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Analysis of safety and environmental regulations for downstream petroleum industry operations in Nigeria: Problems and prospects



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ABSTRACT

The Nigerian economy depends on the petroleum industry for revenue and fuel to drive its growth. However, the petroleum industry has been associated with major issues of accidents and disasters which have contributed to vast safety and environmental problems. This is especially true for all sectors of the industry including the downstream. Against this back-drop, this paper critically examines the provisions in various environmental and petroleum laws and the institutional arrangements for monitoring and enforcement to evaluate their adequacy for ensuring safety and proper environmental management within the downstream sector. The review revealed the limitations of the framework such as incoherent laws, overlaps, duplications and conflicting regulatory functions. In addition, the paper looked beyond the regulatory framework to factors within wider socio-political and governance context that contribute to the lack of effectiveness of the regulatory framework. Poor governance, rent seeking culture and inadequate funding were also identified as the key contributing factors to implementation deficit. However, the paper did find that provisions in the Petroleum Industry Bill (PIB) (Draft) and National

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Abbreviations: NNPC, Nigerian National Petroleum Corporation; FRSC, Federal Road Safety Commission; PPPRA, Petroleum Products Pricing Regulatory Agency (Nigeria); UNEP, United Nations Environment Programme; OPEC, Organisation of Petroleum Exporting Countries; PPMC, Pipeline Product Marketing Company; EIA, Environmental Impact Assessment; FME, Federal Ministry of Environment; NESREA, National Environmental Standards and Regulations Enforcement Agency; NEMA, National Emergency Management Agency; SEMC, State Emergency Management Committee; NOSDRA, The National Oil Spill Detection and Response Agency; DPR, Department for Petroleum Resources; EGASPIN, Environmental Guidelines and Standards for the Petroleum Industry in Nigeria; PIB, Petroleum Industry Bill (Draft)

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Oil Spill Detection and Response Agency (NOSDRA) Amendment Bill offers some prospects that address some of the limitations within the reviewed framework.

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1. Introduction

Energy plays a vital role in the economic, socio-political and environmental spheres of every nation and its importance can be seen in every facet of life. In Nigeria, energy generation is largely dependent on petroleum products (Iwayemi, 2008), although there is some contribution from hydropower, biomass and coal. According to Agusto (2008), petroleum consumption has been on the increase in Nigeria since the early 1980s. This upward trend is evidenced in the energy consumption data of 2006, 2007 and 2011 where petroleum products represents 53%, 67.3%, and 68.5% respectively of the total energy consumed in the country (Energy Information Administration, 2012).

This increase in consumption of petroleum products has obvious implications for the operations of the petroleum industry in the country (both upstream and downstream), including the risks posed to the natural environment and human safety. Although from an economic and technological viewpoint upstream and downstream activities are interconnected and interdependent, the actual activities undertaken in either of these stages and their specific safety and environmental concerns differ. The upstream petroleum sector involves the search for and production of crude oil and gas. It comprises such activities as; exploration, evaluation and appraisals, development, production and decommissioning (API, 1983; Charles, 1999). On the other hand, the downstream sector involves refining, product storage, transportation, distribution, and retailing (OPEC, 2012). Potentially, any of the activities in either the upstream or downstream sectors pose human health, safety, and environmental risks; and the challenge for any government is balancing these concerns with national economic development and energy security goals. This is done through the establishment of an adequate regulatory framework consisting of laws and regulations setting out rights, obligations, procedures and standards, and regulatory institutions charged with responsibility for monitoring compliance (Principle 11, Rio Declaration, 1992).

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