

Environmental Accounting Practices and Sustainable Development in Nigeria

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Abstract: This research paper investigated the relationship between environmental accounting practices and sustainable development in Nigeria. In order to achieve the objectives of the study, data was collected from thirty four (34) companies having environmentally related issues in Nigeria. The study was descriptive in nature. The study recommended that: Stakeholders should increasingly require companies to manufacture goods efficiently and at competitive prices without harming the environment; to enhance sustainable development by reducing the environmental impact while increasing the value of an enterprise, satisfying human needs; contributing to the quality of life, and resource intensity through environmental performance reporting occasioned by the ratio between an environmental variable and financial variable that measures the environment performance of an enterprise with respect to its financial performance.

Keywords: Environmental Accounting, Sustainable Development.

INTRODUCTION

The concept of the SDGs was born at the United Nations Conference on Sustainable Development, Rio+20, in 2012. The objective was to produce a set of universally applicable goals that balances the three dimensions of sustainable development: environmental, social, and economic. The Global Goals replace the Millennium Development Goals (MDGs), which in September 2000 rallied the world around a common 15-year agenda to tackle the indignity of poverty.

The MDGs established measurable, universally-agreed objectives for eradicating extreme poverty and hunger, preventing deadly but treatable disease, and expanding educational opportunities to all children, among other development imperatives. The MDGs drove progress in several important areas: Income poverty, Access to improved sources of water, Primary school enrollment, Child mortality. The Global Goals aim to do just that, with 2030 as the target date. This new development agenda applies to all countries, promotes peaceful and inclusive societies, creates better jobs and tackles the environmental challenges of our time—particularly climate change. Later this year world leaders are expected to reach a global agreement on climate change at the Paris Climate Conference. The Global Goals must finish the job that the MDGs started, and leave no one behind.

Environmental information (EI) must help the society and firms to recognize the impact on the environment of business decisions [1, 2]. Information systems as Carlson *et al.*, [3] argue: “By making use of current business information technology, such as Internet-accessible tools, and industrial environmental management tools, standards, policies and legislation

an information system for EI management has been designed”. The constant need of information from the EI system help managers to identify environmental risks, structure of costs and investments which need a challenge to be faced by firms. The environment could not be defended only by strictly economic results [4]. Indeed, environmental accounting and its reporting are, mostly, made by a voluntary character, especially when they concern the natural environment. Environmental accounting is an essential a tool for implementing the concept of sustainable development, that is, a style of development that does not jeopardize the planet’s resources needed for future generations’ life and development on earth. Implementation of the Kyoto Protocol, for example, as well as of Directive 2003/87/EC establishing a scheme for greenhouse-gas-emission- allowance trading within the Community, requires harmonized, reliable and tried-and-tested accounting systems. Members of the United Nations are now in the process of defining a set of Sustainable Development Goals (SDGs) to finish the job of the MDGs. Nigeria, as a member of United nations is in dire need to implement especially (goals 9, 11, 13) industry, innovation, infrastructure; sustainable cities and communities; and climate action. Nigeria, like

most of the developing countries is a mono economy nation. It derives the majority of its income from the oil and gas industry - an industry that is heavily reliant on environmental resources and consequently degrades and pollutes the environment. Nigeria is an example of developing countries that [5] describes as having massive degradation and destruction of environmental systems and natural resources threatening their continued and sustainable development.

In the past, many people in the world, including the Niger Delta region of Nigeria, took their natural resources for granted and viewed the environment as an almost limitless source of raw material to be exploited and fed to a growing economy. This perception has changed in recent years and people in most part of the world now understand that the capacities of the environment to supply materials and absorb wastes are finite. This growing environment awareness has led to demand for new kinds of information that highlight the relationship between the economy and the environment.

In response to this demand for more information, in the 1980s and 1990s, there was tremendous growth in the attention paid to integrating environment and economic concerns in decision-making. Many world commissions on environment and development have recognized the need for integrated environmental and economic accounting in 1987 when it called for “an annual report and audit on changes in environmental quality and in the stock of the nation’s environmental resource assets” [6]. The commission report was essential to obtain an accurate picture of the true health and wealth of the national economy, and to assess the progress toward sustainable development. A number of studies also called for the need to integrate environment consideration into the national account [7].

