REPORT

Workshop on role and responsibilities between government and industry in case of an oil spill

Walvis Bay, Namibia
11th – 13th October 2023

Global Initiative for Western, Central and Southern Africa

Organised by:

Ministry of Works and Transport

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NOTE

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1 Executive summary

A national workshop focusing on the approach to Unified Command was organized in Walvis Bay, Namibia from the 11th – 13th October. The event brought together key stakeholders that have been instrumental in the development of the National Oil Spill Contingency Plan as well as representatives from TotalEnergies, Shell and GALP.

The event was hosted by the Ministry of Works and Transports, with the precious help of Mr Shapua Kalomo, Acting Deputy Director: Marine Pollution Control & SAR of Maritime Affairs and GI WACAF Focal Point. The workshop was supported by the International Maritime Organization (IMO) and IPIECA, the global oil and gas association for environmental and social issues within the framework of the Global Initiative for West, Central and Southern Africa.

The participants numbered 32, and a list of delegates is attached in Annex 2 of this report.

The aim of the workshop was to analyse how under a Unified Command structure the Namibian Government, Shell and TotalEnergies could manage an incident in a collaborative manner, enabling a more effective and seamless management of an unforeseen event that has a potential for significant impact to the national waters of Namibia.

The general objective of the workshop was to foster cooperation between national authorities and industry by discussing roles and responsibilities of stakeholders in the event of an incident.

The specific objectives of the workshop were as follows:

1. Reinforcing national stakeholder's knowledge of Incident Management System
2. For industry to provide an insight into their current campaigns and strategies to deal with an incident involving a company operated offshore asset.
3. For Government to provide clarification on policies and procedures.
4. To determine opportunities for a Unified Command approach based on a given exercise scenario.

An IMS refresher was delivered to Government representatives as a reminder of their IMS 100 and 200 that had been completed at various times prior to the workshop. The modules were delivered through an interactive question and answer session, group activity and power point presentations. This combination of activities allowed for dialogue, discussion, enthusiasm, and the sharing of knowledge from within the group.

The sharing of information by industry provided some valuable insights into some of the tactical elements that they would have to deal with in the event of a significant incident. The information provided enabled several questions to be asked by the various stakeholders around the specifics of a response end to end and how industry would manage the issues faced.

The Government provided some updates on draft polices for dispersants and the process of immigration and customs. Clarification was sort by industry on several fronts specifically around the list of approved dispersants and parameters for use.

The course culminated in a workshop style exercise for the participants work through a number of tasks related to an offshore scenario. The group analytical process identified key objectives for both industry and government to focus on based on the P.E.A.R. principle. Plans were analysed for applicability, synergy and identified areas for potential improvements and a more unified approach.

The knowledge transfer sessions and the final workshop exercise on the last day gave a positive indication that the sessions had been of value to the delegates and by having a wider audience through government and industry participation gave more depth to the course and expected outcomes.

2 Contents

3 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 partner countries to prepare for and respond to marine oil spills.

The mission is to strengthen the national system for preparedness and response in case of an oil spill in 22 West, Central and Southern African Countries in accordance with the provisions set out in the International Convention on Oil Pollution Preparedness, Response and Cooperation, 1990 (OPRC 90).

To achieve its mission, the GI WACAF Project organizes and delivers workshops, seminars and exercises, that aim to communicate good practice in all aspect of spill preparedness and response, drawing on expertise and experience from within governments, industry and other organizations working in this specialized field. To prepare and implement these activities, the Project relies on the Project's network of dedicated government and industry focal points. Promoting cooperation amongst all relevant government agencies, oil industry business units and stakeholders both nationally, regionally, and internationally is a major objective of the Project during these activities.

GI WACAF operates and delivers activities with contributions from both the IMO and seven oil company members of IPIECA, namely Azule Energy, BP, Chevron, ExxonMobil, Eni, Shell, TotalEnergies.

More information is available on the Project's website.

4 Introduction

4.1 Context of the Workshop

Launched in 2006, the Global Initiative for West, Central and Southern Africa (GI WACAF) Project is a partnership between the International Maritime Organisation (IMO) and IPIECA, the global oil and gas industry association for environmental and social issues, to enhance the capacity of partner countries to prepare for and respond to marine oil spills.

To achieve this mission, the GI WACAF Project organises and delivers workshops, seminars and exercises that strive to communicate the utmost best practice in all aspects of spill preparedness and response.

Namibia, as a coastal state, is at risk from offshore activities in its maritime waters, due to increased exploration activities and overall increasing maritime traffic in maritime waters. This has driven the need for further development of the National Marine Pollution Contingency Plan.

This National Workshop provided a platform for open dialogue between the Nambian Government and industry acting in the country, underlining the need for a continued positive collaboration through a GI WACAF regional initiative.

The three days focused on the fundamental aspects of Incident Command, specifically a more Unified approach. Current activities and response strategies were discussed and updates on draft polices such as dispersant were provided. On the last day, an analytical exercise was conducted focusing on the various contingency plans identifying synergies, gaps, and areas for unification through a series of questions and free thinking based on a given incident scenario.

The participants, representing the key government ministries, agencies, authorities, non-government organizations and industry which would be involved in a response to a major maritime oil spill, had the relevant background knowledge and experience to receive maximum benefit from this workshop.

4.2 Objectives

The general objective of the workshop was to understand the roles and responsibilities of government and industry when managing a significant marine incident.

The specific objectives of the workshop were to:

1. Reinforce previous training in the Incident Management System
2. For industry to provide an insight into their current campaigns and strategies to deal with an incident involving a company operated offshore asset.
3. For Government to provide clarification on national policies and procedures.
4. Determine opportunities for a Unified Command approach based on a given exercise scenario.

4.3 Programme

The workshop duration was 3 days and is summarised below:

- Wednesday 11th October 2023
    - Workshop Introduction
    - GI WACAF Project Introduction
    - 100/200 Fundamentals Refresher Quiz
    - Roles and Responsibilities
    - Incident Assessment
    - Planning Phase
- Thursday 12th October 2023
    - Opening Remarks
    - National Framework
    - Shell Campaign Overview
    - Total Energies Campaign Overview
    - Total Energies Response Strategy Overview
    - Shell OSEC Overview
    - IMS Unified Command Roles and Responsibilities
    - Customs and Immigration Arrangements
- Friday 13th October 2023
    - Dispersant Policy Overview
    - Table -Top Workshop Exercise
        - Scenario Introduction
        - Potential Challenges (P.E.A.R)
        - Government and Industry Plan Analysis
    - Workshop Wash Up
    - Closing Comments

4.4 Location, dates, and participants

The workshop was held at the Protea Indongo by Marriott hotel from the 11th to the 13th October 2023. In attendance, there were 32 participants from various government agencies and industry.

Facilitation of the workshop was ensured by:

- Richard Sims, Managing Director of RS International Spill Solutions Ltd – GI WACAF consultant
- Rim Al Amir, GI WACAF Project Coordinator - IMO / IPIECA

5 Activities and Proceedings

5.1 Opening Ceremony

The opening speech took place on Thursday 12th October at 09:00 and was delivered by the Deputy Executive Director for Transportation, Mr Jonas Sheelongo. The opening speech is available on Annex 3: Opening speech - Jonas Sheelongo – Deputy Executive Director Transportation of this report.

