Corporate environmental accountability in Nigeria: An example of regulatory failure

Abdurafiu Olaia Noah
Department of Accounting, School of Economics, Finance and Accounting, Centre for Finance and Corporate Integrity, Coventry University, Coventry, UK

Pawan Adhikari
Essex Business School, University of Essex, Colchester, UK

Babafemi O. Ogundele
Salford Business School, University of Salford, Manchester, UK, and

Hassan Yazdifar
Bournemouth University Business School, Bournemouth University, Bournemouth, UK and regulatory capture

Abstract
Purpose: The purpose of this study is to investigate how state regulations become ineffective in holding corporations accountable for environmental degradation in an emerging economy context, with a specific focus on oil and gas and cement industry in Nigeria

Design Methodology: The study draws on capture theory to bring out the factors that have rendered redundant the state intervention to make corporations accountable for their environmental activities. The research setting is the oil and gas and cement industry in Nigeria. Data for the study are derived from both documentary analysis and semi-structured interviews and analysed using a thematic technique.

Findings: The findings of the paper demonstrate a regulatory failure to hold corporations to account for their environmental activities. A lack of political will, outdated regulations and the manipulation of the regulators, all have played a part in preventing corporations from being accountable for their activities. In addition, the widespread elite corruption in the country has provided corporations with leeway to manipulate their environmental accountability practices. The study emphasises the need for continuous review of the regulations and efforts to reduce corruption in order to promote corporations’ environmental accountability in Nigeria.

Originality value: The study adds to the debate on corporate environmental accountability practices engendering insights from the Nigerian oil and gas and cement industry. The paper demonstrates how companies in emerging economies can capture state regulations and how rendering environmental accountability becomes more of a rhetoric than a reality with little impacts on the welfare of people and society.
Keywords: Regulatory capture; Oil and gas and cement industry; Corporate environmental accountability; Corruption; Nigeria.

1. Introduction

The environmental impacts of corporate activities on the planet and human lives have drawn global attention (Dahlmann et al., 2008; Hodge, 2014; Cadez and Guiding, 2017). In many contexts, mainly in emerging economies, such activities appear to be a major threat to sustainable development, resulting in substantial deterioration in both their natural and ecological systems. Increasing concerns over the need to undertake immediate action, such as issuing mandatory regulations and codes of ethics to mitigate the challenges posed by companies' environmental activities, are therefore not surprising (Unerman and O'Dwyer, 2007; Hodge, 2014; Cadez and Guiding, 2017). At the global level, however, momentum has triggered to enforce companies to become responsible for their environmental effects and discharge their environmental accountability. The Kyoto Protocol of 1982 and the initiatives of the International Standard Organizations [ISO] and the Global Reporting Initiative, for instance, serve as examples (Fonseca and Domingues, 2017).

Having been influenced by these global initiatives, a number of emerging economies have in recent years enacted regulations to monitor companies' environmental effects on society and mitigate the adverse consequences. Nigeria appears to be one of such emerging economies, becoming a frontrunner in terms of enacting and implementing environmental-related regulations (Shinsato, 2005; Ladan, 2009; Hassan and Kouhy, 2013). These regulations and measures include, but are not limited to, the Federal Environmental Protection Agency Act (FEPA) 1989, 1992; the National Environmental Standards and Regulations Enforcement Agency (NESREA) Act 2007; and the Federal Ministry of Environment (FME) Act 1999 (see, for example, FEPA 1992; FME 1999; Usman, 2001; NESREA, 2007; The Voice of Nigeria,
23 March 2012). In addition, there is also the code of corporate governance for public companies, mandating them to account for their environmental activities (Security and Exchange Commission Act, 2011). These efforts to regulate companies' environmental activities and enforce them to discharge their environmental accountability are in line with international guidelines and protocols and commended at the international level (Usman, 2001; Belal and Owen, 2007; Hassan and Kouhy, 2013; Deegan, 2017). However, voices have echoed that all such regulatory efforts have remained ineffective in terms of yielding the desired results for the community and society (EPA, 20171; Hassan and Kouhy, 2013; Hassan, 2011).

The ineffectiveness of policy drive towards environmental accountability in Nigeria is discussed in prior work. For instance, Usman (2001) reviewed the trend of development of environmental regulations in the mining industry and delineated the minimal impact of these regulations in companies' day-to-day activities. Echefu and Akpofure (2002) examined environmental impacts assessment and showed the non-existence of such assessments in day-to-day practice. In a similar view, a study by Adeoti (2001) highlighted the limited use of technologies in executing environmental policies. Ladan (2009) demonstrated the abysmal performance of the NESREA, a key environmental agency in the country, in terms of monitoring compliance with environmental regulations. In a similar vein, Hassan and Kouhy (2013) reflected on non-compliance with environmental regulations in the petroleum industry. Non-compliance and the ineffectiveness of environmental regulations are also reflected in the work of Egbon (2015), which focuses mainly on the oil industry and the Nigeria Extractive Industries Transparency initiative NEITI act.

As is the case in other emerging economies (Sikka, 2011; Rahaman et al., 2004; Islam and McPhail, 2011), a key concern in Nigeria has been the lack of enforcement of the existing environmental regulations, as well as companies' attempts to manipulate such regulations so as to camouflage their lack of compliance. However, it is not only the case that companies are reluctant to comply with environmental regulations: some regulations appear to be far too complex and outdated for implementation (Okenabirhie, 2010; Ajai, 2010). Few studies have investigated the institutional challenges in implementing environmental regulations in Nigeria. The focus of these studies is primarily on the oil and gas industry (Egbon et al., 2018; Hassan

---

and Kouhy, 2015; Okenabirhie, 2010). The unintended consequences experienced by the community due to the failure to execute and enforce environmental regulations have also been rarely investigated. Studies covering the failure of the Nigerian state to enforce regulations are confined to certain fields: for instance, the public sector (Bakre et al., 2017; Nyamori et al., 2017). Rarely have any attempts made in prior work to unfold the regulatory failure in the largest sectors of the country, oil and gas and cement, and the way this impacted on the community; a research gap which we intend to address in this study. In addition, drawing on capture theory, we bring forth in discussion how the oil and gas and cement companies have captured and influenced the regulations for discharging environmental accountability. Such regulations have been manipulated by identifying their loopholes and used to serve their self-interests. As such the environment accountability championed by oil and gas and cement companies has remained no more than a rhetoric.

