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National Workshop on Contingency Planning and Sensitivity Mapping

Monrovia, Liberia

Global Initiative for Western, Central and South



The Liberia Maritime **Authority**





NOTE

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IMO/IPIECA. 2016. Report of the National Workshop and Exercise on Contingency Planning and Incident Management System in Liberia.

40 Pages.



Executive summary

The national workshop on Contingency Planning and Sensitivity Mapping was organised in Monrovia, Liberia at the Maritime Rescue Coordination Centre (MRCC), from 1 to 4 August 2016. It gathered delegates from different ministries and agencies as well as representatives from the private sector.

The event was hosted by the Liberia Maritime Authority (LiMA) within the framework of the GI WACAF Project. The workshop was supported by the International Maritime Organization (IMO) and IPIECA, the global oil and gas association for environmental and social issues.

Around 31 participants attended the workshop. A list of participants is attached as Annex 2 of this report.

The general objective of the workshop was to develop the National Oil Spill Contingency Plan of Liberia and to train participants on oil spill sensitivity mapping. The specific objectives of the workshop were to:

- provide training of relevant national authorities on contingency planning;
- review the current version of the NOSCP and identify areas within the NOSCP that may require amendment; and
- provide training of relevant national authorities on the collection, processing and mapping
 of coastal sensitivity data, and how to use the mapping information to ensure an effective
 response to a marine oil spills.

In order to address the objectives of the workshop the participants were guided through four days of presentations, case studies, working group sessions and discussions. The outcomes of this work can be found in the following sections:

<u>Legislation</u>

- Ratification of the Nairobi convention on the removal of shipwrecks
- Ratification of the Bunkers convention

Roles and responsibilities

 Clarify roles of the National committee (peace time) and the incident management in the NOSCP

• Development of the NOSCP

- Gather the National Committee in charge of developing the NOSCP
- Conduct and update an oil spill risk assessment
- Develop a waste management policy
- Develop an atlas of oil spill sensitivity maps
- Assess available data and GIS software
- Define a source of funding for the development of the plan
- Identify and outline in the Plan a provider of oil spill equipment
- Develop a HNS plan



• Training and exercise

- Outline a calendar of training session and exercises in the Plan
- Organize a training on liability and compensation, and on the management of claims
- Organize a table-top exercise to test and update the Plan
- Organize a training on Incident Management System (IMS)

• Communication

- Raise awareness of the plan with coastal communities
- Improve communication between the field and the Incident Command Centre

The active participation and the expertise of all delegates as well as the organisation of the workshop with the support of the Liberia Maritime Authority were greatly appreciated and were key to the success of this workshop.



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1. Presentation of the GI WACAF Project

Launched in 2006, the Global Initiative for West, Central and Southern Africa (GI WACAF Project) is a partnership between the International Maritime Organization (IMO) and IPIECA, the global oil and gas industry association for environmental and social issues, to enhance the capacity of countries to prepare for and respond to marine oil spills. A key innovative feature is to emphasize the promotion of public/private partnerships for effective oil spill response.

The mission is to strengthen the national oil spill response capability in 22 West, Central and Southern African countries through the establishment of a local partnership between the oil industry and the authorities in charge of oil spill preparedness and response at national level.

The Project is jointly funded by the IMO and 9 Oil Companies members (BP, Chevron, ConocoPhillips, ENI, ExxonMobil, PERENCO, Shell, TOTAL and Woodside).











The scope is to organise workshops, training courses, seminars and deployment exercises in collaboration with the national authorities in charge of oil spill response and in partnership with local business units.

The GI WACAF Project is based on an effective management system comprising of six goals of preparedness to prepare for and respond to marine oil spills. These goals cover the requirements of the OPRC 90 Convention:

- Goal 1 Legislation: Promote the ratification of the relevant international Conventions
- Goal 2 Contingency plan: Develop National Contingency Plans for all the countries of the region
- Goal 3 Designation of authority: Obtain clarity on roles and responsibilities of all stakeholders
- Goal 4 Regional agreements: Promote the exchange of information and the provision of mutual assistance for oil spill incidents
- Goal 5 Training: Ensure that training and exercises are delivered in the participating countries on a regular basis
- Goal 6 National capabilities: Support participating countries in developing their own national response system



2. Introduction

Following the 6th biennial Regional Conference of the GI WACAF Project held in Accra, Ghana in November 2015, it was decided with the Liberia Maritime Authority (LiMA) to organize a National Workshop on Contingency Planning and Sensitivity Mapping.

This activity follows the previous GI WACAF National Workshop for the Development of the National Contingency Plan, organized in Monrovia, Liberia, in June 2010

Since the previous GI WACAF workshop in 2010, the oil spill risks in Liberia have evolved. Exploration is now taking place in Liberia's waters and the country is also experiencing an increase in maritime traffic.

3. Objectives of the workshop

The general objective of the workshop was to ascertain the status of the National Oil Spill Contingency Plan of Liberia and to train participants on oil spill sensitivity mapping. The specific objectives of the workshop were to:

- provide training of relevant national authorities on contingency planning;
- review the current version of the NOSCP and identify areas within the NOSCP that may require amendment; and
- provide training of relevant national authorities on the collection, processing and mapping
 of coastal sensitivity data, and how to use the mapping information to ensure an effective
 response to a marine oil spills.

4. Programme of the Workshop

The workshop was organised during four days, with three days dedicated to presentations, case studies and discussions on contingency planning and one day focusing on a RETOS exercise to review the National Oil Spill Contingency Plan. The programme is available in Annex 1.

- Monday 1 August 2016
 - o Opening ceremony and introduction of the workshop
 - o Presentation of the GI WACAF Project
 - Legal framework (IMO Conventions)
 - o Introduction to oil spill preparedness and response
- Tuesday 2 August 2016
 - o Technical tools for oil spill response
 - o Environmental effects of oil spills
 - o Other impacts of oil spills
 - o Oil spill contingency planning and cooperation
- Wednesday 3 August 2016
 - Introduction to sensitivity mapping
 - o Physical processes
 - Oil spill risks in Liberia
 - Shoreline assessment and clean-up
- Thursday 4 August 2016
 - o Presentation of the National Oil Spill Contingency Plan
 - o Review of the NOSCP thanks to the RETOS tool
 - Conclusions and recommendations
 - Closing ceremony

The workshop was held at the Maritime Rescue Coordination Centre (MRCC), Monrovia, from 1 to 4 August 2016. 31 participants from the different ministries and agencies attended the event.