In response, many countries began to formulate and implement environmental and resource accounting frameworks and as a result, today many industrialized countries have fairly well established system of environmental and resource accounts that quantify the links between the environment and the economy. A growing number of developing countries are also in the process of establishing environmental accounts. Most, if not all, of the environmental accounting systems are linked to some extent with the national accounts of their respective countries.

Consequently, there is a rising interest in Nigeria about subjects such as environmental development, corporate social responsibility, and corporate ecological performance. They are an after effect of the worldwide calls about the accountability of corporations in the direction of natural environment. Greek corporations have initiated to implementing

practices for better ecological performance and reporting them to the public. In current years, environmental pollution becomes so acute and the stakeholders’ awareness to the issue becomes so serious that environmental accounting has become a solid branch of accounting.

Still, concentration towards the style and acknowledgment of environmental accounting is not a generalized one, Legal authorities, standard setting bodies and other regulators cannot come to a consensus regarding the conceptual framework of environmental accounting and its disclosure, thus, such revelation is not obligatory rather voluntary that has no specific style or format. With the passage of time, more rule are coming in modified format that may lead us to reach a common format for recognizing environment related data and revelation thereof through financial statements. Still, such disclosure is guided by the social responsibility and commitment on the part of the entities that work as strong agents for polluting the environment.

Recently, there has been increased awareness about climate change and environmental degradation in the world, as it has been highly inimical to our existence; ocean levels keep rising, global warming keeps threatening; yet, natural resources like the forest, serving as natural processor that regulates an appealing atmosphere is being cut down, and the capacity of trees which removes carbon dioxide from the earth is being diminished. This paper is therefore intended to investigate the effect of environmental accounting on sustainable development in Nigeria.

LITERATURE REVIEW

The concept “Environmental Accounting”

The term “environmental accounting” has been used to describe attempts to determine environmental costs and benefits to the organization. The main focus is internal, including the costing of energy use and waste disposal, and quantifying the benefits from the sale of environmentally benign products or from environmental subsidies.

Gray *et al.*, [8] stated that accounting provides a very selective yet powerful symbolic representation of the corporate entity. The language of “assets”, “liabilities”, “costs” and “profits” define the operational and ontological limits of the enterprise and provide a technique which configures the organizational autonomy and sensitivity to environmental disturbances.

External impacts on the natural environment relate to the organization’s use of resources and generation of emissions and waste. These impacts can be measured, for example in terms of tons of carbon dioxide emitted, but also in monetary terms, such as

through the costs for acquiring certificates for greenhouse gas emissions. Environmental accounting is usually involved in several areas, such as: energy accounting; waste accounting; environmental criteria in capital expenditures; target setting for efficiency improvements [9].

The entire concept of an accounting transaction is bound to the notion of “private cost”. The result is that many social costs in the form of polluted air, water and soil, and the large palette of ecological damage are not recognized by the accounting process [10]. The environmental accounting system is part of a larger corporate environmental policy, which aims to prevent and reduce environmental impact, through life-cycle analysis, integration of environmental values into the supply chain, eco-design of products and services and environmental monitoring and auditing [11].

Therefore, the purpose of an environmental accounting framework is to provide a general fit over the area regulated: (a) To raise awareness of environmental issues; (b) To develop guidelines to assist identification environmental issues and evaluation for reporting purposes; (c) To provide education programs across disciplines focused on environmental issues and their accounting treatment; (d) To develop practices of environmental accounting, with recommendations on best practices.

There are clear limits to the use of environmental accounting. There are practical difficulties in terms of operations such as complex and highly interdependent manufacturing processes or office locations. The costs of collecting accounting information may outweigh its value in some cases. Moreover, it is very difficult for accountants to prepare meaningful estimates of the business benefits of adopting a green strategy (particularly concerning such intangibles as a good public image or selling benign products) [9].

IFAC [12] International Guidance Document on Environmental Management Accounting prescribes environment related costs in line with both internationally accepted and emerging best practices.

Materials Costs of Product Outputs

These include the purchase costs of natural resources such as water and other materials that are converted into products, by-products and packaging. Examples are raw and auxiliary materials, packaging materials and water

Materials Costs of Non-Product Outputs

They include the purchase (and sometimes processing) costs of energy, water and other materials that become non-product output (waste and emissions);

such as raw and auxiliary materials, packaging materials, operating materials, water, energy and processing costs.