The group picture taken with additional images included in Annex 5: Pictures.

5.2 Presentations

5.2.1 Day 1 – 11th October: IMS refresher

As the first day was primarily a refresher of IMS 100/200 with an overview of the importance of Incident Management, the presence of industry stakeholders was not requested.

Introduction of workshop objectives and presentation of the GI WACAF Project

Rim Al Amir – GI WACAF Coordinator Project Coordinator

Mr Sims and Ms Al Amir introduced themselves and gave an overview of their career backgrounds and experience specifically related to oil spills and incident management.

Rim Al Amir first presented the objectives and activities of the Project as well as the respective roles of IMO and IPIECA. Specific reference was made to the establishment of the overall GI WACAF project which was established in 2006 and with a focus on strengthening the capacity of countries to prepare for and respond to oil spills through the promotion of public-private cooperation. It was highlighted that participation in the regional initiative involve 22 countries of the western coast of Africa, from Mauritania to South Africa. Since its inception, significant progress has been made in improving spill response capabilities by raising awareness through national and regional workshops and training, such as this workshop.

Participants had the opportunity to share their details regarding their position and any wider incident management experience. This dialogue certainly assisted in the understanding of the depth of knowledge and general incident management experience in the room. It also enabled the instructors to leverage key stakeholders at various stages of the course to promote discussion and interaction amongst the group.

The course logistics and agenda were highlighted along with the purpose and objectives for the training workshop. Clarification was sort in terms of IMS 100/200 completion and the majority had carried out the online training in the past. As the first day was primarily a refresher of IMS 100/200 this insight gave a good indication as to where to pitch the day's sessions as this was a revisit and revision of elements of the IMS 100 and 200 online materials.

IMS Fundamentals Refresher Quiz – Double Jeopardy

Richard Sims – Managing Director RS International

Rim Al Amir – GI WACAF Project Coordinator

Mr Sims introduced the session on IMS Fundamentals. He highlighted that this session was a review of the IMS 100 and 200 online course materials that underpin any future IMS 300 training.

The session was delivered in an interactive way to promote knowledge transfer from the facilitator, discussion, and teamwork. The method used was "Exercise Double Jeopardy" which consisted of a quiz whereby a panel of questions were produced via a power point application with each panel having an associated value ranging from 100 to 500. Behind each panel was a question or statement on IMS 100 and 200.

The group were split into 3 teams, and each were given an opportunity to pick a panel and verbally answer the question. If the question was answered correctly then the points were awarded, if not then the question was passed over to the next group until a correct answer was attained.

This session promoted a healthy amount of debate, research and competition between the groups and acted as a good learning opportunity for all. The session was more of a reminder of previous learning rather than a confirmation of knowledge transfer. Expla-

nations to some of the questions answered incorrectly were provided to the course members.

Introduction to Incident Command System Functional Areas

Richard Sims – Managing Director RS International

Mr Sims then delivered and interactive session to emphasise the specific roles and responsibilities for those that may sit in one of the 5 functional areas.

The delegates were divided into 3 groups and each group was provided with an envelope with the following functional areas displayed:

- Command
- Operations
- Planning
- Logistics
- Finance
- Public Information Officer
- Safety Officer

The task for each group was to utilise the various functional tasks and responsibilities linked to the IMS System that were displayed on laminated cards within the envelopes and place them under the appropriate functional areas.

A review of the groups was conducted with the textbook answer provided and an explanation via power point. During the feedback session a pictorial visual portrayal was given with missing explanations of the specific tasks which gave the delegates a chance to verbally fill in the gaps.

Incident Assessment

Richard Sims– Managing Director RS International

Mr Sims highlighted the importance of getting the Incident Assessment right as this sets the tone for what needs to be achieved, and underpins the objectives and the ultimate incident evolution.

Incident complexity, limitation and constraints were discussed, and examples were given that could have the potential to change the landscape of the incident and derail an effective response. The P.E.A.R. concept was introduced to assist in developing incident objectives.

A formal process of capturing data through the 201 form was introduced by way of a template. Emphasis was given that all the forms and templates could be adapted and were very much selective rather than mandatory.

Group activity 1: Communication

Richard Sims– Managing Director RS International

The emphasis on clear and concise communication was highlighted through a group exercise. Each team had to draw on a flip chart what they heard via a verbal description from a centralised colleague who had an image to describe. Each group heard the same information that was portrayed from the image provided. There was an opportunity for each team to request clarification on the information received with questions from each team. The images from each team were shared in plenary. The activity promoted a lot of different approaches and designs but emphasised some key messages around the use of unfamiliar terminology, the need to use some geographical benchmarks such as north and south as a point of reference and orientation, the division and segmentation of an area and the need to listen and clarify which is vitally important in an incident and in the subsequent understanding of situational awareness.

Activity 2: Planning P puzzle

Richard Sims– Managing Director RS International

The Planning Process is fundamental and core to the development of the Incident Action Plan. The delegates were exposed to a blank Planning P poster and laminated cards with the various meetings and activities related to the IMS process. Each team were required to place the cards in the correct order on the Planning P in relation to a meeting or activity. The results were satisfactory with most making minor errors.

The transition from the leg of the "P" into the more protracted element was provided with the emphasis being placed on the evolution of the IAP, which function is responsible for what task, the commencement of IMT planning activity and the cycle of meetings that facilitate the IAP development for the Next Operational Period.

Conclusion of Day 1 and Introduction of Day 2

Richard Sims– Managing Director RS International

Mr Sims thanked the delegates for their participation gave a brief overview of the following day's programme.

5.2.2 Day 2 – 12th October

The second day was dedicated to presentations about current industry, discussions around response strategies were discussed and updates on draft policies such as dispersant.

Opening Speech

Jonas Sheelongo, Deputy Executive Director Transportation at the Ministry of Works and Transport gave an opening speech, which can be found in Annex 3 of this document.

National Framework

Shapua Kalomo – Acting Deputy Director: Marine Pollution Control & SAR , Maritime Affairs, Ministry of Works and Transport

The presentation focussed on the evolving risks to the Namibia national maritime waters, the strategy to manage and mitigate those risks posed and the governance structure of the National Marine Pollution Contingency Plan.

Traditionally the potential sources of spills come from the national fleet operations and the importing of fuels. With the addition of the new container terminal, bulk storage facility, and additional activities offshore, the risk of an incident to occur is set to increase. There is also a large amount of vessel activity ranging from cargo vessels to tankers that transit past the Namibian coastline, which carries a risk passing ship spill scenario.

The Namibian economy is very much reliant on its natural geographical structure. Any impact to this eco system would be devastating both in terms of tourism, but also to animals which rely on a healthy marine ecosystem for survival, such as penguin colonies, flamingos, and migratory birds.

The management structure for dealing with the different risks profiled was shared through a linear hierarchy approach from national conventions and legislation down to more localised plans. The various conventions that Namibia have adopted were highlighted along with the related national legislation and associated Marine Pollution and Preparedness System. In terms of governance an explanation was also provided on escalation to the National Risk Management Committee.