The experts invited to facilitate this workshop were Joe Small and Benjamin Jeanne. GI WACAF Secretariat could not attend the event due to conflicting commitments.



5. Activities and proceedings

5.1. Opening ceremony

The opening ceremony took place on Monday, 1 August 2016 at 09.00. It was introduced by Mr John Cuffey, Director of the Marine environmental protection division. His speech is attached as Annex 3. The Hon. Charles A. Gono, Officer in Charge at the Liberia Maritime Authority (LiMA) then welcomed participants.

Mr Joe Small delivered the IMO Opening Remarks on behalf of the GI WACAF Secretariat (attached as Annex 4).

5.2. Proceedings of the National Workshop

DAY 1 Monday 1 August 2016

Session 1: Introduction of the workshop objectives

Mr Joe Small, IPIECA consultant

Mr Joe Small introduced the programme and the objectives of the workshop to the 31 participants by explaining that the first day would be focused on an introduction to the international legal framework and to oil spill response, the second day would be focused on the impacts of oil spills and contingency planning and the third day would be dedicated to sensitivity mapping and shoreline clean up and assessment techniques (SCAT).

Finally, the fourth and last day of the workshop would be dedicated to the technical elements of the NOSCP and a RETOS exercise to review the document.

Session 2: Presentation of the GI WACAF Project

Mr Joe Small, IPIECA consultant

Mr Joe Small introduced the GI WACAF Project, its six core objectives and its geographical scope. The consultant explained how the GI WACAF Project was financed by the IMO and 10 oil companied members of IPIFCA.

He then detailed the progress achieved in the region since the launch of the Project in 2006.

Finally, the consultant detailed the outcomes of the 6th Regional Conference held in Accra, Ghana in November 2015 and the action plan for 2016 and 2017 by stressing the importance of the organization of exercises and the focus on transboundary cooperation.

Session 3: GI WACAF presentation (video)

Mr Joe Small, IPIECA consultant

Mr Joe Small introduced the GI WACAF video which described the work of the project and looked at a recent national exercise held in Cameroon.



Session 4: Introduction to oil spills (video)

Mr Joe Small, IPIECA consultant

Mr Joe Small introduced the ITOPF video series and the first video in that series, *Introduction to Oil Spills*, which introduced the delegates to the history of oil spill response and some of the key elements in oil spill preparedness.

Session 5: IPIECA – Working Together – Co-operation and Planning (Video)

Mr Joe Small, IPIECA consultant

Mr Joe Small introduced the IPIECA video on "Working Together – Co-operation and Planning". Whilst this video is a little dated the philosophies and strategies on cooperation and planning are still relevant and address the key objectives of this workshop. This was followed by a short exercise to identify the sources of oil spills in Liberia's waters, to identify the types of oil and to identify the reasons behind the oil spills. This exercise was designed to focus the participants on recognising the risks they faced and to understand that a large oil spill may be as a result of a fire, explosion, collision, etc, and that their national resources would be engaged in the response to the incident.

Session 6: The legal framework

Mr Joe Small, IPIECA consultant

Mr Joe Small detailed the relevant IMO convention for oil spill response and preparedness.

The consultant then detailed the obligation of parties to the OPRC 90 Convention at the national and international level, as well as the role of the IMO. He stressed the importance of effective cooperation between the public and the private sector on matters such as oil spill preparedness and response.

Finally, he detailed the guidelines on international offers of assistance and introduced the Abidjan Convention and its emergency protocol to the participants.

Session 7: Oil Spill Response Preparedness

Mr Joe Small, IPIECA consultant

Mr Joe Small introduced the subject of oil spill response preparedness and described the requirements of the OPRC Convention, how to prepare to respond to an oil pollution incident and the need for an efficient contingency planning system. Liberia is a signatory to the OPRC Convention, amongst other, and is preparing for an IMO audit. The obligations of the OPRC Convention were reinforced.



DAY 2 Tuesday, 2 August 2016

Session 8: Oil Spills in the Niger Delta (Video)

Mr Joe Small, IPIECA consultant

Mr Joe Small introduced a short video on oil spills in the Niger Delta. This video, focusing on the plight of a fisherman living in the Delta, set the scene for the remainder of the workshop. The video was considered of particular relevance given the anticipated increase in oil exploration off Liberia coupled with the similarities of ecosystems.

Session 9: Report on the Vulnerability of the Coast of Liberia to Oil Spills

Mr Darlington Tuagben, Forestry Development Agency

Mr Darlington Tuagben introduced his report, commissioned by the National Oil Company of Liberia (NOCAL) in to the vulnerability of the coast of Liberia to oil spills and the implications for biodiversity and renewable natural resource utilisation. The report, from March 2012, states that a "catastrophic oil spill in Liberia's coastal zone will likely deprive inhabitants of an adequate standard of living, rights to food and result in damage to farms, fisheries and other natural resources through the pollution of sensitive dependent environments and ecosystems". The report called for an oil spill contingency plan and a detailed study to investigate shoreline sensitivity, socioeconomic resources and other ecological resources. Mr Tuagben's report and a condensed summary were included in the distributed workshop USB.

Session 9: Impacts of Oil Spills

Mr Joe Small, IPIECA consultant

Mr Joe Small described the potential impacts of oil spills from the perspective of social and economic activities, on the marine and coastal environment and on fisheries. He stressed that it was important to differentiate between impacts to individuals and to populations. He also explained the factors that may affect the impact of the oil and how knowledge of the impacts of oil spills can be used to develop response strategy.

Session 10: Environmental effects of oil spills (video)

Mr Joe Small, IPIECA consultant

Mr Joe Small introduced the sixth in the ITOPF Response to Marine Oil Spill video series, which considers the environmental impacts of an oil spill. This video reinforced the points addressed in the previous presentation on the impacts of oil spills.

