





#### **Global Initiative for West and Central Africa**

# National Workshop for the Development of the National Contingency Plan, Liberia

Monrovia, Republic of Liberia 21 to 24 June 2010



Hosted by the Environmental Protection Agency of Liberia

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#### Executive summary

Date: Monrovia, Republic of Liberia 21 – 24 June 2010

Type: National Organised by:

- Environmental Protection Agency, Republic of Liberia
- International Maritime Organization (IMO)
- International Petroleum Industry Environmental Conservation Association (IPIECA)

#### Number of participants: 28

The principal objectives of the Workshop were to: strengthen the national oil spill response capability in the Republic of Liberia through the establishment of local partnerships between local business, the oil industry and the national authorities in charge of oil spill preparedness and response at national level. The aim of the workshop was to provide an overview of the national oil spill contingency planning process and identify actions and priorities for implementation of an NOSCP in Liberia and, more specifically:

- 1. provide an overview of the International Conventions related to oil spills
- 2. provide an overview of oil spill response and key issues such as dispersant use
- **3.** provide an overview of the contingency planning process including risk analysis and sensitivity mapping
- 4. agree on a plan of action and define priorities for implementation

#### The results of the Workshop are as follows:

Several group discussions were held during the workshop with the main recommendation to form a National Oil Spill Contingency Planning Development Working Group. The working group will consist of Environmental Protection Agency (Chair), the Bureau of Maritime Affairs, the Coast Guard, representatives of local oil industry, the Ministry of Planning, the Ministry of Agriculture, the Ministry of Health, the Ministry of Justice and the Ministry of Finances. The GI-WACAF should support the formation and development of this working group. To maintain momentum for the NOSCP development process, the physical presence of an expert at the first and subsequent early meetings of the group is recommended.

It was also concluded that the Environmental Protection Agency should be the designated National Authority for the co-ordination of all issues relating to oil spill response. However, recognising their expertise in the maritime area, the Bureau of Maritime Affairs should be responsible for the coordination of reporting of, and response to marine and coastal oil spill incidents. The EPA would remain responsible for inland spill and ground contamination incidents.

It was recognised that a review needs to be conducted to ensure that the provisions of OPRC 90 Convention, CLC Protocols 76 & 92, FUND Protocols 76 & 92, HNS Convention 96, OPRC/HNS Conventions 2000 and the Bunker Convention 01 are adequately covered in national legislation. It is anticipated that existing legislation could be amended to adequately meet the required provisions, without the need for the process for the development of new legislation.

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Following the development of the National Oil Spill Contingency Plan, a training and exercise programme will be required to test the plan and to improve the skills and knowledge of those identified with a defined role within the plan. A review of equipment requirements will also need be conducted. It is anticipated that all organisations with an oil spill risk will be equipped to deal with Tier 1 incidents and will have identified resources to handle larger scale incidents. The new Search and Rescue Co-ordination Centre will become the central notification centre for all pollution incidents in Liberia.

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#### Introduction

The Global Initiative for West and Central Africa (GI WACAF) is a partnership between the International Maritime Organisation (IMO) and the International Petroleum Industry Environment Conservation Association (IPIECA) to enhance the capacity of countries to prepare for and respond to marine oil spills. A key innovative feature is the emphasis on the promotion of public/private partnership for an effective oil spill response making use of existing industry expertise and resources.

The mission is to strengthen the national oil spill response capability in twenty two countries in West and Central Africa through the establishment of local partnership between the oil industries and the national authorities in charge of oil spill preparedness and response at national level.

This program is jointly funded by the International Maritime Organization (IMO) eight Oil Companies members (BP, Chevron, ENI, ExxonMobil, Marathon, PERENCO, Shell and Total) through the International Petroleum Environment Conservation Association (IPIECA).

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

The GI WACAF is based on the effective management system of six established goals of preparedness and key performance indicators to enhance the capacity of countries 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 Convention
- Goal 2: Contingency plan: Have contingency plan for all the countries of the region
- Goal 3: Designation of authority: Get clarity in roles and responsibilities for oil spill response
- Goal 4: Regional agreement: promote exchange and mutual assistance for oil spill response
- Goal 5: Training: Ensure that training and exercise are developed in each countries on a regular basis
- Goal 6: National capabilities: support countries in developing their own national response system

#### Objectives of the workshop

The principal objectives of the Workshop were to strengthen the national oil spill response capability in the Republic of Liberia through the establishment of local partnerships between local business, the oil industry and the national authorities in charge of oil spill preparedness and response at national level. The aim of the workshop was to provide an overview of the national oil spill contingency planning process and identify actions and priorities for implementation of an NOSCP in Liberia and, more specifically:

- 1. provide an overview of the International Conventions related to oil spills
- 2. provide an overview of oil spill response and key issues such as dispersant use
- **3.** provide an overview of the contingency planning process including risk analysis and sensitivity mapping
- 4. agree on a plan of action and define priorities for implementation

#### Programme of the workshop

See Annex 1 for the complete program.

#### Location, Dates, Roles and Participants

The workshop was organised by the Environmental Protection Agency of Liberia with technical and financial support from IMO and IPIECA.

The experts in charge of the workshop were:

- Kevin O'Connell, consultant to IMO
- Stéphane Grenon, consultant to IPIECA

The Environmental Protection Agency took care of the general organisation of the course and of the delegates.

The workshop took place in the conference facility at PA's Ribhouse Restaurant Complex in Lakpazee, Monrovia.

The total number of participants was 28; representing, oil industry, government agencies and national & local businesses. The participant list is at Annex 2.

