

The oil industry and the Nigerian environment

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Abstract

The oil industry is the largest and main generator of gross domestic product in Nigeria. Since the discovery and drilling of oil in Nigeria, it is estimated that over 10 million barrels have been spilled. There has been gradual environmental degradation with pollution of waters, destruction of aquaculture, vegetation and agricultural land during petroleum operations with no concerned and effective effort by the government and oil operators to control environmental problems associated with the industry. The careless nature of oil operations in Nigeria has made the environment increasingly uninhabitable. The industry has created serious health and environmental pollution problems for the country in general and the host communities in particular. Many people in the Niger Delta have lost basic human rights such as health, access to food and clean water. Gas flaring in Nigeria releases large amounts of greenhouse gases with high global warming potential. The extent of environmental degradation in Nigeria occurred due to the absence of any form of impact assessment at the beginning of oil activities. It was not until 1991 that awareness on the need of EIA for major oil projects became gradually entrenched resulting from the issuance of Environmental Guidelines and Standards for the Petroleum Industry in Nigeria, which provided for the first time, details of the process and procedure of EIA by the Government in Nigeria. Strict regulation and enforcement of environmental and oil and gas laws by the government would help in the fight against environmental degradation in the Niger Delta.

Introduction

The petroleum industry is the largest and main generator of gross domestic product in Nigeria. For over five decades, Nigeria continues to experience remarkable increases in operational activities in her oil and gas exploration and exploitation, refining and products marketing. Crude oil was discovered in commercial quantity in the Niger Delta region of Nigeria in 1956 (Omofonmwa and Odia, 2009). Since then, oil exploration and exploitation has continued resulting into environmental destruction due to neglect and limited concern by the multinational companies in environmental management in the area (Eregba and Irughe, 2009).

The onshore and offshore activities in the Niger Delta area have generated massive wealth and have contributed most to the socio-economic development of Nigeria. The industry, with its huge economic and social benefits, has created serious health and environmental pollution problems for the country in general and the host communities of the oil companies in particular. It was evident that Environmental Impact Assessment (EIA) was hardly undertaken prior to the approval of any project. Violent protests by communities are the most eloquent testimonies of the resistance to environmental pollution by the activities of the oil companies.

Conflict in the Niger Delta arose in the early 1990s due to tensions between the foreign oil corporations, the Nigerian federal government, and a number of the Niger Delta's ethnic groups who felt they were being exploited, particularly minority groups like the Ogoni as well as the

Ijaw in the late 1990s. The crisis over environmental pollution and economic marginalization from the oil industry reached a peak in January 1993 when 300,000 Ogoni protested against the oil companies. Such popular unrest grew steadily, where various ethnic groups began demanding compensation for years of ecological damage as well as control over their land's oil resources. This unrest manifested itself at the outset as peaceful activist organisations that united their members on the basis of ethnicity.

Ever since the 1972 Stockholm United Nations conference on the human environment, environmental issues have become transnational. Awareness has been created of the devastating impact of uncontrolled exploitation of environmental resources. Since the issuance of Environmental Guidelines and Standards for the Petroleum Industry in Nigeria (DPR, 1991), several pre-development EIA and post-development Environmental Evaluation Studies have been carried out by oil and gas operators. This is in compliance with the relevant part of the Environmental Guidelines and Standards and other legal/administrative framework governing EIA in Nigeria. Thus, EIA has become a standard practice in environmental and project planning activities. However, our experiences in Nigeria suggest that not much is achieved in terms of environmental management despite the increase in the number of EIA studies being carried out.

Operations of the Nigerian Oil Industry.

The operations of Nigeria's oil industry are in three major areas, namely, crude oil exploration and exploitation, refining and products transportation and marketing.

Since 1956 when the first oil well was drilled, over 1,481 oil wells have sprung up, producing from about 159 oil fields. There are more than 7,000 kilometers of pipelines and flow lines and 275 flow stations operated by more than 13 oil companies (UNDP, 2006). Nigeria's crude oil production stood at about 2.68 million bpd as at February, 2012 (Arizechi, 2012).