Session 11: Assessment of Spill Risks

Mr Joe Small, IPIECA consultant

Mr Joe Small introduced the topic of risk assessments and demonstrated how to understand oil spill risks and their potential consequences. In turn this leads to an understanding of how to evaluate risks and to use these results in contingency planning and to strengthen and tailor the response preparedness.



Session 12: Technical Tools for Oil Spill Response

Mr Joe Small, IPIECA consultant

Mr Joe Small explained the technical aspects and tools that are available for oil spill preparedness and response, especially in respect of determining oil behaviour, developing sensitivity maps and spill modelling. How these tools are used in preparedness and contingency planning was explained as well as demonstrating how they facilitate the decision making progress.

Session 13: Oil Spill Response Options

Mr Joe Small, IPIECA consultant

Mr Small detailed the main response strategies that can be used offshore and onshore during an oil spill. It showed the benefits, the operational limitations and some of the important issues that may arise with regards to these response strategies. The presentation considered issues related to offshore (monitor and evaluate, containment and recovery, chemical dispersants) and shoreline cleanup operations (shoreline types, management, logistics) as well as standards for cleanup efforts, termination of response and waste management.



DAY 3 Wednesday, 3 August 2016

Session 14: Planning and cooperation

Mr Joe Small, IPIECA consultant

Mr Joe Small introduced the organisational aspects to be considered when drafting and implementing a National Contingency Plan, subordinate area or facility plans and Regional plans. This included the concept of a hierarchy of plans, coordinated under a national system. This framework of plans should reflect the "tiered response" concept. The presentation considered the different steps to be undertaken in drafting a plan and considered the planning process.

Session 15: National legal framework

Mr Joel E. Theoway, Ministry of Justice

Mr Theoway introduced the international and national legal framework to participants, from the IMO Conventions and the United Nations Convention on the Law of the Sea (UNCLOS) to Liberia's environmental laws. He stressed the importance of developing Liberia's environmental legal framework in order to address existing loopholes.

Session 16: Enhancing resilience of vulnerable coastal areas to climate change risks

Mr Paye Kulah, Senior Project Coordinator, Integrated Coastal Management Unit, Ministry of Lands, Mines, and Energy

The Liberian coast has been subject to serious erosion and storm damage at many points. Abrasive currents, high energy wave patterns and storm surges combine to create serious levels of coastal erosion. Forecasted global climate change, leading to rising sea levels and increased intensity of storms, is predicted to accelerate at the present catastrophic situation of coastal erosion. The anticipated impacts are potentially disastrous, and are likely to include: the exacerbation of poverty, the destruction of rural infrastructure (markets, roads, centers, clinics, etc.), and the destruction of land and livelihood equipment (boats, mobile market stands, stoves, etc). These factors are to affect the most densely populated areas and the lives of large numbers of poor people.

In response, this project will demonstrate low-medium costs measures for protecting coastal areas against erosion and climate change. The projection measures will be constructed through a participatory and capacity-development process. Focused at the community level, three specific areas will develop the capacity to protect their coast through this project. In addition, at the county and national levels, the enabling environment to sustainably manage and protect coastal resources will be enhanced, improving areas such as sectoral reform, policy reform, strengthening institutions and encouraging education.

Session 17: Introduction to sensitivity mapping

Mr Benjamin Jeanne, IPIECA consultant

Mr Benjamin Jeanne described the process of developing oil spill sensitivity maps, from the collection of relevant data to the creation of tactical and strategic maps, using a geographic information system (GIS).



It is important to note that the Environmental Protection Agency (EPA) of Liberia is in the process of developing environmental sensitivity maps. EPA will make this document available in case of an oil spill.

Session 18: Physical processes

Mr Joe Small, IPIECA consultant

Mr Small introduced the topic of "Physical Processes" and explained that it is essential to understand the behaviour of oil on the shore as well as the sensitivity of the different types of shorelines. The presentation explained the physical coastal process and the impact of wind and waves, tides and density fronts. The presentation also described the different shoreline types: impermeable, permeable and vegetable shores and explained that it was crucial to understand not only the specific impact of oil on the different shoreline types but also the consequences of any proposed clean-up techniques. Mr Small explained the importance of pre-spill coastal mapping and segmentation and the type of data to include in order to be prepared in case of a spill.

Session 19: Shoreline assessment and clean-up

Mr Joe Small, IPIECA consultant

Mr Small introduced the participants to the use of SCAT in shoreline response including how to plan and conduct a shoreline survey with particular emphasis on the safety aspects, consideration of what information needs to be collected, an introduction to Shoreline Oiling Summary (SOS) forms and concluded by considering how to manage SCAT data.

DAY 4 Thursday, 9 June 2016

Session 20: National Contingency Plan – Current status

Mr Daniel Tarr, GI WACAF Focal Point in Liberia

Mr Daniel Tarr detailed each part of the Plan, which is organized in 4 parts and 3 appendices. Mr Tarr highlighted the areas that needed improvement, especially the absence of sensitivity maps in the appendices. Additionally, Mr. Tarr made mention of proposals for sensitization awareness to the coastal counties of the country. Such sensitization awareness, he pointed out, would amongst other issues cover the threats of oil spill and the role of coastal dwellers in oil spill incidents. He also stressed that there is a proposal for Liberia to learn from West African countries with more developed NOSCP's through study tours. IN another area, Mr. Tarr elaborated on the challenges of the current draft NOSCP for Liberia. Such challenges include in addition to, sensitivity maps:

- Drafting of policies on dispersants, in-situ burning and shoreline-cleanup;
- Incorporation of Incident Management Plan into the NOSCP;
- And either updating existing NOSCP to accommodate HNS or drafting a separate plan for HNS.

Session 20: Review of the National Oil Spill Contingency Plan - RETOS exercise

Mr Joe Small & Mr Benjamin Jeanne, Consultants IPIECA

Participants were divided in 3 groups and were requested to review different parts of the NOSCP thanks to the RETOS tool.