Shell Campaign Overview

Peter Mijsbergh – HSE & Permitting Manager, Shell

An insight into the present activities was provided. Shell is currently on their sixth drilling campaign with the Jonker 1A being appraised.

Due to the remote location, product details, trajectory modelling and prevailing conditions it is highly unlikely that any spill would impact the shoreline as the slick would head in a north westerly direction. However, Shell have initiated a response strategy that would involve a mobilisation of local in-country resources, which includes assets through an MOU with TotalEnergies. Additional support would come through their Tier 3 agreement with OSRL who have a global capability. If well capping was required Shell have access to a Capping Stack based in Saldanha Bay, South Africa. As a contingency they also have access to a capping stack in Norway, should there be an issue with the asset in South Africa. Any response requiring aerial surveillance operations would come from the WASP aircraft based in Ghana and Gabon which can be onsite within 12- 24 hrs. If a dispersant strategy is approved by the government, this again

can be facilitated through vessel mounted systems from two support vessels. A greater provision of dispersants can be mobilised through Shell's Tier 3 agreement with OSRL, using the 727 dispersant aircraft that is based in the UK on standby. Any medivac from the offshore facility can be managed by Shell through the provision of a local agreement with a helicopter provider. It was recognised that certain medical conditions may have to be treated out of country due to the lack of specialist facilities.

The logistics to support the offshore operations is managed out of Walvis Bay with the fixed wing and rotary aerial support coming from Oranjemund which is the closest of both offshore assets. Any waste from a response would be managed by an approved hazardous waste company that has a capacity to manage a significant incident whether it be solid or liquid waste. It is highly likely that landfill would be a strategy for elements of waste produced.

The shareholding is split between three organisations with Shell and Qatar Energy both having a 45% equal share. In the event of an incident, Shell, as the operator would have the ownership for any response.

TotalEnergies Campaign Overview

Dr Ufot Saviour – HSE Manager, TE

TotalEnergies EP Namibia B.V. is operating Blocks 2913B and 2912 located offshore Namibia, approximately 320 km from the coast and 370 km from Luderitz harbour. It is an ultra-deep well with expected water depth of 3010m at well location. Venus 2 well will be the second well drilled on the block. The license partnership includes TotalEnergies EP Namibia B.V. (Operator), Qatar Petroleum International, Impact Oil & Gas Ltd and Namcor.

Total Energies' commitment to safety was emphasized through the awareness of the companies HSE Policy. Initiatives that focused on the operational activities were highlighted such as toolbox talks, joint safety tours, safety green light and safety check lists with the aim of zero fatal accidents.

Trajectory analysis for both black oil and condensate was highlighted, and due to the prevailing conditions, land-based impact is highly unlikely due to the north westerly track of any spill. However, TotalEnergies have response options to deal with an incident at sea from one of their assets. This consists of a monitoring capability through satellite imagery, drift buoys, Metocean data and regional surveillance aircraft through an agreement with OSRL for the provision of the WASP service based out of Gabon and Togo.

Dispersants are the prioritized strategy for dealing with a significant incident at sea. The application would be through vessel mounted systems or through the 727 aircraft via an existing agreement with OSRL. Dispersant from the Global Dispersant Stockpile owned by OSRL has been approved, but the response strategy would need additional approvement by the government prior to spray operations commencing.

The option for offshore containment and recovery could be facilitated through OSRL's equipment inventory, but due to the logistics, location, and conditions, it would proba-

bly be ineffective. Any subsea intervention would come through the OSRL capping stack that could be mobilized from either Norway or South Africa.

Lesson Learned from past projects have led to more advancement and improvements in some of the more technical areas of the project improving safety and efficiency. Along with this CSR initiatives have been identified to provide benefits to the community both in terms of materialistic provision, but also the employment of Nambian nationals.

Clarification in terms of offshore qualifications was requested for Government auditors and inspectors in terms of the HUET or BOSIET courses that are conducted out of country.

ISO requirements were highlighted as well as TotalEnergies' position on terms of compliance under this internationally recognized scheme. The stance and assurance were given by Dr Ufot Savior on this point.

TotalEnergies Response Strategy Overview

Yannick Autret – Spill Response & Preparedness Specialist, TE

Information was provided on the various technical groups that TotalEnergies participate in showing commitment for the improvement of certain aspects of preparedness and response. Post Gulf of Mexico in 2010 three internal task forces were implemented with the focus being on prevention, well intervention and spill response. To assist in driving these initiatives forward TotalEnergies participated and still do in key regional cooperatives that include GI WACAF, IOGP, IMO and IPIECA.

The Tiered concept was highlighted as was the response organisation levels which would vary dependent on the level and complexity of the situation. Contracted organizations that could assist in specific areas with Subject Matter Experts were also shared and these ranged from front line responders to wildlife organisations that could be mobilised through several agreements that are in place.

TotalEnergies have conducted some major exercises as part of a gap analysis process and continuous improvement. Exercise Lula and TUCN Stingray are examples of major investment as part of the readiness check to ensure end to end a response is effective. The exercise involved the mobilisation of resources to support at sea surveillance, dispersant missions, on water containment and recovery along with floating storage. In parallel the subsea dispersant intervention system was mobilised from Norway to West Africa along with the capping stack with both being deployed to prove the end-to-end process in terms of capability.

Due to the vast expense in planning, developing and implementing an exercise of this magnitude there were some discussions around testing capability through a Mutal Aid concept whereby the cost is shared amongst the operators, but the proof of capability is not compromised.

Shell Oil Spill Expertise Centre (OSEC) Overview

Justina Lee – Environmental Specialist, Shell

The OSEC concept and how it has evolved was shared with the delegates, highlighting the fact that the Gulf of Mexico incident had influenced oil and gas industry preparedness. The statistics, depth of trained personnel and how a mobilisation of personnel was provided was explained.

Under the banner of Global Response Shell Network (GRSN) graphic it was clear to see the spread of competence across all the regions where Shell has an interest which covered pretty much all continents. There was also evidence of where specific response equipment was located regarding capping stacks, aerial assets and response bases.

There was recognition and recap of the evolution of the Shell Incident Management System (SIMS) which was borne out of ICS. Reference was also made for the adoption by IPIECA of IMS out of ICS which looks to incorporate coordinated command. Shell developed SIMS as per their internal HSSE & EP Control Framework and developed and implemented their own job aids and published their own Incident Management handbook. Furthermore, Shell shared an app called eIMH which they developed with a contractor.

The structure that Shell has adopted for managing an incident under SIMS was shared with the only difference being the introduction of the Business Executive position that sits between the IMT and Crisis. This position acts as a buffer or liaison between the two entities to facilitate discussion without interference. As was the case with the Gulf of Mexico, where the Well Intervention Group within BP, though not active in the field for most of the incident, were part of Operations from afar.

IMS Unified Command

Richard Sims – Managing Director, RS International Solutions

At the start of this session the facilitator asked the following questions:

- What is the meaning of unified?
- Why is being unified important?
- What does it mean in an IMS context?

The answers given assisted the facilitator in gauging the delegates knowledge and interpretation of the word “unified” in the wider context and how it related to incident command.

