

**EVALUATING ENVIRONMENTAL IMPACT
ASSESSMENT PROCEDURES IN THE NIGERIAN
MARITIME OIL AND GAS SECTOR**

By

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ABSTRACT

Mitigating maritime pollution linked to the oil and gas sector is increasingly seen as a priority issue in national and international contexts alike. A key policy tool that has been used to address this issue is Environmental Impact Assessment (EIA). It has become the primary means by which potentially adverse environmental impacts can be assessed and mitigated, and in theory, provides a variety of mechanisms for stakeholder engagement in the policy process. However, the governance of EIA in developing countries is embryonic, emergent, and in parts contradictory. This thesis reviews and evaluates EIA procedures as they relate to the Nigerian Maritime Oil and Gas Sector (NMOGS), relying, in particular, on Matland's work on ambiguity and conflict in policy implementation. I argue that Matland's scholarship affords valuable new insights into EIA implementation processes, particularly in terms of understanding the complex interactions among policy, business and civil society actors both within and beyond implementing agencies. Thus, the thesis's broader contribution is to consider how the complex institutional mosaic surrounding EIA might be conceptualised and understood theoretically by drawing on the rich literature on policy implementation. The empirical analysis utilises semi-structured face-to-face interviews with fifty-six respondents in key government implementing agencies, academia, and civil society. This is supplemented by secondary data on national level environmental policies, as well as surveys of EIA reports of multinational and national oil company projects in two Nigerian states. The thesis has demonstrated that the institutional context of NMOGS is characterised by high levels of inter-agency conflict and policy ambiguity. A key cause of the ambiguity is that two EIA systems operate in parallel at the national scale, thus making it difficult for the country to achieve its stated aim of attaining sustainable development in the domestic oil and gas sector. I have also found ample evidence of conflict over the roles, responsibilities and duties of Government actors across the whole spectrum of EIA implementation activities.

TO THE MEMORY OF MY MOTHER

Mrs. TAIBAT PINPINLADE LAWAL

1955-2004

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TABLE OF CONTENTS

ABSTRACT	II
DEDICATION	III
ACKNOWLEDGEMENTS	IV
<hr/>	
CHAPTER 1	1
INTRODUCTION AND BACKGROUND TO THE STUDY	1
1.1 Introduction	1
1.2 Rationale for, and relevance of, the thesis	3
1.3 Aims and objectives	8
1.4 Structure of the thesis	10
<hr/>	
CHAPTER 2	13
APPRAISING ENVIRONMENTAL IMPACTS: THE ROLE OF EIA	13
Introduction	13
2.1. Environmental impacts of offshore oil and gas operations	13
2.1.1. The impacts on water, fauna and flora	16
2.1.2. The impacts on atmosphere and human health	17
2.2. The role of EIA and its components	21
2.2.1. EIA around the world: 'Best practice' examples from the U.S. and the UK	35
2.2.2. Social Impact Assessment as a component of EIA	39
2.2.3. Monitoring systems as a component of EIA	41
2.3. Practical challenges related to EIA and its components	42
2.4. Evaluating EIA practices: a critical summary of the literature	46
<hr/>	
CHAPTER 3	51
POLICY IMPLEMENTATION THEORIES	51
3.1. Introduction	51
3.2. Evaluation research and its relationships with policy theories	51
3.3. A multi-theoretical approach to EIA implementation processes	55
3.3.1. Implementation as seen by the top-down and bottom-up approaches	58
3.3.2. Implementation as social learning	60
3.3.3. Implementation as a process of multi-level bargaining	62
3.3.4. Implementation as a contingency concept	64
3.4. Conclusion	70
<hr/>	
CHAPTER 4	72
METHODOLOGY	72
Introduction	72
4.1 Description of the study areas	73
4.2 Data from the secondary sources and theoretical grounding of the primary research	80
4.3 Semi-structured interviews	83
4.4 Data analysis	90
4.5 Positionality of the researchers	93
4.6. Conclusion	94

CHAPTER 5	95
THE NIGERIAN NATIONAL CONTEXT AND NATIONAL SYSTEMS OF EIA	95
5.1. Introduction	95
5.2 Historical development of oil and gas in Nigeria	96
5.3. The environmental impacts of offshore oil and gas operations	101
5.4. The structure of the NMOGS's EIA systems	111
5.4.1. The DPR EIA system: principles and procedures	114
5.4.2. The FMENV EIA system: principles and procedures	117
5.5. The role of Government actors in designing and implementing EIA	124
5.5.1 The role of DPR	124
5.5.2. The role of FMENV	126
5.5.3. The role of Nigerian Maritime Administration and Safety Agency	128
5.6. Conclusion	131

CHAPTER 6	133
ASSESSING THE NMOGS's EIA IMPLEMENTATION THROUGH KEY STAGES	
6.1. Introduction	133
6.2 The EIA successes	135
6.3 Description of the selected EIA reports and their findings	140
6.3.1. Description of the 3 selected multinational oil company projects	141
6.3.2. Description of the 3 selected indigenous oil company projects	149
6.3.3. Main EIA irregularities identified at different periods	152
6.3.4. Main irregularities related to the lack of public participation	154
6.4. EIA failures: a case study of WAGP and tank farm projects	156
6.4.1. Case study of WAGP project	157
6.4.2. Case study of tank farm project	160
6.5. Reasons for the lack of compliance	161
6.5.1. Quasi-participation	165
6.5.2. Oil companies hiring people to support their projects	166
6.5.3. Inadequate ways of making EIA report available to the public	166
6.5.4. Insufficient number of days for public to lodge complaint against project	167
6.6. Conclusion	168

CHAPTER 7	171
INTER-AGENCY CONFLICTS AND AMBIGUITIES IN THE NMOGS's EIA IMPLEMENTATION PROCESS	171
7.1. Introduction	171
7.2. Assessing the DPR and FEMNV EIA systems	172
7.2.1. Oil and gas companies' sponsorship of national EIA procedures	175
7.2.2. The use of local experts in the EIA process	177
7.2.3. Official encouragement of waiver	179
7.3. Binary EIA as a source of sectoral policy conflict	180
7.3.1. Intervention to ameliorate sectoral conflict	183
7.4. Stakeholders' views regarding the sector's binary EIA systems	186
7.5. Conclusion	189

CHAPTER 8	191
INTRA-AGENCY CONFLICTS AND AMBIGUITIES IN THE FEMNV's EIA IMPLEMENTATION STYLE	191
8.1. Introduction	191
8.2. The FEMNV's implementation style	192
8.3. Federal-state level of interactions over EIA procedures	199
8.4. Federal-state level budgetary allocations and patterns of EIA implementation	202
8.5. The effect of available human resources on EIA implementation	205
8.6. Conclusion	210

CHAPTER 9	212
CONCLUSION	212
9.1 Summary of principal findings	212
9.2 Broader contribution to knowledge	214
9.3 Policy recommendations	215
9.3.1 Encouraging synergies and conflict resolution among the Government officials	215
9.3.2 Improving the political economy of the sector	217
9.3.3 EIA implementation: Social interaction and democratic issues	219
9.3.4 Adopting best practice	220

REFERENCES	222
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APPENDICES	282
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LIST OF FIGURES

Figure 2.1 Fuel Shares of the World's CO ₂ Emissions in 1973	20
Figure 2.2 Fuel Shares of the World's CO ₂ Emissions in 2007	20
Figure 2.3 The Environmental Impact Assessment Decision-Support System	24
Figure 2.4 The Environmental Impact Assessment Process	25
Figure 2.5 Stages in the Analysis of Alternatives	28
Figure 3.1 Matland's Ambiguity-Conflict Matrix	68
Figure 4.1 Map of Nigeria	73
Figure 4.2 Map of Rivers State, Nigeria	77
Figure 4.3 Map of Lagos State, Nigeria	79
Figure 4.4 Interview Locations and Number of Interviewees'	86
4.5 Participants interviewed by professions	88
Figure 5.1 The Nigerian's Regions and Oil Consumption Rates	98
Figure 5.2 Location of Nigerian Offshore Oil and Gas Fields	99
Figure 5.3 Department of Petroleum EIA procedures	115
Figure 5.4 Federal Ministry of Environment EIA Procedures	119
Figure 6.1 Previously Registered and Approved EIA in the Country from 1995-2009	137
Figure 6.2 West African Gas Pipeline Project Areas	142
Figure 6.3 The Agbami Floating Production Storage Offloading	148
Figure 6.4 The Agbami Oil Field in OPL 216	148
Figure 6.5 Tank Farm in Apapa, Lagos	149
Figure 6.6 Storage of EIA reports in the FMENV Office, Lagos State	163

LIST OF TABLES

Table 2.1 Table 2.1: Summary of Potential Environmental Impacts (offshore)	14
Table 2.2 Towards ‘Sound Practice’ Principles of Impact Scoping Requirements	27
Table 2.3 The Principles for Design and Development of Effective EIA Processes	33
Table 2.4 The Principles for Effective EIA Practice	34
Table 2.5 Previous EIA Research around the European Union	37
Table 2.6 The International Principles for SIA	40
Table 2.7 Key Stakeholders’ Expectations from the EIA Process	40
Table 5.1 Historical Development of Nigerian Oil and Gas Sector from 1908-1999	97
Table 5.2 Nigeria’s Oil and Gas Pipelines Location	100
Table 5.3 Best Estimate of Gas Flaring Trend in Selected Countries in 2000	103
Table 5.4 Major Oil Spillage Events in the Coastal Zone of the Nigerian (1978- 2001)	104
Table 5.5 Summary of the Environmental Impacts of Oil Exploration and Production	106
Table 5.6 Developments that led to EIA Systems in the NMOGS	113
Table 5.7 Project in Category 1 (projects that require EIA under FMENV EIA)	120
Table 5.8 Similarities and Differences between the NMOGS’s EIA and the Egyptian EIA systems	130
Table 6.1 Previously Registered & Approval EIA in the Country from (1995-2009)	136
Table 6.2 West African Gas Pipeline Specific Mitigation Measures	144
Table 6.3 Regulatory Monitoring Organisational Roles	145
Table 6.4 Summary of WAGP consultation by individual stakeholders	146
Table 6.5 Potential Impacts and Mitigation Measures for Tank Farm	150

LIST OF ACRONYMS

ACF	Advocacy Coalition Framework
ACM	Ambiguity Conflict Model
AGIP	Azienda Generale Italiana Petroli
AI	Administrative Implementation
BCC	Bitumen Corporation Company
BCM	Billion Cubic Metres
BP	BP Public Limited Company
BPD	Barrels Per-day
BOE	Barrels of Oil and Equivalent
CBD	Convention on Biodiversity
CBN	Central Bank of Nigeria
CEFAS	Centre for Environment, Fisheries and Aquaculture Science
CEQA	California Environmental Quality Act
DPR	Department of Petroleum Resources
DUDE	Division of Urban Development and Environment
EBRD	European Bank for Reconstruction and Development
EFFC	Economic and Financial Crimes Commission
EGASPIN	Environmental Guidelines and Standards for Petroleum Industry in Nigeria
EI	Experimental Implementation
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
ENI	Ente Nazionale Idrocarburi
E&P Forum	Oil Industry International Exploration and Production Forum

ERA	Environmental Rights Action
FEPA	Federal Environmental Protection Agency
FERC	Federal Energy Regulation Commission
FGN	Federal Government of Nigeria
FMENV	Federal Ministry of Environment
FMPR	Federal Ministry of Petroleum Resources
FPSO	Floating production storage and offloading
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GIAs	Government Implementing-Agencies
GTEI	Green Thinking Environmental Initiative
IAIA	International Association for Impact Assessment
ICPC	Independent Corrupt Practice Commission
ICs	International Conventions
IEA	International Energy Agency
IFC	International Finance Corporation
IMF	International Monetary Fund
IMO	International Maritime Organisation
IOs	International Organisations
LASEPA	Lagos State Environmental Protection Agency
LGAs	Local Government Authorities
LSMENV	Lagos State Ministry of Environment
MARPOL	International Convention for the Prevention of Marine Pollution from Ship
MOU	Memorandum of Understanding
NAFDAC	National Agency for Food and Drug Administration and Control

NATO	North Atlantic Treaty Organisation
NDLEA	National Drug Law and Enforcement Agency
NDRDMP	Niger Delta Regional Developments Master Plan
NEEDS	National Economic Empowerment and Development Strategic
NGC	Nigerian Gas Company
NEPA	National Environmental Policy Act
NEPIs	New Environmental Policy Instruments
NGOs	Non-Governmental Organisations
NES	Nigerian Environmental Society
NESREA	National Environmental Standards Regulations and Enforcement Agency
NIMASA	Nigerian Maritime Administration and Safety Agency
NISER	Nigerian Institute of Social and Economic Research
NNPC	Nigerian National Petroleum Corporation
NMOGS	Nigerian Maritime Oil and Gas Sector
NOSCP	Nation Oil Spill Contingency Plan
NOSDRA	National Oil Spill Detection and Response Agency
NPA	Nigerian Port Authority
NPE	National Policy on Environment
OECD	Organisation for Economic Cooperation and Development
OPEC	Organisation of the Petroleum Exporting Countries
OPRC	Oil Pollution Preparation Response and Cooperation
PAIR	Preliminary Assessment of Impacts report
PI	Political Implementation
PPPs	Policies, plans and programmes
RCD	Rational Comprehensive Decision-Making

SAP	Structural Adjustment Programme
SEA	Strategic Environmental Assessment
SERAC	Social and Environmental Rights Action
SI	Symbolic Implementation
SIA	Social Impact Assessment
SMENV	State Ministries of Environment
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
USAID	United State Agency for International Development
WAGP	West African Gas Pipeline
WB	World Bank
WCED	World Commission on Environment and Development
WMSN	Waste Management Society of Nigeria

CHAPTER 1 INTRODUCTION AND BACKGROUND TO THE STUDY

1.1. Introduction

This thesis reviews and evaluates EIA implementation as it relates to the Nigerian Maritime Oil and Gas Sector (NMOGS). EIA has been institutionalised since the 1990s in the NMOGS, remaining the primary means by which potentially adverse environmental impacts can be mitigated via legal requirements and procedures. The thesis explores the effects of the national policy context on the development of environmental regulations within the Nigerian maritime oil and gas sector, while scrutinising the procedural issues associated with the implementation of EIA. It illuminates the components of, as well as the reasons for, organisational ambiguities and conflicts associated with the implementation of EIA in the NMOGS, by using an inter and intra-agency lens.

In a broader sense, the thesis addresses the challenges associated with appraising the impacts of environmental global offshore oil exploration, which has increased at a rapid pace since 1960s (Kaiser, 2007). In addition to demand patterns, the rise of this phenomenon is largely thanks to opportunities in the form of technological innovations (Pinder, 2001), which have helped in identifying viable new fields to exploit and increase oil production rates (BP, 2009; OECD/IEA, 2009). Between 1970 and 2009, however, approximately 5.65 million tonnes of oil was lost to the sea, causing certain marine environments to be heavily polluted (Junfeng and Leping, 2011). As a result, the political importance of environmental policy has grown in recent years (Bond *et al.*, 2010; Tullos, 2009; Jah *et al.*, 2007; Wood, 2003a).

Even though it is becoming increasingly recognised that the environmental impacts of oil and gas operations can be mitigated and prevented via environmental policies and their management options (Bassey, 2010; Steiner, 2008; Goodland, 2005), insufficient attention has been paid to the evolution and implementation of environmental regulatory systems. This is particularly pronounced in developing country settings (Aishuwaikhat, 2005; Wood, 2003b), largely because the implementation of related regulatory systems is embryonic (Ofori, 2005; Wood, 2003b; Sebastiani *et al.*, 2001; Kakonge, 1999, 1997), emergent (Alemagi *et al.*, 2007) and in parts contradictory (Echefu and Akpofure, 2007; Nwafor, 2006; Ogunba, 2004; Olokesusi, 2000, 1998).

A variety of policy implementation approaches for managing environmental issues are currently in operation across the world (Wilson and Piper, 2010). Many of these are 'consistent with the sixth Environmental Action Programme which refers to horizontal integration measures as including Environmental Impact Assessment (EIA), Strategic Environmental Assessment (SEA), Integrated Coastal Zone Management and vertical measure' (*ibid.*, p. 66). EIA is one of the most prevalent operating procedures for environmental assessment globally, having become the primary means by which potentially adverse environmental impacts can be assessed and mitigated. In theory, it should provide a variety of mechanisms for stakeholder engagement in the policy process. The remainder of this introductory chapter discusses the rationale for the thesis, as well as its aims, objectives and structure.

1.2. Rationale for, and relevance of, the thesis

In addition to addressing the adverse impacts of resource extraction and exploitation (Song *et al.*, 2011; Borasin *et al.*, 2002), EIA is often used to promote sustainable development (Duncan and Hay, 2007; Morrison-Saunders and Fischer, 2006; Robert, 2004; Petts, 1999d), as well as serving as a planning and management tool more generally (Crabbe and Leroy, 2008; Kakonge, 1998). However, studies of the implementation and evaluation of EIA ‘have been criticised for failing to bring to life not only the everyday working policies or projects, but also the lessons that might be gained from reflecting upon the processes...’ (McKie, 2002, p. 263). This links to a broader issue in social science, where numerous authors have noted that assessments of policy ‘successes’ or ‘failures’ have been largely based on insufficiently robust analytical frameworks (Powell and Maynard, 2007; Mark *et al.*, 2006; Cousins and Shulha, 2006; Anderson, 1995). Dahler-Larsen (2006) maintains that early evaluation studies were criticised for relying solely on quantitative methods and producing statistically complex results that were difficult to interpret. In order to address these issues, I have aimed to create a body of empirical evidence specific to the NMOGS. Mark *et al.* (2006, p. 17) comment that ‘...with empirical data, the evaluation research could construct...an empirically based assessment of what evaluation looks like, under different conditions’.

In Nigeria, offshore oil and gas activities that range from exploration to production have generated major environmental and social challenges (Basse, 2010, 2007, 2004; Goodland, 2005). The most noticeable are oil spills and gas flaring, which have become endemic and attained worldwide notoriety (Steiner 2008; Kloff and Wicks, 2004). For example, Luiselli *et al.* (2006) reported that about 1.3 million barrels of oil was lost in Nigeria due to oil spillage

incidents between 1978 and 2001. Similarly, Bassey (2010, p. 61) maintains that nationally ‘up to 1000 oil spills occur every year although official figure puts this at 300’.

One of the consequences of this high level of domestic environmental pollution is the current civil unrest within and outside the Niger Delta. Considering that a larger proportion of Nigeria’s wealth comes from the Niger Delta, it comes as little surprise that the people of the region have been in conflict with the Federal Government of Nigeria over the control of the petroleum resources as a result of having to bear the brunt of environmental damage caused by oil exploration activities. Currently, domestic activities such oil and gas exploitation in this region are severely constrained due to the negative effects of oil spill and gas flaring problems coupled with lack of social amenities (i.e. infrastructures) (Niger Delta Regional Development Master Plan 2006; Ukwu, 2002).

It should be pointed out that the issue of environmental policy standards and environmental regulation is not new in the African continent (Gray, 2003). The basis of environmental policy in Nigeria is contained in section 20 of the 1999 constitution of the Federal Republic of Nigeria (Makinde and Adegoke, 2008; Adelagan, 2004). Similarly, the Nigerian Government enacted the EIA Act in 1992 with the stated goal of achieving sustainable development (Nwafor, 2006). The Nigerian EIA act stipulates that the public or private sectors of the economy shall not undertake or embark on, or authorise projects or activities without a prior consideration of the effects on the environment (Nwafor, 2006; Ogunba, 2004; Olokesusi, 2000, 1999, 1998). Separate legislation established the Department of Petroleum (DPR), Federal Ministry of Environment (FMENV), State Ministries of Environment (SMENV) and National Oil Spill Detection Response Agency (NOSDRA),

Nigerian Maritime Administration Safety Agency (NIMASA) among other establishments to manage environmental related issues in the NMOGS.

It is also worth noting that there has recently been significant improvement in the environmental regulation of the African oil and gas sector more generally. This is evidenced by the establishment and hosting of the West Africa Regional Search and Rescue Coordination Centre of the International Maritime Organisation (IMO), which was commissioned in 2008. As a result of being a member of the organisation, Nigeria has ratified all IMO environmental related conventions. Similarly, the Department of Petroleum Resources (DPR) and FMENV run concurrent EIA systems.

Nevertheless, the problem of environmental degradation still prevails within oil producing states. In part, this may be due to the fact that environmental challenges cannot be treated in isolation from other societal issues (Crabbe and Leroy, 2008; Sands, 2008) particularly when achieving sustainable development is involved, and thus the application of a holistic or integrative approach is necessary. Castree *et al.* (2009, p. 1) comment that ‘...many see geography as the original integrated environmental science...’ This approach concerns the interrelationships and the interface between formulation of policy and its implementation, which for EIA represents ‘a key element to securing both comprehensiveness and consistency across the programme’ (Wilson and Piper, 2010, p. 89). Integrated Assessment can probably best be described as ‘interdisciplinary and participatory process of combining, interpreting and communicating knowledge to allow a better understanding of complex phenomena’ (Rotmans and Van Asselt, 2002, p. 78). Therefore, applying an integrated approach is needed to assess how national environmental policy objectives have been met (or not).

I have identified three areas where a novel contribution can be made by this study. First, even though previous researchers have explored the extent to which EIA has been translated into practice in Nigeria (See for example, Ameyan, 2008; Nwafor, 2006; Ogunba, 2004; Olokesusi, 2000, 1998), far less attention has been given to the implementation successes related to the NMOGS's EIA systems and the reasons for such achievements. This is particularly the case in terms of establishing whether the sector's EIA key implementation stages (mitigation compliance monitoring and public participation) are coherent and integrated in their approach to assessing environmental impacts through political, social and economic factors. Similarly, previous researchers have failed to exhaustively assess the sector's EIA implementation processes through multinational and national oil company projects. This gives me the opportunity to identify the system that reflects the principle of good practice.

Second, while previous work has established that NMOGS operates two separate EIA systems, with issues of overlap between these systems extensively discussed (See for example, Nwafor, 2006; Ogunba, 2004; Olokesusi, 2000, 1999, 1998, 1997), there has been little consideration of the reasons for this situation. There is a need to examine the *ad hoc* state interventions made to resolve the sector's EIA implementation challenges and explore the stakeholders' views regarding the operation of the double EIA systems, which has not been previously attempted.

A study by Nwafor (2006) emphasised low level of co-operation between FMENV and State Ministries of Environment. Nonetheless, Nwafor did not consider why some Nigerian states are agitating for their own separate EIA systems (case as is with Lagos and Rivers States). Similarly, the reason why the Federal Ministry of Environment is not permitting the State

Ministries of Environment to have their own EIA has not been investigated. Through this empirical scrutiny, I have sought to demonstrate the dynamic nature of the Nigerian context for implementing EIA, and to show the iterative relation between implementation practice and national setting, confirming Stern's observation that evaluating practice is 'a response to the formative contexts that are aimed at changing and reshaping evaluation' (Stern, 2006, p. 312).

Third, the study focuses on the multiple ways in which EIA can effectively improve the components of its key implementation stages: mitigation compliance monitoring and public participation. By doing so, the aim is to better understand current environmental management procedures in use within government implementing agencies (GIAs) and to identify a road map by which the sector's EIA goal can be enhanced. Implementation of improved environmental policy standards is essential because 'it is in implementation that GIAs perfect the promise of innovation... and put ideas and visions to work' (Russ, 2007, p. 1). In the same manner, analysis of implementation is urgently required in Nigeria, as it is capable of revealing and identifying factors that constitute either policy success or failure (Jordan *et al.*, 1998). Thus, implementation should be seen as what happens between policy expectations and policy results and it should not be viewed as 'failure but as another check...in a system of government...' (deLeon, 1999, p. 320). The expectation is that the GIAs and stakeholders should learn from the identified challenges in order to change implementation behaviours (Dahler-Larsen, 2006), and thus contribute to more efficient policy outcomes (Mark *et al.*, 2006). In this way, GIAs and stakeholders in the EIA process mainly will begin to 'act in ways which do not generate environmental problems or which generate problems with lesser significance than was previously the case' (Robert, 2004, p. 3).

It is hoped that if regulatory policies on the environment are strictly implemented, civil unrest in the country will be reduced and ecological degradation will be minimised (Adinna and Attah, 2003). By making recommendations for refining and enhancing existing EIA policies, it is further hoped the thesis will therefore enhance institutional, social, environmental and economic growth. The research outcome is of direct relevance to government and learned societies in Nigeria.

1.3. Aims and objectives

In light of the above, the main aim of this research is to review and evaluate domestic environmental standards and regulations with respect to the Nigerian maritime oil and gas sector. In particular, the analysis focuses upon one International policy tool – EIA – which embodies the difficulties associated in finding ‘consensual approaches to change’ (Wilson and Piper 2010, p. 17) when engaging the public and other stakeholders in the treatment of environmental issues.

This research partly embraces summative evaluation in understanding whether policy has achieved its clear goal (Mark *et al.*, 2006; Tilley and Clarke, 2006). As such, it largely takes form of formative evaluation, in terms of seeking to determine the efficiency and effectiveness of EIA arrangements in order to improve and refine national procedures (Mark *et al.*, 2006; Donaldson and Lipsey, 2006; Rogers and Williams, 2006; Whitmore *et al.*, 2006; Cabinet office, 2004; Hall and Hall, 1996; Patton, 1987). Therefore, the overall purpose of this research is to contribute to identification of areas of policy implementation that require further improvement. In more general terms, the purpose of evaluation includes: programme and organisational improvement; oversight and compliance; assessment of merit and worth;

and knowledge improvement (Chelimsky, 2006; Donaldson and Lipsey, 2006; Moore *et al.*, 2005; Morrison-Saunders and Bailey, 2000).

A novel feature of the thesis is that it focuses on the marine environment, since the impact of marine pollution is large (Junfeng and Leping, 2011; Veil *et al.*, 2004; UNEP, 1993) and contributes a significant threat to the sea environment (Kirby and Law, 2010; IMO, 2008; Camphuysen and Heubeck, 2001). It appears that when oil pollution occurs at the sea, it has capability of entering other regions because water is dynamic, and this might pose threats to the environment by disrupting or destroying marine ecosystems (Orubu *et al.*, 2004).

The research objectives are:

1. To assess the extent to which the NMOGS's EIA system has been translated into practice through mitigation compliance monitoring and public participation stages, including an examination of their effectiveness via political, social and economic factors.
2. To identify the effects of the national policy context on the development of environmental regulation within the Nigerian maritime oil and gas sector.
3. To examine the reasons for, and components of, the organisational ambiguities and conflicts associated with the implementation of NMOGS's EIA systems, within an inter- and intra-agency context.

1.4. Structure of the thesis

The thesis addresses the key research objectives as highlighted in section 1.3. The research is carried out in the context of assessing the effectiveness of EIA implementation through nine chapters, as follows:

Chapter 2 outlines the environmental impacts of oil and gas operations, and reviews the role of EIA and its components for example Social Impact Assessment (SIA). It includes the examination of what constitutes a ‘good environmental management system’ and the contribution of previous frameworks applied in evaluating EIA. It also discusses the challenges related to effectiveness of EIA and its components. The concluding section of the chapter critically revisits the identified previous frameworks applied in evaluating EIA.

Chapter 3 emphasises the need for policy theories and in particular the application of theorization of ambiguity and conflict to understand the national policy context for EIA implementation. Its starting point is to elucidate the relationships between policy implementation theories and evaluation research.

Chapter 4 sets out the methodology for the research. It presents the methods of data gathering and how they are analysed, including a description of the study areas, challenges encountered during the fieldwork and techniques adopted to address them.

Chapter 5 outlines the Nigerian national context and national systems of EIA. It discusses the historical development of oil and gas in Nigeria, including the assessment of impacts of oil and gas operations on the environment and social factors. The chapter further describes

the legal frameworks for EIA in the Nigerian maritime oil and gas sector, focusing on the Department of Petroleum Resources and Federal Ministry of Environment systems, while highlighting the role of government implementing agencies in the EIA implementation processes.

Chapter 6 uncovers likely implementation successes in terms of achievements that have been recorded in the sector since EIA became operational. The chapter further examines the extent to which the contents of previous EIA reports and projects (multinational and national oil companies) have been translated into practice through mitigation compliance monitoring and public participation, including an assessment of their effectiveness via political, social and economic factors. This is necessary in order to understand whether the NMOGS's EIA framework is coherent and integrated in its approach to address the identified environmental challenges and difficulties.

Chapter 7 uses the theoretical frameworks set out in chapter 3 to assess the differences and similarities between the DPR and FMENV EIA systems in order to see how they have influenced the implementation processes. The chapter further explores the reasons for the existence of a double EIA system. It examines why conflict persists in the sector within an inter-agency context, including a discussion of the strategies adopted towards addressing such discrepancies. In addition to this, I explore the stakeholders' views regarding the sector's double EIA systems in order to identify the one that is more robust.

Building upon the findings in chapter 7, I explore the FMENV's EIA implementation style in **Chapter 8**, in light of the fact that this organisation has a dedicated environmental policy responsibility, and to an extent its EIA system is more robust than the DPR EIA system. The

chapter gives a full account of EIA implementation challenges in an intra-agency context by investigating the levels of involvement, while outlining the reasons why the SMENV (one of the subsidiaries of FMENV) is agitating for their EIA, and why the FMENV is denying it. The remainder of this chapter examines the extent to which financial and human resources have been sufficient in the sector.

Chapter 9 presents the thesis' contribution to knowledge. Having summarised the empirical results, it revisits the original objectives and makes recommendations for further research and policy.

CHAPTER 2

APPRAISING ENVIRONMENTAL IMPACTS: THE ROLE OF EIA

Introduction

The purpose of this chapter is to outline the environmental impacts of maritime oil and gas operations, and the use of EIA for appraising them. It places a particular emphasis on the role of EIA and its components, such as Social Impact Assessment (SIA). The chapter also discusses implementation challenges related to EIA and its elements. It is divided into four sections. Section 2.1 reviews the evidence of environmental impacts of the maritime oil and gas sector, including the extent to which they have been hindering water, fisheries, global climate and human health among others. Section 2.2 elucidates the broader purpose of EIA, while providing examples of best practice in several countries, and including a discussion of its key components: Social Impact Assessment and monitoring systems. Section 2.3 describes the implementation challenges related to EIA and its components. Finally, the conclusion of the chapter (Section 2.4) summarises and critically highlights the main limitations of the main frameworks applied in evaluating EIA.

2.1. Environmental impacts of offshore oil and gas operations

Even though oil and gas exploration and development are fundamentally important to servicing the energy requirements of global capitalism, they also have significant impacts on the environment (O'Rourke and Connolly, 2003; Borasin *et al.*, 2002). Understanding the environmental implications of oil and gas operation is required to assess the cost of the world's dependence on oil (Borasin *et al.*, 2002). Marine environmental pollution was recognised as a major problem in the maritime oil and gas sector already from the late

nineteenth and early twentieth centuries. For example, one of the earliest surveys of the impact of oil on seabirds was conducted in the 1920s (Camphuysen and Heubeck, 2001).

The main offshore oil and gas activities are exploration, drilling and extraction (O'Rourke and Connolly, 2003; E&P Forum/UNEP, 1997). This has the tendency to pollute the environment via drilling waste, associated waste, noise generation, air emissions (flaring of natural gas), leaks and oil spills (Junfeng and Leping, 2011; Song *et al.* 2011; Streever, 2008; IFC/WB, 2007; Lee, 2005; O'Rourke and Connolly, 2003). Oil spills can occur accidentally or intentionally (Cao *et al.*, 2011; O'Hara and Morandin, 2010). The impacts of these activities vary, as they affect the water, sediment, sea fauna and flora, atmosphere, and have effects on human health (Soderbergh *et al.*, 2010; Kirby and Law, 2010; O'Rourke and Connolly, 2003; UNEP, 1993). They are summarised in Table 2.1.

Table 2.1: summary of potential environmental impacts (offshore)

Activity	Sources	Potential Impact	Components Affected	Comments
Seismic Operations (Offshore)	Seismic Equipment	Noise	Biosphere	Acoustic sources, disturbance to marine organisms (may need to avoid sensitive areas and consider seasonality). Short-term and transient
	Vessel Operations	Emissions And Discharges	Atmosphere, Aquatic, Terrestrial	Atmospheric emissions from vessel engines; discharges to ocean: bilges, sewage; spillages; waste and garbage disposal to shore
		Interference	Human	Interaction with other resource users (e.g. fishing). Short term, transient.
Exploratory And Appraisal Drilling (Offshore)	Site selection	Interaction	Human, Biosphere, and Aquatic.	Consider sensitivities in relation to biota, resource use, and cultural importance. Secondary impacts related to support and supply requirements and potential impact on local ports and infrastructure.

	Operations	Discharges Emissions Waste	Human, Biosphere, Aquatic and Terrestrial	Discharges to ocean – mud, cuttings, wash water, drainage, sewage, spillages and leakages. Emissions from plant equipment; noise and light; solid waste disposal onshore and impact on infrastructure. Disturbance to benthic and pelagic organisms and marine birds. Emissions and discharges from well test operations, produced water discharges, burning and flare, additional noise and light impact. Effects of vessel helicopter movements on human and wildlife.
Development And Production (Offshore)	Site selection	Interactions	Human, Biosphere and Aquatic.	Long-term site selection based upon biological and socio-economic sensitivities and minimum disturbance. Risk of impact to sensitive species, commercially important species, resource conflict and access. Long-term support and supply base requirement and impacts on local infrastructure.
	Operations	Discharges Emissions Waste	Human, Atmosphere, Biosphere, Aquatic and Terrestrial	Long-term, chronic effects of discharges on benthic and pelagic biota; sediment and water quality. Impact of drill cuttings and mud discharges, produced water, drainage, spillage and leakage. Emissions from power and process plant and impact on air quality. Noise and light impact from facilities and flaring.
		Socio- economic Cultural	Human	Loss of access and resource use interaction. Local port, harbour and community interactions related to supply and support functions

Source: O'Rourke and Connolly, 2003; E&P Forum/UNEP, 1997, pp. 16-20

2.1.1. The impacts on water, fauna and flora

One of the key objectives of Agenda 21 arising from the Rio Earth Summit (1992) was protecting and managing the sea (E&P Forum/UNEP, 1997). Oil that is discharged into the sea passes through different processes: evaporation, spreading, dissolution, biodegradation and emulsification i.e. formation of oil in water and vice versa (Song *et al.*, 2011; Borasin *et al.*, 2002; Mackay and McAuliffe, 1989; Riley *et al.*, 1980). The effects of pollution on sea water include high concentrations of oil (Kirby and Law, 2010; UNEP, 1993), and sources of contamination (Song *et al.*, 2011), which are capable of causing significance adverse effects to sea fauna and flora (sea creatures).

For example, in South America alone, over 40 000 sea creatures have been destroyed due to the impact of oil spills (Camphuysen and Heubeck, 2001). Similarly, in Kuwait only in one year (that is 1991) about 30 000 sea creatures were destroyed as a result of impact of oil spills (UNEP, 1993). A study by O'Hara and Morandin (2010) indicated that even thin oil can impact the microstructure of seabird feathers and their metabolic rate. Another study by the Centre for Environment, Fisheries and Aquaculture Science (CEFAS) in 2011 showed that when the sea is polluted, seabirds' reproductive capacity is reduced (CEFAS, 2011).

Other than the impacts of oil spills, Trannum *et al.* (2010) maintain that offshore oil and gas activities for example drill cuttings and the water-based drilling mud (waste waters/produced water) have affected oxygen consumption and penetration in the sea, thus causing sea fauna mortality. However, it has been argued that only oil based drilling and oil cutting could have an increased effect on sea water, while water based drilling has limited effects on sea water environment because its components are not toxic (Veil *et al.*, 2004; E&P Forum/UNEP,

1997). Moreover, a discussion that focuses on the offshore oil and gas environmental impacts cannot be completed without considering the impacts of noise pollution that are arising from offshore installations, which might endanger the life of fauna when proper mitigation measures are not in place from the onset (Streever, 2008; Khan and Islam, 2003; Pinder, 2001). Apart from offshore installations, other oil and gas activities generating noise pollution are seismic operations, drilling and production, and marine traffic (IFC/WB, 2007; Borasin *et al.*, 2002).

2.1.2. The impacts on atmosphere and human health

Emissions from offshore oil and gas operation arise from combustion from power and heat generation, and the use of compressors and pumps (IFC/WB, 2007). Similarly, large oil spills have the capability of producing toxic gases, including those rich in metals (Pandey *et al.*, 2009). Borasin *et al.* (2002) reported that levels of mercury in the Gulf of Mexico are high, thus contaminating fish, which causes harm to humans in the form of birth defects, heart problems and severe neurological disorders.

Other sources of emissions from offshore oil and gas activities include flaring, venting and purging gases (E&P Forum/UNEP, 1997). Although flaring is necessary in the case of emergency, new technologies should be demonstrated and adopted to ensure that gas is safely disposed (IFC/WB, 2007). It is only when the required technology is not in place, flaring becomes ‘a waste of valuable resource, as well as a significant source of green house emissions’ (P. 3).

The key emission gases from offshore oil and gas activities are carbon dioxide, carbon monoxide, volatile organic carbons, sulphur and methane (Song *et al.*, 2011; IEA, 2008; E&P Forum/UNEP, 1997). Importantly, potential impacts of these emissions vary, it depends upon the nature of the process under the consideration, and more emissions are generated during the production than exploration because the former is associated with intensive activities (E&P Forum/UNEP, 1997). In more general terms, emission gases have the tendency of affecting air quality and causing harm to marine environment and human health.

Among fauna for example, the emission gases have affected fish production causing decline because of changes in temperature (Sheppard *et al.*, 2010). In humans, emission gases have caused nausea, dizziness, headaches and irritation (Song *et al.*, 2011; Pandey *et al.*, 2009; Demayo *et al.*, 1998), and in some cases loss of human life have occurred (BP, 2011). One of the recent examples of emission gases that have resulted in loss of human life is the deepwater horizon accident, which occurred on 20th April 2010 at Gulf of Mexico, where gases were not only emitted into the atmosphere but subsequently explosion that lasted for 36 hours also occurred (BP, 2011). This is not different from the occurrence in Kuwait, where about 613 oil wells were burnt (UNEP, 1993), which remained a potential hazard to human health (UNEP, 1993), as the emissions lasted for several months (Borasin *et al.*, 2002).

Wilson and Piper (2010) established that between year 2000 and 2008, fossil fuel emissions have increased by 29 percent. The energy-related CO₂ emissions are projected to increase by 45% between 2006 and 2030, with three-quarters of this increment arising in China, India and the Middle East, and 97% in non-OECD countries as a whole (OECD/IEA, 2009). Notably, since 1973 oil consumption has remained a very substantial source of CO₂ emissions (See Figures 2.1 and 2.2), despite changing patterns of fossil fuel consumption. This is partly

because natural gas is a relatively clean fuel with low emissions of greenhouse gases compared with oil (Paltsev *et al.*, 2011). It appears that further reductions of CO₂ emissions are required to mitigate the effect of anthropocentric climate change (Jayanthakumaran *et al.*, 2012).

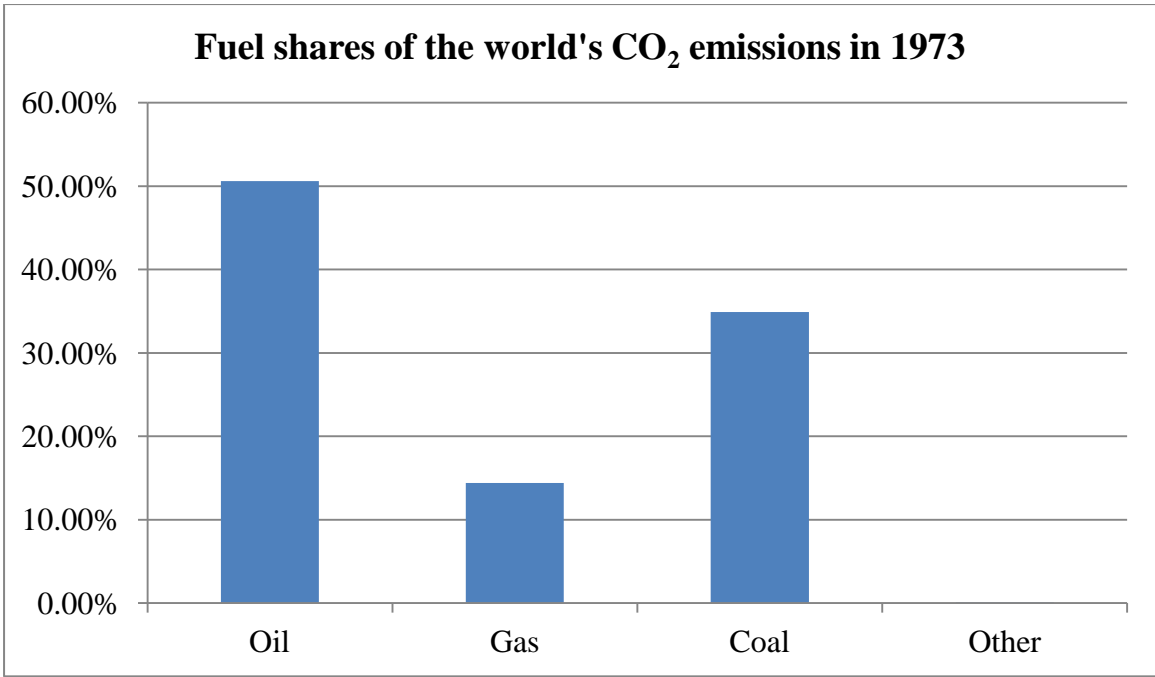


Figure 2.1: Fuel shares of the world's CO₂ emissions in 1973

Source: OECD/ International Energy Agency, 2009, p. 18

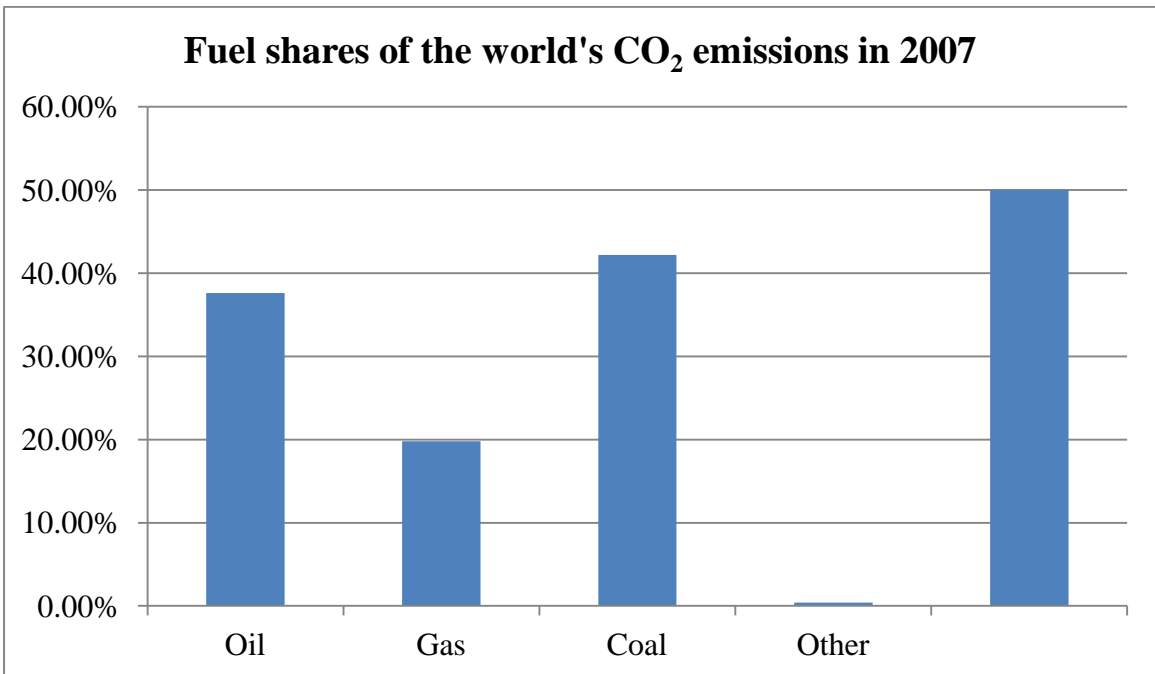


Figure 2.2: Fuel shares of the world's CO₂ emissions in 2007

Source: OECD/International Energy Agency, 2009, p. 18

However, addressing the CO₂ production impacts in the oil and gas sector by embracing renewable energy alone could greatly increase unemployment because oil production rates will be reduced (Esteban *et al.*, 2011). As documented by Cavalett and Ortega (2010) the use of these alternative sources of energy for example biodiesel has not proved effective for countries such as Brazil. Similarly, the way out is not even by concentrating largely on response for example oil spill response, as it might contribute additional threats to the sea fauna and flora (CEFAS, 2011). On this note, it seems that prevention is better than cure.

Therefore, mitigation tools that recognise the human dimension and the environment might help in preventing the oil and gas environmental related problems before they occur (Kirby and Law, 2010; Demayo *et al.*, 1998; E&P Forum/UNEP, 1997). In this context, there are several ways by which environmental impacts can be mitigated. However, in light of the research gaps and aims identified in the previous chapter, the next section focuses on the role of EIA, including the contributions of Social Impact Assessment and monitoring systems. While acting as components of EIA positioned to complement EIA, they should also allow for measuring the effectiveness of EIA implementation processes.

2.2. The role of EIA and its components

In the late 1960s, environmental problems became serious political issues in the U.S. leading to enactment of the National Environmental Policy Act (NEPA) in 1970 (Wood, 2003a, 1999, 1995) providing the first comprehensive environmental legislative framework in U.S. history (Bond *et al.*, 2010; Tullos, 2009; Jah *et al.*, 2007). This legislation is described as ‘a decision tool in response to increase eco-centric concerns to mediate between a techno-centric view of continued development and the ability to create growth while overcoming environmental

problems' (El-fadi and El-fadel, 2004, p. 555). Broadly, similar developments took place in Europe at this time. Thus, according to Tope (1999) the UK was at the forefront of implementing a goal- setting regulatory system. Interestingly, oil-related projects have been in existence in the UK as far back as 1973 (mainly in Scotland) (OECD, 1979). However, the projects were subjected to environmental analysis rather than EIA (Wood, 1995; OECD, 1979). In 1974, the UK produced its first offshore oil and gas Environmental Impact Statement (EIS), which was on an informal basis (Bond and Wathern, 1999).

Moreover, the EIA became prominent in the UK in 1980s and it was officially introduced to Member States of the European Union in July 1988, following the approval of 85/337/EEC (Peterlin *et al.*, 2008; Wood *et al.*, 2006; Barker and Wood, 1999) and later amended in 1997 (97/11/EEC) and 2003 (Wilson and Piper, 2010). In the same context, this EIA Directive aims to 'ensure that certain public and private projects, likely to have significant effects by virtue of their nature, size, or location are subjected to EIA prior to development consent' (Wilson and Piper, 2010, p. 143). EIA systems have been institutionalised more in other developed countries such as Canada in 1973, Australia in 1974, West Germany in 1975 and France in 1976 (Ogunba, 2004).

This section discusses EIA together with Social Impact Assessment (SIA) and monitoring systems as integral components of the EIA procedure, including what constitutes 'good practice' for EIA systems. As EIA is a policy tool, it is the primary means by which potentially adverse environmental impacts can be prevented and mitigated (Cashmore, 2004; El-fadi and El-fadel, 2004; Petts, 1999b), and in principle, should lead to the rejection of environmentally unacceptable actions (Wood, 2003a, 1995). The objectives of EIA include impact avoidance, public involvement, intergovernmental coordination, and agency

accountability to the public (Bass and Herson, 1999; Clark and Richard, 1999; Kakonge, 1998; Wood, 1995; Ebisemiju, 1993). EIA is further defined as a procedural technique of determining the environmental consequences of a specific project (Coskun and Turker, 2011). This implies that the objectives of EIA have moved beyond mere saying 'yes' or 'no' to development, towards ensuring that projects are effectively managed (Morrison-Saunders and Bailey, 2009, 2000) and potential problems are addressed as early as possible (Kakonge, 1998). The basic process of EIA contains four comprehensive stages: activity definition, EIA report preparation, decision, and implementation (Petts, 1999a and see Figure 2.3). In more general terms, the EIA process ranges from consideration of alternative to screening, scoping and review of the EIA report, decision-making and monitoring (Wood, 2003a, 1999 and see Figure 2.4).

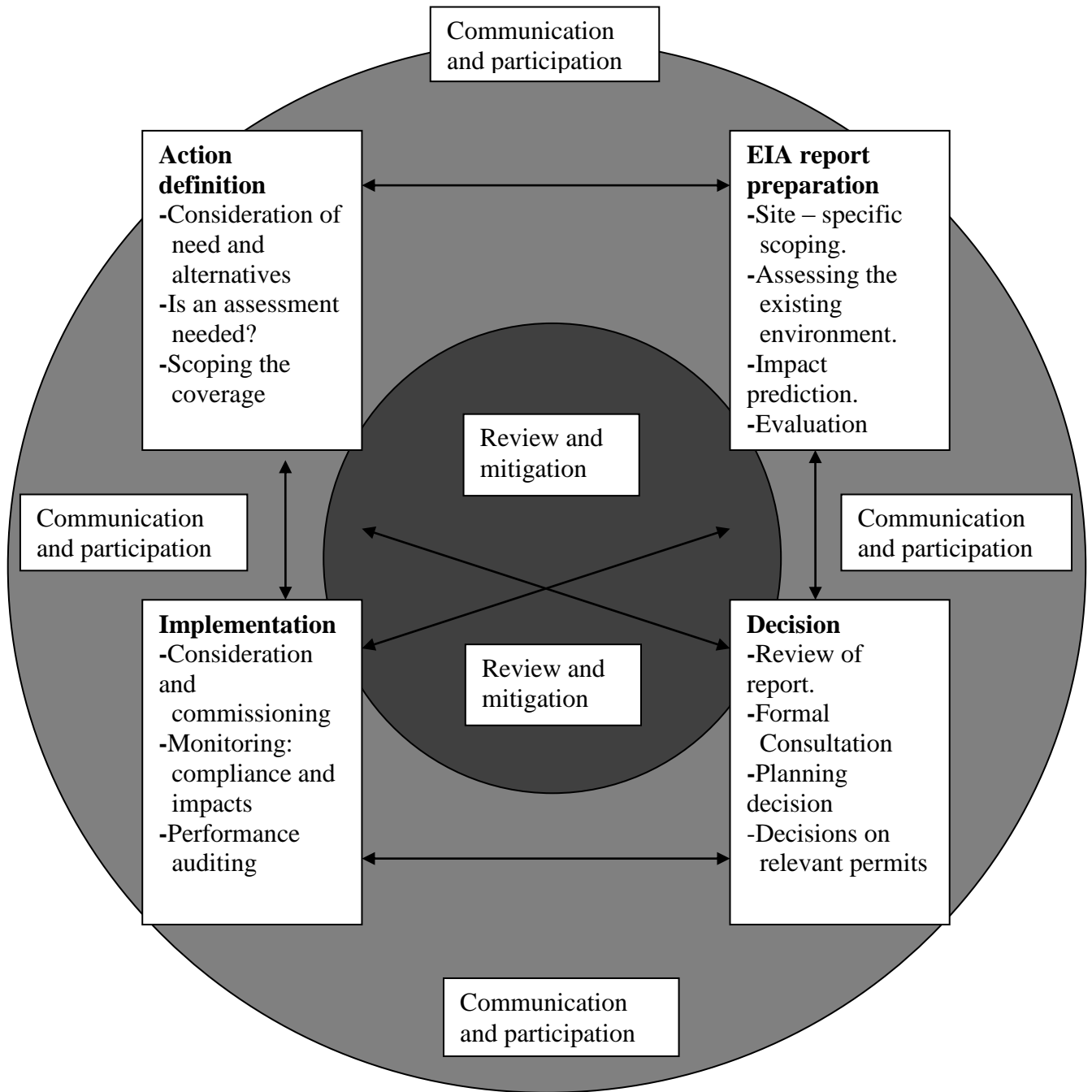


Figure 2.3: The environmental impact assessment decision-support system

Source: Petts, 1999a: 6

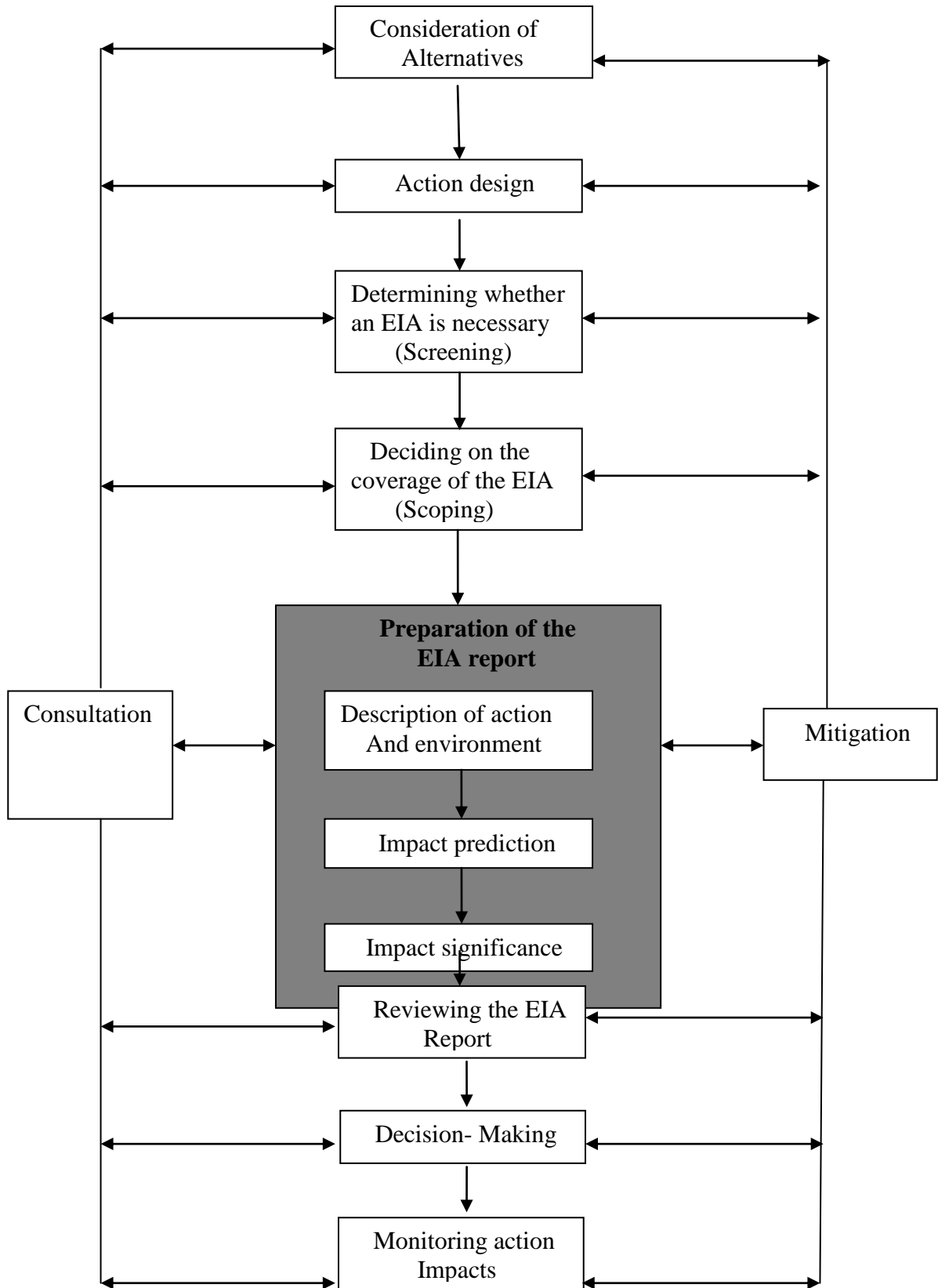


Figure 2.4: The environmental impact assessment process

Source: Wood, 1999 p. 11

The EIA processes identified in Figure 2.4 are of great importance, because when they are not treated properly in practice the quality of projects might be affected (Wood, 2003a, 1999). These processes should be considered as early as possible when a project is undergoing design and planning (Brookes, 1999). Pinho *et al.* (2010) describes screening as of the early and essential steps of EIA procedure, aimed at identifying whether or not a project require EIA. Scoping for example has been described as one of the paths towards EIA success (Brookes, 1999), only when it is not influenced negatively by management issues, guidance issues, external influences, internal influences and policy issues (Barnes *et al.*, 2010). The criteria and checklist for an effective and efficient scoping are outlined in Table 2.2, and the stages in the analysis of alternatives in Figure 2.5.