The questions submitted to the participants are available in Annex 6.

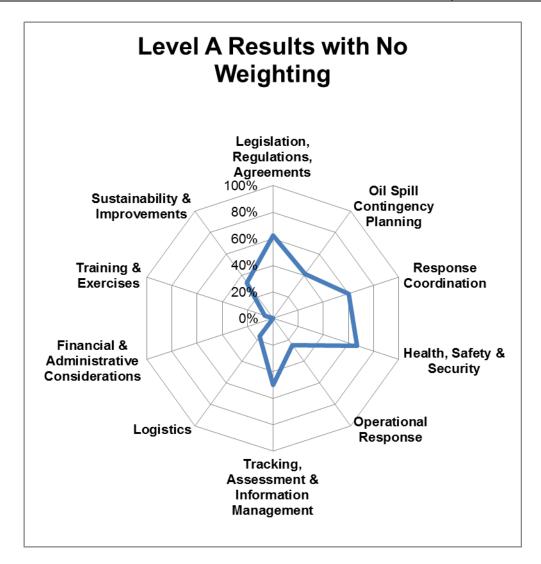
Following the results of the exercise, a report was generated by the RETOS tool. The report can be found below.

Global Performance Analysis Results

Category	Value
Legislation, Regulations, Agreements	63%
Oil Spill Contingency Planning	41%
Response Coordination	60%
Health, Safety & Security	67%
Operational Response	25%
Tracking, Assessment & Information Management	50%
Logistics	17%
Financial & Administrative Considerations	0%
Training & Exercises	6%
Sustainability & Improvements	33%



Total	36%
Institution Specific Criteria	N/A



Thanks to the RETOS report and the spider graph above, participants were able to see that the following sections/part of the plan need improvement:

- <u>Operational response</u>: For instance, government equipment locations are not identified and secured; locations are not yet allowed for quick access and deployment of equipment.
- <u>Logistics</u>: For instance, assets and procedure for communications in the field and between the field and Command Post are not yet in place.
- <u>Financial & Administrative considerations</u>: Discussions regarding the establishment of an emergency fund to enable immediate response actions are currently taking place.

 Legal aspects including sampling/collecting evidence, taking statements, and mechanisms for settling disputes and claims have not yet been considered.
- <u>Training & Exercises</u>: Minimum training, including Health & Safety training, is not provided for spill management and responders. A table top exercise to test and update the NOSCP has not yet been organized.

Session 21: Development of an action plan

All participants

Following the outcomes of the RETOS exercise, participants were asked to agree on a set of recommendations with a clear action plan in the view of improving the NOSCP.

The recommendations and the action plan are available in section 6 of this report.

5.3. Closing Cceremony

Hon. Charles A. Gono, representing the Liberia Maritime Authority, thanked the participants for their attendance and cooperation during the workshop.

Mr Benjamin Jeanne thanked the participants hoped that the workshop and the recommendations would help updating the National Oil Spill Contingency Plan.

Mr Joel E. Theoway from the Ministry of Justice, Stakeholders representative, stressed the importance of updating the National Oil Spill Contingency Plan according to the recommendations of the workshop. His closing remarks are available in annex 5.

6. Recommendations

	Торіс	Action plan	Priority
Legislation	Ratification of the Nairobi convention on the removal of shipwrecks	2017	High
-	Ratification of the Bunkers convention	2017	High
Roles and responsibilities	Clarify roles of the National committee (peace time) and the incident management in the NOSCP	September 2016	High
	Gather the National Committee in charge of developing the NOSCP	August 2016	High
	Conduct and update an oil spill risk assessment	September 2016	High
	Develop a waste management policy	January 2017	High
Development of the	Develop an atlas of oil spill sensitivity maps	January 2017	High
NOSCP	Assess available data and GIS software	August 2016	High
	Define a source of funding for the development of the plan	August 2016	High
	Identify and outline in the Plan a provider of oil spill equipment	January 2017	High
	Develop a HNS plan	June 2017	Medium
	Outline a calendar of training session and exercises in the Plan	January 2017	Medium
Training and exercise	Organize a training on liability and compensation, and on the management of claims	2017	
	Organize a table-top exercise to test and update the Plan	2017	Medium
	Organize a training on Incident Management System (IMS)	2017	Medium
	Raise awareness of the plan with coastal communities	September 2016	Medium
Communication	Improve communication between the field and the Incident Command Centre (MRCC?)	January 2017	Medium



7. Conclusion

The National workshop was successful in identifying the areas of the NOSCP that needed improvement.

The Liberia Maritime Authority (LiMA) will need further assistance from the GI WACAF Project in the near future to organize trainings and a table top exercise.

It will also be very important to identify local expertise in the field of oil spill response and preparedness in order to continually improve the Plan.

The industry will also have to be involved in the development of the plan and in the organization of the exercise.

It is also very important to start develop of the sensitivity maps for the coastline of Liberia. In this regard it was noted that data may already be held by different Ministries and Institutions therefore the steering committee was urged to understand what data already exists before planning the next phase of the development. It was also noted that Sierra Leone, one of Liberia's neighbours, has just completed the development of their sensitivity mapping, in conjunction with the Abidjan Convention Secretariat. Liberia's GI WACAF Focal Point was urged to make contact with his counterpart in Sierra Leone and with the Abidjan Convention Secretariat to discuss how best Liberia could move forward on this topic.

Finally, it will also be very important to invite the Liberian Focal Point to workshops and exercises in neighbouring countries in order to build a regional and sustainable expertise to strengthen oil spill response capabilities in Liberia and more broadly, in the West-African region.

Annex 1 - Programme







THE GLOBAL OIL AND GAS INDUSTRY ASSOCIATION FOR ENVIRONMENTAL AND SOCIAL ISSUES

P R 0 G R M M

National Workshop on Contingency Planning and Sensitivity Mapping

Global Initiative for Western, Central and Southern Africa

Liberia Maritime Authority





The Global Initiative for West, Central and Southern Africa

Launched in 2006, the Global Initiative for West, Central and Southern Africa (GI WACAF Project) is a partnership between the International Maritime Organization (IMO) and IPIECA, the global oil and gas industry association for environmental and social issues, to enhance the capacity of countries to prepare for and respond to marine oil spills. A key innovative feature is to emphasise the promotion of public/private partnerships for effective oil spill response.