The delegates were provided with a scenario that was related to a boat fire in a marina and were required to relate this to the context of an industry operated Offshore Supply Vessel in Walvis Bay. Within the three groups they had to determine what might be the unified command challenges and objectives and expectations from Government and Industry. The groups analysed the incident facts and developed a set of objectives based on the P.E.A.R.L. principle. There was synergy across the three groups with the high-level objectives identified as follows:

People	• Accountability for personnel onboard. • Warning to other vessels and operators in the vicinity. • Medical capacity in country.
Environment	• Identify the products involved. • Mitigate the impact to the marine ecology. • Protect sensitive receptors.
Assets	• Ensure all parties understand their roles and responsibilities. • Understand the resources available. • Contain the fire
Reputation	• Understand the response effectiveness. • Manage the media. • Look at business continuity issues. • Management of an integrated response. • Develop a communication strategy.
Liability	• Cost analysis and recovery. • Investigation into the incident. • Mange the expectations of other concerned stakeholders, e.g., tourism

The delegates were provided with a detailed explanation of the response looking at what made the incident more complex, initial actions, run, and maintain, plan integration, the lift and closing out the response.

Customs & Immigration

Shapua Kalomo – Acting Deputy Director: Marine Pollution Control & SAR,Maritime Affairs, Department of Works and Transport, Republic of Namibia

The MOU is made between the offices of the Prime Minister and Attorney General, Ministries, Regional Councils and State-owned Enterprises (MHAISS).

The objective of the MOU is to promote maximum co-operation and co-ordination among the parties in the implementation of the National Plan to protect the Namibian waters and coastline from a marine incident whether shipping or other offshore activities.

The MOU governs the broad objectives as detailed in the National Plan with emphasis on collaboration between MWT and other Government Offices, Ministries, Regional Councils, and industry institutions. Within the National Plan there is a mandate that refers for the need for collaboration.

Specific reference was made to the section related to the Ministry of Home Affairs, Immigration, Safety and Security. The Ministry are responsible for the safety and security during pollution response operations or exercises by keeping law and order in the vicinity of the incident.

MHAISS also facilitate the expedient issuance of visas and work permits to enable Subject Matter Experts entry and exit Namibia during a marine response incident requiring international assistance.

Clarification was sort around the need for custom bonding and how this would be managed by those mobilising resources and the agencies receiving the consignment and who would be the POC to expedite the visa issuance process.

Conclusion of Day 2 and Introduction of Day 3

Richard Sims– Managing Director

Mr Sims thanked the delegates for their participation gave a brief overview of the following day's programme.

5.2.3 Day 3 – 13th October

The Use of Dispersants

Justina Lee – Environmental Specialist, Shell

A technical insight was provided to assist with the understanding on how a dispersant can mitigate the impact of a significant hydrocarbon spill if applied in the right environmental conditions.

Dispersant will cause a short term and temporary increase in the amount of oil in the top layers of the water column - removes it from the surface and dilutes into the water column. The speed at which the microbes can biodegrade / eat the oil can be affected by a few factors:

- The different chemical compounds of the oil that's been spilt – some chemical compounds are easier to biodegrade than others
- How much oil is available to the microbes
- Available oxygen and nutrients
- The most favourable conditions for biodegradation to take place are when oil is dispersed offshore.
- The biodegradation process for oil droplets typically starts within 1–2 days and is completed in a few weeks.

Dispersants are NOT highly toxic chemicals that are dumped on top of an oil spill. All substances have some ability to be toxic or cause adverse effects to organisms – this depends on the concentration of the substance and length of exposure. Toxicity tests are used to predict the potential adverse effects of chemicals on aquatic organisms or humans.

Prior to any dispersant operation there needs to be an analysis to determine the viability of such a strategy. This can be carried out by adopting the Net Environmental Benefit Analysis (NEBA) that looks at the benefits and trade-offs based on the environmental impact of the dispersant versus the consequences of no intervention. Depth of water, distance from shore and environmental sensitivities need to be considered when planning a dispersant strategy.

Clarification around ISO standards was sort. At the time questioning and subsequent research on evidence had been found that gave specific reference under any ISO Standard.

An explanation was given on what the dispersant / oil mix looks like when applied correctly in the marine environment and how the oil appearance changes when the dispersant takes affect or not as the case maybe. The effect of temperature on dispersant was discussed as was shallow water application and the need to consider tidal movement and microbe availability.

Dispersant Policy Update

Shapua Kalomo – Acting Deputy Director: Marine Pollution Control & SAR , Maritime Affairs, Department of Works and Transportation, Republic of Namibia

The background of the policy was provided regarding the milestones to date. The project commenced in 2022 culminating in a dispersant workshop to share and discuss the draft policy. There are now plans to have a public consultation period with a Minister briefing prior to ratification. Timeline for the final ratification of the policy is approximately 12 months.

Conditions and parameters for use were highlighted which prompted some discussion especially around the terminology “highest water mark” as there are potentially a number of variables that need to be considered specifically around some of the islands that harbour a lot of sensitivities such as Orange Seamount, Cape Frio and Canyon Complex.

With the potential for cross boundary migration of the spill and dispersant application as a strategy, it was tabled that dialogue with Namibia’s neighbouring countries should be conducted to ensure synergy and alignment in terms of operational collaboration in the event of cross boarder migration.

Protocols for testing dispersant were highlighted and there was come consideration into following the same regime as the USA, UK and France as they were the largest manufacturers of dispersant, and the processes are very much tried and tested and recognised internationally.

A map with clear lines of where dispersant can be applied was suggested to give the operators some clear boundaries to follow. This would not negate the need for permission to spray being sort and given on the day. Likewise, a published list of approved dispersants would also be beneficial to ensure stockpile contingencies are in place both in country and internationally.

Exercise Oryx

Richard Sims – Managing Director RS International Solutions

The exercise was designed to be delivered in more of a workshop style, based on an offshore scenario, with the following outputs:

- A set of objectives based on P.E.A.R.

- An analysis of how government and industry would interface during a major event.

The key objectives of the exercise were as follows:

- To conduct a verification and alignment review of the Namibian NMPCP with the industry plans
- Capture future actions and improvements as part of the gap analysis process.
- Determine what responsibilities would be unified and standalone.

The response milestones were highlighted, and these formed the focus of the analysis with the aim for the groups to tease out the following elements:

- Some of the issues that might be faced during a response
- Synergy and gap in industry and government plans based on a set of audit questions
- Identify what could be managed in a unified approach versus standalone for Government and industry to manage separately.

The delegates were divided into 3 groups with each group having representatives from Government, Industry and Operations. Hard copies of the Government and industry plans were provided to each of the group for analysis, along with access to some additional industry plans online (TotalEnergies).

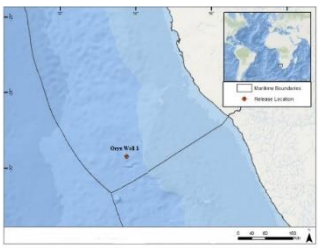
Each group were provided with two specific sections of the response milestones to analyse as indicated below:

a) Notification
b) Assessment
c) Mobilization
d) Tactics
e) Engagement
f) Closeout

On completion of the analysis based on a set of questions and free thinking, each group provided feedback on their review of the plans.