Waste and Emission Control Costs

These include costs for handling, treatment and disposal of waste and emissions, remediation and compensation costs related to environmental damage; and any control related regulatory compliance costs; such as equipment depreciation, operating materials, water and energy, internal personnel, external services, fees, taxes and permits, fines, insurance and remediation and compensation.

Prevention and Other Environmental Management Costs

These include the costs of preventive environmental management activities such as cleaner production projects. These also include costs for other environmental management activities such as environmental planning and systems, environmental measurement, environmental communication and other relevant activities. Examples are equipment depreciation, operating materials, water, energy, internal personnel, external services and others.

Research and Development Costs

These are costs for Research and Development projects related to environmental issues.

Less Tangible Costs

These are both internal and external costs related to less tangible issues. Examples include liability, future regulations, productivity, company image, stakeholder relations and externalities.

Sustainable Development

Sustainable Development in the Nigerian Context

The economic, social and environment pillars of sustainable development have been adequately embedded in many parts of the country’s 1999 Constitution. In particular, the Constitution states that the Federal Republic of Nigeria is “*a State based on the principles of democracy and social justice*”. The Constitution also promises to all Nigerian citizens’ justice encompassing the social, economic, political, equality of status opportunity and the dignity of the individual. With particular emphasis on the environmental pillar of sustainable development, Article 20 (sub-section 2), of the Constitution states that, “*the State shall protect and improve the environment and safeguard the water, air and land, forest and wild life of Nigeria*”. Key challenges of sustainable development are discussed and attempts to overcome these challenges analyzed [13].

Nigeria ranks among the most urbanized countries in the world with a rate of 49.8per cent in 2010. The rate is projected to increase to 56.8 percent

and 63.6 percent in 2020 and 2030 respectively. This poses some challenges to the provision of basic services for all, despite government efforts, particularly in terms of safe water and sanitation. Access to safe water in the rural and as at 2011 stands at 43 % and 74 % respectively.

Nigeria's environment is currently under increasing threat from natural and human-induced. Nigeria ranks among the most urbanized countries in the world with a rate of 49.8 per cent in 2010. The rate is projected to increase to 56.8 percent and 63.6 percent in 2020 and 2030 respectively. This poses some challenges to the provision of basic services for all, despite government efforts, particularly in terms of safe water and sanitation. Access to safe water in the rural and as at 2011 stands at 43 % and 74 % respectively.

Nigeria reckons that for it to meet its development challenges and follow the path of sustainable development, it will focus its efforts at: Creating consistent demand for good governance including addressing socio-economic and political marginalization that seem to fuel conflicts; Tackling poverty and reducing inequality through inclusive policies and people-centred development programmes, as well as addressing critical factors of poverty, underdevelopment, joblessness and lack of economic diversification; Promoting environmental sustainability; Addressing the challenge of climate change;

Greening various sectors of its economy to capitalize on emerging opportunities to leapfrog development, and Promoting massive investment in people to tap unto the latest potential offered by globalization and new information technology.

Nigeria's environment is currently under increasing threat from natural and human-induced disasters such as drought, floods and erosion. Population increase is exerting pressure on the environment. Rapid deforestation, resulting from unsustainable uses of forest resources for human survival (e.g. fuel wood and energy, housing etc.) is a major contributing factor to land degradation. Also, indiscriminate and inappropriate mining activities in many parts of Nigeria have left some areas of the country bare and unproductive. There is also some concern about disasters such as drought, floods and erosion. Population increase is exerting pressure on the environment. Rapid deforestation, resulting from unsustainable uses of forest resources for human survival (e.g. fuel wood and energy, housing etc.) is a major contributing factor to land degradation. Also, indiscriminate and inappropriate mining activities in many parts of Nigeria have left some areas of the country bare and unproductive. T

Deforestation

Forestry contributes about 3% of the GDP and accounts for a high proportion of domestic energy, food and medicinal supply of the rural population (and increasingly the urban population). Nigerian forests also play a major role in the rural economy through the Non-Timber Forest Products (NTFPs). For instance, about 150 indigenous woody plants have been identified as producing food for human and livestock consumption. A lot of other plants are being used for medicinal purposes to cure such diseases as hypertension, diabetes, sickle cell anaemia and bronchial asthma. The value of lost forest cover has been estimated at US\$750 million annually at 1989 prices.