Table 2.2: Towards ‘sound practice’ principles of impact scoping requirements

The responsible authority makes determination of scope i.e. requirements:	Key action and principles
<ul style="list-style-type: none"> • In accordance with EIA laws, provisions and guidelines that apply in a jurisdiction. • Consistent with characteristics of the proposed activity and the condition of the receiving environment and • Taking account of the concerns of those affected by the project. 	<ul style="list-style-type: none"> • Pre-identify the possible range of issues and impacts associated with a proposed activity • Fix a ‘reasonable’ time for public review and consultation (i.e. having regard to severity of issues) • Establish, as far as possible, the relative and aggregate significance of impacts, based on technical analysis and public concerns • Draft terms of reference to focus the EIA study on priorities • Begin, confirm or refocus baseline studies and/or monitoring as appropriate • Determine suitable methodologies and methods for next-phase impact analysis and public consultation • Recognise that this process also constitutes a re-scoping exercise, track accordingly and maintain flexibility • Prepare a scoping statement or report with brief updates as necessitated by changes.

Source: Jones, 1999, p. 211

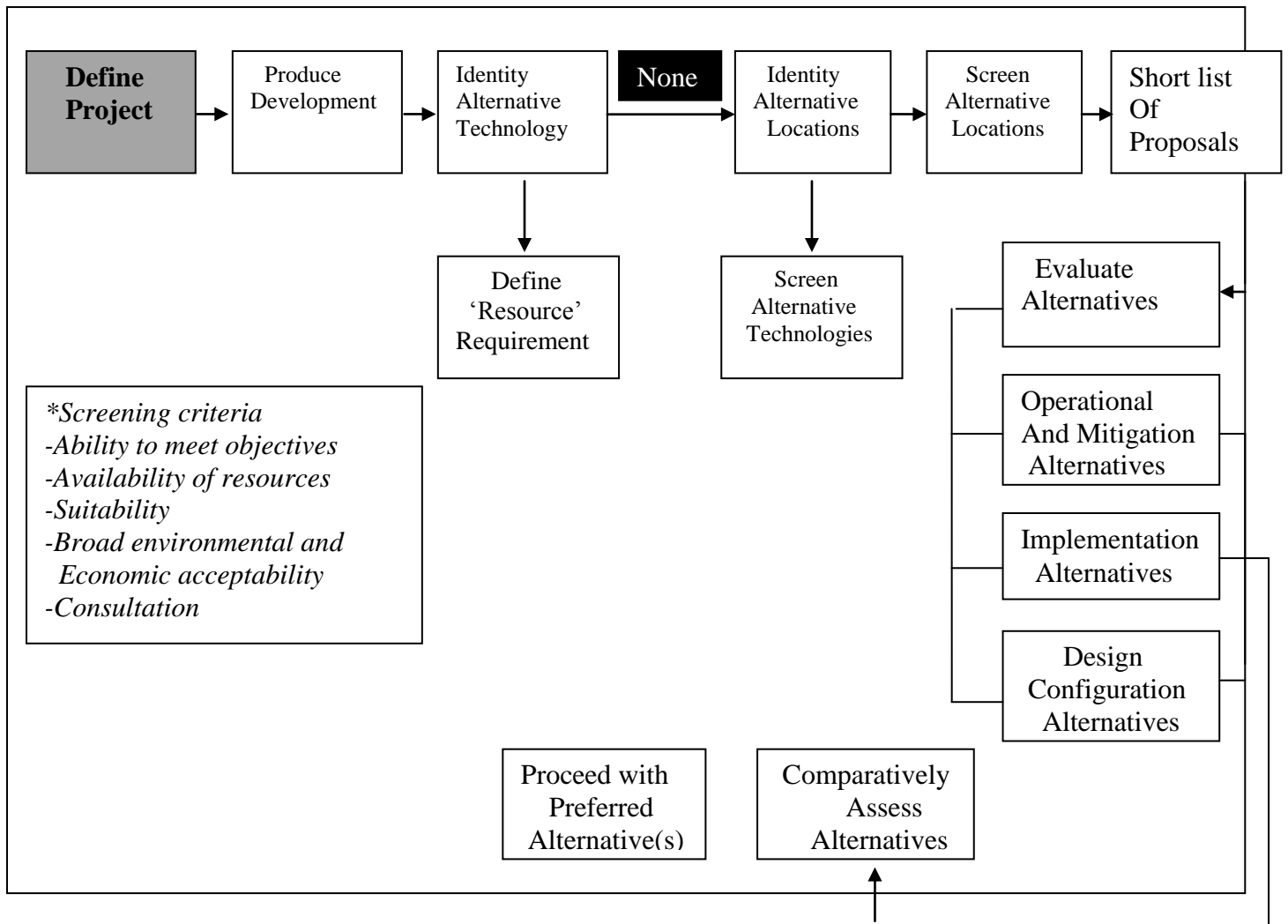


Figure 2.5: Stages in the analysis of alternatives

Source: Jones, 1999: 220

In practice, 14 evaluation criteria that centre on procedural issues have been used to examine the effective implementation of EIA (Wood 1999, 2003a). They include legal criteria, impact coverage, consideration of alternatives, screening, scoping, review, mitigation, monitoring, decision, participation, system monitoring, benefits and SEA (See Wood, 1999, pp. 15-19). In addition to these standards, the Canadian Environmental Assessment Research Council identified an additional set of criteria that seek to improve EIA implementation through a

range of indicators and measures (Wood, 1999, p. 14). These have been grouped into three categories, including:

- Effective criteria (information generated in the EIA contributed to decision-making, prediction of the effectiveness of impact management measures were accurate; proposed mitigation and compensation measures achieved approved management objective);
- Efficiency criteria (EIA decisions are timely, and relative to economic and other factors that determine project decisions; costs of conducting EIA and managing inputs during project implementation can be determined and reasonable);
- Fairness criteria (all interested parties (stakeholders) have equal opportunity to influence the decision before it is made; people directly affected by projects have equal access to compensation).

Apart from the application of such criteria frameworks, some researchers have assessed the effectiveness of EIA using broader procedural approaches. For example, four stages of evolution have been proposed by Gibson (2002) to explain EIA systems in Canada. These are summarised as: first, reactive pollution control to address the identified local problems; second, proactive impact identification; third, the integration of broader environmental considerations in project selection; and fourth, integrated planning and decision-making for sustainability (Gibson, 2002). Ogunba (2004) has offered an expansion of this model by proposing two additional stages, which he uses in explaining the EIA situation in Nigeria: first, building-up environmental awareness and second, putting in place national policy statements that might lead to the creation of EIA institutions and formalisation of EIA legislation. Other researchers have suggested adaptation, that is using a framework that has been applied elsewhere (Bailey and Dixon, 1999); some have advocated using assumptions such as issues determine politics and politics determine policy (Christiansen and Kellow,

2002); and in some cases no framework is suggested as long as EIA legislation has been institutionalised (Bartlett, 1997).

However, there is evidence to suggest that a comprehensive and robust EIA system might not be fully guaranteed through the application of evaluation criteria alone. Indeed, the main driving force for 'best practice' EIA is likely to address how environmental policy is administered nationally, while assessing the amount of time, and resources needed to prepare the EIA reports, and gauging environmental awareness among the public, NGOs and political expectations (Pinho *et al.*, 2007). Similarly, a 'good' EIA must be operative throughout the whole project cycle (Sebastiani *et al.*, 2001). Petts (1999d, p. 8) argues that 'best practice EIAs should improve the openness, comprehensiveness, transparency and robustness of environmental decision-making'. This should be done in the interest of environment and people (Glasson, 1999), as one of the original intentions of EIA was to improve public involvement in decision-making (Jah *et al.*, 2007; Kvaerner, 2006; Petts, 1999b).

Sadler (1996) suggests that part of the yardsticks to measure the effectiveness of an EIA system should be based on three factors. First is 'procedural issue (does the process conform to the established provisions and principles?); second is substantive outcome (does the process achieve the objectives set, for example support well-informed decision-making and result in environmental protection?); and third is transactive outcome (does the process deliver tangible outcome that is, is it effective and efficient?)' (Sadler, 1996 p. 39). In addition to this, effective EIA might be achieved by starting early, identifying priority issues (scoping), establishing clear time lines to decision-making (Terms of Reference), using appropriate methods (impact analysis), ensuring that affected people have a say and their input should be respected, ensure that up-to-date mitigation measures are in place, EIA

reports should be written in a clear language, and it should be reviewed, evaluated and monitored (Sadler 1996).

Apart from preparation of a set of Terms of Reference as mentioned above, Marara *et al.* (2011 p. 287) comment that an EIA system might be categorised as sound and effective under the following conditions: (a) 'a law or written administrative direction, which dictates the EIA process is a necessary condition for viable EIA (b) a transparent government decision-making and approval stages where what is required of proponents and government agencies is made clear to all and (c) adequate administrative support'. Putting in place administrative support is not sufficient but institutional factors that will influence the procedural aspect of EIA system should be encouraged, as they are embedded in 'legislature, administrative structures, economic and financial arrangement, political structures and processes, and historical and traditional custom and values' (Morrison-Saunders and Bailey, 2009 p. 285). It is on this note Marara *et al.* (2011) argue further that the contextual set-up such as the socio-economic and political situation play an important role in achieving an effective EIA system.

Importantly, effective EIA can be achieved in practice when there is cooperation among the policy actors and Government Implementing Agencies in particular, and this is what has been titled as 'the Partnering Agreement Approach' (Morrison-Saunders and Bailey, 2009, p. 293), while Polonen *et al.* (2011 p. 127) see it as 'communication chains'. Similarly, knowledge management among Government Implementing Agencies is viewed as a pathway towards achieving effective EIA implementation, as knowledge management itself aims at stimulating and enhancing collective organisational skills and competencies (Sanchez and Morrison-Saunders, 2011 p. 2260).

According to Glasson and Bellanger (2003), EIA should also provide answers to basic questions – which development is the best for a given location? How should the development be planned to limit the negative to reduce its impact on the environment and maximise the positive impacts? Based on these questions, the principles for designing and developing effective EIA processes are shown in Table 2.3 and the principles for effective EIA practice in Table 2.4. Table 2.3 outlines the principles associated with clear EIA legislation goals and objectives, a uniformity of approaches towards assessment of environmental problems, and selection of the relevance scope of alternative among other principles of effective EIA processes. Table 2.4 summarises the practical ways of achieving effective EIA; it concentrates on the reasons for the application of EIA and how EIA should be undertaken and addressed among other issues.

Table 2.3: The principles for design and development of effective EIA processes

Clear mandate and provisions:	Vested in law, have specific, enforceable requirements and prescribe the responsibilities and obligations of the proponents and other parties
Explicit goals and objectives:	A clear purpose is required to achieve environmental protection and/or sustainable development
Uniform, consistent application:	To be applied to all proposals and actions with potential environmental effects and consequences
Appropriate level of assessment:	Scaled to the degree of environmental significance and extent of public concerns associated with a proposal
Relevant scope of consideration:	This can be achieved by examining all pertinent environmental options to aspects of a proposal, including cumulative effects, cultural and health factors and sustainability implications
Flexible, problem solving:	It is adapted to deal with a range of proposal, issues and decision-making situations
Open facilitative procedures:	This must be transparent and readily accessible, with traceable of assessment decisions and timely opportunities for public involvement and input at key stages
Necessary support and guidance:	Cover level of resources and procedural guidance for conducting assessments in accordance with requirements, principle and standards of good practice
Best practice' standards:	This can be undertaken with professionalism, objectivity and credibility, as identified by 'best practice' in impact science, public consultation and process administration
Efficient predictable implementation	To be applied in a timely manner that fosters certainty, minimises delay and avoids unnecessary burdens on proponents
Decision oriented:	Provide sound, tested practical information that is readily usable in planning and decision-making
Related to condition setting:	It is explicitly linked to approvals and, as necessary, to specified terms and conditions
Follow-up and feedback in-built mechanisms:	Measures must be on ground for checking on compliance with conditions, monitoring effects, managing impacts and auditing and evaluating performance
Cost-effective outcomes	This is achieved by promoting actions that ensure environmental protection at least cost to society

Source: Fuller, 1999, p. 57

Table 2.4: The principles for effective EIA practice

EIA should be applied:	<ul style="list-style-type: none"> • As a primary instrument for environmental management to ensure that impacts of projects are minimised • So that scope of review is consistent with the nature of the project and commensurate with likely issues and impacts • On the basis of well-defined responsibilities for key actors
EIA should be undertaken:	<ul style="list-style-type: none"> • Throughout the project cycle, beginning as early as feasible in the concept design phase • With clear reference to the requirements for project authorisation and follow-up, including impact management • Consistent with the application of 'best practicable' science and mitigation technology • In accordance with established procedures and project specific terms of reference, including timelines • To provide appropriate opportunities for public involvement, groups and parties directly affected by or with an interest in the project and/or its environmental impacts
EIA should address, wherever necessary or appropriate:	<ul style="list-style-type: none"> • Other related and relevant factors, including social and health risk and impact • Design, locational and technological alternatives to the proposal being accessed • Sustainability considerations including resources productivity, assimilative capacity and biological diversity
EIA should result in:	<ul style="list-style-type: none"> • Accurate and appropriate information as to nature, likely magnitude and significance of potential effects, risks and consequences of a propose undertaking and alternatives • The preparation of impact statement or report presents in a clear, understandable manner • The EIS identifying the confidence limits that can be placed on the predictions and clarifying areas of agreement among the parties involved in the process
EIA should provide basis for:	<ul style="list-style-type: none"> • Environmentally sound decision-making in which terms and conditions are clearly specified and enforced • The design and planning of acceptable projects that meet environmental standards and management objectives • An appropriate follow-up process with requirements for monitoring, management, audit and evaluation • Follow-up requirements that are based on significance of potential effects and on the uncertainties associated with prediction and mitigation • Learning from experience with a view to making future improvements to design of projects or the application of the environmental assessment process

Source: Fuller, 1999, p. 58

2.2.1. EIA around the world: 'Best practice' examples from the U.S and the UK

The United States Government institutionalised NEPA and established the country's Environmental Protection Agency to implement the various steps as contained in the EIA process (Wood, 2003a, 1995). The agency determines the scope of EIA, including examination of proposal and preliminary environmental analysis in order to identify the related impacts to be addressed through mitigation measures as contained in the Environmental Impact Statement (EIS) (Bass and Herson, 1999). EIS is not issued if a particular project would not result in significant environmental effects; rather a 'no significant environmental effects document' is issued (Bass and Herson, 1999). Clark and Richards (1999) reported that about 500 EISs are issued annually in the U.S., despite the large numbers of Environmental Assessment conducted (that is about 50,000).

The U.S. adopted additional regulations to complement its EIA system, including the guidance for the assessment of cumulative effects to determine the scope of any assessment (Cooper and Sheate, 2002), and the Deep Water Royalty Relief Act to ensure effective environmental management (Pinders, 2001). It is on this note that Chasek (2007) concluded that the U.S is positioned to achieve sustainable development. In many countries, permit and licence systems are indefinite or for the life of the project, this is not the case in the U.S., as most energy or water related projects in particular are required to pass through an environmental review under the supervision of Federal Energy Regulation Commission (FERC) before new license can be issued (Russo, 1999). However, Wood (1999, 2003a) argues that the U.S. EIA system requires improvement in public participation, agency consultation, decision-making, mitigation, monitoring, and suggests that the country's EIA process should be shorter and more accessible.

In the UK, both public and private sector projects are subjected to EIA prior to development (Wilson and Piper, 2010). This system has been incorporated into the town and country planning decision process in England and Wales, and Scotland, and Northern Ireland (Ogunba, 2004; Glasson, 1999; Wood, 1995). The EIA system in the UK reflects best practice, as it focuses on the consideration of alternatives, screening, scoping, EIA report preparation, review, decision-making, and monitoring, among others (Wood, 2003a, 1999, 1995). Apart from the fact that Local Planning Authorities (LPA) in the UK play a key role in decision-making, the licensing system is also structured to ensure that the approved development is operated purposely to minimise environmental impacts (Glasson and Salvador, 2000; Petts and Eduljee, 1994). In the UK, over 3000 EISs have been issued with 350 per annum since the implementation of EC directive (Glasson and Salvador, 2000).

However, the EIA system in the UK has been criticised for not giving adequate consideration to scoping, early participation, right to further information, true centrality of EIA decision, and monitoring provisions (Wood, 2003a, 1999). For example, ‘the voluntary nature of the UK scoping provision enables EIA practice to be strongly determined by developers, their consultants and the decision-making body’; as it is evidenced by Regulation 10 of 1999’ (a scoping opinion) (Snell and Cowell, 2006: 365). Pediaditi *et al.* (2010) observe that provisions of monitoring system have not been fully implemented in the UK and European Union in general, though significant improvement has been recorded in the public hearing around the EU and the UK in particular (Barker and Wood, 1999), with statutory bodies (Environmental Group) playing a vital role in the UK EIA process (Glasson and Salvador, 2000). I have summarised in Table 2.5, EIA evaluation research that has been previously carried out around other developed world and within the European Union in particular.

Table 2.5: Previous EIA research around the European Union

Author	Topic	Brief description of key activities
Androulidakis, Karakassis (2006: 242-256)	Evaluation of the EIA system performance in Greece , using quality indicators	This paper explores EIA practice in Greece and focus on the extent to which the system is conformed in practice. The author evaluation method is likened to using legal assessment.
Barker, and Wood (1999: 387-404)	An evaluation of EIA system performance in eight EU countries	Reviewed EIA in 8 EU countries and reported an average of 60% satisfactory performance, in spite of several forced modifications.
Bellinger, Lee, George and Paduret (eds.) (2000)	Environmental assessment in countries in transition	Described EA systems in 19 Eastern-Bloc countries. Used Cost-Benefits Analysis and concluded that there is still considerable scope for further improvement.
Braniš, and Christopoulos (2005: 227-238)	10 years of EIA in Austria . A Good Reason for an EIA Evaluation	Evaluated Austria's EIA 10 years after its introduction. The theoretical framework used multi-disciplinary approach to reach its conclusion and ultimately led to the development of new theories.
Cashmore <i>et al.</i> (2004: 295-310)	The interminable issue of effectiveness: substantive purposes, outcomes and research challenges in the advancement of environmental impact assessment theory	Reviewed EIA literatures/studies and concluded that integration-linked problems have otherwise hampered its success. It advocated further theory-based research in diverse processes.
Chaytor, (1995: 507-515)	The potential of EIA procedures to enhance public participation in trade decision-making	Highlighted the importance of EIA for public sector projects/activities.
Christensen <i>et al.</i> (2003a)	The advantages of EIA— Evaluation of EIA in Denmark , main report	Examined the Danish EIA system by reviewing over 90 projects at various stages of approvals and concluded that they have benefited the public as a whole.
Christensen <i>et al.</i> (2003b)	The Outcome of EIA in Danish	Reviewed Danish EIA within the broader European context. It concluded that improvements resulted to a larger extent from concerted traditional mitigating measures.
Christensen <i>et al.</i> (2005: 393-412)	EIA as regulation: does it work? in Danish	Also reviewed the effects of the Danish EIA and concluded that EIA generate significant positive changes to projects.
Dipper <i>et al.</i> (1998)	Monitoring and Post-Auditing in Environmental Impact Assessment: A Review	This is a post-EIA audit which examined both pre-decision as well as post-decision monitoring. It concluded that several benefits were not harnessed due to poor and ineffective implementation.
European Commission	Environmental Impact Assessment in Europe - A	Examined the Cost Benefit Analysis of EIA implementation within the EU split into Project

(1996)	study on costs and benefits	EIA and SIA. Also concluded that generally the positive impacts of EIA justified the effort involved.
Figge, and Hahn (2004: 921)	Value-oriented impact assessment: the economics of a new approach to impact assessment	Highlighted the importance of EIA to public and private economic activities. Criticised most of the existing approaches for their lop-sided nature and proposed value-oriented approach.
Haldorsson, and Sigurdardottir (2006)	EIA in Iceland 1994-2005 - The Impact of the Introduction of the Scoping Process	Reviewed EIA in Iceland following its adoption of the EU directive 85/337/EEC. It adopted different methods, identified reasons for major changes between 2000 and 2005 as well as suggested a down-scaling of the administrative costs of EIS.
Hanssen, (2006)	Norwegian EIA Research	A bridged EIA researches in Norway over a 25-year period. Identified wide-spread non-implementation of EU-directives and Espoo conventions in the early years.
Hokkanen, <i>et al.</i> (2005)	Effectiveness of Environmental Impact Assessment in Finland –	Examined the Finnish EIA legislation and highlighted gaps which weakened implementation. The acclaimed objectives never materialized in the context proposed, thus further policy instruments needs to be applied to reduce deviations. The import of multidisciplinary teams was also recommended.
Kempenaar, Christa (2005)	Quality in control? An evaluation of the quality, costs and time of Dutch EIA-studies for road projects.	This case study which examined a Dutch road project concluded that EIA studies are costly, lengthy. An overhaul of the process has now been formulated and rolled out to ensure that henceforth EIA are not only fit-for-purpose but most importantly cost effective.

Sources: Oosterhuis 2007: 33-80 (Institute of Environmental Studies)

2.2.2. Social Impact Assessment as a component of EIA

Social Impact Assessment has remained an integral component of EIA in theory to correct social lapses, as it is connected to public participation within the EIA procedures (Pisani and Sandham, 2006; Weaver and Caldwell, 1999), thus further described as a wider focus of EIA (Wilson and Piper, 2010). Similarly, SIA focuses on processes rather than technical means (Schirmer, 2011) and is as old as EIA itself (Webler and Lord, 2010; Momtaz, 2005). The aspect of participation is central to SIA and the ‘combination of a participative approach with expert judgement is often regarded as strength of SIA’ (Ahmadvand *et al.*, 2009, p. 406). The issue of SIA was contained in the U.S. original EIA legislation, but it has not been fully integrated in practice because of political consequences of making explicit social implications of a project (Webler and Lord, 2010; Pisani and Sandham, 2006; Burdge *et al.*, 1995). Although social issues came to force since 1973 following the established impacts of Alaskan Pipeline from Prudoe Bay on the Arctic Sea to Valdez on Prince William Sound on people (Vanclay, 2006). It is argued that a project that is socially sound is likely to be environmentally and economically sound (Barrow, 1997), and SIA helps in managing environmental and natural resources conflicts (Barrow, 2010).

The purpose of SIA is to examine whether a proposed project affects quality of life of people within a specific area (Barrow, 2010; Glasson, 2009; Ahmadvand *et al.*, 2009; Vanclay, 2006; Lockie, 2001; Burdge *et al.*, 1995). SIA is defined as the ‘process of analysing, monitoring and managing social consequences’ (Barrow, 2010, p. 293). In 2003, international principles for SIA were published to address some of the lapses under national SIA guidelines. This is because most national SIA guidelines do not fully consider democratic, participatory and constructivist issues (Vanclay, 2006). The international principles that relate

to a sound SIA practice is in Table 2.6 and stakeholders' expectation of EIA process in Table 2.7, as public for example deserves the right to know, to be informed and to be heard.

Table 2.6: The international principles for SIA

Equity considerations should be a fundamental element of impact assessment and of development planning
Many of the social impacts of planned interventions can be predicted
Planned interventions can be modified to reduce their negative social impacts and enhance their positive impacts
SIA should be an integral part of the development process, involved in all stages from inception to follow-up audit
There should be focused on socially sustainable development, with SIA contributing to the determination of the best development alternative(s) – SIA (and EIA) have more to offer than just being an arbiter between economic benefit and social cost
In all planned interventions and assessments, avenue should be developed to build the social and human capital of local communities and to strengthen democratic processes
In all planned interventions, but especially where there are unavoidable impacts, ways to turn impacted people into beneficiaries should be investigated
The SIA must give due consideration to alternatives of any planned intervention, but especially in cases when there are likely to be unavoidable impacts
Full consideration should be given to the potential mitigation measures of social and environmental impacts, even where impacted communities may approve the planned intervention and where they may be regarded as beneficiaries
Local knowledge and experience and acknowledgement of different local cultural values should be incorporated in any assessment
There should no use of violence, harassment, intimidation or undue force in connection with the assessment or implementation of a planned intervention
Developmental processes that infringe the human rights of any section of society should not be accepted

Source Vanclay, 2006, p. 12

Table 2.7: Key stakeholders' expectations from the EIA Process

Stakeholder	Key Expectations
Proponents	Certainty of outcome, cost effectiveness, minimising of delays and adherence to time lines
Public	Right to know, right to be informed, right to be heard and right to object
Decision makers	Minimisation of delays and adherence to time lines, provisions of information appropriate to decision-making, avoidance of unnecessary information and succinct manageable documentation

Source Fuller, 1999, p. 56

2.2.3. Monitoring systems as a component of EIA

Understanding the components that constitute monitoring within the EIA procedure is essential to enable the relevant bodies to monitor the effects of implemented actions (Wood, 1995). Monitoring is designed to ensure that the recommendations of mitigation measures are implemented, and this is a continuous process (Thriewel and Morris, 2009; Brookes, 1999; Bass and Herson, 1999; E&P Forum/UNEP, 1997; Petts and Edulje, 1994). Monitoring can be categorised into two groups: baseline monitoring (monitoring before the commencement of project/development) and compliance - or 'post development' – monitoring (Barrow, 1997). In Bolivia and Brazil, compliance monitoring of oil and gas related projects have been reported to be effective, because of the wide involvement of the stakeholders (Russo, 1999). Therefore, a key condition for an effective monitoring system is that the baseline data must be good enough to detect residual impacts, and there should be funding to carry out monitoring survey work to enable modifications to mitigation to be made (Therivel and Morris, 2009).

In practice, monitoring systems appear as the only form of EIA follow-up, and more importantly, all EIA processes are relevant to this EIA follow-up (Arts and Nootboom, 1999). For example, the Canadian EIA system supports this type of monitoring in line with its legal provisions (Wood, 1995), even though its Country Act 'did not contain any means of ensuring that monitoring is implemented, rather it aids good decision-making and therefore not intended as a regulatory tool' (p. 206). Some countries have embraced effective monitoring mechanisms, as contained in their regulatory systems (Arts and Nootboom, 1999). For example, in California, if the monitoring reveals that mitigation measures are ignored or not completed; sanctions will be imposed (Arts and Nootboom, 1999). Barrow

(1997) maintains that monitoring will improve as long as better research and practice are available together with better measuring instruments.

However, monitoring was not contained in NEPA – the original conception of EIA – and thus is not required in the US system (Wood, 1995). It is not also a statutory requirement in the UK (Therivel and Morris, 2009). But ‘best practice’ countries like the U.S, UK, Hong Kong, and Australia, among others, have been applying monitoring systems, enabling them to gain improved experience towards achieving effective implementation (Arts and Nooteboom, 1999).

2.3. Practical challenges related to EIA implementation and its components

Pollution mitigation tools and EIA in particular have been institutionalised in over 100 countries (Weaver *et al.*, 2008; Glasson and Salvador, 2000; Petts, 1999a). However, it appears that certain factors influence the effective implementation of EIA. Equally, EIA procedures can be rendered ineffective if certain basic requirements are not in place (Barrow, 1997). These include, *inter alia*, a supportive legislature, broader environmental protection, effective procedures, accurate and sufficient data, adequate financing for the assessment and a clear indication of what is to be the subject of impact assessment, competent impact assessors, monitoring mechanisms, and public participation (Barrow, 1997). Lawler (2005) identifies both economic and logistical constraints as the major challenges against effective EIA implementation particularly in the water related sector.

Consequently, the effectiveness of EIA differs from one region to another, as well as from one project to another. In particular, the situation in developing countries is not directly

aligned with that in developed countries (Wood, 2003b), because of different in origins, legislature and environment (Ogunba, 2004). More generally, the challenges against EIA implementation in the developing world include a lack of implementation capacity (Aishuwaikhat, 2005); dearth of political will (Briffett, 1999) and flaws in legislative, administrative, institutional and procedural frameworks (Ebisemiju, 1993). The examples of Venezuela, Chile, Ghana, Pakistan, Taiwan and Bangladesh are considered to explore the extent to which these six developing countries have been hindered from translating into practice the contents of EIA, as all other environmental management systems are connected with EIA.

In Venezuela, only projects related to industrial plants require a complete EIA report (Sebastiani *et al.*, 2001). However, the Venezuelan's EIA system has often been criticised, with major problems cited including, *inter alia*, poor documentation, lack of technical support for environmental control, poor communication between departments of the industrial facility, poor communication with local communities and lack of management commitment (Sebastiani *et al.*, 2001). In Chile, despite the spread of environmental legal provisions across different Ministries, environmental and social problems remain enormous (Brito and Verocai, 1999). Moreover, the inability of Chilean's environmental agencies to implement the content of EIA in particular is exacerbated because of lack of penalties in cases of violation, and mitigation measures not being cost effective among other problems (Brito and Verocai, 1999). Ofori (2005) and Appiah-Opoku (2001) highlighted seven reasons why Ghanaian EIA has not been fully translated into practice, despite the fact that the country's EIA has been institutionalised since 1994. These include the lack of organised baseline data, little environmental awareness, shortage of local experts, and the lack of public involvement, inadequate monitoring, financial resources and institutional constraints.

In 1997, EIA was enacted in Pakistan, with the aims to describe project and related environmental consequences, the procedure commences with screening, which is followed by scoping (by identifying issues that are likely to be most important) and emphasises the need for monitoring, public participation and EIA review (Saeed *et al.*, 2012). The purpose of EIA review for example is to ensure that the EIA report contains quality information and to examine how the identified impacts will be mitigated. However, the EIA procedures in Pakistan have not been effective, given that no independent review commission exists in the country as stipulated in its EIA legislation, public participation in the country is alleged of being manipulated coupled with insufficient resources (Saeed *et al.*, 2012).

In 1994, Taiwan EIA came into existence; the country's EIA focuses on general principles, assessment, review, and supervision procedures for EIA itself, where developers are expected to submit Environmental Impact Statement as well as making them available to the public; and enforcing penalties for non-compliance (Jou and Liaw, 2006). In the same manner with other developing countries, EIA in Taiwan has not been translated into practice mainly because they were completed by environmental consultants employed by the developers and also environmental data were inadequate and public participation lacks transparency (Jou and Liaw, 2006).

The EIA procedures in Bangladesh seems to be reactive rather than proactive, the country's EIA came into existence due to social and environmental impact of Kaptai Dam (hydraulic Power Station) (Ahammed and Harvey, 2004). Subsequently, the country established Ministry of Environment in 1989 and EIA Act in 1995 under (Environment Conservation Act) (Ahammed and Harvey, 2004). Like other EIA procedures around the developing world,

the country's EIA emphasises the need for screening, scoping, monitoring and public participation among others EIA stages, yet these EIA procedures remain ineffective in Bangladesh due to lack of coordination as one of the major hindrances (Ahammed and Harvey, 2004).

Even though most of these developing countries have established EIA since early and mid 1990s, they are still struggling with the EIA processes and procedures in practice. It appears that in some developing countries, EIA legislation has not been institutionalised; these include Lesotho (Kakonge, 1997), Comoros (Kakonge, 1999) and Cameroon (Alemagi *et al.*, 2007; Kakonge, 1999). However, Koornneef *et al.* (2008) maintain that it will be difficult to apply EIA regulations when a country's legal status is unclear. Jah *et al.* (2007) therefore suggest that EIA should be given a strong and clear regulatory backing.

Particular aspects of EIA implementation process have been hindered: these include Social Impact Assessment and monitoring systems. Often SIA related projects require more time and funds (Barrow, 1997), and they have been reportedly underfunded and 'neglected mainly in the mining sector' (Yaylaci, 2005, p. 637). Other challenges related to SIA include difficulties in applying social science to SIA; problems with the procedure for applying SIA; and a prevailing anti-social impact assessment mentality or an existing societal mentality (Vanclay, 2006, 1999; Barrow, 1997; Petts and Eduljee, 1994).

Likewise, it appears that challenges related to EIA monitoring systems are more noticeable, because they pertain to a more practical approach, and require continued moderate to high levels of funding over years (Therivel and Morris, 2009; Arts and Nooteboom, 1999). Other challenges related to monitoring systems include uncertainty and limited information,

deficiencies in EIS, and lack of guidance (Arts and Nooteboom, 1999). Furthermore, the lack of legal actions to ensure effective monitoring process has remained a major challenge (Wood, 1995, 2003a & b). For example, under Annex 1 of the International Convention for the Prevention of Marine Pollution from Ship (MARPOL): ships are still permitted to discharge small amounts of oil waste into the sea (IMO, 2010, 2009; Camphuysen and Heubeck, 2001). The fact that this small amount might affect sea fauna and flora (as mentioned in section 2.1; also see O'Hara and Moradin 2010), is part of the reason why Bond and Wathern (1999) concluded that EIA monitoring provisions are proving ineffective in practice.

2.4 Evaluating EIA practices: a critical summary of the literature

In this chapter I have reviewed the extent to which offshore oil and gas sector operations affect marine fauna and flora, and cause associated negative environmental effects on the atmosphere and on human health. Based on the identified environmental impacts, mitigation tools and EIA are mainly considered as a way of assessing environmental pollution before it occurs. This is because neither the response to marine environmental pollution after it occurs (for example oil spillage, see Kirby and Law, 2010) nor the use of alternative sources of energy such as biodiesel have proven effective (Cavalett and Ortega, 2010). It appears that it is better to develop means by which environmental pollution can be mitigated rather than finding a way of solving the problem after pollution has happened. The most important mitigation tool and strategy emphasised in this thesis is EIA.

The application of EIA seems to be difficult in practice even in the developed world (Drexhage and Murphy, 2010; Wood, 2003a & b, 1999). However, the situation in this regard

is still better than conditions in developing countries (Wood, 2003b). This is because of differences in levels of technology, civil society development, political support, standards of living, attitudes towards the environment, and value for social amenities, among other factors (Marara *et al.*, 2011; Wood, 2003b).

While the basic tenets of the literature reviewed in this chapter can form the basis for many parts of my analysis – particularly in terms of identifying aspects of good practice – the evaluation frameworks adopted by previous researchers do not enable an adequate explanation of EIA implementation in a developing country context. This is because they are too blunt for understanding national policy settings, particularly in situations where unclear and contradictory EIA systems exist. By focusing on procedural and technical issues, these evaluative frameworks are insufficient to understand national policy contexts or address social, economic, and political nuances.

Indeed, it has been argued that ‘EIA literatures are guided by assumptions and models that have been implicitly assumed rather than explicitly and systematically explored, formulated or articulated’ (Wood, 2003a, p. 3). Abaza and Baranzini (2002, p. 2) state that ‘the basis of disagreement related to policy issues ... is societal rather than technical’. This contradicts the orthodox view that ‘achieving sustainability through EIA implementation ... is a technical issue...’ (Mansfield, 2009, p. 37). At the same time, it has been established that there is ‘no universally agreed framework or criteria for...evaluation of mitigation tools and it is proposed that...evaluation should be designed to reflect the local context specific understandings and requirements for such mitigation tools’ (Retief, 2007, p. 465).

Howlett (1995, p. 68) has noted that theory should be developed and applied to ‘reflect the empirical situations’ that a researcher faces. Therefore, it is necessary to cast a critical eye on

the frameworks that have been applied in evaluating EIA so as to explore their limitations and utility to the present research. In doing this, I am motivated by the existence of contradictory EIA matrices in my study area (that is NMOGS), as well as the finding that existing frameworks lack the means to analyse national policy contexts, which is a crucial determinant of EIA implementation.

As noted previously, the criteria framework used by Wood (1999; 2003b) in assessing EIA implementation for developed and developing countries focus on 14 questions. These questions are not sufficient to explain the present research goals and objectives. For example, a criteria-based framework cannot be used in understanding the political background and fine-grained detail involved in producing the components of conflicts in the EIA implementation process. In addition, the criteria framework mainly addresses technical issues, despite the fact that environmental problems cannot be solved by technical means alone; they require interrelated changes in human ethics, values, perceptions and culture (Bartlett, 1997).

As for Gibson's (2002) stages of evolution model, I would argue that it is not adequate to assess the extent to which EIA aim has been achieved in practice and cannot be applied towards the elucidation of national policy contexts. Furthermore, extending the assumptions as originally proposed by Hanf and Underdal (see Christiansen and Kellow, 2002: 26) – that issues determine politics and politics determine policy – cannot in itself be used to explain and understand national policy contexts for EIA implementation. Even though the national policy issues are tied to politics, issues around institutional, economic and social factors cannot be undermined. Simon (2010, p. 121) maintains that 'there is a need for a more

sophisticated approach to politics and preferably identifying how problem can be solved through social action’.

Other researchers have suggested transferring frameworks that have been applied elsewhere to explain EIA practices (Bailey and Dixon, 1999). But this present research should require more than the use of locally-contextualised adaptation: the process of evaluating environmental policy should entail reporting what might have transpired between policy actors within and outside implementing agencies, a phenomenon titled ‘information relationships’ (Simon, 2010). It might be difficult to rely on adaptation in the context of transferring ideas from developed nations to developing countries, because of differences in culture, political systems, and social values among other factors. It appears that policy implementation needs a model that will ‘help characterise the process of problem solving in a collective setting where the sovereignty of a range of actors...is pooled’ (Richardson, 1996, p.19). In addition, the act of using statutory compliance alone in carrying out an evaluation is not particularly helpful in itself. This is because the process may overlook difficulties related to identifying the effectiveness of policy implementation, and such assertion is not completely applicable in reality (Simon, 2010).

It is evident that the research focus of this thesis cannot be satisfactorily addressed using traditional EIA evaluation frameworks. Their attention is overly focused on technical problems rather than institutional, political, economic and social factors. Indeed, Bartlett (1997) argues that environmental problems cannot be resolved by technical means alone, as they require interrelated changes in human ethics, perceptions and culture. In the same vein, most EIA literatures are criticised for a lack of theoretical rigour in analysing the values and judgements that underpin contested issues (Cashmore, 2004). According to Dahler-Larsen

(2006, p. 155) ‘criteria or checklist frameworks are used in introductions to evaluation in order to make life easier for beginners’.

Speaking more broadly, I would argue that EIA formulation and implementation itself takes place in an explicitly political context (Wood, 2003a). In order to get beyond simplistic EIA evaluations, a more sophisticated theoretical understanding of national policy context is required. Consequently, in the next chapter I move to policy implementation theories, in order to develop a more elaborate framework for understanding the procedural issues associated with EIA implementation in Nigeria.

CHAPTER 3

POLICY IMPLEMENTATION THEORIES

3.1. Introduction

‘There is a need to place EIA within a theoretical context in order to both fully inform practice of its goals and aims and to ensure that newly developing EIA systems are located within a general policy theories and decision-making framework for example’ (Weston, 2000, p. 185).

This chapter outlines a range of policy implementation theories that can be used to interrogate national EIA systems. In the previous chapter, I considered the main mitigation tools that can be used to assess environmental impacts, focusing on EIA in particular. In light of the identified shortcomings in the academic literature and policy praxis, I now contend that a more sophisticated approach needs to be developed in order to understand EIA implementation. To do so, I advocate the application of policy implementation theories to understand national policy contexts. In the chapter, I first assess the relationship between evaluation research and policy implementation theories; this includes an outline of the main components of policy implementation failure and success. I then examine the need for applying policy implementation theories and discuss the work of Richard Matland in particular, focusing on ambiguity and conflict in policy implementation.

3.2 Evaluation research and its relationships with policy theories

The use of programme or policy theory in evaluation practice has a long history (Donaldson and Lipsey, 2006). The origins of evaluation research can be traced back to the process of developing evidence-based action in educational research and social policies during the 1960s (McKie, 2002). Evaluation seeks to address practical problems and it is further viewed as the act of identifying or judging the worth, value of policy or program (Rogers and

Williams, 2006; Schwandt and Burgon, 2006; McKie, 2002; Hall and Hall, 1996; House, 1993). Patton (1987, p. 145) views evaluation as ‘systematic collection, analysis and interpretation of information about activities and outcomes of actual programmes or policies in order for interested persons to make judgements...’. Therefore, evaluation is not only positioned to fulfil judgement but also to provide information that is required to take refine and adjust public policy (Vestman and Conner, 2006).

Evaluation approaches include, *inter alia*: empowerment evaluation, inquiry evaluation, systemic evaluation, success case methods, evidence-based practice, performance monitoring and programme theory and theory-based evaluation or theory-driven evaluation (Rogers and Williams, 2006). Theory-based approaches are favoured by many researchers because they allow evaluation to be tested, thus providing ‘information about the...assumptions underlying programme under evaluation...this broad idea is further elaborated, contextualised, and operationalised...’ (Dahler-Larsen, 2006, p. 152).

Evaluation is not only a theory-testing activity (Dahler-Larsen, 2006; Leeuw, 1995), as it works well within social and political contexts (Mark *et al.*, 2006; Simons, 2006) and also remains as a ‘potential political influences’ (Greene, 2006, p. 119). It serves as ‘constructed apparatus by which humans make sense of their world and initiatives’ (Dahler-Larsen, 2006, p. 151), and thus acts as ‘human enterprise’ (Stevenson and Thomas, 2006, p. 201). In practice, evaluation is not only a human activity, but also ‘a multidisciplinary activity’ (Clarke, 2006, p. 577). Evaluation aims to improve decision-making, helping resource allocation, enhance accountability and encourage organisational learning (Walker and Duncan, 2007). The role of evaluation research is ‘to deliver factual and objective knowledge’ (Rist, 1995, p. xvi), and evaluators should therefore be concerned more with

producing local knowledge rather than generalisable knowledge (Donaldson and Lipsey, 2006).

It is worth noting that information required to achieve effective implementation of policy varies. (Rist, 1995). Policy informational components include policy problems, futures, actions, outcomes and performance (Dunn, 2003, 1994). During the evaluation of policy process, public opinions should attract more attention (Walker and Duncan, 2007; and Powell and Maynard, 2007; McCool, 1995).

It has been argued that ‘knowing the theory on which a policy is based will strengthen the evaluation effort, and such theory can be compared with research evidence to determine how well founded a policy is and what are the chances of its success’ (Leeuw, 1995, p. 20). This suggests that policy evaluation research requires policy theories, with a priority on the implementation process (although policy formulation and refinement are also essential parts of the policy process). A good theory should be in form of a management tool: valid, economical, testable, understandable, providing causal explanation, predictive, useful, reliable, and heuristic (induce further research) among others (Birkland, 2005; McCool, 1995). It should also be practicable and socially sound (Donaldson and Lipsey, 2006; Abma, 2006; Stevenson and Thomas, 2006).

The remainder of this chapter discusses the components of policy implementation failure and success. This is because the objectives of evaluation research include determining ‘success or failure’ and developing ‘policy alternatives’ (Nakamura, 1980, p. 23). Similarly, most implementation research focuses on highlighting the factors that are responsible for either policy success or failure. But there is no absolute guarantee that any policy implementation

will be successful. According to McCool (1995) and Anderson (1975) inadequate resources, undervaluation of social aspects, lack of monitoring, uncertainty over policy goals and diffuse policy impacts might be responsible for policy implementation failure. Although policy prepositions that recognise social evidence in particular might not fail (Leeuw, 1995; and McCool, 1995; Newson, 1992). Leeuw (1995) further clarified that policy could fail if the implicit assumptions were in error. In addition, 'policy will fail when the relationships between the actors are not taken into account...' (Birkland, 2005: 191). Birkland (2005) maintains that the choice of ineffective tools, political boundaries between states, and problems inherent in policy implementation might result in policy failure.

Still, 'successful policy implementation can be achieved when there are committed and skilful people to manage the implementation and when the nature of cooperation that is required is not lacking...' (Weimer and Vining, 2005, p. 275). Therefore, one of the key factors that guarantee implementation success is by considering how policy works and focusing on the state of its conformity and coordination (Spicker, 2006), including sufficient resources and simplify implementation chain (Jordan *et al.*, 1998). In a more pragmatic manner, six factors have been identified as influencing the possibility of implementation success. These are statutory compliance; bureaucratic accountability; statutory goals accomplished; local goals accomplished; political climate improvement; and learning as an important factor, because 'learning is central to making things even better' (Simon, 2010, pp. 102-103).

Most importantly, policy implementation generally (whether failure or success) should focus on three main approaches: (a) theory on how the organisation works (b) identifying series stage within the process of implementation and (c) examining implementation as system

(Spicker, 2006). According to McCool (1995) the problem is not absence of policy implementation theories but the comprehensiveness of those theories, which requires the identification of a leading theory. This is discussed in the next section, where the leading theory is identified 'in effort to incite integrative analysis' (McCool, 1995, pp. 8 & 394). Through the next section I emphasise the need for application of policy implementation theories to understanding EIA in order to understand national policy context.

3.3 A multi-theoretical approach to EIA implementation processes

This section discusses policy implementation theories that are needed for a better understanding of the policy process in a national context. I have reviewed several literatures that centre on policy theories, concepts, and models within the field of social and political sciences. This is because it has been established from the onset of this research that almost all environmental problems require understanding wider social, economic, institutional, and political issues. This section therefore not only considers the importance of social, economic, institutional/organisational and political issues in solving environmental problems, but also contributes to the manner in which contradictory regulatory systems might be conceptualised and understood theoretically. More importantly, applying policy implementation theories and specifically Richard Matland's Ambiguity-Conflict Model (ACM) in particular as a leading theory enables us to move beyond the simplistic evaluation methods examined in the previous chapter.

Applying such policy theories to implementation of environmental policies is a novel way of understanding the level of interactions that might have existed among the major policy actors, given that implementation itself is an administrative function (Simon, 2010). There are

several examples of previous EIA literatures that have embraced the use of policy theories (Cashmore, 2004; Weston, 2000). However, most of them have concentrated on decision-making theory and the need for developing theories in general (ibid), and none have been applied to the Nigerian context.

Generally, 'theory is viewed as an advantage for thinking that gives support to ideas, also as nothing more than a tool, a strategic device to increase understanding how to carry out proper evaluation' (McCool, 1995, p. 20). The main purpose of policy theory is to enhance the quality of social life, understand how the political and economy aspects of society work, identifying how basic underlying causal relationship fit together (Cochran and Malone, 2005; McCool, 1995) and guiding the evaluation process (Alkin *et al.*, 2006). Notwithstanding Mischen's comments that 'implementation theory and research have outgrown the search for a single theory of implementation...an effort that got mired in a top-down, bottom-up debate and have entered a new era that recognise multiple theories appropriate to various implementation research...' (Mischen, 2007, p. 1).

Even though this work at the beginning focused on thirteen policy implementation theories, they are further subdivided into four by putting together those that are related and discarding those that are less relevant to the thesis. My main activity at this point includes outlining the thirteen policy implementation theories, the ones that are discarded among them and the reasons why they cannot be used and finally showing those that are related to one another leading to the four basic policy implementation theories applied in this research.

The thirteen policy implementation theories considered are: (1) stages model, (2) public choice theory, (3) institutional theory, (4) neo/new institutional theory, (5) rational

comprehensive decision-making model, (6) system theory, (7) advocacy coalition framework, (8) synthesis model of policy implementation, (9) causal theory, (10) bounded rationality model, (11) top-down approach, (12) bottom-up approach, and (13) ambiguity conflict model. Of these thirteen policy implementation theories, some are discarded basically because they are less important to this thesis. For example, functional theory or stages model that is supposed to be used in explaining the NMOGS's EIA implementation cannot be comprehensively applied, because stages model is a linear process. Similarly, bounded rationality model is discarded; because it does not explain the situation in the NMOGS rather it is directly opposite. As bounded rationality model describes 'how decision-makers seek to act as rationally as possible within certain bound or limit; these include limited information, ability to recognise every feature and pattern of every problem' (Birkland, 2005, p. 216).

Now that some policy implementation theories that are not relevant to this thesis have been discarded as exemplified above, the need for the remaining policy implementation theories and their relevance to the thesis is further revealed, and they have been compressed into four by putting into consideration those that are related to one another. For example, top - down and bottom-up are joined together, and also institutional, neo-institutional, rational comprehensive decision-making are categorised as one under implementation as a process of multi-level bargaining (See Clark and Jones, 2001; Jordan *et al.*, 1998).

In view of this, I discuss policy implementation theories from four different angles: implementation from the top-down and bottom-up; implementation as learning; implementation as a process of multi-level bargaining and implementation using a contingency concept as leading theory (that is ambiguity conflict model). These are necessary

to understand the national policy context as well as the sources, components of, and reasons for conflicts and ambiguities.

3.3.1 Implementation as seen by top-down and bottom-up approaches

The implementation process can be understood using, *inter alia*, top-down and bottom-up thinking (deLeon and deLeon, 2002; deLeon, 1999; Jordan *et al.*, 1998; Matland, 1995). The top-down approach to implementation is based on a set of important assumptions and three main variables and these are tractability of the problem, ability of statute to structure implementation and non-statutory variables affecting implementation (Matland, 1995). In the top-down model, the capacity of policy objectives are clearly defined; policy tool(s) should be in place; policy is characterised by the existence of a single programme to be implemented; and good knowledge of the capacity and commitment of the implementers must be recognised (Spicker, 2006; Birkland, 2005; Weimer and Vining, 2005; Matland, 1995).