The remaining parts of this paper are structured as follows: Section two reviews the relevant literature and highlight gaps in existing work. This is followed by a discussion of capture theory. Our method is presented in section four. Having discussed the method, we present our empirical analysis in section five. The final section summarises and concludes the study in line with the literature used and the theory applied.

2. Literature review

Studies on corporates' environmental activities and their attempts at discharging environmental accountability are on the rise (Egbon et al., 2018; Mansoor and Maroun, 2016; Ivory and Brooks, 2018; Robbins, 2001; Usman, 2001; Hassan and Rouhy, 2013). These studies delineate how corporations’ failure to lend their responsibilities and accountability towards the community and society has triggered various environmental incidents, adversely impacting on the lives and livelihoods of people (Gray and Bebbington 2001; Gray, 2010; Belal et al., 2015). In recent years, the rise of environmental pollution underlies a key criticism of corporate activities. The chemical waste, oil spillage and dust particles from cement production have appeared to be key sources, exacerbating environmental pollution (Callan and Thomas (2000). Our concern in this study is with industrial pollution.

The industrial pollution emanating from corporate activities had become a significant problem the world is facing today (Belal et al., 1998, 2007). Concerns have been raised regarding the
need for having appropriate and workable mechanisms to ensure more commitment to environmental performance and accountability (Unerman and O'Dwyer, 2007; Gao et al., 2015). However, holding corporations to account for their roles in anthropogenic pollution has become problematic in many countries (Sikka, 2010; Gray et al., 2006; Deegan and Blomquist, 2006; Deegan, 2017). While some scholars are of the view that the government has the right and duty to intervene in companies' environmental impacts and activities, as they have wider social implications. Others assert that elucidating moral values and ethics would be more effective in terms of motivating companies to discharge their environmental accountability (Dowling and Preffer, 1975; Belal et al., 2015; Sikka 2010). It is argued that the issues relating to the monitoring of and responding to environmental effects should be self-driven, as well as a benchmark to assess company's overall performance (Passetti et al., 2018). Mentions are made that environmental responses should not be delegated to the remote and peripheral part of the organisation. Still, these need to be brought at the central of organisational management. This, to a large extent, allows an understanding of the degree to which the organisation has performed in terms of environmental management (Tilt, 2006; Passetti et al., 2018).

In the last decades, many countries have responded to the environmental challenges either by creating monitoring and oversight institutions or by promulgating environmental regulations (Dowling and Preffer, 1975; Unerman and O'Dwyer, 2007; Dahlmann et al., 2008; Deegan, 2017). However, poor implementation of the regulations, as well as ambiguities in assessing environmental performance, has negated such efforts executed at the state level. For instance, Banerjee (2008) states that strong state commitments would have led to improved environmental performance, helping corporations maintain an excellent public image and achieve high profitability. A number of scholars also argue that limited implementation of regulations, coupled with inadequate monitoring, has resulted in companies searching for ways to fabricate and manipulate their environmental efforts, hiding the bad things in the face of the good (Boiral 2013). McDonald and Puxty (1979) emphasise that promoting awareness at the social level is paramount to force companies to account for their environmental effects. Society and the community should be made aware of the fact that organisations no longer operate as 'islands' (McDonald and Puxty, 1979) and that every activity undertaken by companies has wider consequences (Gray et al., 1995). This also implies that the community is required to have self-steering mechanisms that are able to monitor the extent to which companies are adhering to the existing environmental rules and regulations. Only such engagement at the social and community level can have the potency to force companies to act in a more lawful
and ethical way and make positive changes in human lives (Dowling and Preffer, 1975; Unerman and O'Dwyer, 2007).

Environmental accountability has drawn global attention, as is evident in the range of guidance developed in recent years, including the Global Reporting Initiative (GRI), the International Integrated Reporting Committee (Deegan, 2017), international codes for environmental best practices (OECD, 2003), AA1000 (Beckett and Jonker, 2002), ISO 14000 and 14001, and ISO 9001:2015 (Darabaris, 2008; Fonseca and Domingues, 2016). For instance, the ISO 14000 and 1400s standards provide a guideline and framework for environmental management systems (EMS) for companies of different sizes. The GRI, widely applied by large companies, consists of a set of specific rules assisting the management in presenting their CSR (Deegan, 2017). AA1000, according to Beckett and Jonker (2002), is a set of private voluntary process standards, which aims to make clear how principles of accountability and sustainability are related and complementary. In a similar view, companies are provided with ISO 9001:2015, which they could apply to enhance the quality of environmental reporting and auditing (Fonseca and Domingues, 2016). Other institutional and regulative initiatives include the Extractive Industries Transparency [EITI] (Corrigan, 2014; Egbon, 2015), which is aimed at promoting accountability and transparency in day-to-day operations. Along with such global guidance and frameworks for environmental accountability, a large number of Western countries have enacted several country-specific regulations demanding that companies operating in their jurisdictions make additional environmental disclosures. This is evident in countries such as the USA (see, for example, the USA Environmental Protection Agency [EPA] and the SEC), the UK, and Canada (Adams and Zutshi, 2004).

Studies on environmental accounting and accountability are mainly confined to developed countries, and relatively little is known about how companies in developing countries have been discharging their environment accountability (Belal, 2016). Our study of Nigeria is therefore important to address this knowledge gap. It is argued that developing countries are not passive actors in terms of both adopting international guidelines and frameworks and enacting regulations, including environmental and sustainability reporting, although their implementation and enforcement have remained problematic (Offiong, 2011; Corrigan 2014; Faure and du Plessis, 2011). In general, Jayasinghe and Uddin (2019) discuss about the pressures that international organisations impose on emerging economies to adopt international guidance and reforms. For instance, Dahlmann et al. (2008) assert that environmental
regulations and frameworks should have an impact on the way companies account for their environment activities in developing countries, although knowledge on this is scarce. In terms of the monitoring of regulations, Visser (2006) states that the existing legal systems in developing countries, which privilege shareholder interests, represent a key factor thwarting the efforts to monitor companies’ environmental activities. How this extensive focus on shareholders and profits has undermined the capacity of the government to impose regulations and enforce companies to discharge their environmental accountability is also evident in work by Shinsato (2005). In the context of Nigeria, Ambituuni et al. (2014) examined the inadequacy of existing regulations in ensuring proper environmental safety. The prevailing circumstances in developing countries perhaps serve as examples, as these countries occupy the bottom positions in various environmental rankings (Yale, 2015).