#### **Opening Ceremony**

The opening ceremony was chaired by Mr Samuel Wesley of the Environmental Protection Agency. He warmly welcomed all of the participants to the event and acknowledged the attendance of Mr Bayam Kesselly, Commissioner – Maritime Affairs and Mr Thomas Romeo Quroh, Executive Director - Environmental Protection Agency at the ceremony. Prayers were lead by Mrs Marie E. McIntosh a representative from CEMENCO. Messieurs Kesselly and Quoh were then invited to make their opening remarks. They both welcomed the consultants and the attendees and stressed the importance of the development of a national oil spill response framework and recognised that this event is a vital first step in the process. They encouraged all the participants to actively engage in the event and all subsequent activities relating to the development of the response framework. A cameraman and journalist from The Liberian State Television Company attended to record the event for broadcast on the channel during the evening news bulletin.

#### **Summary of presentation**

#### **Introduction and Presentation of the GI WACAF Project**

Stéphane Grenon, consultant to IPIECA

This presentation explained the scope and objectives of the GI WACAF Project with a focus on the important collaboration between IPIECA and IMO. The outcomes and findings of earlier activities and the improvements observed in the region because of the GI WACAF project were also discussed. The presentation concluded by introducing the work plan for the next two years of the project. This work plan was developed following a regional workshop in Cameroon last November.

#### **Overview of Spill Response**

Kevin O'Connell, consultant to IMO

This session provided information on the key elements and challenges of an oil spill response and the role and responsibilities of the various agencies that may be involved, and the actions that must be taken during a response. The steps involved in a typical response were introduced. The need for contingency planning as well as the interests and roles of the affected parties and stakeholders during an oil spill incident, such as environmental organizations and media representatives, and how they might impact on the role of the nominated authority was also emphasised.

#### The Behaviour and Fate of Spilled Oil

Kevin O'Connell, consultant to IMO

This session provided information on the physical properties of various types of oil and how they evaporate, move on the seas surface, emulsify and disperse when they are released into the marine environment, and what effects all these factors will have on the response effort. The natural weathering processes and how the physical and chemical properties of oil change after a spill has occurred were also discussed. The session also provided information on methods used for estimating key property changes and factors in determining oil type and weathered state, including factors in determining the likely trajectory of the spilled oil as well as the probability of the oil impacting the shoreline.

#### **Environmental and Economic Impacts of Oil Spills**

Stéphane Grenon, consultant to IPECA

Following an oil spill, a number of environmental and economical impacts can be observed. This presentation gave an overview of these potential impacts on various marine habitats and species such as birds, fishes, marshes, mangroves and intertidal communities. Impacts on coastal activities such as fishing, tourism and coastal amenities as well as acute and chronic toxic effects resulting from oil and the factors affecting the toxicity of oil were presented as well.

#### **Relevant International Conventions for Oil Spill Response**

Stéphane Grenon, consultant to IPECA

The various International legislations applicable to oil and HNS were discussed during this presentation. Participants were introduced to OPRC 90 and the OPRC-HNS Protocol 2000. The presentation indicated the requirements of these instruments which aim at providing a framework for the development of national and regional capacity to prepare for and respond to oil/HNS pollution incidents. The requirements to facilitate international co-operation and mutual assistance were also discussed.

#### **Development of Contingency Planning**

Kevin O'Connell, consultant to IMO

The primary aims of the National Contingency Plan are to establish the operational and administrative guidelines for a response to marine oil spills as well as the definition of the roles and responsibilities of authorities and public and private organizations that would be involved in a response operation. Thus, the purpose and main types of national contingency plans, including the key components and main topics to be considered in the development of the Plan, were discussed. The session then went on to describe the purpose and legal basis of regional co-operation and gave examples of such co-operation in different parts of the world.

#### **Sensitivity Mapping**

Stéphane Grenon, consultant to IPECA

Sensitivity maps are an essential tool when responding to an oil spill. They help to identify the location and type of sensitive resources that could be impacted by oil. Sensitive resources can be grouped into three categories: environmental, social and economic sensitivities. This presentation illustrated the benefits and the various usages of sensitivity maps at a strategic and operational level and discussed the principles of priority ranking of sensitivities according to the adverse environmental effects of oil. The principles and techniques used to developed sensitivity maps such as the ESI Index and the various requirements to maintain and keep these maps operational were also discussed.

#### **Operations Planning and Incident Command**

Kevin O'Connell, consultant to IMO

The initial response actions and suggestion for a basic response organization and how this organisation might be expanded in case of a major incident were described. The session also considered the characteristics of managing the incident during the initial or critical phase and described the factors that would be involved in commanding and controlling a response to an oil spill. The session then went on to look at issues to be considered when establishing a command centre and the main elements of logistic support. Matters to be considered in connection with response planning were also described as well as the factors relating to the provision for the needs of the response teams.

#### **Liability, Claims and Compensation**

Stéphane Grenon, consultant to IPECA

Compensation for pollution damage caused by spills from oil tankers is governed by an international regime elaborated under the auspices of the International Maritime Organization. The framework for the regime was originally the 1969 International Convention on Civil Liability for Oil Pollution Damage (1969 Civil Liability Convention) and the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (1971 Fund Convention). This "old" regime was amended in 1992 by two Protocols, and the amended Conventions are known as the 1992 Civil Liability Convention and the 1992 Fund Convention. The 1992 Civil Liability Convention governs the liability of ship-owners for oil pollution damage. The Convention lays down the principle of strict liability for ship-owners and creates a system of compulsory liability insurance. The 1992 Fund Convention, which is supplementary to the 1992 Civil Liability Convention, establishes a regime for compensating victims when the compensation under the applicable Civil Liability Convention is inadequate. In 2003, a Supplementary Fund Protocol was created to increase the amount available for compensation to victims of an oil spill.

