



# OFFSHORE & COASTAL RESPONSE CONCERNS: OVERVIEW OF RESOURCES & GAPS

# HOW PREPARED ARE WE ?

# Outline

## ❖ Synopsis

- Background
- The Issues
- Oil Spill Incidents

## ❖ Our Place in the Fight

- Our Laws.

## ❖ Potential for Offshore & Coastal Spills

- Export Terminals
- FPSOs
- Major Pipelines

## ❖ Major Offshore/Coastal Spill Scenarios

- Global Perspective
- Local Perspective

## ❖ Case Study

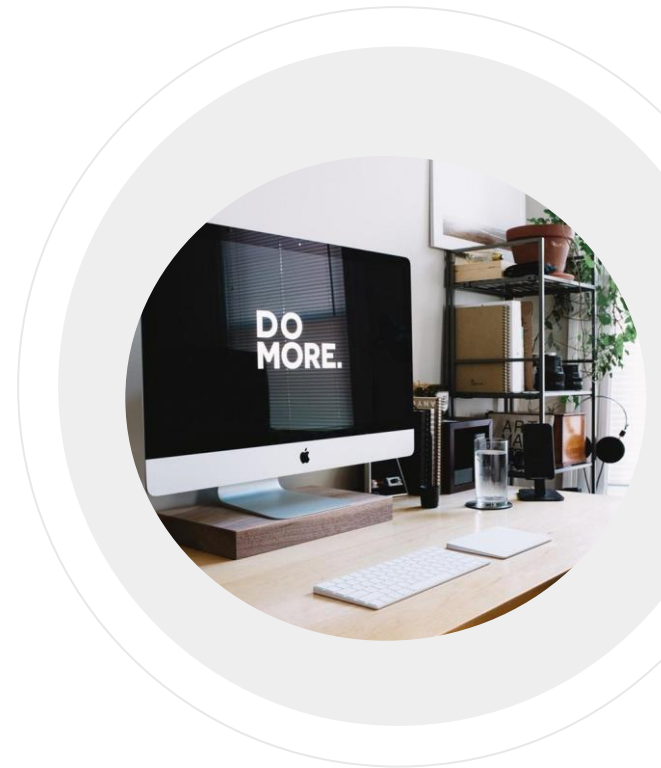
- Gulf of Mexico Oil Spill
- Resources Used

## ❖ Fixing the Gaps

- Available Resources/Where we Ought to be

## ❖ Conclusion

- The Way Forward
- Conclusion
- Thank you



# Synopsis

## Background; (Nigeria)

- ❖ Proven oil reserves of approx. 37.2 billion barrels
- ❖ Production of about 1.1 m barrels of oil per day presently
- ❖ Among countries with largest number of spills
- ❖ Average of 115,000 bbls of oil spilled annually
- ❖ Reported spills of over 3,000 incidents & 3m barrels since 2007 (NOSDRA Oilspill Monitor)
- ❖ Presence of about 6 Export Terminals, 15 FPSO's, several FSO's.
- ❖ Presence of 12,714km of Pipelines
- ❖ Establishment of the National Oil Spill Detection & Response Agency (NOSDRA) , (Act No. 15, 2006).
- ❖ *NOSDRA is charged with PREPAREDNESS, DETECTION and RESPONSE to all oil spillages in Nigeria.*



# OUR LAWS – NOSDRA ESTABLISHMENT ACT, 2006

## ❖ Part III, Section 5a

Establish a viable national operational organisation that ensures a safe, timely, effective and appropriate response to major or disastrous oil pollution.

## ❖ Part III, Section 5c

Establish the mechanism to monitor & assist or where expedient direct the response, including the capability to mobilize the necessary resources to save lives, protect threatened environment, and clean up to the best practical extent of the impacted sites.

## ❖ Part III, Section 5e

Ensure funding & appropriate & sufficient pre-positioned pollution combating equipment & materials, as well as functional communication network system required for effective response to oil pollution.





# **POTENTIAL FOR OFFSHORE & COASTAL SPILLS IN NIGERIA**

# Our Export Terminals

S/N	TERMINAL	PRODUCT	STORAGE CAPACITY (bbls)	LOCATION TERRAIN	OPERATOR
1	QUA IBOE	Crude Oil	8,520,000	LAND	MOBIL
2	FORCADOS	Crude Oil	6,289,832	LAND	SHELL
3	BONNY	Crude Oil	5,700,000	LAND	SHELL
4	BRASS	Crude Oil	3,558,000	LAND	AGIP
5	ESCRAVOS	Crude Oil	2,600,000	LAND	CHEVRON