The scenario was as follows:

- At 0600 this morning Oryx Well-1 suffered a loss of well control incident
- All crew are accounted for, a large oil slick was observed at the surface at the vicinity of the rig.
- The release is uncontrolled with an estimated 27,000 bbls already released.
- The estimated WCD is 57,000 bbls/day.



The groups evaluated the offshore scenario provided and each developed a set of objectives based on the P.E.A.R. model. Discussions were held looking at a more unified approach with the output as follows:

People	• Safety of crew and responders. • Warning and informing.
Environment	• Protect the environment. • Protect sensitive receptors. • Determine the response strategy to limit further impact to the environment.
Assets	• Protect the asset from further damage. • Secure the rig and assess condition of BOP.
Reputation	• Protect licence to operate. • Ensure clear, factual, and consistent communications.

a) Notification Procedures (Group1)

Analysis

The following table of questions were provided to Group 1 to analyse against the plans to determine any gaps, clarifications, unified and standalone.

REF	Description
Notification Procedures	
NP 1	Is there an effective alert / notification system detailed?
NP 2	Is this system operational 24/7, 365 days of the year?
NP 3	Are primary and alternative on-call roles and contacts detailed?
NP 4	Does a 'fail-safe' notification system exist?
NP 5	Are any primary contact details current and contactable by all?
NP 6	Does a follow up procedure such as a written notification form exist?
NP 7	Is the notification system clear (i.e.. has it been simplified using any visual tools or aids)?

Observations

The following observations were shared with the other groups.

The Government plan indicated a 24h alert system, but the numbers were difficult to locate in the plan and there was no evidence of the MWT POC number. The alert system in the industry plans was evident both internal and external notification and the numbers were easy to locate.

The numbers in the plans were tested and there was no answer from the Government contact, but the industry numbers when called were answered immediately by the casualty coordinators. The Government plan requires an additional alternative on call contact number as a back-up. The industry plans identified a cascade call system. Should the phone system fail none of the plans had identified a different means for communi-

cation, such as satellite phones as a communications contingency. The Government notification forms require updating.

The Government notification system was not easy to follow and requires a more concise graphic or flowchart to aid understanding. The industry plans though satisfactory require some updating to reflect reality.

It was felt that the plans did not reflect through the Tiered concept any indication toward a Unified Command approach, but very much a singular organization structure.

b) Assessment (Group 2)

Analysis

The following table of questions were provided to Group 2 to analyse against the plans to determine any gaps, clarifications, unified and standalone.

REF	Description
Assessment Group 2	
AS 1	Have local environmental sensitivities been assessed and mapped in detail in accordance with industry best practice?
AS 2	What systems are available for conducting assessments?
AS 3	Is the Oil Spill Response Plan based on a range of scenarios, volumes, and seasons up to and including a worst-case volume discharge?
AS 4	Is there the ability to conduct trajectory modelling on a 24/7 basis?
AS 5	Are there formalised processes in place to capture data on the initial incident situation?
AS 6	Has worst case discharge been identified?
AS 7	Are there personnel trained to conduct aerial surveillance operations?

Observations

The following observations were shared with the other groups.

The Government plan did not contain the sensitivity data, but it was separate to the document and dated 2010. Not all the industry plans held the sensitivity data and there was a need to clarify a link to a master document with one of the plans. If new data is found in any subsequent sensitivity review, then this could be shared.

There was no evidence in the Government plan on how they would carry out an incident assessment, ie quantification. Within the industry plans there was evidence of the BONN Appearance Code to aid a visual analysis and quantification of oil on water. In a Unified Command approach this data could be shared with the Government to save duplicating effort for the same objective.

There was evidence of the plans except one industry plan being based on a variety of scenarios. There were discussions in a previous session that the plans should be based on worst case discharge not worst-case scenario as these are very different. Most of the plans are based on worst case discharge. The Government scenarios were not contained in a table, making it difficult to interpret.

All the plans contained some kind of trajectory analysis using a stochastic approach except one of the industry plans. On the day of an incident there would be need to run a deterministic model. The industry has access to a modelling service through an agreement with OSRL. The Government also can run a trajectory model through a localised approach.

Aerial surveillance from an industry viewpoint can be conducted using a variety of platforms with trained personnel. This can be achieved through ongoing regional agreements using the WASP out of country assets and trained operators. The Government do not have this capability and would be reliant on industry to facilitate this tactic.

c) Resource Mobilisation In-Country (Group 3)

Analysis

The following table of questions were provided to Group 3 to analyse against the plans to determine any gaps, clarifications, unified and standalone.

REF	Description
Resource Mobilisation In Country Group 3	
RMI 1	Is there an internal Tier 1 response team identified?
RMI 2	Is there an effective process to alert the response team?
RMI 3	Is there an effective process to mobilise the response team?
RMI 4	Is a duty roster identified within the plan or published on a routine basis?
RMI 5	Is the response team structure clearly defined?
RMI 6	Are the roles of the response team clearly defined?
RMI 7	Are the actions of the response team detailed through checklists, action cards, flowcharts or similar?

Observations

The following observations were shared with the other groups.

All the plans provided information on the Tiered approach and most identified specific roles and teams which would facilitate the initial response on or at a facility. The alert system for mobilising the Tier 1 team was evident except in the Government plan. In the Government plan there was no evidence of a duty roster and how this would be managed on a weekly basis. The plan seemed to be reliant on the availability of individuals with no room for redundancy in the system. The response structure within all the plans was clear, but the Government plan lacked any documented evidence of a distribution of roles and responsibilities. This was also the case regarding specific actions for the response teams with the lack of any checklists, action cards or flowcharts.

d) Tactics Analysis (Group 1)

Analysis

The following table of questions were provided to Group 1 to analyse against the plans to determine any gaps, clarifications, unified and standalone.

REF	Description
Tactics Group 1	
TA 2	Are vessels identified and accessible (number / mobilisation times)?
TA 3	Are vessel crews trained in response operations?
TA 4	Are methods of dispersant application (aerial or vessel) listed as viable response measures within the Plan?
TA 5	Does the plan identify a waste disposal route?
TA 6	Does the plan identify arrangements for supporting oiled wildlife response?
TA 7	Is there any offshore containment available?

Observations

The following observations were shared with the other groups.

Both Government and Industry can access surveillance aircraft. The Government can activate GATS immediately whereas there would be a time lag from callout to arrival in country for the WASP aircraft, dependent on permits and flight time.

Access to suitable offshore vessels for the Government is more of a challenge than for industry. Support from NAMPORT would be required in terms of access to vessels or there may be a reliance on the contracted industry vessels.

Within the Government there is a level of knowledge in terms of the tactical application of response strategies. There may be more of a reliance on industry to provide Subject Matter Experts for the more specialised areas. These resources would come from both the operators internally and through existing agreements with oil spill response and wildlife organisations such as SANCOOB and have been referenced in the plans. The Government have a working group looking at the country's wildlife strategy known as NAMCOOB which is in draft.

