



**Delivery of the Regional Workshop on
Managing Emergency Preparedness and Response in the Oil and Gas Sector
17-20 October 2017, Zanzibar, Tanzania**

Training Summary and Documentation

Background

In the past 10 years, there has been explosive growth of oil exploration activities in the Western Indian Ocean region. Reserves have been found along the eastern coast of Africa, and current efforts to harness hydrocarbon resources are ongoing. During the development and production phases, oil spills and other oil/gas-related emergencies are possible, thus requiring robust emergency preparedness and response capabilities. In addition to the oil industry related activities taking place in the countries, a significant amount of oil and gas shipping traverse the Western Indian Ocean. As oil spills can cross boundaries, it is also important that countries in the region are able to coordinate with one another in advance to respond to oil and gas industry related emergencies.

A Regional Workshop on Emergency Preparedness and Response in the Oil and Gas Sector was carried out from 17-20 October, 2017, in Zanzibar, Tanzania, which was co-organized by the Norwegian Coastal Administration under Norway's Oil for Development Programme, the Nairobi Convention Secretariat and UN Environment. Participants included Government representatives from countries that are signatory to the Nairobi Convention and from Uganda. 10 countries were represented in total.

Other collaborating partners which delivered technical presentations during the training included: Indian Ocean Commission, East Africa Community, UNEP-World Conservation Monitoring Centre, International Maritime Organisation, International Tanker Owner Pollution Federation (ITOPF), and the State University of Zanzibar.

This note summarizes the main highlights and conclusions of the workshop.

About the Nairobi Convention

The Nairobi Convention is a partnership between Governments, civil society and the private sector, working towards a prosperous people, with healthy rivers, coasts and oceans. It provides a mechanism for regional cooperation, coordination and collaborative actions. Contracting Parties to the Convention include Comoros, France, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia, Tanzania and the Republic of South Africa. The Convention enables Contracting Parties to harness resources and expertise from a wide range of stakeholders and interest groups and hence collectively address inter-linked problems in the region's coastal and marine environment.

The Nairobi Convention is in the process of developing its capacity building programme for the oil and gas sector in the Western Indian Ocean region, and emergency preparedness and response was identified as a priority issue. In Decision CP8/7 of the Eighth Conference of Parties to the Nairobi Convention on Environmental Management of Oil and Gas development, the Nairobi Convention was requested to (i) prepare regional guidelines on environmental management for oil and gas development based on best practices, for consideration by the Contracting Parties (ii) seek support of other countries and partners, involved in oil and gas development to conduct and implement a

regionally-coordinated strategic assessment of social and environmental sustainability of oil and gas in the Western Indian Ocean region.

A number of Governments in the Western Indian Ocean region have undertaken efforts to address risks associated with the oil and gas sector and developed National Oil Spill Contingency Plans, supported by regional initiatives, such as the ‘*Western Indian Ocean Marine Highway Development and Coastal and Marine Contamination Prevention Project*’ which ran for 5 years from 2008.

About the UN Environment-Oil for Development Partnership

UN Environment is collaborating with the Government of Norway’s Oil for Development Programme on strengthening environmental management capacities in the oil and gas sector in 13 OfD-supported countries in Africa, Asia and Latin America. OfD-supported countries in the region include Uganda, Kenya, Tanzania/Zanzibar, Mozambique and Somalia.

UN Environment is working with national and local government authorities as well as universities and civil society to strengthen environmental management in the oil and gas sector of OfD-supported countries. This collaboration with OfD includes development and delivery of a number of training programmes which could be delivered in countries and/or at regional level. One specific area for capacity building focuses on emergency preparedness and response in the oil and gas sector. It is within this Partnership that UN Environment co-organize this Regional Workshop with the Norwegian Coastal Administration and the Nairobi Convention Secretariat.

Regional Workshop Highlights

The Workshop aimed to build on ongoing efforts to strengthen national capacities for contingency planning in response to oil spills and acute pollution, but also aimed to facilitate discussions on enhancing regional cooperation between countries on emergency preparedness and response.

Box 1. Learning objectives of the Regional Workshop

1. Obtain an overview of emergency preparedness and response in the oil and gas sector
2. Identify basic features of national contingency planning for oil spills
3. Identify basic elements of emergency preparedness and response and the 3-tiered response system
4. Improve understanding of risk assessments related to oil and gas development and potential impacts on environment
5. Gain better awareness of the regional agreements, systems and resources for emergency preparedness and response
6. Identify and prioritize issues and capacity needs for strengthening emergency preparedness and response in the oil and gas sector at national and regional levels

The workshop was delivered over 4 days, including a field visit. We had a total of 27 participants (5 female/22 male), from 10 countries: Kenya, Tanzania/Zanzibar, Uganda, Somalia, Mozambique, Comoros, Seychelles, Madagascar, South Africa, Mozambique. (OfD member countries are: Kenya, Tanzania/Zanzibar, Uganda, Somalia, Mozambique). Participants were primarily National Government representatives, which included Nairobi Convention focal points in countries as well as Ministries of Environment, Disaster Management, Maritime Authority and Energy/Petroleum.