Top-down implementation is about setting conditions and creating compliance, and is not viewed as a political process (Simon, 2010; Jordan *et al.*, 1998), and the ‘local-level complaints about policy implementation are seen as barriers that must be overcome’ (Simon, 2010, p. 104). Basically, ‘the top-down emphasises command, control, and uniformity and fails to take into account the diversity inherent in much implementation that occurs’ (Matland, 1995, p. 167). Birkland (2005) concludes that the top-down approach has failed to define what programme goals are, and as such it is difficult to set a bench mark for program success or failure. In the same vein, this paradigm has been criticised for taking implementation as a mainly administrative process, and trying to ignore or eliminate the

political aspect (Matland, 1995), and thus the coordination problem is evident (Joaquin, 2009).

The bottom-up approach is otherwise called ‘backward mapping’ (Birkland, 2005). It encourages participation and involves lowest level implementers or local level administrators, and the people in this category are described as street level bureaucrats (Simon, 2010; Birkland, 2005). The bottom-up approach recognises that ‘goals are ambiguous rather than explicit and conflict not only with other goals in the same policy arena, but also with norms and motivations of the street level bureaucrats, and over emphasised the ability of lowest level implementers’ (Birkland, 2005, p. 185). It assumes that lowest level implementers are active participants in the implementation process. Matland (1995, p. 149) maintains that ‘program success depends in large part on the skills of individuals in the local implementation structure who can adapt policy to local conditions; it depends only to a limited degree on central activities’. Similarly, it has been established that ‘good implementation comes from mutual adaptation and learning at the grassroots’ (Mischen and Sinclair, 2007, p. 154).

Birkland (2005) argues that the difference between the bottom-up and top-down approaches is that the former values understanding how conflict can be alleviated by bargaining or compromise, while the latter is concerned with compliance. Matland (1995, p. 149) views that ‘top-downers have a strong desire to present prescriptive advice; bottom-uppers have placed more emphasis on describing what factors have caused difficulty in reaching the stated goals’. Jordan *et al.* (1998) maintain that bottom-up approach helps in understanding what influences action on ground rather than assessing the outcome of a particular policy.

However, the major challenge is that ‘neither the top-down nor bottom-up models appear entirely appropriate in describing the implementation process when there is substantial conflict and an ambiguous policy’ (Matland, 1995, p. 170; Davies, 1980, p. 233), as both models are normatively biased (Hupe, 2011). According to deLeon (1999, p. 326) ‘neither top-down nor bottom-up has a special claim on a democratic perspective...’. In the same context, deLeon (1999) and Jordan *et al.* (1998) have established that most policy implementation theories are not problem free to a larger extent. For example, the lapses in the first generation policy theories (in form of definitions) has led to top-down theory and the limitations in top-down has led to bottom-up theory (second generation) and the limitations in bottom up has led to contingency concept (third generation) (deLeon, 1999).

It appears that the complexity related to policy implementation processes – particularly in top-down and bottom-up approaches – has prompted some researchers to develop a problem free theory or use no theory at all (USAID, 2009). Still, moving away from theory completely is not desirable. As there are several ways of handling the complexity that is related to theory, for example, some helpful proposals for a synthetic perspective have been suggested (Ewalt, 2001; John, 1998). Mark *et al.* (2006) comment that ‘...flexibility may not be adequate, something is needed to guide effort to choose which approaches might best apply under different circumstances...’.

3.3.2 Implementation as social learning

The concept of social learning was first introduced following Albert Bandura’s work (Bull *et al.*, 2008; Illeris, 2002; Bandura, 1977; Bandura and Walters 1963). In principle, it seeks to explain ‘deviant’ behaviour in terms of classes of event (Walker, 1984; Bandura, 1977;

Bandura and Walters, 1963) and mutual interaction (Illeri, 2002; Davey, 1989). Moreover, social learning is broad (Illeris, 2002; Bandura, 1977), and is positioned to solve social problems (Donaldson and Lipsey, 2006; Abma, 2006; Simons, 2006). The aspect that relates to practice is emphasised in this research because it concerns ‘mutual engagement in action’ (Illeris, 2002: 142), although identity should be part of ‘fundamental issues, as it emphasises social location’ (Calhoun, 2003, p. 14).

It has been argued that social learning occurs in participatory systems (Bull *et al.*, 2008; Illeris, 2002), and ‘operates in a tension field between creativity, power and responsibility (Illeris, 2002). The social learning takes place around four axes characterised as action, reflection, communication and negotiation’ (p. 135). Emphatically, social learning in a practical form is not limited to participation (identity) alone but also deliberation (mutual engagement in action) (Schwandt and Burgon, 2006). As participation gives room to a way of doing things, deliberation focuses on ideal response to a particular problem (Schwandt and Burgon, 2006).

According to Jordan *et al.* (1998, p. 1393) ‘marginal changes in policy are made as different groups of actors with similar belief (advocacy coalition) operating in a particular policy sphere vie for advantage by trying to outlearn one another so as to make better sense of the changing world around them, and experimenting with new instruments and tools to realise their belief’. The Advocacy Coalition Framework (ACF) exemplified here as part of social learning theories, entails two or four coalition forms, and is designed for understanding the interactions of the groups and coalition of groups called advocacy group (Birkland, 2005). It tends to balance national or transnational interest (Richardson, 1996). Sabatier and Jenkins-Smith (1993, p. 212) comment that ‘an advocacy coalition consists of actors from a variety of

governmental and private organisations at different levels of government who share a set of policy beliefs and seek to realise them by influencing the behaviour of multiple governmental institutions over time’.

Furthermore, ACF encompasses relatively stable parameters such as: the basic attributes of the problem, distribution of natural resource, fundamental socio-cultural values, and the basic constitutional structure together with relevant changes within the system (Birkland, 2005; Sabatier and Jenkins-Smith, 1999, 1993). ACF has been viewed as a set of policy networks, where policies are formulated and implemented among the interested citizens, pressure groups, and administrators (Simon, 2010). Obviously, ACF might enable the researchers to understand the ‘true magnitude of policy disputes’ but it is not clear whether ACF can be used alone (Sabatier and Jenkins-Smith, 1993, p. 226).

3.3.3 Implementation as a process of multilevel bargaining

The core assumption in the multi-level approach is that organisations operate in a multifaceted system of relationships (Moliterno and Mahony, 2010; Fischer, 2004; Mazey, 1996), which gives recognition to bargaining (Van de Brande *et al.*, 2011; Cram, 1996). Jordan *et al.* (1998, p. 1393) have viewed ‘...implementation as an ongoing process of bargaining between policymakers and implementers, both of whom have their own agendas, resources and sources of legitimacy’. Moreover, national policy networks might provide institutional ground where policy implementation occurs (Jordan *et al.*, 1998). The combination of policy networks approaches and institutionalist might be suitable to assess multilevel policy process (Clark and Jones, 2001). The multi-level approach draws heavily upon institutional theory in the political sciences, by seeking to examine the legal aspects of governmental institutions, their formal organisation, legal power, procedure rules, functions,

how policy was made, and the actors, including formal relationship with other institutions (Ostrom, 1999; McCool, 1995; Anderson 1975). The neo-institutionalism or new institutional theory was introduced to address less formal norms, beliefs and codes because of lapses in institutional theory, and has taken on a wide variety of meanings and usages (Jaffee, 2001).

Thus new institutional theory effectively synthesises many of the previous theoretical models, as it focuses on the development of public choice, game theory (that is market bargaining for personal benefit), and rational comprehensive decision-making model (RCD) (Simon, 2010). According to Clark and Jones (2001, pp. 2049 & 2051) new institutional theory can be used to explain ‘political strategies of policy elites...flows of knowledge, territorial representation, and power between multi-scalar policy elites’. This approach therefore offers a potent means for understanding of how different statutory and private agencies have been working towards achieving effective policy implementation. Nevertheless, the RCD model is employed to help in identifying problems, measuring the impact on the problems, elucidating solutions, and the implementation of best solutions (Simon, 2010). According to Fischer (2004) even though the multilevel approach focuses on organisational relationship, there is little integration of both organisational and socio-cultural variables. Similarly, Richardson (1996, p. 21) argues that the traditional concept of policy networks might react to ‘exogenous change’, and thus coalition advocacy is suggested as part of social learning theory (Jordan *et al.*, 1998).

However, deLeon (1999, p. 319) argues that both ‘game theory and rational choice or RCD in particular do not offer any clear predictions, but do indicate few key insights...actual implementation networks contain complications that modelling can neither ignore or fully address’. It is not enough to apply a synthesis/contingency concept without ensuring that

‘implementation research...tied to a specific policy rather than to all actions in policy field’
(Matland, 1995, p. 152).

3.3.4 Implementation as a contingency concept

It is widely argued that the models of policy implementation outlined above should be combined to address the multiple contingencies of policy implementation (Oosterwaal and Torenvlied, 2011; Mischen and Sinclair, 2007; Birkland, 2005; Sabatier and Jenkins-Smith, 1999; deLeon, 1999; Matland, 1995). It is vital to note that when collating them, the relationships between the different approaches must be put into consideration with a set of limited variables (Hupe, 2011; Matland, 1995). The bottom line is that ‘integration of theory constitutes a major way that evaluation contributes to social betterment by way of knowledge development’ (Donaldson and Lipsey, 2006, p. 66). Thus, a study by deLeon (1999, p. 318) has indicated that many researchers have proposed towards ‘contingency concepts, in which different implementation scenarios can determine their own research and operational strategies’.

Even though the Ambiguity-Conflict Model (ACM) revolves around four individual conditions, I would first choose to focus on the characteristics and attributes of policy ambiguity and policy conflict, as they can be used to elucidate the reasons for crosscutting dimensions in policy implementation (Simon, 2010; Matland, 1995). According to Matland (1995) policy ambiguity arises from several angles and can be divided into two groups: ambiguity of goals (leading to misunderstanding and in turn policy implementation failure) and ambiguity of means (for example, where the resources required reaching a policy’s goals do not exist). Matland (1995: 158) comments that ‘policy means are ambiguous when there

are uncertainties about what roles various organisations are to play in the implementation process, or when a complex environment makes it difficult to know which tools to use, how to use them, and what the effect of their use will be'. Therefore, 'the degree of ambiguity inherent in policy directly affects the implementation processes in significant ways...it influences the ability of superiors for example to monitor activities, the likelihood that the policy is uniformly understood across the many implementation sites...' (Matland, 1995: 159).

In the same context, there are certain conditions that encourage policy conflict to exist. This includes situations when there are basic differences in policy objectives, as well as negative interactions among policy actors (Matland, 1995), which allows policy conflicts to persist. This is what Matland has described as 'intensity of conflict, which increases with an increase in incompatibility of concerns' (Matland, 1995 p. 157). Importantly, 'policy implementation conflict will exist when more than one organisation sees a policy as directly relevant to its interests and when the organisations have incongruous views' (Matland, 1995 p. 156). Therefore, whenever conflict exists, two basic things happen. First, policy actors' actions will change and second, policy actors will resort to bargaining mechanisms, for example by encouraging oversight to reach agreement and hold a coalition together (Matland, 1995).

The term policy conflict appears to be easily comprehended; the policy ambiguity seems to be complex though it can be of ambiguity of goals (statutory) or means (resources) (Simon, 2010; Matland, 1995). This policy ambiguity of means is otherwise referred to as a role ambiguity (Eatough *et al.*, 2011). Pandey and Wright (2006, p. 517) define ambiguity of means as 'unpredictability of behavioural outcomes...also a lack of clarity about what kinds of behaviours are appropriate and functional'. Zahariadis (2003, p. 168) contends that

ambiguity of means or goals 'require analysts to have a lot of information...this might make the process more comprehensible, but without resolving the nature of policy ambiguity'.

According to Simon (2010); Clark and Jones (2001); and Matland (1995) among many other analysts, the Ambiguity-Conflict Model comprises four conditional relationships:

First, administrative implementation (AI) is a condition under low policy ambiguity and low policy conflict. The unique feature under AI is that resources determine outcomes and policy under this situation has been described as concise and clear policy (Simon, 2010; Clark and Jones, 2001; Matland, 1995). This is because low ambiguity always attracts clearly defined policies in terms of processes and goals. While low levels of conflict connotes that policies under such situations are less vaguely written, and the level of compromise is reduced, this does not connote that policy under this condition is problem free (Clark and Jones, 2001; Matland, 1995).

Second is political implementation (PI), where low policy ambiguity and high policy conflict is evident. Matland (1995, p. 163) points out that 'the central principle in political implementation is that implementation outcomes are decided by power'. According to Clark and Jones, 2001, p. 2055) the '...central principle for analysing political implementation is to study power relations between actors, using a methodology akin to a top-down approach'. The important issue to note is that politics in this context is described as 'the basis by which choices are articulated and power becomes definitive factor in shaping prioritisation' (Simon 2010, p. 105). It is true that policy ambiguity is low under PI, but what has remained unchanged is the fact that resources are controlled by politician (policy actors outside the implementing agencies).

Third, experimental implementation (EI) exists under conditions of high policy ambiguity and low policy conflict. Policy outcomes depend on resources, also which actors are active and most involved, and this is rather viewed as a contextual issue (Matland, 1995). Clark and Jones (2001, p. 2054) argue that 'experimental implementation can lead to the development of entirely new capabilities...lead to the creation of mini-fiefdoms with leaders pursuing their own interest'. The process is associated with high policy ambiguity, which implies that statutory compliance will be unclear, and possibly because of lack of adequate understanding of its process, as it has not been applied before (Simon, 2010; Matland, 1995).

Fourth is symbolic implementation (SI), where high policy ambiguity and high policy conflict is evident. Matland (1995, p. 168) states that 'the central principle is that local level coalitional strength determines the policy outcome...the policy course is determined by the coalition of actors at the local level who control the available resources'. SI helps to reaffirm values and policy goals, this value is described to be varied and it depends on the locality, and local goal fulfilment is of great importance (Simon, 2010). Although both policy ambiguity and conflict are high, and groups have to compete in defending their interest. The most important thing to note is that actors see their interest bound to a specific policy definition (Matland, 1995). Both local policy goals and coalition strength are paramount and shape value impacts on outcomes (Simon, 2010; Matland, 1995). It has been argued that 'symbolic implementation is working well in top-down and bottom-up policy approaches' (Simon, 2010, p. 106). I have summarised the above illustration in a tabular form for the purpose of simplicity and clarity in Figure 3.1.

		Conflict Policy	
		Low	High
Ambiguity Policy	Low	Administrative implementation <i>Resources</i>	Political implementation <i>Power</i>
	High	Experimental implementation <i>Contextual conditions</i>	Symbolic implementation <i>Coalition strength</i>

Figure 3.1 Matland's ambiguity-conflict matrix

Source: Matland 1995 p. 160

Matland's model affords significant advantages over the other policy theories that have been considered here. For example, it can be used to examine the contradictory, conflictual and ambiguous regulatory systems inherent in different countries. As evidenced above, it is a more sophisticated theoretical approach towards understanding of national policy context. Nevertheless '...there is no single best implementation strategy, the appropriate strategy is very much contextual in terms of what are the contingencies surrounding the policy issues and how they can be addressed in terms of implementation' (deLeon and deLeon, 2002, p. 472). Mark *et al.* (2006, p. 8) argue that '...any attempt to classify alternative approaches to evaluation will necessary have shortcoming...'. Part of the shortcomings of ACM is that arguably it does not give enough consideration to democratic issues (deLeon and deLeon, 2002; Jaffee, 2001; deLeon 1999).

Thus, according to Greene (2006, p. 119) 'democratically oriented tradition in evaluation is essential and they have their foundation in Barry MacDonald's original formulation of

democratic evaluation since 1976...and Ernest House's long standing commitment to social justice for evaluation...'. In fact, social justice/democratic issues are among the most important values we should hope to secure in the implementation studies' (Greene, 1994, p. 540). Experimental implementation is an example of ACM matrix that does not fully consider democratic issues, though it has the tendency of developing new capabilities with little connection to public interest. However, deLeon and deLeon (2002, p. 488) argue that '...implementation should follow democratic procedures, unless prior analysis demonstrates that another model e.g. top-down is superior', as claimed by Matland's model.

Furthermore, deLeon (1999) has noted that ACM emphasises more on the process rather than outcome of implementation. Therefore, '...a qualitative methodology can be better adapted to...quantification, such as high or low measure of conflict or information and to capture a more complete picture of the contextual conditions' (deLeon, 1999, pp. 229- 330). Mark and Henry (2006, p. 334) have emphasised that '...evaluative evidence through qualitative methods often is important to the extent that it can...support or undermine claims about the importance of social problem...or validate a potential remedy for a problem'.

In the same manner, both administrative and political implementations are not free from criticisms. For example, the latter applies a top-down approach to study power relations between actors and the resultant high level of conflict, while it appears that 'democratic methods might well produce better, less contentious decision...a democratic orientation would want to avoid simple coercion whenever possible' (deLeon and deLeon, 2002, p. 486). Clark and Jones (2001, p. 2055) comment that '...a rational choice institutional approach allied with thorough scrutiny of elite activities in multi-scalar policy networks would be suitable for

analytical purposes'. The need for this rational choice institutional approach has been prioritised by various researchers (Simon, 2010; Birkland, 2005).

It also appears that Matland's model has not fully provided strategies or ways of resolving the organisational conflicts and ambiguities; just in the same manner top-down approach has not fully contributed to making things better (Jordan *et al.*, 1998). The identified criticisms about Matland's model serve as part of the evidence that there is no perfect theory, and that room for improvement still remains. I have used a range of insights from other policy theories to build on Matland's model and to understand other contextual issues.

In summary, I have not ruled out the importance of other theories under the review but this research has identified Matland's model as a leading theory in order to understand national policy context, while some of the shortcomings identified that cannot fully be explained through Matland's model are addressed using the remaining policy theories and qualitative methods to understand contextual issues. The available data addresses the strategies or interventions adopted in ameliorating organisational conflicts, and other policy theories as earlier mentioned are used as part of explanatory frameworks to fine-tune areas not extensively covered by Matland's model e.g. the relationship among the government implementation agencies and social issues.

3.4 Conclusion

What emerges from this chapter is that to get beyond the simplistic previous evaluation frameworks of policy implementation, a more sophisticated theoretical understanding of national policy contexts is required. A variety of policy implementation theories have been

discussed in order to provide novel insights into EIA procedures. In particular, Richard Matland's model on policy ambiguity and policy conflict has been identified to interrogate the use of contradictory, conflictual and ambiguous regulatory systems.

It is clear that ambiguity and conflict revolves around social values, the level of compliance, as well as political and administrative implementation. Thus, it can be used to examine the procedural issues surrounding EIA implementation in the Nigerian national context, as it includes both informational relationships between policy actors, and the connection between environmental policy and political, social, economic, and institutional factors. Meanwhile, the other policy theories reviewed in this chapter provide a robust means for examining selected aspects of EIA implementation, as they offer a holistic matrix for situating policy actor activities. I return to the analysis of the gathered empirical material with the aid of these approaches in Chapter 5, having outlined (in the next chapter) the manner in which primary and secondary data were generated, including a discussion of challenges encountered during fieldwork and the manner in which they were addressed.

CHAPTER 4

METHODOLOGY

Introduction

Persson and Nilsson (2007, p. 491) noted that ‘there is evidence of post decision impasse in the world of environmental assessment’, and ‘there are many shades of grey that are valued, politically informed and policy relevant’ (Pollard *et al.*, 2000, p. 247). But, ‘as the policy tide turns our way, geographers’ should leave the race for the minister’s ear and jump in – the water’s warm!’ (Banks and MacKiant, 2000, p. 249). This is because ‘disengagement is neither desirable nor justifiable; then, geographers’ must engage critically and actively with the policy process itself’ (Peck, 2000, p. 257).

The previous chapter demonstrated the necessity for grounding the analysis on the application of policy implementation theories and Matland’s ambiguity-conflict model in particular rather than the existing previous simplistic frameworks applied to evaluating EIA. In light of choice, this chapter presents the data gathering and analysis methods adopted and consider the issues encountered in this process, and the strategies I used to deal with them. The chapter forms the basis for the empirical chapters that follow and provides insights into the contextual issues that are not extensively covered in the policy implementation theories.

The chapter is divided into six sections. Section 4.1 describes the Nigerian case study areas, outlining the regions that were selected for in depth case study work. Section 4.2 then describes the secondary sources that were used in order to contextualise primary research, while explaining how they were combined with the theoretical basis of the thesis in creating a research design. Section 4.3 outlines the qualitative research methods used for obtaining primary data, providing a justification for, and description of, their application. Section 4.4 then discusses the methods adopted in analysing data. Lastly, section 4.5 elucidates my positionality with respect to the research topic and section 4.6 concludes the chapter.

4.1. Description of the case study areas

Nigeria shares land borders with the Benin Republic in the West, the Republic of Cameroon in the East, and the Republic of Niger and Chad in the North (Iledare and Suberu, 2010; Metz, 1991 and see Figure 4.1), with the continental shelf of 200m depth (Adeyinka, *et al.*, 2005).



Figure: 4.1 Map of Nigeria

Source: Iledare and Suberu, 2010 p. 7

Geographically, Nigeria has a total area of about 923 768 square kilometres (World Development Report, 2009; Adeyinka *et al.*, 2005; Metz, 1991), with abundant natural resources. The Nigerian economy is largely dependent on the oil sector, which supplies most of its foreign exchange earnings. For example, oil and gas accounts for 90-95% of export revenues, over 90% of foreign exchange earnings and about 80% of government revenue (Luqman and Lawal, 2011; Iledare and Suberu, 2010; Mbendi, 2010; NDRDMP, 2006). Nigeria was administratively divided into the Northern and Southern province and the Lagos colony in 1914. After gaining independence from Great Britain in 1960, the country contained three regions: Northern, Eastern, and Western. In 1963, Nigeria became a Federal Republic under a new constitution and established a fourth region named Mid-West.

1966 marked the beginning of military rule in Nigeria with two coup d'états in one year, the Aguyi Ironsi's coup in January and the Yakubu Gowon's coup in July (Metz, 1991). The military ruled Nigeria from 1966 to 1979 before handing over to a Civilian Government in 1979, with a new constitution and 19 States. In 1984, the military junta again took over the leadership of the country and was in power till 1999, when a democratic government came on board. There is no doubt that the military's long stay in power from the time of independence affected the country negatively (Nigeria was under military rule effectively for 28 years). Most of the vital decisions related to political, social, economical and environmental developments were taken during the military regime, confirming Morrison's (2004:43) observation that 'Nigeria remains dangerously on the edge of disorder, emerging from the year of misrule' by the military regimes. Since 1999, the country has been enjoying democratically elected government to date, the 29th May of this year made it thirteen years of the civilian government in power without military coup d'états or intervention and year 2007 marked the first time, where power is transferred from civil to another civil government in the

history of Nigeria. Presently, the country is not only governed by the democratically elected Government officials, but also encourages the officials at all levels of government to embrace true federalism (en-compassing representation at all levels). Nigeria being a federal entity implies that states government just like federal government have an equal right to make their own legislation and laws (Nwafor, 2006).

This study was carried out in Nigeria at the sub-national scale, focusing upon two states: Rivers and Lagos States. I used a purposive sampling method in selecting these two states though there are no guidelines for determining the size of a purposive sample (Holloway, 1997; Hall and Hall, 1996; Patton, 1987). These states were deemed particularly appropriate for conducting the detailed empirical research needed for case studies for the following reasons. Rivers State was chosen because oil development (exploration and production) in Nigeria started in the old Rivers State and serves as a useful representation of other states within the Nigeria's southern region, where oil wells and reserves are situated. Lagos State, the country's commercial capital is where bulk transportation of crude and refined oil takes place within territorial waters. In addition, Lagos State is the most industrialised state in Nigeria and the headquarters of all multinational oil companies are situated there.

I have described the location, population and economy among other activities of both states respectively to show the major features in the study areas. On the one hand, Rivers State was formerly under the then eastern Region of Nigeria, and was created in 1967 under Decree No 19 with Port Harcourt as the capital. The state is located on longitude 6⁰ 50' E and latitude 4⁰ 45' N in the present's day South-South (Niger-Delta) region of Nigeria (Rivers State Website, 2011). The State shares a boundary with the Atlantic Ocean to the South. It shares

borders with Anambra, Imo and Abia States to the North, Bayelsa and Delta States to the West, and Awka-Ibom State to the East.

Rivers State population was estimated in 2005 to be about 6.7 million, with the population density of 468 persons per square kilometer and the state is divided into twenty-three Local Government Authorities (LGAs) (See Figure 4.2.).



Rivers State, Nigeria

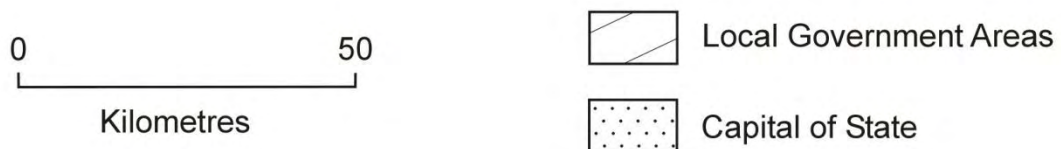


Figure: 4.2 Map of Rivers State, Nigeria

Source: www.riversstate.gov.ng accessed on 9/7/2010

The people of Rivers State are predominately engaged in agriculture and fisheries. Two major refineries are situated in Rivers State, which were constructed in 1965 and 1989 (Okunroumu, 2004) respectively. These include the operational stations of the multinational oil companies. However, exploitation of and exploration for oil has led to a decline in the state's original agricultural practices (Edema *et al.*, 2011). In Rivers State, environmental related problems are handled by the Rivers State Ministry of Environment under the supervision of Federal Ministry of Environment.

Lagos State is located on longitude 3^o 24' E and latitude 6^o 27' N in the South-West of the present's day Nigeria (Lagos State Website, 2011). In 1967, Lagos State was created under the Decree No 14 with Ikeja as the capital, though the state has remained as the capital of Nigeria from the colonial era (1914) until when the country's capital was relocated to Abuja in 1991 (Lagos State Website, 2011). The state population is estimated to be about 17.5 million in 2006 and projected to about 23 million in 2015, with population density of about 4900 persons per square kilometer as at 2006 (Lagos Bureau of Statistics, 2010; Olori, 2007). Lagos State made up of 20 Local Government Authorities (Lagos Bureau of Statistics, 2010 and see Figure 4.3).



Lagos State, Nigeria

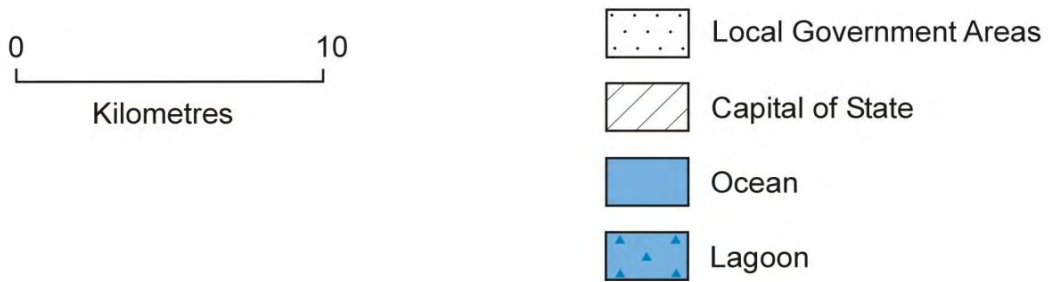


Figure 4.3 Map of Lagos State, Nigeria

Source: www.lagosstate.gov.ng accessed on 9/7/2010

There are two major ports in Lagos State: Tincan Island and Apapa. They have enhanced the export and import of goods and services through sea routes. The strategic location of the state together with port facilities has encouraged transportation of crude oil, thus, making environmental pollution to be noticeable. In Lagos State, environment-related problems are handled by the Lagos State Ministry of Environment and its enforcement arm (that is Lagos State Environmental Protection Agency) under the supervision of Federal Ministry of Environment. Unlike other states in Nigeria, only Lagos State has an enforcement arm for this institution.

4.2 Data from secondary sources, and theoretical grounding of the primary research

While qualitative methods are critically important to case study research (Flick, 2002; Patton, 2002; House, 1993), a wide range of secondary sources were used in this study to verify and corroborate my primary sources. These include environmental policy documents and previous EIA reports. Green and Thorogood (2009, p. 176) argue that ‘secondary data is needed to address the background context on the setting...’ My research also benefited from secondary sources such as edited books, author books, journals and other forms of published literatures on EIA procedure and practice. These secondary materials were obtained at the University of Birmingham; Maritime University Malmo, Sweden; and the International Maritime Organisation in London. A range of source were also obtained in Nigeria, including documents from the Federal Ministry Environment; National Environmental Standards Regulations and Enforcement Agency (NESREA); University of Nigeria; Basel Convention Coordinating Centre in University of Ibadan; Nigeria Institute of Social and Economic Research, Ibadan; and Environmental Rights Action, Lagos and Rivers States.

I used materials from the secondary sources to review the EIA implementation processes and issues around environmental management systems within international and national contexts.

The international context concentrates on:

- The environmental impacts of oil and gas operations;
- The role of EIA and its components; and
- Challenges related to EIA and its components for example Social Impact Assessment

Meanwhile, within the national context I have reviewed the following issues:-

- The historical development of oil operations;
- The environmental impacts of oil and gas operations; and
- Structure of the sector's EIA systems and the role of GIAs.

Apart from materials obtained from the libraries, policy documents and previous EIA reports were also relied on extensively. These include: the Policy on Environment; National Oil Spill Contingency Plan; Environmental Guidelines and Standards for the Petroleum Industry in Nigeria, and six EIA reports on national and multinational oil company projects. Such data was obtained through direct contact during the preliminary and the main fieldwork within the required establishments in Nigeria (see Appendix 1). Meanwhile some materials were collected via the Internet, particularly the Nigerian newspaper publications. Furthermore, maps were used where applicable, and photographs were used on two occasions (with permission). Peil (1982) has described maps as models of geographic space, representing a set of spatial relations in convenient form. Photographs can be used to illustrate findings in practice (Flick, 2007, 2002; Harper, 1998, 1994), but it appears that much has not been done regarding quality photographic representation (Harper, 2008).

The findings from the review of secondary sources combined with the theoretical insights reviewed in chapters 2 and 3 contribute to the framing of my interview questions. For example, I was prompted to explore challenges related to EIA implementation in the NMOGS's EIA system, so as to identify whether there are particular reasons for EIA implementation 'failures' in the sector, apart from the presumed conflict and ambiguity issues. I also became interested in the reasons why EIAs are not translated into practice, especially once it transpired that Nigeria has an institutionalised and contradictory system of dual EIA frameworks, with several implementing agencies in place. This led me to ask how previous EIA work has impacted the operation of the maritime oil and gas sector.

As mentioned earlier, there are several implementing agencies in the sector coupled with the differing EIA systems. An additional set of interview questions emerged from this finding, focusing on the level of institutional co-operation among the different EIA systems. This aligns with Matland's observation regarding the impacts of intensive and active participation in policy implementation. Similarly, new institutional theories also prompted me to query how different government agencies have been working towards achieving effective policy implementation.

Further findings from the review of secondary evidence showed that standard EIA procedures, and the international acceptable requirements leading to 'best practice', already exist on the ground. When coupled with the theoretical framework, this raised questions about the role of international organisations and conventions in the drafting and implementation of EIAs. I administered these identified interview questions during the fieldwork process, knowing that 'both spoken and written word always has a residue of ambiguity, no matter how carefully we word the questions...but interviewing is still one of the

most common and powerful ways in which we try to understand our fellow humans' (Fontana and Frey, 2008 p. 118).

4.3 Semi-structured interviews

Qualitative methods are vital to the conduct of in-depth implementation and evaluation research (House, 2008; Alkin *et al.*, 2006; Davies *et al.*, 2006; Mark and Henry, 2006; Patton, 2002; Denzin and Lincoln, 1998, 1994; Rist, 1998, 1994). In contrast to previous implementation and evaluation studies, the purpose of qualitative methods in my research is not simply to substantiate evidence from the secondary data, but also to understand how government, private and voluntary sector organisations and individuals have worked towards achieving effective implementation of the EIA process. This is necessary to understand how EIA practice might be transformed to achieve a preferred policy goal, rather than to simply expose malpractice (Miller *et al.*, 2006). Moreover, as Denzin and Lincoln (1998) argue, qualitative methods can morally empower citizens and shape government's policies through findings.

Qualitative methods are aimed at exploring the participants' experiences through different means; semi-structured interviews were mainly used in this research. They are the most common manner to understand participants and to obtain data about the social world (Miller and Glassner, 2006; Bloor, 2006; Fontana and Frey, 1998, 1994; Holloway, 1997). Similarly, the approach can grant new perspective to the researcher, and a clearer picture of the research focus (Green and Thorogood, 2009; Flick, 2002; Peil, 1982), providing the participants understand issues surrounding the specific research topic. Furthermore, qualitative methods emphasise the socially constructed nature of reality, the intimate relationship between the

researcher and what is to be studied and the situational constraints that shape inquiry (Gibbs, 2007; Walkerdine, *et al.*, 2002; Denzin and Lincoln, 1998, 1994). Another benefit of qualitative methods and semi-structured face-to-face interviews in particular is that they help the interviewer to direct the discussion towards particular goals or end points, and to see beyond anecdotal evidence and guarantee objectivity in this way (Flick, 2002; Golden-Biddle and Locke, 1997).

The semi-structured face-to-face interview appears to be one of the most appropriate forms of qualitative methods, as it encourages what has been described as ‘conversation with a purpose’ (Bull *et al.*, 2008, p. 706). It is also capable of enhancing a broader level of interactions between interviewees and interviewer (Green and Thorogood, 2009; Mason, 2002; Fontana and Frey, 1998, 1994). The semi-structured interview also enables the researcher to ask all the participants’ broadly similar questions in relation to specific topics (Flick, 2002). In this research, several questions were designed for the participants under six broad topics, with additional follow-up questions depending on interviewees’ responses to the original question.

These key six topics are:

1. Does the EIA process in the maritime oil and gas sector help improve the state of the environment in Nigeria? Yes or no, and why?
2. In what way have the previous EIAs impacted the operation of the maritime oil and gas sector?
3. In your own view how would you evaluate the level of institutional cooperation among the different EIA systems?
4. What is it that prevents EIA from being translated into practice?

5. Do you think that the resources and skills available for implementation are sufficient?
Yes or no, and what resources are missing?
6. How would you evaluate the role of international organisations and conventions in the drafting and implementation of EIAs? I have earlier outlined how these six broad topics reflect the theoretical grounding of the thesis.

In gathering primary data, I first undertook preliminary fieldwork in order to identify an insider at each of the proposed interviewees' establishments, so as to obtain information on 'who does what' and not to rely on my own knowledge of the way establishments generally operate in Nigeria. Based on this, 70 participants were initially identified as my potential interviewees, but only 50 were approached and interviewed based on their outstanding experience over others (only participants with minimum of 5 years of experience were selected). As years of experience remained an important issue in selecting my participants, I became more inquisitive in knowing those that have contributed to institutionalisation of EIA in Nigeria. In this way, additional six participants were identified, making the entire interviewees to be 56 altogether. These 56 participants' years of experience ranges from 5 to 28 years and only 9 (16%) of them were women and this reflects the percentage of women in the NMOGS. For example, only one woman was available at National Environmental Standards Regulations and Enforcement Agency among the experienced staff. Incidentally she could not be selected for the interview because of her busy schedule as the Director-General of the named agency. This was the similar situation at Federal Ministry of Environment and National Oil Spill Detection and Response Agency. Surprisingly, there was no woman at all with the required years of experience at NGOs such as Environmental Rights Action and Social Environmental Rights Action.

Even though the preliminary fieldwork was an informal visit, I was able to familiarise myself with the system and gained access to the interviewees directly. They were then officially approached during the main fieldwork at a different time and location, and the interviews lasted for almost 3 months (from August 10th to October 28th). Due to the official transfer and relocation of about 12 of the interviewees' from their original locations (Lagos and Rivers States), I had to interview them at their new locations (Abuja, Oyo and Enugu States). Even though I had an alternative to interview them through telephone, I had to travel to these new locations because of network problems coupled with power (electricity supply) shortages in Nigeria. I conducted 36 interviews in Lagos State; about 7 interviews were conducted in Rivers State, 9 officials were interviewed in Abuja, and 2 officials were interviewed in Oyo State and only one interview was conducted in Enugu State (See Figure 4.4).

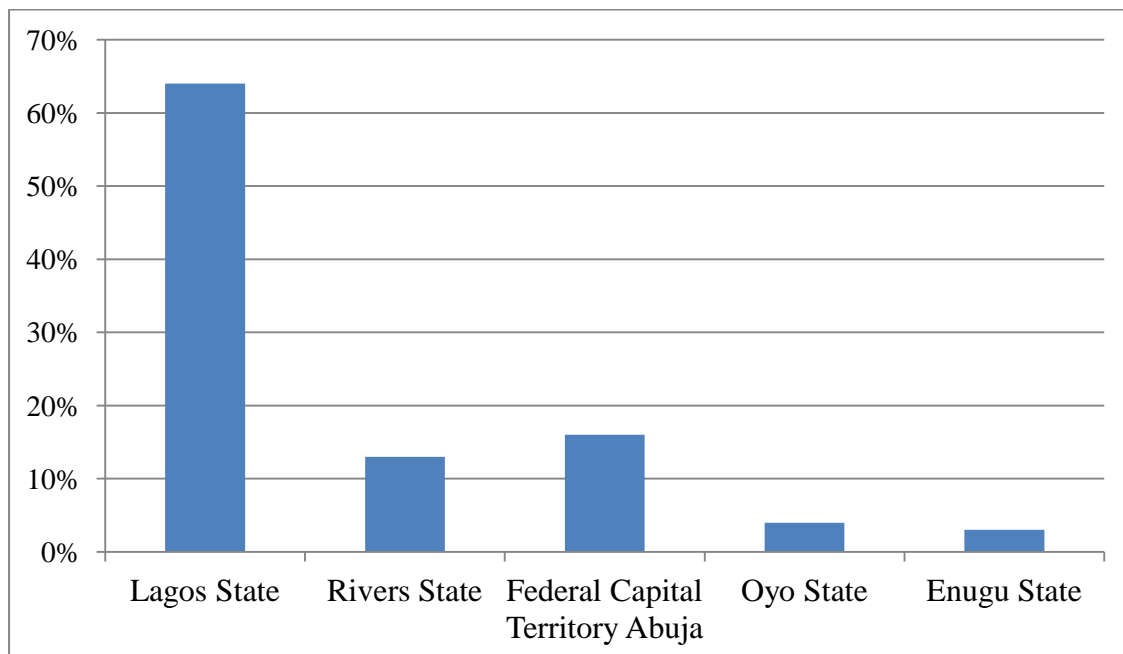


Figure 4.4 Interview locations and the number of the interviewees

Source: Fieldwork, 2010

In line with the theoretical grounding of the thesis, the interviewees were divided into two sampling categories: the control and programme groups. The participants in the control group were academics, environmental local practitioners and officials in NGOs. The participants in the programme group were drawn from high level policy and corporate officials within the Federal Ministry of Environment, Department of Petroleum Resources, National Environmental Standards Regulations and Enforcement Agency, National Oil Spill Detection and Response Agency, and Nigerian Maritime Administration and Safety Agency. Other members in the programme group included officials of the Ministry of Niger Delta Affairs; Nigerian Port Authority; Lagos State Ministry of Environment; Lagos State Environmental Protection Agency; and Rivers State Ministry of Environment. The remaining participants in the programme group included the Nigerian maritime oil and gas sector's consultants. Importantly, they are certified by the responsible government agencies and also they represent the oil and gas companies on issues related to EIA, because in the NMOGS, oil companies are not permitted to write EIA. In Figure 4.5 I show the number of participants interviewed by their professions. I interviewed 21 (38%) Federal government agencies, 13 (23%) State government agencies, 6 (11%) NGOs, 5 (9%) academics, 4 (7%) environmental related-associations, 4 (7%) NMOGS's consultants and 3 (5%) environmental legal practitioners.

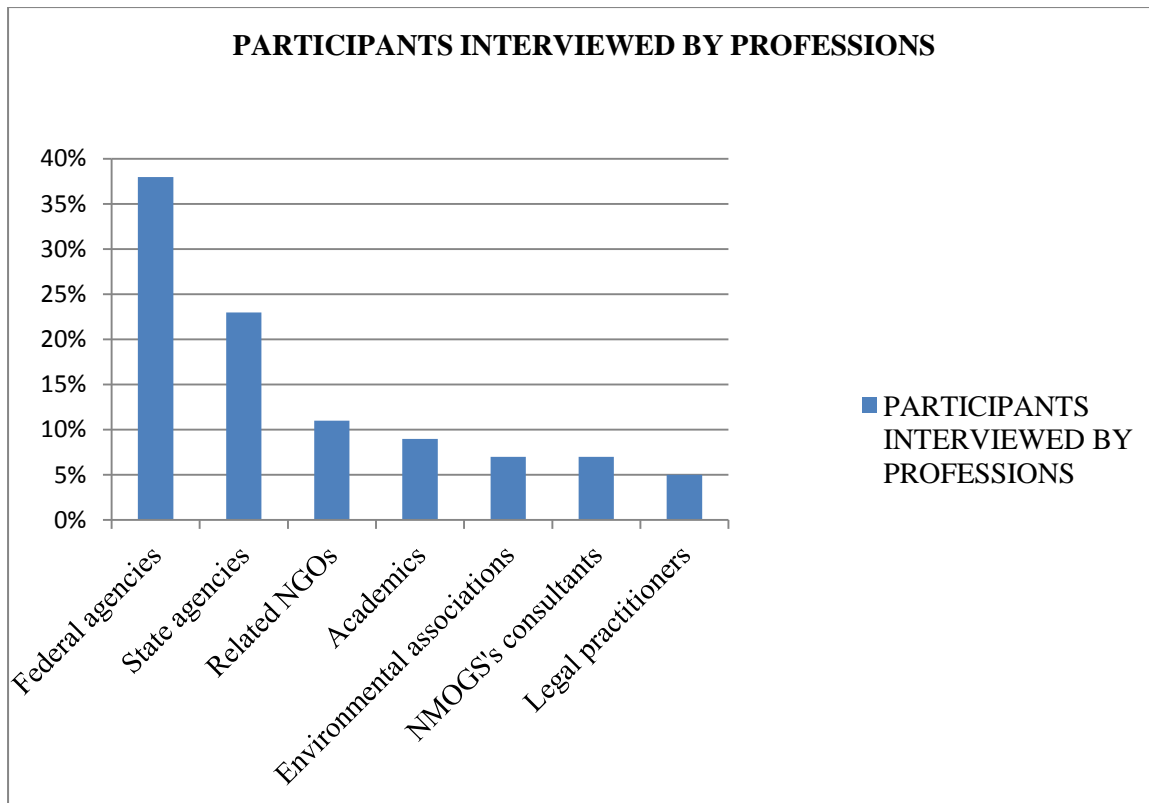


Figure 4.5 Participant interviewed by professions

Source Fieldwork, 2010

It is important to mention that the participants in the programme group except the NMOGS's EIA consultants are policy custodians and implementers, while the participants in the control group monitored the activities of the implementers.

The activities of participants were described in more detail (see Appendix 2a & 2b), though their identities have been made anonymous as earlier mentioned to ensure their confidentiality. The study sample therefore comprised of fifty-six participants, four of whom participated in the pilot interviews. These pilot interviews provided me with a deeper understanding of my research problem (Moch and Gates, 2000), and gave me a valuable opportunity to 'fine tune' my questionnaire. After the pilot interviews I commenced the main

interviews with average of 1- 4 per day, lasting for 13 minutes to 1 hour 10 minutes and 59 seconds and in some cases interviews were rescheduled because of strike action. I resolved this by visiting the participants at their private offices or homes as the case may be. Only two participants were affected by the industrial strike and importantly, I got permission from the HOD, Director-General, Commissioners and Permanent Secretary as the case may be before interviewing all that were not affected by industrial strike.

One of the challenges encountered during the fieldwork was that out of the entire 56 participants interviewed, 4 participants from the DPR did not agree with the use of a voice recorder. The problem was resolved through note taking by focusing on relevant information only (Hall and Hall, 1996). Interestingly, the remaining 52 participants were happy with the use of Voice Recorder, as indicated in the letter of intent. Peil (1982) has described a letter of intent as a simple document that states what a research project is all about, as the starting point and what follow is informed consent. Green and Thorogood (2009) have argued that ‘informed’ implies all pertinent aspects of what will happen are disclosed to the participants, while ‘consent’ implies that the participants are capable of making a rational judgement about whether to participate or not.

All the participants in the study were happy to participate in the interview process as ethical issues had been resolved through informed consent, including the right to privacy or confidentiality (Creswell, 2007; Simons, 2006; Thorne, 2004; Fontana and Frey, 1998), and moral standards (Holloway, 1997). This does not imply that my activities during fieldwork were problem-free throughout – as earlier mentioned industrial strikes, for example, often hindered access to the participants. Nevertheless, I managed to resolve these issues on a case-by-case basis, taking into account Fontana and Frey (2008, pp. 151-152) recommendation

that ‘...researchers must be aware of the implications, pitfalls, and problems...’ associated with in-depth empirically rich research.

Having shown how primary and secondary data were gathered I now move on to describe how data were analysed in order to meaningfully address the research aim and objectives.

4.4 Data analysis

Data analysis is often more inductive than deductive to start with, because induction is the act of selecting patterns, themes and categories in data set, while deduction involves analysing data in relation to an existing framework (Patton, 2002). Analysing, narrating or reporting qualitative data in more general terms takes several forms: linear analytical structure, comparative structure, chronological structure, case studies analysis structure, and theory building structure among others (Denzin and Lincoln, 2008; Creswell, 2007; Burns, 2000; Miller, 1997). Holloway (1997, p. 43) maintains that data analysis is the ‘means of breaking down the data and searching for codes and categories which are then reassembled...’ According to Gibbs (2007, p. 3), the process of analysing qualitative data is centred on two main factors:

- 1 Developing an awareness of the kinds of data that are to be examined, and how they can be described and explained;
- 2 A number of practical activities that assist with organising and analysing large amounts of data, seen as practicalities of qualitative analysis.

I have analysed the entire available data using the descriptive statistics method and they are summarised in appendix 2c, but the starting point of my analysis was the transcription of semi-structured interviews, which were then coded manually to ensure data reliability (See Bull *et al.*, 2008; Creswell, 2007). I used several colours to differentiate between the key issues/topics related to EIA implementation in the NMOGS as earlier proposed. For example yellow represented the state of the environment, green represented the impacts of previous EIA in the sector, brown represented levels of cooperation among the government implementing agencies, red represented the effectiveness of EIA, purple represented the sufficiency of resources and pink represented the role of international organisations towards effective EIA implementation in NMOGS (See appendix 3 for the samples). As Silverman (2006, p. 362) notes, ‘analysing long-well-transcribed data extracts, helps both reliability and likely validity of data analyses’. Coding helped me in the translation of data into categories, so that they could be analysed (Gibbs, 2007; Peil, 1982), as it obliged me to focus on essential features (Burns, 2000) and for examples see appendix 3. As Guba and Lincoln (2004) reflect, qualitative data are not only process-oriented and holistic, they are also interpretative.

Based on the maxim that ‘quality representation cannot be achieved without accurate interpretation’ (Stake and Schwandt, 2006, p. 414), I used narrative analysis, telling the stories, relationships, feelings and experiences of the policy actors in the programme and control groups (Yanow, 1996). The main aim of my interpretative approach was to understand ‘the world from the point of view of participants...rather than deriving an explanation of the world’ (Green and Thorogood, 2009, p. 14).

Furthermore, I employed my case studies and secondary evidence to strengthen the findings. Previous EIA reports were used to measure the extent to which multinational and national oil company projects had been fully translated into practice, particularly in solving environmental challenges in the study areas. I analysed both offshore projects – for example the West African Gas Pipeline (WAGP) – and land-based projects including the Tank Farm project, which takes as its starting point a sub-sea pipeline installation. The former is operated by the multinational oil companies and the latter is managed by a Nigerian company. According to deLeon and deLeon (2002, p. 475) ‘most implementation scholars agree on the importance of programme/project evaluation as key to good implementation...viewing evaluation as a way of assessing executed programmes/projects and make suggestion as how it can be improved’.

Apart from the fact that the case studies through a specific project helps in strengthening the findings, they also assist in showing the real picture of the activities on the ground and ‘provide rich and deep understanding of a highly complex phenomena’ (Cousins and Shulha, 2006, p. 280). In the same vein, case studies may ‘refute a universal generalisation...can represent a significant contribution to theory building and assist in refocusing the direction of future investigation in the area of research’ (Burns, 2000, p. 461). Meanwhile, quantitative data on the number of projects that have been subjected to EIA were analysed using graphs, as one of the components of descriptive statistics to identify whether the sector’s EIA systems have recorded achievements.

In summary, both case studies and responses from semi-structured interviews were used to furnish a basis for analysis in this research. Crucially my research did not simply focus on evaluation alone, but also upon a theoretically-informed interpretation of data (Holloway,

1997; Patton, 1987). The final section discusses my positionality in relation to the research topic.

4.5 Positionality of the researcher

'Researchers' reflections on their actions and observation in the field, their impression, irritation, feelings and so on, become data in their own right, forming part of the interpretation, and are documented in research diaries or context protocol' (Flick, 2002, p. 6).

The researcher's experience is viewed as the starting point and key term for the conduct of all social inquiry, which implies that the researcher should reflect on his/her experience in interpreting collected data (Clandinin and Connelly, 1998). Acknowledging the researcher's experience is required during data gathering (Gibbs, 2007), and in ensuring valid and reliable analysis and interpretation. Moch and Gates (2000, p. 3) have maintained that the 'researcher's experience is not just a peripheral to the research, and should thus have a place in the reporting of the research'. Furthermore, acknowledging their personal experience 'helps researchers to understand how their data and its interpretation may be intertwined with their own value and beliefs' (Elsbach, 2000, p. 70).

I am Nigerian and was born in Lagos State, where I undertook my primary and secondary education. I did my undergraduate and postgraduate studies in the Eastern part of the country. I started my professional career as a lecturer at Maritime Academy of Nigeria, and I also became a qualified ISO (International Organisation for Standardisation) lead auditor in the same organisation in the Southern part of the country, where Rivers State is located. In view of this, the study areas (Lagos and Rivers States) are particularly interesting to me, because important issues around my research have many personal associations (social, political, economic, and environmental). My previous experience qualified me as an insider and also

enabled me to understand the interpretation of the collected data better. In order to remain as objective in undertaking this research, I acted as an outsider throughout the interviews, except on one occasion, where two of the DPR officials refused to respond positively to the interview questions, because they felt I wanted to expose their malpractices. In this case, I had to present myself as an insider, and someone who had lectured in the country's Maritime Institution for six years as well as an experienced lead auditor interested in assessing the process and not as an individual. In this way, I brought my intention into the open, which was to interrogate organisational process, procedure and practice not an individual after which they cooperated. But with the rest of the interviewees I maintained my position as an outsider, as the Government and Non-Government officials were willing to share information with me considering my positionality as a PhD research student who wanted necessary data.

4.6 Conclusion

The chapter has considered the wide range of primary and secondary data sources used to gather information on the study area, including the case studies, experts' evidence, and policy documents. I have described the ways by which materials from the secondary and primary sources were applied and analysed by concentrating on what would constitute 'credible evidence' (Donaldson and Lipsey 2006). The next chapter sets out the Nigerian national context and national systems of EIA. It explores the development of oil and gas operations, including an assessment of oil and gas activities resulting to environmental impacts.

CHAPTER 5

THE NIGERIAN NATIONAL CONTEXT AND NATIONAL SYSTEMS OF EIA

5.1 Introduction

This chapter focuses on the Nigerian national context and the evolution of the distinctive national system of EIA. I discuss the historical development of oil and gas in the country, including the assessment of impacts of oil and gas operations on the environment, so as to understand why and how the sector's EIA was enacted. The chapter then reviews the NMOGS's EIA legal frameworks to identify what has been put in place, what these frameworks seek to achieve, and their relative policy effectiveness.

The chapter is divided into six sections. Section 5.1 briefly introduces the chapter and section 5.2 discusses the historical development of oil and gas in Nigeria. Section 5.3 describes the environmental impacts of offshore oil and gas activities nationally, focusing on its impacts on maritime fauna and flora, atmosphere and human-health and well-beings. Section 5.4 then reviews the NMOGS's EIA systems, focusing on the structural issues. Section 5.5 elucidates the role of key implementing agencies within the oil and gas sector as the custodians of the country's environmental resources. Finally in section 5.6, the concludes the chapter by outlining the main policy styles (Jordan *et al.*, 2003a; Richardson *et al.*, 1982) operating in the sector, so as to lay the groundwork for the more detailed analyses that follow in chapters 6, 7 and 8.