Waste management processes and organisations have been identified, but the Government policy around waste has not been ratified and is currently in draft.

The group identified that local fishing vessels and crews could be utilised for spray operations should the need arise and dependent on the proximity to the incident.

e) Resource Mobilisation External / International (Group 2)

Analysis

The following table of questions were provided to Group 2 to analyse against the plans to determine any gaps, clarifications, unified and standalone.

REF	Description
Resource Mobilisation External / International Group 2	
RMEI 1	Are external Tier 2/3 resources identified within the Plan?
RMEI 2	Are notification procedures and requirements for these resources clearly defined?
RMEI 3	Is specific response equipment / resources identified within the plan?
RMEI 4	Is there a process to expedite visa applications?
RMEI 5	Have locations been identified to store stockpiles of equipment eg dispersant?
RMEI 6	Have plans been shared with external contractors and have they participated in exercises?
RMEI 7	Is there a process to manage custom bonding?

Observations

The following observations were shared with the other groups.

The industry plans have identified the Tier 3 resources that they would call upon to support a major response. In the event of a major Tier 3 incident, the Government, as mandated in the National Plan, would be reliant on industry to facilitate the mobilisation of resources through their existing Tier 3 agreements. Response resources have been identified in the industry plans but are absent from the Government plan as they have no agreement with a Tier 3 organisation.

Only one of the plans refers to the process to expedite visas in an emergency. There would be a need to work with immigration to get personnel in country without the need for an official stamped invitation.

Locations for the storage of Tier 3 resources have been identified within in the port limits. If large stockpiles of dispersant are mobilised there would need to be some consideration into how to store the dispersant in line with the manufacturer's recommendations.

Contractors are aware of the plans and the part that they might play in a major response. Where applicable contractors have been involved in exercises to test their specific role or carryout a specific activity.

Only one of the plans refers to the custom bonding process for importing equipment on a temporary basis which can be a major issue and hinderance if not addressed.

f) Engagement Analysis (Group 2)

Analysis

The following table of questions were provided to Group 2 to analyse against the plans to determine any gaps, clarifications, unified and standalone.

REF	Description
Engagement Group 2	
SE 1	Does the plan identify communication and information handling procedures?
SE 2	Are there any mutual aid agreements in place?
SE 3	Is there reference within the plan to awareness of any other non-contracted response resources?
SE 4	Is there a media engagement plan?
SE 5	Is there a process in place to deal with claims?
SE 6	Is there an incident handover process in place?
SE 7	Are there triggers and a process to escalate to crisis?

Observations

The following observations were shared with the other groups.

Only one of the plans identified a media communications strategy, though all the structures have a public information officer. Stakeholder engagement (eg: community) would also fall into this area along with media statement templates.

Within all the plans, except for one industry plan, there's reference to the mutual aid agreement and how it would work, and this would cement the concept of Unified Command through the sharing of resources. There is minimal reference to non-contracted resources, but there is a general awareness locally of what is available on an adhoc basis.

The Government has no formal process on how to manage claims. Industry have referred to the claims element as the stakeholder would be looking for the polluter to pay rather than the Government.

There is a lack of a defined process in two of the plans on how to handover a response between two IC's or between the local jurisdictions. There needs to be a documented process that can be referenced post incident should there be any litigation and the need to provide evidence.

g) Closeout Analysis (Group 3)

Analysis

The following table of questions were provided to Group 3 to analyse against the plans to determine any gaps, clarifications, unified and standalone.

REF	Description

Closeout Group 3	
CO 1	How are ongoing claims managed?
CO 2	Who makes the ultimate decision to terminate the response?
CO 3	Is there guidelines to determine when to cease operations?
CO 4	Is there a facility for dealing with decontamination of vessels and equipment?
CO 5	How is ongoing waste managed after the incident is closed out?
CO 6	Who facilitates any post spill monitoring?
CO 7	Post incident and if any of any changes are made to the NMPCP how is this communicated to industry?

Observations

The following observations were shared with the other groups.

All the plans have identified the claims process to a certain degree, but one of the industry plans has limited detail.

In a Unified approach there would be a joint decision on the termination of a response based on joint objectives. In other command models there maybe a drive to close the response down by the responsible party, but dialogue would need to occur with the local governing bodies to gain that final approval. All the plans have a set of guidelines that could be referenced to aid the termination decision making process.

No reference has been made for the provision of decontamination of vessels and equipment. This would be the responsibility of Operations and Planning to resolve during the early stages of a response. Water run off would need to be considered and included in the overall waste management plan.

No reference has been made to the post spill monitoring and the need to understand the recovery of the area. This is more applicable to a shoreline impact, but an analysis of dispersant effectiveness and water sampling maybe required especially for certain claims (eg: fisherman).

6 Recommendations

The following feedback is based on the opinions and observations of the Government delegates and industry representatives and Subject Matter Experts and apply to individual plans.

6.1 Outcomes from the exercise

These recommendations are structured according to the unfolding of an event and of the response. Steps include notification, assessment, resource mobilisation in-country, tactics, external / international resource mobilisation, engagement and closeout.

Observation	Recommendation
1 - Notification	
Emergency contact number not evident	Make key numbers more prominent near to the front of the plan. Possibly develop wallet size cards with key number on them.
Calls went unanswered	Devise a cascade system that covers the risk of a call going unanswered.
Failure of communication system used for notification	Identify an alternative means for notification as a backup communication system.
The notification system was not easily followed	Provide a simple flow chart for the notification process
There was no reflection toward a Unified Command approach	Provide guidance as to a structure that indicates a more collaborative structure with the inclusion of both industry and Government entities
2 - Assessment	
Sensitivity mapping was absent or not integrated in the plans	Provide the sensitivity mapping information as part of the data section for each plan
How to assess an offshore spill was not evident in all the plans.	Provide a section on the BONN Agreement to assist in the visualisation and identification of hydrocarbons at sea
Spill scenarios were absent from one of the plans	Provide information on the various scenarios based on worse case discharge
Trajectory modelling was not evident in all the plans	Provide information on the track of a spill based on the worst-case discharge
There is a lack of industry knowledge to conduct an aerial surveillance oil quantification mission	Provide training to in country personnel
3 - Resource Mobilisation In Country Observations	
The alert process for T1 resources was no evident in all the plans	Provide a flowchart defining the process for the notification of T1 resources
There was no evidence of a duty roster for on call personnel	Develop a on call system that provides layers of capacity and facilities back up contingencies

Observation	Recommendation
Roles and responsibilities were absent within one of the plans	Based on the IMS develop a checklist reflection roles and responsibilities for each position in the functional areas
Specific checklist and action cards for the response teams were absent in one of the plans	Develop checklists and action cards to assist the teams in developing a response
4 - Tactics	
Possible delays for aerial assets to facilitate a surveillance mission from the industry side	Look to access the government assets as an interim measure and make provision for observer training locally
There may be a delay in the WASP aircraft due to flight permits	Develop a regional process or agreement that enables a fast expediting of permits
Access to suitable offshore vessels locally maybe a challenge	Draft a list of vessels of opportunity or vessel owners locally and regionally that could be accessed during a response, for all types of spills weather they originate from Oil and Gas industry or not.
Limited in country knowledge on the tactical elements of oil spill response	Deliver recognised OPRC IMO oil spill training for the region
5 - Resource Mobilisation External / International	
A list of response resources has not been included in all the plans	Within the data section provide a list of resources that could be utilised on a response
There is limited information on the expediting of visas	Provide a flowchart that defines the visa process with inclusion of contact details and for out of hours
Area for the storing of response equipment have been identified	Define where and how dispersant will be stored to prevent the to meet the requirement as defined by the manufacturers
There is reference made to the custom bonding process for equipment being imported into Namibia	Develop guidance on the process and identify the documentation required and specific POC within the Government structure that facilities this procedure