Environmental Pollution

Environmental pollution in Nigeria is much greater in magnitude today than in previous decades as a result of the high rate of population growth and urbanization, modernization of agriculture, especially in the growing use of agrochemicals, the introduction of new technologies and consumer products, and, the ineffectiveness of the institutional, logistical and policy arrangements that have been put in place over the years to tackle the menace. Thus environmental degradation due to pollution must be tackled head-on if Nigeria is to achieve the vision of becoming one of the leading twenty economies in 2020, for a healthy environment is the basis of economic prosperity and sustainable development. Essentially this calls for a robust and holistic approach to pollution management in the country.

Erosion

Erosion of various types, including sheet, rill and gully, is affecting nearly all parts of Nigeria. Coastal erosion is becoming much intensified as a result of human activities such as damming of rivers, construction of harbour protecting structures and jetties like in the Lagos Bar beach, sand mining, dredging activities, and deforestation of coastal vegetation. Sea level rise as well as localized subsidence also exacerbates the rates of coastal erosion. More than 50 erosion sites have been identified along the 835km coastline of Nigeria, with estimated mean shoreline retreats of 2 – 30 m per year (FGN, 1997, NV20:2020 Environment and Sustainable Development Report, 2009) [14].

Degradation

Drought and desertification are twin environmental problems afflicting many parts of the northern part of Nigeria. It has been estimated that between 1976/78 and 1993/95 there was massive degradation of the environment, whereby

desertification has shifted southwards from 12°30' North to 10°30' North [15].

Desertification has become a major development and environment problem in many parts of Nigeria, particularly in the region north of latitude 100N. It has been estimated that between 50% and 75% of Bauchi, Borno, Gombe, Adamawa, Jigawa, Kano, Katsina, Kebbi, Sokoto, Yobe, and Zamfara States in Nigeria are being affected by desertification. These states, with a population of about 35 million people account for about 35% of the country's total land area. In addition, seven adjacent states to the south are reported to have about 10% to 15% of their land areas threatened by processes of desertification. It is estimated that the country is currently losing 351,000 hectares of its landmass to desert-like conditions annually, and such conditions are estimated to be advancing southwards, in a haphazard manner, at the rate of about 0.6km per year.

Environmental Accounting and Sustainable Development

Rahman & Muttakin [16] specified that Environmental accounting is an inclusive field of accounting. It provides reports for both internal use, generating environmental information to help make management decisions on pricing, controlling overhead and capital budgeting, and external use, disclosing environmental information of interest to the public and to the financial community.

UNCTAD [17] Environmental Accounting enables organizations to track their environmental data and other greenhouse gas (GHG) emissions against reduction targets, and facilitates environmental reporting to provide sustainability related data that is comprehensive, auditable, and timely to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development - economic development, social development and environmental protection in Nigeria. Kercher [18] observed that consumers and investors are demonstrating increased interest in supporting responsible business practices and are demanding more information as to how companies address risks and opportunities relating to environmental issues.

Empirical Research

Edward [19], in his study, examined 500 companies in Europe and America between September 2006 and December 2007, and found that 67 percent issuing environmental reports. Of these 335 environmental reports, 87 per cent addressed climate change, with 78 per cent publishing quantitative GHG emissions data; 65 per cent include a specific climate change section; and 41 per cent address climate change in the CEO or Chairperson introduction. He concluded that investors increasingly require that companies

pursue environmental accounting strategies that reduce the damage caused to the environment while increasing or at least not decreasing shareholder value. The aim of environmentally sound management is to increase environmental report by reducing the environmental impact while increasing the value of an enterprise [19].

According to Rahman & Muttakin [16], companies are expected to engage in environmental accounting to: 'reassure consumers that they take their responsibilities seriously 'comply with national guidelines comply with financial reporting requirements 'express the company's environmental concerns and communicate them to a range of stakeholders. More so, the theoretical justification of the removal of resources from environment in the comparative benefit of the removed resources and in the ability to ensure that the environment is generally not worse off [20]; the benefit from mining, he said, must be worth the impact of mining on the environment and damages done to the environment if the environment could be restored.