Few studies conducted in emerging economies have attempted to establish a relationship between environmental regulations and corruption (Barczewski, 2013; Sundström, 2013; Dasgupta, 1999; Belal 2016; Phiri et al., 2019). For instance, Newell (2003) echoed the fact that weak mechanisms (regulations) for implementing environmental accountability could trigger corruption in emerging economies. Greenstone and Hanna (2014) stated that corruption and non-compliance with environmental regulations occurred in parallel in India, adversely impacting both the social and economic structures of the country. However, the relationship between corruption and the enforcement of environmental regulations is not well established, mainly in emerging economy contexts (Sundström (2013). We, therefore, intend to add this gap by unfolding the extent to which non-compliance with environment regulations is linked to corruption, bringing the case of the Nigerian cement industry. Broadly, our study investigates the reasons why the state regulations in Nigeria have remained inadequate in terms of holding corporations to account for their environmental activities, considering the factors such as regulatory mechanisms, non-compliance with regulations and corruption.

**Theory of Regulatory Capture**

Posner (1974) contends that in social theory, it has been problematic to situate government intervention in the market. To resolve the problem around market inequality and inefficiency, governments in the past used regulations. Posner (1974) posits that regulations are intervention measures adopted by governments with a view to tackling the prevailing problems in the market. This regulatory intervention is termed 'regulatory theory' and is further categorised into
'public interest theory' and 'captured regulatory theory' (Stigler, 1971; Posner, 1974; Duso, 2005; Cortese, 2011). Public interest theory implies that regulations are enacted as a response to the public demands to correct the inequality and inefficiency prevailing in the markets (Posner, 1974; Duso, 2005). The theory has a particular focus on protecting the public against corporate exploitation. On the other hand, regulatory capture signals the promulgation of regulations as a response to the demands of interest of the capitalists/corporations, as part of an attempt to maximise their members' income (Posner, 1974).

In a nutshell, both theories view regulations differently: on the one hand to service public interest and on the other hand, to cater for the interest of the capitalists (Cortese, 2011). In addition, evidence from the literature shows that the capitalists, by their nature, always want to maximise profits: therefore, they intend to exploit the regulations to achieve their objectives. For example, Uche (2001) theorised that capture theory implies a situation where the industry mobilises its members to subvert regulations that tend to go against their interest. Taking this further, Posner (1974) explains the regulatory theory using the lens of two schools of thought: Marxism and Political Science. The Marxists believe that capture theory underpins the capitalist control of the regulatory institutions. The Political Scientists contend that capture theory explains that over time, regulatory agencies become dominated by the industries being regulated. Taking a critical look at the position of these schools of thought shows that capture theory is all about how the regulated influence the regulators in several ways, to achieve their economic gains of profit maximisation. Cortese (2011) illuminates that capture exists if the regulator makes decisions that favour the industry in context, most especially if the industry has acted opportunistically to secure its preferences. The theory implies that the regulated – in this case, the industries – always thwart the regulations through their resources. However, Posner (1974) argues that since the theory did not provide a reason why the regulated can influence or capture the regulators, the emphasis should be on the capture of the process and not the regulators.

The theory of 'regulatory capture' is continually evolving. It was first applied by Stigler (1971) as a theory of economic regulation. Stigler (1971) argues that although regulations are enacted to serve the public interest, instead they end up showing the 'capture' of the regulators by industries/corporations through the compromising of work processes. Thus corporations tend to exploit the regulations and use them as a tool to attain their desired profits: this is perhaps an established fact (Stigler, 1971). It is, however, challenging to unfold such hidden details
underlying corporations' activities. The fact that states often fail to determine the true motives of corporations is even more striking in emerging economy contexts where the fabrication and manipulation of corporations' activities are a recurring issue (Posner, 1974). The theory envisages such weaknesses in the regulations as a failure of the markets, enabling the regulators to become captives of those who are meant to be regulated. Such limitations in the regulations tend to further incapacitate various other stakeholders and institutions.

A study by Bushman and Landsman (2010) has attempted to develop further and extend the application of regulatory theory. The study has reconstructed the theory as 'systems-regulated theories'. Systems-regulated theories are generally drawn on to explain deviations from regulations in the process of financial reporting. Of the concepts they propagate, the first one, also known as public interest theory, concerns providing an understanding of how unregulated markets result in serious market failures (externalities) and the capacity of the government to rectify or avoid such failures through the enaction of regulations. An underlying fact is that governments are more inclined to enact and deploy laws and regulations for the purpose of controlling the population (Stigler, 1971; Posner, 1974; Cortese, 2011); limited attention is paid to corporations' activities and the sustainability of the environment. The last aspect of Bushman and Landsman's systemic theories is enforcement theory, which entails a basic trade-off between two social costs: disorder and dictatorship. Disorder is the ability of private agents to harm others by stealing, cheating or overcharging. Dictatorship, on the other hand, implies the ability of the government to impose such costs on private agents. The enforcement is therefore central to the quality of a country's regulations.

We have observed in our literature review that prior studies have considered the capture theory in multiple ways. For instance, the theory has also been referred to as 'motivational/influential theory', as adopted and propagated by Gray and Bebbington (2000), O'Dwyer (2002) and Hopwood et al. (2010). As such, the ideas underlying the motivational/influential theory correlate with the key arguments of capture theory. Taking into account the objective of this study, we argue that the regulatory capture theory is the most appropriate theory to explore why the existing institutions in Nigeria have become inadequate in terms of ensuring that companies in both cement industry and oil and gas industry are held accountable for their corporate environmental practices. Although institutional theory may explain how the various

---

2 Public interest theory, capture theory and enforcement theory
institutions influenced environmental accounting practice, prior work shows the limitation of this study in explaining why the pressures exerted by different groups often fail to produce the required change (Adhikari et al., 2013; Salah et al., 2019). In this regard, the regulatory capture theory offers us a suitable lens through which to explain lapses in corporate environmental accountability practices in emerging economies in general and Nigeria in particular.