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The scope is to organise workshops, training courses, seminars and deployment exercises in collaboration with the national authorities in charge of oil spill response and in partnership with local business units.

The GI WACAF Project is based on an effective management system comprising of six goals of preparedness to prepare for and respond to marine oil spills. These goals cover the requirements of the OPRC 90 Convention:

- Goal 1 Legislation: Promote the ratification of the relevant international Conventions
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- Goal 4 Regional agreements: Promote the exchange of information and the provision of mutual assistance for oil spill incidents
- Goal 5 Training: Ensure that training and exercises are delivered in the participating countries on a regular basis
- Goal 6 National capabilities: Support participating countries in developing their own national response system

Dates and location

This event will take place at the Regional Maritime Rescue Coordination Centre, Monrovia, Liberia, between 1 and 4 August 2016.

Workshop Objectives

The general objective of the workshop is to review and update the National Oil Spill Contingency Plan of Liberia and to train participants on sensitivity mapping. The specific objectives of the workshop are to:

- provide training of relevant national authorities on contingency planning;
- review the current version of the NOSCP and identify areas within the NOSCP that may require amendment; and
- provide training of relevant national authorities on the collection, processing and mapping
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Day 1. Mo	onday 1 August 2016				
08h30	Arrival and Registration of the participants				
	Opening Ceremony				
Opening Ceremony: -Statement by Hon. Charles A. Gono, Officer-in-Charge of the Liberia M Authority -Statement by IMO/IPIECA Representative					
10h00	Coffee Break and Group photo				
	Introduction				
10h30	Participant's introduction				
11h00	Introduction of workshop objectives Joe Small, Consultant IPIECA				
11h30	Presentation of the GI WACAF Project Benjamin Jeanne, Consultant IPIECA				
12h10	GI WACAF (Video) Benjamin Jeanne, Consultant IPIECA				
12h30	Lunch Break				
	Oil Spill Response Preparedness				
14h00	Introduction to Oil Spills (Video) Joe Small, Consultant IPIECA				
14h30	The Legal Framework Benjamin Jeanne, Consultant IPIECA				
15h00	Coffee break				
15h30	Oil Spill Response Preparedness Joe Small, Consultant IPIECA				
16h30	End of the day				

Day 2.	Tuesday 2 August 2016		
	Assessment of Spill Risks		
09h00	Technical Tools for Oil Spill Response Benjamin Jeanne, Consultant IPIECA		
09h30	Assessment of Risk – Working Together (Video) Joe Small, Consultant IPIECA		
10h00	Assessment of Spill Risks Joe Small, Consultant IPIECA		
10h30	Coffee break		
	Environmental Impacts		
11h00	Environmental Effects of Oil Spills (Video) Joe Small, Consultant IPIECA		
11h30	Impacts of Oil Spills Benjamin Jeanne, Consultant IPIECA		
12h30	Lunch break		
14h00	Oil Spill Response Options Joe Small, Consultant IPIECA		
15h00	Coffee break		
	Contingency Planning		
15h30	Effective Oil Spill Contingency Planning (Video) Benjamin Jeanne, Consultant IPIECA		
16h00	Planning and Cooperation Benjamin Jeanne, Consultant IPIECA		
16h30	End of the day		

Day 3.	Wednesday 3 August 2016
	Sensitivity Mapping
09h00	Introduction to Sensitivity Mapping Benjamin Jeanne, Consultant IPIECA
09h45	Physical Processes Joe Small, Consultant IPIECA
10h30	Coffee break
11h00	Liberia Shoreline – Local Sensitivities and Risks Representative of the Environmental Protection Agency of Liberia/Ministry of Lands, Mines and Energy
11h45	Shoreline assessment and Clean-up Joe Small, Consultant IPIECA
13h00	Lunch Break
14h00	Field Exercise – Shoreline Types and Assessment
16h30	End of the day



Day 4.	Thursday 4 August 2016		
	Action Plan		
09h00	National Contingency Plan – Current Status Representative of Liberian Maritime Authority		
09h30	Review of National Contingency Plan – RETOS Exercise Joe Small & Benjamin Jeanne, Consultants IPIECA		
10h30	Coffee break		
11h15	Development of an Action Plan – The Way Forward - Exercise Joe Small & Benjamin Jeanne, Consultants IPIECA		
13h00	Lunch Break		
	Recommendations		
14h30	Review and Adoption of Action Plan Joe Small & Benjamin Jeanne, Consultants IPIECA		
	Closing ceremony		
15h00	Closing Ceremony -National Representative -IMO/IPIECA Representative		
	Evaluation and presentation of certificates		
15h30	End of Day 4 and Workshop		

Pen Portrait of Consultants

Joe Small

Joe is a highly experienced trainer and consultant specialising in Oil and HNS pollution response (atsea and onshore), marine operations, search and rescue operations and emergency response and management. He has over 40 years' experience in working with oil and chemicals and in responding to oil and HNS pollution incidents.

Following 10 years at sea as a Deck Officer he joined HM Coastguard where he specialised in the coordination of Search and Rescue operations before being seconded to the UK Government's Marine Pollution Control Unit (MPCU) from HM Coastguard where he became the head of the operations. In this role he was responsible for managing the UK government's at-sea and salvage response, aerial surveillance and remote sensing programmes. He was also responsible, as the UK On-Scene Commander, for the outcome of over 1,200 pollution incidents each year, including leading the response to several major, high profile events such as the BRAER and SEA EMPRESS.

On returning to the private sector he developed and managed oil and chemical spill response facilities in 11 countries and continued to be involved in high-profile incidents such as the ERIKA and the P-36 semi-submersible. He is currently a consultant to IMO, IPIECA, REMPEC, PERSGA, MEMAC, OSCE, the World Bank and the marine insurance industry. Joe is the author of the IMO's OPRC HNS model courses and has just completed the review and re-write of IMO's OPRC Oil model courses.