#### The Use of Dispersants

Stéphane Grenon, consultant to IPECA

The use of dispersants can be an effective response technique when dealing with oil at sea. However, like any other technique, many limitations can affect the effectiveness of dispersants. This presentation aimed at providing an in-depth understanding of how dispersants work and to present their limitations and their environmental impacts. The effect of oil weathering on dispersant effectiveness, mainly viscosity increase, and the formation of emulsion was discussed in details. The various application techniques and their respective advantages and disadvantages were also presented. Environmental impacts of dispersants were illustrated in presenting the concept of Net Environmental Benefit Analysis (NEBA) particularly in relation with the decision making process involved in using dispersants.

#### **Containment and Recovery**

Kevin O'Connell, consultant to IMO

This session described the process of containing oil, either to prevent it from spreading to a particular area or to divert it to an area where it can be recovered. The principle types of containment boom and protection boom that would be required to achieve this were discussed as were their strengths and limitations. Recovery is the next step after containment and is often a major step in removing oil from the environment. Thus the different types of oil recovery equipment available including skimmers, vacuums, mechanical grabs and sorbents were discussed as well as a detailed analysis of the factors surrounding their choice.

#### **Shoreline Clean-up Techniques**

Stéphane Grenon, consultant to IPECA

For the vast majority of oil spill, shorelines will be impacted and will require to be cleaned up. Shoreline cleanup is undertaken to bring back the environment, as close as possible, to its original state and to restore its biological functions. To minimize environmental impacts, cleanup techniques must be carefully selected taking into account the shoreline type, characteristics of the spilled oil and extent of oiling. This presentation explained in detail the importance of these factors in selecting a cleanup technique. The effectiveness and impacts of manual cleanup and of mechanical recovery for various types of shorelines were also discussed. Shoreline organization and the importance of selecting appropriate cleanup endpoints in order to minimize damages were also presented.

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#### **Waste Management**

Kevin O'Connell, consultant to IMO

A clean up response to an oil spill incident can produce very large quantities of oily waste that requires to be dealt with. Ideally, as much of the collected oily waste should be recycled through a refinery as possible but unfortunately this is rarely the case due to the weathering of the oil and the amount of oil contaminated with debris. Oil collected from the sea is likely to include large quantities of water and conversely, oil recovered from the shore is likely to include large quantities of beach material as well as seaweed, wood and plastic. Therefore, waste disposal must be planned for in advance and needs to be addressed in contingency plans.

#### **Termination of a Response and Media Relations**

Kevin O'Connell, consultant to IMO

The factors determining the decision to cease clean-up operations were examined fully and the term 'how clean is clean' was explained. It was stressed that the command team should remain objective and that termination should be based on criteria such as when the effort is disproportionate to the return or that further clean-up is likely to cause greater damage to the environment. The contingency plan should include advice on clean-up termination criteria and this would help support any decisions taken when encountering any external pressures from the public, media and politicians. This session also provided information on the needs of the media and factors involved in successfully handling the media. The media is becoming increasingly sophisticated and therefore information can be spread worldwide rapidly. This can have a significant impact on the reputation of the organizations involved in an oil spill. It is imperative to ensure that all media enquiries are handled efficiently.

#### Safety of Personnel and the Public

Kevin O'Connell, consultant to IMO

As the health and safety of both the public and responders are of paramount importance, this session began with a look at the need to protect the public and the responder by identifying the principle safety issues relative to a spill, the degree of severity and the practical steps that can be taken to minimize the impact of the spill. This led onto a further discussion on the principles of the management of a safe clean-up site, taking into account the hazards presented by the oil, the environment and the clean-up operations to be undertaken. The responsibilities of the On-scene Commander and the Site Supervisor in relation to site and public safety where also discussed.

#### Summary of working groups

#### Group exercise: Identification of risks and sensitive resources in Liberia

The participants had the opportunity to identify the activities representing a risk of oil spill in Liberia and the associated environmental and economical sensitivities. Participants were divided in four groups and were asked to identify the potential sources of oil spill in Liberia, their location and the type of oil that could be spilled. Each group was also asked to identify sensitive resources along the coast of Liberia and to indicate their potential vulnerability to oil. Following a plenary session, the following risks and sensitive resources were identified by the participants:

#### Risks:

Risk	Type of oil
Loading and offloading operations at the LPRC jetty in the Port of	Diesel, gasoline, jet fuel
Monrovia	
Incident with a ship (collision, grounding, etc.) within the Port of	Marine diesel, Bunker, various cargo
Monrovia	
Incident from passing traffic in the shipping lanes along the coast	Crude oil, bunker, various cargo
of Monrovia	

#### Sensitive resources:

Sensitive resources	Location	Vulnerability
Ports	Monrovia, Buchana, Greenville	High if traffic affected
Marshland	Monrovia, Mangibi, Congo Town	High
Mangrove	Monrovia, Robertsport	High
Sandy beaches	Along the coast	Low
Hotels	Victoria, Robertsport, RJL, Kendejah	Medium
Residential areas	Monrovia, Buchana, Greenville, Harper	Medium

#### Group discussions: Towards a National Oil Spill Contingency Plan in Liberia

Over the course of the workshop, participants worked in syndicates on two occasions. The main objective of this work was to identify priority items for the effective implementation of a National Oil Spill Contingency Plan (NOSCP) in Liberia. It was also a great opportunity for the participants to interact with colleagues from other departments or from industry. The participants were split into three groups. The composition of these groups was established randomly in order to ensure representation from all types of participants.

Working groups were asked to identify 5 priority actions for an effective implementation of the NOSCP. These priority items were further discussed the following day to identify how they could be implemented and by which organisation. The results of these discussions were used to determine final recommendations of the workshop.