5.2 Historical development of oil and gas in Nigeria

Foreign involvement in the Nigerian oil and gas sector can be traced back to the early twentieth century, when European state authorities began to recognise oil as a valuable energy source (Obasi, 2003). The first person to prospect for oil in Nigeria was a British citizen named John Simon Bergheim, who operated through his Bitumen Corporation Company (BCC), which before his death had sunk fifteen wells in Southern Nigeria without any success (Fleay, 1998). Fleay (1998) maintains that an Anglo Dutch consortium, Shell D'Arcy followed BCC to Nigeria, carrying out further exploratory drillings between 1937 and 1939 that again recorded no success. It was only in 1951 that the first productive well was sunk at IHUO-1 near Owerri, with an additional thirteen wells established between 1953 and 1955 (Anthony, 2005; Obasi, 2003). Shell D'Arcy eventually struck its first successful commercial well in 1956 at Oloibiri, in what is now Bayelsa State, with shipment of crude oil from Nigeria beginning in 1958 (Obasi, 2003). In the same year, more oil was found at Afam in Rivers State. Subsequently, the construction of pipeline from Oloibiri to Port Harcourt was undertaken to facilitate international oil export (Obasi, 2003).

It appears that Shell's achievement in oil prospecting and exploitation encouraged other multinational oil companies to join in exploration activities in Nigeria. Thus, during 1960-1965, the number of multinational oil companies increased to five in the country, with Chevron, Mobil, Texaco and Elf setting up operations in Nigeria, and the first offshore licenses were released around the same period (Anthony, 2005). The multinational oil companies' involvement in the Nigerian oil business has helped the developed world to meet its basic oil demands. Thus, for example Nigeria's so-called 'light sweet oil' source is critical for the U.S. refining needs (Brodman, 2004; Salih, 1992). The country's offshore oil

exploration and production began in 1993 (Obasi, 2003). By September 1999, Nigeria began to develop its gas resources with the inauguration of a \$ 3.8 billion Liquefied Natural Gas facility on Bonny Island in Rivers State (Hagel, 2004). For the purpose of simplicity, I have summarised the NMOGS historical development in Table 5.1.

Table 5.1: Historical development of the Nigerian oil and gas sector from 1908-1999

Date	Events
1908	Nigerian Bitumen Company British Colonial Petroleum commenced oil operation
1938	Shell D’Arcy granted exploration license to prospect for oil throughout Nigeria
1951	The first exploration well drilled
1956	Shell D’Arcy made first commercial discovery of oil at Oloibiri oil field in Nigeria
1958	First shipment of oil from Nigeria
1960- 65	Four additional foreign oil companies (Mobil, Chevron, Texaco and Elf) started operation in Nigeria. During this period, Nigerian Government was playing a passive role by collecting royalty.
1971	Nigeria joined the Organisation of the Petroleum Exporting Countries (OPEC)
1971	The Nigerian National Oil Company was established
1973	Marked the first participation agreement, with Nigeria Government 35% shares in the oil companies
1974	Witnessed the second participation agreement, with Nigerian Government equity increased to 55%
1975	Ministry of Petroleum Resources was established with regulatory roles
1977	The Nigerian National Oil Company and Ministry of Petroleum Resources were merged as Nigerian National Petroleum Corporation by Decree 33
1979	Witnessed the third participation agreement, with Nigerian Government equity increased to 60% and later on in the same increased to 80% through the fourth participation agreement
1984	Agreement consolidating the Nigerian National Petroleum Corporation and Shell joint venture was signed
1989	Witnessed the fifth agreement, with the Nigerian National Petroleum Corporation 60%, Shell 30%, Elf 5% and Agip 5%.
1993	Marked the sixth participation agreement, with the Nigerian National Petroleum Corporation 55%, Shell 30%, Elf 10% and Agip 5%.
1993	Offshore operation commenced
1999	NLNG’s (Nigerian Liquefied & Natural Gas) first shipment of gas out Bonny terminal

Source: www.nnpcgroupBusinessinformation/OilandGasinNigeria/industryhistory.aspx

accessed on 10/10/2010; Anthony, 2005 pp. 3-4

Nigeria is divided into 6 regions excluding the Federal Capital (Abuja): the North-East, the North-West, the North-Central, the South-East, the South-West and the South-South, with highest oil products (premium motor spirit, automotive gas oil and house hold kerosene) distribution to South-West and South-South in million litres (mltrs) (See Figure 5.1). Most of the country's oil and gas is found in the South-South region which hosts the Niger Delta (NDRDMP, 2006), a region richly endowed in natural resources and with wetland (Petters, 2009). Nigeria's oil reserves are estimated at 37.2 billion barrels of proven oil and equivalent (BOE) as of 2011, and the country has an estimated 187 trillion cubic feet of proven natural gas reserves as of 2010 (U.S. Energy Information Agency, 2011). Its average daily oil production rate has risen from 5100 barrels in 1958 to 2.5 million barrels in 2012 (Alike and Okafor, 2012; Okubenji, 2012). The country's gas production rates stand at average of 4 billion standard cubic feet per day (Alike and Okafor, 2012).

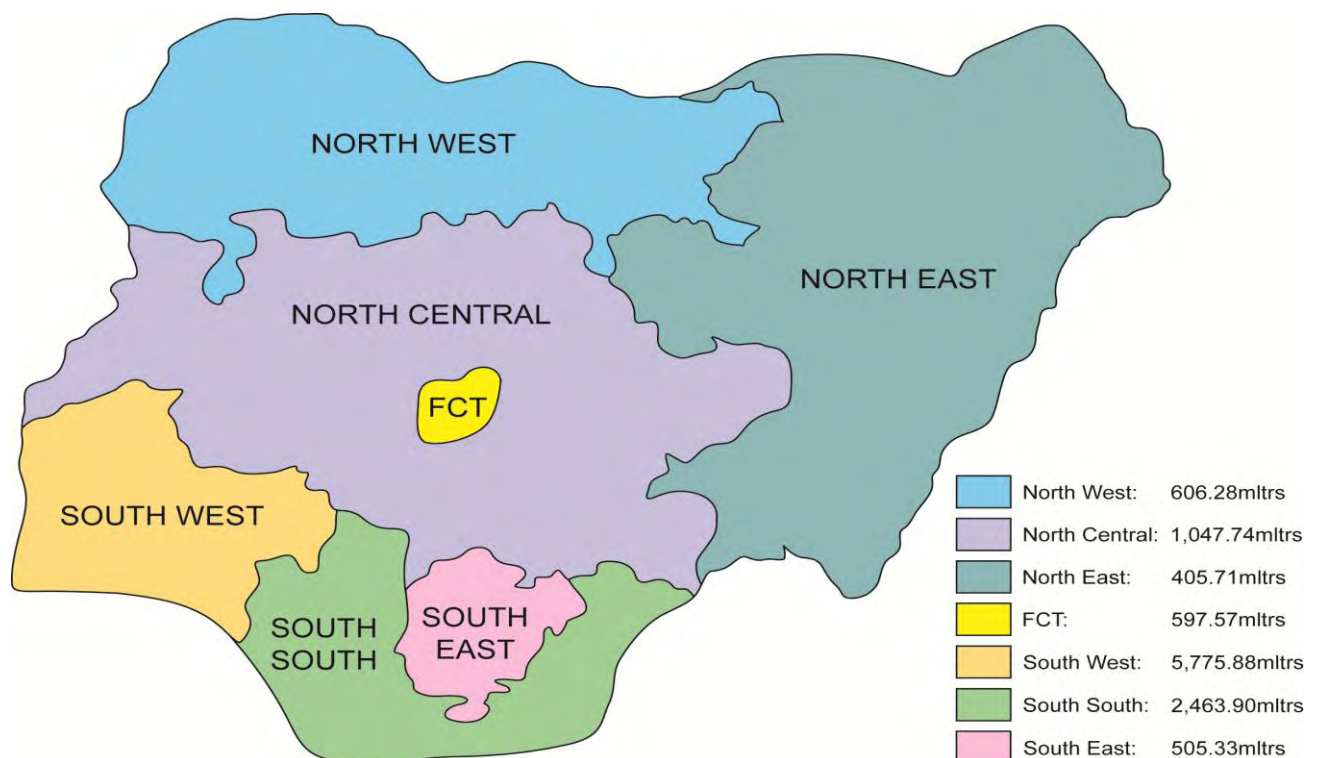


Figure 5.1: The Nigerian's regions and oil consumption rates

Source: Nigerian National Petroleum Corporation (NNPC), 2008 p. 47

There are 606 oil fields in Nigeria, of which 355 are onshore, and 251 offshore (NDRDMP, 2006; Orubu *et al.*, 2004). The main offshore oil and gas fields in Nigeria include Agbami (owned by Chevron), Shell's Bonga Main, Shell's Bonga South West, and Erha, owned by Exxon Mobil (U.S. Energy Information Agency, 2011; NDRDMP, 2006; Orubu *et al.*, 2004). The Bonga field for example, has the capacity to produce more than 200 000 barrels of oil and 150 million cubic feet of gas every working day (Shell Nigeria, 2011). The location of offshore and onshore oil and gas fields is shown in Figure 5.2.

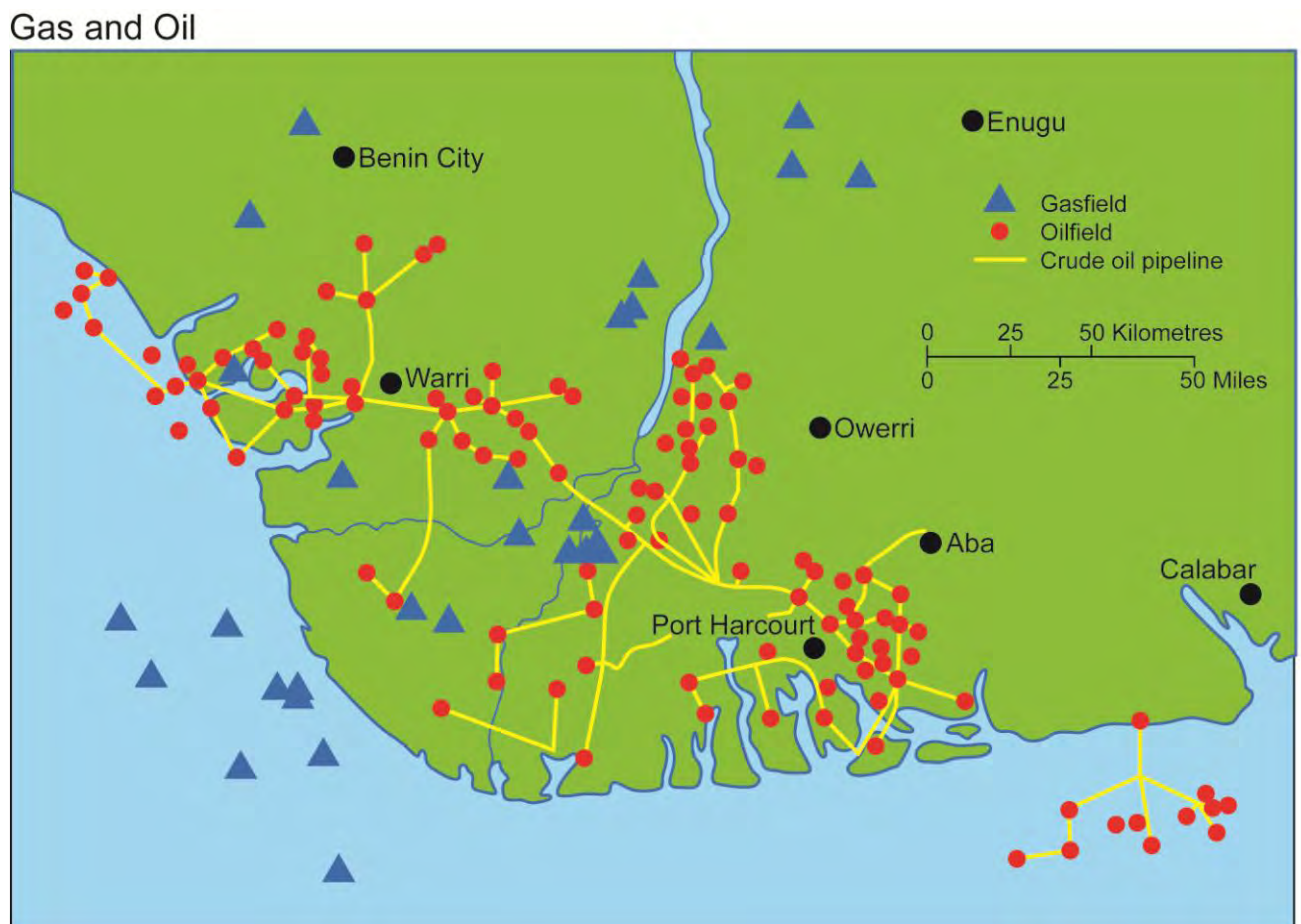


Figure 5.2: Location of Nigerian Offshore Oil and Gas Fields

Source: www.lib.utexas.edu/maps/africa/nigeria_p1193.jpg accessed on 5/5/2010

The country's pipelines are instrumental in transporting oil and gas from one region to another within Nigeria. The start and end point of these pipelines are identified in Table 5.2.

Table 5.2: Nigeria's oil and gas pipelines location, including the cross border pipelines

Pipelines start Point	Pipelines End Point	Length(km)
Escravos in Delta State (South-South)	Kaduna (North Central)	674
Kwale in Delta state	Brass in Bayelsa State (South-South)	206
Ramuekpe in Rivers State (South-South)	Bonny in Rivers States	134
Warri in Delta State	Ramuekpe in Rivers State	-
Banga Field in Rivers State	Bonny Terminal in Rivers State	268
Escravos in Delta State	Lagos (South-West)	340
Oben in Edo State (South-South)	Ajaokuta in Kogi State (North-Central)	294
Ugheli in Delta State	Warri in Delta State	-
Enugu (South-East)	Auchi in Edo State	-
Kaduna	Gasau in Zamfara State (North-West)	356
Kaduna	Maiduguri (North-East)	1050
Kaduna	Warri in Delta State	-
Lagos	Ilorin in Kwara State (North-West)	259
Port Harcourt in Rivers State	Yola in Adamawa (North-East)	333
Warri in Delta State	Lagos	312
Lagos (Nigeria)	Takoradi (Ghana) (International) e.g. West Africa Pipeline Project	1033 (also see Goodland, 2005)

Source: www.theodora.com/pipelines/nigeria_oil_gasandproducts_pipelines_map.html

accessed on 4/3/2009

Nigeria has four refineries: one in Kaduna (built in 1980), two in Port-Harcourt (built in 1965 and 1989) and another one in Warri (built in 1978) (Oil and Gas Press, 2009; OECD/IEA, 2008; Metz, 1991). Ideally, these refineries should have the capacity to refine 100,000, 210,000, and 125,000 barrels per day (Okunroumu, 2004), but that is not the case due to poor management, lack of maintenance and sabotage (Oil and Gas Press, 2009). Presently, the government has recognised the need to address the challenges related to the country's

refineries, as Nigerians' consume more oil than all other forms of energy combined (Alike, 2010; Buhari, 2010).

Nigeria joined the Organisation of the Petroleum Exporting Countries (OPEC) in 1971 (U.S. Energy Information Agency, 2011). The country still strives to meet with the OPEC oil production quota, in the face of numerous internal challenges, which often results in reduced oil production. Considerable domestic unrest took place following Ken Saro-Wiwa's execution in 1995 (Saro-Wiwa was the leader of a group called Movement for the Survival of the Ogoni People) for resisting oil and gas operations causing pollution in the Niger Delta. It has been widely argued since that environmental degradation is capable of igniting violent conflict nationally (OECD, 2006; Payne, 2001; Goldstone, 2001; Lomborg, 2001). Various forms of resistance to the state continue, and some armed groups have taken the advantage of this situation to destabilise the country.

5.3 The environmental impacts of offshore oil and gas operations

As discussed in the previous section, Nigeria has a relatively long history of oil prospecting and exploitation. However, it was not until 1987 that public awareness of environmental issues became widespread, triggered by the dumping at Koko port in Nigerian territorial waters by an Italian ship (Echefu and Akpofure, 2007; Ogunba, 2004) of about 4000 tons of toxic and hazardous waste (Nwafor, 2006). This resulted in the establishment of Federal Environmental Protection Agency in 1988 and Natural Resources Conservation Council in 1989, and Nigerian Government also embraced international development by adopting several international conventions among them was climate change, and they participated in Earth Summit in 1992 for example. In this way, the Nigerian Government was able to detach

away from the inherited colonial environmental management legacy that focused on public health, town planning, forestry and wildlife (Steyn, 2003), coupled with the government itself over concentrating on economic matters since 1970 (beginning of oil boom in the country) to the detriment of environmental related issues. With respect to the Koko incident and its resultant development, the Nigerian Government is now aware that addressing the maritime offshore oil and gas environmental problems requires substantial efforts.

Offshore oil and gas activities in Nigeria range from exploration to production (UNEP, 2011, E&P Forum/UNEP, 1997). The most noticeable environmental pollution in the NMOGS arises from oil drilling and production, resulting in oil spills, rig blow outs, improper disposal of drilling mud and burning of fossil fuel from gas flaring (UNEP, 2011; Steiner, 2008; Bassey, 2007; Adeyinka *et al.*, 2005; Orubu *et al.*, 2004). The volume of gas flared in Nigeria reportedly was the highest in the world in 2000 (See Table 5.3) in 2005 (Bassey, 2010, 2007; Haruna, 2007; Environmental Rights Action, 2005) and the second highest in 2010 (U.S. Energy Information Agency, 2011). Nigeria Liquefied Natural Gas (2012) reported that even though 40 bcm of crude oil associated gas is produced in the country per annum, 80% of it is being flared yearly. About 1.1 billion cubic feet of gas is flared per day in Rivers State alone (Goodland, 2005), with virtually 2.5 billion cubic feet of gas associated with crude oil is flared daily nationally (U.S. Energy Information Agency, 2011; ERA, 2005). Gas flaring has negative effects on the immediate environment (Orubu *et al.*, 2004), as well as on human life. This is because some of the greenhouse gases such as methane and carbon dioxide emitted from gas flares are major contributors to global warming (Song *et al.*, 2011; Paltsev *et al.*, 2011; Demayo *et al.*, 1998). Some commentators have alleged that the effects are already noticed in rising sea-levels of Rivers and Lagos States in particular (Bassey, 2007; Haruna, 2007; Ihedioha, 2007).

Table 5.3: Best Estimate of Gas Flaring Trend in selected Countries in 2000

Country	Flared Gas in Billion Cubic Metres (BCM)	Share of World Total in Percentage (%)
Algeria	6.8	6
Angola	4.3	4
China	3.2	3
Egypt	0.9	1
Indonesia	4.5	4
Iran	10.5	10
Nigeria	17.2	16
Mexico	5.6	5
North Sea ^(c)	2.7	3
Russia	11.5	11
Venezuela	4.5	4
United States	2.8	3
Other countries	33	30
World	107.5	100

Source: Environmental Rights Action, 2005, p. 12

In Nigeria, the lack of infrastructure and technology is among the main reasons for gas flaring (U.S. Energy Information Agency, 2011; Bassey, 2007; Borasin *et al.*, 2002). It was the considerable adverse environmental effect of gas flaring that prompted the World Bank and Global Environmental Facility (GEF) to propose the reduction of gas flaring in the Nigerian oil producing states (Orubu *et al.*, 2004). This resulted in the WAGP project in 2003 (WAGP, 2004; Goodland, 2005), which is the focus of the next chapter.

Apart from gas flaring, oil spills in the country are frequent and highly damaging environmentally (Steiner, 2008), with an average of four spills per week (Goodland, 2005). According to Borasin *et al.* (2002) Shell Nigeria recorded 130 spills in 1997 and about 2 300 cubic meters of oil are spilled annually in the country's oil producing states. The U.S. Information Energy Agency reported that more than 4000 oil spillage incidents have occurred in Nigeria (Kloff and Wicks, 2004). Major oil spillage events within the Nigerian coastal zones have been reported (Luiselli *et al.*, 2006 and see Table 5.4). The major reasons for oil spills in Nigeria are partly due to wear and tear of pipelines and largely high levels of vandalism and sabotage (NNPC, 2011, 2008).

Table 5.4: Major oil spillage events in the coastal zone of the Nigerian oil producing states between 1978- 2001

Location of spill	Date	Barrels of oil lost	
Gocon's Escravos spill	1978	300,000	Chevron
Forcados Terminal tank failure	1978	500,000	Shell Petroleum Development Company (SPDC)
Apoi 20 blow-out	1980	-	Texaco
Funiwa 5 blow-out	1980	400,000	Texaco
Abudu Pipeline spill	1982	18,818	SPDC
Jesse fire incidence	1998	40,000	NNPC
Idoho off-shore platform	1998	40,000	Exxon Mobil
Yorla 10 blow-out	2001	35,000	SPDC

Source: Luiselli *et al.*, 2006, p. 3753

In contrast to land-based oil spills, a major concern is that the amount of oil lost through spillage into the marine environment is far greater as it is largely understandable (Steiner, 2008). Oil loss to the marine environment poses widespread negative threats to the environment, disrupting ecosystems, fauna and flora as well as polluting water (UNEP, 2011; Steiner, 2008; International Relation, 2006; Adeyinka *et al.*, 2005; Orubu *et al.*, 2004) by direct toxicity (Onwurah *et al.*, 2007).

A study by UNEP (2011) showed that oil and gas activities have also disrupted the Ogoni's land (in Rivers State) marine environment by destroying the plankton, algae, fish eggs and gills. The affected fish gills might in turn cause damage to human health, as most of the local communities in Ogoni land depend upon fish for subsistence (Borasin *et al.*, 2002). In Nigeria, the impacts of oil and gas activities are exacerbated, because response to spillage is very low (UNEP, 2011; Basse, 2010; Borasin *et al.*, 2002). The level of this type of impact therefore depends on the types of hydrocarbon involved, quantity spilled, the temperature and season at the time of the incident (UNEP, 2011).

The environmental impacts of oil exploration and production in Nigeria are summarised in Table 5.5. In order to show how these impacts are connected to social, economic and political issues, I now focus on the role of oil operators, government and local people, so as to reveal the complexities and peculiarities of environmental impacts in the NMOGS.

Table 5.5: Summary of the environmental impacts of oil exploration and production

Exploration and production activity	Physical activity	Impacts
Seismic activity	Setting up base camp	Hydrological changes Sewage Light and noise pollution Introduction of alien and invasive species
	Cutting lines	Removal of vegetation
	Seismic operation	Vibration Noise
Drilling operations	Setting up base camp	Abstraction of water Hydrological changes Sewage Light and noise pollution Introduction of alien and invasive species
	Setting up drilling pads	Hydrological changes
	Drilling operations	Noise can cause harm to fauna Drill cutting and drilling wastes Spills and leaks Light and noise pollution Nuisance odours
Production operations	Facility installation	Access creation Hydrological changes Introduction of alien and invasive species
	Pipeline installation	Hydrological changes Spillages and leaks Fires Nuisance odours Pigging wastes
	Facility operation	Noise Discharge of water Waste, e.g. from tank bottoms Spillages and leaks Fires Nuisance odours

Source: UNEP, 2011, p. 42

Environmental challenges arising from oil and gas exploitation have resulted in a wide variety of political, economic and social problems. Oil and gas operators have been criticised for not responding immediately to environmental challenges and not doing enough in terms of provision of social facilities to commensurate the level of damages they have caused to the environment, thus intensify environmental impacts (UNEP, 2011; Bassey, 2007; Haruna, 2007). Apart from oil companies' social responsibilities, operators are generally closer to local communities than the government agencies. Moreover, oil companies' commercial activities often target these communities for additional profit. The social problem is briefly considered here because any project that is socially sustainable will contribute to environmental sustainability to an extent (Tanaka, 2009; Barrow, 1997).

In this context, one of the biggest issues in Nigeria (and in the country's oil producing states in particular) is the lack of basic infrastructure such as portable water (drinkable water), electricity and improved road networks, among others (International Relations, 2006). There is now an extensive body of evidence showing that most of the basic infrastructures in Nigeria are in poor condition (Oyeka, 2002; Omobitan, 2002; Ilori, 2002; Ukwu, 2002; Malifiya, 2002; Ajakaye, 2002), and do not adequately meet public needs (Oyeranti, 2002). Oyeka (2002) maintains that these basic infrastructures are interwoven and interrelated, for example, until the country's water supply is improved, sanitation and health infrastructures will remain under-developed.

According to Omobitan (2002) high population densities and land use pressures from industrial and commercial activities are also responsible for these inadequate infrastructure facilities. Yet there would be substantial socio-economic benefits to the country through

greater state investment in infrastructures including electricity, water supply, and improved sea, road or rail networks (Ilori, 2002; Oyeranti, 2002).

Even though oil and gas are undoubtedly the most valuable natural resources available in Nigeria, the people of oil producing states do not reap the full benefit from them. Only a small percentage (about 3%) of oil revenue is dedicated to the country's oil producing states (NDRDMP, 2006). This appears to be part of the reasons why the amnesty is not fully working. Notably, past governments approaches and actions towards oil pollution have resulted in serious social problems in Nigeria. Thus, in 1998, the then president, General Abdulsalami Abubakar despatched military officers to Bayelsa State to stop widespread youth demonstrations over oil spills in Ijaw province. This resulted in hundreds of deaths (Okonta, 2000). In 1999, the then President Olusegun Obasanjo instructed the army to raze Odi town in Balyesa State (part of oil producing states), with several hundred people killed in street fighting (Okonta, 2000). In May 2009, the late president Yar' adua directed the army to destroy the palace of the Pere of Gbaramatu and properties owned by the suspected militants in that kingdom (Ehiremen, 2010; Amazie, 2009; Osarogiagbon, 2009; Ogbu, 2009). Such military actions have provoked a backlash which has annoyed local communities- the oil producing states particularly.

There have been instances of attacks and out-right destruction of oil production facilities, which ironically has further intensified the levels of environmental pollution in the country. In the Niger Delta for example militants set fire to the Forcados loading platform, which is located about 20 kilometres offshore (International Relations, 2006). Similarly, in March 2010, Kokori oil field was largely destroyed by Niger Delta's militants (Julius and Alike, 2010). Recently, in February 2012, a facility that belongs to the Nigerian Agip Oil Company

(now ENI) was set on fire by militants (Alamutu and Nwafor, 2012; Ogundele and Idowu, 2012) and significantly the group 'vowed to reduce Nigeria's oil production to zero' (Olaniyi, 2012, p. 1). According to Okubenji (2012), Ugwuanyi (2012), and Alike and Okafor (2012) attacks on oil facilities especially pipelines causes further pollution, and in some cases these militants have engaged in oil theft under the subterfuge that they are somehow 'protecting' the environment. A study by UNEP (2011) indicated that even criminal damage has increased the rates of environmental pollution in Nigeria. It seems that the bulk of the reasons for this type of attacks on oil facilities stems from the fact that local communities are bitter over the growing environmental pollution threat across the country. But they have only succeeded in exacerbating the problem by putting greater strain on the country's battered infrastructure.

For example, the National Commission for Refugees has reported that 'oil related crises have driven more than 3 million Nigerians from their homes' (International Relations, 2006, p. 59). Similarly, economic loss is also evident in the country. According to Alike and Ezigbo (2010), the country has lost over 174.57 Billion Naira in the last ten years to vandalism, with three major pipelines attacked at different times. In the same vein, about 150,000 barrels of oil, valued at 2.6 billion Naira are lost daily to crude oil theft in Nigeria (Okubenji, 2012). The Nigerian Minister of Finance reveals that oil theft has led to 'a 17 percent fall in official sales of oil in April for example or about 400 000 b/d...and the country has loss 1.2 Billion Dollars in just a month' (Wallis, 2012, p. 1). This does not imply that the total annual oil spillages are lesser than oil theft, which is a recent development and oil theft became popular just in 2007 as Shell Nigeria (2012 a & b) put it. However, it implies that any opportunity or challenge that affects crude oil nationally will equally have effects on the country's development (Akpofure and Ojile, 2007), considering the fact that the economy is largely dependent on the oil sector (NDRDMP, 2006).

Such challenges confirm that the 'oil producing Niger Delta remains politically volatile, with intermittent communal violence and bunkering, or stealing crude oil from pipelines as a major concern' (Hagel, 2004, p. 5). This is fostered by the government's lack of control over its maritime environment (Morrison, 2004). The problem becomes visible with falls in the country's crude oil production and quantities available for export and local consumption and coupled with damages to flora and fauna in particular as earlier mentioned. Then, the question is- how did Nigeria respond to Convention on Biological Diversity (CBD) and in terms of compliance?

Nigeria signed into CBD in 1992 and ratified the same convention in 1994 under Federal Ministry of Environment not Institute of Oceanography (Fourth National Biodiversity Report (FNBR), 2010), considering its endowment with rich diverse flora and fauna (NDRDMP, 2006). Even though the country's Institute of Oceanography is not directly involved in the issues related to flora and fauna biodiversity mainly because it is under the Ministry of Agriculture, it has been contributing immensely to the nation by engaging in carrying out related research and also consulting for the oil and gas operators (Ajayi and Tobor, 1991). In Nigeria, there are many NGOs that promote conservation of flora and fauna, among them are: Nigerian Environmental Action Study Team and Centre for Environmental Renewable Natural Resources Management Research and Development (FNBR, 2010).

In 1997, the country developed its National Biodiversity Strategy and Action Plan (NBSAP) not only to promote awareness on biodiversity related issues but also to ensure that sustainable development is achieved and an end comes to destruction of sea creatures mainly (FNBR, 2010). Despite the fact that the country has put in place NBSAP, it has failed to meet CBD 2010 target, particularly in conserving its rich endowed flora and fauna (UNEP, 2010;

FNBR, 2010). FNBR (2010) reported that apart from natural and man-made threat for example oil spill, other challenges related to conserving biodiversity in Nigeria's offshore in particular are lack of skilled man-power, inappropriate technology and inadequate funds to implement several biodiversity programmes. However, these problems of lack of compliance with the content of CBD in Nigeria might be ameliorated through international cooperation (FNBR, 2010), and effective communication (UNEP, 2010).

In summary, this section has emphasised that the environmental impacts of offshore oil and gas operations have not just resulted in pollution. It has also caused economic and social problems, with the oil producing states bearing the brunt of them, despite the fact that oil revenue is realised from them. The negative impacts of offshore oil and gas operations on the environment and local communities in the country's oil producing states have raised the concerns for the reviews of the NMOGS's EIA legislation that have been established since the early 1990s. This is treated through the subsequent section, mainly to identify what they seek to achieve.

5.4 The structure of the NMOGS's EIA systems

As already discussed in chapter 2, EIA is an important means by which potentially adverse environmental impacts can be mitigated. Crucially, however, its structure varies from country to country. Consequently in the following section I review the Nigerian EIA system, focusing on its policy characteristics, which was one of the main reasons why the use of policy implementation theories was proposed in chapter 3. In this first section, I address the basic ideas and the sets of actions that have officially been taken towards achieving effective EIA practice in the NMOGS. The section discusses the structure of EIA systems in the sector,

focusing on the DPR and FMENV EIA systems through their legal frameworks and guidelines. One of the benefits of these EIA guidelines is to assist the selection of projects that are related to the sector (Wood, 2003a).

EIA has been embraced in over 100 countries (Weaver, *et al.*, 2008; Petts, 1999a, Barker and Wood, 1999) including Nigeria. The aim of EIA in Nigeria and the NMOGS is to enhance sustainable development (Nwafor, 2006). Nonetheless, I would argue that the main goal of the NMOGS EIA should be to mitigate the sector's undoubted environmental impacts. A critically important feature of Nigerian implementation is the existence of multiple systems of EIA at a national scale. The country's EIA is operated under three independent systems: the DPR Petroleum Act (1969), the FMENV EIA Decree 86 (1992), and the Town and Country Planning's Decree 88 (1992) (Ogunba, 2004). However, only two systems are relevant to the NMOGS, the DPR EIA system (considered in section 5.4.1) and FMENV EIA system (examined in section 5.4.2), as the Town and Country planning EIA system relates only to land and housing development (Ogunba, 2004). I have summarised the entire development that gave birth to the two EIA systems in the NMOGS below (See Table 5.6).

Table 5.6: Developments that led to EIA systems in the NMOGS

Years	Developments
1950	Nigeria Government establishes Hydrocarbon section of the Ministry of Lagos Affairs (now DPR)
1969	Federal Government enacts Petroleum Act
1970	Federal Government establishes Department of Petroleum Resources
1972	Nigeria participates in the Stockholm Conference on Human-Environment
1975	Based on the country participation in the Stockholm Conference, the Federal Government establishes Division of Urban Development and Environment
1979-1983	Federal Government establishes Federal Ministry of Economic Development
April 1982	Nigeria hosts the 69 th Inter-Parliamentary Union Spring meeting on the 'state of environment' that was 10 years after Stockholm Conference
May 1982	Nigeria participates in the 10 th Anniversary of the Stockholm Conference
1981-1986	Federal Government introduces environmental policy into National Development Plans without provision for a formalised environmental legislation
1987	Italian Government dumped toxic waste on Nigerian territorial water at Koko Port
1988	Federal Government establishes Federal Environmental Protection Agency (FEPA)
1989	Federal Government publishes National Policy on Environment
1991	DPR releases Environmental Guidelines and Standards for the Petroleum Industry in Nigeria (EGASPIN)
1992	Nigeria attends the Rio Earth Summit and subsequently plan to enact its EIA Act
1992	FEPA (now FMENV) enacts the country's EIA Act
1995	The first oil and gas project was subjected to EIA in the sector
1999	Federal Government establishes FMENV with additional responsibilities
2002	DPR reviews EGASPIN
2010	FMENV reviews EIA Act

Source: DPR, 2009; Ameyan, 2008; Nwafor, 2006; Adeyinka *et al.*, 2005; Adomokai and Sheate, 2004; Ogunba, 2004; Olokesusi, 2000, 1998, 1997; FEPA, 1992

5.4.1 The Department of Petroleum Resources (DPR) EIA system: Principles and procedures

The introduction of environmental management consideration in the oil and gas sector was begun by the Department of Petroleum Resources (Osuno, 1981). DPR is directly responsible to the Federal Ministry of Petroleum rather than the Federal Ministry of Environment. The DPR Petroleum Act was established in 1969 to ensure effective management of the sector. However, environmental issues began to gain prominence in Nigeria in 1970, because of the country's oil boom.

The DPR EIA system is based on the Petroleum Act 1969 in which under section 8 (1) b (iii) the Minister of Petroleum Resources is able to make regulations to curb pollution from petroleum industries into watercourses and the atmosphere. It is on this basis that the DPR developed Environmental Guidelines and Standards for the Petroleum Industry in Nigeria (EGASPIN) in 1991.

The Guidelines set out the wide-ranging nature of the EIA process, as follows: 'the adoption of EIA as a project implementation tool, which emphasises that all actions that will result in physical, chemical, biological, cultural, economic, and social changes from the new project must be assessed' (DPR, 2002 p. 132). The procedure for preparing the DPR EIA is outlined in Figure 5.3. In essence, the procedure requires the operators through the NMOGS certified EIA consultant to forward a letter of intention to the DPR, stating the need for the proposed oil and gas related project. The procedure emphasises scoping, mitigation and design and post-EIA monitoring, but without consideration for public participation. Apart from EIA, the

DPR also uses Environmental Evaluation Report (EER) to assess already polluted or impacted environment in order to decide and design strategies for restoration (DPR, 2002).

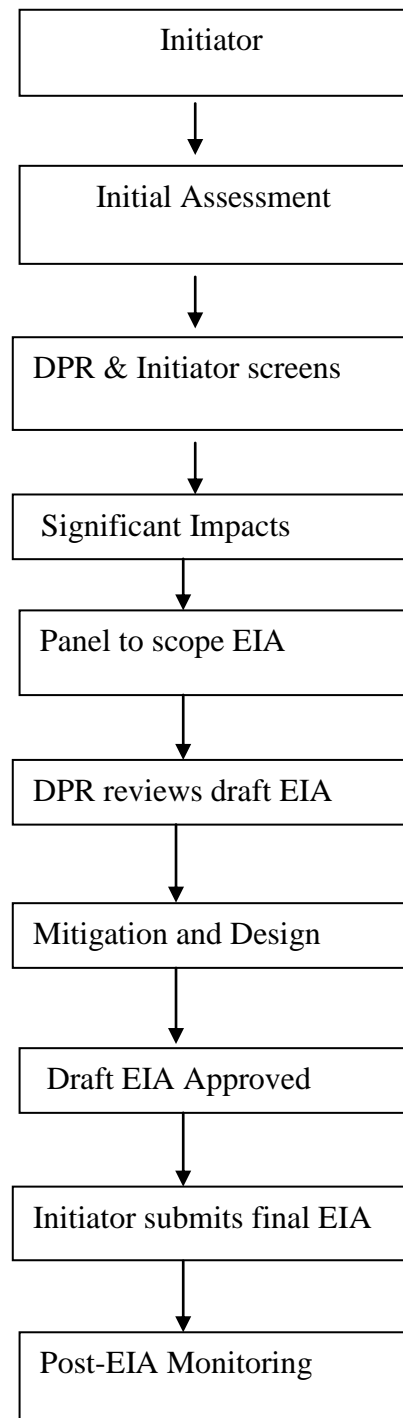


Figure 5.3: The DPR EIA Procedures

Source: DPR 2002: 132-143; Udotong, 2003: 410

Regarding the oil and gas sector in Nigeria, the guidelines set out main projects that require EIA as follows:

- i) Seismic operations;
- ii) Oil and gas field developments for onshore, near-shore, offshore and deep offshore development (well drilling, construction of crude oil production, tank farms and terminal facilities including floating production, storage and offloading vessels);
- iii) Laying of crude oil and gas delivery lines, flow lines, and pipelines in cumulative excess of 20 km in length and/or as determined by the Director of Department of Petroleum Resources;
- iv) Hydrocarbon processing facilities such as oil refineries and petrochemicals, liquefied natural gas, blending plants, and product filling stations (combined capacity above 20 000 litres);
- v) Construction of product depots with combined capacity;
- vi) Construction of waste treatment and/or disposal facilities (waste water treatment plant, incineration process above 300 kg/hr, and engineered sanitary land filling); and
- vii) Dredging activities greater than 500 m³

DPR, 2002, p. 133

As stated in the above, it is obvious that the DPR EIA system is designed for oil and gas related projects alone. This would suggest that the DPR should be more effective in practice than the FMENV EIA system, which is generalised and focused on the entire national environmental related developments. However, previous researchers noted some

shortcomings such as DPR EIA overlaps with the FMENV EIA system (Ameyan, 2008; Nwafor, 2006, Ogunba, 2004; Olokesusi, 1998), ineffective scoping (Ogunba, 2004; Olokesusi, 1998), and the system being too centralised (Ogunba, 2004). I have improved on the issues related to overlapping for example by examining the impacts of the overlapping, the reasons for the problem and why the problem persists through chapter 7.

5.4.2 The Federal Ministry of Environment (FMENV) EIA system: Principles and procedures

The process of introducing the Federal Environment Ministry's EIA procedure can be traced back to 1975, with the establishment of a Division of Urban Development and Environment (DUDE) within the Federal Ministry of Economic Development (Nwafor, 2006). DUDE was moved to the Federal Ministry of Works and Housing in 1979, and later became a Federal Environmental Protection Agency (FEPA) in 1988. Consequently, environmental policy was introduced to the National Development Plan (1981-1985) for the first time in Nigeria (Olokesusi, 1998).

FEPA was reconstituted as FMENV in 1999 to address the country's environmental and ecological problems more comprehensively. The Ministry published the National Policy on Environment in 1989, and enacted the EIA Act in 1992. The FMENV EIA system is based on the EIA Act 1992, and the FEPA Decree No. 58 1988 has been described as the development that gave birth to the FMENV EIA system (Adomokai and Sheate, 2004; Olokesusi, 1998; FEPA, 1992). This is because section 5 of the FEPA Decree gives the Ministry the responsibilities of

- (i) Environmental protection and management;

- (ii) Setting environmental guidelines and standards; and
- (iii) Monitoring and enforcing compliance with environmental measures (Olokesusi, 1998, p. 160).

FMENV's EIA procedure covers all sectors of the Nigerian economy, and its procedure is outlined in Figure 5.4. In summary, the procedure is as follows: proponents have to declare intention to embark on a project, this is followed by screening to ascertain whether the proposed project requires EIA or not. In this way, the checklist for categorisation become relevant, as all projects in category one automatically requires EIA (See Table 5.7). Once it is confirmed that EIA is required, the next activity is scoping, with the rest of activities (for example, public hearing). This procedure has been designed to raise standards of EIA writing and reporting in order to reflect international best practice with the penalties for non-compliance set out under section 62 of the EIA Act (Nwafor, 2006).

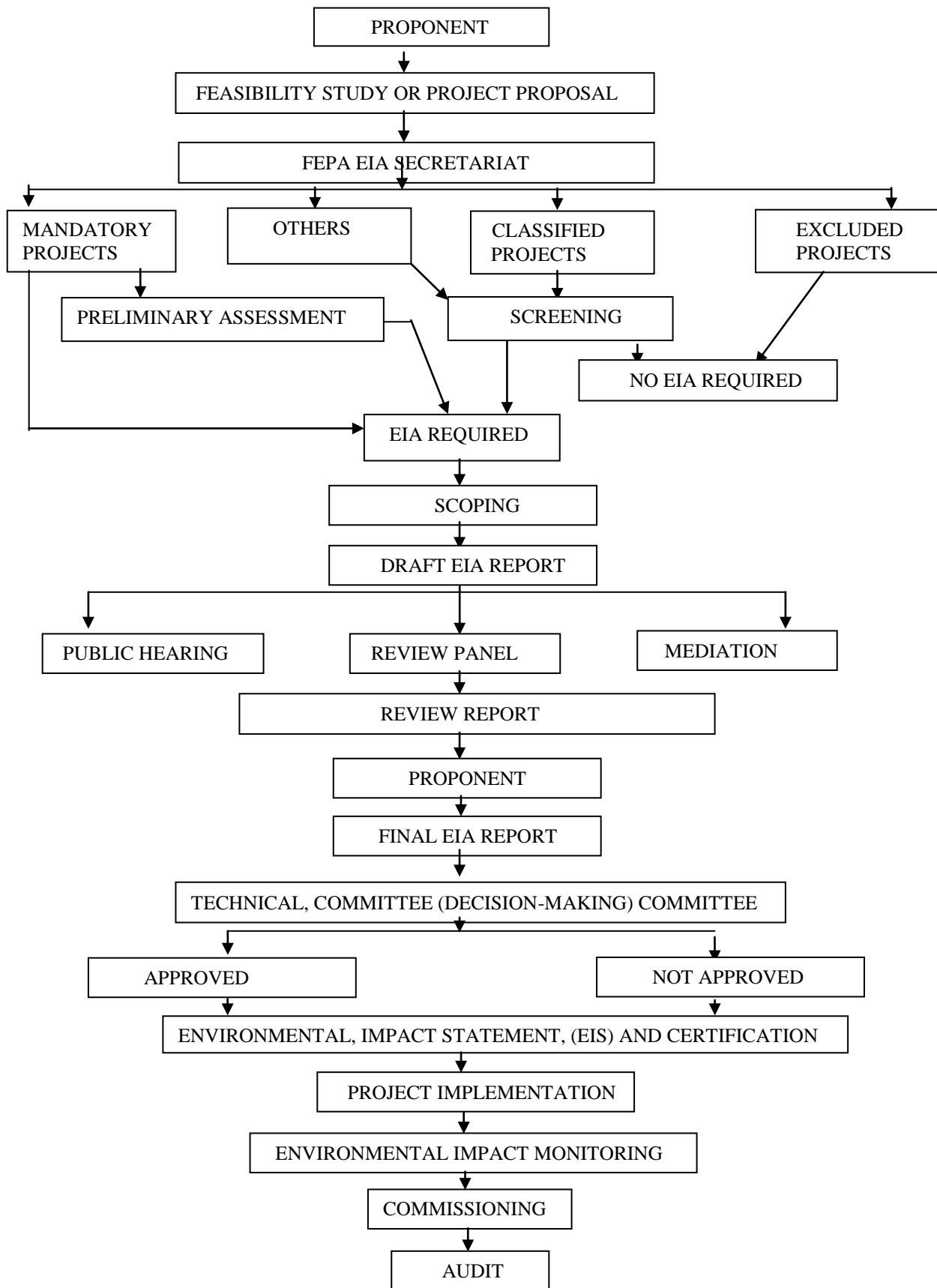


Figure 5.4: FMENV EIA procedures

Source: Udotong, 2003: 409; Olokesusi, 1998: 167; FEPA, 1995

Table 5.7 Project in category 1 (projects that require EIA under FMENV system)

Type of Development	Minimum Size or Capacity
1. Petroleum <ul style="list-style-type: none"> • Oil and gas field development • Construction of offshore pipelines • Construction of oil and gas separation, processing, handling and storage facilities • Construction of refineries • Production depots for storing petrol, gas or diesel 	500 kilometres 60, 000 barrels
2. Mining <ul style="list-style-type: none"> • Mining of materials in new areas • Processing of ore, aluminium, copper, gold or tantalum • Sand dredging 	250 hectares 50 hectares
3. Ports <ul style="list-style-type: none"> • Construction of ports • Expansion of ports by 50% capacity 	All
4. Power generation and transmission <ul style="list-style-type: none"> • Steam generation power stations • Dams and hydroelectric power schemes: <ul style="list-style-type: none"> (i) Dams over 15 metres high (ii) Reservoirs with a surface area • Constructions of combined cycle power stations 	10 megawatts 40 hectares 400 hectares
5. Quarries <ul style="list-style-type: none"> • Quarrying aggregate of limestone, silica, granite, and other minerals near residential, commercial, and industrial development 	All
6. Transportation <ul style="list-style-type: none"> • Construction of rapid transport projects 	All
7. Railways <ul style="list-style-type: none"> • Construction of new routes, and branch lines 	All
8. Infrastructure <ul style="list-style-type: none"> • Hospital with facilities • Industrial estate for medium heavy industries • Construction of expressways, highways, and new township 	50 hectares All
9. Waste treatment and disposal <ul style="list-style-type: none"> • Incineration plants, sanitary landfills, and waste water treatment plants 	All
10. Water supply	

<ul style="list-style-type: none"> • Construction of dams, impounding reservoirs • Ground water development for industrial agricultural or urban water supply 	All
11. Agriculture <ul style="list-style-type: none"> • Land conversion from forest to agricultural production • Resettlement of families • Development of agricultural estates 	500 hectares 100 families 500 hectares
12. Airport <ul style="list-style-type: none"> • Construction of airports • Airstrip in state and national park 	2 500 metres All
13. Drainage and irrigation <ul style="list-style-type: none"> • Surface areas of dams, man-made lakes • Virgin forest drainage and wet land drainage • Irrigation schemes 	200 hectares 100 hectares 5 000 hectares
14. Land reclamation <ul style="list-style-type: none"> • Costal reclamation 	50 hectares
15. Fisheries <ul style="list-style-type: none"> • Fishing harbours • Harbour expansion leading to 50% increase in fish landing • Clearing of mangrove swamp forest s 	All 50 hectares
16. Forestry <ul style="list-style-type: none"> • Conversion of hill forest to other land uses and conversion of mangrove swamps for industrial, housing or agricultural use • Logging of forest land in water reservoirs or catchment areas • Clearing of mangrove swamps on islands near national parks 	50 hectares All
17. Industry <ul style="list-style-type: none"> • Chemical plant production 	All
18. Housing <ul style="list-style-type: none"> • Housing development 	50 hectares
19. Resort and recreational development <ul style="list-style-type: none"> • Coastal resort facilities, hill station resort, tourist of recreational facilities on island and national park 	All

Source: Olokesusi, 1998: 163-165

In Summary, the FMENV EIA applies to the following sectoral projects:

1. Petroleum and petrochemicals, dredging, oil and gas exploration and production offshore and onshore, pipeline construction, and petroleum refining;
2. Manufacturing, chemicals, and allied industries;
3. Agricultural and rural development, agricultural land management, drainage and irrigation, flood management, dams and reservoirs;
4. Infrastructure, roads and highways, urban development, and coastal development and;
5. Solid mineral mining and development, and extraction (Olokesusi, 1998, pp. 167-168; FEPA, 1995, pp. 3-4).

The Nigerian EIA and FMENV system in particular is almost related to the World Bank guidelines except for its inability to integrate SEA, which is one of the main components of World Bank EIA guidelines (See Mediterranean Environmental Technical Assistance, 2000, World Bank, 1999, 1993). It is obvious that none of the sectors' EIA systems has integrated SEA. This is similar to most countries around the world (Sadler and Jurkeviciute, 2011; Ashe and Marsden, 2011; Wilson and Ward, 2011; Audouin *et al.*, 2011; Clark *et al.*, 2011; Hayashi, 2011; Powell, 2005; Memon, 2005). Particularly, in the developing countries, SEA has not been integrated to EIA system, for example in Pakistan, Ghana, Taiwan, Sri Lanka, Brazil and Bangladesh (See Saeed *et al.*, 2012; Samarokoon and Rowan, 2008; Jou and Liaw, 2006, Glasson and Salvador, 2000). About 35 countries have institutionalised SEA (Sadler, 2011a & b) compared with EIA that has been institutionalised in over 100 countries as earlier mentioned (Weaver *et al.*, 2008; Glasson and Salvador, 2000).

The FMENV, for example, has not only established the EIA Act, but it has put in place a system that recognises mitigation compliance monitoring and public participation among

other EIA key stages. This is evident from its EIA procedures. As evidenced from the above, both the DPR and FMENV EIA systems that are directly relevant to the NMOGS have been designed for different purposes. The DPR system is strictly for oil and gas-related projects within the NMOGS, while the FMENV EIA system covers all the ministries/agencies projects that require EIA in the Nigeria, including oil and gas-related projects. Importantly, it is compulsory for proponents to comply with the two EIA procedures, and the NMOGS's EIA consultants are fully aware of this. At this point, the knotty questions are: why FMENV EIA procedure has not replaced DPR EIA procedure? What the international oil development industry through their consultants think of a country with two, possibly conflicting, EIA procedures. Priority is given to these two questions and they are unpacked in the empirical chapter focusing on inter-agency context (chapter 7).

Even though the FMENV EIA has put in place a system that gives recognition to public participation in theory, Nwafor (2006) noted low level of cooperation between State and Federal Ministries. I have taken this further by exploring the FMENV EIA implementation styles and why the State Ministries are demanding for their own EIA system for example in chapter 8 under the intra-agency context. The next section discusses the role of key government implementing agencies within the sector, as the custodians of the country's environmental legislation and key policy actors.

5.5. The role of Government actors in designing and implementing EIA

Clearly, the right interpretation of legislation guarantees the effective application of environmental policies through EIA (Wood, 2003b). It is in this respect that the role of GIAs that execute and interpret the country EIA legislation becomes relevant. The section therefore considers the roles of key national agencies within the NMOGS, as custodians of EIA. The agencies considered are the Department of Petroleum Resources, Federal Ministry of Environment, and Nigerian Maritime Administration and Safety Agency.

5.5.1 The role of the Department of Petroleum Resources (DPR)

DPR has been at the forefront of addressing environmental issues in the NMOGS. The Department began life in the 1950s as the Hydrocarbon section of the Ministry of Lagos Affairs, becoming DPR in 1970 (DPR, 2009). DPR operates within the content of the country's legislations and Petroleum Act 1969 in particular. Other main regulations used by the DPR include: Regulation 25 and 36 of the Petroleum (Drilling and Production); Regulation 43 (3) of the Petroleum Refining 1974 Regulation; Regulation 17(3) of the Oil Pipeline Ordinance Cap 145 of 1956 as amended by Oil Pipeline's Act 1965) (DPR, 2002, p. 133).

In 1979, DPR organised an international seminar held in Rivers State on reducing the impact of oil pollution, entitled 'The Oil Industry and the Niger Delta environment' (Osuno, 1981 p. 25). The seminar was attended by representatives of multinational oil companies, national agencies, non-governmental organisations and related international organisations. It also recorded tangible progress, with recommendations as follows: enactment of relevant

legislations with attendant penalties and establishment of internationally standard oil field practices to minimise oil spillage; setting aside a fraction of oil revenue for funding oil and gas related research; and upgrading the Environmental Division of Federal Ministry of Housing and Environment among others (Osuno, 1981). The effects of these recommendations include the enactment of Environmental Guidelines and Standards for the Petroleum Industry in Nigeria in 1991; a fully-fledged Ministry of Environment in 1999 and the establishment of Petroleum Technology Development Fund (PTDF) in 2000 to develop manpower in the Nigerian oil and gas sector.

On the basis of these initial activities as earlier mentioned, DPR developed the Environmental Guidelines and Standards for the Petroleum Industry in Nigeria in 1991. These were originally set out in sections 8, 25, and 36 of the Petroleum Act 1969. Subsequently, the guideline was released in 1991, updated in 1999 and reformulated in 2002 (DPR, 2002) with objectives to:

- Ensure environmental quality control, and taking into account existing local conditions, and the planned monitoring programme;
- Provide a comprehensive integrated document on pollution abatement technology, guidelines, and standards for the NMOGS;
- Standardise the environmental pollution abatement and monitoring procedures, including, the analytical methods for various parameters (DPR, 2002, p. 1).