Benjamin Jeanne

Benjamin graduated with a Masters degree in Environmental Sciences, from the University of Nice-Sophia Antipolis in France, in 2011. He then worked for the environmental and sustainable development division of Total, in Paris.

He has been a consultant for the IMO, IPIECA and the GI WACAF Project (Global Initiative for West, Central and Southern Africa) for more than 4 years and has extensive knowledge of oil spill preparedness and response related issues in West, Central and Southern Africa. He has conducted more than 25 workshops and exercises in the region.

He was also project consultant for the IMO in 2014 and based in Cameroon to assist in the launch of the Inter-Regional Centre for maritime security in the Gulf of Guinea (ICC) and in the implementation of the Code of Conduct for West and Central Africa.

Annex 2 - List of participants

No.	Name	Title	Institution	Email ID
1.	C. Spurgeon	Sr. Operational	Liberia Maritime	Cleric.acid@gmail.com
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12.	John K. Jallah	Assistant Manager/ERS	Environmental	Jkj2g4@gmail.com
			Protection Agency	
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	Kamara		Guard	
14.	Joel E.	Legal Consultant	Ministry of Justice theoway@gmail.com	
	Theoway			
15.	Daniel Tarr	Associate Director	Liberia Maritime <u>ditar2003@yahoo.com</u>	
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	Tuaben	Director	Development	
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22	Ctambar D	Cu Marina	Authority	stanbanlavalah Overter a sava
23.	Stephen B.	Sr. Marine	Liberia Maritime	stephenlavalah@yahoo.com
	Lavalah	Environmentalist	Authority	



24.	Myer S. Davis	Coordinator	Ministry of Internal Affairs	Myerdavis55@gmail.com
	_			
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	Smith			
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	Gbigbi		National Fisheries	
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			Authority	

Annex 3 - Opening speech from the Representative of the host country

Messers' Joe Small and Benjamin Jeanne, consultants and representatives of IMO/IPIECA

Our colleagues' stakeholders from International organizations and Government Ministries and Agencies.

Ladies and Gentlemen The Liberia Maritime Authority on behalf of the Government and people of Liberia extends sincere thanks and appreciations to the Secretary General of the International Maritime Organization (IMO), IPIECA, GI WACAF Project Managers and the 9 oil companies members that jointly sponsored this National workshop on Contingency Planning and Sensitivity Mapping.

The purpose of this workshop is to enhance our capacity to prepare for and respond to marine oil spills through public/private partnerships for effective oil spill response at national level. This workshop will focus on spills on water, primarily from ships, but also contains information relevant to spills from exploration and production activities.

While the focus is on key aspects of oil spill preparedness and response, and sensitivity mapping, it is of paramount importance to concentrate on preventing spills. This involved prevention and mitigation of oil pollution in the marine environment. Liberia has ratified the OPRC 90 Convention and domesticated into national law. Liberia being a coastal state, port state and flag state, finds it very urgent to develop its National Oil Spill Contingency Plans, which involves oil spill preparedness and response and sensitivity mapping.

We are involved in the importation of petroleum products for our industries, offshore exploration and later production activities and our flagged vessels and foreign flagged vessels transport petroleum products into our ports and along our coastlines. With these activities, the urge to be proactive on these subject matters is more imperative.

It is in support of these developments that The Liberia Maritime Authority welcomes the hosting of this workshop and wish you all a successful and insightful learning experience' LiMA will from time to time continue to navigate means to ensure that the sector is in compliance as we move towards the IMO mandatory audit and beyond



Annex 4 - Opening remarks from the IMO/IPIECA representative

Mr Charles Gono, Officer in Charge, Liberia Maritime Authority,

Directors, Liberia Maritime Authority,

Mr Daniel Tarr,

Distinguished delegates,

Ladies and Gentlemen, It is an honour for me to deliver this opening speech on behalf of the International Maritime Organization (IMO) and IPIECA, the global oil and gas association for environmental and social issues. I would like to welcome all of you to this National workshop on Contingency Planning and Sensitivity Mapping, organised under the framework of the Global Initiative for West, Central and Southern Africa (GI WACAF). The foundation of the GI WACAF project is entrenched in the various elements of the International Convention on Oil Pollution Preparedness, Response and Co-operation or OPRC Convention.

This Convention provides a global framework to facilitate international co-operation and mutual assistance in preparing for and responding to major oil pollutions. Its effective implementation is the major focus area for the project. Since its launch in 2006, GI WACAF has implemented over 90 workshops, training courses and conferences in the 22 countries of the Project. Whilst strong progress in preparedness has been made, the risk of oil spills remains present in the region. The picture today is one of substantially expanding oil and gas activity across West Africa. The growing levels of oil and gas activity have coincided with, and contributed to, a large increase in the level of shipping activity in the region.

This means that the level of risks of an oil spill are higher for a country like Liberia. This is why the authorities of Liberia are currently working on the National Oil Spill Contingency Plan. The GI WACAF Project welcomed this initiative during the Regional Conference organised in November. It is our sincere hope that this workshop will help you to finalise the National Plan. Oil Spill sensitivity maps, the other topic of this workshop, are one of the most important appendices of the NOSCP.

They are a crucial tool to assist the planners during the development of the NOSCP, by providing a basis for the definition of priorities for protection and clean-up, and to plan the best-suited response strategies. They also support the development of the national dispersant use policy and the identification of potential places of refuges for Ships in Need of Assistance.

When an oil spill occurs, sensitivity maps assist responders to meet one of the main response objectives: reducing the environmental consequences of the spill and the clean-up efforts. They enhance the ability of the national response team to make the appropriate decision with regard to the selection of the onshore and offshore response strategies, techniques and equipment. To assist with this workshop, we have invited two international experts, Mr Joe Small and Mr Benjamin Jeanne, who are here to share their knowledge and answer any questions that this group might have. I have no doubt that the following four days will prove successful in providing each of you with the opportunity to gain an increased understanding of these



important topics and to identify recommendations to strengthen oil spill preparedness and response in Liberia.