Regulatory capture theory has been used in different contexts to show the perceived deviations between governments' regulations and corporate activities. Mitnick (1980), using this theory, identified factors that depict the existence of capture of regulators. He mentioned the issue of 'revolving doors' between the regulators and the regulated, the availability of resources by the regulated to influence the regulators (e.g. bribes), and instances where former regulatory staff gained employment in the industry, and vice-versa. In this scenario, the staff could use their position to thwart the regulations. Gorton (1991) examined the politicisation of accounting and the standards-setting process and found that the process has been compromised by accounting professionals. Duso (2005) found that the communication industry in the US captured the regulators, as it was able to suppress the increased cost in the country. Cortese (2011) used the regulatory capture theory to examine how the Financial Accounting Standards Board (FASB) tends to standardise the operation of oil and gas industries, that intensive lobbying came from the practitioners and that ultimately the Security and Exchange Commission opted not to participate. However, in spite of the widespread adoption of this theory in many disciplines, its application in the field of environmental accounting or in the context of emerging economies such as Nigeria, where there are instances of weakness in the regulations due to the captivity of the regulatory agencies by the regulated, is scarce. In this regard, the theory of regulatory capture is well suited to our study, as it enables us not only to shed light on the capture of the regulators, but also the process involved (Posner, 1974).

3. Research Methods

This is a qualitative study and the data for the study are derived through document analysis (see Appendix 2) and semi-structured interviews. Document analysis significantly contributed and assisted us to setting up a context for our interviews. We were able to generate an understanding of the scale of non-compliance of environmental-related regulations in the country, the factors weakening the enforcement of regulations and manipulation and other
corruptive practices that companies pursued while discharging their environmental accountability. This analysis was also important for us to identify our interviewees. Our interviewees included regulators, media practitioners and executives from Non-Governmental Organisations (NGOs). In total, we interviewed 16 informants during the period of six months between December 2014 to June 2015, with follow-up interviews through Skype in 2018. The follow-up skype interviews were conducted with some of the initially selected respondents who were not available at the time when the interviews took place (please see Appendix 1 for a breakdown of our interviewees).

We selected those regulators who were either directly or indirectly involved in regulating and monitoring corporates' environmental accountability and were aware of the environmental impacts of the corporate activities. For instance, we selected interviewees from the Federal Ministry of the Environment, as this Ministry is the main organ in the country, enacting and enforcing companies' environmental activities. Similarly, the NESREA is responsible for the monitoring and oversight of environmental regulations; having interviewees from this institute was therefore of utmost importance. Informants from the media and NGOs were selected in light of their involvement in addressing environmental-related issues. For instance, the media in the country has raised concerns about the way corporations handled their environmental activities and discharged their accountability. Many NGOs have complemented the media in exposing both the government and corporations for fabricating environmental information, and also for the ineffective handling of environmental accountability (see, e.g. the coverage of the conference of some local communities of the cement producing area by the Nation Newspaper, 23 July 2014). The selection of the regulators, media practitioners and NGO representatives for interviews enabled us to compare and contrast different views concerning corporates' environmental activities and accountability. Another intention for selected these diverse groups for interviews was to listen from the regulators and reporters who were assumed to have been captured by the corporations. NGO informants helped us conform the assertion made by the regulators and media personnel.

Prior to conducting the interviews, we sent out a letter of invitation to potential interviewees, stating the purpose of the research. On the interview day, we read the ethics of the study to them and sought their consent before proceeding, making them aware of the ethical considerations of the interviews, including the use of audio-tape recording and the protection of their identity before, during and after the research. We started our interviews by open ended
questions such as corporates' environmental activities, reporting of environmental activities and discharging environmental accountability. More detailed questions such as the challenges in complying with the regulations, manipulation and capturing of regulations and activities and monitoring of environmental activities were asked, as the interviews continued. The interviews were conducted in the English Language, which is the official language in Nigeria. The interviews lasted between 45 minutes and 2 hours. With participants' consent, all interviews were recorded and subsequently transcribed. To ensure the anonymity of the respondents, we coded the regulators as R1, R2, R3, R4, and R5, media personnel as MP1, MP2, MP3, MP4, and MP5, and NGOs/environmental activists as NG1, NG2, NG3, NG4, NG5 and NG6.

Data generated were thematically analysed (in the sense that the data from the interviews were coded into themes). These themes were then analysed using the capture theory (Neville and Menguc, 2006), to explain how the evidence from the interviews demonstrates the capture of the institutions based on the influencing factors identified during the interviews. In analysing our data, we organised and generated codes from the transcribed data into themes. Our coding was influenced by the existing themes in the corporate environmental accounting [CEA] literature, newspaper reviews, and as well as those information generated from our data transcriptions. In the analysis, we also used some quotations to provide supporting evidence to all the themes and sub-themes. This approach corresponds to data analysis as applied in prior works by Belal et al. (2015) and Bakre et al. (2017).

4. Overview of environmental regulations in Nigeria

Regulatory environmental mechanisms in Nigeria date back to the British colonial period. For instance, the first environmental-related regulation enacted was the Criminal Code Act of 1916, which allowed the government to criminalise those who pollute drinking water and air (Ladan, 2009). Environmental regulations embarked on a new era, however, after the Koko incident in 1987 (illegal dumping of toxic waste in Koko, a town in Benue State, Nigeria, by an Italian company in 1987). There were increasing concerns over regulating and monitoring companies' environmental activities and their impacts on the society after the emergence of the new political era in 1999, when the military regime was replaced by a civilian government.

Between 1999 and 2011, many environmental regulations were promulgated. The prominent regulations enacted during these periods were the National Environmental Standards and
Regulations Enforcement Agency (NESREA) Act 2007, the Federal Ministry of Environment (FME) Act 1999, the Nigerian Extractive Industries Transparency (NEITI) Act 2007, and the Code of Corporate Governance for Public Companies, which for the first time mandated companies to account for their environmental activities (Usman, 2001; NESREA, 2007; The Voice of Nigeria, 23 March 2012; Security and Exchange Commission Act, 2011; Egbon et al., 2018). The enaction of these regulations certainly signalled the government's commitments to monitoring and regulating environmental activities: commitments which, however, remained elusive at the implementation stage (Schaltegger et al., 2013; Passetti et al., 2018).