Nigeria has four refineries (Port Harcourt I and II, Warri, and Kaduna) with a combined capacity of about 450,000 bpd. The refineries came under the management and ownership by Nigerian National Petroleum Corporation (NNPC) in January, 1986. All the refineries produce the normal range of products which include Liquefied Petroleum Gas, Premium Motor Spirit, Dual Purpose Kerosene, Aviation Turbine Kerosene and Automatic Gas Oil.

The Petroleum Products and Marketing Company (PPMC), a subsidiary of the NNPC, ensures that refined petroleum products are distributed nationwide from the refineries. They are transported through a national network of pipelines linking all the 21 petroleum products storage depots strategically located all over the country. The PPMC distribution network is made up of three separate systems for the supply of gasoline, kerosene and diesel and complemented by coastal barges and road haulage from the refineries and depots to marketers' outlets nationwide.

Impacts of oil and gas industry activities

Despite precautions, accidents do occur periodically in the course of production, refining and distribution of petroleum products. These may result from accidental discharges, deliberate or willful acts of vandalization, neglect in carrying out proper maintenance and or even human error. During exploration and production, wastes generated include atmospheric emissions, drill cuttings, drilling fluids, deck drainage and well treatment fluids in addition to accidental oil spills. A number of environmental problems have resulted in the Niger-Delta region in particular and the country in general. These oil related environmental problems include water and air pollution and land degradation and deforestation (Zabbey, 2004; Aaron, 2006; Bisina, 2006; Uyigwe and Agho, 2007) which have multidimensional implications and multiplier effects on the

people. Some of the economic and social dimensional effects caused on the people include high unemployment rate (Okoh and Egbon, 1999), high level of poverty (NBS, 2004), conflicts, youth restiveness, hostage taking and HIV/AIDS prevalence (UNDP, 2006).

Development and the environment: Past experiences

Nigeria organized its economic development around periodic development plans aimed at rapid industrialization for improving the peoples' standard of living. These industrial activities, with their potentials for environmental degradation and pollution, were carried out in an uncontrolled manner, leaving a legacy of deterioration of health quality, pollution of water resources and destruction of traditional economic infrastructures within communities hosting some of these investments.

Policies aimed at integrating development programmes with environmental issues at planning stage were non-existent. Government's focus was on maximum exploitation of natural resources for rapid development with scant regard for resource conservation and sustainability. Pre-investment studies/assessments undertaken were limited to analytical techniques largely confined to economic and engineering feasibility studies. Environmental and social consequences of the envisaged project were ignored (Hussaini, 1997).

The harvest of this neglect soon manifested in the Niger-Delta region. Oil prospecting activities and the consequential environmental degradation issues became an international matter. This region suffers high levels of environmental contamination because environmental issues were originally not integrated into oil prospecting planning and investment. These negative impacts have either been the remote or immediate cause of violent agitations in the ecologically threatened Niger Delta region. Therefore, the panacea for the intractable Niger Delta crisis requires a strong political will on the part of the Nigerian governments. Environmental impact assessment is one way to ensure that major development decisions take account of, and where possible mitigate, environmental impacts.

Current policy on environment and applicable laws

Prior to the dumping of toxic waste in Koko village, in Delta State, in 1987, there were no institutional arrangements or mechanisms for environmental protection and enforcement of environmental laws and regulations in the country. Following the Koko toxic waste episode, the Federal Government promulgated the Harmful Waste Decree 42 of 1988, which facilitated the establishment of the Federal Environmental Protection Agency (FEPA) (Federal Republic of Nigeria, 1988). This was followed by the National Policy on Environment (FEPA, 1989) which sets out the goals of securing and conserving the quality of the environment for health and wellbeing for the benefit of present and future generations.

The passing of the Environmental Impact Assessment (EIA) Act of 1992 (Federal Republic of Nigeria, 1992) brought the core legislation that governs EIA in respect of proposed projects in Nigeria which flows directly from the provisions of the principles of the United Nations Conference on Environment and Development held in Rio de Janeiro, Brazil in 1992. The Act makes it mandatory that before the final decision is taken or approval given for any activity likely to significantly affect the environment, the effect of such activity shall first be taken into account. The Act also provides, among others, the promotion of implementation mechanisms at the federal, state and local governments; any person or community to be affected directly or remotely shall be notified and there shall be "consultations" which means that the person or community affected shall have a say in the final decision of FEPA.