In concluding, I have the pleasure in conveying to all of you the very best wishes of the IMO Secretary-General, Mr. Kitack Lim, and Mr Brian Sullivan, Executive Director of IPIECA. I would also like to express sincerest thanks to the Liberia Maritime Authority for the organisation and hosting of this special event.

Thank you for your attention.

Annex 5 - Closing remarks from the Host Country

Messers Joe Small and Benjamin Jeanne from the IMO, Participants, other invitees distinguished ladies and gentlemen.

Once again, the Government of Liberia through the Liberia Maritime Authority is very grateful to you and your organization as well as the nine oil companies that jointly sponsored this workshop. In addition, we wholeheartedly appreciate the professional facilitating role of you Mr. Small and Mr. Jeanne that you ably demonstrated during the course of the workshop. I am happy to be here to not only see the end of this workshop, but to be what I considered a part and parcel of the process that has culminated to a very sweet and successful conclusion.

LiMA is delighted to enjoy the inter agency and cooperative roles of collaborating agencies as well as oil companies support to this effort. We must work as a unit to achieve a common objective of operationalizing for instance, tier responses from 1-3 which ranged from small, medium and larger spill involving international cooperative stockpile of resources response to avoid unwarranted emergencies that may arise due to unpreparedness.

Additionally, sensitivity mapping which allows for instance directory to key information on resources and providing prescribed guidelines to follow in cases of spill over must be provided. Other topics that covered national contingency plan, development of an action plan among many significant topical notes, I am certain has been succinctly delved into by the participants.

To conclude, I take special delight in assuring all of you and in particular, our international facilitators, that LiMA will consider the action plan that comes out of this workshop and use it as a vital component of our year to year strategic outlook.

Once again, please accept my sincere thanks and best wishes and for the successful completion of the workshop, I say

CONGRATULATIONS.



Annex 6 - RETOS exercise

	A. LEGISLATION, REGULATIONS, AGREEMENTS		
A1	National legislation stipulates requirements for OSR and assigns responsibilities.	1	
A2	Designated Authority (also referred to as Competent National Authority or Lead Agency) is indicated (see also B1 Contingency Planning).	2	LMA designated
АЗ	Acts, regulations and guidelines support legislation.	1	
A4	Country has ratified international agreements and conventions for oil spill response and meets the requirements of the conventions.	1	
	B. OIL SPILL CONTINGENCY PLANNING		
B1	National Plan has been developed and approved; identifies Designated Authority for oil spill response (and/or defines authority for specific spill cases; e.g., spill to land vs. spill to marine waters).	1	
B2	Contents of National Plan(s) meet all of the HIGH importance/significant planning elements defined in ARPEL Guidelines.	1	
ВЗ	Drafts of national or multi-national plans are available.	2	Not public but available to stakeholders
В4	Applicable and related government plans (multi-lateral, area, and local) are identified.	1	Some work needs to be done
B5	Expertise (agency/personnel) for OSR-related issues is listed.	2	
В6	The plan has been reviewed or revised in the past year.	2	The plan is currently being reviewed
B7	Key contacts are updated to reflect changes.	1	Needs to be updated
В8	National plan designates planning levels based on spill risk analysis.	0	Current planning levels need to be included in the NOSCP
B9	Priority planning is focused on areas of high-risk and environmental sensitivity.	1	Need to develop the knowledge of the sensitive areas to specify requirements
B10	National plan specifies requirements for defining sensitive areas and priorities.	1	
B11	Threatened and endangered species at risk are listed.	0	Part of the sensitivity mapping project
B12	Policies and/or regulations are in place to reduce the risk and/or consequences of a spill.	1	Needs development
B13	Response strategies are clearly stated and provide for response to applicable operating conditions and oil types.	1	Need to develop the knowledge of the sensitive areas to specify requirements
B14	The need to address OSR personnel and equipment is indicated.	0	
B15	Personnel and equipment needs to implement identified response strategies are indicated.	0	
B16	A policy for the implementation of in-situ burning is clearly defined.	0	

B17	Shoreline protection and cleanup policies (e.g., agencies, procedures such as NEBA) are outlined.	0			
	C. RESPONSE COORDINATION				
C1	A clear procedure is presented on information to report and who should receive initial spill notification and follow-up reports.	1			
C2	A spill reporting form is included as well as a contact list with key personnel.	1			
C3	The spill management structure and assigned organizations are defined for all spill tiers.	1	Please enter a comment (and recommendation, as applicable) if not complete.		
C4	Roles and responsibilities are evident for each functional aspect identified in the OSR management organization.	1			
C5	Incident Command is assigned to one or two specific individuals (by name or position) with backups identified.	1	Need to find a position within designated authority		
C6	Personnel assigned to OSR management roles are identified for Tier 1.	1			
C7	Procedures are in place and responsibility has been assigned for communications with media and local communities during a spill response.	2	Communication and liaison officer		
C8	Procedures are in place and responsibility has been assigned for liaison function with other authorities or government parties during a spill response.	2			
C9	Procedures are in place and responsibility has been assigned for communications with local communities.	1	Vital importance		
C10	A response center has been established	1	MRCC/EOC or another currently planned at Ministry of Internal Affairs - need to reference national spots		
	D. HEALTH, SAFETY & SECURITY				
D1	Safety policies and regulations are in place for protecting both the public and responders from spills.	0			
D2	A Designated Authority is defined to address and monitor site safety during response.	2			
D3	A Designated Authority is defined to address and provide or augment site security during response.	2	Ministry of Defense Coast guards		
	E. OPERATIONAL RESPONSE				
E1	Policies are in place to prevent and minimize spill volumes through source control: transfers, emergency lightering, potential places of refuge for maritime casualties, etc.	1			
E2	Minimum equipment planning levels are defined for Tier 1 risks (most likely routine spills).	1			
E3	A list of locations and general amounts and types of OSR equipment stockpile is available.	1			
E4	Government equipment locations are identified,	0			