In addition, Okenabirhie (2010) has observed that the public outcry has led the government to enact more regulations and make commitments to environmental protection. This also provides reason for the abundancy of environmental-related regulations in the country (Ambituuni et al., 2014). Having said this, some environmental-related bills are however still pending in the National Assembly to be passed into laws; the Petroleum Bill and NESREA Bill serving as examples (Premium Times, 2019; Ladan 2012). In this paper, our focus is particularly on two such regulations – the National Environmental Standards and Regulations Enforcement Agency (NESREA) Act (2007) and the SEC Act (2011) – and their efficacy in the monitoring, control and management of corporations' environmental activities. This will enable us to shed light on the peculiarity of corporate environmental management and accountability in Nigeria. While a few earlier studies have referred to the NESREA, no attempts have been made to unfold the collective impact of the NESREA and the SEC Act (2011) in regulating companies’ environment activities in the country.

The NESREA was put into effect by the Nigerian parliament in 2007. Its objectives include protecting, coordinating, and enforcing regulations, standards and guidelines relating to environmental issues in Nigeria. Provisions are included in this act, which allow the government to control the registration of corporations' licencing depending on the manner in which they have handled their environmental activities and discharged their accountability. Following this act, all companies are mandated to adhere to international standards, protocols and best practices. The Nigerian Security and Exchange Commission act, which came into effect in 2011, compels companies in the country to disclose their social and environmental activities in annual or stand-alone reports. Since the creation of this act, many of the listed companies' annual reports have started incorporating their environmental activities. However, a key limitation of this act is perhaps an absence of a uniform template for reporting.
addition, specific penalties for non-disclosure of environmental activities and non-compliance with the act are not specified.

Despite the enaction of regulations, the environmental-related issues of Nigerian corporations have drawn academic interest. For instance, Echefu and Akpofure (2002) have examined the challenges in pursuing the environmental impact assessments (EIA) in Nigeria. Offiong (2011) studied the limited impact of environmental policies in regulating companies' activities. Ladan's (2009) study was perhaps one of the few that examined the NESREA Act (2007) and its effect on the performance of the law enforcement agency in the country. In a similar vein, while Cole et al. (2006) have investigated the influence of Foreign Direct Investment (FDI) on environmental regulations, the study by Egbon et al. (2015) outlines the implementation of the Nigeria Extractive Industries Transparency Initiative [NEITI]. However, limited attention is paid in prior work, unfolding why the institutions and regulations have remained ineffective in terms of enforcing corporations, mainly oil and cement companies, to account for their environmental activities, a research gap which we intend to address in the present study.

5. Empirical Analysis

Our empirical findings are structured into four sub-sections. The first subsection discusses the regulatory and institutional failure to hold corporations to account for their environmental activities. We then discuss how the continuation of obsolete regulations has added challenges in regulating and monitoring environmental activities. In the following subsections we outline the capturing of regulations, corruption and the role of media and the manner all these issues have influenced the environmental activities and accountability of oil and gas and cement companies in Nigeria.

5.1. Regulatory and institutional failure to hold corporations to account

Despite the existence of a large number regulations and enforcement and monitoring institutions, environmental pollution caused by corporate activities continue to persist and has remained unabated (Adeoti, 2001; Ebeku, 2003). The weaknesses and ineffectiveness of the regulations and institutions are highlighted in prior work (Ambituuni et al., 2014). However, limited attempts have been made to identify the factors responsible for such regulatory and
institutional limitations and to hold corporations to account for non-compliance. During our interviews, we identified the following issues contributing to these regulatory and institutional failure and non-compliance: conflicts between environmental objectives and profit motives devised by companies; continuation of the outdated regulations; and an absence of penalties and sanctions for non-compliance of the regulations. Given a minimal impact and cost of non-compliance, the effectiveness of the environmental-related regulations and enforcement institutions has continually dwindled. A lack of resources has further weaken the monitoring mechanisms in the country. This has put the oil and gas and cement companies in a position in which they are capable of influencing the regulatory systems and the regulators. Each of these factors are further discussed in sequence.

Implicit in the findings of prior work lies the fact that many of these institutions and regulations have been captured/compromised/influenced by corporations (Otusanya and Lauwo, 2012; Obia, 2013). The expectation of the people is that the companies responsible for polluting the environment should have put in place appropriate measures that could help them to manage and mitigate the adverse impacts of their operations. There is also a need for these companies to realise the importance of adhering to the existing regulations that are mandated to them. This was highlighted by Awogbade and Sipasi (2010) who remark that 'polluters' (the corporations in this context) should be responsible for the remedial costs of their environmental impacts and that sanctions and penalties should be imposed on them for the violation of regulations. During our interviews many respondents claim their active engagement in promulgating, monitoring and enforcing the environmental-related regulations and guidance in the country. Such claims however appear to be more of a rhetoric than reality, as the focus is on convincing the people that rules are being put in place rather than delivering any results in practice (see also, Suddaby and Greenwood, 2005).

However, the effective enforcement of environmental regulations has a wider implication and is connected to longer-term sustainability and the wellbeing of the community. The enforcement of environmental regulations is therefore paramount as compared to many other regulations: a fact which is yet to be realised and accepted in Nigerian society. Weak compliance with environmental regulations is outlined in the following statement from an activist representing an NGO:

Many of the federal government agencies which are saddled with the responsibility of looking at the environmental hazards and see that companies do not violate the
environmental regulations are found wanting in their duties. They are still very weak. It is one thing to have the law, but it is another thing to implement it. It may be fine with other regulations, but environmental-related issues are more sensitive, as they can have an enduring impact. However, the importance of enforcing the environmental regulations is yet to be realised. [NGO6]

Government officers during our interviews conceded the regulatory weaknesses and their impact on promoting non-compliance. The following statement from an officer serves as an example:

_The efforts are not enough, as we can still find the environmental impacts of the companies' operations everywhere. More preventive policies need to be provided._ [R4]

Another officer from the Ministry of Environment added to this, stating:

_In the next couple of months, you'll see remarkable changes in our drive to enforce laws, because most environmental problems arise due to lack of compliance to standards and regulations. We are in the process of amending several provisions in our regulatory mechanisms with a view to enforcing corporations to adhere to the existing regulations._ [R1]

The above-mentioned statements of the regulators provide evidence that most of the existing environmental-related regulations in the country have been ineffective, requiring improvements and replacement. Furthermore, we were told during our interviews that limited sanctions and penalties imposed on those violating regulations had undermined the efficacy of the institutions assigned to hold companies accountable for their environmental activities. We noted that the so-called elites and lawyers in the society had played a greater role in undermining the institutional capacity of these institutions to enforce and monitor the implications of environmental regulations and undertake actions against non-compliance. For instance, cases are mentioned in prior work in which the lawyers have advised companies to pay fines and penalties rather than undertaking practical action to comply with the regulations, as the former results in more cost-saving and other benefits (Ladan, 2009; Okenabirhie, 2010). Non-compliance with regulations provoked by the provision of low penalties and sanctions is particularly striking in 'gas flaring', as the operating companies choose to pay the fees and continue flaring gas rather than complying with the regulations (Okenabirhie, 2010). An NGO representative commented on the problems created by weak mechanisms of enforcing penalty and sanctions:
For instance, in the Niger Delta region where we have a lot of gas flaring. The penalty for gas flaring is not commensurate to the effect of the problem created by the companies. Economically it is favourable to the companies, so they prefer to flair the gas which is one part of the environmental issues in the Niger delta region.