# Our FPSOs

S/N	TERMINAL	TYPE	PLATFORM	PRODUCT	CAPACITY	OPERATOR
1	UKPOKITI	Offshore	FPSO	Crude Oil	1,970,258	EXPRESS/SHEBA
2	EA (Sea Eagle)	Offshore	FPSO	Crude Oil	1,479,858	SNEPCO
3	ABO	Offshore	FPSO	Crude Oil	933,130	NAE
4	OYO	Offshore	FPSO	Crude Oil	1,109,580	ALLIED/AGIP
5	PENINGTON	Offshore	FPSO	Crude Oil	2,224,132	CHEVRON
6	EGINA	Offshore	FPSO	Crude Oil	2,300,000	TOTAL
7	OKWORI	Offshore	FPSO	Crude Oil	1,700,000	ADDAX
8	ANTAN	Offshore	FPSO	Crude Oil	1,036,750	ADDAX
9	OKONO	Offshore	FPSO	Crude Oil	949,000	NPDC/AENR
10	OKORO	Offshore	FPSO	Crude Oil	360,000	AMNI
11	AGBAMI	Offshore	FPSO	Crude Oil	2,150,000	CHEVRON
12	ERHA	Offshore	FPSO	Crude Oil	2,355,335	ESSO (MOBIL)
13	BONGA	Offshore	FPSO	Crude Oil	2,000,000	SNEPCO
14	AKPO	Offshore	FPSO	Crude Oil	2,000,000	TUPNI
15	USAN	Offshore	FPSO	Crude Oil	2,000,000	TEPNG



# Our Major Pipelines

S/N	PIPELINE SYSTEM	OPERATOR	PRODUCT	CAPACITY (bbl/day)	LENGTH (KM)	HISTORY OF LEAKAGE LAST 36 MTHS
1	BONNY	SHELL	Crude Oil	1,200,000	134	YES
2	FORCADOS	SHELL	Crude Oil	240,000	31	YES
3	ESCRAVOS	CHEVRON	Crude Oil	400,000	340	YES
4	BRASS	AGIP	Crude Oil	200,000	460	YES
5	NEMBE CREEK TRUNKLINE	AITEO	Crude Oil	150,000	97	YES
6	QUA IBOE	EXXON MOBIL	Crude Oil	200,000	50	YES
7	TRANS NIGER	SHELL	Crude Oil	150,000	100	YES
8	BRASS CREEK-FORCDOS	SHELL	Crude Oil	250,000	55	YES



# **MAJOR OFFSHORE/COASTAL SPILL SCENARIOS - Global & Local**

# Recent Major Spill Incidents; Global Perspective

S/N	Spill	Location	Year	Volume (bbls)	Cause	Effects	Comments
1.	Westchester	United States	2000	13,200	Tanker Explosion	Polluted seas & killed fishes in River Mississippi	Vessel was carrying Nigerian Crude
2.	Oil Tanker Prestige	Spain	2002	420,000	Storm	Polluted seas. Fishes, sea mammals & birds killed	Worst Environ. disaster in Spain & Portugal
3.	Hebei Spirit	South Korea	2007	95,200	Tanker Accident	Polluted Beaches	
4.	Gulf of Mexico	Mexico	2010	5,000,000	Equipment Failure	Polluted seas. Fishes, sea mammals & birds killed	11 men died
5.	Kalamazoo River	United States	2010	20,000	Burst Pipeline	Polluted seas. Fishes, sea mammals & birds killed	Largest Inland Spill in US History
6.	Sanchi	China	2018	960,000	Tanker Fire	Polluted sea farms	32 crew members died

# Recent Major Spill Incidents; Local Perspective

S/N	Spill	Location	Year	Volume (bbl)	Causes	Effects
1.	Mobil's Qua Iboe	Idoho-Qua Iboe Pipeline	1998	40,000	Pipeline Leakage	Contaminated waters & killing of fishes & other marine animals
2.	Bonga	Deepwater	2011	40,000	Oil transfer to Tanker	Contaminated waters & killing of fishes & other marine animals
3.	KS Endeavour	Funiwa Field	2012	10,000	Equipment Failure	Contaminated waters & killing of fishes & other marine animals
4.	Brass River Terminal	Brass River	2013	550,000	Equipment Failure	Contaminated waters & killing of fishes & other marine animals
5.	Escravos-Warri Pipeline	Escravos Creeks	2013	30,000	Pipeline Leakage	Contaminated waters & killing of fishes & other marine animals
6.	Trans Forcados Pipeline	Forcados Pipeline	2015	6,000	Pipeline Explosion	Contaminated waters & killing of fishes & other marine animals