Beredugo and Mefor [21] when studying the relationship between environmental accounting and sustainable development in Nigeria found out that environmental accounting is positively related to sustainable development and there are consequences of noncompliance. Environmental accounting and reporting enhances the quality of decision-making, requiring organizations to establish a baseline (standard) of its greenhouse gas emissions, energy usage, resource usage and other key environmental indicators, and set reductions targets and a realization of the importance of changing unsustainable consumption and production patterns alongside protecting and managing Nigerian natural resources.

This accounting information are necessary for accountability, comparability and probity; and when not made available, could be tantamount to being bias, not transparent, fraudulent and liable to risk; which could dissuade patronages from consumers, suppliers, investors, surrounding communities and possible sanction from government who are becoming conscious of organization's contribution to sustainable development.

Mgbame and llaboya [22] opined that accounting for sustainability is still a long way off. However the first step towards sustainability reporting requires accounting for through-flow of renewable and non-renewable resources. Therefore sustainable development requires a balanced economic prosperity, environmental management and social responsibility. Mgbame and llaboya [22] advocated a linkage of satellites accounts with system of national accounts where adjustments can be made. This is to enable computation of sustainable Gross Domestic Product

(GDP) and Net Domestic Product (NDP) in satellite accounts.

The existence of uncertainty means that we are unsure of how the natural resources functions; hence substitution of man- made capital for natural resources is not realistic. Further environmental resources are characterized by irreversibility; if mistakes are made it is not possible to correct them. These two features should make human beings to be more cautious about giving up natural capital [23].

Sustainability is not without criticism, the most virulent criticism of SD is seen in Wiseman [24] who says “Sustainable development is one of the most insidious and manipulable ideas to appear in decades and because the multifaceted, global offensive to sell it is essentially unopposed, it is perceived as something of an axiom by the people which has grossly exceeded the bonds of reasonableness and which is ancestral to hosts of environment and social ills, long ago become the enemy of the natural world”.

Faboyede [25] examined environmental protection and sustainability reporting: It found that assurance about a company’s financial projections and nonfinancial information (customer satisfaction, employee retention, or environmental reporting) and the integrity of the information through XBRL enhance the effectiveness and efficiency of resource allocation, increase income and welfare, as well as achieve the objective of an environmentally sound management which encompasses increasing eco-efficiency, reducing environmental impact, and increasing company value added. It recommends that Nigeria and the developing countries should embrace the XBRL technology as they cannot afford to be left behind by the fast spreading current worldwide future reporting standard.

Enyi [26] studied environmental and social accounting as an alternative approach to conflict resolutions in a volatile and e-business environment, it stated that though profits and improvements in world social welfare are the main reasons for industrialization, as governments and business owners are striving to solve one social problem or the other, these same solution processes scoop up other problems along the line which inadvertently breed conflicts and confrontations between the host communities and the owners and operators of the organizations attempting the solution. It was found that a lot could be done to douse the resulting conflagration and pacify those directly affected by applying palliative and preventive remedies using the process of environmental and social accounting aspects of corporate social responsibility (CSR) policies as a tool.

Firms and Sustainable Development Goals in Nigeria

Sustainability simply suggests longevity or the ability to survive under counteracting pressures. While longevity or resilience are integral, they tend to project a somewhat narrow and limited view of sustainability. The broader view underlines the value of environmental, social, and economic considerations in decision making. It’s directly linked to a quest for development that doesn’t inhibit or harm future generations. It recognises the nested inter-dependency between the economy, society and the environment.

In other words, the success of the economy is dependent on the viability of society. The success of society on the other hand is also linked to the viability of the natural environment. As such, without the environment there will be no society, and without society, there will be no economy. The three are interwoven.

There’s significant evidence that sustainability is good for business. A recent study by Harvard and London business schools found that corporations that voluntarily adopt sustainability policies have better organisational processes. They thus perform better when compared to a matched sample of companies that adopted almost none of these policies.

It has also been found that if financial institutions integrate sustainability criteria in their risk assessment and decision making procedures, they will strengthen their financial soundness.