The regulators are aware of such activities, and we were told during our interviews that some measures have been undertaken to discourage and prevent such activities (i.e. the low penalty and sanctions) although these efforts have remained ineffective in practice. For instance, a NGO (NGO 2) representative stated:

*Whatever the regulators or others say and no matter what is mentioned in the regulations, no one can hide the ground reality. The smoke and dust from the cement operation can be found everywhere in the local communities where these companies operate.*

A regulator however commented on the efforts made by the government to address the regulatory limitations and the mechanisms that have been put in place to enforce the regulations: the following statement serving as an example:

*At the Ministry of Environment, we set up a committee on 7th January 2014 to review the present Environmental Impact Assessment Act so that it could reflect the international best practices among our companies in Nigeria. We have also provided a scorecard to record how we are importing such regulatory weakness. However, more has to be done.* [R1]

We were told during our interviews that an extensive focus on oil and gas companies has led to the government to pay little attention to other sectors and companies. Initiatives made by the government to put in place some regulatory frameworks, such as the National Oil Spill Detection and Response [NOSDRA] act, 2004, with a view to safeguarding the oil region from the environmental challenges arising from downstream activities are outlined in the works by Ambituuni et al. (2014) and Emeseh (2012). Mentions were made that the government should have done more to other companies and sectors, for instance, cement companies, to ensure that these companies comply with the regulations and contribute to the welfare of the society. For instance, a media practitioner added to this stating:

*Governments in succession in Nigeria have made various efforts to tackle environmental impacts in the country. For instance, in the exploration of oil and gas companies, the government has done various activities to control oil spillage in the Niger Delta. Other companies and sectors should also be better monitored.* [MP2]
Another issue concerns a lack of funding support available to the monitoring of environmental activities of companies. For instance, despite being one of the key environmental polluting industries, the cement industry has always been put at a margin. Limited funding has led to some regulatory and monitoring agencies to approach the corporations for financial support. The following statement of a regulator serving as an example:

*Our weaknesses will be coming from how we are being funded and capacity building, need for more training of our personnel. You could imagine, we have 1800 staff for the whole country. So we cannot give same attention to cement and other companies as compared with oil and gas companies* [R5].

Companies are apparently taking the benefit of this limited financial viability and capacity of regulatory and monitoring agencies. In such circumstances, the manipulation and fabrication of their environmental activities and non-compliance with regulations are perhaps not surprising. In addition, the fact that politicians either directly or indirectly own many big companies have made it easier for such companies to engage in manipulation. For instance, one NGO representative stated:

*I can tell you that the regulations have not been effective because the majority of the big companies in the country are owned by either the politicians or their cronies. So it is easy for them to influence the regulators.* [NG5]

These statements are also testimonies that politics and companies' interests are entwined in Nigeria, creating a space for malpractices such as manipulation and corruption.

5.2. Continuation of the outdated regulations

We were told during our interviews that a number of environmental-related regulations are narrowly focused, thereby offering companies leeway in complying with the regulations. For instance, regulations state that corporations must work to prevent pollution and environmental harm, but nothing is mentioned about adopting sustainable solutions to mitigate such problems. This has resulted in the companies focusing on an immediate solution rather than actively searching for longer-term remedies for the impact of their environmental activities. For instance, a regulator commented during our interviews, stating:

*On the penalties contained in the regulations, we are aware that some of them are now outdated, to the extent that some companies prefer to pay the penalty than to remedy the*
situation. We want to make sure that the penalty will discourage violation of the laws. We want to see that what they will be paying now will discourage them from violating the laws. We have sent the amendment bill on this to the National Assembly [R1].

However, this ineffectiveness can be envisaged as part of the weaknesses inherent within government institutions and regulators. This has enabled the existing regulations and institutions to be deliberately captured by the corporations to serve their profit interests. Such is also evident in prior work, which delineates how corporate activities tend to curtail the ability of developing countries to enforce regulations and maintain oversight functions (see, e.g. Sikka, 2011; Ite, 2004; Egbon, 2015). Similar to other emerging economies (Belal, 2016; Lauwo et al., 2016), the weakening regulatory capacities in Nigeria can also be related to the country's excessive emphasis on promoting and extending foreign direct investment agreements. The government is not in a position to discourage multinational companies by bringing them under the remit of strict regulatory frameworks (Amao, 2008; Aaron, 2012; Egbon, 2018). A few exceptions exist in this regard, however, and Shell Nigeria's oil spillage at the Bonga oil field in the Niger Delta region perhaps serves as an example. According to the Director-General of the National Oil Spill Detection and Response Agency (NOSDRA), "the fine was imposed due to Shell's failure to maintain the hose that leaked, and this amounted to negligence that could not go unpunished" (The Punch, 22 July 2012). Such incidents, in which companies have been fined for their environmental negligence, are scarce. However, this action drew wide commendations, signalling an increasing awareness in the society of corporations' environmental-related activities. A NGO interviewee (NG2) remarked:

It is good that the government has woken up. But the truth of the matter is that Shell has in the past evaded fines imposed on them by the government, just as they have failed to implement recommendations of the United Nations Environmental Programme report. This time, we are watching them keenly and all Nigerians are watching. This will show us whether it is the government or the multinational corporations that are running the country.