In effect, therefore, DPR was responsible for putting in place the first national system of environmental guidelines for monitoring, revocation of licences and leases, sanctions, compensation, and issuance of some interim guidelines on waste discharge to underpin effective EIA in practice (DPR, 2002).

5.5.2 The role of the Federal Ministry of Environment (FMENV)

The Federal Environmental Protection Agency, established under Decree No. 58 (1988) (Nwafor, 2006; Ogunba, 2004; Udotong, 2003), became FEMNV in 1999 (Adeyinka *et al.*, 2005). FMENV has responsibility for the formulation and implementation of environmental regulations (for example EIA) in Nigeria in line with section 60 of the EIA Act (Makinde and Adegoke, 2008; Nwafor, 2006; Oil Spill Response of the National Action Co-ordinating Committee Report, 2000). The FEMNV carries out oil and gas related EIA through its Department of Environmental Assessment, Oil and Gas Division.

FMENV has two subsidiary executive agencies, National Environmental Standards Regulations and Enforcement Agency (NESREA established in 2007) and National Oil Spill Detection and Response Agency (NOSDRA set up in 2006). NESREA is responsible for the enforcement of environmental laws, guidelines, policies, standards and regulations nationally. NOSDRA has put in place different measures towards achieving effective EIA in the oil industry. These include generating environmental sensitivity index maps, emergency response services, and national oil spill planning among other activities (NOSDRA Gazette, 2006). State-level Ministries and local authorities operate under FMENV (Lagos State Gazette, 1997).

Beyond EIA procedure, FMENV works towards achieving the goals of the National Policy on Environment (NPE). The NPE aims to achieve sustainable development through specific environmental principles. These include the precautionary, polluter pays, intergenerational, and intra-generational equity principles (FEPA, 1998 p. 1-2). Furthermore, the NPE emphasises the need for public participation (Nwafor, 2006). In theory, the scope of NPE was

broadened through the Environmental Renewal and Development Initiative in 1999, designed to take full account of the country's natural resource base, including examination of mitigation strategies designed to proffer a solution through mitigation measures to the country's environmental degradation (Nwafor, 2006).

Secondary goals of the NPE are to:

- Secure a clean environment through which health and well-being are made available to all Nigerians;
- Conserve the environment and natural resources for the benefit of present and future generations;
- Raise public awareness and promote the need for essential linkage between environment and development;
- Encourage community participation on environmental-related issues; and
- Enhance co-operation with other countries and international agencies, to achieve effective prevention of environmental pollution (Nwafor, 2006, p. 573; Udotong, 2003, p. 402; FEPA, 1998, p. 2).

NPE also provides provision for the establishment of a National Oil Spill Contingency Plan (NOSCP), which is written in compliance with the International Convention on Oil Pollution Preparedness Response and Cooperation (OPRC) 1990. The NOSCP acknowledged three levels of planning: Tier 1, 2 and 3 (Oil Spill Response of the Nation Action Co-ordinating Committee Report, 2000). Tier 1 concerns response to minor incidents (1 to less than 7 tonnes), with responses carried out by the responsible polluter. Tier 2 covers large incidents (up to 700 tonnes), and the plan (cooperative plan) is carried out by the polluter responsible and others; for example, bodies such as the Clean Nigeria Association has been very effective

in this regard. Lastly, Tier 3 addresses major incidents (disastrous oil spills greater than 700 tonnes), with action taken by the government and other related bodies; collective effort is required.

5.5.3 The role of the Nigerian Maritime Administration and Safety Agency

NIMASA, formerly Nigeria Maritime Authority (NMA) was established under a separate Act of Parliament in 2007. As its name implies, NIMASA is the national agency responsible for maritime pollution incidents and implementation of related international conventions in the sector. The agency is presently under the Ministry of Transport, and is charged with a variety of policy roles and functions including:

- (i) Control and prevent maritime or marine pollution;
- (ii) Port and maritime flag state duties;
- (iii) Provision of maritime security;
- (iv) Development of shipping legislation and regulatory matters relating to merchant shipping and seafarers; and
- (v) Procedures for the implementations of International Maritime Organisation (IMO) conventions among other functions (NIMASA, 2010).

NIMASA liaises with relevant international organisations including the IMO and ratified international conventions such as Oil Pollution Preparedness Response and Cooperation (OPRC) 1990 and the international convention for Civil Liability on Oil Pollution (CLC) 1996. The agency enforces marine pollution laws under domestic legislation and international conventions for the prevention of pollution from ships (MARPOL 73/78).

The Agency's duties are now discharged through two departments: the Marine Pollution Prevention and the Marine Pollution Control. The Nigerian Government has recently provided the agency with additional facilities (Archibong, 2009), to ensure that it is fully prepared for any environmental problems.

I have further reviewed the Egyptian EIA system to identify the similarities and differences between the country and the Nigerian EIA, considering the fact that Egypt is seen as a nation where civilisation began and also they have long history of oil exploitation just like Nigeria. For the purpose of clarity I describe the similarities and differences between the two countries in tabular form (See Table 5.8) relying on literatures and predominantly the work of Badr (2009); Ameyan (2008); Ogunba (2004) and Olokesusi (1998) works mainly. In comparing the two countries' EIA system, I focus on legal aspects including the type of sanction in place, administrative issues, and procedural frameworks among other issues following Marara *et al.* (2011) suggestion.

Table 5.8 Similarities and Differences between the NMOGS's EIA and the Egyptian EIA systems

Components	Nigeria	Egypt
Legal	FMENV EIA was institutionalised in 1992, which became operational in 1995. While the DPR EIA was established in 1991, in this way, the country operate dual EIA systems	EIA was established in 1994 and it entered into force in 1995. The country operates single EIA system.
Amendment of law	The FMENV EIA system was reviewed and amended in 2010, and the DPR EIA system was reviewed in 2002	The Egyptian EIA was reviewed and amended in 2005
Sanction	Projects that are carried out without EIA pays fine	Projects without EIA are stopped until EIA is conducted on such project.
Review process and period of grace for participation	21 days	Formerly 60 days but now it has been reduced to 30 days
Decision-making process	Even though the country encourages voting, the system still remain undemocratic as agency representation is unequally distributed	Equal representation from each related agency that is one representative from each agency
Accreditation of Consultants	Both FEMNV and DPR certified consultants	Only the EIA central Department certified consultants in Egypt.
EIA time frame	Even though there is no licensing system in place in Nigeria, but delay is evidenced because binary EIA systems exist	The Egyptian EIA system also witnessed delay mainly because licensing system was in place.
Provision for SEA	No provision for SEA	No provision for SEA

Source: Badr, 2009; Ameyan, 2008; Nwafor, 2006; Ogunba, 2004; Olokesusi, 2000, 1998

5.6. Conclusion

It appears that successive Nigerian governments and the oil industry's failure to address environmental management over oil extraction have become one of the primary sources of domestic insecurity in the country. This is because of the resulting negative impacts on the environment and the health and well-being of people in particular, stemming from negligence of oil companies in addressing issues of environmental pollution.

In light of the pronounced environmental problems in the sector as discussed in section 5.3, I have outlined the two forms of EIA systems in the NMOGS, together with the role of government implementation agencies, what they seek to achieve and how they intend to achieve effective implementation. The chapter has demonstrated that the NMOGS's EIA style seems to be reactive and conflictual as evidenced in sections 5.4.1 and 5.4.2. More generally, policy style can be categorised into reactive versus proactive and consensual versus conflictual styles (Jordan *et al.*, 2003a; Richardson *et al.*, 1982; Dyson, 1982; Putten, 1982). Moreover, on one hand, the sector's EIA style is reactive in nature, because there might be no EIA in the sector but for a succession of large-scale oil pollution incidents. On the other hand, the sector's EIA style appears conflictual because of the 'twin track' EIA systems that exist, which potentially can result in conflict if not properly managed. It is in this context that policy implementation theories are applied in the next 3 chapters to interrogate the NMOGS's EIA systems. This is in line with Richardson (1996, p. 20) argument that because of 'the complexity...of the policy process we must learn to live with multiple models and learn to utilise concepts from a range of models in order to at least accurately describe the policy process'.

Though mitigation compliance monitoring and public participation among other EIA implementation stages have been embraced by the FMENV mainly to achieve effective EIA implementation, it has not yet been ascertained whether they are coherent and integrated in their approach to environmental challenges. Subsequently, the next chapter assesses the NMOGS's EIA implementation processes through key stages: mitigation compliance monitoring and public participation, including an examination of their effectiveness via political, social and economic factors. This is necessary to explore whether and how the national EIA system is coherent and integrated in its approach to the mitigation of negative environmental effects.

CHAPTER 6

ASSESSING THE NMOGS's EIA IMPLEMENTATION THROUGH KEY STAGES

6.1. Introduction

In order to attend to the first main objective of this thesis, the chapter explores the extent to which the NMOGS's EIA has been translated into practice through key implementation stages: mitigation compliance monitoring and public participation. This is necessary because EIA in theory provides for mitigation of negative environmental effects of development, and direct public engagement. The empirical basis for this chapter is constituted by published EIA reports for the West African Gas Pipeline (WAGP) and Tank Farm projects (by multinational and national oil companies respectively).

The chapter aims to address the key research question of the thesis ('to what extent has the NMOGS's EIA been translated into practice through public participation' and 'which mitigation measures have been implemented as result of previous EIA practice'). These questions are in line with Petts (1999d: 6) suggestion regarding the need for researchers to investigate 'whether EIA is fulfilling potential or wasting opportunity'. Implementation is described as one of the essential stages of policy processes (deLeon and deLeon, 2002; Davies, 1980) though of course there is no guarantee it will be successful (McCool, 1995). Understanding implementation stages is one of the main priorities of policy implementation studies (Spicker, 2006). Moreover 'implementation failure occurs because of technical problems... and problems occur because of misunderstanding...or lack of effective monitoring strategy to control and sanction deviant behaviour' (Matland, 1995: 161).

The chapter is divided into six sections. Section 6.1 introduces the chapter. Section 6.2 identifies EIA success stories, including the extent to which oil industry have been responding to EIA in practice. Section 6.3 describes the six selected EIA reports used in this research, including their mitigation measures in order to identify the main irregularities and lack of compliance noted at different periods. Building upon the findings of section 6.3, in section 6.4 I examine the EIA failure through mitigation compliance monitoring and public participation requirements, using a case study of irregularities in the WAGP and Tank Farm projects. This enables me to identify the extent to which EIA implementation has deviated from fulfilling its potential focusing on multinational and indigenous oil company projects. Section 6.5 then unpacks the reasons for lack of compliance, and section 6.6 concludes the entire chapter.

As with other policy instruments and mechanisms, it is widely argued that there are compliance gaps in EIA (Alemagi *et al.*, 2007; Wood, 2003; Olokesusi, 1999; Kakonge, 1999; for other policy tools, see Carley, 2011; Brinkerhoff and Crosby, 2002; Arts *et al.*, 2001; Richardson, *et al.*, 1982; Jordan and Richardson, 1982). In particular, in Nigeria ‘in practice, EIA is hardly as rational as it ought to be’ (Olokesusi, 1999: 9), a situation which also pertains to Cameroon (Alemagi, *et al.*, 2007), with Africa more generally (Kakonge, 1999), and in other developing countries (Wood, 2003b). Clearly, the EIA process is central to EIA practice, and it should be consistent with both requirement and good practice standards beyond any theoretical understanding (Lawrence, 2001). It is the ‘real world’ application of EIA in the NMOGS that is the empirical focus of this chapter.

6.2. EIA successes

This section examines implementation successes and the achievements that have been recorded in the sector through the previous EIA reports and practices. As deLeon (1999: 329) has suggested, ‘there is no reason to focus most on exceptional failure...but it does seem essential to include both sides of the implementation coin in order to observe and learn from the variation rather than almost exclusively from failed implementations’. Similarly, a study by Jordan *et al.* (1998: 1403) has indicated that ‘top down view helps us understand why and to what extent particular aspect of policies are implemented...seeing the definition of policy and implementation as essentially unproblematic and concentrating upon one particular policy rather than the wider context within which the whole policy process takes place’.

Most of my interviewees felt that one of the key successes in the sector is that specific environmental guidelines are in place so as to act as a template to be followed in practice towards achieving effective EIA implementation in the future. According to Matland (1995: 161) ‘as the actors are stable over time, they develop standard operating procedures to expedite their work’. McLaughlin (1987) maintains that part of the achievements in policy arena is having a guideline in form of status with clear goal.

Another noticeable success in the sector is that the number of oil and gas projects registered for the EIA process has increased. This implies that more projects have been subjected to the EIA process compared with when the sector’s EIA became operational in 1995. The statement from one of the principal officers of the FMENV ‘KV’ confirms the extent to which the sector is making positive progress.

I want to assure you that we have gone a long way since 1995 to date and over 1000 projects have been subjected to EIA and majority are coming from oil and gas' (Interview with KV FMENV, Programme Group 3rd September 2010).

The secondary evidence also confirms that more projects have been registered for EIA in the sector. For example, the country has conducted 1009 EIAs (see Table 6.1 and Figure 6.1) There is a significant difference between the numbers of projects subjected to EIA process in the country in 1995 (only 8 projects) and in 2009 (180 projects).

Table 6.1 Number of Previously Registered Projects that have received EIA Approval in the Country from 1995-2009

Year	Number of projects registered	Number of approvals	Number of rejections
1995	8	5	3
1996	6	6	0
1997	11	11	0
1998	24	22	2
1999	50	28	22
2000	51	19	32
2001	66	28	38
2002	70	31	39
2003	49	37	12
2004	66	34	32
2005	95	73	22
2006	101	59	42
2007	141	51	90
2008	140	47	93
2009	180	60	120
Total	1009	511	498

Source: Fieldwork, 2010

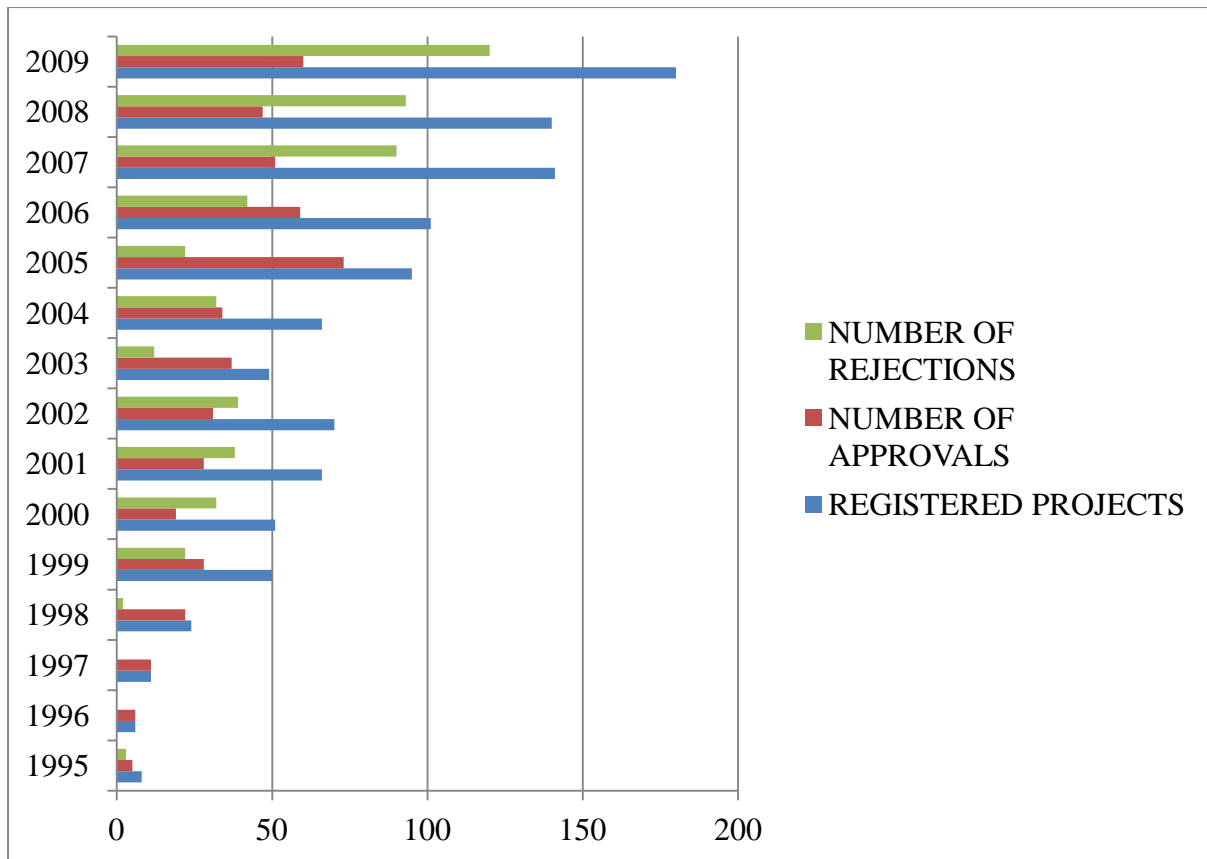


Figure 6.1 Number of Previously Registered Projects that have received EIA Approval in the Country from 1995-2009

Source: Fieldwork, 2010

Table 6.1 and Figure 6.2 not only give a clearer picture of the number of projects registered so far, but they also show the number of approvals granted. The sudden increase in the number of EIA approvals in 1999 is due mainly to the fact that the country returned to a Civilian Government after another long-stay of military rule (1984-1999). This brought about freedom of speech, which gave non-governmental organisations (such as Environmental Rights Action among others) the ability and confidence to challenge oil industries and sensitised local communities on the need for EIA. This is evident from the statement below:-

‘From 1999 to date we have been enjoying the Civilian Government rule, hence the Non-Governmental Organisations like Environmental Rights Action have greater freedom to operate in more organised way...sensitising local communities

on their right even beyond EIA' (Interview with PP Environmental Rights Action, Control Group 24th August 2010).

As discussed in the previous chapter, the Federal Ministry of Environment was established in the same year (1999) with a new mandate to upgrade the country's National Policy on Environment and ensure effective coordination of all environmental matters. FMENV was not only prepared to deliver its mandates from that year (1999), but also intended to convince Nigerians that the Ministry is up to the task and ready to justify their existence. Importantly, the extreme increase in the number of projects rejected in the sector stands as an additional achievement, which is pointing towards some levels of efficiency. However, this might not guarantee the effectiveness of number of EIAs as approved by the Government Implementing Agencies through mitigation compliance monitoring and public participation for examples, and this is explored through subsequent sections.

The main reason why the oil companies have been subjecting their projects to EIA process is because of the heightened level of public awareness. However, the Egyptian EIA system still requires a more sophisticated environmental awareness (Badr, 2009). According to one of the principal officers in the Ministry of Niger Delta Affairs, 'the level of awareness from year 2000 and now the local communities have greatly improved and you cannot go to any community and start work without EIA. They will stop you' (Interview with FO Ministry of Niger Delta Affairs, Programme Group 3rd September 2010). This implies that the situation in the sector has moved away from 'a business as usual' scenario, and demonstrated in the following statement:-

'There is awareness creation, which is very deep and not just business as usual...there is improvement after enactment of EIA in 1992' (Interview with BE Waste Management Society of Nigeria, Control Group 25th August 2010).

In addition to the above, many (38) that is 68% interviewees noted that the sector has recorded some levels of achievement particularly in the area of identifying appropriate mitigation measures for ameliorating specific environmental problems compared with the earlier period of neglect. This is evident from the statement below:-

‘...EIA process has helped...because it identifies potential impact that activities will do. It also outlines some sets of mitigation measures...and oil industries has come to know that mitigation measures is like an agreement signed, which must to be implemented (Interview with PL Academic, Control Group 16th September 2010)

However, as Cashmore (2004: 404) maintains ‘EIA achievements appear most favourable when compared with past neglects and failings, rather than when measured against sustainable development goals’. This is precisely the situation in the NMOGS, where EIA implementation has failed against its long-term goal and can only be successful when compared with past neglect. Moreover, raising awareness does equate with effective implementation. This is evident from the statement below:

‘EIA has helped in...sensitising oil and gas sector’s operators... though you may think about enforcement that is another issue entirely’ (Interview with DG Waste Management Society of Nigeria, Control Group 29th August 2010).

In the next section, I describe the multinational and indigenous oil and gas companies’ EIA report, a case study of West African Gas Pipeline and tank farm projects in order to place the subsequent section (EIA failures) in a proper context.

6.3. Description of the selected EIA reports and their findings

In Nigeria, EIA reports are written to reflect the content of the country's EIA procedures and guidelines. Even though preparing EIA reports vary from country to country, they are largely determined by national legislation and the quality of EIA procedures. EIA reports are written generally to provide a clear statement of the potential impacts and their mitigation measures (Saeed *et al.*, 2012). Nonetheless, a study by Barker and Wood (1999) has confirmed that EIA reports have been hindered due to lapses in the nature of legal requirements, experience of the consultants and competent authorities, and the length of the report itself among others. My intention at this point is not to expose the challenges related to EIA reports but rather to describe the selected EIA reports used in this research in order to examine the effectiveness of EIA implementation in this section (general in 6.3.3 and 6.3.4) later on and in the subsequent section (that is in 6.4, by using specific case studies).

This section describes the six selected EIA reports used in this research (3 for multinational oil companies and 3 for indigenous oil companies), highlighting their mitigation measures in order to identify procedural irregularities and lack of compliance that might have occurred at different periods. The selected multinational projects are West Africa Gas Pipeline, Oil Prospecting Lease 286 Block, and Agbami Oil Prospecting Lease 216 and 217 (all located offshore). The selected indigenous projects are Petroleum Tank Farm, Petroleum Delivery System and Liquefied Petroleum Gas storage terminal (both offshore and onshore). In order for me to focus on the case studies, I describe both the West African Gas Pipeline and Tank Farm projects in more detail. Moreover, there are two additional reasons why more emphasis is given to both the WAGP and tank farm projects. First, the WAGP is an example of a multinational oil and gas project, while the Tank Farm installation is basically carried out by

indigenous oil and gas operators. The second is that both projects were widely cited as key developments requiring environmental mitigation in Nigeria according to interviewees. Based on this, I concentrate on Nigeria's experience, as WAGP involves other countries such as Ghana, Togo and Benin.

6.3.1 Description of the 3 selected multinational oil company projects

(A) West African Gas Pipeline Project

Like any other oil and gas-related project, the West African Gas Pipeline (WAGP) is owned by specific proponents. The main proponent of this project is West African Gas Pipeline Company Limited (WAPCo). As part of the plan to achieve effective project performance, in 2003, WAPCo decided to partner with other multinational oil companies nationally (Chevron, Nigerian National Petroleum Corporation, Shell), and internationally (Societe Beninoise De Gaz in Benin, Societe Togolaise de Gaz in Togo, and Volta River Authority in Ghana). In this way, WAGP project has the tendency of enhancing cooperation among countries involved in the project.

The WAGP project originates in Itoki, Nigeria, where it connects to an existing natural gas system at the Alagbado (Nigeria) facility, traverses the Nigeria coastline, and then runs offshore to a distribution terminal near Takoradi, Ghana and beyond (Cotonou, Benin; Lome, Togo; and Tema, Ghana) (WAGP Report, 2004 and see Figure 6.2). WAGP project is also a high-pressure capacity system and built to transport 190 million standards cubic feet per day. The WAGP project is designed to transport natural gas from Nigeria to Benin, Ghana, and Togo through a constructed 620 kilometres long pipeline. Importantly, in Nigeria, the WAGP

project aims to bring to an end gas flaring, which will in turn reduce air pollution. Embarking on this type of project is in line with the World Bank plan to eliminate flaring of gas worldwide through ‘Global Flare Reduction Initiative’.

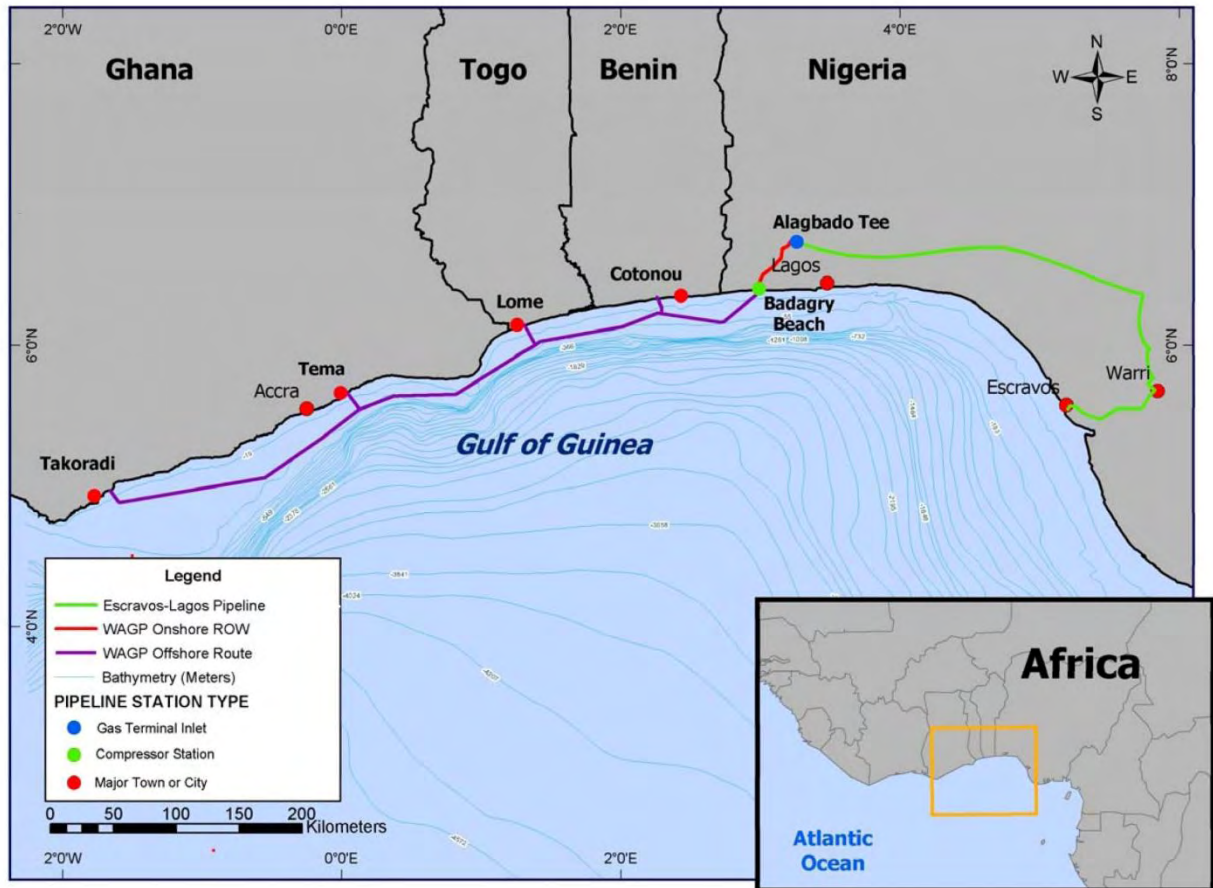


Figure 6.2 West African Gas Pipeline Project Areas

Source: West Africa Gas Pipeline EIA Report, 2004: ES 3

One of the main findings of WAGP is that the potential benefits of the project in Nigeria outweigh the potential negative impacts. Even though the project is associated with 71 potential impacts, they can be ameliorated through mitigation measures, as recommended in the WAGP EIA report in Appendix 4 (general). However, of these 71 potential impacts, only

12 that are closely pertinent to this research are reported alongside their mitigated measures (See Table 6.2 showing specific impacts relating to construction and operational stages). Saeed *et al.* (2012) describes mitigation measures that address what is to be done at the construction and operation stages as an example of best practice, the quality that most developing countries EIA reports do not possess (giving example in Pakistan's EIA report). Furthermore, the WAGP project Environmental Plan describes the connection between applicable regulatory requirements and organisational responsibilities and regulatory monitoring organisational roles. The proponents and Government agencies in Nigeria are then expected to perform the monitoring activities as outlined in Table 6.3. Though monitoring is needed to ensure that mitigation measures are implemented, it should be carried out at construction, post construction and operation stages according to the WAGP project's EIA report. Importantly, the WAGP project gives recognition to adequate stakeholders' consultation (the opportunity to interact and educate the local communities) on pros and cons of natural gas and pipelines. I have shown in Table 6.4 the consultation summary of WAGP project with individual stakeholders.

Table 6.2 WAGP specific mitigation measures in relation to construction and operation stages

Potential impact	Project activity	Planned mitigation
Changes in air quality, noise and vibration	Construction /operation	Train staff in human and environment protection. Implement appropriate operational controls/procedures (such as Air Emissions Management, Contractor Management, Compliance and Permitting)
Impacts to wetlands, forests, streams, lagoons, barrier island, and gulf waters habitats	Construction	Avoid sensitive receptors in site and route design. Observe protective perimeters around steep and erosion-sensitive gradients, water supply basins, and wet areas. Avoid deforestation or other vegetation losses and/or reinstate vegetation. Conserve and reuse topsoil during the burial of the pipe, coordinate the work with other land users. Perform reinstatement and at the end of the work – clean and return the elements of the environment that were affected to their original condition. Implement appropriate operational controls/procedures such as Compliance and Permitting, Turtle Nest Production, Wetland Construction Methods, and Prevention of Salt Water Intrusion.
Disruption of community activities, impairment of maritime traffic, and perturbation of fishing	Construction	Disruption of community activities, impairment of maritime traffic, and perturbation of fishing
Adverse health risk to general population and construction workers due to hazardous material spill in a densely populated area or from other mishaps associated with installation of pipeline	Construction	Formulate an emergency action plan in coordination with the interested authorities in the event of an accidental spill during the construction and operational phases. Train staff in human and environment protection. Implement appropriate operational controls/procedures (such as External Communications, Emergency Response, Spill Prevention and Control, Loss Prevention Design Basis, and Contractor Management).
Adverse health risk to general population and construction workers due to gas leak from the pipeline	Operation	Same as immediately above.

Source: West African Gas Pipeline, 2004: ES 20- ES22

Table 6.3 Regulatory monitoring organisational roles

Aspect to be monitored	Frequency
Sanitary and Other Waste Effluent for Vessels and Onshore Facilities	Upon discharge from holding tank
Nuisance Noise Levels	Monitoring monthly or as needed during extremely noisy construction operations
Salt Water Intrusion	Weekly until one month following construction
Waste Characterization	For each waste item when initially encountered during segregation and annually thereafter
Surface Water Uptake and Discharge of Untreated Hydro-test Water	Before uptake and once per day during pipeline filling; before discharge and once per day during discharge
Ambient Air Quality at Compressor Station	Annually for the first 2 years during normal operations for screening purposes and daily during a complete station blow-down (flaring)
Groundwater Usage near Compressor Station and R&M Stations	Two times per year (1 each in wet and dry seasons) for 5 years; Annually following 5 years
Proper burial and support of the offshore pipeline (where it is buried)	Dependant on the burial study results
Population Build-up or Encroachment	Quarterly

Source: West African Gas Pipeline, 2004: (8) 17-(8)21

Table 6.4 Summary of WAGP consultation by individual stakeholders

Stakeholder Group	Stakeholder Name	No. of Consultations
Communities	Ajido Community	2
	Baale OF Ewupe Community	1
	Baale of Owode Community	1
	Badagry Community	3
	Baoule Imeke	1
	Communities along ROW	1
	Igbessa Community	3
	Ijoko/Itoki Community	6
	Iworo Arojomo Community	1
	Lagos Community	1
	Ore-Akinde Community	1
	Otta Community	3
	Tori-Lovi Community	1
Govt Parliaments	Federal House of Representatives	2
Government Agencies (Ministries, Local Government and so on)	Ado-Odo Local Government	1
	Department of Petroleum Resources	1
	Federal Ministry of Petroleum Resources	1
	Government Officials	1
	Lagos State Fire Service	2
Trade & Industry Leaders	Manufacturers Association of Nigeria (MAN)	2

Source: West African Gas Pipeline, 2004: (5)-136

(B) Oil Prospecting Lease 286 offshore project

BG Exploration and Production Nigeria Limited (BGEPNL) is the technical operator of offshore block Oil Prospecting Lease (OPL) 286 with Sahara Energy and Production Limited and Equinox as co-venture, with BGEPNL owning highest share of the project (66%). One of the reasons why EIA was carried on this project was to develop cost effective mitigation measures together with plans and procedures for management of environmental issues in all phases of the proposed project implementation. This project identified two major drilling operation related impacts, including the risk of well blows and disturbance of the entire

offshore ecosystem. A range of mitigation measures were proposed based on this; involving well drilling profiles designed to minimise blow-outs, and a continuous consultation with key stakeholders and local communities to prevent conflict. This explains the use of Sedco 702 (a drilling ship with dynamic positioning) to reduce the impacts on seabed perturbation. Finally, the proponents mentioned that they will use experienced personnel during the operation.

(C) Agbami Oil Prospecting Lease 216 and 217 offshore

Star Deep Water Petroleum Limited, Famfa Oil, Nigerian National Petroleum Corporation, Petrobras, Statoil and Texaco are the proponents of Agbami offshore project. The project is located approximately 110 km southwest in Nigeria and covers mobile offshore drilling, installation of sub-sea production and an offloading terminal crude oil to tankers (See Figure 6.3 and 6.4 respectively). Agbami offshore project aims to contribute to Nigeria's oil reserves mainly. The project envisaged oil spills from unplanned events discharged from produced water, and air emissions as major impacts, which might have greater consequences on sea environment. Then, part of mitigation measures in the case of oil spills is to ensure that Floating Production Storage Offloading (FPSO) crude oil storage tanks are located in-board of the ballast tank and lifting and handling practices should be embraced to avoid any object from dropping. Finally, flare knock-out drums should be used to prevent emissions.



Figure 6.3: The Agbami Floating Production Storage Offloading (FPSO)

Source www.offshore-technology.com/project/agbami3.html accessed on 19/5/2012

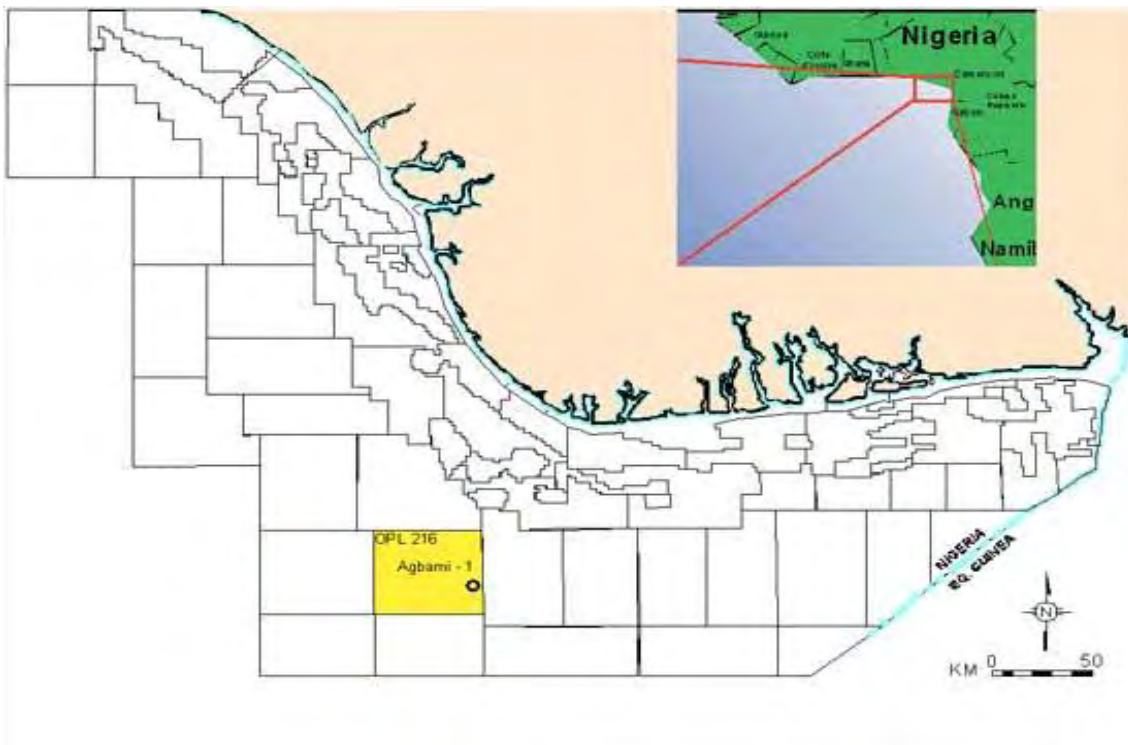


Figure 6.4: The Agbami oil field in OPL 216

Source www.offshore-technology.com/project/agbami2.html accessed on 19/5/2012

6.3.2 Description of the 3 selected indigenous oil company projects

(A) Petroleum Tank Farm

Lister Oil Limited is the proponent of petroleum tank farm otherwise called oil storage facility. Petroleum tanks farm is used to store petroleum products such as premium motor spirit and automotive oil. The project is situated at Apapa, which is urban part of Lagos State, where several other tank farms are situated (see Figure 6.5). It is designed to help the Nigerian Government put an end to scarcity of petroleum products in the country.



Figure 6.5: Tank Farm in Apapa Lagos State

Source: Fieldwork, 2010

It is clear from Figure 6.5 that operational activities of this type of project could generate negative impacts: their main features and associated mitigation measures are described in Table 6.5. Moreover, like multinational oil company projects, the indigenous oil company projects also consider public participation according to Lister Oil tank farm EIA report.

Table 6.5 Potential Impacts and mitigation measures for tank farm

Description of Impacts	Mitigation Measures
Reduction in biodiversity/Loss of flora and fauna	<ul style="list-style-type: none"> - Site clearing shall commence from developed to underdeveloped areas to provide escape routes for wildlife - Encourage the contractor to re-vegetate land cleared for temporary use where feasible
Reduction in air quality, fugitive emissions from products storage tanks, combustion exhaust from machines	<ul style="list-style-type: none"> - All flanges and vents shall be properly tightened to minimize fugitive emissions - All system shall be regularly checked to ensure that there are no leakages and losses - All machinery, equipment and vehicles for the project shall have high efficiency burners to reduce emission of noxious gases
Solid waste generation-impact on existing waste disposal facility. This might lead to contamination of solid/groundwater as well as Lagoon	<ul style="list-style-type: none"> - Put in place waste reduction strategy - Runoff from the stockpile of wastes shall be prevented from flowing into the Lagoon
Health & safety-injury/fatalities in workforce communities	<ul style="list-style-type: none"> - Ensure safety awareness training for workforce - Emergency response procedures shall be put in place and enforced - Use of PPE shall be ensured
Increase in respiratory diseases and Communicable disease	<ul style="list-style-type: none"> - Personnel on site shall wear nose masks during (dusty) operations - Water shall be sprayed on construction site to reduce dust levels - Assist community based training on the prevention of common communicable diseases, water protection/purification techniques and basic sanitation
Increase in noise nuisance	<ul style="list-style-type: none"> - Plan activities such as that Regulatory limits are not to be exceeded - Control the area situated outside the plant fence to prevent permanent settling of people in an area especially where limits may be exceeded

Source: Lister Oil, 2008: 150-155
(B) Petroleum Delivery System

Oando Public Limited Company is the proponent of the Petroleum Delivery System. The purpose of this project is to deliver petroleum products from Single Point Mooring (SPM) in the open sea to the marketers' jetties in Apapa Lagos State. The project identified several impacts that are related to water resources, air quality, geology, socio-economic noise and vibration among others. Petroleum Delivery System EIA report then recommends that noise barriers should be erected to minimise noise pollution, and reduction of depletion is suggested to reduce wastage and improve socio-economic.

(C) Liquefied Petroleum Gas Project

Linetrade Gas Limited is the proponent of liquefied Petroleum Gas (LPG) storage terminal, with major three components. First is the LPG storage terminal, and second is the product transfer sub-sea pipeline and third is the LPG truck loading facility. The project aims to provide adequate supply of LPG to Nigerians residing in Lagos State in particular. Like most other storage facilities projects, this project is situated in Apapa Lagos State. Due to the strategic location of Nigerian Port Authority in Apapa, most proponents of petroleum storage facilities prefer to site their projects in the same locality rather than elsewhere in Nigeria. The major impacts related to this project are as follows. Noise emissions, air quality, toxic emissions and generation of waste, but they can be mitigated. For example, LPG storage terminal EIA report recommends that adequate personnel protective equipment (face mask and hearing protection should be provided. The proponent should ensure that the facility operate under optimum condition to minimise emissions.

6.3.3 Main EIA irregularities identified at different periods

‘...the purpose of EIA is not to stop any project, as there is no project that is not good provided you put the necessary mitigation in place’ (Interview with ME FMENV, Programme Group 16th August 2010). However, failing to implement adequately the...mitigation as set out in the assessment is a generic problem that all impact assessment practitioners struggle with daily (Goodland, 2005, p. 6).

Having described the EIA reports in the NMOGS, their findings and how they plan to prevent environmental difficulties. At this point, I would identify the main irregularity related to the EIA implementation in the NMOGS as being situated at the nexus of mitigation measures, on the one hand, and public participation, on the other.

It has been argued that part of the purpose of EIA is to improve effective environmental monitoring (Ogbara, 2010). Monitoring should focus not only on formal compliance, but also on environmental objectives (Beunen *et al.*, 2009). The purpose of monitoring ‘is to ensure that the action stick firmly to the conditions of its approval’ (Wood, 2003a, p. 242). In Nigeria and the NMOGS in particular, the objectives of EIA impact mitigation monitoring are to:

- Check that mitigation measures are implemented appropriately.
- Determine whether environmental changes are as a result of project developments and/or natural variation.
- Monitor emissions and discharges at all stages of project development for compliance with regulatory standards.
- Determine the effectiveness of environmental management plans, environmental monitoring plans and act as a feedback mechanism towards improving the EIA evaluation and approval process.

- Create a data bank for future development of predictive tools (Ameyan, 2008: 9).

However, it appears that EIA has not been fully translated into practice in the NMOGS through the content of mitigation measures (the entire participants agree that to this statement that is 100% also see appendix 2c under barriers to EIA). This is evident from the quote below:

‘In Nigeria we are not enforcing anything...because mitigation is not put into consideration...it was not sustainable and not a developmental issues’ (Interview with BE Waste Management Society of Nigeria, Control Group 25th August 2010).

One of the leading figures in the NGO Environmental Rights Action described the issue of non-compliance and the lack of value attached to the environment by oil companies, noting that:

‘...when operators drill in a site and no oil was found...the normal thing is that after drilling...is to cap it back...if they cannot find oil...but operators never cap it back’ (Interview with MH NGO Environmental Right Action, Control Group 8th September 2010).

The consequence of this failure is capping off the well head, resulting in that aquatic life will be destroyed in large number, as toxic gases are released from the uncapped well. Another form of irregularities in the NMOGS is continuous gas flaring, which is against the content of mitigation measures plan, as prescribed by oil companies.

‘...EIA suppose to help in improving the state of environment in Nigeria if it is done right...what you will see in the Niger Delta for example is gas flaring...’ (Interview with PP NGO Environmental Right Action, Control Group 24th August 2010).

This implies that the Nigerian oil companies are still flaring gas, considering the fact eliminating gas flaring has many potential benefits (Amanze, 2011; Ogbara, 2010; Akiri, 2010a & b; Morris, 2010; Nwachukwu 2010; Friends of the Earth International,

2004). Okpanachi (2011) maintains that management of petroleum resources will provide economic growth and global cooperation. The inability of Nigerian oil company projects to put an end to gas flaring clearly contradicts section 3 of Nigeria's Associated ReInjection Act 1979 that became effective since 1984 (Ogbara, 2010; ERA, 2008; Nwafor, 2006; Ojo and Gaskiya, 2003). Having discussed the main irregularities related to EIA implementation through content of mitigation measures. I now seek to unpack the main irregularities related EIA implementation through public participation.

6.3.4 Main irregularities related to the lack of public participation

‘Winds of political liberalization that swept Eastern Europe and the former Soviet Union in the late 1980s and early 1990s are blowing dramatically across Africa, as state-society linkages are in flux, and policy makers are confronted with new demands from previously excluded group to participate in the policy processes’ (Brinkerhoff, 2002: 81).

Participation has become a paramount concern in environmental management and its governance (Wesselink and Paavola, 2011; Chilvers, 2009; Petts 1999c), and it is recognised as a fundamental component of the EIA process (Hartley and Wood, 2005). The objective of participation in EIA is ‘to improve the quality of environmental decisions by the identification of, assignment of significance to, and mitigation of, impacts and the prevention of environmentally unacceptable development’ (Wood, 2003a: 275). More generally, participation aims to identify the strengths and weaknesses of different mitigation measures in place (Beierle, 1999). Illeris (2002) views participation as the most extensive and general form of interaction.

Clearly, public involvement in the policy deliberation processes can bring valuable local knowledge to EIA process (Petts, 2008) and can also enhance cooperation (Joss, 2010). There

is no doubt that public participation is necessary and appropriate, but what matters most is the quality of participatory relationships and how those relationships are interconnected (Chilvers, 2009; Moore *et al.*, 2005; Petts, 1999c). Therefore, ‘genuine deliberation is achieved when participants are ready to consider one another’s interest and engage in reflective dialogue through compromise’ (Jones and Caney, 2003: 7).

It has been argued that ‘unmanaged participation or consultation can impede effective translation of EIA into practice’ (Brinkerhoff and Cosby, 2002: 9), thus affecting social goals. Beierle (1999) identifies key social goals as follows: educating the public; incorporating public values, assumption and preference into decision-making; increasing the substantive quality of decisions; fostering trust; reducing conflicts; and making decision-making cost effective. Participatory approaches have become a recognised method in environmental management, but ‘what happens in the real world of environmental policy will ultimately depend on how government agencies perform participation’ (Chilvers, 2009: 412).

In the NMOGS, for example, a pipeline that was constructed by one of the indigenous oil companies, a subsidiary of Oando Plc failed to conduct public participation. The project has not only failed in conducting public participation but also in observing good practice, as the pipelines are laid very close to residential homes.

‘...in Lagos there was a project that was carried out by Indigenous Oil Companies...and we asked people questions on what the pipeline will carry they said it will carry water...and the Ministry of Environment said that the pipes will carry gas, now imagine the public do not know this...’ (Interview with PP NGO Environmental Rights Action, Control Group 24th August 2010).

However, even when the local communities participated in the EIA process, their inputs and information appear irrelevant according to one interviewee. The interviewee continued:

‘...the community representatives went to the laboratory and the result shows high level of toxicity...final report was published without any input from the community representatives...this is the similar situation with the entire oil and gas projects, where NGO’s and communities information are not used’ (Interview with EL Social Environmental Rights Action, Control Group Centre 27th August 2010).

The next section gives a more detailed account of irregularities that are related to EIA implementation in the NMOGS, paying special attention to West Africa Gas Pipeline and tank farm projects.

6.4 EIA failures: a case study of the West African Gas Pipeline and Tank Farm Projects

As was noted above, the West African Gas Pipeline project covers both offshore and onshore environment and is operated by a partnership of multinational oil companies (for example, Chevron, NNPC, Shell and Volta River Authority among others) formed in May 2003, though the main proponent is the West African Gas Pipeline Company Limited (WAGP Report, 2004). Alongside this major international pipeline, Nigerian oil companies managed a range of onshore related projects, one of the most significant being Petroleum Tank farm Storage Facilities.

6.4.1 Case study of the West African Gas Pipeline

The EIA failure related to case of West African Gas Pipeline focused on lack of public participation. WAGP project has not fully complied with the content of previous EIA reports that requires greater public participation. Thus one interviewee commented:

‘...we have visited WAGP project at the high sea...there was EIA for this project, but the communities were not carried along and that is applicable to most oil companies’ projects’ (Interview with EL NGO Social Environmental Rights Action Control Group Centre 27th August 2010).

WAGP project is an example of multinational oil companies’ project, and one aspect that I considered required urgent attention was why the same multinational would comply in other national contexts, but not in Nigeria. I explored this issue with one of the professors of Geography in University of Nigeria, who believes that operators have not been complying with the content of EIA and public participation in particular, ‘because the situation in the NMOGS appear to be business as usual’ (PL Academic University of Lagos, Control Group 16th September 2010).

However, the same WAGP EIA report is now available on the internet after the local people protested. But it would have been better if the oil company had conceded this idea before the protest. Even though public participation has not been fully integrated through multinational oil companies’ project, it is still better than the situation under national oil companies’ project, where people do not know what exactly a particular pipeline is meant for (water or gas).

Despite the numerous NGOs in the sector, lack of adequate public participation still remains a major challenge. Following the opinion of a Professor of Geography in University of Nigeria, Nsukka, the participant maintains that:-

‘...the sector’s EIA lacks ‘competence in Social Impact Assessment methodology, what we have seen from experience is confounding public participation...’ (Interview with PA Academic University of Nigeria, Control Group 6th September 2010).

This amounts to what Hartley and Wood (2005: 333) describe as ‘poor execution of participation methods’. There is one problem common to EIA procedures in the developing countries context and Pakistan for example, given that ‘methodology applied to public participation is not professional’ (Saeed *et al.*, 2012, p. 1914). It appears that the approach adopted to public participation in the NMOGS is more top-down rather than bottom-up. Matland (1995: 146) emphasises that ‘top-down theorists see policy designers as the central actors and concentrate their attention on factors that can be manipulated at the central level while the bottom-up theorists...argue policy really is made at the local level’. Without full public participation, the NGOs among other non-state actors will not gain the required public mandate to operate effectively (Tang, 2003). Moore *et al.* (2005: 5) argue that more generally ‘weak participation might encourage bad result and environmental degradation, as local people and NGOs for example were not involved from the project conception, design, implementation, or evaluation’. The role of NGOs in policy implementation cannot be underestimated (Buzar, 2007). In the U.S.A. for example, NGOs have established a potent role as ‘whistle blowers’ by reporting any form of violation to the appropriate authorities (Porter *et al.*, 2000).

In the NMOGS, most NGOs and local people have been prevented from participating in the EIA process, as evidenced by the statement of one interviewee, a representative of the Waste

Management Society of Nigeria. ‘...most NGOs are not even carried along...what the country needs to work on is attaching a particular project to a particular NGO for supervision’. This interviewee continued:-

‘...getting the real NGOs involved in the EIA process is always difficult...it will be difficult for someone working for the Government to criticise the same government and he who pays the piper calls the tune’ (Interview with BE Waste Management Society of Nigeria, Control Group 25th August 2010).

In Nigeria, both Environmental Rights Action (ERA) and Social and Environmental Rights Action Centre (SERAC) have been `putting pressure on WAGP proponents on the need for their EIA report to be accessible to encourage public participation. This evidence from the below statement:

‘We did a campaign that WAGP EIA report should be put on internet and they have done that...you can now see it on World Bank inspection panel site’ (Interview with MH NGO Environmental Rights Action, Control Group 8th September 2010).

Apart from the fact that local communities protested before WAGP EIA report was made available via the internet as earlier mentioned, the coalition that was later formed between ERA and SERAC also accounts for one of the reasons why the WAGP EIA report remains accessible. This confirms Matland’s assertion that ‘...the central principle in implementation is that local level coalitional strength determines the outcome...identifying the competing factions at local level, along with the micro-level contextual factors that affect strengths of the competing factions, is central to accurate explanations of policy outcomes’ (Matland, 1995: 168 & 170).

6.4.2 Case study of the Tank Farm Project

The Tank Farm project is an example of a national oil company project – one of many in Apapa Lagos State that is urban area of the state. The purpose of the tank farm is to assist in the storage and ease the marketing of refined petroleum products, such as automotive gas oil and premium motor spirits (Lister Oil, 2008; OANDO, 2008). Some of the tank farm projects take their source from the sea installing sub-sea pipeline to transport products between storage terminals and truck loading facilities (Linetrade, 2008). The EIA failure related to case study of tank farm is associated with an inability to fulfil the content of mitigation measures.

The interviewees confirmed the disproportionate clustering of tank farms in Lagos State. They also emphasised that such projects were constructed indiscriminately, with little or no regard for the environment and people. One of the Directors in ERA confirmed the manner in which tank farms were built in Apapa, Lagos State.

‘...you will see a lot of tank farms...I am wondering if there is any EIA carried out on them...we are just risking our life...it is a very bad story’ (Interview with KN NGO Environmental Rights Action Control Group 30th August 2010).

Even though some of the tank farm owners have received approval from the FMENV to relocate to new sites, they have ignored such directives. It appears that government agencies such as FMENV cannot help in this regard, as some oil companies appear to enjoy political backing. This is evident from the statements below:

‘Some of them now have their EIA for that new location. On the issue of relocation I cannot give an answer, but I am aware that they are stopping people from further construction of tank farms. One thing I want you to know is that the Government is in favour of owners of tank farms’ (Interview with RO FMENV Programme Group 2nd September 2010).

