



Towards Transparency in Oil Spill Management in Africa: Nigeria As A Case Study



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ABSTRACT (684687)

Oil spill is an inevitable occurrence in the production, transportation and processing of crude oil. Either in drilling platforms, oil tankers and interstate pipelines, oil spill incidence can occur, no matter the safeguard and precautionary practices in the oil and gas industry. Despite significant improvement over the years in oil spill prevention, preparedness, response, and restoration, oil spill management remains one of the most controversial issues across the world. In many developing countries including Nigeria, the management of oil spill is poorly coordinated, complicated and lacks transparency between the oil industry, spill contractors, regulators, environmental agencies, affected communities and other interested parties. From decision making to mobilization, post-impact assessment, spill response and mitigative approaches, there is a high level of laxity, mistrust, opacity and deliberate misinformation in dealing with oil spill issues. These practices in the oil industry is supported by a weak institutional and regulatory framework which affects the management of oil spill. Such lapses are creating a delicate system leading to the degradation of the natural environment, threatening ecological life support systems for biodiversity and indigenous people. There is a need for a comprehensive overhaul in oil spill practices and to adopt global best practices for oil spill management in developing regions of the world including Nigeria.

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INTRODUCTION

Since the early 1905s when oil exploration started in Africa, the continent has become one of the major regional players in the global oil and gas industry. Even countries without significant oil production play a role as their coastal waters serve as essential routes for oil tankers crisscrossing petroleum and refine products across their territorial waters. Nigeria is one of the leading countries of the African continent in terms of international trade and power. The economic benefit associated with the discovery and production of oil and gas also resulted in the severe pollution of the air, water and soil of the fragile ecosystem of the Niger Delta region (Ekperusi, 2019). The extent of the damage on the ecosystem, biodiversity and communities including their sources of livelihood and health-related impact has been documented by carefully coordinated local and international studies (Obot *et al.*, 2006; UNEP, 2011). The scenario in the region is supported by a weak legal framework and inefficient regulatory agencies which is exploited by the oil industry resulting in a very complicated history of crises, anti-trust and further degradation of the region. Adopting a global best system could help mitigate the conflict and put the region towards a path for recovery in the face of a growing oil sector in Nigeria.

MATERIALS AND METHODS

Qualitative and systematic review
Journals, Proceedings, Thesis, Technical Reports
Newspapers, Internet Resources

RESULTS AND DISCUSSION

Oil Spill Preparedness and Prevention

No adequate preparedness & prevention system
- industry (IOCs, NOCs, Indigenous)
- government (DPR, NNPC, NOSDRA, etc)

HSE culture geared towards
- accident-free workplace for staff
- company assets in oilfields

- Pipelines built in the 60s and 80s still in use (Shell, 1995) resulting in corrosion and leakages, (Adelana *et al.*, 2011)
- 1,300 km of pipelines and flow lines - replaced by Shell (Shell, 2018).
- Poor pipeline surveillance system in the region
- No proactive measures to prevent spills in sensitive habitat in the region