The field visit brought participants to 3 installations: United Petroleum Oil Depot Facilities; new Mangapwani Slipway and Dry Dock Facility for maritime vessels; construction site of a new crude oil refinery plant. Participants learned about the emergency preparedness and response systems in place in the three facilities and had the opportunity to interact with local operators.

We were cognizant that many of the countries under the Nairobi Convention and/or supported by the OfD Programme, had already received prior training on oil spill contingency planning. Moreover, we also recognized that there are ongoing efforts to develop regional level capacities and cooperation on oil spill emergency preparedness and response, e.g. under the auspices of the Nairobi Convention, Indian Ocean Commission and the East Africa Community. Nonetheless, at least 50% of the participants in the room indicated that they had no prior training experience on the topic; therefore, the workshop was designed accordingly to adapt to participants' learning objectives.

Throughout the week, participants identified their key capacity gaps and challenges, as well as the proposed solutions/immediate next steps at national and regional levels. **Annex 1** provides a more detailed documentation of the Workshop discussions.

Main Conclusions

The main conclusions from the Regional Workshop were presented to the Minister of Housing, Communications and Transportation Hon. Ambassador Ali A. Karume at the Closing Ceremony on 20 October:

1. Countries in the region have initiated or finalized development of their National Contingency Plans for Oil Spills and Acute Pollution (e.g. may include chemical spills).
2. There are ongoing Regional Programmes to support emergency preparedness and response in countries and at the regional level, for instance through the Nairobi Convention, Indian Ocean Commission and East Africa Community.
3. Key challenges to advancing contingency plans in countries include:
 - Need for strong political support to give priority to disaster risk management/emergency preparedness and response
 - Regulatory frameworks need to be put in place
 - Institutional coordination lacking
 - Limited technical expertise – lack of sustainable trainings to counter the high turn-over of government staff being trained on oil spill contingency planning
 - Information gaps (in conducting risk assessments, environmental sensitivity mapping etc.)
 - Waste management of oil spills – regulations to be in place, structures/facilities, capacities to manage
 - Resources to operationalize Plans – conducting exercises, testing response strategies, lack equipment
 - Lack of regional framework for cooperation - for information sharing, reporting of incidents, movement of equipment etc.
4. Way forward:

- Awareness-raising / sensitizing workshops for high level policymakers to enhance political support
- Ensure national regulatory frameworks are in place – e.g. incorporate oil spills and environmental emergencies in environmental protection acts/regulations; waste management regulations; need to enact OPRC Convention at national level;
- Strengthen national coordination on emergency preparedness and response - assign clear responsibilities; pool resources, sharing/pooling of available data
- Provide sustainable models for building national capacities for emergency preparedness and response to oil spills/acute pollution e.g. Training of Trainers, online trainings, working with academia/national universities and oil/gas companies
- Operationalize/test the National Oil Spill Contingency Plans – conducting exercises; use private-public partnerships to pool resources/equipment;
- Strengthening Regional Cooperation:
 - o Need to strengthen and solidify national oil spill contingency plans first, and incorporate regional cooperation in national oil spill contingency plans
 - o Harmonize the national oil spill contingency plans with existing regional contingency plans; national plan to provide the basis for regional cooperation (not vice-versa)
 - o Review existing regional coordination centers and learn from their lessons and identify how to leverage on their work
 - o Establish framework for regional cooperation on oil spill emergency preparedness/response e.g consolidating available data; trainings; protocols for communication, reporting and requesting for assistance; responding to Tier 2 and Tier 3 emergencies
 - o Reactivate the regional coordination center in South Africa – need for dialogue
 - o Operationalize the Protocol for Marine Pollution of Nairobi Convention
 - o IOC Disaster Risk Reduction Platform – leverage this platform and incorporate oil and gas issues.

Results of the Training Evaluations

UN Environment provided the opportunity for participants to evaluate the training based on their expectations and learning needs. 23 participants in total completed the evaluation.

The majority of participants gave scores of 4/5 or 5/5 with regards to meeting the learning objectives of the Workshop. Participants were also asked to rate the extent to which individual Modules (1-11) met their individual learning needs (score range of 1= not met to 5=fully met). Most participants scored each Module 4/5 or 5/5.

When asked to rate their overall satisfaction with the training course, 25% rated the training as excellent, 45% of participants rated the training as highly satisfactory, and 30% rated the training satisfactory. Participants appreciated the participatory/interactive training approach. Participants wished to have a more extended training to have more time in classroom and in the field.