Apart from the fact that FMENV has issued approval for oil companies to relocate their tank farms, the Nigerian Government has also constituted an inter-ministerial committee twice (in 2003 and 2009) to address the problem, yet the problems continue and they are all politics according to one interviewee. The interviewee continued:

‘In 2003, there was an inter-ministerial committee...and another one last year, to examine the impact of tank farms...during the meeting I was caution to minimise my contributions, because someone closer to the Government among the committee members might implicate me...this indicates that we have problem of politics and corruption’ (Interview with DG NGO Waste Management Society of Nigeria, Control Group 29th August 2010).

It is not sufficient to provide answers on how alone, but why implementation fails, this should also be explored – the next section deals with this issue.

6.5. Reasons for the lack of compliance

‘...the consultant has highlighted the likely impacts and mitigation measures and the problem persists...this is like proverbial statement that says operation was successful, but the patient dies...something is wrong somewhere’ (Interview with PD FMENV, Control Group Consultant 18th August 2010).

It is not clear why the content of mitigation measures that have been identified in the previous EIA reports are yet to be translated into practice. A key reason might be the cost of introducing mitigation measures. Matland (1995: 160) emphasises that ‘the desired outcome is virtually assured, given that sufficient resources are appropriated for the program’. Certainly, it seems that the operators are finding it difficult to implement the content of EIA impact mitigation in the sector because of lack of financial investment. As one respondent commented (about 75% of the participants’ agree with PL Academic):

‘Outlining the mitigation measure has cost implication...every operator wants to execute their projects with minimum cost. So they see EIA and it embedded mitigation measures as additional cost on the execution of the project...in effect

economic reason seems to be the major factor that prevents the good which EIA ought to provide from being implemented...' (Interview with PL Academic University of Lagos, Control Group 16th September 2010).

The situation in the NMOGS is more complicated beyond oil companies trying to minimise costs or not being prepared to implement the content of mitigation measures. It is perhaps more important to emphasise that regulators themselves seem to attach little understanding and value for the natural environment. This is evidenced from one of the respondent's comments and photographic evidence as attached (See Figure 6.6) respectively.

'...our NGO discovered that most of this EIA report are just paper work dumped somewhere and the regulators at the helm of affair do not understand what this EIA is all about...' (Interview with EL NGO Social and Environmental Rights Action Centre, Control Group 27th August 2010).



Figure 6.6: Storage of EIA reports in the FMENV office, Lagos State

Source: Fieldwork, 2010

Nonetheless, the entire interviewees returned to one particular issue in accounting for non-compliance with EIAs by oil majors. Their failure in translating the content of EIA impact mitigation monitoring occurred due to dearth of political will. This was typified by my interview with an environmental legal practitioner at Aluko and Oyeboode Associates, Lagos.

‘...you can have bodies of laws and then whether there is political will to do it...by the time you talk of implementation of EIA you are talking of government...my honest view is that there is no political will’ (Interview with AE Aluko and Oyeboode Legal Practitioner, Control Group 11th August 2010).

The lack of political drive to address such issues appears to be a general trend among developing countries arising partly because of awareness among oil companies of likely lack of follow-up monitoring among other problems (Wood, 2003b; Arts *et al.*, 2001). Clearly, without any tangible monitoring it might not be possible to judge the overall effectiveness of an EIA (Arts *et al.*, 2001).

It seems that the sector's mitigation compliance monitoring is further influenced by the poor execution of content of relevant national law. Thus, the sanction mechanism of EIA is not effective, as the cost of conducting EIA is very often greater than the fines imposed for non-compliance. Some oil companies have taken advantage of the sector's inadequate fines to circumvent the EIA process and impact mitigation monitoring in particular. This is evident from the statement below:-

‘...like Agip they will deliberately violate, at the end of the day it is not one million Naira they will ask for, because EIA process is expensive, and oil companies will spend more than that one million Naira...’ (Interview with FO Ministry of Niger Delta Affairs, Programme Group 3rd September 2010).

In practice, compliance can be required through three mechanisms: normative, coercive, and remunerative mechanisms (Matland, 1995). Matland (1995, pp. 161-164) elucidates the difference: ‘a coercive mechanism threatens sanctions for failing to comply with a request of action...as many actors have independent base of power and can refuse to participate...’. This is the situation in the NMOGS where Agip deliberately refuse to subject most of its projects to EIA, because it is cheaper to pay the fines as mentioned in the above interview with ‘FO’.

As evidenced by the above, the content of mitigation measures is not coherent and integrated in its approach to environmental challenges. Oil companies seem not to implement EIA mitigation because of prohibitive costs, lack of value attached to the maritime environment, a lack of political will and weak compliance enforcement.

Having established the lack of compliance in mitigation compliance and monitoring, I now turn to the examination of public participation in EIA. This is discussed under several different headings: evidence of quasi-participation, oil companies hiring of people to support their project, inadequate ways of making EIA reports available to the public and insufficient number of days for the public to lodge complains against a particular project.

6.5.1 Quasi-participation

It has become normal practice in the NMOGS for one of the national littoral states (states along the Nigerian territorial waters) to represent other states, and one of the local government chairpersons to represent other local government during EIA panel reviews. This is particularly common in offshore projects. The essence of this type of quasi-participation is to minimise cost, and this is evident from the statement below:-

‘Although for the deep sea, we have to pick a state from the littoral states to act as voice for all the other states...The chairman of the association of local government is picked to represent the rest Local Government Authorities...to reduce cost...’ (Interview with RO FEMNV, Programme Group 2nd September 2010).

This quasi-participation can be likened more generally to what Richardson *et al.* (1982: 2) describe as ‘inner circle negotiation, which involves a limited range of groups who matter’ in policy implementation. These authors argue that such arrangements might generate conflict particularly between normative values and actual practice; a good policy must not lead to

confrontation. In more general terms, unequal access to consultative and participatory process has remained a monumental challenge in developing countries (Nwosu *et al.*, 2006; Aishuwaikat, 2005; Wood, 2003b; Fayiga and Ofunne, 2000; Ebisemiju, 1993). It has been suggested that an independent agency should be used to represent the stakeholders or local people to do it themselves, and this might help in reducing conflicts (Lawrence, 2001).

6.5.2 Oil companies hiring people to support their project

According to one of the participants, another challenge related to effective public participation is the use of ‘rented crowds’ (situations where oil companies are engaged in hiring people to support their project), which is common with onshore projects. This is evident from the statement below:-

‘To some extent EIA has been endangered by public participation...some of the participants are rented crowd...I am saying this with all sincerity because it has happened on a number of occasions that you see them fighting’ (Interview with OK Academic Nigerian Institute of Social and Economic Research, Control Group 7th October 2010).

In the same context with the situation in Nigeria, public participation in Pakistan is alleged of being manipulated (Saeed *et al.*, 2012), while public participation in Taiwan lacks transparency (Jou and Liaw, 2006).

6.5.3 Inadequate ways of making EIA reports available to the public

It seems that public participation has not been fully translated into practice in the sector because of the manner in which the EIA reports are disseminated. This is what has been otherwise described as poor provision of information (Hartley and Wood, 2005). The empirical evidence shows that most EIA reports in the sector are either not displayed or

displayed inconspicuously. This is because of lack of adequate resources (in terms of financial, about 75% of the participants' agree to this statement).

‘...where we used to display EIA report...the place was not conspicuous I felt it should be and I was using my money to buy cardboard...’ (Interview with DG Waste Management Society of Nigeria, Control Group 29th August 2010).

6.5.4 Insufficient number of days for public to lodge complains against a particular project

Apart from the use of selected people, rented crowds and reports not properly displayed as evidenced from the above, another challenge is that only 21 days grace periods have been allocated for the local people and NGOs to lodge any complaint towards the commencement of any project. However, according to Jou and Liaw (2006) 60 days have been approved in Taiwan for the same exercise though with no tangible result. Many interviewees argued that 21 days' periods of grace will only be meaningful in the NMOGS when the GIAs are ready to do things the way they 'ought to be from the onset'. For example, the GIAs should be ready to move beyond advertising the EIA reports alone to ensuring that the EIA reports are available on the internet, displayed accordingly and opinions of local people should be respected. Until these are done, it appears that the 21 days' periods of grace might just be a mirage:

‘....what the law says is that EIA should be displayed for 21 days for input to be made...what happen is that they keep them in lockers with keys...so that people like us will not see the document and fault the document’ (Interview with KN NGO Environmental Rights Action, Control Group 30th August 2010).

The NMOGS's public participation practices flout recommendations made at an international workshop on best practice in EIA follow-up (Arts *et al.*, 2001). It also contradicts the content of the communiqué of the civil society consultation on oil and gas policy review in Nigeria (Bassey, 2004). Likewise, the NMOGS's practices in relation to public participation is

against the content of principle 22 of the Rio Declaration on Environment and Development that provides for effective participation through local people, and this is further viewed as a means of ‘promoting social responsibility and citizenship’ (Morrison-Saunders and Early, 2008: 29). It also runs against the content of international public participation set out in the Aarhus Convention, which emphasises early public participation, full and complete access to documentation, and submission of public opinions into the policy process, among other issues (Hartley and Wood, 2005). Similarly, public participation has not been effective in practice in most of the developing and less developed countries for example Pakistan (Saeed *et al.*, 2012), Taiwan (Jou and Liaw, 2006), Ghana (Ofori, 2005; Appiah-Opoku, 2001), Brazil (Glasson and Salvador, 2000), and Turkey (Coskun and Turker, 2011).

6.6 Conclusion

Despite some modest achievements in terms of raising public and corporate awareness, institutional problems have prevented the NMOGS’s EIA implementation processes from being coherent and integrated in their approaches to environmental challenges and difficulties. Thus, the NMOGS’s EIA procedures have not been fully translated into practice. These institutional problems arise from deep-seated economic, social and political factors. The high financial cost and lack of value attached to public well-being and environment, among other reasons, have contributed negatively to the effective implementation of impact mitigation monitoring and public participation as evidenced in this chapter.

The implementation of multinational oil company projects exemplified here by WAGP appears to be better than that of indigenous oil company projects (tank farm). For example, the identified mitigation measures related to multinational oil company EIA reports are more

detailed and comprehensive to the extent of outlining what is to be done at each stage of development (for example, construction and operation stages). In addition to this, some of the challenges related to the EIA implementation of multinational oil company projects have been resolved, for example, access to WAGP EIA report is now granted, though after the local communities protested and pressure from Environmental Rights Action and Social and Environmental Rights Action. However, challenges related to the EIA implementation of indigenous oil company projects through mitigation measure remained unresolved, despite the Federal Government effort in allocating new site to the tank farm owners.

The situation in the NMOGS is in line with Drexhage and Murphy (2010: 12) who argue that ‘the world has made little progress in implementing programs and policies to improve the lives of the local people, and the integration of the three pillars of economic development, social development and environmental improvements remains a challenge... . Nevertheless, it appears that the situation in the NMOGS is better than the situation in other developing countries. For example, ‘no records of previous EIA reports were kept by the South Africa’s Environmental Department’ (Wood, 2003b: 19). Similarly, there was no record of total number of previous EIA reports produced in Brazil (Glasson and Salvador, 2000). Although values are varied, as they are depended on the locality, and groups have to compete in order to accommodate their value set (Simon, 2010).

According to Miller *et al.* (2006); Birkland (2005) and Matland (1995) it is not enough nor sufficient for policy implementation research to expose policy implementation failures alone. It should identify and examine how government agencies and policy context have together shaped policy outcome. The next chapter does so by unpacking the levels of interaction among the responsible government agencies to see how they have been working together, by

explicitly considering the binary and contradictory EIA systems that exist in the NMOGS. It examines the practice of the two EIA systems and recent interventions made by the Government to ameliorate the conflicts. The chapter further examines the stakeholders' views regarding the 'twin-track' EIA systems and the problem this poses, so as to identify a more robust alternative approach.

CHAPTER 7

INTER-AGENCY CONFLICTS AND AMBIGUITIES IN THE NMOGS's EIA IMPLEMENTATION PROCESS

7.1 Introduction

This chapter responds to objective two to understand the national policy context and also responds to part of objective three to unpack related policy conflicts and ambiguities only within inter-agency context. The chapter aims to identify the reasons for, and component of, the organisational ambiguities and conflicts in the NMOGS's 'twin-track' EIA implementation processes as an explanation for the EIA monitoring problem documented in Chapter 6. Chapter five discussed how the sector has a 'twin-track' EIA in place (the FMENV and DPR EIA systems), with different operating systems and practices. The expectation is that the Government department will support their own EIA policy definitions and interests. Matland (1995: 168) notes that 'actors see their interests tied to specific policy definition, and therefore similar competing coalitions are likely to form at differing sites and the strength of these actors will vary across the possible sites'.

Consequently, this chapter addresses the following questions: to what extent has the DPR and FMENV EIA systems influenced the EIA implementation process? How did the sector become entangled in operating twin-track EIAs and why does the situation persist? What forms of intervention have been adopted by Government to ameliorate the resulting conflicts? And what do stakeholders think about the persistence of two EIA systems? Section 7.2 assesses the DPR and FMENV EIA systems through their differences and similarities to show the extent to which they have been affecting effective EIA implementation in practice. Section 7.3 explores how the sector became entangled in practising two different forms of EIAs and examines the reasons why this practice persists as well as describing possible steps

that have been taken towards resolving the sector's challenges. This is necessary in order to understand the components of, and reasons for, conflicts and ambiguities in the sector's EIA implementation process. Section 7.4 then gives an account of the stakeholders' views regarding the double EIA systems, with an emphasis on whether the two systems are suitable for the sector or not, and which of the systems is more robust in order to position the sector towards achieving its EIA's goal.

I have used the term 'inter-agency' in this chapter in terms of the interrelationship among the GIAs that have been operating differently largely because of their different organisational goals. Inter-agency is defined here as 'the external interaction among organisations and between organisations and their environment...' (Jaffee, 2001: 21).

7.2 Assessing the FMENV and DPR EIA systems

'The advice I used always to tell my clients is that now you have two masters, when you do EIA you give to FEPA (present FMENV) and DPR' (Interview with OB Academic University of Ibadan Basel Convention, Control Group 28th October 2010).

I have noted in the previous chapter and chapter 5 in particular that oil companies must satisfy the requirements of two sets of different EIA guidelines in the sector. What has remained problematic is the impact of these different EIAs on oil and gas sector projects, thus leading to policy ambiguity. This ambiguity of means might occur 'when there are uncertainties...when a complex environment makes it difficult to know which tools to use, how to use them, and what the effects of their use will be' (Matland, 1995, p. 158). It transpired from much of the field research that this ambiguity of means has posed tremendous challenges for EIA policy implementation in Nigeria. For example, one of the implications of operators submitting two sets of different EIA is evident from interview with 'BE'.

‘...the operators are complaining, this is multitask and EIA is expensive and sometime different requirements are involved in the process’ (Interview with BE Waste Management Society of Nigeria, Control Group 25th August 2010)

Apart from the two sets of financial cost, another consequence of these different silos of EIA systems is that it takes time for proponents to fulfil the requirements of both systems when compared with having just one system. Barnes (2010) reported similar duplication of EIA in Canada (though with similar goals), leading to little achievement in environmental performance. Nevertheless, one would have expected the NMOGS to be more organised than other sectors in Nigeria and to embrace the use of a single EIA in order to address effectively the needs of such an economically important in Nigeria. Yet the NMOGS is the only sector that operates binary EIA systems. This is supported by the comment of one of the principal officers in the FMENV ‘RA’. Of 56 interviewees about 50 participants agree to this statement that is about 89% of them.

‘I do not see the difficulty in DPR coming to us (FMENV) sitting together on the panel and reviewing it (EIA) together...we have memorandum of understanding with mining sector, with agriculture and other sectors...I think we will get there with oil and gas’ (Interview with RA FMENV, Programme Group 2nd September 2010).

Ofunne (2007) and Onwuweaka (2007) further confirm that there is a cordial relationship between FMENV and other sectors of the economy, with these sectors operate a single EIA system under the supervision of FEMNV. The inability of DPR and FMENV to have a memorandum of understanding points to the lack of inter-agency cooperation. According to Matland (1995, p.158) ‘one way to limit conflict is through ambiguity...’. However, the reverse is the case in the NMOGS, with ambiguity not only encouraging conflict but also causing projects to be delayed.

One of the presumed advantages of the sector's EIA 'ambiguity of means' in a twin-track EIA system is to ensure that operators do not escape Government environmental sanctions.

This is evident from one interviewee statement:

'...to the ordinary Nigerian people it might be said that we have double regulations, this means that operators have no option than to implement EIA...If they are not caught under the DPR guidelines, they will be caught under the FMENV guidelines' (Interview with PL Academic University of Lagos, Control Group 16th September 2010).

In the same context, another participant felt that by having double EIA systems in the sector environmental standards would be raised to very high levels. In effect, 'ambiguity should be viewed neither as an evil nor as a good...but should be seen as a characteristic of a policy...seen as an opportunity to learn both new means and new goals' (Matland, 1995, pp. 167 & 171).

'The situation of these multiple agencies and double EIAs in particular is to show that environment will be protected adequately' (Interview with DO 2 DPR, Programme Group 19th August 2010).

Importantly, only 6 participants' agree to this statement that about 11%. Therefore, the ambiguity of means in policy implementation is not present in the NMOGS alone. Clark and Jones (2001: 2053) identified that 'ambiguity of means is common to much EU (European Union) legislation...' Terpstra and Havinga (2001) maintain that when political will is absent social relations of autonomy and the required dependency in the policy implementation process might be difficult to achieve.

However, apart from the fact that the FMENV and DPR EIA systems differ in practice as earlier discussed, they also possess similarities which tend to negatively rather than positively effect on EIA implementation and the entire agree to this statement (100%). These similarities are – oil and gas companies (through their consultants) mainly sponsor the entire

EIA process; the use of local consultants is emphasised; and waiver is encouraged. I discuss these issues next.

7.2.1. Oil and gas companies' sponsorship of national EIA procedures

'EIA process is also bordered on proponents' facilitation and proponent funding the operation...' (Interview with ON FMENV, Programme Group 2nd September 2010).

Some have argued that proponents' sponsorship of EIA procedure can have value (OECD, 2006) though these accounts do not advocate funding the services of national regulators. However, this is exactly the situation in the sector, where corporate interests are responsible for EIA process as it is evidenced from the above interview testimony. Another official of FMENV shed more light on the impacts of the sector's present practices.

'...at present FMENV and other agencies do not even have a helicopter for monitoring...and even when we ask operators not to do something you may not know...what is going on...in the offshore because we do not have facilities to go there. That is a real problem' (Interview with RO FMENV, Programme Group 2nd September 2010).

This situation concurs with Matland's (1995: 164 & 168) view that 'the implementation program consists of securing the compliance of actors whose resources are vital to policy success and ensuring that the process is not thwarted...the policy course is determined by the coalition of actors at the local level who control resources'.

The clear implication of the situation is that sponsoring the entire EIA implementation process might be influenced, with agency capture becoming evident. Agency capture 'is a process by which the agency-industry (operator) relationship result in selective interpretation of qualitative or quantitative information about impacts and collusion between agency and

their industry clientele to actively subvert the original intention of legislation...' (Nwafor, 2006: 601 & 602).

I would argue that the preferred means of funding and resourcing EIA implementation in the NMOGS should come from Government and not from corporate interests, so that the claims of agency capture are dispelled. The funding arrangements constitute another form of ambiguity, because it is not clear why successive governments have allowed the oil and gas sector to sponsor the entire EIA process.

'The ministry is taking steps to revise that process where oil and gas sponsors the entire EIA process...since the international organisation like World Bank have asked us to desist from such practice...' (Interview with RA FMENV, Programme Group 2nd September 2010).

The government has put in place the ecological fund (that is, a fund meant for the management of ecological or environmental problems in Nigeria) as alternative means of financing and mitigating environmental problems in Nigeria. Surprisingly, only 5% of this fund is allocated for pollution prevention and control, while drought and desertification for example consume 60%. Accessing these funds is another problem (Nwankwo and Josiah, 2012; Ezekiel, 2010). This is one of the reasons why the sector is still reliant on the oil and gas industries, while another is the high levels of corruption currently associated with the Ecological Fund:

'...anywhere they are handling environmental matters you find that money is there and there is corruption. There is an issue with Ecological Fund, where somebody collects money and disappears. What is an issue is not EIA it is the other side of it' (Interview with PA Academic University of Nigeria, Control Group 6th September 2010).

Similarly, the present Governor of Anambra state, Mr. Peter Obi, has stated that 'the management of the Ecological Fund is characterised as official corruption...and the Governor

of Lagos State Mr. Babatunde Raji Fashola alleged that some states get assistance for ecological disasters, while others including Lagos never do so' (Ezekiel, 2010, pp. 3 & 9).

7.2.2. The use of local experts in the EIA process

A common feature of the NMOGS EIAs is their reliance on local consultants, whether it is for reports compiled under the FMENV or DPR procedures. One of the Directors in Environmental Rights Action (ERA) confirmed that to me that '...the Nigerian, not foreign experts do EIA...' (Interview with KN ERA 30th August 2010). While nationality is not an issue, the field research indicated that many of the local consultants within the NMOGS do not possess adequate skills (generally in the NMOGS about 34% of the participants' agree to that statement) ultimately weakening the translation of EIA into practice. This is in line with broader arguments that EIA systems in developing countries have failed in training, environmental information, and diffusion of experience (Wood, 2003b). As one interviewee reflected:

'A lot of EIA practitioners...do not have the capacity to produce the state of art EIAs in Nigeria (Interview with PL Academic University of Lagos, Control Group 16th September 2010).

Matland (1995, p. 158) argues that 'implementation should be a phase where principles and visions as well as technological knowledge are tested...but ambiguity of means appears in many ways, perhaps most obviously in the cases where the technology needed to reach a policy's goal does not exist'. The sector situation becomes more complex and ambiguous, as most of the local consultants not only lack adequate skills but also because allegedly many are prepared to falsify for their oil and gas paymasters. In this way, the consultants maintain a profitable relationship with the operators at the detriment of local communities and the environment.

‘...the consultants are not sincere and they will not record what they see on the field, rather they will work to impress the operator...This is because they want to make money. For example, I was the one that represented the Nigerian Environment Society on an energy project. I knew the area very well and I discovered that the consultant was telling lies, only 40% of his information is right’ (Interview with DO NGO Nigerian Environmental Society 10th August 2010).

Prager (2010) argues that practical application of policy is hindered when the objective data on which it is based is limited. The situation in Nigeria, where data are allegedly falsified by consultants, is matched by similar occurrences in Tanzania (Kakonge, 1998) and Cameroun (Alemagi *et al.*, 2007). In Taiwan, the main reason why EIA reports do not possess the required credibility is because they are prepared by environmental consultants hired by the operators and lack of data (Jou and Liaw, 2006). This is also the situation in Brazil coupled with the fact that limited power is given to environmental group (Glasson and Salvador, 2000).

The act of ‘using the local consultant’ therefore needs close attention from FMENV and DPR. In particular, it is not clear why consultants without the required skills should be certified by either Government department. While the developed countries in particular are encouraging adoption of international best practice through knowledge exchange, the NMOGS still relies on local consultants with limited data analysis and research skills. This is a critical failing given the technical complexities of offshore projects.

7.2.3. Official encouragement of waiver

‘As I said, because of lack of proper understanding of what EIA is about they just do not want to appreciate it...that loophole should not have been there, it should have been compulsory whether government or anybody...EIA must be carried out...without waiver...’ (Interview with KK Academic University of Lagos, Control Group 17th September 2010).

In Nigeria a special ‘waiver’ process exists whereby the President’s office can grant approval for the commencement of a potential environmentally damaging project without recourse to the EIA process. Several interviewees commented that Nigerian Government should not have embraced the principle of waiver, because it undermines and discredits the national EIA process. Granting waivers might for example discourage the private sector from conducting EIAs. However, it should be noted no NMOGS project has been granted a waiver, as compared with other sectors, or with ‘flagship’ developments such as the Abuja stadium.

‘The case of Abuja stadium was determined by President not by the EIA report, and this is because the President always has the final say’ (Interview with DG Waste Management Society of Nigeria, Control Group 29th August 2010).

Without a clear cut and ambiguous process applied to all developments, implementation can come down to political. Indeed, the waiver may be seen as a clear instance of what Matland (1995: 163) maintains is ‘the central principle in political implementation...implementation outcomes are decided by power’.

In summary, I have shown the extent to which the NMOGS’s EIA procedures have been rendered largely ambiguous in practice. Not only has this weakened EIA effectiveness, but it has also provoked conflict among and between Government agencies and stakeholders in the EIA process. The subsequent section focuses on how the twin-track EIA system came into existence and why this situation persists.

7.3 The binary EIA system as a source of sectoral policy conflict

‘...I have been involved for long, I know the historical factor...DPR existed before the FMENV and they have put in place...their guidelines in 1991...the story we always tell the DPR is anything environment is for FMENV and the DPR is to regulate oil and gas but because of vacuum they take over the environment...’ (Interview with OB Academic University of Ibadan Nigeria Basel Convention, Control Group 28th October 2010).

Only three out of the four participants under the academics sub-group have supported above quote. Nigeria’s binary EIA system in the oil and gas sector originates from the country not having an established environmental Ministry in the 70s when the Department of Petroleum Resources was created. The DPR took advantage of this situation by establishing a precedent to manage the NMOGS environmental affairs based on the Petroleum Act, in which under section 8 (1) b (iii) the Minister of Petroleum Resource is able to make regulation to curb pollution from petroleum industries into water course and the atmosphere, and the DPR later on developed environmental guideline in 1991, as discussed in chapter five. [Jordan *et al.* (2003a: 17) note that ‘there were few countries that had environmental ministries in the 1970s, and they did tend not to be directly involved in the selection and implementation of policy’].

Thereafter, when FEPA (latterly FMENV) was established in 1988, DPR did not cede the management of the sector’s environmental issues to FMENV, in spite of the fact that the Ministry has its EIA system in place and it is supported by an Act as evidenced in chapter 5. The binary or twin-track EIA system remains in force as a result of this situation. It has been the cause of persistent friction and conflict, with both agencies using different EIA process and battling over policy means. One respondent confirmed these institutional difficulties as follows:

‘...as a matter of fact many years ago, it became obvious that DPR was not keen for the FMENV getting involved in the activities of the oil and gas sector...’ (Interview with OK Academic Nigerian Institute of Social and Economic Research, Control Group 7th October 2010).

Matland (1995: 163) notes that ‘though actors have clearly defined goals, but dissension occur because these clearly defined goals are incompatible...and equally conflictual battles can occur over means...and it is often precisely in the designing of the implementation policy that conflicts develop and vigorous battles erupt’. This struggle between FMENV and DPR has been fuelled by both Government agencies clamouring for recognition, position and power, and defending their organisational interest rather than the sectoral or environmental interest; fear of losing administrative turf; and unwillingness to engage in effective coordination. This is supported by the following candid comments from an interviewee:-

‘It is clear that in the entire EIA system there has been almost systematic failure, as...the people in government are jumping for positions’ (Interview with AE Legal Practitioner Aluko and Oyebode Associates, Control Group 11th August 2010).

It appears that FMENV and DPR personnel are more interested in controlling the sector’s natural resources rather than managing the environment, given that whoever controls the natural resources will invariably control the economic and political resources that flow from it. It is on this note that one of the senior officers at Lagos State Ministry of Environment maintains that ‘people want to exercise power on a particular aspect of job...’ (Interview with ML Lagos State Ministry of Environment, Programme Group 18th August 2010). Similarly, one of the Directors in DPR further confirms the situation in the sector of which about 63% participants’ share similar view with AD DPR interviews.

‘...there is rivalry in the sector as everybody wants recognition’ (Interview with AD DPR 19th August 2010).

It has been argued in more general terms that ‘the struggle over access to and control over natural resources might have resulted in conflict over the management of environmental issues’ (Hauge and Ellingsen, 2001, p. 36; Galambos, 1992, p. 72). Conflict persists when various parties have different interests in and values attached to the environment, but the main reasons are organisational concerns, lack of commitment, and fear among the stakeholders in terms of social loss (Randolph and Bauer, 1999). More generally, Government agencies commitments can be questioned, whenever they are motivated and occupied with organisational interest rather than sectoral or environmental commitment interest (Howlett, 2011).

Another reason why conflict persists in the sector is fear of administrative re-organisation, even though no Ministry government agency or department has ever been scrapped. Indeed, a far more established pattern taking place in the country is the growth in government organisations and agencies. Both FMENV and DPR are ready to do everything to secure their continued existence, even to the extent of duplicating other Ministries’ responsibilities. Both organisations have their own established EIA guidelines and schedule of duties, because they are very concerned of being amalgamated by government:

‘...nobody wants to be redundant if Federal government finds out that one agency is redundant they will scrap that agency...everyone want to be relevant’ (Interview with BR Nigeria Maritime Administration Safety Agency, Programme Group 13th August 2010).

It appears that this situation is not limited to the NMOGS alone, but also occurs in other sectors of the Nigerian state. For example, the National Drug Law Enforcement Agency (NDLEA) has been engaging in carrying out some of the National Agency for Food and Drug Administration and Control (NAFDAC) activities (Gbadamosi, 2011).

Another reason why conflict persists in the sector is the lack of effective co-ordination and engaged participations among the policy actors and Government agencies in particular.

One interviewee reflected (similarly 63% of the participants' maintain that there is no coordination in the sector):

‘There is no coordination, too many agencies doing the same thing and no one is ready to take responsibility’ (Interview with MH NGO Environmental Right Action, Control Group 8th September 2010).

This has hampered the sector from achieving effective EIA in practice, as it reflects a remote top-down approach. As Matland (1995: 156 & 157) notes, ‘for conflict to exist there must be an interdependence of actors, an incompatibility of objectives, and a perceived zero-sum element to the interactions...and the intensity of conflict increases with an incompatibility of concerns and with an increase in the perceived stakes for each actor’.

7.3.1 Interventions to ameliorate sectoral conflict

The Federal Government has attempted to resolve these bitter Departmental divisions in two ways. The first of these is the use of bargaining mechanisms – as championed by the Nigerian Maritime Administration and Safety Agency – and the second have been its efforts to transfer the DPR environmental unit to FMENV. As discussed in chapter 3, the core assumption in multilevel understandings of implementation is that organisations operate in multifaceted system of relationships (Moliterno and Mahony, 2010; Fischer, 2004; Mazey, 1996), which prioritises the importance of inter-organisational bargaining (Van de Brande *et al.*, 2011; Cram, 1996). Jordan *et al.* (1998: 1393) have viewed ‘...implementation as an ongoing process of bargaining between policymakers and implementers, both of whom have their own agendas, resources and sources of legitimacy’. This bargaining mechanism is also related to political implementation, as bargaining activity is embedded in politics. Politics is seen as a

particular ‘means of resolving conflict that is, by compromise, conciliation and negotiation or bargaining, rather than through force and naked power’ (Vestman and Conner, 2006: 228).

The Nigerian Maritime Administration and Safety Agency (NIMASA) has emerged as an effective ‘honest broker’ between FMENV and DPR. One NIMASA respondent closely involved in these brokerage discussions, commented:

‘...we have been able to tell them (DPR & FMENV)...that we are not fighting, we are not contesting coordinator-ship with them. What we are saying is that they should allow us to do our duties or we do it together’ (Interview with KU Nigerian Maritime Administration and Safety Agency, Control Group 13th August 2010).

Matland (1995, p. 156) states that successful policy implementation requires ‘different forms of bargaining mechanisms, including side payments, log rolling, and oversight to reach agreements and hold coalitions together’. The interviews indicated that NIMASA has been engaging in bargaining of this sort via a variety of channels, so as to foster greater inter-agency cooperation. NIMASA’s bargaining might therefore exemplify Matland’s view that relates to negotiation its purpose is to reach agreement and to hold policy coalitions together.

Yet while NIMASA and FMENV are now working more closely, this is not the case yet with the DPR. A NIMASA official commented to me:

‘The only people that still having problem from the last programme we had together was the DPR...with the workshop we had in 2008...at that meeting DPR walked out... In 2009, we had another meeting in Abuja and there was level of understanding...and this cannot be achieved just in one day...’ (Interview with KU Nigerian Maritime Administration and Safety Agency, Programme Group 13th August 2010).

It seems that a temporary coalition now exists between NIMASA and FMENV; a form of ‘advocacy between groups’ (Simon, 2010; Birkland, 2005; Sabatier and Jenkins-Smith, 1999, 1993; Jordan *et al.* 1998) which may greatly benefit mutual interactions and the outcome of

the EIA implementation process (Illeris, 2002; Jordan *et al.* 1998). This conclusion, however, is tentative; a finding supported not only by the evidence in the field, but also by the relevant literature on the subject, which confirms that bargaining mechanisms are a gradual process (John, 1998; Galambos, 1992; Salih, 1992).

Apart from the bargaining mechanism that was championed by NIMASA, the Federal Government has also put in an effort to resolve the sector's conflict by transferring the environmental arm/unit of DPR to FMENV. This is evident from the statement below:-

'The then Head of State, President Olusegun Obasanjo recognised the sector's conflict that was why he came about restructuring the sector. For example, when the DPR environmental unit was transferred to FMENV, what really caused problem is the salary issue...what they will pay level 8 officers in DPR is more than what a Director take at the FMENV...so the DPR staff went back' (Interview with ON FMENV, Programme Group 2nd September 2010).

The Government's efforts towards resolving the problem of twin-track EIA systems in the NMOGS can therefore be deemed as completely unsuccessful: because of different salary scales, DPR staff returned to their former jobs. Despite the fact that government is fully aware of the sector's conflict, no decisive steps have been taken to ensure that the environmental unit of DPR complied with its transfer directive.

In effect, the country's decision-makers have yet to utilise the information at their disposal to achieve the desired simplified EIA system. Thus, it is clear that the sector's EIA is not only ambiguous, as established in the previous section 7.2, but also it is highly conflictual. In particular, attempts at mediating the differences between these competing EIA systems have accentuated high levels of sectoral conflict. Therefore, 'the question for an agency is no longer how do we eliminate conflict, instead how do we properly manage conflict' (Heidbreder *et al.*, 2011: 3). It appears that 'intense conflicts are likely to arise whenever

organisation has to make an important decision on...either to accept or reject' changed policy responsibilities (Janis and Mann, 1977, p. 46). In the NMOGS, the choice is between harmonising the two systems into one and accepting either FMENV or the DPR EIA system.

The following section takes account of stakeholders' views regarding the twin-track EIA system, with the aim to suggest whether this system is valued or should be reappraised. This is necessary to establish the relative strength and weakness of the current system from non-Governmental perspectives (control group), as this should help in identifying where improvement is required.

7.4 Stakeholders' views regarding the sector's binary EIA systems

Evaluation is conducted for four major purposes: programme improvement, accountability, knowledge generation, and public relations use (Persson and Nilsson, 2007). From a more practical point of view evaluation is 'capable of producing information about consequences, improve public awareness, and enhance cause-effect relationship' (Persson and Nilsson, 2007; 477; Arts *et al.*, 2001: 177), though it has been given less attention (Persson and Nilsson, 2007). As earlier mentioned, evaluation seeks to address practical problems and it is further viewed as the act of identifying or judging the worth, value of policy or program (Rogers and Williams, 2006; Schwandt and Burgon, 2006; McKie, 2002; Hall and Hall, 1996; House, 1993).

Here I consider the value attached to the NMOGS's twin-track EIA systems from two perspectives, relying mainly on the stakeholders in the control group (non-Governmental stakeholders) views for the purpose of objectivity. Many of the surveyed individuals (16 out

of the 18 interviewed that is 89%) considered that the systems should be much more closely aligned, as is evident from the following statement:

‘To the ordinary person it is worthwhile to have double EIA systems. I would say from my experience the best thing is to align the two institutions to have one guideline’ (Interview with PL Academic University of Lagos, Control Group 16th September 2010).

Contrary to the above, only two respondents (11%) out of 18 participants interviewed under the control group (non-Governmental stakeholders) completely disagreed with the idea of aligning the two systems for various reasons. One of them noted that the NMOGS’s twin-track EIA system is part of the Government’s strategy to encourage division of labour in the sector. This because FMNEV encourages public review among others, while DPR guideline emphasises scoping. This is evident from the following statement:

‘Looking at the two guidelines there is no conflict, one agency should just supervise one aspect of EIA procedure and project...for example, issue of public review is contain in FMENV and they should continue with it and DPR is expected to handle scoping’ (Interview with SU Nigerian Environmental Society, Control Group 18th September 2010).

In the same context, the second participant among those that disagreed with the alignment of the two EIA systems commented that:

‘I think having the two of them working separately is the best for the NMOGS...because DPR has a lot to contribute to oil and gas sector as far as environmental issues are concerned’ (Interview with KK Academic, University of Lagos , Control Group 17th September 2010).

At this point, the way out is to reflect on the two EIA guidelines and identify the one that is closer to best practice according to the interviewee comments. Going by the description of EIA procedure and guideline of the two departments, as highlighted in chapter 5, it appears that FMENV EIA procedure is closer to best practice, as it

considers the entire EIA process. Conversely, the DPR guidelines still miss out certain key aspects (for example public review) and are far from best practice. It is on this note that many stakeholders prefer the FMENV EIA system to DPR:

‘Implementing the Federal Ministry of Environment EIA system is in line with the best practice’ (Interview with PL Academic, University of Lagos, and Control Group 16th September 2010).

Still on the system that is more robust among the two, it has been established that the FMENV EIA is more robust than the DPR system, and this is evident from the statement below:-

‘...the EIA process in FEPA (FMENV) is involving and very robust than EIA in DPR, they do not do any public review they just read it and pass it somewhere’ (Interview with OB Academic University of Ibadan Basel Convention Centre, Programme Group 28th October 2010).

Therefore, in summary, the issue emerging from this section is that the sector’s present twin-track EIA systems should be aligned and the DPR should forgo its system for FMENV, since the FMENV EIA has been described as more robust than DPR EIA system. Most of the sector’s stakeholders maintain that the FMENV EIA system is more detailed. Unlike DPR, for example, it involves the key requirement of public participation, making it much more acceptable in broader terms.

In the same context, the expectation of the Waste Management Society of Nigeria through one of their representative officers is evident from the statement below-

‘The DPR should leave the role for the FMENV...’ (Interview with BE Waste Management Society of Nigeria, Control Group 25th August 2010).

The representative of the Nigerian Environmental Society maintained that DPR should completely move away from environmental related issues, and they should focus on oil and gas production alone.

‘...the DPR ought to be department that regulates oil and gas sector production, but they (DPR) have become uncontrollable, they are not meant to deal with environmental issues’ (Interview with DO Nigerian Environmental Society, Control Group 10th August 2010).

Similarly, the outcome of UNEP’s environmental assessment in the NMOGS shows that there are lapses in the DPR EIA guidelines, titled ‘Environmental Guidelines and Standards for Petroleum Industry in Nigeria’ (EGASPIN) (UNEP, 2011). The UNEP’s researchers suggest that the government should ‘transfer oversight of the EGASPIN from DPR to the FMENV, with the concurrent transfer of staff...’ (UNEP, 2011: 14 & 218). It appears that the UNEP researchers are not fully aware of the government’s previous efforts towards ameliorating the NMOGS’s binary EIA systems in Nigeria. This implies that high levels of conflict are yet to be resolved even in the political domain, and particularly when they are related in determining what is reasonable (value-judgement) (Sharman and Holmes, 2010). However, going by the stakeholders’ views, it can be concluded that the two systems should be aligned.

7.5. Conclusion

In this chapter, I have attempted to show that the differences between the sector’s EIA systems have resulted in an implementation failure by causing delays in the execution of projects. In addition, their similarities have negatively affected the EIA process namely. First, when oil and gas companies sponsor the entire EIA process it clearly encourages agency capture of Government departments. Second, the use of local consultants has reduced the quality of EIA report, as many do not have the required skills and allegations of using falsified data are rife. Third, the application of a Presidential waiver is possible in the sector and even though it has not been used, it might discourage private organisations from

subjecting their projects to EIA. If Government projects are granted a waiver, the private sector might not see the reason why its projects should be subjected to EIA.

As I have demonstrated, sectoral conflict between Government departments persists as a result of clamouring for position, recognition and power over administrative re-organisation. Moreover, Government efforts at resolving the NMOGS's challenges have not yielded a solution. The transfer of the DPR environmental unit to FMENV was unsuccessful because of economic and political problems. An attempt at mediating the differences between these competing EIA systems by the Government and NIMASA has accentuated high levels of conflict with DPR, and so has been only minimally effective.

In view of this dedicated environmental policy responsibilities, it was considered that the FMENV EIA system should be further explored to establish the challenges imposed by intra-agency factors on implementing EIA policy in the Nigerian national context. Consequently, the next chapter examines the extent to which resources in terms of financial and human have been sufficient for the Federal Ministry to conduct its EIA responsibilities.

CHAPTER 8

INTRA-AGENCY CONFLICTS AND AMBIGUITIES IN THE FMENV's EIA IMPLEMENTATION STYLE

8.1 Introduction

This chapter responds mainly to objective three: examining the components of and the reasons for policy ambiguities and conflicts within intra-agency context and it is divided into six sections. Section 8.1 introduces the chapter and section 8.2 assesses the FMENV's EIA implementation style, including the extent to which the Federal Ministry has been involving its subsidiaries and the State Ministries in particular, in the EIA implementation process. It also considers which of the Federal Government departments and agencies have been actively involved in the implementation process. Section 8.3 examines the impacts of the identified the reasons for, and components of, conflicts and ambiguities related to the FMENV EIA implementation style in order to pinpoint where improvements are required. Section 8.4 then explores the extent to which financial resources are sufficient in the sector towards achieving effective EIA implementation. Section 8.5 examines the extent to which lack of human resource is sufficient in the sector and section 8.6 concludes the chapter.

I have used the term 'intra-agency' in this chapter to describe the involvement of GIAs that were originally under the same ministry, operating a single EIA system and bounded together by the same constitution. The term intra-agency has been further described as internal interactions and characteristics of an organisation operating within a closed system (Jaffee, 2001). In the NMOGS, the Government departments and agencies within this context are FMENV and its subsidiaries on the one hand, and the State Ministries of Environment (SMENV) on the other. The FMENV subsidiaries are – NESREA, NOSDRA and Department of Environmental Assessment and Oil and Gas Division of FMENV.

8.2 The FMENV's EIA implementation style

Matland (1995, pp. 158 & 159) argues that 'the degree of ambiguity inherent in a policy affects the implementation process in significant ways, as it influences the ability of superiors to monitor activities and the likelihood that policy is uniformly understood across the implementation sites...but ambiguity is not limited to goal it also affects policy means in many ways...?'

Policy implementation 'style' is a central concept in recent studies and it is defined here as the administrative approach to implementation of EIAs arising from interaction among relevant implementing agencies (May and Winter, 2000, 1999). Thus the effectiveness of Government departmental and agency practice shapes their policy implementation style (Hertogh, 2001). This section builds on findings from the previous chapter, where FMENV was identified as an institution with dedicated environmental policy responsibilities.

Unsurprisingly, the Federal Ministry's implementation style on EIA is a programmatic or bureaucratic approach, where guidelines for procedures are laid down, so as to govern project supervision and compliance (Smith *et al.*, 2011). However, this programmatic approach often fails to deliver intended policy outcomes (Smith *et al.*, 2011), since on the preceding chapter demonstrated ambiguity often results in bureaucratic complications and delay (Pagoulatos, 2001). This is demonstrated in the following frank interview testimony:

'I have an EIA with FMENV, it is like going through hell, because when you make a process so difficult...people will start cutting corners...The FMENV would not do what is right and at the end money go into other people pocket and things are not done well. I sent the EIA report since February, I have not gotten a reply till now (August)...The client is on my neck, the client is making noise everyday and now look at the time frame, look at the time wasted' (Interview TU, FMENV & DPR registered consultant, Programme Group 23rd August 2010).

On this subject, one State Ministry official noted of Federal procedures:

'The FEMNV wants to arrogate all the EIA responsibilities to itself and want to claim that it has the exclusive right to implement EIA and you cannot do this when the States and Local Government Authority are on board' (Interview with JE Lagos State Ministry of Environment, Programme Group 18th August 2010).

In Nigeria and the NMOGS in particular, the FMENV as the apex agency has been very active in co-ordinating the EIA implementation process through the Department of Environmental Assessment. However, many other agencies within an intra-agency context, including the State Ministries of Environment often complain about their comparative passive approach. It appears that there are still shortcomings in the FMENV's EIA implementation style, particularly in relevant to all-important coordination issues. Policy co-ordination can be achieved in six ways: mutual adjustment, direct supervision, standardisation of the work process, standardisation of work output, standardisation of workers' skills, and standardisation of workers' norms (Matheson, 2009), but it appears that only 'top down' direct supervision and mutual adjustment are used by FMENV.

Thus, the FMENV is expected to work actively with its subsidiaries, including National Environmental Standards Regulations and Enforcement Agency (NESREA) and the State Ministries of Environment, but in reality it does not appear to do so. This partial involvement leads to a clear co-ordination problem for EIA implementation. At one level the coordination problem and lack of participation is not surprising, because 'managing the EIA in countries with Federal system of government is usually characterised by conflict of roles, mandates and responsibilities between different levels of government (Nwafor, 2006, p. 595).

This 'partial involvement' can be described with reference to two examples. First, looking at the involvement of NESREA – an agency under FEMNV that is directly involved in enforcing the Environmental Impact Assessment (EIS) – and second, via the involvement of SMENV that are legally charged to be active in the implementation process from the beginning to the end. With reference to NESREA, there is evidence of lack of clarity

regarding organisational roles between NESREA and Federal Ministry of Environment. One respondent commented (about 63% of the participants' confirm the NMOGS's high levels of conflict, while only 11% maintain that such conflict can be managed):

‘...NESREA at one time or the other had always come in conflict with the FMENV (its parent body) as NESREA feels that it should be the one to handle most aspects of...’ (Interview with MS Lagos State Ministry of Environment, Programme Group 18th August 2010).

As Matland, (1995, pp. 158 & 166) emphasises, ‘policy means are ambiguous when there are uncertainties about what roles various organisations are to play in the implementation process...in experimental implementation the crucial element is: which participants are active and what is their intensity of participation?’. It is evident that NESREA has not been fully involved in the EIA implementation process, which has generated further conflict. To resolve these issues, a committee was formed to look into the problem between NESREA and FMENV. One interviewee commented:

‘The Minister of Environment set up a committee to review all these discrepancies...it is an internal committee...and work is in progress as at 2010’ (Interview with KV Federal Ministry of Environment, Programme Group 3rd September 2010).

This situation cannot be compared with the occurrence within the inter-agency context, but implies that the FMENV's EIA roles that are very clear in theory have not been strictly followed in practice:

‘...the ideal situation is that every sector should cooperate...This problem of lack of delineation of responsibility that we have in Nigeria...and people ‘saying this agency is doing my job has led to conflict...’ (Interview with PB NESREA, Programme Group 2nd September 2010).

Regrettably, again the main reason for this partial involvement is that both NESREA and FMENV see EIA implementation as directly relevant to their organisational interest. This confirms Matland's assertion that 'policy conflict will exist when more than one organisation sees a policy as directly relevant to its interests...' (Matland, 1995: 156). Similarly, 'ambiguous policies can breed limited accountability and...leaders pursuing their own interests' (Matland, 1995: 167).

For example, one of the Directors in NESREA maintained in the interview that this organisation had not been actively involved in the EIA implementation process and that currently 'what we are asking for is for them (FMENV) to give us Environmental Impact Statement. However, 'in the next stage, we would demand that we be fully carried along, but the statutory point is that we must have an EIS' (Interview with GJ NESREA, Programme Group 2nd September 2010). Similarly, the FMENV, through one of its principal officers agreed that NESREA was supposed to handle enforcement of EIA, but that the Ministry was often not minded to involve them in practice, which is evident from the following response:-

'We also have the NESREA who deals with enforcement, we are supposed to tell the agency that a particular company is not complying, it should go and arrest them...There is no clear schedule and proponents are also complaining' (Interview with RO FMENV, Programme Group 2nd September 2010).

Partial involvement is also evident between the FEMNV and the State Ministries of Environment. For example, the EIA review process is originally made up of seven members, including an independent consultant, but only one slot is allocated to representative from the State ministries of Environment, which has made the process undemocratic. This gives the FMENV the upper hand in controlling the process, as decisions on EIA are made via voting. 'Participants' level of activity in a choice situation depends on the intensity of their feelings, the number of other demands on their time, their physical proximity to the place where

decisions are made, and a host of other variables’ (Matland, 1995: 165). Another respondent confirmed this observation, noting that,

‘On only very few projects that the attention of State Ministries was drawn by FMENV...’ (Interview with SL Lagos State Ministry of Environment, Programme Group 18th August 2010).

The State Environment Ministries’ main goal is for their voice to be heard during decision making on EIA, as currently the FMENV dominate the entire EIA implementation and review process (especially where a decision is to be made on whether a project should be approved or not).

‘...you have the representative of the FMENV’s Minister...you have four people representing the FMENV alone and making them five people with the Minister...’ (Interview with JE Lagos State Ministry of Environment, Programme Group 18th August 2010)

It appears that the State Ministries of Environment are not comfortable with the present voting arrangement where out of seven members in the panel, five represents the interest of FMENV including an external member and Minister of Federal Environment, while only one member to present the States’ viewpoints. One of the purposes of this review process is to verify that the document (EIA Report) is...’sufficient for the purpose of decision-making... and the process carefully selects the reviewers, using input from the public involvement...’ (Wood, 2003a: 198). It is this unequal representation that propels the State Ministries of environment in demanding change to the EIA procedure, and this is evident from the statement below:-

‘...the State Ministries are trying to enact their own EIA law, which would not have been necessary if the cooperation existed... ’ (Interview with JE Lagos State Ministry of Environment, Programme Group 18th August 2010).

In summary, the main reason for conflicts and ambiguities in the sector through the FMENV's EIA implementation style is lack of effective coordination and the partial involvement of other government and state agencies.

Interviewees' testimonies helped me to identify other reasons why the States are now demanding their own EIA systems. First, levels of environmental degradation vary from one state to another, and second, the States' Ministries are demonstrably closer to local communities and the environment than FMENV. As Matland (1995: 156) notes, 'disputes over policy means can develop over jurisdictional issues or over the substance of the proposed means for reaching the goals'.

‘...Just as FMENV makes law, the State Ministries can make the stringent laws and they cannot make laws that is less than Federal laws. It depends on the peculiarity of the state for example Lagos State...that is why we always tell the FMENV that because of peculiarity of Lagos State we cannot follow Federal laws, because Federal law is an average. For example, what is happening in Taraba State cannot be compared to Lagos State...’ (Interview with RI LESEPA Consultant, Programme Group 26th August 2010).

In Nigeria, the levels of environmental impact vary from one state to another though high levels of environmental impacts from oil companies are peculiar to Lagos and Rivers States for example. Some of the participants' think that it is not justifiable for Lagos and Rivers States to have the same EIA legislation with some states like Taraba, where oil and gas related environmental degradation are insignificant. It is on this note that the former Director of the Environmental Assessment Unit at the State level commented that ‘...the FMENV laws should be minimum standard for Lagos State. Lagos State is also at the receiving end of upland location. We have the main river discharging on it...so Lagos State has to look inward and be able to make some laws that will fit into its own peculiarity so that it can have a very sustainable environment’ (Interview with RI LASEPA Consultant, Programme Group 26th

August 2010). Similarly, the Director of Research and Environment stated unequivocally that States Ministries should be permitted to have their own EIA, given that:

‘...the State Ministries are eligible to have their law for EIA. Personally, I have taken this issue up at the Federal forum, but there is this general misconception that EIA is an exclusive matter, to me it is not, even in the country’s constitution...environment is under concurrent not exclusive. So state should be eligible to have their laws’ (Interview with SL Lagos State Ministry of Environment, Programme Group 18th August 2010).

Another reason why State Ministries are demanding their own EIA is that a state-level approach might assist not only in attending to local community issues problems but also assist in carrying out effective monitoring. The Director of Environment, Rivers State Ministry of Environment maintained that-

‘...someone that is not wearing the shoe might not know what it looks like...the States will really do the implementation effectively because they are most directly affected’ (Interview with EE Rivers State Ministry of Environment, Programme Group 7th September, 2010).

This section demonstrates that while the FMENV’s EIA system is regarded as the most robust nationally, it still suffers from being fully translated into practice through its implementation style, largely because of coordination difficulties. The effect of these coordination problems is the existence of persistent, low levels of conflict, as some of the most closely involved agencies paradoxically have only partial access to all aspects of implementation process. It is exactly for this reason that State Ministries have been agitating for their own EIA system to be put in place, which I consider in more detail next.

8.3 Federal-state level interactions over EIA procedure

‘...it is not surprising if the Federal Government wants to flex in muscle...You will now want to ask why I used the words flex muscle. We allowed the State Ministries to carry out their monitoring with or without us to see what is happening...Lagos State is one of the states agitating for their EIA but we at the Federal level are intent on denying them...’ (Interview with RA FMENV, Programme Group 2nd September 2010).

It is clear from the uncompromising statement above that the FMENV is denying the states any prospect of having their own EIA procedure, yet both Federal and State levels are still working together to manage their differences. This is why one of the principal staff of FMENV maintained that-

‘...there are conflicts but the Federal Ministry of Environment is on top of them (Interview with KV FMENV, Programme Group 3rd September 2010).