	and secured; locations allow for quick access				
E5	and deployment. The operational use of countermeasures is verified in an annual spill exercise.	0			
E6	A Waste Management Plan is outlined.	1	Need to develop in section 2 of the NOSCP		
E7	Contacts and expertise for wildlife recovery are included.	0	NGOs can help		
E8	Restoration and post-spill monitoring are indicated.	0	Develop in section 3 of the NOSCP		
	F. TRACKING, ASSESSMENT & INFORMATION MANAGEMENT				
	Role or assignment is defined in OSR				
F1	management to undertake spill tracking, including monitoring.	1	Expand on the planning section		
F2	Maps or charts are available for maintaining spill tracking and movement.	1	Need to be brought into the spill management system		
F3	Oiling assessment, mapping, and cleanup technique advice are assigned to agency or team.	1			
	G. LOGISTICS				
G1	Key logistical support providers and capabilities are identified.	1			
G2	Sources are identified for service providers for meals, transportation, portable camps and toilets.	0			
G3	Response times for initial deployment have been identified and tested.	0			
G4	Assets and procedure for communications in the field and between the field and Command Post are in place.	0			
G5	Customs and immigration policies are defined to streamline transport and delivery of personnel and equipment between regions/areas.	1			
G6	The availability of decontamination facilities is ensured for personnel leaving the spill site.	0			
	H. FINANCIAL & ADMINISTRATIVE				
	CONSIDERATIONS	1			
H1	An emergency fund is available to enable immediate response actions.	0	Discussions are taking place		
H2	Procedures are in place to receive claims.	0			
НЗ	Legal aspects have been considered including sampling/collecting evidence, taking statements, and mechanisms for settling disputes and claims.	0			
	I. TRAINING & EXERCISES				
11	Minimum initial and refresher training requirements, including Health & Safety, are defined for spill management and responders.	0			
12	Regular training courses are provided on OSCPs to assigned OSR management and lead response personnel.	0			
13	In-house spill training courses are attended.	0			
14	Training records for designated personnel document compliance with required training.	0			



15	Notification and Alerting Exercises are conducted frequently (2 to 4 times per year) and are required of plan-holders.	0	
16	Deployment exercises are required and held including mobilized Tier 2 response assets from national response depots.	0	
17	Tabletop (Response Management) Exercises are required and held at a prescribed frequency (e.g., 2 to 3 times per year).	0	
18	Courses to be attended by government personnel are listed.	1	
	J. SUSTAINABILITY & IMPROVEMENT		
J1	Critiques of exercises and actual response (plan and execution) are documented with recommended actions for OSR improvements.	0	
J2	Exercise oversight role is specified for specific agencies.	1	Role of the coordinating committee
J3	National (or Multi-National) Team or Work Groups are assigned to review and recommend OSR enhancements.	1	
J4	Post-Spill Evaluation and Revisions to OSR Plan are documented.	0	
J5	Research and development programs are promoted through various sources of funding to improve countermeasures such as mechanical recovery, treating agent application, in-situ burning, and remote sensing.	0	
J6	An OSR planning and readiness assessment enforcement role is specified or defined for a specific government authority.	2	

Annex 7 - Evaluation questionnaire

EVALUATION QUESTIONNAIRE

National Workshop on Contingency planning and Sensitivity Mapping

Monrovia, Liberia, 1-4 August 2016

	Arrangements prior to the activity							
1	Was the invitation received in good tim	ie?	Yes	□ No □				
2	Did you receive the information listed be about the event before your participation on its objective and scope subject areas and programme Were the instructions on the following		Yes Yes					
	clear and easy to understand?							
	profile required of participantcompletion and submission of the nomination form		Yes Yes					
4	Did you receive logistical information o	n						
	• venue		Yes					
	travel arrangements		Yes	□ No □		N/A		
	DSA payments		Yes	□ No □		N/A		
	• accommodation		Yes	□ No □		N/A		
5	If you were given any pre-event assignr	ment,	Yes	□ No □		N/A		
	was it useful?							
	During the activity							
6	To cover the topics fully, was the event (please check the appropriate box)							
	(1) too long \Box (2) just right		(3) to	o short 🗆				
7	How do you rate the event with regard to the following? (tick one box in each case)							
		excellent	good	satisfactory	poor			
	Venue							
	Facilities							
	Equipment							
8	How do you rate the following aspects of the materials? (tick one box in each case)							
		excellent	good	satisfactory	poor			
	Presentation							
	Clarity							
	Technical content							
	Comprehensiveness							
	Quantity							



	How would you rate the following aspects of the presentations? (tick one box in each co						
		excellent	good	satisfactory	poor		
	Design and structure						
	Clarity						
	Technical contents						
	Comprehensiveness						
	How would you rate the use of the fo	llowing? (tick or	ne box in e	ach case)			
		excellent	good	satisfactor	у роо		
	Course materials						
	IMO reference materials						
	Other resource materials						
	Group and practical activities						
	Field trips						
ıe.	end of the activity						
	Please rate each lecturer with regard	to the following	s Icheck or	ne hoy in each co	rse)		
	ricuse rate each rectarer with regard	excellent	good	satisfactory	poor		
	.1 Joe Small	CACCHETT	good	satisfactor y	poor		
	content of lecture						
	delivery of presentation						
	ability to transfer knowledge						
	effectiveness in:						
	 answering questions 						
	 suggesting solutions to issues 						
		excellent	good	satisfactory	poor		
	.2 Benjamin Jeanne		J	,			
	content of lecture						
	delivery of presentation						
	ability to transfer knowledge						
	effectiveness in:						
	 answering questions 						
	 suggesting solutions to issues 						
	What topics were of most interest and relevance to you?						



	If yes, please list them:							
14	Do you consider that the objective of the event was met?	Yes	□ No					
15	Are you likely to use the information you gained on the course when you return to work?	Yes	□ No					
16	Will you have the opportunity to transfer the knowledge gained to your colleagues at work?	Yes	□ No					
Comi	ments:							
				_				
				_				

We greatly appreciate your time in completing this evaluation questionnaire. It contains important information that will assist IMO in determining the success and impact of the activity. Thank you.



Annex 8 - Pictures