Future considerations for improvement suggested by participants include:

- giving more time for the field work to have more time for discussion with oil operators and organizing some hands-on field exercises if possible



- greater elaboration on emergency preparedness and response to oil spills and other types of pollution related to oil and gas operations, especially offshore installations
- follow up on implementation of recommendations from workshop and regional/national intervention.
- more discussion on regional and national policy/legal frameworks/conventions.

For further details of evaluation results, see **Annex 2**.

Annex 2. Detailed Results of Participants' Training Evaluations

The majority of participants gave scores of 4/5 or 5/5 for meeting the set of learning objectives outlined by the training.

Table 1. Participant Rating of Learning Objectives Met (score range of 1= not met to 5=fully met)

	1=NOT MET	2	3	4	5=FULLY MET	TOTAL	WEIGHTED AVERAGE
Rating	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0.00% 0	0	0.00
Obtain an overview of emergency preparedness and response in the oil and gas sector	0.00% 0	0.00% 0	14.29% 3	57.14% 12	28.57% 6	21	4.14
Identify basic features of national contingency planning for oil spills	0.00% 0	0.00% 0	4.76% 1	33.33% 7	61.90% 13	21	4.57
Identify basic features of emergency preparedness and response and the 3-tiered response systems	0.00% 0	0.00% 0	9.52% 2	47.62% 10	42.86% 9	21	4.33
Improve understanding of risk assessments related to oil and gas development and potential impacts on environment (environment sensitivity mapping)	0.00% 0	0.00% 0	9.52% 2	52.38% 11	38.10% 8	21	4.29
Gain better awareness of the regional agreements, systems and resources for emergency preparedness and response	0.00% 0	4.76% 1	4.76% 1	57.14% 12	33.33% 7	21	4.19
Identify and prioritize issues and capacity needs for strengthening emergency preparedness and response in the oil and gas sector	0.00% 0	0.00% 0	9.52% 2	47.62% 10	42.86% 9	21	4.33

Participants were also asked to rate the extent to which individual Modules (1-10) met their individual learning needs (score range of 1= not met to 5=fully met). Most participants scored each Module 4/5 or 5/5 (Table 2).

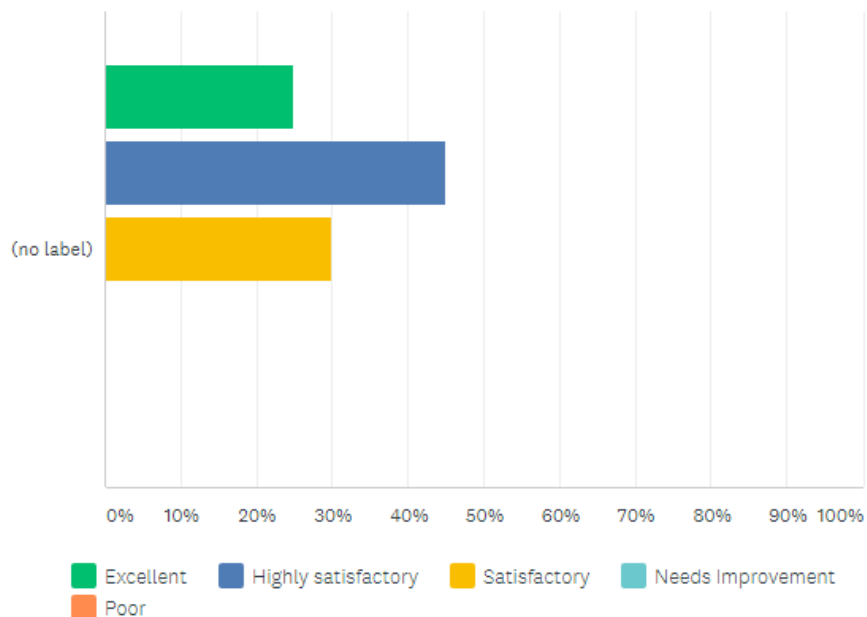
Table 2. Participant Rating of each Module against their learning needs