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The priority items identified by the participants were the following:

- 1. Designate a National Authority for the coordination of all issues related to oil spill response.
- 2. Develop and implement a National Oil Spill Contingency Plan
- 3. Translate into National legislation all provisions of the OPRC 90 Convention
- 4. Develop and implement a National training and exercise programme to improve technical knowledge related to oil spill response strategies
- 5. Identify the necessary equipment to combat oil spills in Liberia

#### Summary of the closing ceremony

At the beginning of the closing ceremony, the Reverend Augustus Soklo Wainde lead the delegation in a prayer. This was followed by a closing speech from Kevin O'Connell, consultant to IMO, who expressed the combined thanks of Mr. E. Mitropoulos, Director General of IMO and Malamine Thiam, Head of Technical Cooperation Coordination and Major Projects Section of IMO for the delegates active participation during the workshop and wished them every success in continuing the work in further developing the NOSCP. Mr O'Connell also expressed IMO'S thanks to Phillipe DeSuzanne, coordinator of GI-WACAF and the significant contribution of the Oil Industry through IPIECA for their participation in the organisation and delivery of the workshop. Olivier Lassagne, Managing Director of Total Liberia also expressed his thanks to all the participants and stressed the importance of the event and emphasised his wish that Liberia would build on this workshop to continue the further development of the National Oil Spill Contingency Plan.

Certificates were then presented to all delegates who actively participated in the workshop.

#### **Recommendations of the Workshop**

During a series of plenary sessions, the participants of the workshop identified the following recommendations:

## Recommendation 1: Designation of a National Authority for the coordination of all issues related to oil spill response

The participants recommended that:

- A. the Environmental Protection Agency (EPA) be responsible for the development and maintenance of the NOSCP, as already mandated by national legislation
- B. The Bureau of Maritime Affairs (BMA) shall be responsible for the overall coordination of the response during an oil spill in Liberia

#### Recommendation 2: Develop and implement a National Oil Spill Contingency Plan

The participants recommended the creation of a working group under the leadership of the EPA to develop the NOSCP. Suggested members of the working group are: BMA, Coast Guard, local oil industry, Ministry of Planning, Ministry of Agriculture, Ministry of Health, Ministry of Justice and Ministry of Finances.

#### Recommendation 3: Translate into National legislation all provisions of the OPRC 90 Conventions

The participants recommended that the existing environmental laws be amended to integrate the provisions of OPRC 90; particularly the requirement for oil handling facilities to develop their own contingency plans. This work should be conducted under the leadership of the EPA.

## Recommendation 4: Develop and implement a National training and exercise programme to improve technical knowledge related to oil spill response strategies

The participants recommended that the working group responsible for the development of the NOSCP under the leadership of the EPA be also tasked with the identification of training needs and the development of a training programme with an emphasis on a "train the trainers" approach.

#### Recommendation 5: Identify the necessary equipment to combat oil spills in Liberia

The participants recommended that equipment to deal with a Tier 1 incident be available at the Liberia Petroleum Refining Company jetty in the Port of Monrovia. It was also recommended that the new Search & Rescue Centre of the Bureau of Maritime Affairs be also equipped to act as a spill notification centre for Liberia.

#### **Conclusions**

Workshop feedback forms were distributed for completion by the participants. They were asked to rate a series of statements in relation to their experience on the course and the associated logistical arrangements, Figure 1 below shows an analysis of this feedback. Feedback was very positive for the event, with no significant negative comments received. There was consensus that the training was very useful and was a significant step to the development of a National Contingency Plan.

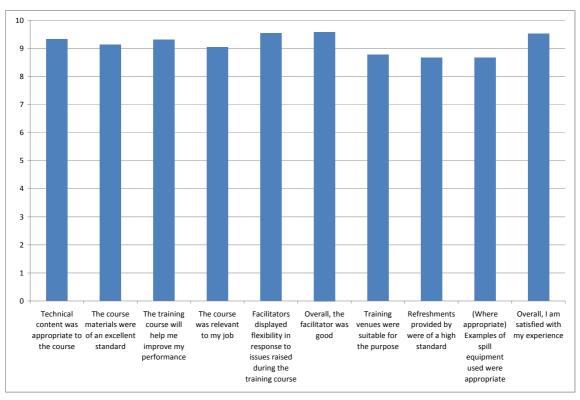


Figure 1. Quantative results of the evaluation form

The following comments were made by the workshop attendees.

#### **Course Design**

- Very interesting
- Overall, the course design was good because some of the course will be applicable to our Country
- The course design was properly structures thus making it easy to follow
- · Appropriately designed
- Even though it is the first of its kind in Liberia, it is a good experience for us
- Very elaborate and concise
- Would be better if there were practical exercises outdoors
- The course was appropriate in that the consultant made their presentations very clear and to the point. Responses were satisfactory as far as I am concerned
- Method was appropriate; presentations clear

#### Job Applicability

- All course had very good content
- The course will be applicable to our Country in future
- I am a petroleum geologist working as an environment evaluator and this course is good for the future
- As Director of S&R Centre, this is very closely related material as we also deal with marine emergency that need coordination as well
- The presentations were straight to the point
- I am glad I had the opportunity to attend the workshop as it has something to do with my area as coast guard
- The knowledge will be useful in case of oil spill at my place of work (stockpile of oil products)

#### **Facilitators Overall**

- The facilitators presented very well
- The Presenters were excellent
- The Facilitators were good in passing their experience to us. They took their time to explain on oil spills
- The Facilitators...focus was mainly for maritime agency without knowing the limitation of the agency under the laws of Liberia
- Knowledgeable, eloquent, exhibited good skills in time management; articulated well & were presentable i.e. good appearance
- Very knowledgeable and well informed
- The Facilitators have vast experience in PowerPoint presentation
- You guys were very good in the delivery of the course
- Excellent presentations
- The facilitators demonstrated high capabilities
- They were clear in their presentations
- They showed and demonstrated a huge wealth of experience and knowledge in the subject
- The two Facilitators were good, they could explain in simple terms oil spill challenges
- They were very explicit in the presentation of the course