Such institutions also improve systemic financial stability and contribute to a more ecologically sustainable, just and peaceful world. In sum, sustainability is a quest for effectiveness and efficiency. It’s first and foremost rooted in a commitment to reduce negative impacts and increase positive effects. Positive impacts include low carbon emission, fair employment practices, responsible product promotion and good corporate citizenship practices. Corporate sustainability is therefore a form of self-regulation driven by the values and philosophy of a business.

But for a long time, Nigerian businesses have treated sustainability as a dispensable philanthropic option. The focus of most businesses has been on survival. As such, the pursuit of sustainability is seen as not necessarily good for business.

Nigeria, like most African countries, didn’t achieve many of the Millennium goals. This is due to poor governance and the inability of many governments to stimulate sustainable development. The sustainable goals present a new lease of life.

What should businesses in Nigeria do?

The full spectrum of the Nigerian financial regulatory community should be on board. This means that all sources of finance in Nigeria – borrowings and investments is required to respect and reflect sustainability principles.

At the moment, the Central Bank of Nigeria expects most large projects to meet these requirements. Agriculture, power, and oil and gas are especially in focus. These projects will be required to demonstrate that they do not cause social and environmental harms, in addition to being profitable.

Banks have been mandated to develop robust social and environmental management systems to guide their lending and investment decisions. In practice, the banks are expected to adopt social and environmental management systems similar to those found in the UK and the Global Alliance for Banking on Values. (The Conversation, May 16, 2017)

Accordingly, the sustainable finance approach could be extended to all projects, no matter how small. Finance is the lifeblood of any business. There's a global appetite to incorporate environmental, social and governance risks in lending and investment decisions.

As long as Nigerian businesses want to thrive locally and globally, they cannot escape the current demands of sustainability. The earlier they understand and embrace it, the better for them.

RESEARCH METHODOLOGY

This paper uses the descriptive method in analyzing the secondary data collected in order to demonstrate the influence environmental accounting have on sustainable development in Nigeria.

A total number of thirty four (34) companies whose operations have environmental issues formed the accessible population of this study. This study uses secondary data from only audited annual financial statements and footnotes of the sampled companies for the year 2010 – 2016 to examine the extent of environmental accounting practices in their firms. The method was adopted in order to recommend some possible solutions for the slow growth in sustainable development in Nigeria.

How firms can contribute to sustainable development goals in Nigeria

Companies can contribute to sustainable development goals (SDG) through traditional activities such as social investment and philanthropic activities, it is the importance of the private sector's role through its core activities – the provision of goods and services,

job creation, investment in key areas of sustainable development.

The private sector can harness enterprise and innovations to engage developing markets in core business activities. This can include: creating new market opportunities for local suppliers, developing business models promoting access to affordable goods and services, driving up internet connectivity, and improving productivity of small farmers.

Other initiatives include, Human resource development, which educates workers, offers vocational training and provides certificates that increase industry workers' productivity and long-term employability.

CONCLUSION AND RECOMMENDATION

The following conclusions and recommendations were made based on the findings of this study:

Stakeholders should increasingly require companies to manufacture goods efficiently and at competitive prices without harming the environment. The aim is to enhance sustainable development by reducing the environmental impact while increasing the value of an enterprise, satisfying human needs, contributing to the quality of life, and resource intensity through environmental performance reporting occasioned by the ratio between an environmental variable and financial variable that measures the environment performance of an enterprise with respect to its financial performance.

Corrective action is to be conducted through a constant reduction of resources and emissions in all the organizations value chain and progressively producing goods and services as though they were consuming more environmental resources. Regulatory bodies should develop a standard to guide the practices of environmental accounting and reporting. Research and studies should be encouraged in the field of environmental accounting and reporting.

REFERENCES

1. Guidry RP, Patten DM. Market reactions to the first-time issuance of corporate sustainability reports: Evidence that quality matters. *Sustainability Accounting, Management and Policy Journal*. 2010 Jul 3;1(1):33-50.
2. Kuk JL, Lee S, Heymsfield SB, Ross R. Waist circumference and abdominal adipose tissue distribution: influence of age and sex-. *The American journal of clinical nutrition*. 2005 Jun 1;81(6):1330-4.
3. Carlson SM, Moses LJ. Individual differences in inhibitory control and children's theory of mind. *Child development*. 2001 Aug;72(4):1032-53.
4. Gomes A, Mendes AJ. Learning to program-difficulties and solutions. *InInternational*