For each, please rate from 1 to 5: 5 = Fully met, 1=Not met							
	0	1	2	3	4	5	TOTAL
Why are we here? Making the case for emergency preparedness and response	0.00% 0	0.00% 0	0.00% 0	5.00% 1	40.00% 8	55.00% 11	20
Risk Assessment related to oil and gas development	0.00% 0	0.00% 0	0.00% 0	0.00% 0	68.42% 13	31.58% 6	19
Coastal Environmental Sensitivity Mapping	0.00% 0	0.00% 0	5.00% 1	15.00% 3	55.00% 11	25.00% 5	20
Basic Features of Emergency Preparedness and Response	0.00% 0	0.00% 0	0.00% 0	0.00% 0	35.00% 7	65.00% 13	20
Marine Spatial Planning in the context of National oil spill contingency planning	0.00% 0	5.00% 1	5.00% 1	10.00% 2	60.00% 12	20.00% 4	20
Implementation of Emergency Preparedness and Response/3-tiered response systems	0.00% 0	0.00% 0	0.00% 0	0.00% 0	55.00% 11	45.00% 9	20
Insurance and other compensation regimes	0.00% 0	0.00% 0	5.00% 1	15.00% 3	50.00% 10	30.00% 6	20
Regional Systems and resources for Emergency Preparedness and Response	0.00% 0	0.00% 0	0.00% 0	15.00% 3	40.00% 8	45.00% 9	20
OPRC Convention in relation to preparedness and response for spill incidents from ships and offshore operations	0.00% 0	0.00% 0	0.00% 0	15.00% 3	50.00% 10	35.00% 7	20
Field Trip	0.00% 0	0.00% 0	0.00% 0	30.00% 6	35.00% 7	35.00% 7	20
Way Forward/Action Planning	0.00% 0	0.00% 0	0.00% 0	15.79% 3	68.42% 13	15.79% 3	19

When asked to rate their overall satisfaction with the training course, 45% of participants rated the training as highly satisfactory, while 25% rated the training as excellent (Figure 1).

Figure 1. Participants' evaluation of their overall satisfaction with the training course

Answered: 20 Skipped: 1



Participants were also asked what they found most and least useful about the training and how the training can be improved. Their individual comments are listed in Table 3.

Table 3. Participants' feedback on the training

<p>What did you like about the training? Which part of the training was most useful to you?</p>	<ul style="list-style-type: none"> • Interactive/participatory methods used in delivering the training Risk assessment, contingency planning and regional approach for emergency preparedness and response. • According to my institution all parts of the training is useful. • Identification and prioritization issues and capacity needs for strengthening emergency preparedness and response. • OPRC Convention in relation to preparedness and response for oil spill from ships and offshore operations. • Identify basic features of emergency preparedness and response and the 3 tiered response approach/system. • General learning on emergency preparedness and response key components. • Interaction between participants and trainers. • The workshop was very interactive. • The exchange from different countries /participants, plus the IOC presentation. Most useful shall be the presentations from Dr Franck Laruelle. • I like the methodologies /technical session on emergency preparedness and response. • The organization was successful. Presentations are very interesting; the dynamism of the training was important and fruitful. • Group discussion Regional system and resources for emergency preparedness and response most useful. • I like the way facilitators allows the open discussion and elaborate the topics. Most useful was features of national contingency plan. • I liked the diversity of the presenters, Emergency preparedness and response. • Contingency plan by Dr Franck Laruelle. • Overview of emergency preparedness and response in the oil and gas sector. • The mix of the different training methods was awesome. All sessions were useful. • I liked the technical competence of Dr Franck Laruelle. He delivered very enlightening materials from a technical perspective. I also like the sharing of experiences on oil response from countries experiencing similar challenges like Uganda. • Risk assessments country learning sessions and field experience. • Marine Spatial Planning.
<p>Which session or part of the workshop did you find least useful, and why?</p>	<ul style="list-style-type: none"> • Spice farmer visit (after the field visit). • Visit to spice field not interesting but 3 sites interesting. • Marine Spatial planning in the context of NOSCP. It didn't quite come out properly as to how it can be part of NOSCP

	<ul style="list-style-type: none"> • Marine spatial planning not presented well; need longer time - 5 or more days. • Focus was primarily on offshore issues, but my country is landlocked <p>(16 participants responded none, all was relevant or left this section blank)</p>
<p>What do you think could be improved?</p>	<ul style="list-style-type: none"> • The time taken for the training is very limited – should be extended for two more days. • Regional systems and resources for emergency preparedness and response. • Follow up road map to assist with activities and implement workshop recommendation and national/regional interventions. • Drawing more examples from local situations or incidents. • Synergies between the Nairobi convention and IMO conventions need to be developed more for being more comprehensive. • Time table can be improved by having time for social activities as well Practical side of the training is important after this excellent theoretical knowledge. • Recommended time: If possible make follow up of the action plan on each country, even if it is done in informal way. • The period could have been more to better absorb some of the most important subjects. But in general, it was a very fruitful workshop. • Need for actual drills and exercises /practices. • More days since the program was too packed. • To add more topics on oil spills prevention. • The trainees should be part of the planning of what is to be trained on. They know their weakest areas. • Time of the program to be reviewed The program should start at 8am-4pm. Improvement to be done in this area. • The sound system at the venue was pathetic. • The training was more geared towards National Oil spill contingency planning. I would expect some training particularly on offshore installations contingency plan as per concept note of workshop.