#### **Facilities and Organisation**

- The Facilitators were able to tailor the workshop to cater to Liberia within its unique framework
- The facilities and equipment were very excellent
- Facilities were okay. Equipment was not familiar to most of us but again Liberia is not a country familiar with the course subject
- I was not totally satisfied with the facilities and equipment used

#### **Overall Evaluation**

- This was an enriching experience. It was a real opportunity being a part of this course
- It was a good experience for me to know about oil spills and other related issues of oil spills

#### Modules particularly useful

- Containment and Dispersion modules
- PowerPoint presentations and electronic (USB) stick
- There are some Modules that are particularly useful to our role in our Country
- Sensitivity mapping and oil spill contingency planning
- Shoreline cleanup, sensitivity mapping, contingency planning & incident command
- Claims and particularly 'reasonableness of claims' concept
- Most of the coursework was relevant towards formulating a national plan
- The most important area was the Health and Safety management aspect

- Oil spill response overview, environmental and economical aspects of oil spills, operations, planning and incident command
- I found all modules useful
- Planning for oil spills and response strategies
- Safety and spill control and containment & recovery
- · Containment & recovery and safety
- They were all useful
- Identification of risks, how to respond to risks, how to cleanup

#### Modules not particularly useful

- Aerial surveillance
- All were useful

#### **General Comments and Suggestions**

- We need more workshops like this for capacity building
- I am very happy for this workshop because this is the first time in our Country and I am proud to be a part of it. Suggest that we will need more of this training
- It will be good to build on (this course) to ensure a NOSCP is established for Liberia
- The course was good but the time was limited in which to absorb the material presented. The training period needs to be extended and more training is required for the future
- There is a need for another workshop of this nature for the benefit of other stakeholders that could not attend
- I have benefited a whole lot from this workshop especially coming from an entity that has just begun in the oil industry and being the first to attend such a workshop
- As an employee in the oil industry, I found this workshop extremely relevant and useful, particularly as we embark on work for a new jetty and expansion of terminal facilities
- Overall, the training was very excellent
- Suggest you come back to provide advance training
- Being that we were lost and didn't have any plan whatsoever, I am very happy that at least we have a starting point to build on. I highly recommend the trainers and the course given
- More training needs to be given both locally and internationally. More attention to be given to how
  ministries and agencies cope with the authority to implement the plan and to respond to oil spills
  efficiently
- The course is a wake-up call for Liberia to put in place programs for any oil spill
- Please return sometime later or sooner to see how we are doing
- This was a wonderful experience. It is my prayer that Liberia uses the recommendations and provisions of OPRC 90 positively
- I particularly thank the Facilitators for giving us good experience in dealing with oil spill challenges
- I did enjoy the entire atmosphere that characterised the workshop and the exchange of ideas in the small (work) groups

## Annex 1. Programme

Day 1: 21 Jun	e 2010
	Opening Ceremony
0800	Registration
1000	Opening ceremony:
	Opening speech
	- Representative from IMO
	- Representative from the Republic of Liberia
1100	Coffee break
	Introduction to Oil Spills
1130	Presentation of the GI WACAF Project
1200	Introduction to workshop objectives
1230	Overview of oil spill planning activities in the Republic of Liberia
1300	Lunch break
	Introduction to Oil Spills
1430	Overview of Spill Response
1515	Coffee break
1530	The Behaviour and Fate of Spilled Oil
1615	Environmental and Economic Impacts of Oil Spills
1700	End of the day

Day 2: 22 J	une 2010
	Planning for Oil Spills
0900	Relevant International Conventions for Oil Spill Response
0945	Development of Contingency Plans
1045	Coffee break
1100	Sensitivity Mapping
1200	Video: Working Together
1230	Lunch break
1330	Group Exercise: Identification of risks and sensitive resources in Liberia
1500	Coffee break
1515	Operations Planning and Incident Command
1600	Liability, Claims and Compensation
1645	End of the day

Day 3: 23 J	une 2010
	Response Strategies
0900	The Use of Dispersants
0945	Containment and Recovery
1030	Coffee break
1045	Shoreline Clean-up Techniques
1130	Waste Management
1215	Lunch break
1315	Table-top Exercise
1515	Coffee Break
1530	Group discussion: Towards a National Oil Spill Contingency Plan in Liberia – Part 1
1630	End of the day

Day 4: 24 June	2010
	Termination of a Response
0900	Termination of a Response and Media Relations
0945	Safety of Personnel and the Public
1015	Coffee break
1030	Case Studies
1115	Group discussion: Towards a National Oil Spill Contingency Plan in Liberia – Part 2
1230	Lunch break
	Debriefing
1345	Plenary Session
1445	Workshop evaluation
1515	Coffee break
	Closing Ceremony
1545	Closing Ceremony
	- certificates
	- recommendations of the Workshop
	- Closing speech
1645	End of the day

## Annex 2. List of participants

Title	Name	Organisation	Country	Cell or Tel	Email
	Mathew J. Boe, II	Monrovia, Breweries, Inc.	Liberia	06565441	Augustine .chea @monbrew.com
lev.	Augustus Soklo Wainde	Regional Coastal Shipping Agency	Liberia	06573831	Regionalcoastal ship@yahoo.com
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## Annex 3. Opening speech IMO/IPIECA

The following opening speech was given by Kevin O'Connell, Consultant to the International Maritime Organization.

