to define the boundaries during discussion, while offering the flexibility to adapt to local characteristics by adding high-value resources.

Next, Mr. Butac shared that the main outcome of Stage 2 of SIMA process is to predict outcomes of the scenario without any response intervention. Explaining on the methodology, an impact score to each resource compartment, establishing a baseline case of potential impact. The scoring methodology was further elaborated to demonstrate how the impact score may be arrived, which is based on two factors – the degree of impact severity and recovery potential of the affected resources.

After a short break, Mr. Tawirat Bates, Global Logistics Specialist, kicked off the second part of the presentation with a recap of Stage 1 and Stage 2 of SIMA process. Having discussed the steps to predict outcomes in Stage 2, he shared that the aim of Stage 3 is to balance the trade-offs of the different response strategies.

Mr. Bates explained how the response options are incorporated in the SIMA discussions, by considering the potential impact of implementing a response option against the baseline impact (i.e., "No intervention") On the SIMA tool, the trade-offs of implementing each response option is reflected under the impact modification factor, which can be either positive or negative, depending on how the resource is affected. The final impact score would then be obtained by multiplying against the original impact score.

The aim of stage 4 of SIMA process is to select the appropriate response options based on the ranking results where the response option with the highest positive mitigation score can legitimately be considered the primary response option. Mr. Bates summarized the discussion on the SIMA process with a worked example to demonstrate how it would be used in an oil spill scenario. Quoting surface dispersant as an example, he talked about how different resource compartments may be affected and thus, required the participation of various affected stakeholders to come to a consensus. Before ending the discussion, Mr. Bates discussed how the SIMA tool can be further adapted to focus specifically on shoreline clean-up, by comparing the different shoreline clean-up strategies, in place of broader response strategies.

Mr. Matthew Low, Response Team Leader and Duty Manager of Oil Spill Response Limited (OSRL) takes the floor to commence the next session. To enable participants to better understand the application of SIMA concept, he introduced a fictitious oil spill scenario for the audience to exercise the SIMA process with support from OSRL and GISEA speakers. After elaborating on the details of scenario, exercise assumptions and parameters, the participants were broken into three breakout groups, namely Cambodia, Thailand and Vietnam, to work through the scenario and use the SIMA process in the simulated scenario.

Following the breakout discussions, the participants were invited back to the main room to share on their results. While the rapporteur of each group were able to confidently explain their rationale for the impact scores put together, facilitators of each breakout group also observed that the participants has acquired a good grasp of the concept during the discussion.

Concluding the workshop, Mr. Low thanked the audience for their active participation and respective rapporteur from each group for their support during the discussion. He also shared that a typical SIMA discussion usually requires a much longer time, hence the participants have performed relatively well, under the time constraints. However, he advised that the discussions should not include logistical, operational and regulatory considerations at this stage, particularly from a preparedness perspective, as each response option should be considered based on their technical merits, not based on the external limitations. Lastly, he also pointed out that it is normal that different results were obtained with the same scenario and emphasized that there's no right or wrong answer. The most important aspect of NEBA/SIMA is to reach to the local community and technical experts who provides the required inputs to effectively plan for an oil spill response.

IV. CLOSING MESSAGE

Mr. Phuripat delivered the closing message and thanked all the participants and organizers for actively sharing their valuable knowledge and experience to enable a comprehensive and constructive discussion in exploring the potential use of NEBA and SIMA within the Gulf of Thailand Cooperation. In closing, he declared the workshop a success, wished all participants to remain in good health and expressed looking forward to follow-actions and further cooperation within Gulf of Thailand.

ANNEX A. WORKSHOP PROGRAMME.

Duration	Agenda	Speaker
1300-1310 (10’)	Opening and Introduction of workshop objectives and speakers by the Workshop Chair	Mr. Phuripat Theerakulpisut, Deputy Director General, Marine Department, Thailand
1310-1340 (30’)	NEBA: Considerations for mutual assistance in Oil Spill Preparedness and Response	Mr. Lee Nai Ming Project Manager, GISEA
1340-1420 (40’)	Introduction to NEBA/SIMA – Part I	Mr. John Butac Senior Trainer, OSRL
1420-1450 (30’)	Introduction to NEBA/SIMA – Part II	Mr. Tawirat Bates Global Logistics Specialist, OSRL
1450-1500 (10’)	Break	
1500-1510 (10’)	Briefing on the instructions for the breakout discussions	Mr. Matthew Low Response Team Leader & Duty Manager, OSRL
1510-1600 (50’)	Scenario-based discussion in breakout groups	Mr. John Butac, OSRL Mr. Matthew Low, OSRL Mr. Tawirat Bates, OSRL
1600-1615 (15’)	Presentation of results Summary	Mr. Matthew Low, OSRL
1615-1630 (15’)	Closing remarks by the Workshop Chair	Mr. Phuripat Theerakulpisut, Deputy Director General, Marine Department, Thailand

ANNEX B. LINK TO PRESENTATIONS.

https://tinyurl.com/NEBA-SIMA-Workshop-PPTs

ANNEX C. LIST OF PARTICIPANTS.

Cambodia	Thailand	Viet nAM
Merchant Marine Department (MMD) Mr. Khlem Chanreatrey Ms. Theng Sorachana Ms. Horl Socheata Mr. Ngoun Dawin **National Committee for Disaster Management (NCDM) of Cambodia** Mr. Bour Bunny **Ministry of Environment (MoE)** Mr. Roath Sith Mr. Thong Sokvongsa Mr. Sou Phalla Mr. Than Monomoyith **Sihanoukville Autonomous Port** Mr. Mann Yoeun	**Marine Department** Mr. Phuripat Theerakulpisut Mr. Shinabhat Maneerin Ms. Soontharee Pirom Mr. Thanatip Jantarapakde Mr. Somkiat **Department of Marine and Coastal Resources (DMCR)** Ms. Mitila Pransilpa Mrs. Suthida Kan-atireklap Mr. Suthida Kanati **Royal Thai Navy** CDR Anusorn Klaymongkon, RTN **Pollution Control Department** Ms. Wanpen Tuanwechayan **Oil Industry Environmental Safety Group Association** Mr. Khomsan Lertwiriyaprapa Mr. Wallop Yammuean Mr. Suthat Kanjanakanti **Burapha University (BUU)** Dr. Thanomsak Boonphakdee Dr. Arachaporn Auntaliya **Laem Chabang Port** Mr. Pornpoi	**National Southern Oil Spill Response Center (NASOS)** Mr. Thua Huynh Ngoc Mr. Hung Nguyen Quang Mr. Khanh Nguyen Kim **Viet Nam Administration of Seas and Islands (VASI)** Ms. Nguyen Ngoc Hoan Ms. Nguyen Thi Thuy Ms. Le Thi Hoa **Viet Nam Maritime Administration (VINAMARINE)** Ms. Le Thi Phuong Thao Ms. Vu Thanh Hoa