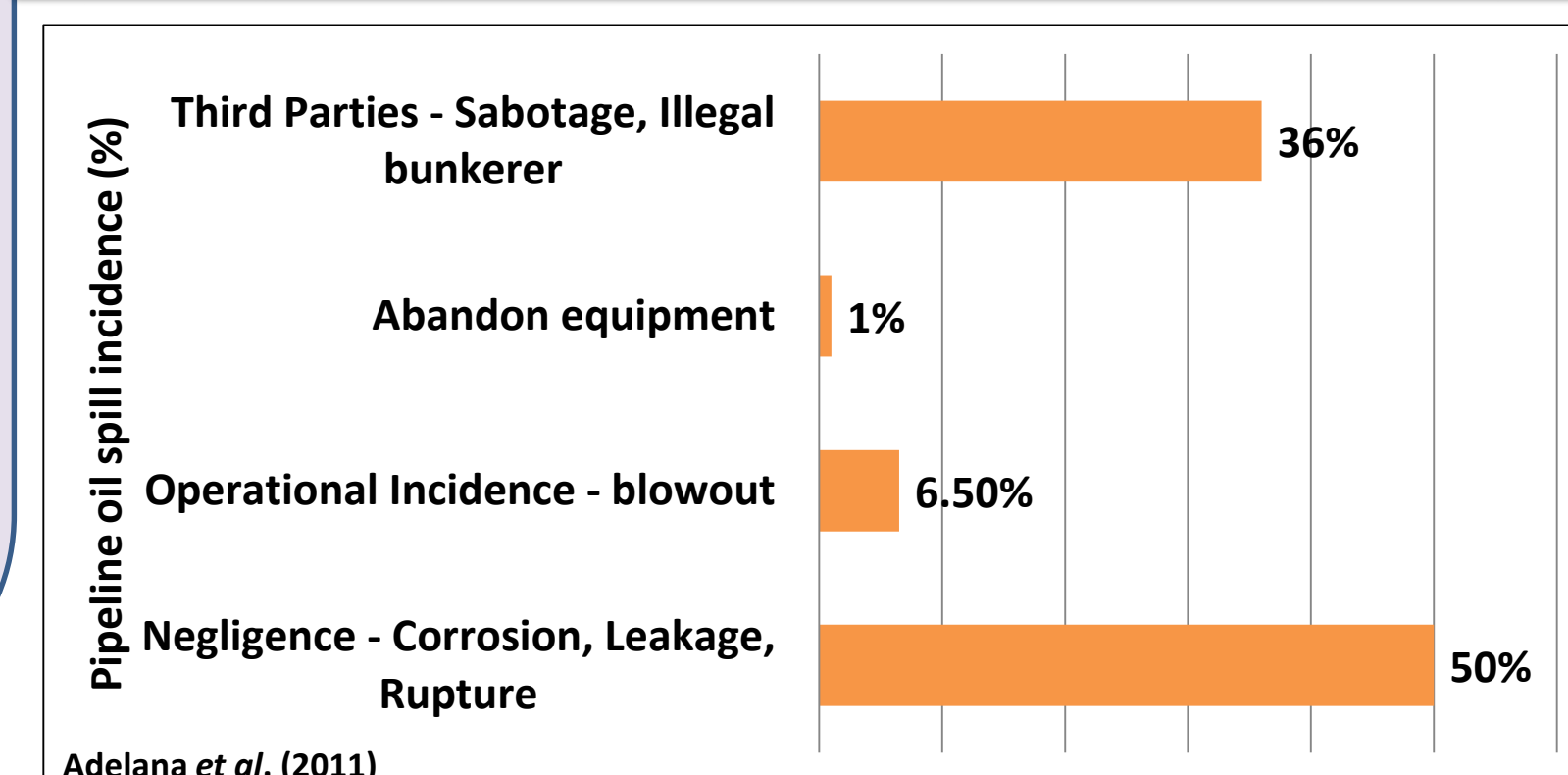


NOSDRA the Asset Safety & Mitigation Department was created in 2011 and poorly funded for proactiveness

Joint Military Taskforce (JTF) destroy illegal refinery without the involvement of NOSDRA or stakeholders in the industry.



Oil Spill Incidence and Response



▪ Many oil spill incidence are never reported due to inaccessible terrain
▪ Many are only reported by the appearance of oil at the shore or close to local communities
▪ NGOs /media then raised alarms to get the attention of government regulators and spiller
▪ Most joint visits are usually conducted within 3 weeks (SDN, 2015, Rim-Rukeh, 2015)
▪ Oil spill records are only available within the last decade. Shell started in 1995 (Shell, 2019)

Oil Spill Reporting → Communities → NGOs/Media → Regulators → Spiller

Oil Spill Investigation

Investigation Panel

1. Joint Investigation Visit (JIV) panel are poorly constituted
2. JIV members lack the technical skills to investigate oil spill incidence (Rim-Rukeh, 2015)
3. In some cases, Interns represent regulators (Rim-Rukeh, 2015)
4. Regulators (NOSDRA, DPR) rely on the spiller to visit spill sites

Investigation Scope

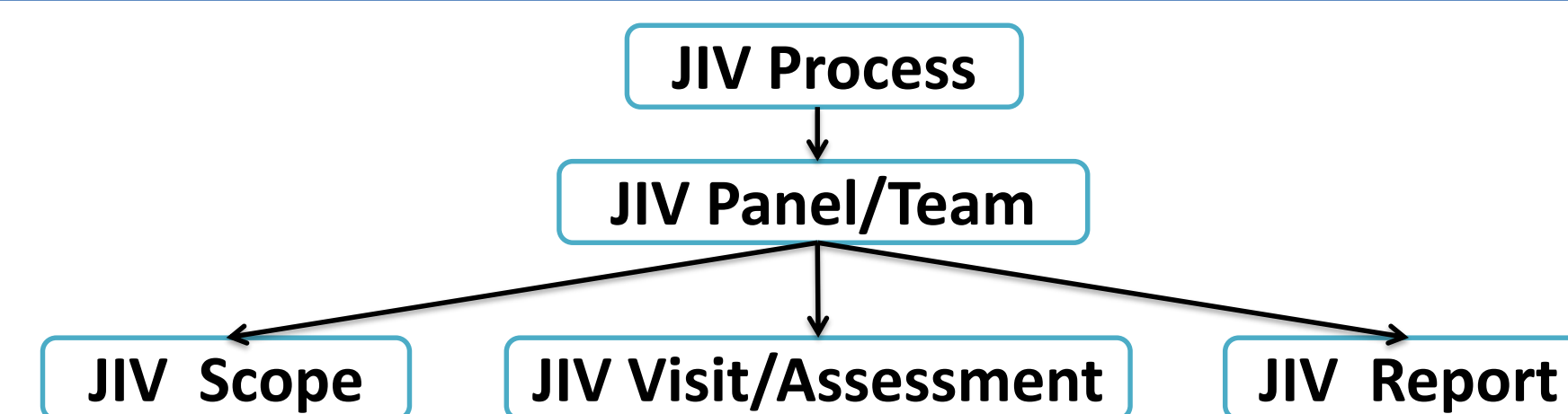
1. Scope of the investigation is always narrow, short and does not adequately cover all matters of concern.
2. Further investigation is anticipated with no laid down rules on who is responsible for further investigation.
3. Investigation scope is determine by the spiller not the regulator (SDN, 2015)