#### NATIONAL WORKSHOP ON NATIONAL OIL SPILL CONTINGENCY PLANNING (NOSCP)

21 to 24 JUNE 2010 - MONROVIA, LIBERIA

#### IMO OPENING REMARKS

Mr Bayam Kesselly, Commissioner – Maritime Affairs Mr Thomas Romeo Quroh, Executive Director - Environmental Protection Agency Distinguished Guests Ladies and Gentlemen

Thank you for your warm words of welcome here to Monrovia, the Capital of Liberia. From a personal point of view, I am pleased to be in Monrovia for the first time ever.

I deem it a great honour to be here this morning to deliver some Opening Remarks on behalf of Mr. E. MITROPOULOS, the Secretary-General of the International Maritime Organization. The Secretary-General sends you his best regards and wishes for a fruitful event.

I would like to welcome you all to this National Workshop on Oil Spill Contingency Plan for Liberia.

On behalf of IMO I wish to extend my appreciation to the Government of Liberia for hosting this Workshop, and in particular to the Environmental Protection Agency and for its efforts and the assistance provided in connection with all the local planning, arrangements and the logistics for this Workshop. Without your valuable support and hard work, it would never have been possible to organize this Workshop.

The co-operation between IMO and the oil industry under the headline of the IMO/Industry Global Initiative has matured over a twelve year close partnership. The latest activity within this partnership is the Global Initiative for West and Central African Countries, which provides the framework for the present Workshop. I would also like to thank IPIECA and the WACAF co-ordinator for their efforts in the organisation of this event.

The development of the National Oil Spill Contingency Plan for Liberia is a new issue to be initiated and an issue, which have been given high priority in IMO.

IMO knows from experiences that the national contingency planning process is a complex process, but we hope that by a common effort it will possible to develop a modern and up-to-date national plan within a reasonable time in the foreseeable future.

Liberia has already ratified a number of conventions relating to marine pollution, namely MARPOL 73/78, OPRC 90, CLC 92 and the Fund 92. However the maximum benefits of being party to these conventions cannot be realised without a robust national contingency planning framework. The big advantages of being party to OPRC 1990 is that Liberia, in the case of a major oil spill, can call on governmental assistance from more than 80 countries around the world. Most of these countries have advanced oil spill contingency systems in place. Being party to the CLC and Fund conventions mean that significant financial resources are available in the event of an oil spill from a tanker.

IMO is aware that tanker traffic in and out of your ports is relatively small compared to many other West African States. However, you are faced with a constant threat of a major oil spill from one of the many tankers that are navigating past your coast on their way to and from Europe and North America. A collision or an

incident involving one of these tankers could have serious consequences for your environment and the livelihood of many of people living close to or working on the sea.

Liberia is also party to the Convention for Co-operation in the Protection and Development of the Marine and Coastal Environment of the West and Central Africa and its Protocol concerning Co-operation in combating Pollution in Cases of Emergency – the Abidjan Convention.

Both the international OPRC Convention and the Regional Abidjan Convention requires that Liberia has in place a National Oil Spill Contingency Plan.

It is IMO's hope that the present National Workshop will provide you with sufficient information that will facilitate the development and implementation of a National Plan and the necessary associated national legislation.

As you may be aware, the purpose of national oil spill contingency planning is to establish a framework for cooperation between the various authorities involved in a major oil spill and between the authorities and the private sector, most likely, the national and international oil industry in case of a serious oil spill incident.

Experiences gained during major oil spills around the world have again and again demonstrated the need for careful planning on action to be taken, should a spill occur. Similar experiences have demonstrated that it is impossible to respond effectively and to a major oil spill without prior comprehensive planning.

Another purpose of the Workshop is to facilitate national capacity building in Liberia. Only by continuous education and training of the personnel directly involved in national and regional contingency planning will it be possible to ensure a sustainable future for all the contingency planning work to be initiated.

Firstly, there is a need to develop a national plan and have it adopted, and another and much more complicated issue is to implement the plan to ensure that it is operational on the day when an accident occurs. The Plan outlines a number of prior agreements and intentions.

The Plan set out the administrative and operational frameworks for co-operation and communication at regional, national and local levels, as well as providing strategies on how to respond to an oil spill. But the plan as such does not provide the means for making the right decisions or for the physical response to an oil spill.

There are many issues that have to be considered and agreed before the National Plan becomes operational.

First: The Government has to provide sufficient funding and necessary national legislation;

Second: The necessary oil spill response equipment has to be provided for;

Third: The National Plan should provide the necessary planning tools to ensure that the resources

you have available are used in an efficient and cost-beneficial manner; and

Fourth: The National Plan should provide for adequate educated and trained personnel.

Only by securing the necessary continuous support for the development and full implementation of the National Plan, initiated by this National Workshop, will it be possible to ensure that Liberia is fully prepared to respond to a major oil spill incident if it should happen.

This National Workshop will focus on the basic principles of oil pollution response and national oil spill contingency planning. It is our hope, that on Thursday, we will have agreed an Action Plan that will ensure that your National Oil Spill Contingency Plan can be developed and officially adopted within a foreseeable future, and that you all will be keen to take an active part in this process.

Once again, on behalf of IMO, welcome to this National Workshop and my best wishes for a fruitful outcome.

Thank you.