Observation	Recommendation
The organisations recognise the need to test the plans	Develop a cascading approach where there is a regime of Tiered exercises during a defined period
6 - Engagement	
Only one plan identified a communication strategy	Develop a communication plan that identifies the various stakeholders that would need to be
There is minimal reference to the mutual aid agreement	Define what the mutual aid agreement is and what it enables industry to provide
There is limited information on non-contracted resources, but an awareness locally	Develop a list of potential resources that might need to be called upon during a response and place in the data section of the plans
Limited evidence of the claims handling process	Develop a claims handling strategy with hotline numbers and forms to assist the focal points in communicating with the claimants
In a two of the plans there was no formal incident handover process	For a protracted incident develop a formalised process for handing over between IC's.
7 - Closeout	
Limited information on how ongoing claims would be managed	As part of the ongoing process post closeout there needs to be detail on how claims will be managed
No provision has been identified to determine the decontamination process of resources	As part of the waste management strategy develop a decontamination procedure for vessels and equipment
The procedure for post spill monitoring has not been identified	Develop a plan for water sampling and dispersant effectiveness for offshore operations

6.2 Opportunities for Unified Command

Having analysed the data and the feedback from the delegates, there are several areas which could be addressed by adopting a more Unified Command approach, as identified below:

- The development of a concise additional section to the NOSCP / standalone 'bridging document' could provide the detail on how the Government and industry operators would form a UC. This document would assist in developing a more cohesive Incident Management structure and with the mechanics of how it would be implemented.

- Due to a lack of in country resources and knowledge from both Government and an industry viewpoint when assessing an incident, aircraft and expertise could be joined up to determine the facts around the spill such as quantification, trajectory, and appearance. This could be cemented by providing training and knowledge transfer sessions in county to enhance local capability around aerial surveillance missions.

- The logistics behind gaining permission for transborder movement of resources by air and land can prove problematic. Having the correct documentation and representatives in place is fundamental for a rapid response mobilisation. Government and industry working more collaboratively through unification can expedite the process more smoothly.

- When engaging with the external stakeholders it is important the information and messaging provided is aligned with information coming from those that are responsible for managing the incident. Having a Unified approach enables that communication to be consistent, concise, and aligned, giving confidence to those that maybe affected.

- As part of the preparedness element and to provide an opportunity for closer collaboration when developing exercises, there would be value in the Government and industry to factor in a Unified approach within the incident management structure. Prior to this it would be advantageous for an IMS 300 course to be conducted to provide knowledge on how the steps and process behind the development of an IAP.

7 Conclusions

The workshop provided a platform for some in depth analysis of both the response readiness of all parties and how the Government and industry can manage a significant incident under a Unified Command model. There is a need for more dialogue between all parties to truly cement the understanding of Unified Command and how this would work in practice.

There is a requirement to close the gaps found in some of the plans and for pending approvals to be finalised and communicated to those that they may affect during a response.

Finally, and as suggested in this report, Government and industry should look to developing a major exercise to evaluate all aspects of the response chain to provide confirmation that all parties are prepared for an incident, should it occur.

Feedback from this workshop, both from industry and from government, was overall positive. Industry stakeholders appreciated the particularly open and active discussion with national stakeholders, and look forward to a joint exercise to apply the learnings from the workshop

to a concrete situation. Industry recommended a close follow-up of the dispersant policy and suggested an IMS 300 training for national stakeholders to be on the same page as industry. Feedback from national authorities included the importance of the present report and recommendations, for their consideration, as a review of the NOSCP is about to be launched. They have also underlined the importance of cooperation with industry, especially regarding the sharing of resources for an efficient response. National authorities expressed their desire to organize a Unified Command exercise schedule with industry, planning for joint exercises annually or biannually.

8 Annexes

8.1 Annex 1 - Workshop Programme

Day 1 – Wednesday 11 October **Introduction to Joint Oil Spill Response / IMS (refresher)**	
13:30 GMT+2	**Connection and registration of participants**
Workshop introduction	
14:00	**Workshop introduction** • **Presentation of the GI WACAF Project** *Rim Al Amir, GI WACAF Project Coordinator* • **Introduction of workshop objectives** *Introduction of the facilitators / participants and objectives of the workshop and programme*
Session 1: IMS refresher *(Richard Sims, RS International Spill Solutions)*	
14:15	• Incident Command System characteristics: 100/200 Fundamentals refresher Quizz
14:45	***Group photograph and coffee break***
15:00	• Introduction to the Incident Command System Functional Areas • Roles and responsibilities • Incident Assessment • Planning Phase
17:00	**Day 1 close out** • *Summarize key points* • *Programme for day 2*
17:30	**End of day 1**

Day 2 – Thursday 12 October **Discussion around Unified Command / Roles and Responsibilities**	
08:45	**Connection and registration of participants**
09:00	**Opening remarks and welcome speech** *Jonas Sheelongo – Deputy Executive Director Transportation, Ministry of Works and Transport*
Session 2: Roles and responsibilities of the different actors	
09:15	**National framework** ***(Shapua Kalomo, Directorate of Maritime Affairs)*** • *National legal framework* • *NOSCP and response organisation* • *Update about the dispersant use policy* • *Any experience of oi spill*
10:00	***Break***
10:30	**Shell presentation** ***(Peter Mijsbergh, Shell)*** • *Campaign Overview* • *The role of Shells Oil Spill Expertise Centre (OSEC)*
11:15	**TotalEnergies presentation,** ***(Saviour Ufot, TE)*** • *Overview of activities in Namibia*
12:00	***Lunch break***
Session 3: Discussion around IMS	
13:00	**Response Strategy Overview –** ***(Shell and TotalEnergies with Richards Sims support for facilitation)*** • *General overview highlighted from a unified command point of view*
13:30	**OSEC Overview -** ***(Justina Lee, Shell)***
13:45	**IMS – Unified Command, Roles, and Responsibilities** ***(Richard Sims, RS International Spill Solutions)*** • *Fundamentals* • *Case study (group activity to highlight challenges)* • *Expectations of Industry and Government during an incident*
15:15	Break
15:30	**Customs and Immigration –** ***(Shapua Kalomo, Directorate of Maritime Affairs)*** • *What is in place at national level*
17:00	**Day 2 close out** • *Summarize key points* • *Programme for day 3*
17:30	**End of day 2**