A lack of trust in the government, along with the manner how the issues relating to the TNCs/MNOC have been handled are, however, not concealed. Many Nigerians are of the view that the government lacks the political will to prosecute these large multi-national corporations. Even at a time when these companies have drawn global criticisms for the manner they responded to their environmental activities, the Nigerian government seems to be rather hesitant in terms of enforcing legal action and sanctions against them (Amao, 2008; Emeseh,
2012). For example, in August 2011, a report issued by the United Nations Environmental Program (UNEP) mentioned that Shell Nigeria's infrastructural maintenance remained inadequate (given that it had contaminated 1000 sq. km. of Ogoniland). Shell was required to pay $1 billion as a starter fund for the clean-up of the area: a mandate that the government has yet not enforced (UNEP, 2011; Friends of the Earth, 2012).

5.3. The capturing of the regulatory process and corruption

The judicial system has come under scrutiny for its dispensation of justice, especially in cases involving multinational/national companies and local communities. Ebeku (2003) stated that there have been instances, especially in cases involving the impact of corporate operations on local communities in the oil-producing region, where the responses by judges and the wider judiciary system have been inadequate. Offiong (2011) unfolds a similar situation where the MNCs have used their financial strength to ‘buy’ their way through; the case of Shell and the Ogoni community of 2011 being an example. This case was instituted by the people of Ogoniland. The prosecution in this case was protracted, lasting many years, and eventually ended up losing in the Nigerian court, although the case was won at the international court. The case illustrates how corruption has become endemic in Nigeria, affecting not only the regulators but also the judiciary. A NGO interviewee commented on corruption:

No organ of the government is really functioning. Both the people that are supposed to enforce the law and the company staff are willing to take and give bribes. Let's say if a company wants to spend N1 million to mitigate an environmental hazard that emanated from their corporate activities and the government official who is to ensure that the company carries out the mitigation agrees to collect a bribe of N100,000 to seal the company, the company staff will prefer to give the government official such money than to pay the N1 million for the mitigation. This is just the scenario we find ourselves in in the country. [NG2]

The existence of corrupt practices, preventing the existing regulations and monitoring institutions to function as intended and perform their assigned tasks was iterated during our interviews. For instance, a representative from NGO remarked:

The enforcers of the law are fond of taking bribes, which makes it difficult to implement it. The enforcement of the environmental law is the number one problem in the country. Their efforts become fruitless, especially given the various levels of corruption among the government law enforcement in the country. It is obvious that both the people that enforce
the law and the company management staff are too selfish and corrupt. That is why it has been difficult to implement the law as regards environmental issues in Nigeria. [NG2].

That corruption has become a key impediment in achieving development is evident across emerging economics, not least in Nigeria (Everett et al., 2007). Aklin et al. (2014) state that this widespread corruption has created further ambiguities in enforcing environmental policies in developing countries. Such is clearly evident in Nigeria, as exemplified by the following comment:

*Corruption cannot be ruled out. Even the people doing the work should be properly motivated. They must be paid well. If they are going to inspect a company and they are not paid well and the company is ready to bribe them, what will they do? Definitely they will do the bidding of the company's management: that is, give a good report about the company.* [NG6].

We were told during our interviews that it is becoming a common practice in Nigeria for multi-national companies (MNCs) to influence the judiciary and public servants mobilising their political connections. Bakre (2008) has provided an example of how several multinational oil companies, including Shell, Chevron and Mobil, breached the provisions of the Nigerian environmental safety regulations during various incidents of oil spillage and escaped justice; the fabrication of accounting numbers and statements enabled them to take advantage of judiciary weaknesses. These large MNCs also disobeyed the court orders to compensate the affected communities (e.g. Mobil and Akwa Ibom State Revenue Court, 2006; Shell, 2006, 2007). By deploying corruptive measures, these corporations have been able to capture both the regulatory and judiciary requirements and institutions. Bakre (2008) further states that the ruling elites exploiting their political authority have forged an alliance with transnational capitalists and plundered national wealth for personal interest. Mentions are made that corrupt practices are in fact equally prevalent in cement companies, although such practices are not widely discussed, as is the case in oil and gas companies. For instance, an interviewee commented on the rampant corruption in the Nigerian corporate sector stating:

*Like I said earlier, not that there are no laws in the past, but those that flawed them [sic] have never been penalised. Since nobody has been prosecuted in the past, the problems persist. As you can see, most of the politicians own those major companies or have major shares in them. So, when their companies are sanctioned, what they do is to call the superior government official who will order its re-opening.* [NG4]
We were told that the corporate capture of the regulatory and judiciary institutions and officials has made the enforcement of regulations largely ineffective to alter the behaviour of the business operators in both the oil and gas and cement industry. The media has become another important institution ensuring that companies fulfil their environmental performance and reporting. The role of the media is discussed in the proceeding section.

5.4. The role of the media in creating awareness

The media has played an important role in creating awareness of environmental-related issues in the community. Changes introduced in the country to address many of the environmental-related issues and regulations, although their efficacy has been questioned, are largely credited to media advocacy. Commenting on the role of the media, a media practitioner stated:

*We as media practitioners cannot enforce laws but we can cry out. That is why you are seeing some changes. Because of our activities, people are now conscious of the environmental hazards of what they use. Even in the North, they have started drawing the attention of the government to those mining environmental hazards in their areas. Unlike before, when they paid nonchalant attitudes to it, now they know that it is their responsibility to draw the attention of the government to the inimical attitude of miners. This has been one of the parts of awareness we have created [MP4].*

Not only has the media contributed to creating awareness, their attempts at discouraging companies to fabricate the reporting of environmental activities are striking, the following statement of another media personnel serving as an example:

*You do put in the annual report mentioning that you are doing? And when we challenge them, asking where is the project you stated you spent x amount of money on? Because they are aware of the fact that we are going to challenge them next time, they did not put any amounts for specific projects in their annual report. Instead, these projects/amounts were incorporated as miscellaneous expenses in the statement. [MP3]*

However, in many instances, the media has also been captured by corporations' power; they tend to defend the activities of companies, connecting them with the growth in employment opportunities. For instance, one media representative commented:
We are also dependent on large companies for advertisement and other promotional activities. The companies have turned us into toothless bulldogs: they know we can bark but we cannot bite [M5].

The findings presented in this study clearly delineate the failure of the existing regulations and institutions to hold corporations to account for their environmental activities in the Nigerian context. While privileging economic interests, the public interests are largely marginalised, enabling companies to find leeway in mitigating the adverse consequences of their environmental impacts. We have also identified overlapping regulations and an absence of political will: factors which are indispensable in terms of enforcing companies to account for their environmental impacts. Increasing corruption, which is perhaps a common phenomenon across emerging economies, has provided corporations with addition spaces to influence politics and bureaucracy and capture the process of formulating regulations.