## Annex 4. Support document for the Working Groups for the National Action Plan

1. Legislation	n: To adapt the legal and institutional national framework and ensure	In place	In	To Do
sustainability	of the NOSCP		progress	Priority?
Ratification	Ratification of the Convention of Abidjan and of the Emergency Protocol			
	Ratification of the OPRC 90 Convention			
	Ratification of the OPRC-HNS 2000 Protocol			
	Ratification of the CLC 92 Convention			
	Ratification of the Fund 92 Convention			
	Ratification of the Bunker 2001 Convention			
	Ratification of the HNS 96 Convention			
Implement-	Implementation of the Abidjan Convention and its Emergency Protocol			
ation				
	Implementation of the OPRC 90 Convention			
	Implementation of the OPRC-HNS 2000 Protocol			
	Implementation of the CLC 92 Convention			
	Implementation of the Fund 92 Convention			
	Implementation of the Bunker 2001 Convention			
	Implementation of the HNS 96 Convention			
Approval	Approval of the NOSCP			
	Approval of the National Policy for the Use of Dispersants			
	Approval of the National policy for waste management			
Others?				

Z. Nationa	al Oil Spill Contingency Plan: To have a standardised oil spill preparedness	In place	In	To Do
and respo	nse system in place		progress	Priority?
Managem				
system	of the National Oil Spill Contingency Plan			
	Development of the National Oil Spill Contingency Plan			
	Crisis management system			
	Reporting & Alerting systems			
	Dedicated crisis management communication system			
	Information of the Public / Public Relation Officer / Communication			
	advisor			
Policy	National Dispersant use policy: (List of Approved Dispersants; Pre-			
	approved area of use; Conditions of Use)			
	National policy for waste management			
	Policy for in-situ burning			
Risk asses	sment Coastal oil spill sensitivity maps and identification of most sensitive			
and sensit	tivity sites			
mapping	Trajectory Modelling			
	Risk Assessment (probability/ consequence)			
	Spill risk and scenarios			
Coordinat	·			<u> </u>
with local				
Finance	Compensation system and claims management system			
	Financial commitment/ Compensation claims / Claims follow-up			
	Procedures for samples and evidence			
Others?				
2 Doctors	ation of authority: To ensure that all requested authorities (in regard of			
a. Designa		lin place	lin	To Do
_		In place	In progress	To Do Priority?
national/ i	international laws and NOSCP) are officially designated.	In place	progress	To Do Priority?
national/ i Design-	international laws and NOSCP) are officially designated.  Competent National Authority with responsibility for oil pollution	in place		
national/ i	international laws and NOSCP) are officially designated.  Competent National Authority with responsibility for oil pollution preparedness and response officially designated	In place		
national/ i Design-	competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and	In place		
national/ i Design-	International laws and NOSCP) are officially designated.  Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports	In place		
national/ i Design-	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and	In place		
national/ i Design-	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response	In place		
national/ i Design-	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and	In place		
national/ i Design-	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or	In place		
national/ i Design- ation	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or	In place		
national/i Design- ation  Others?	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or provide assistance			
national/i Design- ation  Others?	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or provide assistance	In place	progress	Priority?
national/i Design- ation  Others?	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or provide assistance  Joundary and mutual assistance agreement: To ensure that cooperation ance at bi-lateral/ regional level is developed.		progress	Priority?  To Do
national/i Design- ation  Others?  4. Trans-b and assista	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or provide assistance  coundary and mutual assistance agreement: To ensure that cooperation ance at bi-lateral/ regional level is developed.  Regional agreement		progress	Priority?  To Do
Others?  4. Trans-b and assist: Agree-	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or provide assistance  Joundary and mutual assistance agreement: To ensure that cooperation ance at bi-lateral/ regional level is developed.  Regional agreement  Sub-regional agreement		progress	Priority?  To Do
Others?  4. Trans-b and assist: Agree-	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or provide assistance  Joundary and mutual assistance agreement: To ensure that cooperation ance at bi-lateral/ regional level is developed.  Regional agreement  Sub-regional agreements		progress	Priority?  To Do
Others?  4. Trans-band assista Agree-ments	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or provide assistance  oundary and mutual assistance agreement: To ensure that cooperation ance at bi-lateral/ regional level is developed.  Regional agreement  Sub-regional agreement  Bilateral agreements  Government industry mutual assistance and equipment exchanges		progress	Priority?  To Do
Others?  4. Trans-band assist: Agreements	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or provide assistance  oundary and mutual assistance agreement: To ensure that cooperation ance at bi-lateral/regional level is developed.  Regional agreement  Sub-regional agreement  Bilateral agreements  Government industry mutual assistance and equipment exchanges  Mechanisms to access and mobilize external (sub-) regional assistance in		progress	Priority?  To Do
Others?  4. Trans-band assista Agree-ments	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or provide assistance  coundary and mutual assistance agreement: To ensure that cooperation ance at bi-lateral/ regional level is developed.  Regional agreement  Sub-regional agreement  Bilateral agreements  Government industry mutual assistance and equipment exchanges  Mechanisms to access and mobilize external (sub-) regional assistance in place and tested?		progress	Priority?  To Do
Others?  4. Trans-band assistand assista	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or provide assistance  coundary and mutual assistance agreement: To ensure that cooperation ance at bi-lateral/ regional level is developed.  Regional agreement  Sub-regional agreement  Bilateral agreements  Government industry mutual assistance and equipment exchanges  Mechanisms to access and mobilize external (sub-) regional assistance in place and tested?		progress	Priority?  To Do
Others?  4. Trans-band assistand assista	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or provide assistance  oundary and mutual assistance agreement: To ensure that cooperation ance at bi-lateral/ regional level is developed.  Regional agreement  Sub-regional agreement  Bilateral agreements  Government industry mutual assistance and equipment exchanges  Mechanisms to access and mobilize external (sub-) regional assistance in place and tested?  Mechanisms to access and mobilize external international assistance in		progress	Priority?  To Do
Others?  4. Trans-band assistand assista	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or provide assistance  oundary and mutual assistance agreement: To ensure that cooperation ance at bi-lateral/ regional level is developed.  Regional agreement  Sub-regional agreement  Bilateral agreements  Government industry mutual assistance and equipment exchanges  Mechanisms to access and mobilize external (sub-) regional assistance in place and tested?  Mechanisms to access and mobilize external international assistance in place and tested?		progress	Priority?  To Do
Others?  4. Trans-band assist: Agreements  Access to external	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or provide assistance  To ensure that cooperation ance at bi-lateral/ regional level is developed.  Regional agreement  Sub-regional agreement  Bilateral agreements  Government industry mutual assistance and equipment exchanges  Mechanisms to access and mobilize external (sub-) regional assistance in place and tested?  Mechanisms of management of the assistance in place?		progress	Priority?  To Do
Others?  4. Trans-band assistand assista	Competent National Authority with responsibility for oil pollution preparedness and response officially designated  National operational contact point(s) responsible for the reception and transmission of oil pollution reports  National organisation(s) in charge of oil pollution preparedness and response  Authority which is entitled to act on behalf of the State to request or provide assistance  oundary and mutual assistance agreement: To ensure that cooperation ance at bi-lateral/ regional level is developed.  Regional agreement  Sub-regional agreement  Bilateral agreements  Government industry mutual assistance and equipment exchanges  Mechanisms to access and mobilize external (sub-) regional assistance in place and tested?  Mechanisms to access and mobilize external international assistance in place and tested?		progress	Priority?  To Do