- Conference on Engineering Education–ICEE 2007 Sep 3 (Vol. 2007).
5. Britt GC, Myers BJ. The effects of Brazelton intervention: A review. *Infant Mental Health Journal*. 1994 Sep;15(3):278-92.
6. Sakmar SL, Wackemagel M, Gali A, Moore D. Sustainable Development and Environmental Challenges in the MENE Region: Accounting for environment in the 21st Century. *The Economic Research Forum, Egypt*. 2011.
7. Nik Ahmad NN, Sulaiman M. Environmental disclosures in Malaysian annual reports: A study of the construction and industrial products sectors. In *European Accounting Association 25th Annual Congress, Copenhagen Business School, Denmark* 2002 Apr (pp. 25-27).
8. Gray R, Javad M, Power DM, Sinclair CD. Social and environmental disclosure and corporate characteristics: A research note and extension. *Journal of business finance & accounting*. 2001 Apr;28(3-4):327-56.
9. Bhate S. One world, one environment, one vision: are we close to achieving this? An exploratory study of consumer environmental behaviour across three countries. *Journal of Consumer Behaviour: An International Research Review*. 2002 Dec;2(2):169-84.
10. Deegan C, Gordon B. A study of the environmental disclosure practices of Australian corporations. *Accounting and business research*. 1996 Jun 1;26(3):187-99.
11. Hossain M. Corporate environmental disclosure in developing countries: Evidence from Bangladesh. *Bangladesh Environment*. 2002;1(12):1077-89.
12. Fokkema IF, den Dunnen JT, Taschner PE. LOVD: easy creation of a locus-specific sequence variation database using an “LSDB-in-a-box” approach. *Human mutation*. 2005 Aug;26(2):63-8.
13. National Center for Health Statistics (US. Health, United States, 2011: With special feature on socioeconomic status and health. 2012.
14. Sev A. How can the construction industry contribute to sustainable development? A conceptual framework. *Sustainable Development*. 2009 May;17(3):161-73.
15. Hewawasam RP, Jayatilaka KA, Pathirana C, Mudduwa LK. Protective effect of *Asteracantha longifolia* extract in mouse liver injury induced by carbon tetrachloride and paracetamol. *Journal of pharmacy and pharmacology*. 2003 Oct;55(10):1413-8.
16. Rahman MA, & Muttakin MB. Corporate Environmental Reporting practices in Bangladesh- a Study of some Selected Companies. *The Cost & management*, 2005; 33(4) 13-2 1.
17. Ramamurti R. Developing countries and MNEs: Extending and enriching the research agenda. *Journal of International Business Studies*. 2004 Jul 1;35(4):277-83.
18. Brown RA, Kercher AK, Nguyen TH, Nagle DC, Ball WP. Production and characterization of synthetic wood chars for use as surrogates for natural sorbents. *Organic Geochemistry*. 2006 Mar 1;37(3):321-33.
19. Edward J. *Environmental Accounting and Reporting*. Oracle J. R. Enterprise. 2011.
20. Uwaegbulam C. Financial reporting in Nigeria and International Financial Reporting Standards. *The Guardian Newspaper* of 2011, Nov. 29. Page 96.
21. Beredugo SB, Mefor IP. The impact of environmental accounting and reporting on sustainable development in Nigeria. *Research Journal of Finance and Accounting*. 2012;3(7):55-63.
22. Mgbame CO, Ilaboya OJ. Environmental accounting audit decision and firm performance: an empirical investigation. *Journal of Modern Accounting and Auditing*. 2013 Apr 1;9(4):447.
23. Turner RK, Pearce DW. The ethical foundations of sustainable economic development. *International Institute for Environment and Development*; 1990 Mar.
24. Wiseman J. An evaluation of environmental disclosures made in corporate annual reports. *Accounting, organizations and society*. 1982 Jan 1;7(1):53-63.
25. Iyoha FO, Faboyede OS. Adopting international financial reporting standards (IFRS)-A Focus on Nigeria. *International Journal of Research in Commerce and Management*. 2011;2(1).
26. Uremandu S, Ben-Caleb E, Enyi PE. Working capital management, liquidity and Corporate profitability among quoted firms in Nigeria: Evidence from the Productive sector. *International journal of academic research in accounting, finance and management sciences*. 2012;2(1).