6. Discussion and conclusion

Corporate activities and their impacts on the environment have drawn global attention (Egbon et al., 2018; Mansoor and Maroun, 2016; Ivory and Brooks, 2018). In this study, we have investigated the efficacy of the regulatory mechanisms and institutions in Nigeria to hold corporations, mainly the oil and gas and cement companies, to account for their environmental responsibility. Rarely have prior work invested the enforcement of environmental regulations and efficacy of monitory institutions in a setting of emerging economies combining oil and gas and cement companies; an empirical insight which we have engendered in this study. We have identified several factors that limit the capacity of regulatory mechanisms and institutions, enabling corporations to capture the regulations for their own benefits. These factors include: weaknesses in the existing regulatory frameworks; overlaps in the regulations and assigned tasks to monitoring institutions; an obsession on enlarging profits; widespread corruption and media capture; and an erosion of moral values. All these factors have collectively made the enforcement of environmental-related regulations rather problematic in Nigeria.

Our empirical findings to a large extent add on the earlier findings presented by the scholars such as Ambituuni et al. (2014), Bakre et al. (2017) and Ofiong (2011). In addition, our study elucidates the fact on how limited sanctions have served as leeway for the corporations, which they could apply to put their profit interests on top of other issues and pursuit corrupt practices
to protect that interests. Perhaps the regulatory failure and non-compliance in the oil and gas companies are not new, but what demarcates this study from earlier studies concerns the attempts at unfolding the failure in cement companies, companies which are claimed to be one of the key sources of environmental pollution in developing countries, but are marginalised in the mainstream research. All of the impressive environmental-related regulations enacted in the Nigeria have done little to force oil and gas and cement companies to discharge their environmental accountability and have remained ineffective in practice. Non-compliance with environment regulations has become a key feature of emerging economies in general and Nigeria in particular. Corporations have continued to play along with the government and the regulatory institutions, taking advantage of the weak enforcement of regulations and monitoring, making the lives and livelihoods of people in emerging economies more vulnerable (Offiong, 2011; Bakre, 2008, Friends of the Earth, 2012; The Punch, 22 July 2012, Bakre et al., 2017; Nyamori et al., 2017). In some cases, the corporate power has even influenced the media to echo voices in support of corporate activities; our study, for instance, serving as one example.

Theoretically, applying the regulatory capture theory, we have demonstrated how the corruptive mechanisms have penetrated down to the government, thereby allowing corporations to capture the enforcement of regulations and thwart the monitoring of their environmental activities. This is similar to Sundström's (2013) study of corruption. It is evident that the entire process of regulating and monitoring the environmental impacts of corporations has been rather confined to the issuance of regulators. In contrast, several other factors, such as the non-existence of political will, emphasis on foreign direct investment, and lack of sanctions and penalties, not to mention corruption, have all been left unaddressed, resulting in the implementation of such regulations being rendered redundant. In particular, we have added to prior work demonstrating how manipulation and corruption prevail in the process of complying with the regulations in emerging economies (Cortese, 2011; Duso, 2005; Mitnick, 1980). For instance, Mitnick (1980) also emphasised bribes as evidence of the capture of regulators.

We, therefore, argue that to ensure effective enforcement of regulations in emerging economies, both the government and its regulatory agencies need to move away from the present state of captivity by the regulated corporate organisations. However, for the country to overcome such capture, several factors require rectification, including the restoration of good
governance and accountability by eliminating the space for corruption and other manipulative activities, revitalisation of the judicial systems, and giving more room for the media (Hopper et al., 2017). Furthermore, we emphasise the importance of an alternative approach for the governments, mainly in emerging economies, which could promote the use of non-state laws, as part of rectifying the flaws identified in their environmental regulations. Non-state laws incorporate a wide range of self-regulatory and soft-law instruments aimed at tackling issues which have a direct bearing on public interests (Cortese, 2011; Verschuuren, 2012). For instance, this implies involving NGOs in the monitoring and enforcement of the environmental-related regulations and assessing adverse impacts on the community.

To sum up, we call for the promotion of collaboration among the three tiers of government to ensure corporate compliance with environmental regulations. The importance of such collaborative and learning aspects of accountability is increasingly emphasised in emerging literature (Jayasinghe et al., 2020; Arun et al., 2020). This may help maintain proper checks and balances when enforcing the environmental regulations and monitoring compliance at different organisational levels and ensure that corporations are accountable for their environmental responsibility. Our paper also adds to the wider debate on environmental-related issues within the context of corporate social and environmental responsibility and accountability in emerging economies, unfolding the factors that corporations use to influence the regulatory agencies. Having said this, we have identified several areas within environmental accounting and accountability in emerging economies that warrant further investigation. For instance, the capturing of the regulators has made it difficult for companies to comply with environmental regulations and mitigate the adverse impacts of their environmental activities in Nigeria. It is, therefore, interesting to explore how different stakeholders exercise their agency power for regulatory capture and how different forms of corrupt practices are executed in the process. Similarly, further studies on other emerging economies can be undertaken drawing on the regulatory capture theory, which may enable us to extend our understanding of the factors which tend to stifle the attempts to regulate the environmental activities of companies in emerging economies. This may also help theorise why discharging corporate environmental accountability has continued to remain elusive in emerging economies.
References


(Accessed on 10th July 2012).


Development Centre, Paris.


Federal Environmental Protection Agency Decreee, 1989.


The National Environmental Standards and Regulations Enforcement Agency (Establishment) Act, 2007, No. 25.


Appendix1: The List of Interviewees

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Organisation</th>
<th>Codes</th>
<th>Number</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulators</td>
<td>Fed/State Min of Environment</td>
<td>R1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NESREA</td>
<td>R2, R3, R5</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Standard Organisation of Nigeria</td>
<td>R4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NGOs/Activists</td>
<td></td>
<td></td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Media Practitioners</td>
<td>The Guardian</td>
<td>MP4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Punch</td>
<td>MP2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Nation</td>
<td>MP5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Daily Trust</td>
<td>MP3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Vanguard</td>
<td>MP1</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

Appendix2: List of Documents used

The annual reports of cement companies
The Daily Trust Newspaper
The Ministry of Environment Act of 1999
The National Environmental Standards and Regulations Enforcement Agency (Establishment) Act, 2007, No. 25.