Others?				
	gand exercise developed by the country: To develop the expertise and	In place	In	To Do
•	ce in the country.		progress	Priority?
Sustain- ability	Policy to sustain the implementation of the NOSCP?			
•	Policy for the re-enforcement of the national response capabilities in			
	place?			
	Policy for the regular audit and update of the NOSCP?			
Training	Policy for the training of the nationals in place?			
	Yearly training program for all personnel involved at all level? (consistent			
	with international standards and customized to the needs of the country)			
	Introductory level			
	OPRC level 1			
	OPRC level 2			
	OPRC level 3			
	Train the trainers			
	Other seminar and workshop developed by the country			
Exercise	National exercise program, including local operators and the oil industry			
	Crisis management exercise (Table top)			
	Notification exercise			
	Mobilisation exercise			
	Government deployment exercise			
	Industry deployment exercise			
	Joint Industry government exercise			
Others?				
6. Nationa	resources: To ensure that sufficient and appropriate equipment is	In place	In	To Do
	n the country to:		progress	Priority?
	h oil spill incidents up to a certain level (i.e. minimum Tier 1 equipment)			
	rompt alerting procedures as well as operational communications (i.e.			
	ations equipment and infrastructure)			
-	Storage facilities and maintenance of equipment			-
equip- ment	Oil spill response equipment acquisition			-
ment	Communication equipment acquisition			-
	Equipment Inventories			-
Logistical	Organisation of the logistical support in place for offshore and onshore operations? Realistic? Rapid to mobilize?			
support				-
Centre	System for the sharing of public and private response resources in place??  Response Centre			+
CHILLE	l '			
Centre	(Communications Meeting Rooms)			
oc.i.i.c	(Communications, Meeting Rooms)			_
centre	Training centre ( documentation – resource centre for oil spill response			
Others?				

N°	High Priority Actions	Challenges/ blockages	Process(es) to overcome challenges and blockages	Person / authority / organisation in charge of implementing	Estimated time line for completion
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					

## Annex 5. Assessment form

The following table shows the information entered in the participants feedback forms.

	Technical content was appropriate to the course	The course materials were of an excellent standard	The training course will help me improve my performance	The course was relevant to my job	Facilitators displayed flexibility in response to issues raised during the training course	Overall, the facilitator was good	were suitable	Refreshments provided by were of a high standard	Examples of spill equipment used were appropriate	Overall, I am satisfied with my experience
Participant	chnical propria	e cours cellent	e traini prove r	e cours	cilitato respon ring th	erall, tl	Training venues for the purpose	freshm a high s	amples ed wer	Overall, I aı experience
Ра	Те. ар	ĒX	Ŧ Ë	The job	Fac in du	ò	Tra	Re of	Exa	ex O
1	10	10	10	NA	10	10	NA	10	10	10
2	9	9	8	9	10	10	9	8	9	9
3	9	10	10	10	10	10	10	9	10	10
4	9	9	10	10	9	9	9	7	10	10
5	8	9	7	6	8	9	8	7	9	9
6	9	9	10	10	10	9	9	8	9	9
7	10	10	10	10	10	9	10	10	8	10
8	7	5	10	10	8	8	9	10	6	8
9	10	10	10	10	10	10	10	10	NA	10
10	10	10	10	10	10	10	10	10	10	10
11	10	10	10	7	10	10	10	10	NA	10
12	8	5	6	5	8	10	5	3	5	NA
13	9	9	9	9	9	9	10	10	8	9
14	10	10	10	10	10	10	10	10	NA	10
15	8	9	9	9	9	9	8	6	9	9
16	10	9	8	7	10	10	8	8	10	10
17	9	9	8	9	10	10	10	9	NA	7
18	9	9	10	10	9	9	8	10	5	10
19	10	9	10	10	10	10	10	10	NA	10
20	10	10	10	10	10	10	5	8	10	10
21	10	9	10	10	10	10	9	10	8	10
22	10	10	9	10	9	9	9	9	NA	10
23	10	10	10	10	10	10	8	8	10	9
24	10	10	NA	7	10	10	8	8	10	10

## Pictures from the Event





National Workshop for the Development of the National Oil Spill Contingency Plan, Liberia





National Workshop for the Development of the National Oil Spill Contingency Plan, Liberia





National Workshop for the Development of the National Oil Spill Contingency Plan, Liberia





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