Preliminary Assessment

1. Cause of spill are identified by flawed methods - 12 o'clock, sabotage, but 6 o'clock it is corrosion (Rim-Rukeh, 2015)
2. Different oil companies (SPDC/Shell, NAOC/Agip/ENI) have different method for establishing cause of spill
3. Spill volume is calculated by visual estimation & depth of the spill
4. Communities focus on cause of spill & compensation

Investigation Report

1. Reports are always manipulated by the spiller in respect to date of spill incidence and volume of spill (Rim-Rukeh, 2015)
2. Copies of JIV Report are unsigned (Rim-Rukeh, 2015)
3. Community representatives are denied a copy of the JIV form, even after signing it
4. Post impact assessments are never carried out, even if it is carried out by the spiller, the result is never release to stakeholders



NOSDRA's Oil Spill Data

6333 oil spills - January 2010 & August 2015
➢ 82% - no estimation of spill area recorded
➢ 71% - no description of impact recorded
➢ 83% - no spill stop date recorded
➢ 33% - no estimated quantity recorded
➢ 99.9% - no post-impact assessment (SDN, 2015)

Oil Spill Cleanup and Restoration

- Flawed investigation results in poor cleanup
- Chemical dispersants - no information - type, nature and volume
- In Situ Burning - no guideline on application
- Post remediated sites – still polluted after certificate of cleanup issued
- Shell started cleanup of operational spill of 2008 in September 2017 in Bodo (Shell, 2018)
- The Niger Delta is one of the most polluted ecoregion on planet earth (Obot *et al.*, 2006).



Oil Spill Liability and Compensation

- ❑ SPDC only pay compensation for operational spills (Shell, 2019).
- ❑ Flawed spill assessment methods - always sabotage (Rim-Rukeh, 2015)
- ❑ Many spills are declared mystery spills
- ❑ Many cases are dismissed on technical grounds - communities lack the skills to prove negligence (Abdulmumini 2014)

Oil Spill Financing

- ❑ Regulators lack the will to enforce polluter pay principle
- ❑ No established fund for oil spill management (1992 Fund Convention)
- ❑ Regulators rely on spiller to initiate spill investigations, control, cleanup, etc

Role of Stakeholders in Oil Spill Management

- ❑ International Level (IMO, IPIECA)
- ❑ Regional Level (GIWACAF)
- ❑ National Level (12 Ministry, 10 Agencies)
- ❑ State Level - Government, NGOs, Research bodies
- ❑ Local Level - Government, communities

Oil Spill Regulatory Frameworks

- 1) No legislation (1956 – 1968)
- 2) Non-specific legislation (1969-2001)
- 3) Specific legislation - EGASPIN 2002, NOSDRA 2006, NOSCP, 2010 (Sam *et al.*, 2017)

- ✓ Poor regulatory framework in oil spill management
- ✓ Regulations are difficult to enforce – bark but cannot bite
- ✓ Effort to pass the Petroleum Industry Bill has failed since 1999.

Recommendation and Conclusion

- ✓ Drones rather than helicopters should be used for surveillance of pipelines (Odugbesan, 2019)
- ✓ Old pipelines should be replaced across the region.
- ✓ There is need for capacity building among national, state and local stakeholders for oil spill management
- ✓ JIV process should be improved; early response, competent team, signed reports, etc
- ✓ Methods for detecting the cause of oil spill should be improved
- ✓ Uniformity in reporting oil spill investigations
- ✓ Independent experts should be part of the oil spill investigation team
- ✓ A fingerprinting database of all oil assets should be made available from DPR to NOSDRA.
- ✓ NOSDRA should carry out a comprehensive fingerprinting of all oil wells or fields.
- ✓ Fingerprinting will curb issues of mystery spills
- ✓ Spill management should rest squarely with NOSDRA
- ✓ Proper guideline for the use of dispersants, in situ burning
- ✓ Specific legislation addressing oil spill management
- ✓ Institutional capacity should be improved

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