The reason why FMENV is denying the SMENV from having their EIA is strongly related to power politics within Nigerian state. Matland (1995: 152) argues that ‘the state might be prevented from having its independent implementation on three grounds: first when there are constraints from the top [FMENV] second, when there is constraint from the bottom [State Ministries and their subsidiaries] and third, when specific factors defined as decisional outcomes and state capacity’. The situation in the States most directly affected by oil and gas pollution incidents revolves around these three reasons.

Thus, the constraint from the top (Federal) is evident in the ways in which the FMENV is denying States from having their own EIA. The Federal Government through FMENV views that the States in particular (Lagos and Rivers States) are agitating for their own EIA because it bestows economic advantages on their local administrations. Based on this, the FMENV is sceptical in allowing the States Ministries to have their own EIA system, despite the fact that

the country's constitution permits the States to manage their environment provided their aim is to achieve sustainable development.

‘...the FMENV is seeing EIA as a service to the nation while [we believe] the State Ministries of Environment sees it as a revenue generation channel (Interview with ME FMENV, Programme Group 16th August 2010).

Again, Matland (1995: 150) points out that ‘flexibility and autonomy might be appropriate when the goals of the policy formulators and implementers are the same, but if they differ greatly, flexibility and autonomy may lead to policies which result in lower performance of official goal’. It seems apparent that FMENV and States goals for EIA implementation differ, the latter focuses on achieving sustainable development while the former is allegedly more interested in deriving economic benefits. All participants in consultant sub-group disagree with state government having their own EIA systems, considering the fact that double exist already in the sector.

‘EIA at the first stage was in the hand of FMENV, but we were told that both State Ministries and Local Government Authorities want to be more actively involved in the process. The problem is that they are looking for what they could benefit in terms of money from the projecta good example is a refinery project in Lekki (Lagos State)... The SMENV wanted to execute that project at Lekki by partnering (collaborating) with NOSDRA...level of cooperation is low...everyone is looking for way to derive benefit, rather than to work together and achieve result’ (Interview with DO Nigerian Environmental Society, 10th August 2010).

A second reason why FMENV is denying the States from having their EIA system is that there are low levels of co-operation between States Ministries and their enforcement arms; for example between the Lagos State Ministry of Environment (LSMENV) and its enforcement arm, the Lagos State Environmental Protection Agency (LASEPA).

‘...Lagos State Environmental Protection Agency is not even getting along with the Lagos State Ministry of Environment’ (Interview with ON FMENV, Programme Group 2nd September 2010).

In an interview, one of the senior staff within Lagos State Ministry of Environment gave me a clearer picture regarding why the Ministry and its implementation arm had not been co-operating.

‘...the Lagos State Ministry of Environment as a policy maker is responsible for EIA issue while Lagos State Environmental Protection Agencies also feel that they are the one who are to implement these policies...but we (Lagos State Ministry) have always insist that EIA is a policy matter...’ (Interview with MS State Ministry of Environment, Programme Group 18th August 2010).

A third reason why the FMENV does not want to cede powers to the States over the EIA procedure is the FMENV’s strong belief that the States do not have an adequate capacity to fulfil this task. Certainly, there is a wide difference between the state of facilities at the Federal and the State level. One of the senior officers in the Department of Research and Environment with Lagos State Ministry of Environment confirmed to me the situation at the State Ministries level, commenting that ‘...here now we cannot write a report because of the lack of electricity. This is one of the problems we face...the environment is not conducive, there is a limit to jobs one can do’ (Interview with JE Lagos State Ministry of Environment, Programme Group 18th August 2010). This has contributed to the reason why most international organisations are not ready to partner with the States Ministries. This is evident from the statement below:-

‘It may sound funny sometimes that some States claim that they want to carry out their EIA and World Bank does not recognise any EIA carried by such State...because they do not have the technical know-how to do so...’ (Interview with KV FMENV, Programme Group 3rd September 2010).

However, in Brazil there is provision for state and local government to make their own laws, and Glasson and Salvador (2000) view that the Brazilian EIA system might lead to some inconsistencies across the country arising from bureaucratic complications and delay. I would argue that the State Ministries in Nigeria should be allowed to make their own laws since

such plan is in line with the country's constitution and importantly, they should do so if only they have adequate resources. The next section assesses the extent to which financial resources are sufficient in the NMOGS in order to establish how far resource-based issues are compromising EIA implementation patterns.

8.4. Federal-State level budgetary allocations and patterns of EIA implementation

‘For us to tackle environmental problems Government will need to allocate sufficient funding to the FMENV, considering the fact that the Ministry is currently categorised in class ‘C’ which attracts the lowest funding in Nigeria’ (Interview with KN NGO Environmental Right Action, Control Group 30th August 2010).

In the sector, about 75% of the participants’ agree that financial resource is not sufficient. Adequate ‘financial resources can improve the likelihood of implementation success, because finance is the bedrock of implementation including projects management’ (Struyk, 2007: 68). Yet adequate resources are not always present, which might result in policy failure (Jacobsson and Bergek, 2011; Desia, 2004; John, 1998). In particular, budgets are made mostly under scarce/limited resources, and the Government departments cannot always expect to receive the full financial resource they request or need (Ostrow, 2000). The situation in the NMOGS across all agencies is that budgets are low, as the FMENV is categorised as class ‘C’ (that is one of the Federal Ministries that receives the lowest budgetary allocation).

This explains why the oil and gas companies have been facilitating the entire EIA implementation process, as outlined in chapter 7. Recently, UNEP confirmed that the Nigerian Government Agencies are now wholly reliant on Oil and Gas Corporations for logistical support (UNEP, 2011). It appears that the FMENV desires change as ‘...in some of

the budgetary meetings the Director of Environmental Assessment has been asking for improvements in the issue of budget to enable them implement EIA' (Interview with GJ National Environmental Standards and Regulation Agency 2nd September 2010).

'...right now the budget for this year is not yet released...I think the resources are not sufficient for successful EIA implementation' (Interview with OU Nigerian Maritime Administration Safety Agency, Programme Group 11th August 2010).

Lack of finance is thus contributing to the intra-agency context becoming more complex.

This has many disadvantages, as one of the principal officers at the FMENV confirmed:

'...we have a lot of project that could have gone for the review but for budget constraint... we are having problem with funds not being released while we are have over hundreds of projects' (Interview with RO FMENV, Programme Group 2nd September 2010).

Similarly, the delay in budgetary allocation can be seen as a form of ambiguity of means following Matland's views. Matland, (1995: 158) 'calls to avoid ambiguity in policy means by limiting policy to those areas with an understanding of how actions occur, and those areas with known instrumental means to attain desired goals'. The main reason for the delay in budgetary allocation in the NMOGS is centred on the fact that a long chain of authorizations is required across the Federal Government machinery before budgetary allocation can be released (Omankhanlen, 2011). It appears that the process of getting the required approval is again affecting EIA implementation practice. It is for this, among other reasons that Nigeria's National Assembly has called for a more rapid disbursement of the country's annual budget (Akogun, 2011). Moreover, and in a broader context, national budgetary funding has been described as a 'perennial battle ground; and conflict is inherent to any budgetary process...and the prospects for development often depend on the content of the budget's provisions' (Ostrow, 2000: 10).

The situation of inadequate financial resource within the NMOGS does not relate to conflict in the intra-agency context so much confirm as ambiguity of means as defined by Matland (1995). This is because the budgetary allocation, once received, is often mismanaged, as interviewee within the Federal Government acknowledged:

‘...even we messed the resources up, we still go about asking for more’ (interview with RA Federal Ministry of Environment, Programme Group 2nd September 2010).

Government Departments and Ministries have been urged to embrace a more equitable distribution of resources (Olamiriki, 2011). In order to address the problem of mismanagement of financial resources in the sector, the Federal Government established anti-corruption agencies, the Independent Corrupt Practice Commission (ICPC) in 2000 and the Economic and Financial Crimes Commission (EFCC) in 2002 to correct any form of abnormality regarding management of public funds in Nigeria. Although I cannot measure the extent to which this anti corruption agencies have been effective, this is because that is outside the objective of this chapter.

This section has demonstrated that the situation regarding budgetary allocation in the sector is complicated, not only because the Federal Ministry in charge of environment is categorised as class ‘C’, but also because there is invariably a delay releasing the budget. Compounding this problem is that the budgets widely acknowledge as insufficient and is often mismanaged. This confirms the ‘top down’ policy implementation presumption that ‘...policy outcomes depend on the resources...’ (Matland, 1995: 166). The final section in this chapter examines the extent to which human resources are sufficient for monitoring and implementation purposes through the contributions of the Federal Government and international organisations.

8.5 The effect of available human resources on EIA implementation

The nature of human resource entails abilities to observe, evaluate, reflect and react to organisational conditions...and they often...frustrate management strategies...and for this reasons, the human factor has posed the greatest challenge for organisation theory and management practice' (Jaffee, 2001: 22). Likewise, Weimer and Vining (2005: 275) maintain that 'successful policy implementation will be achieved not only when policy is reasonable, but mainly when there are committed and skilful people to manage it'. Consequently, one of the reasons for developing human resources in the policy implementation sphere is to emphasise change, which can be achieved in several ways: improved implementation performance and redefining performance standards (Zito and Schout, 2009). This section considers the extent to which the national government and international organisations have been assisting the sector and FEMNV in particular towards human resource development, including the extent to which those resources have been sufficient. I define human resources here in terms of personal skills and familiarity with appropriate technology (equipment). This section therefore focuses on equipment and technology, the level of personnel commitment towards environmental issues, and sources of training. In the organisational literature, 'a technology is defined as the means, activities and knowledge used to transform materials and inputs into organisational outputs' (Jaffee, 2001: 185). With this in mind, interviewees were asked the technological applications that were available for monitoring implementation outcomes (about 64% of the participants' argue that skills are not sufficient in the sector):

'The equipments are not sufficient some officers do not have even laptop to carry out their work as expected' (Interview with RO Federal Ministry of Environment, Programme Group 2nd September 2010).

This comment would appear to suggest that an important reason why Government agencies have not been discharging their EIA implementation duties is their lack of necessary equipment. One interviewee – a retired Professor and also an adviser to Federal Ministry on environmental-related issues – further emphasises that effective implementation is hindered in the sector through inadequate human resources.

‘...implementation of EIA is in the hand of civil servants...that do not have functional laboratories. An ideal implementation process requires a system that is almost University based to be able to carry out research, and civil servants do not belong to such system...’ (Interview with PD Federal Ministry of Environment Consultant, Programme Group 18th August 2010).

Matland (1995: 158 & 166) comments that ‘by definition, where preferences are problematic and technology in particular is uncertain...implementation will be experimental. Yet Wilkinson and Appelbee (1999: 138) argue that ‘training everybody is unlikely to work... as such approach becomes little more than a top-down programmatic intervention... but if the context is changed by altering people’s roles, relationships and responsibilities...then the felt need to learn by those involved will rise rapidly’. This tends to be confirmed by one interviewee’s observation that:

‘....I was in Kaduna refinery recently where I saw standard facilities poorly maintained. You begin to ask why things are not done correctly, and the reason for lack of achievement is because of lack of commitment and negligence’ (Interview with TR, NGO Social Environment Right Action, Control group Centre 27th August 2010).

The above comment shows that even in few cases where equipment is available, it is not functioning due to negligence, lack of maintenance and incompetence among other problems e.g. the Kaduna refinery in Nigeria. Wilson and Piper (2010, p. 43) comment that ‘adverse impact may be incurred if proposal for, say, option for technologies are not adequately

accessed'. According to Matland (1995, p. 161) 'implementation failure occurs because of technical problems...but where the technology for dealing with the problem exist, implementation activities are concerned primarily with getting the technology in place functioning' (Matland, 1995: 161).

'...to tackle the institutional incompetence, you need to have the ideal staff and up to date equipment. Reflecting on our level of development...we do not have enough' (Interview with PB National Environmental Standard Regulation Environmental Agency, Programme Group 2nd September 2010).

In the face of such shortages, the Federal Government has put in place measures including sending personnel on training courses. However, these have not been successful so far because those targeted for training have either approached retirement or have not been directly responsible for monitoring on the ground. This situation might lead to 'a loss of corporate EIA memory as experienced in the U.S. (Wood, 2003a, p. 27), and the act of transferring the knowledge or skills might become difficult. This is evident the statement below:

'We use to have a senior colleague here, who was vastly experienced in EIA and represented Lagos State in several EIA panels. He was part of those who designed EIA in Nigeria, but he just retired. He was an authority...but the limitation is that apart from his way of transferring the knowledge, the institution had not allowed him to transfer the knowledge to people. So it is not that we do not have people, but instead of 10-15 we just have one man' (Interview with OE Lagos State Environmental Protection Agency, Programme Group 25th August 2010).

Similarly, one of the executive officers of Waste Management Association of Nigeria maintains that 'because of frustration in personnel at that Federal Ministry of Environment people want to leave' (Interview with DG Waste Management Association of Nigeria 29th August 2010). Presently, large numbers of staff among the Government agencies are learning 'on the job' as an alternative means of carrying out their duties.

Provision of ‘on-the-job-training’ can be an important capacity-building measure, following the example of youth employment programs (Matland, 1995). Yet the Federal Ministry mission statement still does not include ‘on-the-job-training’ as evidenced by this respondent’s experience:

‘Most of us learn on-the-job, with inadequate facilities....The training is not sufficient...’ (Interview with RO Federal Ministry of Environment Programme Group 2nd September 2010).

While some of the Government agencies are placing emphasis on retraining their workforce, there are those who are soliciting international organisations for assistance as an alternative way of solving challenges related to inadequate human resource. Matland (1995: 161) comments that ‘remunerative mechanisms may be used, especially for pulling in outside resources, but most actions are induced through normative mechanisms (mutually held goals)’. These international organisations [including United Nations Development Programme, United Nations Environment Programme and International Maritime Organisation among others] have been helpful not only in training the Government staff, but also in releasing funds.

‘The role international organisations have played in assisting us in terms of funding and training is acknowledged...’ (Interview with ML Lagos State Ministry of Environment Programme Group 18th August 2010)

Nwafor (2006) describes these international organisations as a global EIA facilitator and the pacesetter in EIA improvement in developing countries and Nigeria in particular. In the past, about 70 Government agencies staff has been trained at the Federal and States government level (Nwafor, 2006). One of the participants and a professor who has chaired oil and gas EIA public review panel at various time emphasises that (75% of the participants’ confirm the significance role international organisations in terms of providing skills for the NMOGS):

‘...if not for UNDP, the FMENV would have ceased to do anything...it was the World Bank that started it but they stepped back because of misappropriation of money...’ (Interview with OK Academic Nigerian Institute of Social and Economic Research 7th October 2010).

It is clear that the level of training differs among the Government; the national government trained some, some learn on the job while others were trained by the international organisations. The implication of this is that staff of the same Ministry or Department might have different approaches toward the same EIA process, mainly because their levels and sources of training differ. This is viewed as a major challenge to uniform implementation nationally, as ‘among the actors with different training, there are substantially different proposal for implementing this policy and their implementation battles are likely to be long and bitter’ (Matland, 1995: 169). However, presently in the sector, only a handful of staff has been trained by the international organisations.

‘I am World Bank trained. There are few of us like that who had such high level training to produce good EIA report...’ (Interview with PL Academic University of Lagos, Control Group 16th September 2010).

It is therefore evident that Government agencies generally lack adequate human resources, despite the expectation that their personnel should know more about EIA implementation processes and procedures than those they are regulating. It seems that the reverse is the case in the sector, as indicated by the following statement:

‘...if you want to regulate somebody...you should be ahead of the person to see what his doing that is a challenge’ (Interview with RA Federal Ministry Environment, Programme Group 2nd September 2010).

Nonetheless, in order to take the Government agencies in the NMOGS to the level of achieving effective EIA implementation in particular, resources should not be only available but sufficient. Provision of adequate resources in terms of financial and human resources in particular have remained a major challenge in most developing countries. For example, lack

of adequate resources that will enhance effective EIA implementation have reported in Pakistan (Saeed *et al.*, 2012); Taiwan (Liaw and Jou, 2006); Ghana (Ofori, 2005; Appiah-Opoku, 2001); Turkey (Coskun and Turker, 2011); Bangladesh (Ahmmed and Harvey, 2004); Sri Lanka (Samarokoon and Rowan, 2008); and Brazil (Glasson and Slavador, 2000).

8.6 Conclusion

Policies with clear and widely supported goals but with unclear means of implementation take on experimental characteristics...Implementing policies of this type can be technology-force and can lead to the development of entirely new capabilities and thus...ambiguity should be seen as an opportunity to learn both new means and goals' (Matland, 1995, p. 167).

The proceeding analysis has demonstrated the generally low level of collaboration among agencies working with FMENV on EIA implementation. Still, problem-solving is embraced and some level of consensus is evident compared with the inter-agency context reviewed in Chapter 7. For example, disagreement between NESREA and FMENV was referred to a committee, and State Ministries have been attempting to persuade the FMENV to grant them their EIA system.

The chapter has attempted to show the extent to which resources have been insufficient in the sector, by focusing on financial and human resource based issues considering the importance of resources to policy implementation. I have shown that the impact of budgetary allocation has been felt not only because of the delay in the process of releasing the budget, but also because of budgetary mismanagement. Moreover, the contribution of national government and international organisations to human resource development has been insufficient, thus affecting EIA implementation. This is because very few Government personnel have been trained to date, and those that have are approaching retirement.

One of the lessons from this research is that there is no perfect system between FMENV and DPR, even though the former's implementation style was identified in chapter 7 as being more effective. Similarly, I have been able to address the question arising from chapter 7; pertaining to the reason why oil and gas company sponsors EIA is now clear: the lack of financial resources seems to be the key factor in this context. Policy implementation theory has thus enabled me to identify both the nature and causes of EIA implementation failures.

CHAPTER 9 CONCLUSION

This chapter summarises the findings from the thesis and is divided into three sections. Section 9.1 outlines the main conclusions in relation to the original objectives of the research. Section 9.2 discusses the thesis' broader contribution to knowledge, while section 9.3 suggests recommendations to areas that require improvement.

9.1 Summary of principal findings

The thesis has attempted to address a gap in the literature on EIA implementation in the Nigerian maritime oil and gas sector. More specifically, the analysis has been framed with the aid of a focus on policy implementation and Matland's Ambiguity-Conflict Model as a way of seeing beyond what previous researchers have reported.

Returning to the *first objective* is concerned, it can be stated that the sector's EIA systems have failed to address environmental challenges through various key implementation stages. This is particularly the case in the domain of mitigation compliance monitoring and public participation, and can mainly be attributed to institutional barriers. Financial costs and the lack of value attached to public well-being have also contributed negatively to the effective implementation of EIA procedures, which are seen in administrative turf by bureaucratic actors. Corporate interests are only too happy to allow this messy bureaucratic arrangement to continue, arguably encouraging its perpetuation: the current EIA process allows them to get away with continued abuses and violations. In this way, 'local communities' and 'local environment' bear the consequences of this political infighting/administrative disorganisation arising from twin-track EIA systems.

As far as the *second objective* of the research, it can be stated the domestic institutional context has resulted in high levels of inter-agency conflict, and high levels of policy ambiguity. A key cause of the ambiguity is that two EIA systems operate in parallel nationally due to, in part, the fact that 'bureaucratic actors see their interests tied to a policy definition...' (Matland, 1995: 168). Recent state-led attempts at mediating the differences between these competing EIA systems have only accentuated existing high levels of conflict. Notwithstanding recent achievements in terms of raising public and corporate awareness, institutional problems have thus prevented the NMOGS's EIA implementation processes from being coherent and integrated in their approaches to environmental challenges and difficulties.

In terms of the *third objective*, it can be stated that there is evidence of conflict over roles, responsibilities, duties of Government actors across the whole spectrum of EIA implementation activities; this has resulted in high levels of conflict at inter-and intra-organisational levels in particular. Not only have the differences between the sector's EIA systems resulted in implementation failure by causing delay in the execution projects and creating high levels of ambiguity, but their similarities have also negatively affected the EIA process in several ways. Thus, when oil and gas companies sponsor the entire EIA process it clearly encourages agency capture of Government departments as 'he who pays the piper dictates (calls) the tune'. Similarly, the use of local consultants has reduced the quality of EIA reports as many do not have the required skills, and allegations of using falsified data are rife.

The implementation process within the intra-agency context of FMENV, while being associated with lower levels of conflict, is still impeded by poor co-ordination and

insufficient resources. This confirms Matland's (1995) statement that 'outcomes heavily depend on the resources and actors present in the micro-implementing environment' (page 166). It implies that the formal establishment of a single EIA system will be insufficient *per se*: a more functional and broad-based apparatus that gives joint consideration to political, social, economic, and institutional factors may be more beneficial. My analysis has demonstrated that the current EIA procedures give inadequate consideration to institutional co-ordination, making it difficult for the NMOGS to achieve sustainable development goals.

9.2 Broader contribution to knowledge

This research has demonstrated the need for understanding the specificities of national contexts in the evaluating EIA implementation, while re-affirming the importance of theoretically informed work on regulatory failure – not simply corporate indifference – in environmental management. The results of the research also provide a foundation for amending, refining and crucially learning from the present policy impasse, while improving EIA practice in Nigeria in future.

Furthermore, the research has established that a single matrix of ACM cannot be used to explain EIA implementation processes. For example, the situation within the inter-agency context is largely grounded on symbolic implementation and partly on political implementation. This further substantiates the complexities of the NMOGS's EIA implementation processes as evidenced under the empirical chapters.

It has also transpired that the NMOGS' EIA style is reactive and conflictual. The style is reactive in nature because there might be no EIA in the sector which explains the succession of large-scale oil pollution incidents. It is conflictual because of the 'twin track' EIA systems that exist. The thesis has identified high levels of conflict within the inter-agency context and low levels of conflict within an intra-agency context.

9.3 Policy recommendations

'...as the regulatory framework, it should set ambitious parameters for the use of land, the activities which take place on it, and relationship between those activities and built, social and natural environments...for this framework to be sufficiently ambitious, changes will be needed in the attitudes and behaviours of professionals, public and politicians; the professional owes a duty to press for the political decision-making to ensure this' (Wilson and Piper, 2010: 371).

As a result of the numerous identified challenges related to effective EIA in the Nigerian maritime oil and gas sector, current EIA implementation processes can be improved upon. Based on the findings from the previous chapters, Nigeria's EIA should be addressed through the following four interventions:

9.3.1 Encouraging synergies and conflict resolution among relevant Government Ministries, Departments, and implementing agencies

It has been argued that conflict might shape or structure the manner in which resolutions should be developed (Heidbreder *et al.*, 2011; Cohen *et al.*, 2005; Kakonge, 1998). However, Wilson and Piper (2010: 252) argue that '...it is not yet clear that sufficient attention is being paid to identifying and avoiding any conflict...to promote synergies'. Similarly, deLeon (1999: 328) views that 'mediated negotiation, consensus and conflict resolution should not be considered the answer to all implementation conflicts...but by the same token, these exercises

should not be dismissed as marginal or irrelevant'. This is because conflicts do not have to be destructive if they are well handled; rather they can be the source of creativity and innovations (Heidbreder *et al.*, 2011; Abma, 2006). Inter-agency cooperation through negotiation and compromise is a reasonable strategy to improve EIA policy implementation (Lundin, 2007; Orubu, 2006; Beierle, 1999). Ruth *et al.* (2011) suggest that implementing agencies should embrace effective communication and more integrated approach as a path towards achieving sound practice. This is achievable in practice if only the Government implementing agencies are prepared to value individual differences. According to Covey (2004: 277) 'valuing the differences is the essence of synergy - the mental, the emotional, the psychological difference between people and organisation'.

In this context, the central issue emerging in the NMOGS is ameliorating conflicts among the Government agencies, and within these agencies. Currently, inter-organisational relations are poor and in order to address this situation, urgent attention is required towards conflict resolution (Jaffee, 2001). Government efforts should focus upon building the type of skills that encourage consensus (Goebel *et al.*, 2005). Reaching consensus should not side-step major issues such as the fact that the 'commitment to reach consensus through deliberative processes may ignore real and messy conflicts...' (Wilson and Piper, 2010: 73). Reaching consensus in this way should help in capacity building, as long as parties concerned are willing to learn from one another (Randolph and Bauer, 1999). Forming consensus further provides 'the foundation for effective policy implementation' (Cohen, 2002: 175). It should be noted that achieving consensus goes beyond bringing the two EIA systems together, or having a single EIA in place. Rather, the Federal Government needs to provide a functional system that gives recognition to the key sustainable development components and which actively encourages high level of cooperation among its Departments, Ministries and

implementing agencies. This suggests that clear achievable organisational responsibilities should be allocated and monitored.

But top-down implementation solutions are not of themselves sufficient. In the NMOGS, maritime experts and NIMASA in particular should be actively involved in the EIA process, alongside with local community representatives, so as to ensure a demarcation of responsibilities that will be embraced in practice (Persson and Nilsson, 2007; Kakonge, 1998). Close attention should be given to the practicality of the States Ministries, especially Lagos and Rivers States being allowed to introduce their own EIA systems (because of their peculiarities), provided they have the necessary capacity to do so; given that any tangible opportunity or benefit should attract what has been described as ‘no regrets and win-win outcomes’ (Wilson and Piper, 2010, p. 373). Moreover, allowing State Ministries to have their EIA system would reflect true federalism practiced in the US (Wood, 2003a). The popular saying in Nigeria presently is that ‘true federalism’ is the solution to many domestic problems, and achieving this should be given the type of recognition and value it deserves.

9.3.2 Improving the political economy of the sector

Stronger political intervention by the Federal Government in the sector is necessary to enhance effective EIA implementation (Carley, 2011). This is required to achieve effective compliance with the contents of mitigation measures and public participation. Clearly, political support is required to make national oil company projects comply with the existing regulatory requirements, for example tank farm owners refusing to relocate as directed. In the same manner, political intervention is needed by President’s office to make the Government, Departments and Ministries function in a more unified and streamlined way, and to uphold

the Government's directives. As Jenkins (2007: 27) maintains, that 'policy process entails compromise, imposition, deal making, and all these can be characterised as political'. It should be recalled that 'politics is not just about elections and parties, as it concerns the entire process of public decision-making and government behaviours' (John, 1998: 1). Understanding this type of bureaucratic politics is absolutely essential to successful policy implementation (Painter and Jeffrey, 2010).

Similarly, environmental issues should be given greater political priority, and financing this aspect in particular should be boosted through an expansion of the Ecological Fund. Oil and gas companies should stop sponsoring the EIA implementation process (and monitoring in particular), in order to ensure that EIAs are genuinely impartial. Porter *et al.* (2000) emphasise that compliance and effective implementation should be supported through public funding. Moreover, the Federal Government should review the sector's EIA implementation machinery. This should address statutory penalties and fines imposed for not conducting EIAs, which are currently less than the cost of conducting EIA in the NMOGS. Current practice encourages some operators to pay fines rather than conduct EIAs. Generally, the issue of 'twin-track' EIA systems should be resolved quickly and expeditiously by Presidential action.

Lastly, the involvement of local consultants should be encouraged, providing they are trained to ensure that 'work is only undertaken by competent individuals' (Fuller, 1999: 74). Foreign consultants should not be excluded from operating in the NMOGS; indeed, this might enhance knowledge exchange or transfer. It has been argued that 'sustainability is a national responsibility...but its goal cannot be achieved without assistance from international development partners and regional organisations...' (Lal, 2011: 48).

9.3.3 EIA implementation: Social interactions and democratic issues

Representatives from local communities should be allowed to participate fully in the EIA process, as they are critical stakeholders. Based on the multiple challenges related to public participation and difficulty in accessing EIA reports, the current 21 days consultation period should be increased to 52 days. This is in line with Hartley and Wood's (2005: 339) suggestion that consultation period should be increased from three weeks to six weeks in the United Kingdom to 'strengthen participation processes'. Furthermore, the FMENV should take seriously issues relating to raising environmental awareness. Improved social outcomes and building social capital potentially mark a great achievement for EIA implementation if conducted appropriately (Peltonen and Sairinen, 2011; Wilkinson and Appelbee, 1999). It should become standard practice for EIA reports to be made publicly available and to be displayed in places easily accessible to local communities. EIA reports should be available via the internet as Vestman and Conner (2006: 228) comment '...people should be encouraged to...engage in the political life of their own community'.

EIA public reviews should be given more publicity beyond newspaper publications. Information should be passed across to stakeholder group via radio using local language stations, as most local communities are illiterate and rely heavily on radio. Likewise, the few actual NGOs (that is, NGOs free from Government influence) should be given every opportunity to fully participate in the EIA process from consideration of alternatives to monitoring. As Beierle (1999: 76) suggests, public participation should be balanced and integrated with other important aspects of environmental decision-making process, such as evaluations, the environmental conditions of the system of interest, and national regulatory context.

9.3.4 Adopting best practice

Naturally, identifying and adopting best practice is an important goal for the Federal Government of Nigeria, but the NMGOS should need to ensure basic procedure is followed first. For example, accurate data should be used and environmental related information should be made accessible and transparent in line with the Aarhus principle (Hartley and Wood, 2005). Lack of accountability of Government agencies should be remedied. As Covey (2004: 46) observed ‘we are what we repeatedly do...excellence, is not an act, but a habit...and habit can be learned or unlearned...it is not a quick fix...it involves a process and a tremendous commitment’. This suggests that Government agencies should not only do the right things first, but they should address their underlying organisational culture before adopting the best practice from developed countries. Moreover, Jordan *et al.* (1998: 1404) argue that ‘...implementation is by no means perfect; it might be improved as a result of learning and experimentation with new policy tools’. In order for the sector to meet with developed world current practices, the use of EIA together with New Environmental Policy tools (NEPIs) might be explored.

In line with other countries’ experience, improved co-ordination of SEA and EIA is also needed. It is clear that ‘good coordination between planning levels and between SEA and EIA is needed to achieve planning for sustainable development, efficient and effective decision-making’ (Arts, 2011: 415).

Once basic procedures are being followed, Government policy makers and stakeholder groups might consider that EIA be complemented by the addition of other policy instruments such as eco-taxes (Sairinen, 2003). This would greatly improve existing environmental

management possibilities and offer the chance for the development of second-generation instruments that provide for increased flexibility, efficiency, effectiveness, and legitimacy.

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APPENDICES

Appendix 1

List of secondary data gathered in Nigeria:

1. Previous EIA reports on the multinational oil companies' projects:
 - EIA report for West African Gas Pipeline Project conducted on October 2004
 - EIA report for the Agbami field development June 2004
 - EIA report for the Oil Prospecting Lease 286 project June 2006

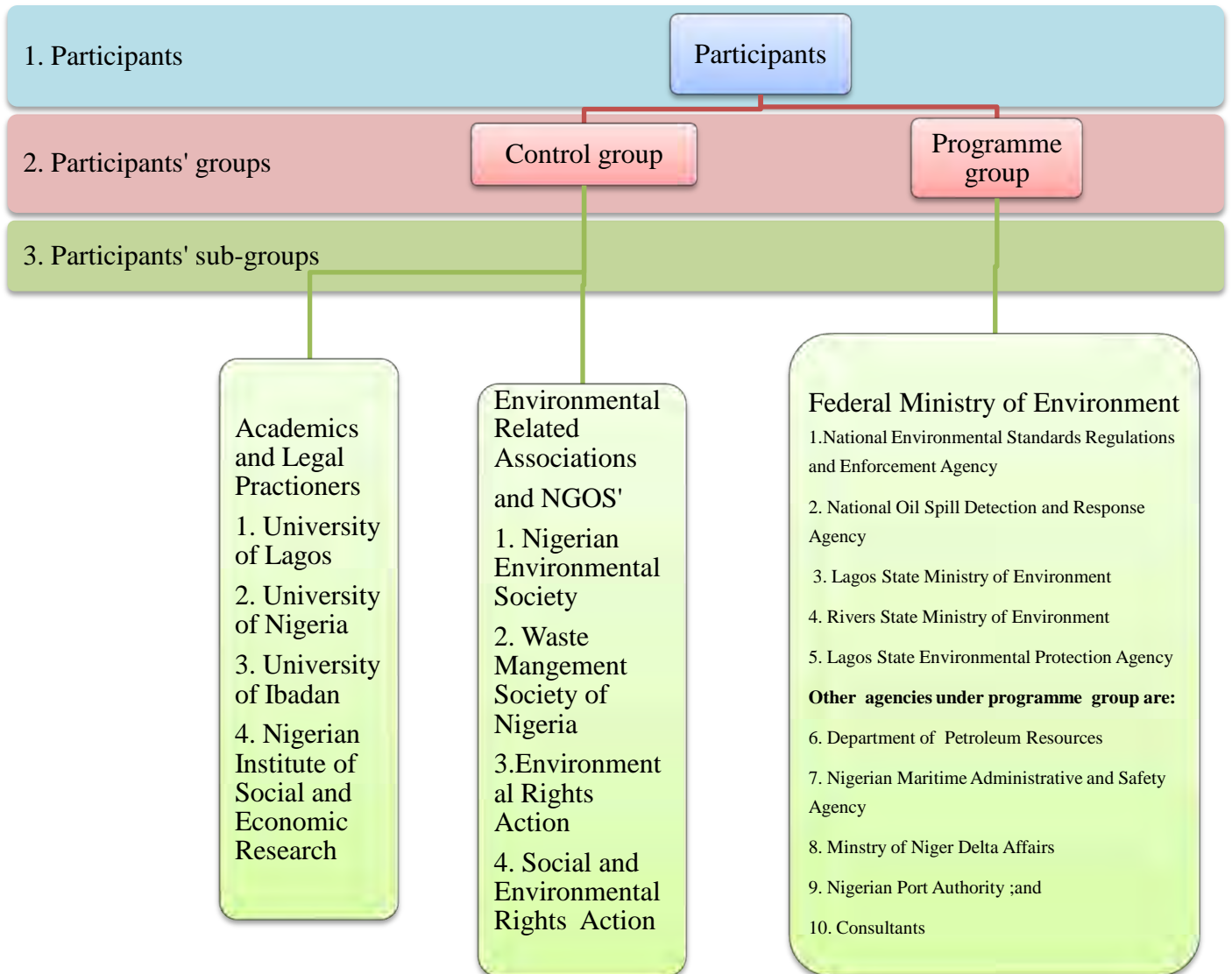
2. Previous EIA report on the national oil companies' projects:
 - Environmental and Social Impact Assessment of Oando Petroleum Delivery system from SPM (Single Point Mooring) to marketer's Jetties at Apapa, Lagos conducted on November 2008
 - EIA of the proposed Lister oil Petroleum Tank farm at creek road Apapa, Lagos submitted by Lister oil Limited on April 2008
 - EIA of Linetrals Gas LPG (Liquefied Natural Gas) Facilities in Lagos conducted on 2008 by Linetrals Gas Limited

3. Evidence of Environmental and social problems in the study areas as released by ERA (Environmental Right Action)/ Friends of the Earth Nigeria
 - Field report on Shell spill still wrecking havoc in Ejama Ebubu community Eleme LGA Rivers State, and this exercise was carried out on 26/7/2010
 - Field report on Shell's water borehole poison's community carried out 3/8/10
 - Field report on serious oil and gas leakage along Agip (now ENI) pipeline in Ikarama community, Bayelsa State

4. Policy Documents
 - Decree no. 86 – Environmental Impact Assessment Decree 1992
 - Guidelines for review of EIA report in Nigeria
 - EIA sectoral guidelines: oil and gas industry projects
 - Guidelines for EIA: sectoral guidelines for waste management facility
 - National requirements and guidelines on environmental management system
 - Lagos State of Nigeria Official Gazette
 - National oil spill detection and response agency establishment Act, 2006
 - National EIA procedure/existing states instruments of intervention
 - Petroleum Industry Bill
 - Number of projects registered and approved for EIA from 1995- 2005
 - Number of EIAs processed between 1995- 2005 (July) and oil and gas in particular.

The participants are described on chart and table respectively in appendix 2a and 2b

Appendix 2a



Appendix 2b

List of participants within the control and programme groups respectively

Serial number 1-18	Code for the participants within the control group	Details of participants within the programme group
1	DO (NES)	Member of the Nigerian Environmental Society and also a senior staff in National Oil Spill Detection and Respond Agency.
2	SU (NES)	Member of the Nigerian Environmental Society and also a senior staff in Department of Petroleum and Resources.
3	TR (SERAC)	The Head of Department Legal Issues in Social Environmental Rights Action Centre.
4	EL (SERAC)	The Head of Department Environmental and Housing Issues in Social Environmental Rights Action Centre.
5	BE (WMSN)	One of the representatives of Waste Management Society of Nigeria and also an assistant director in Lagos State Environmental Protection Agency.
6	DG (WMSN)	One of the executive officers of Waste Management Society of Nigeria and also on secondment to Nigerian Maritime Administration and Safety Agency.
7	PP (ERA)	Head of Media and Environmental issues in Environmental Rights Action Lagos State office.
8	KN (ERA)	Director, Environmental Rights Action, Lagos State office.
9	MH (ERA)	One of the coordinators, Environmental Rights Action, Rivers State Office.
10	AS (GTEI)	One of the executive officers of Green Thinking Environmental Initiative and formerly director of training and education in Federal Ministry of Environment.
11	AE (LEGAL)	Senior associate and environmental lawyer at Aluko and Oyeboode Associate.
12	AM (LEGAL)	Senior associate and environmental lawyer at Aluko and Oyeboode Associate.
13	ES (LEGAL)	Associate and environmental lawyer at Aluko and Oyeboode Associate.
14	OB (ACADEMICS)	One of the coordinators in charge of Basel Convention in Africa and a Professor of Chemistry at the University of Ibadan, Nigeria. He was one of the experts that prepared the country's EIA Act in 1992, and also the resident consultant to Federal Ministry of Environment and adviser on technical matter to National Environmental Standards Regulations and Enforcement Agency.
15	KK2 (ACADEMICS)	A Professor of Bio-chemistry at the University of Lagos, Nigeria and also EIA consultant.
16	PA (ACADEMICS)	A retired Professor of Geography, University of Nigeria, and he have participated in several oil and gas related EIA projects as chairman of the review panel.

17	OK (ACEDAMICS)	A Professor and presently working with the Nigerian Institute of Social and Economic Research and he have chaired several oil and gas related EIA review panel sections.
18	PL (ACADEMICS)	A Professor of Chemistry, University of Lagos and he have also chaired several EIA review panel sections.
Serial Number 19- 56	Codes for the participants within the programme group	Details of participants within the programme group
19	AD (DPR)	One of the principal officers in DPR, presently assisting in the area of marketing.
20	DO2 (DPR)	One of the Deputy Managers, Environmental Unit, Department of Petroleum Resources.
21	IY (DPR)	One of the Managers, Environmental Unit in Department of Petroleum Resources.
22	MB (DPR)	One of the principal officers in Environmental Unit, DPR
23	RO (FMENV)	Senior Administrative officer in Environmental Assessment Department, Federal Ministry Environment Head quarter.
24	ON (FMENV)	Assistant Director in Environmental Assessment Department, Federal Ministry of Environment HQ.
25	RA (FEMNV)	Assistant Director in Environmental Assessment Department, Federal Ministry of Environment HQ.
26	KV (FMENV)	Assistant Director in Environmental Assessment Department, Federal Ministry of Environment HQ.
27	ME (FMENV)	A senior staff in Environmental Assessment Department, Federal Ministry of Environment, Lagos State Office.
28	AN (NIMASA)	Administrative officer in Department of Marine Environmental Management, Nigerian Maritime Administration and Safety Agency (NIMASA).
29	HI (NIMASA)	Senior Administrative officer in Department of Marine environmental Management, NIMASA.
30	KU (NIMASA)	Principal Assistant Registrar in Department of Marine Environmental, NIMASA.
31	BR (NIMASA)	Senior Administrative officer in Department of Marine environmental Management, NIMASA.
32	MA (NIMASA)	Administrative officer in Department of Marine environmental Management, NIMASA.
33	OU (NIMASA)	Principal Assistant Registrar in Department of Marine Environmental, NIMASA.
34	MB2 (NOSDRA)	Assistant Director in National Oil Spill Detection and Response Agency.
35	RD (NOSDRA)	One of the Directors in National Oil Spill Detection and Response Agency (NOSDRA).
36	GJ (NESREA)	One of the principal officers in policy analysis and cooperation unit of National Environmental Standards Regulations and Enforcement Agency.
37	PB (NESREA)	One of the principal officers in planning and information

		management unit of National Environmental Standards Regulations and Enforcement Agency.
38	FO (MNDA)	One of the principal officers at Federal Ministry of Niger Delta Affairs.
39	NI (CONSULTANT)	Nigerian maritime oil and gas sector consultant.
40	TU (CONSULTANT)	Nigerian maritime oil and gas sector consultant.
41	RI (CONSULTANT)	Nigerian maritime oil and gas sector consultant.
42	PD (CONSULTANT)	Nigerian maritime oil and gas sector consultant.
43	MS (LSMENV)	Principal scientific officer, Department of Environmental Assessment and Research in Lagos State Ministry of Environment.
44	SL (LSMENV)	One of the principal officers in Environmental Assessment and Research, Lagos State Ministry of Environment.
45	JE (LSMENV)	Senior Administrative officer, Department of Environmental Assessment and Research in Lagos State Ministry of Environment.
46	ML (LSMENV)	Principal scientific officer, Department of Environmental Assessment and Research in Lagos State Ministry of Environment.
47	SS (LASEPA)	Deputy Director, Lagos State Environmental Protection Agency (LASEPA).
48	OE (LASEPA)	One of the Special Assistants to the General Manager on environmental compliance, LASEPA.
49	OE2 (LASEPA)	One of the Deputy Directors, Sanitation and Environmental Health Department, LASEPA.
50	FS (LASEPA)	One of the Senior Special Assistants to the General Manager on environmental compliance, LASEPA.
51	EE (RSMENV)	Director, Rivers State Ministry of Environment.
52	MK (RSMENV)	Administrative officer, Rivers State Ministry of Environment.
53	JM (RSMENV)	Administrative officer, Rivers State Ministry of Environment.
54	HR (RSMENV)	One of the principal officers, Rivers State Ministry of Environment.
55	KK (RSMENV)	Senior Administrative officer, Rivers State Ministry of Environment.
56	EE2 (NPA)	Assistant Director, Health Safety and Environment Department in Nigerian Port Authority (NPA)

Appendix 2c: Analysing the available data using a descriptive statistics (percentage)

CODES	STATE OF ENV	IMPACTS OF EIA	COOPERATION	BARRIERS	FUNDS	SKILLS	ROLES OF THE DONORS
DO (NES)	YES	POSITIVE	LOW	YES	NO	NO	HIGH
SU (NES)	YES	POSITIVE	LOW	YES	NO	NO	HIGH
TR (SERAC)	YES	POSITIVE	LOW	YES	NO	NO	HIGH
EL (SERAC)	NO	NEGATIVE	LOW	YES	NO	NO	HIGH
BE (WMSN)	YES	POSITIVE	LOW	YES	YES	NO	HIGH
DG (WMSN)	YES	POSITIVE	LOW	YES	NO	YES	HIGH
PP (ERA)	NO	NEGATIVE	LOW	YES	NO	NO	HIGH
KN (ERA)	NO	NEGATIVE	LOW	YES	NO	NO	HIGH
MH (ERA)	NO	NEGATIVE	LOW	YES	NO	YES	PARTIALLY
AS (GTEI)	NO	NEGATIVE	LOW	YES	NO	YES	PARTIALLY
AE (LEGAL)	YES	NEGATIVE	LOW	YES	NO	NO	PARTIALLY
AM (LEGAL)	YES	NEGATIVE	LOW	YES	NO	NO	PARTIALLY
ES (LEGAL)	YES	POSITIVE	LOW	YES	NO	NO	HIGH
OB (AC)	BOTH	BOTH	LOW	YES	NO	YES	HIGH
KK2 (AC)	BOTH	POSITIVE	HIGH	YES	NO	NO	HIGH
PA (AC)	BOTH	NEGATIVE	LOW	YES	NO	YES	HIGH
OK (AC)	BOTH	BOTH	LOW	YES	NO	NO	HIGH
PL(AC)	YES	POSITIVE	LOW	YES	NO	NO	HIGH
PROGRAMME GROUP CODE							
AD (DPR)	YES	POSITIVE	LOW	YES	YES	YES	HIGH
DO 2 (DPR)	YES	POSITIVE	HIGH	YES	NO	NO	HIGH
IY (DPR)	YES	BOTH	HIGH	YES	YES	YES	HIGH
MB	YES	POSITIVE	HIGH	YES	NO	NO	HIGH

(DPR)							
RO (FMENV)	YES	POSITIVE	LOW	YES	NO	NO	HIGH
ON (FMENV)	YES	POSITIVE	LOW	YES	NO	NO	HIGH
RA (FMENV)	YES	POSITIVE	LOW	YES	NO	YES	HIGH
KV (FMENV)	YES	POSITIVE	LOW	YES	NO	NO	HIGH
ME (FMENV)	BOTH	NEGATIVE	HIGH	YES	NO	YES	HIGH
AN (NIMAS A)	NO	NEGATIVE	LOW	YES	NO	NO	HIGH
HI (NIMAS A)	YES	POSITIVE	LOW	YES	NO	NO	HIGH
KU NIMAS A	YES	BOTH	LOW	YES	NO	YES	HIGH
BR (NIMAS A)	YES	NEUTRAL	LOW	YES	NO	NO	HIGH
MA (NIMAS A)	YES	POSITIVE	AVERAGE	YES	NO	YES	HIGH
OU (NIMAS A)	YES	NEUTRAL	LOW	YES	NO	NO	HIGH
MB2 (NOSDR A)	YES	POSITIVE	HIGH	YES	NO	NO	HIGH
RD (NOSDR A)	YES	POSITIVE	HIGH	YES	NO	NO	HIGH
GJ (NESRE A)	YES	POSITIVE	HIGH	YES	NO	NO	PARTIALLY
PB (NESRE A)	YES	NEUTRAL	LOW	YES	NO	NO	HIGH
FO (MNDA)	YES	POSITIVE	LOW	YES	NO	NO	HIGH
NI (CONST)	YES	POSITIVE	AVERAGE	YES	YES	YES	HIGH
TU (CONST)	YES	POSITIVE	LOW	YES	YES	YES	HIGH
RI (CONST)	BOTH	BOTH	LOW	YES	YES	YES	HIGH
PD (CONST)	BOTH	BOTH	HIGH	YES	NO	NO	PARTIALLY
MS (STATE)	YES	POSITIVE	HIGH	YES	YES	YES	HIGH
SL	BOTH	POSITIVE	HIGH	YES	YES	NO	NEUTRA

(STATE							L
JE (STATE	BOTH	NEGATIVE	LOW	YES	YES	NO	PARTIALLY
ML (STATE	NO	BOTH	LOW	YES	YES	NO	PARTIALLY
SS (LASEP	BOTH	POSITIVE	HIGH	YES	YES	YES	HIGH
OE (LASEP	YES	POSITIVE	AVERAGE	YES	YES	NO	HIGH
OE2 (LASEP	YES	POSITIVE	HIGH	YES	YES	YES	PARTIALLY
FS (LASEP	YES	NEGATIVE	AVERAGE	YES	NO	NO	PARTIALLY
EE (STATE	YES	POSITIVE	AVERAGE	YES	BOTH	BOTH	HIGH
MK (STATE	YES	POSITIVE	HIGH	YES	NO	NO	HIGH
JM (STATE	YES	POSITIVE	HIGH	YES	NO	NO	NEUTRAL
HR (STATE	YES	POSITIVE	LOW	YES	NO	YES	PARTIALLY
KK (STATE	NO	NEGATIVE	LOW	YES	NO	NO	LOW
EE2 (STATE	YES	POSITIVE	AVERAGE	YES	NO	NO	PARTIALLY

Further Analysis of Available Data

- **Improving the state of the environment:** yes = 38 (68%); no = 8 (14%); and both = 10 (18%)
- **Impact of previous EIA:** positive =33 (59%); negative =13 (23%); and both =7 (13%) and neutral = 3 (5%)
- **Level of cooperation among the government implementing agencies:** low = 35 (63%); high = 15 (28%) and average = 6 (11%)
- **Barriers related to EIA implementation:** the entire participants agreed that they are high = 56 (100%)
- **Sufficiency of financial resources:** no = 42 (75%); yes = 13 (23%) and both = 1 (2%)
- **Sufficiency of skills:** no = 36 (64%); yes = 19 (34%) and both = 1 (2%)
- **Role of international organisations:** high = 42 (75%); low = 1 (2%); partially = 12 (21%); and neutral = 1 (2%)

Appendix 3: Samples of available data

Interview 9: with (MH) 'NGO' ERA

Length of time: 1 hour: 10 minutes and 59 seconds

Date: 8th September 2010

1. No, I think because there is a lot of gaps and loopholes. The first major issue is EIA legislation, EIA may be written, and people may write EIA without going to the site where the project is taking place. I have example of West Africa Gas Pipeline (WAGP) project. Which year was that? I did a campaign on it on behalf of ERA in 2005-2009 in Badagry. The panel of expert from the World Bank find out that it appears people do not go to do a clear EIA. Why? That is the normal thing in Nigeria. What were the panel observations? You know it was just simple thing to identify the owners of the land. What we do is to ask people to stand by their land, if you are not there that day; it means you are not the owner of the land. There is no clear historical natural way people deal with land. This is what EIA should contain not just doing desk approach by copying thing together, and there it was reported that 5,000 and 10,000 people were affected and we cannot find those people that were affected. Although, only few people appeared, but cannot find all the people they are referring to that were affected. Does it mean that what you see on the ground contradicts what was in the EIA report? Yes, it contradicts what was on the ground. Is that project own by the multi-nations or the indigenous companies? It was owned by the Chevron and Shell, Chevron and Shell has the major shares, and the Nigerian Gas Company- the project start from Lagos to Accra, and these are project that have gone out. There is a professor in USA he did resettlement issue, and concluded that this thing has not been done. I do not think this has in way helped in environmental development issues in Nigeria. I have been working on this issue for the past nine years; Niger Delta is one of the worse environments on planet earth. This is because we are still doing the same thing that we have been doing since nine years ago.
2. I think what we have seen with the previous EIA was attempt to cut corners. What do you mean by this? To reduce cost and not to do full activities as the process required. Is a situation where people do not have access to the report, and the report that is voluminous they call you in one day to make input. I think it is 21 days? Yes, 21 days, but the problem is this you cannot take the document away; you can photocopy some few part from the state ministry of environment. Why is it that in the same ministry I was told EIA cannot be photocopy at all? That is the issue, we campaign for through internet that WAGP EIA should be put on internet and they have done that. You can see it on World Bank inspection panel site. That was one time EIA was on the website. We still agitate further that the same WAGP EIA should be in our local language (Yoruba) that is the executive summary. Have they done that? They said they will do it that is the problem. People start to cut corner to reduce cost because the system is very flexible. Can we say that this is why EIA has not been fully implemented? I think is the major part of reason that the system is so flexible and

corrupt, because they do not know the connection between life and environment. Whatever that affects the environment affects life. You read this beautiful EIA report, I know the consultant that wrote the report, he lived here in Pot-Harcourt and he was doing consulting job for UNDP. If you get data from Local Government Authority and you know that the Nigeria situation that many secondary data are tinted. The question is- does he ever go to field to take random sample, to see how many schools we have. I have done research to know whether the social amenities provided by the multinationals are still functioning and all these are not working and 70% of them are no longer functioning. There might be some impact but with the experience in Niger Delta, for me I don't want say there is no impact, but in line with UNEP findings on the amount of damages that has been done to environment.