Day 3 – Friday 13 October Tabletop Exercise	
08:45	**Connection and registration of participants**
09:00	**Focus on dispersant use policy: review and discussion** ***(Justina Lee, Shell, and Shapua Kalomo)*** *Brief reminders & Q&A session / for dispersant queries / Barriers to implementation*
Session 4: Tabletop Exercise	
10:00	**Workshop Play** • *Scenario introduction* • *Response Process Milestones* • *Response Realties and Consideration*
10:30	**Potential Challenges (P.E.A.R)** *Based on the scenario the group sets some objectives based on P.E.A.R. They look at the Response Process Milestones and work through and develop a high-level Incident Action Plan identifying any potential issues or areas for clarification, required assistance based on experience, legislation, logistics etc.*
12:00	**Lunch break**
13:00	**Plan Analysis** *Using an audit tool, the group reviewed high level Government the plans for applicability and content focusing on the aspects of the response process as follows and capture any areas for improvement or further analysis.* • *Notification* • *Mobilisation* • *Tactics* *Decide aspects that are or should be unified and owned by industry or government standalone*
	Gap Closure Plan *Review the findings high level and discuss resolution to closeout*
15:15	***Coffee Break***
15:30	*Workshop wash-up and debrief*
16:15	*Closing ceremony*
16:30	***End of day 3***

8.2 Annex 2: Attendees

N°	NAMES	ORGANISATION	E-mail
National delegates			
1	Mr. S Kalomo	DMA/Walvis Bay	Shapua.Kalomo@mwt.gov.na
2	Ms. P Kapembe	DMA Luderitz	Petrina.Kapembe@mwt.gov.na
3	Ms. A Efraim	DMA Walvis Bay	Anna.Efraim@mwt.gov.na
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5	Mr S Kolele	MOD/Swakopmund	anglegayle@gmail.com
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16	Mr A Uwu-Khaeb	METF/Swakopmund	uarnoldspudla@yahoo.com
17	Ms K Nakathingo	Lud Town council	knakathingo@gmail.com
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20	Mr. V Libuku	MFMR/Swakopmund	Victor.Libuku@mfmr.gov.na
21	Mr. D Denis	Luderitz Town Council	maroxdennis7788@gmail.com
22	Mr. J. Sheelongo	MWT - DoT	Jonas.sheelongo@mwt.gov.na
23	Mr. T. Shipopyeri	MWT-DMA	
24	Mr. C. Fikanawa	MWA-DMA	
Industry members			
25	Mr. P Mijsbergh	Shell Namibia	p.mijsbergh@shell.com
26	Mr. B. Bhatia	Shell	Bharat-bhatia@shell.com
27	Ms. J. Lee	Shell	Justina.lee@shell.com
28	Mr. P Harrigan	GALP Namibia	p.harrigan@galp.com
29	Mr. S. Ufot	TotalEnergies Namibia	Saviour.ufot@totalenergies.com
30	Mr. Y. Autret	TotalEnergies	Yannick.autret@totalenergies.com
31	Ms. C. Gelber	TotalEnergies	Clementine.gelber@totalenergies.com
32	Mr. F. Magongo	TotalEnergies	Festus.ndaludamagongo@external.com
Facilitators			
	Mr. R. Sims	RS International Solutions	richard@rsinternationalsolutions.com
	Ms. R. Al Amir	GI WACAF	Rim.alamir@ipieca.org

8.3 Annex 3: Opening speech - Jonas Sheelongo – Deputy Executive Director Transportation

I am deeply honoured to be here and to officially open this very important National Workshop on Roles and Responsibilities Between Government and Industry in Case of an Oil Spill.

Ladies and gentlemen,

Namibia recognizes the threats ecosystems are faced with in case of an oil spill. It is also recognized that oil and gas exploration and transportation at sea can cause harm to marine environments, hence measures to minimize these threats should be undertaken in an environmentally safe manner.

I am informed that the objectives of this workshop, organized with the support of the GI-WACAF Project would aim to, amongst others;

- Reinforcing national stakeholders' knowledge of Incident Management System;
- Increase the knowledge of the participants about the oil Spill Preparedness, Response as it relates to the National Marine Pollution Contingency Plan;
- Facilitating discussions between the Offshore Oil and Gas Industries and Namibian government stakeholders with regards to Marine Pollution Preparedness and Response through presentations, activities, and case studies
- Jointly working on a table-top exercise involving all participants
- And generating recommendations and suggestions for improving the Namibian Marine Pollution Preparedness and Response System, as well as that of the Offshore Oil and Gas Industry.

Ladies and Gentlemen.

The configuration of the Namibian Maritime Industry has evolved immensely in recent years and the significant improvements in Namibian port infrastructure, namely the newly completed container terminal and liquid bulk terminal, are expected to have an increasingly significant role in supporting the future growth of the Namibian economy.

However, this also implies that increased vessel traffic is to be expected in the Namibian waters, in the years to come. This growth in vessel traffic, in combination with recent **offshore oil discoveries** and the **Green Hydrogen Project**, means that the pollution risk profile of Namibian waters is expected to shift immensely.

This increased pollution risk profile has thus necessitated the exchange of best practices, methodologies, strategies and tactics between the Namibian Government and the Offshore Oil and Gas industry present here today.

Distinguished Participants of this Workshop, Ladies and Gentlemen.

The National Marine Pollution Contingency Plan provides for the use of the Incident Management System along the dichotomy of its structures, such as the Operations Team Committee present here today and forms the basis of the National Marine Pollution

Preparedness and Response System, along with the Pollution Management Committee (**Which I am the Chairman of**), as well as the National Memorandum of Understanding on the Marine Pollution.

However, as with any other system, periodic reviews are crucial towards enhancement and maintenance of the system.

In this regard, I wish to highlight the following key areas for discussion and consideration during this workshop:

- How can the Namibian Government and the Offshore Oil and Gas industry work together to improve the effectiveness of the National Marine Pollution Preparedness and Response System and that of the Oil and Gas Industry?
- What specific measures can be taken to reduce the risk of oil spills in Namibian waters by the Offshore Oil and Gas Industry?
- How can the Namibian Government and the Offshore Oil and Gas industry ensure that adequate resources are available to respond to oil spills in a timely and effective manner?
- How can the Namibian Government and the Offshore Oil and Gas industry work together to improve coordination in the event of an oil spill?

I am confident that the deliberations of this workshop will generate valuable insights and recommendations that will help to improve the Namibian Marine Pollution Preparedness and Response System as well as those of the Offshore Oil and Gas Industry. In doing so, we will be better positioned to protect our marine environment and safeguard the interests of all Namibians.

I thank you for your attention.

8.4 Annex 4: Useful links

1. IPIECA/IOGP Joint Industry Project technical documentation. All Good Practice Guides can be found on the following page: **http://www.oilspillresponseproject.org/**

2. ITOPF's Technical Information Papers (TIPs). All TIPs can be found on the following page: **http://www.itopf.com/knowledge-resources/documents-guides/technical-information-papers/**

3. IOPC Funds documentation. All IOPC Funds documentation can be found online on the following link: **http://www.iopcfunds.org/publications/iopc-funds-publications/**

4. IMO Published Documentation. All IMO documentation can be purchased from the following link: **http://www.imo.org/en/Publications/Distributors/Pages/default.aspx**

8.5 Annex 5: Pictures