# **CASE STUDY**

## **- GULF OF MEXICO OIL SPILL**

# Case Study; Gulf of Mexico

**PLACE:** US GULF OF MEXICO

**ACCIDENT:** EXPLOSION AND SINKING  
DEEP WATER HORIZON RIG

**TIME:** 24.4.2010

**SPILED:** 4.4-5.4M BBLS CRUDE OIL

**CHALLENGE:** LARGE AREA, MAGNITUDE  
DEEPWATER



## Case Study; Gulf of Mexico (Resources Used)

S/N	RESOURCE	RESOURCES USED	AVAILABLE RESOURCES IN NIGERIA	COMMENTS
1.	<b>BOOMS (No)</b>	210,000	1,584,000	
2.	<b>SKIMMING SYSTEMS (No)</b>	1345	105	
3.	<b>PUMPS (No)</b>	100	108	
4.	<b>VESSELS (No)</b>	6,131	30	
5.	<b>AIRCRAFTS (No)</b>	123	0	123 daily
6.	<b>DISPERSANTS (Gal)</b>	1,777,000	50,061	
7.	<b>SORBENT BOOM (L)</b>	1,500,000	9,700	
8.	<b>PERSONEL (No)</b>	47,000	250	4,000 are volunteers





**FIXING**

**THE**

**GAPS**

## Resources; Available, Where we ought to be & the Gaps

S/N	EQUIPMENT TYPE	AVAILABLE RESOURCES	WHERE WE OUGHT TO BE	THE GAPS	COMMENTS
1.	<b>BOOMS (m)</b>	9,700	2,000,000	1,990,300	
2.	<b>SKIMMERS (No)</b>	105	250	145	
3.	<b>PUMPS (No)</b>	108	350	242	
4.	<b>VESSELS (No)</b>	30	200	170 to be called out	50 to be industry owned
5.	<b>AIRCRAFTS (No)</b>	0	200	200 to be called out	5 to be industry owned
6.	<b>DISPERSANTS (Gallons)</b>	50,061	500,000	295,061	Stationed strategically; Export Terminals, FPSOs, Airports
7.	<b>TRAINED PERSONNEL (No)</b>	250	5,000	4,750	At least 2,500 to be oil industry workers



# IN CONCLUSION

# The Way Forward in Closing the Response Gaps

- ✓ **Executive cum Legislative Synergy**
  - NOSDRA Amendment Bill has already been passed by both arms of the National Assembly.
  - The Bill is now with the Executive(President) or his assent

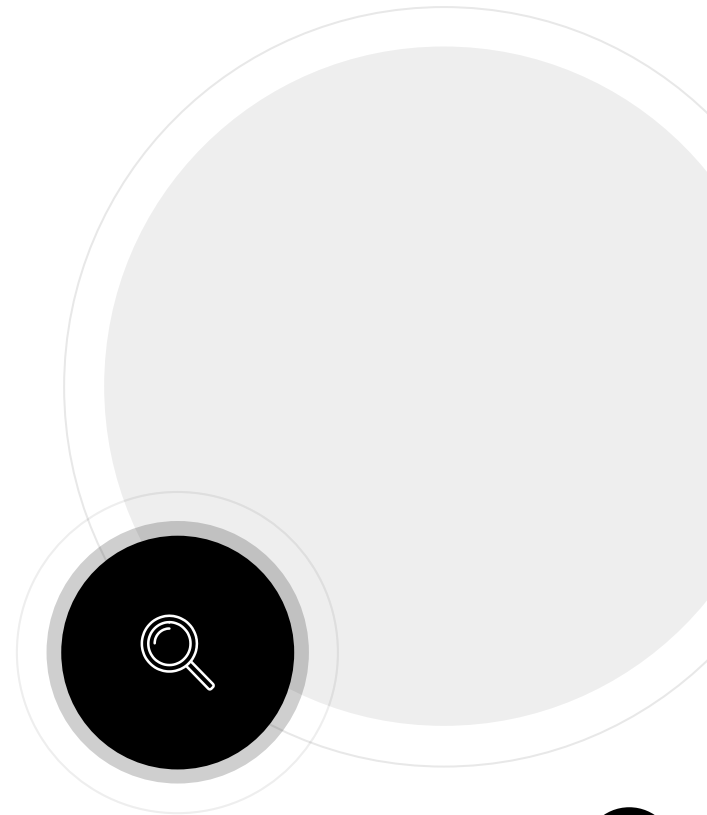


# Conclusion

- ❖ The panacea to closing the inherent gaps in our present response capability is for the Executive (President) to assent to the NOSDRA Amendment Bill already passed by both chambers of the National Assembly.

This would ;

- ❑ Increase the funding base of the Agency significantly & strengthen it.
- ❑ Set up an Emergency fund from where funds can be easily accessed during major Oil Spills and other disasters.
- ❑ Remove the present overlap of functions with other Agencies & re-emphasise the Agency as the institutional Framework for the implementation of the National Oil Spill Contingency Plan (NOSCP).
- ❑ Enable us play our role as the Regional Coordinating Centre for Marine Pollution in the GI- WACAF region by significantly domiciling Tier-3 response capability in Nigeria.





**THANK  
YOU**