In 1999, FEPA was merged with other relevant Departments in other Ministries to form the Federal Ministry of Environment. In order to effectively enforce environmental laws, standards and regulations in the country, the National Environmental Standards and Regulations Enforcement Agency (NESREA) was established as an agency of the Federal Ministry of Environment (Federal Republic of Nigeria, 2007), which repealed the FEPA Act.

The foregoing clearly indicates that Nigeria has comprehensive and modern pieces of legislation that should drive sustainable development.

Challenges and constraints

The NESREA Act confers the Agency with a broad range of powers for the protection and development of the Nigerian environment. However, the powers are not absolute, as the functions and powers of NESREA do not extend to the oil and gas sector of the Nigerian economy. Sections 7 and 8 of NESREA Act contain the phrase “other than in the oil and gas sector”. The effect of these provisions was to remove all environmental issues arising from the exploration and production of petroleum and natural gas from the authority of NESREA and placed them under the Department of Petroleum Resources (DPR) of the Ministry of Petroleum Resources. By repealing the FEPA Act and limiting the powers of NESREA in regard to the oil and gas industry, it seems that the environmental framework for sustainable development was weakened and looked backwards, thereby challenging the modern and comprehensive outlook of the legislations. It would appear that there is an inherent conflict of interest in the DPR, between its role as part of the oil and gas sector ministries (thus responsible for fostering oil and gas development) and its role of environmental protection.

As part of its statutory functions, the DPR is charged with the responsibility of ensuring safe and environmentally friendly oil and gas operations. In order to achieve this responsibility, the Department has been developing environmental guidelines and standards covering all aspects of oil and gas operations since 1981 when the first interim environmental guidelines were issued to the industry in form of administrative circular. In 1992, the DPR updated and issued the first ever compendium of environmental guidelines and standards to the industry in one volume.

The awareness on the need for EIA for major exploration and production projects became gradually entrenched by 1991 (Agha et al., 2002). Unfortunately, despite the upsurge in EIA activities, the most important aspect of the EIA, the Environmental Management Plans (EMP) in which the impact preventive, mitigative and monitoring measures were proposed, were seldom implemented by the operators. This makes the entire EIA exercise a worthless and wasteful affair. The ultimate aim of the operators was just to satisfy regulatory provisions especially for obtaining environmental permits.

The basic challenge confronting the DPR is how to translate the laudable provisions of the EIA Act into an effective tool for managing the environment. The challenge is crucial because Nigeria, like most developing countries, has “world class” legislation on various issues, which nevertheless suffers failure at the implementation stage. The principle enshrined in the Act, of pro-active integration of development programme and environmental issues to deliver environment-friendly projects is observed more in the breach.

The key defaulters in this exercise are the various levels of Government; federal, state and local that routinely approve projects within the mandatory study list before any kind of Impact Assessment is made. Therefore, most EIA reports are actually “post mortem” documents contrived to “fulfill all righteousness” and fence-off resistance from affected host communities. Even where the requisite impact assessments were done, the detailed procedures laid down in the

Act/Guidelines were usually flouted especially in respect of consultations. This usually is the “mother” of most “community unrest”. In certain circumstances, Government, for social reasons, appear willing to grant waivers thus diluting the effect of the EIA Act.

CONCLUSION

The perspective of environment-development interaction has impacted on the strengthening of project-level EIA which emphasizes proactive and integrative approach of environmental, social and economic factors. This is based on the axiom that human beings are at the centre of concerns for sustainable development. The end point of any development is human well being which entitles a healthy life in harmony with nature. In order to achieve sustainable development, environmental protection should constitute an integral part of the development process and must be in tandem with it. The contributions of the oil industry in Nigeria to environmental pollution and degradation are quite substantial and potentially dangerous to human health through environmental contamination. The resultant effect of the high pollution load of the oil industry in Nigeria is mostly due to weak or non-enforcement of environmental laws, lack of political will to back up existing laws or bring in new ones and the laissez-faire attitude of industry. The need to subject the industries to EIA or environmental monitoring or audit need not be over-emphasized. There is need to draw the attention of industrialists and policy implementers on the necessity to strictly observe and enforce rules and regulations of EIA in Nigeria. Given the investment scenarios in Nigeria prior to the EIA Act and the current patronizing attitude to its provisions, aggressive implementation of its provisions is necessary if the Act will not end up a “paper Tiger”.

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