3. We have been doing a lot of campaign in the Niger Delta with different groups; we have done a lot on what is expected from the community as regards EIA. We have discovered that most people do not have idea about EIA process in our community, then of the stakeholder is knocked out. We now have ministry that suppose to implement EIA law, like FMENV, the DPR, and now nobody know what is going on. We also have NOSDRA, NESREA, DPR, and who did what, and what I am asking NOSDRA people, do you have right to enforce rule on oil and gas sector apart from pollution control, then what is the role of DPR, are you people not conflicting. I was at the new Bill where we are working with the National Assembly that is oil sector reform bill and did a critic on it. This was started by Yaradua regime; there was massive debate on it and Shell is planning to leave Nigeria if that is passed that there are many tax they will pay and they have start sell some of their asset and that was the time the Nigeria government was thinking of selling most of its asset to the Chinese government, though, they have resolved it now. **What can you say about the DPR and FMENV EIA systems?** There is no coordination, too many agencies doing the same thing and no one is ready to take responsibility. This is because the person is waiting for another person to do it. The issue is that there is no clear coordination, and there is overlapping of functions. They do not know role to play. The DPR is regulating oil companies and is arm of NNPC (Nigeria National Petroleum Corporation), and you now ask DPR to regulate own oil companies, where NNPC has 51 percent of this share. NNPC own the major shares and you now ask NNPC to regulate, it will cut corners. **Could that be responsible for the lack of effective implementation of EIA?** Yes, it is one of the major reasons for the lack of effective implementation. For example, if you ask me to put my office fan in one in order to minimise electricity and there is heat and I want to enjoy myself. I will put it in five and when you come and ask me, I will tell you it is always in one. **Please let look at another example, but you have not concluded that NOSDRA example.** It was an issue they (NOSDRA) said civil society is not helping and you people just started. This is the first time you are meeting with the civil society and it is a bit unfortunate you are taken this position. I have the bill between you (NOSDRA) and DPR, what is your role, can you take action, and it was the same issue we discuss in Mali and I was able to even discuss with the Minister of environment on how the agencies cannot complement each other and he couldn't say anything. I am sure he hasn't read the law,

and I discuss with his staff. They said the issue is that they are doing it together; you know is not convincing when someone say we are doing together. The Nigerian national always have answers for anything under the sun. Somebody came from NOSDRA and sat me down and say see this process of monitoring EIA that the aspect of monitoring cave out for the DPR and the DPR cannot do that as it is self regulation. DPR cannot be an unbiased empire in that particular process. **What is the relationship between NGO's and governmental agencies?** We have been making effort, whether we like it or not we have to work with government agencies. They see us as an opposition party, we have been organising conference sponsor by the UNDP and FMENV on environmental issues, and is yearly issue where we look at environmental issues in Nigeria. We also do campaign on how people can use the law. I am not from that community I still send my staff to such community, and we need to get people involved. **There is one EIA now on display by the Rivers State Ministry of Environment and is titled Agada oil development by Shell with Agip Total Venture; please have you taken a look of that?** We have taken a look of the report, but we have someone from the community complaining that they taken their lands, community are not so interested. **These things are publicly announced in line with the Rivers State Ministry of Environment, and there is an EIA report on their table for display.** Yes, you can announce it on the radio will it be too much for the Ministry or proponents to take it upon themselves to take the report to L.G.A (Local Government Authority) and see if there is anything you want to change. The problem with us (NGO's) now is that of funding, the funding to look at EIA, when funding runs out; we cannot use funding meant for another issue. What we do is to report and monitor environmental issues by putting it on our website and the present Commissioner of Environment in the State was one of us before. **Can you confirm the issue of waivers giving to some projects in the Rivers State, and construction turbines in particular?** Yes, that is what is happening all over that was what they are doing. Shell has finished their own, Agip is constructing their own and the State has announced that 120 will be built. That is cooperation between government and oil companies at the detriment of the environment and people. Everybody look at if that could kill the carbon monoxide and nobody look at the effect of the turbines, even Shell has 16 turbines, and nobody knows the implication of those turbines. **Is the issue of EIA waivers for the construction of turbine applicable to oil and gas projects?** No, it is not applicable. **The other issue I will like to discuss is my friend that uses to work with oil industry now with export zone. What he told me was an eye opener that they drill in a site and no oil and you have gas coming up and fish get kill that was why he left the company. Which oil company was that?** I can no say it now. **The normal thing is after drilling, if they cannot find oil to cap it back and there was no EIA that was why they cannot cap it back, because EIA will contain what to do.**

4. That is a tough question, I think is not EIA that is the problem, because we have done comparative study of EIA law, and FEPA Act was one of the progressive laws in the Sub-Sahara Africa. **I think the issue is Nigeria factor. What do you mean by the Nigeria factor?** There is tendency that government and oil companies always sit together against people and environment that is the major problem **we have been**

looking at profit above the environment that is problem against implementation of EIA. Even writing EIA people look at how much they will get from EIA that is cutting corner. For example, UNEP have spent 10 million Dollar in looking at level of oil spill in Ogoni, and when they check mitigation no one know how much they will spend. We should do the normal thing from the onset and spend little money and do the proper thing. So I think it is the issue of oil companies and the Nigerian government against the people. I think the only thing to change from the EIA Act is to ask oil companies to open a separate account in the case of oil spill, because they are not ready to follow the mitigation measure as there is nobody to force them. **Why is it that the regulators cannot force these multi-national oil companies to do the right things?** We have said it before that DPR is the part of the business. We need to have an independent external source; even when the government create NOSDRA, we think they will take the multinational to follow the procedures, but NOSDRA said their own is only to see to oil spill. **Is it true that it is oil companies that sponsor the regulators trip during monitoring?** Very true, I have it on good authority. A DPR monitoring official told me that his bills was paid by the oil company, external transport was paid by the oil company, flight ticket and honorarium to do the job was paid by the oil company, and you cannot expect me to do anything against the oil company, because they took care of me and foot my bills. The money they paid me was about four month's salary at DPR. How will this man do effective job as he has sent them notice of when he will be coming why he can't do a random monitoring and go there and do his job instead of sending memo two months ahead and go with 200,000 Naira richer.

5. The resources are not there, but the skills are here. Though we do not have many, but some are there. The resources are not there, because there is no laboratory, chopper, and etc. For example when we do research on impact of oil on animal it was difficult for us to get data from DPR. One of us has to steal by firming the data with his camera. **Do you know that one of the major roles of DPR is to sponsor oil and gas related research, and now that they are working against their establishment guidelines what could be responsible for that?** It is the usual government bureaucracy, and insecure with exchange of information with the public. Nobody has been able to see how NNPC is being run. This is how former Minister Babalola who said NNPC is broke and he was redeployed to another ministry. What is going is how they will make their pockets rich. There was a time we have to invite DPR to help us talk to the community on what is expected from them in line with EIA, and we could not get them to come.
6. I think is very important looking at EIA Act it was very comprehensive. For us the government decided that the implementation will be in a smaller job where different agencies implementing EIA Act with their over lapping function. What we need is good regulator and awareness on the part of the community. **What might be responsible for the lack of effective implementation of most of these conventions that Nigeria has ratified?** It is a doctrine of necessity on the Nigeria government and elite; there are some project and issue that are necessary that if they are necessary to be those bottle necks that keep the process better and they go ahead and do it without EIA. I think it is lack of understanding of interconnected of environment and a lack of

political will. Why do we ratified conventions and refused to implement them? So that we can appear as part of international communities. The Nigeria and Africa situation is very peculiar, most of the project we grant waivers are the project for export. For example the Trans Sahara Gas Pipeline project, we have been asking for the EIA. We know that it was done by foreign company and we went online to mail the company and even the World Bank. They said they are not part of that project. We always get report through our partners outside Nigeria; they always request for EIA on our behalf and send it to Nigeria that is how sometime we get EIA report. Giving my experience with inspection panel which is an international organisation. We have not had much international institution support in Nigeria in relevant to EIA apart from the UNEP work on impact of oil spill in Ogoni land.

Interview 14: with (OB) 'Academic' University of Ibadan Basel Convention

Length of interview: 41 minutes and 59 seconds

Date: 28th October 2010

1. I will say partially, I wouldn't say yes is partial one I have always said that there wouldn't be Ogoni incident if EIA concept had been introduced much earlier. EIA was introduced through Decree 86 of 1992 after Nigeria returned from the Rio de Janeiro summit in Brazil and I was one of the federal government delegations. We rode on the foray (central idea for any design) of that concept to tell the government that if you want to attain sustainable development you need to prevent environmental degradation and pollution the best concept for that is EIA concept. Remember that oil was discovered in 1956 and environment has no consideration. In 1979 the old EPPD (Environmental Planning and Protection Division) of the Ministry of Work and Housing that was environmental unit that was the nucleus of what became FEPA Ministry of Environment today. So the EPPD and DPR organised the first ever petroleum and environment seminar in the Agip and Agip they have a hall there, and I was part of that activity. I was the editor of that first seminar and that seminar provide a platform to look at various environmental issues in the oil and sector in Nigeria and there were usually paper presentations from academia, people from oil sector and international, which suppose to be international anyway. This seminar is a bi- annual every two years and that has highlighting the problems of gas flaring, contamination of water, and soil by oil spill and social economic and adverse consequences and all that and government did pay hid and that went on. So I took part 79, 81, 83, 85 and so on and EIA was not in place and we didn't have any environmental policies you know policy will derive governance all the same it didn't exist so it was an ad hoc people were just using the experience in other land so on. With the Koko toxic waste episode of the 1988 the Federal government put in place FEPA as the apex organisation for environmental and conservation. So what I am trying to say is that a lot of environmental degradation and pollution has already occurred before the concept of EIA came. In my honesty opinion even the oil industry they are just trying to fulfil all

righteous and they just did it for what it was one of the key issue is that the commitment in not there and they just want to fulfil all righteousness and yes with that they did a lot of studies and not down by the competent people and the monitoring was weak. **Can we say that those are factors affecting implementation of EIA? Yes. We are still coming to that proper. What I will say I will say a partial yes, because it starts as ad hoc measure and incrementally as more awareness came about government start responding.**

2. **Well I will say again partially,** and one the reason I said the oil and gas companies are just fulfilling righteousness and remember in **1990 - 1991 shell carried out Niger Delta environmental survey.** I was the president Nigeria Chemical Association and also FEPA resident consultant then and they (Shell) want me to be part of that because I am the president of Chemical Society and as international expert own my own but I decline. **I said Shell have been doing so many EIAs and why are you trying to reinvent all this is because they don't trusted all the EIAs and millions spent on those EIAs. They were doing NDES (Niger Delta Environmental Survey), because in the community people were complaining the community were agitating about the damage of their livelihood most of them are into fishing. Are they asking for compensation? Yes, they are asking for compensation. Then what was the actual instrument they are using as bench mark because you are talking of 1991 and EIA came to exist in 1992? They claim that they are using international practices but who is the enforcer? Then most of the people in DPR and so on relies on the resources of the oil company for capacity building they are sending to training and going to site with Shell helicopter really they are constrained and because that they are just tell-guarded (monitoring), when somebody is the one taking you around and so on and there a limit to which you can operate. Does that hinder the effective implementation of EIA? Yes. To what extent has the previous EIA impacted on the operation of the maritime oil and gas sector? I will say because of the conflict between the oil and gas sector and the community affected the people now took initiative to demand EIA. You say you want to set LNG project they say where is your project because their children are getting enlighten.** If only just EIA I think if has impacted because people will demand and villages will demand. That as it may, is the recommendation implemented? They do most of the multinational with big project try to but the problem is sustainable how to sustain the project.

3. **I will say there is some level of cooperation and I think that is kernel on which it has been built. It is a participatory process** and I think that is one of the high point of EIA process because as practitioner which I am you want to do EIA you need to go to the grass root you need to move from the village head, state and the federal. **Consultation is the major issue in data gathering and assessment of the report is also a cooperative system** whereby if it pipeline project the local government will be represented and state in which the project is located or states, the ministry and also bring other government agencies who are interest in the work and stakeholders must be represented and a lot of expert is used and something that I commend government for. **What can you say about the level of cooperation between DPR and FMENV EIA systems? I will say zero. Sorry sir? Almost zero, I have involved for long I know the**

historical factor DPR existed before the FMENV and they have put in place because of the exposure the oil industry expose them and took them round and they have put place their guidelines in 1992 EGASPIN (Environmental Guideline). Now I have been consulting for NNPC, DPR, Shell all that and I analysed the Koko toxic waste and FEPA started I was hired as the resident consultant and developed the FEPA Green Book Guidelines and Standards for Environment Pollution and Control in Nigeria. Then, FEPA wanted to do guideline for oil and gas and my friends in DPR like Dr Jerry Nwako they became very hostile although we remain friend they said that I am helping NESREA, I mean FEPA that just come on board to develop guideline to start competing with them. Then the Director General of FEPA Dr Aina is a very smart guy, because guideline has no force of law is advisory so EGASPIN is advisory is a guideline not regulations. What Dr Aina did riding on the Rio Janeiro summit, Dr Aina is smart guy he brought Ministry of Justice to give it EIA law Decree 86 of 1992 that is where they superseded the DPR because DPR was having a guideline, and FEPA has a Decree and FEPA is the present Ministry of Environment out of the Ministry of Environment we have NSEREA, NOSDRA which looking at petroleum issue. What I have been saying there was a lot of opposition from DPR as always say I have been consulting for them. The story we always tell them is anything environment is for FEPA and you are to regulate oil and gas and because of vacuum they take over the environment and now that there is an agency to do that they should hand over to them. The advice I use always to tell my clients is that now you have two masters, when you do EIA you give to FEPA and the EIA process in FEPA is involving very robust than EIA in DPR they don't do any public review they just read it and pass it somewhere. **Under normal condition and following the international standards EIA suppose to involve public review and what I am about to ask you is that does the EIA system in the DPR involve public review?** It doesn't involve. What we also do is that we also have to take the report of the public review to the locality where the work is done and it work well because if you have not come they will say they never see you and social economic and one of the good thing EIA Decree say is that you must take the pictures of those who are at the public review and they must register and sign as participants and that participatory process and consultative process is one of the again the key point of EIA, which to me well enforce rigorously it will negate some of the nagging issues. **To what extent is the institution cooperation being achieved taken the example of DPR and FMENV?** Let put it this way the EIA has undergone some transformation I wrote the two guidelines for oil and gas in 1995 and as well for mining and Professor Alo wrote at that time wrote for the manufacturing. **Is it under FEPA?** Yes, under FEPA like I said we are doing that and Ministry of Solid also insisting on EIA for the mining sector and that is working fine. In the mining sector solid mineral EIA is working fine with Ministry of Environment. **I am interested in oil and gas popularly known as the DPR baby as some consultants usually call it. That is what I am saying they started before FMEVN you don't want to lose your territory and everybody was jealously guiding its territory.**

4. **The problem is by EIA Decree the president has power to exempt certain developmental activities** look at Abuja national stadium there is always go slow around and the environmentalist were shouting Obasanjo just invoked that. There is regulatory aspect of that what you find in Nigeria is that **government always poor in implementing his laws you would find out that most government project will not have EIA** if it is a government project circumvent it unless if you have good people at the helm of affair that is environmental conscious. They are the government and give the law forget about it that is a constraint executive fiat, they are not many expect government projects. **Do you have any example?** Yes like the Abuja Stadium. **What of those within oil and gas?** Yes, well for the EIA they will do but it is usually the follow up. If you look at **Kaduna refinery you see that the effluent there was an after thought, the APT came later when they are constructing they didn't considered the APT is gross in-adequate and usually overwhelm and all that. You find that the Rido River and River Romi along the Kaduna refinery is heavily polluted and all that.** That is why **I am saying they will do the EIA to fulfil righteousness but the follow up and implementation of various project is not always done.** **Is there any other factor that prevents effective implementation of EIA apart from lack of follow up?** Yes, the foreigner' investors some time complain about the cost of EIA is very high by the law of the land our EIA is to be done in two seasons. By the law of land we have to do two EIAs one in the dry season and one during wet season that was what our law says in Nigeria. EIA must be done in two seasons and FEPA insist on that I don't think DPR insist on that and then it cost money setting up a panel, doing public review, and all that and so no and this cost money and at times **because people want to save cost and they circumvent it and I had that experience mostly with the Asians and so on.** **What might be the reason for the two EIA seasons in Nigeria?** If you are looking at Lagos now there is flooding and if you look that Ogun River I have been studying the area since late 80's the land around is in flood plain and Governor Daniel just started building things and so on without an EIA and I raise that issue at that time then that he wasn't doing EIA. You go there during the dry season fine and what of during the wet season. That is why we always have two seasons EIA, the dry season and wet season otherwise you can go locate a facilities in a flood plain the first rain everything goes. You will also see that a lot of facilities too if are **erecting tank farm** and you don't do the seasonal EIA and even at the offshore or along coast line if you have to look at high tide and low tide and if you don't do your seasonal whatever the project may not be sustainable and may cut off just through weather variation. **Can we conclude that all projects that require EIA were conducted twice in Nigeria?** No, is one EIA but over two seasons and the report will cover two seasons. **This is where the issue of time will set in?** This where experience set in, you know the rainy season here for example, April to October so if you want to start and dry season start around November, December and now if you give me an EIA to do the rainy season October and dry season December, January and the issue of timing is important. Some people are impatience why I want to use one year doing EIA. **You mention something very important earlier in respect to government agencies using the oil companies' facilities and to what extent is this affecting effective implementation of EIA?** **Is**

not unique to them is a general problem. **All over the world?** In Nigeria, even in NFADAC but they have stop that, in NAFDAC before you are going for an inspection it is company you want to inspect that will bring car and there is a limit to how much you can do effective. So if the DPR don't have helicopter for instance they have to rely on Oil Company. **Likewise FMENV?** **Yes they have to rely on the oil companies.** In the oil and gas sector recently is mandatory you must do EIA and people must ask.

5. **I will say the skill are there but the resources are limited because of poor funding by the government,** inadequate funding and infrastructure for compliance monitoring is weak these are issues. If they want to go to offshore now they have to rely on the people.
6. **They are very helpful, very key area of convention provide international bench for green and brown issue, conservation issue pollution control and as in chapter one of EIA report all these conventions have to be highlighted.** You have to take cognisance of them and see how they and apply to the project they are quite key and see how project comply under the convention. **A good EIA expert must be aware and see how project under consideration comply with this convention, they are very germane and very important.** **Let look at the area of implementation, I have been to NIMASA where they handle IMO, MARPOL conventions and so on, and I am now in Ibadan and I am happy to see that Basel convention centre in Ibadan is not only for Nigeria but for the entire Africa now let look at implementation of Basel convention. For example Basel convention, what has been done towards the implementation of this convention? There four Basel centre in Africa** there centre in Egypt university of Cairo for the Arabic speaking Africa countries, south Africa for the English speaking Africa countries, and one in Senegal but we are the coordinating centre. **What I am saying is not peculiar to Basel we have a problem in developing countries, we don't domesticate most of the laws most of the laws, we ratified them. I am coordinating Basel and we are yet to domesticate the Basel. I have read from the newspaper that you have not domesticated Basel convention; this was precisely stated in the punch newspaper page 28 dated 29th October 2010, and my plan is to find out from you the true situation? Yes, it has not been domesticated, I tell the DG that I wouldn't say it out that you have no right at all you are only bragging. Those people have violated the law, because by Basel convention it is not allowed by the developed countries to export hazardous waste to the developing countries and what I am saying is this we have not domesticate it we can't incite it. We can only say they have violated which is right and one thing the DG has been doing which to me is clever is to sending them back, because she cannot arrest them. Cite me I have been a practitioner for 30 years.**

Interview 25: with (RA) FMENV

Length of time: 50 minutes and 53 seconds

2nd September 2010

1. **Yes**, the EIA process general helps in improving the state of environment to the extent that at the end of its all it makes for sustainable of resources that nature earth has given us. **For the maritime oil and gas clearly yes**. The reasons are not far fetch given to EIA as an instrument and being a proactive tool. The impact of environment and clearly highlighted and remediated and mitigated upon during the process and to those that are known were tackled through remediation. Those that cannot be done remain as a residual. Those that can be properly manage with adequate environmental management plan and yes it does.
2. **Positively yes to those that have had courage to subject oil and gas activities to EIA. An EIA activity is good news, I am careful in using my word. For the big players they do not have option than to subject their projects to EIA, but the marginal players whose fair have been found out to them, yes reluctantly they come and when they heat the wall with the community they run out.** So it has helped positively in not endorsing tension with the host community and instance abound. **Can you remember any example?** Yes in Delta state, there is a community that for purpose of confidential I will leave out the operator, I will mention the local government and left out the community. The local you know **Gurutu local government area. A marginal field operator got there and they got rough with community they ran down here. After subjecting the process to EIA, the community now convinced and is a successful story now that they living harmoniously.**
3. **It should be cordial** and whether is cordial is another thing. I am being frank with you, **the FMENV as the umbrella institution to saddle environmental issues, and DPR is there for oil and gas and few other ones are there you know NOSDRA and of late you know NESREA and the Nuclear regulatory agency quite a few. The level of cooperation now is a suspect, in the oil and gas typical operator will prepare EIA and send it to FMENV. Another institution which could have a collaborative relationship that he has submitted his report come and let us liaise, but they will insist on his own different submission is in public domain. Operator have complained, but then I would not want to go much,** is left for you to decide, but it ought to be smooth is for you to make judgement. **What is the relationship between the FMENV and state ministry of environment in terms of monitoring and the case of Lagos?** Beautiful in federal system there is, **is not surprise if federation want to flair muscle.** Before we got to monitoring there is process of sitting down to evaluate document. In process of evaluating the document that lead to it a permit, it take a go ahead or no go ahead. We actually take a state where the project is domicile into account and the local government. Assuming is in

Ikorodu, the man in charge of Ikorodu local government have to present in the panel, the Lagos state government represented by the state ministry of environment together with the other experts will also present to evaluate to give or disallowing the permit. Assuming they now give the permit and the next stage which is monitoring and the project commences is now for the regulator to monitor. The practice here is to get involve all those that get involved in the evaluation that leads to issue of permit and tell them is time for us to monitor. As a team the local government, state, and federal government will be in that team and go back to monitor what they give out as condition for that project to take up it is smooth sailing. **You will now want to ask why I used the word flair muscle.** We allow the state government own their own with or without us to see what happening. Don't compare that with our own because we have to go there with them. **Why is it that state like Lagos is agitating for its EIA legislation?** **Lagos is one of the state agitating for environmental policies, we of the federal we are denying them, but we are saying that in this issue of environment we have very many interest groups are there, the local, state, agencies, NGOs. In the entire environmental monitoring the FMENV have to be in charge of driver sit and nobody gave but the law don't boarder to struggle the driver sit is with us.** I used the word flaring muscle that should cause problem if everyone knows his/her role. It shouldn't when they raise their intention we call their attention that everyone has its own role.

4. **The challenges now, well fairness to the operator of oil and gas in the maritime sector. They are in the fore front, in the last 10 to 15 years they have gone along way. Well again they complain, I should not weep for them let speak like a regulator. The constraints have been as a regulator you should be serving sufficiently and serve independently to be able to regulate,** so to speak those who you are regulating is a major challenge. For instance I as a regulator should be to give operator 12 or 24 hours notice and if I am able to do that I should just pick my bag leave and start leading to the place without any hindrances. The maritime environment you know is challenging, it could be whether I could do that is a challenge. **You will ask me how then I discharge my duties. You need a chopper; sorry it is detailed for another service that is a very big challenge. You know that oil and gas is sophisticated sector. You know that emerging technology are there and if you want to monitor or regulate somebody, you should be a step ahead the person whether is doing the right thing. You should be able to detect or his trying to cut corners. You should be able to ahead the person to see what his doing that is a challenge.** **What is your view where proponent pays for the entire EIA process and sponsors the public review in particular, is that not enough to influence the quality of the process?** That is form of over horse issue. For the past few years that have been the process and it has comprise the process, but it difficult to justify that line with the standards. The law says that operators have to fund the services rendered to them. Whether it is funded uprightly or

after everything, it should be funded. The ministry is taken step to revise that and the present trust in the ministry we are trying to bill you for service rendered. We bill for monitoring and pay ministry and we organise our schedule. It does not take away the big challenge that I told you we have to develop having all our instruments on ground. I am not aware of situation where by our process is affecting EIA implementation **but since international communities are asking us to pull away from that trend, the ministry is responding adequately.** **How is that aspect that allows the commander in chief to decide on EIA approval affecting the implementation process?** Again, the law is the law, however your view it is still remain as law, he has the last say, how is implemented depend on the person sitting there. The law says that with overall larger interest of the people. The definition of overall larger interest of the people, he is to decide. For example **Abuja stadium,** there is cry from NGOs and we heard a lot, I don't believe that was not put before us. Again, technocrats like us if we have put it let get this thing done. I don't think Mr President will say no. Another example was the dredging of the Niger Delta that the project cut across 4 to 6 states, Bayelsa, Kogi, Niger, Anambra and each of this state have not agree and people were saying **Mr president should exercise the fiat of his power that was the day of chief Obasanjo in the late 1999-2000.** **I view that the issue of double approval by the FMENV and DPR could affect EIA process, and what is your view?** I told you earlier when you ask question on cooperation among different institution. I said there ought to be cooperation whether we have that is another thing. The operators of oil and gas have complied over time, multiple permitting. Assuming the DPR approval did not come out they can do anything and vice versa on the same EIA on the same project. We have identified it, but don't push us out of the driver sit is our real function and it has been given to us. The government is trying to see how they can harmonise it. The something that happen at mining can be brought to bell to oil and gas, even the agriculture. **What is happening in mining for any project in mining to be given yes, the ministry of mining must sit with us in the panel before that permit is given. I don't see any difficulty, even in the power sector somebody in that sector sit around with us. I don't see the difficulty in DPR coming to us sitting together and review it and sit on the panel together. We have MOU with mining sector, with agriculture and other few sectors. I think we will get there with the oil and gas.**

5. **For the resources I don't think of any establishment that will agree that they have enough and I told you all the challenges and even we messed the resources and we will still be asking for more. The government is trying there is need for improvement. Even the test equipments are not there.** If I go for monitoring of oil and gas and they tell me whether the effluent water and where they test before they discharge to environment. I should be able to get sample from there, so I will analyse as institute test and without resources we cannot do that. For the skills, EIA is a multi-disciplinary department so I don't

know of any sector we have found lacking and they are focus on so sector. We have the skills, but it could still be sharpen. **Do you have the criteria for selecting consultants?** The one that prepares EIA we called them consultant and the one that sit during the review we called them panellist. Now for the consultants those that prepare the report they process through process of evaluating them by the pollution control department. When they escape through the developers are at the liberty to use them but when they feel they have expertise in house they can use them our own is you follow the guideline. We know that developers don't have this expertise in-house because they are too busy and they rely on our accredited consultants and they have to state that in their report. For the panellist that is the one strictly within our Proview. What we do is that we request for the resume of people those in academia, some NGO, some retired civil servants particularly those that have been on that desk and the practitioners. Occasionally, we update and issue out advert. For instance if you are in oil and gas, waste management, social science, ecologist will be necessary. We recommend 3 from the initiator that is the schedule officer; the deputy director will now pick one from each of the area. Statutorily the state government, local government, if it is linear project like pipeline each local government and the state that the pipeline have transverse will be represented, and it is this experts and this representatives that form panellist. I don't know if your next question will be on permitting system. I will just use 30 seconds to run through that. At the end of day they just sit down, when the panel is constituted. The developer will be call upon to come and defend their project or seek the consultant help. Then, the most important thing is that the panellist sees the consultant as the developer. At the end of the day the gaps that have been identified and pass it back to them and the minister chair the section holding brief for the president. **Are the NGOs represented?** They are not always. **Is it because is the panel review not technical review?** They are all the same thing the only different the two is that during the screening process. If is the categorise one you will go through the whole EIA process, which is now display the report in the strategy place in the country. If it is category two you don't need that. The public will not participate directly, but they will be participating through the local government, and state government. These are different phases, whichever panel is set up. Then, public review is the one that public have been involved and the technical one is only limited to the local government chairman and state government. For the first one public are allowed. For the purpose of being exact with the NGOs, depending on the interest such project might throw up and the NES (Nigeria Environment Society) have been invited to sit on the panel.

6. They play a major role and we will continue to rely on them to continue to play a greater role in future. The review of our guideline the international organisations have been so helpful. **Which guideline?** The oil and gas sectoral is one of them, bitumen, infrastructure, mining, in the course of reviewing they

have been in the fore front in reviewing it providing the resources and expertise. We also held a workshop whereby they are invited and presentation of such will be passed to the National Council on Environment for adoption. So they have been playing a major role and we look forward to see them playing more in the future. **What of aspect of implementation?** I don't know what you are expecting really can you be specific. **How would you evaluate the implementation of those conventions?** Let me talk by saying that there is a collaborative synergy with them for example **West Africa Pipeline Gas (WAPG) project that link Nigeria to Ghana and the rest.** **They came to Nigeria with the World Bank to see to implementation of those conventions.** **Are you referring to the 2004 project that pass through Badagry, and do you have comment on that project or how would you evaluate the project in terms of performance?** There have been a close watch from the international communities and us here in Nigeria and the proponents have been taken ministry along and I know for that there was a time when they have challenges and they report such to the ministry. **What sort of challenges?** Contractual. **And not that something that have to do with the public agitating that they were not carried along?** I am not aware of that when the people of Badgary raised the issue and confronted them they told us and the representatives of World Bank and it was resolved. The last time because I am not longer with that schedule, the World Bank people were here. **The challenge during the flushing of pipe the interface between the land and sea there was need to tackle that challenge and by the time I went back they have addressed that and even the Ogun state people are involved in it asking for what to be done for them.** **Who is funding the project?** Is international funding. **Is it World Bank?** I am not sure; I know that it has international funding company. **Who are the proponents?** Is WAPCO, they are multi-national, there is Chevron there and this is more of multinational, I know Chevron is there and Nigeria share is held by NNPC.

Interview 30: with (KU) NIMASA

Date: 13th August 2010

Length of time: 36 minutes and 13 seconds

1. Yes, it help to improve the environmental impact of Nigeria environment definitely, because if the EIA is carryout you know beforehand the impact it will be having on the environment whether it is negative or positive you will know. Then, you look for alternative way of establishing it where it will environmental friendly especially closeness to the people depending on the type industry that want to be sited I think it impacted positively.
2. I can say it impacted both positively and negatively, negatively because you know most of these operators after the EIA they defile the law or guideline given to them or whatever or the guideline given to them especially in the area of industry you know like we have tank farm all over. After giving what to do and thing to put in place they may go ahead to defile it. Let take for instance, one of the industry we have around here most of the time you see their washing going into the water (ocean). Which industry? Petroleum Company and we have gone to them several times they channel their waste into the water and you see it has very detrimental effects especially to the marine life. You like now unlike before when we have fish now fish has gone away and it becoming expensive and you see industry they are impacting very negative to the environment and Niger Delta is the case study that why local people have been shouting and right now they cannot get anything from their farm. Like this people now you cannot expect people that carryout EIA to channel their waste to the water. Which people are you still referring to as the same petroleum company? The same petroleum company around my office, you see if the main EIA is carried out the FMENV and I don't think any environmentalist will allow somebody without giving instruction at least the limit of and he must be given instruction on how to treat water or influence before sending it environment, because may be somebody is not there at that time he will say let me just pour the waste instead of wasting money for the treatment. Has NIMASA been there? Just like I said several time, up to three our officers has been there three to four times to tell them and they will stop, but recently we have been able to tell them to some extent and we have to hold meeting with their management. You have been there three to four times, are you telling me that NIMASA has no sanction or implementation machinery on ground to deal with the situation? You know the department is new, we are coming up a lot of things, and a committee has just been put in place we are coming up with fines. You know you have to get approval before you commence on such and Minister of Transport has given approval but is now before the government establishment tender board to endorse and immediately after we can then implement.
3. Initially it has been a problem but right now there have been some level of synergy, for instance on issue of oil pollution that I am particular pertinent about you know we

have been having problems this overlapping issue just NIMASA is an institution established by government to implement international conventions and one of such conventions is OPRC (Oil Pollution Preparedness and Response Convention), which is supposed to be implemented by each country safety administration, but somehow I can say from my own point view the way government understood it because that OPRC applies on the issue of some vessel which NIMASA is taking care of it. Most of this spill comes from Niger Delta; therefore there is some level of neglect. The environment (FMENV) will say they are the owner of environment whether maritime or land whatever. **I think there are some levels of neglect somehow.** From there government in a haste to find solution to this problem created NOSDRA (National Oil Spill Detection and Response Agency). This agency now thinks they are the all in all anything about oil is them. Forgetting that some people are there and as far as I am concern they are suppose to oversee that all this thing each agency or responsible department is handling them fine. For example we have the DPR handling pipeline, we have NIMASA handling from ships. What we have been telling them is that they suppose to be a police man and to make sure that NIMASA is doing what they suppose to do. **Which people are supposed to be a police man?** I mean NOSDRA just to be a coordinator which the country has made them. They suppose to police to ensure that NIMASA does what they ought to do and DPR does what they are suppose to do, but they see themselves as people who are to do the job, because you cannot just come and take my job because you have been made a coordinator and it must be done by you. It has become a big problem, but recently as I said through workshop and meeting we have been understanding ourselves gradually. I wouldn't say that it total gone off. I know that level of cooperation between NOSDRA and NIMASA now anything oil from ship NOSDRA cannot go ahead without contacting NIMASA. Unlike before, we have able to tell them through our Director in their wisdom that we are not fighting, we are not contesting coordinator-ship with you what we are saying is that you allow us to do our duties and we do it together. The only people that still having problem from the last programme we had together was the DPR they have not really come together. I think general thing are coming together we cannot finish it a night. **What can you say about the level of cooperation between the FMENV and DPR EIA systems?** **As I said earlier there still some rancour between them but I know that continuous synergy through workshop, meeting. The only thing is that when you get to that meeting you still have issue of this is my area everybody want to hold to what he has you understand but I think with time all these things will go down and some of them will be corrected. We told NOSDRA, in fact if you look at what they have in place on contingency plan there is no place for NIMASA. But with the workshop we had in 2008 and the meeting of 2008 at that meeting DPR walk out on them, you DPR own the whole oil and gas and they told them that this is their own and they walk out and that will not help the country.** We are able to tell them at meeting that not working with the mandate and environment is very big and let us work together and have the interest of the environment. In 2009 another meeting in Abuja and there was level of understanding and from there they

had meeting together and this cannot be achieved just in one day just like I said before.

4. From my own point of view I think what is happening **we want to cut corners**. **What do you mean?** I mean in the industry, we are talking of implementation there are guideline to follow. Definitely agency will do EIA and some of them might not even come to you is only when we find out. For example what NIMASA is doing on ship scrapping you know oil carrying ships you have some level of oil in it especially when it is abandoned and ready to be scrapped. So scrapping which is part of recycling must be done in environmentally friendly manner. We have stopped work of some ship scrapping industry without knowledge of the industry and definitely EIA was not carried out on them. Some of them said they are aware of NIMASA. **Apart from cutting corners what are other factors that might be affecting the effective implementation of EIA?** **The other things that affect effective implementation of EIA in a oil and gas industry is apart from cutting corner, and procedure is not followed as you know that EIA has a procedure to follow.** Another one is Nigeria factor but I will not like to go into it. **At what level does NIMASA get involved in the EIA process?** NIMASA get involve in EIA, mostly for now when it involves shipping outbreak, but like I said earlier this people think is their right they have not been involving and the public aspect we always do. We are supposed to be there from inception when it involves issue maritime and transportation. **What is the level of involvement of NIMASA during the public review?** Let me be frank with you I have not been involving, but some else have been representing NIMASA.
5. I think they are sufficient, and the skills especially, the only problem I know we have in Nigeria is that most time putting a spare peg in a round hole, the experience people might not be there at the right time and the right thing might not be done. That can hampered effective EIA to be carried out and then the issue of corruption, as some industry want to get what they want and they can go to any length and some people can compromise. Most Nigerians don't let say some, but many Nigerians comprise so they allow them. **Which people are them?** The operators may be, if they are and the rate of corruption is high. **Are the resources sufficient?** Human is the part of resources you know, capital is part of it. We have data and there are many research institutes. **What about funds?** **Government priority and what they put on environment is not much all of us knows it the amount on environmental issue is not much.**
6. What I see there, the role of international and conventions is only to give you a guideline they have the rule for you shipping is an international business you can bend corners when it come to your local water. If it is something within your local water let say the issue of ballast water, which is not applicable to only local waters, because is the same species. The essence of this management of ballast water was to avoid transferring species. You find out that most of the species carry from Europe they end becoming pollutant to the Nigeria environment. **You know we have migratory species, some of this species they are not for our environment, and when they adapt some they will become nuisance to our environment.** **What is the level of implementation of OPRC and MARPOL convention for example and the way**

NIMASA has handled them in particular? The level of implementation, in MARPOL we are implementing you we have six annexes, we have of oil, noxious substances, chemical substance, garbage, and right now **Nigeria has effectively implement annex 1 which is oil. In the area of oil, for you to be effectively implement.** You must have reception facilities, and we have it snake island to receive waste oil. **Do you carry out an EIA before installing storage tank?** Definitely, because government was fully involve in it, and this reception facility is port that will provide it and NIMASA own is to see if it is adequate. So we have been going around to see what they have quarterly, to be sure that what they put there is enough to receive waste from the vessel. In the same annex 1 we have talking of double hull instead of the single hall. **How far have you gone on the issue of double hull, are we using double hull now in Nigeria?** Not now, is just coming into force and we are till 2015 to implement it that doesn't mean you not start doing something. Right now Nigeria has stopped registering single hall vessels, and we have giving time for ship that are single hall and Nigeria is working with ship owner association. **Is it different from Africa circle?** Africa circle is a company that NPA consulted for the provision of reception facilities and the contract is on private partnership relationship and they use to collect waste and treat. The indigenous ship owners association they are the owners of ship and NIMASA encourage the use of indigenous ship, and we have to work in hand to hand with them so that single hall ship will be faced out. We try to give time and help them and NIMASA have ship finance and we help them so that we can implement that convention and this is regulation 13 G of Annex 1. **How do you monitor the multinational vessel in strategic place (offshore)?** **Our surveyors are out there, and in environment we have officer that work with surveyors. For example, there is a vessel that beech in Lagos Island some of our officers went there to monitor to see what is happening.** Before multinational brings rig they must come to Nigeria, and our people go there during the construction. For example the one that is handled by Total our people go to Singapore and ship registering go there too, to monitor and before it comes in they will register it. The ones that have been in existence before NIMASA what they did were to carry out post environmental auditing. The monitoring has been effective and I would be frank with you. **Who are these surveyors and what are their roles?** They are NIMASA staff and their role is to ensure safety.

Interview 40: with (TU) FMENV & DPR Consultant

Length of time: 38 minutes and 24 seconds

Date: 23rd August 2010

1. I would say yes, the reason being that may before 10 years ago or thing like that all the problems we have having in the Niger Delta suppose not to be like that if actually all what we are doing now we started it then. Then what we look at is when an industry is coming everybody want to embrace it you know they look want to look at the monetary aspect. Nobody look at the negative aspect this another way of getting employment. People coming in with outdated technology and so and they don't even care for environment they we say they are offering employment and that is why I say for now that EIA process is actually is better than what it used to be.
2. What actually brought EIA in Nigeria is because of Koko toxic waste and that brought about establishment of FEPA in 1989, because of such. After that happen in 1989 we have not had such an issue again everybody eye is open. I mean the maritime their eye is open and everybody is watching. If you look at oil sector, because of EIA the pollution is not like before and because of EIA process most of the technology we are having is not outdated technology. People are now looking at they are going to subject them on this people now want to say since you are giving a base line and this is how my place is before you came and they will now say that there is going to be some background check, because of that people want to also look at it before they come in. Also there is a better awareness people are looking at employment alone, before they will be talking of technology transfer. People are also looking at it after all these, what will happen. I mean our women will still give in a normal way and because of knowledge also even when the government are looking. Community are setting up little organisations just to help and make sure that is not giving problem to their future generation. Do you have example of such organisation previously set by the community? No what happen is that if you come to some of the community now if you go to Niger Delta you we see the elite having the consultancy outfit of their own. Even if you say you want carry out EIA they want to be part of it or you want to carry out a study and they we carry out their own study too. So it getting to that extent too, because they believe that the person you are giving job to, may be the person is after money alone. They want to do a double check if the person has done the job. Somebody call in a cement industry brought in their consultant so this young man work with one of the regulators and feel that this people has not done a thorough job. So he went to LGA that he wanted to verify what the consultant has done. At least let them do something randomly and the company will pay for it. These are the things because some time the consultancy may be bought over. What do you mean by bought over? What I mean by bought over is this you see corruption is a problem and because corruption some people believe that somebody that give you food determine what you should eat. That is the problem, I have been in this field for 17 years, and I

will not say that I have been fulfilled, because of the way I do thing and many people don't do thing that way. I can tell proponent you can go with you work if you are not ready to do the right thing. If I give you a recommendation I cannot delete a single thing from it and many people can comprise this entire thing. To some people they taught they are in the business to get money out of it. This doesn't give the real pictures. **When I am trying to do a measure we have move from zero to 10%, but from the real sense it suppose to be achieving some like 60 to 70%.**

3. Are you talking about the regulators? **Yes the regulators.** If you are talking of different EIA systems that I want to explain the EIA system and what do you mean by different EIA systems. **Now DPR do they have their own EIA system?** Yes they do. **FMENV do they have their own EIA system?** Yes they do. **States government do they have own EIA system?** Yes they do. **I want to know the level of institutional cooperation among NESREA, NOSDRA, NIMASA and other implementing agencies?** Thank you. **I think we should start with DPR and FMENV first?** I think and mean the questions you are raising are vital questions that I was trying to and when you say institutional cooperation I was to say regulators and different regulators we have they are part of the system. We are now talking of each regulator with his own process. **These are part of the problem we are having we have double regulations everywhere and these are things affecting the quality the federal is fighting state and state fighting the federal. So because of that people are hiding under this fight to do what is not right.** **When you say people, are you referring to the consultants or the operators?** I am referring to both. Okay like for instance you want me to take preference. **I have EIA with FMENV is like going to hell, you when you make thing so difficult understanding people will start cutting corners.** **When you say cutting corners what do you mean?** **Cutting the corners they would not do what is right and the end money goes to other people pocket, but if the process is very clear,** just like I said if have preference if you want me to go between DPR or FMENV. I go through the DPR. **Why?** That is the question and question is this the time it will take. **You can imagine you have a time frame and people that owns these project s they work with time frame. May be they have borrow money from banks and you know that the EIA is two seasons studies no problem, but where you want to start the process, the process with the FMENV you have to write the letter of consent who have to tell us when you will start the problem okay no problem you fill their form ten thousand Naira small money. After you fill the form they will tell you that they want to visit the site and there FMENV office in Lagos.** Now you are writing somebody in Abuja and somebody in Abuja want to come and what is Lagos doing. You know what it mean what stop me to tell them that this project is just behind you. The cost will be less, but they will tell you that they are coming from Abuja and before somebody come and they will give you a bill to come and look at site verification. **What do you mean by the bill?** Hotel and other expenses. **Who will pay for the bills?** **The proponents.** So by then it does that it depends on the type of project when he has spent three hundred to four hundred thousand the next thing after everything they will write their recommendations trying to classify it whether is class A, B or C and that is another thing on its own, and before the report will come out that is another problem. You will

start now following up the file that this person or that person this and that because the people that have gone and what is inside and so it is being delayed. So may be you spend six months trying to get that and time of reference and before you get approval of time of reference is another problem. May be you have loss one season, after the approval when you doing the storage or construction somebody will say they want to be part of it. **Who is somebody?** The regulator and you know that if you want to be part of it you have to pay their bills and those are bills and those are the things. **What is the level of cooperation between the DPR and FMENV?** By the time you do the study you do the first season and you wait for the second season to do the study and they want to be there and you now send in a report. **I sent a report since February I have not gotten the reply until now, a report on EIA to FMENV.** **Are you also certified by the FMENV?** That is the issue. I will come to that question you ask. **Now the client is on my neck the client making noise everyday look at the time frame look at waste people will now say that is why you can't go to build this thing when you violate they only mention money you understand and people cut the corners and some people don't have the job to do.** You understand what I am saying and these are things when you make some too cumbersome like that. Why did I say that I preferred DPR there process is clear you know the letter of intent you send it to them, the scope of study and they approve and they send somebody to go the field with you. You go to the laboratory to make sure that the analysis is done no problem. You go through the second season and then put it together and you send your report. This one we are talking about may be is a project that has to do with public hearing the FMENV they does public hearing that is a lot of money on its own. **Does DPR undergo public hearing?** No they internal presentations or technical review you understand, because of that they send recommendation to you and you are not paying anything. Not that somebody is going for site verification and all this process make it too cumbersome. Now looking at the regulators themselves I would say that there is no cooperation among them. Can you imagine the FMENV I will say that is the father of all you understand the NSEREA you are mentioning I nearly fight them, NSEREA is under FMENV and to tell you what the consultants pass through too. You know FMENV has given us accreditation they started long ago and NSEREA was created from the FMENV as son from the father. Now the son is saying I don't know my father and those accreditation they did if want to do any about audit you know you have to come and do accreditation with us again. Now as a consultant you have to do accreditation again with NSEREA. These two agencies are the same thing and they are fighting and consultant you want to be in business all they needed to you see double regulations. Now you have to go through the process again you are paying to this one every year while they are all the same. DPR will say that you get an accreditation with them every year. Then the state will come back again and there is no state you will work they will tell you if don't get their permit. Now in Lagos state I have with LASEPA and I move towards Ogun state I have with Ogun s state, because I want to be in business. In the real sense FMENV permit suppose to serve all these purpose, because this is federal. Now because everybody is trying to his own thing you will know see that so where is the coordination where is the understanding there will always be a

gap, but one thing we have understood is that okay FMENV okay now is now requesting, if I have oil project I will just shift myself to DPR in the real sense they are the one also to be regulating it. **Is it that having the two approvals is not important?** You see in order to serve your head from all these nonsense I will look at it that this project is more of oil, because federal cannot control everything. I will move towards the DPR because they are handling oil. If you are talking about manufacturing projects you have to go the FMENV. **What is the real situation in the country now, is it not that both EIA systems approval are important?** That is it that is what is suppose to be in the real sense they suppose to work together, but what if want to move ahead once you go through DPR and you have your permit definitely you can send the report to FMENV. If look at it and the problem is that if you send it to them and if are not accredited by them they will not accept that report. You can now see why some of we consultants generally I will be accredited by FMENV, I get my accreditation with the DPR and state so that anywhere this report go to definitely when they check their records they will know that this person is accredited and my client will be at advantage. **Can we now conclude that there is no cooperation among the government institutions?** I would say that the level of cooperation is very poor.

4. You see to be sincere with you I don't see the proponents not ready to implement. If you want to be in business you want to do what is right because if you mount pressure on them if everything is in other you see them implement. **The centre of what we are saying is still on corruption. This corruption, is it by the regulators or by which people?** By the regulators and people in the business. They can implement and issue is that is better than before somebody now knows that is at his neck, before the country has always been a dumping ground. **The other aspect is that when this project is on there are things that are need to be place, are we really enforcing and our enforcement is very weak and if nobody is enforcing anything everybody go to bed and that is part of the problem when there is no enforcement there is no implementation. Why is it that the monitoring is poor? Why wouldn't the monitoring be poor it depends on people you want to monitor. If you are monitoring to save the environment is a different thing, but if you monitoring to save your pocket is different thing. What might responsible for that corruption?** You see I still tell people that corruption is something we can handle. If we can have leadership you can put their feet on ground everybody will follow suit. I will give an example there was a time I was working for someone the office open 8' o clock I get to the office 6: 15 because I am the one in charge before they know it everybody is there in the office because I will be the last person to leave the office everybody and everything follow suit. So who is leading you? **Can we say that there is lack of political will?** Yes that is it, thing we need to correct, we are intelligent if we have the right leader, but when the driving is towards the negative direction.
5. **Personally I will say yes and why I will say is because this country is bless my brother** if you here and this programme you are doing there you will notice that the time you spend to get materials here and if you put that time there you will over run everybody. So we are people that have learned under the hardship so because that if you say the

resources are not there I will challenge it, but the only thing is that when the resources is being provided are they channel to what you need it for that is the issue. The government just release how many billions to NEPA we hear it every day and that amount is being release to another place you will see the effect immediately. So the resources are there are they are not put in the right channel, the skill is there is that skill make people to work.

6. To me I know that Nigerian we are still credit to this thing and if you look at most our document you see that we lift everything they do and just change into Nigeria context, their standard and everything we use it to evaluate one or two things. That is the extent those things serve us we don't have local standard our standard are being adopted standard from the United Nations and because are signatory to most of these we believe that we are part of those people. The issue is that World Bank you will notice they release so much money in Nigeria but most of the EIA following World Bank standards and so all those things are there we know it. They are document that we make use of it, but if you look at they cannot come here to control our system for us and if we do something that has to do with them they will scrutinise. That is why I told you if you want to do EIA do a standard EIA. The EIA I do for people is to satisfy the World Bank and other people not just the regulators alone and is the document that can be use to source for fund in that way if you look at it you will also look for somebody that can do the right thing. In terms of international conventions we are signatory to them, but any time they have a project they make sure they follow their own standards, and the things that doesn't concern them they don't intervene. **What can you say about the level of implementation of conventions?** It go suit just like the one I have explained you see there are some company when you are getting big you don't want someone else to get big. In the country if you want to run down a company over night. If there some company they have their own standards because they don't anybody to run them down, and they international standards which they follow from their parent company. You can see that all these convention we just have them as a written document. The multinational there is a level of cosmetic. **What can you say about the level of implementation of these conventions?** If you want to rate it just say poor and in percentage I will just say 30 percent. Do you know any oil and gas project that has been sponsored by the World Bank? I don't know of anyone parse, where they come in is this entire developmental project. **At what point your role as a consultant end in the EIA process?** Good question that is a good question when you submit EIA to the regulator your roles suppose not to end but most of the time is like partially is ended. These are parts of thing we find and the implementation the consultant supposes to be retained and make sure that all these are follow suit. Just like the audit will do is of recent we are telling them. You should ready to hold me responsible for that particular company and hold response that particular company if that system is put in place you do a job and you will retain the consultant.

Appendix 4 WAGP general mitigation measures in responses to identified impacts

Impact Category/Potential Impact	Required General Mitigation Measures										
	Avoid sensitive receptors in site and route design. Observe protective perimeters	Avoid deforestation or other vegetation losses and/or rein-state vegetation.	Minimize the footprint in site and route design. Limit the expropriation of Right of Ways.	Conserve and reuse topsoil during the burial of the pipe, coordinate the work with other land users.	Control access to work sites, use adequate road signs on the routes leading to work sites	Establish adequate human and the environment protection personnel training.	Perform reinstatement and at the end of the work; clean and return the elements of the environment to their original condition.	Formulate an emergency action plan in coordination with the interested authorities in the event of an accidental spill.	Develop and maintain alignment sheets that reduce impacts by making all relevant operational control information available by operation and geographic location.	Compensate for major residual impacts.	Operational controls (Environmental Management Plan)
TOPOGRAPHY, GEOLOGY, AND SOILS											
Impacts to soils caused by horizontal directional drilling (HDD) pipeline construction method from the barrier island to offshore	✓			✓			✓		✓		✓
Disturbance of surrounding organisms created by earthmoving equipment and associated machinery	✓	✓	✓				✓				✓
Disturbance of surrounding habitat, hydrology and biological resources from transport of equipment through Lagos Lagoon to a newly constructed dock and road to the compressor station.	✓		✓			✓					✓
Disturbance of surrounding habitat and species due to the transport of pipe from Port Harcourt to the coating facility to the ROW staging sites	✓					✓					✓

Impact Category/Potential Impact	Required General Mitigation Measures									
	Avoid sensitive receptors in site and route design. Observe protective perimeters	Avoid deforestation or other vegetation losses and/or rein-state vegetation.	Minimize the footprint in site and route design. Limit the expropriation of Right of Ways.	Conserve and reuse topsoil during the burial of the pipe, coordinate the work with other land users.	Control access to work sites, use adequate road signs on the routes leading to work sites	Establish adequate human and the environment protection personnel training.	Perform reinstatement and at the end of the work; clean and return the elements of the environment to their original condition.	Formulate an emergency action plan in coordination with the interested authorities in the event of an accidental spill.	Develop and maintain alignment sheets that reduce impacts by making all relevant operational control information available by operation and geographic location.	Compensate for major residual impacts.
AIR QUALITY										
Changes in air quality due to transport requiring construction of a dock, access road, and dredging of a canal to move equipment through Lagos Lagoon to the compressor station							✓			✓
Changes in air quality due to transport of pipe segments from Port Harcourt to the coating facility to the ROW staging sites						✓				✓
Changes in air quality from general operation of vessels and equipments (e.g., air generator)										
CULTURAL CONDITIONS										
Incidental destruction or alteration of significant cultural, historical or archaeological sites									✓	✓

Impact Category/Potential Impact	Required General Mitigation Measures									
	Avoid sensitive receptors in site and route design. Observe protective perimeters	Avoid deforestation or other vegetation losses and/or rein-state vegetation.	Minimize the footprint in site and route design. Limit the expropriation of Right of Ways.	Conserve and reuse topsoil during the burial of the pipe, coordinate the work with other land users.	Control access to work sites, use adequate road signs on the routes leading to work sites	Establish adequate human and the environment protection personnel training.	Perform reinstatement and at the end of the work; clean and return the elements of the environment to their original condition.	Formulate an emergency action plan in coordination with the interested authorities in the event of an accidental spill.	Develop and maintain alignment sheets that reduce impacts by making all relevant operational control information available by operation and geographic location.	Compensate for major residual impacts.
SOCIOECONOMIC CONDITION										
Impairment of maritime traffic from presence, movement, and anchoring of barges in Gulf waters ; and support vessel movement									✓	✓
PUBLIC AND WORKER HEALTH										
Adverse health risk to general population and construction workers due to gas leak from pipeline.						✓		✓		✓
Adverse health risk to general population and construction workers due to presence, movement, and anchoring of barges in Gulf waters ; and support vessel movement						✓				✓
Adverse health risk to general population from mishaps associated with passive installation of pipeline in >8m water depth						✓				✓

Sources: West Africa Gas Pipeline, 2004 pp. (7)-4-(7)-13

