

## RE-INVENTING ENVIRONMENTAL GOVERNANCE TOWARDS EFFECTIVE EMISSION CONTROL IN SOUTH AFRICA AND NIGERIA

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### ABSTRACT

South Africa and Nigeria are developing countries and leading economies in sub Sahara Africa. Thus, effective management of the environment in their respective boundaries is not only essential for the overall goal of emission reduction across the globe but for the health of the people within their respective borders. However, while Nigeria has been classified as the second largest gas flaring nation in the world because of the unmitigated gas flaring activities that is associated with petroleum operation in the Niger Delta region, emission from refineries and other sources have been a contentious issue during and after apartheid era in South Africa, particularly in places like South Durban and Salsosbourg which are industrial settlement. The paper examines the legal and structural frameworks for management of the environment and in particular gas emission in Nigeria and South Africa in the context of the growing global demand for equity and effective governance of the environment. The paper discusses global trends in air quality governance and in the two countries, reviewing available legal and policy frameworks for control of emission and made strong recommendations for reform in the two jurisdictions.

**Keywords:** Environmental Governance, Gas Emission, gas flaring, legal framework, Nigeria, South Africa.

### INTRODUCTION

Managing the environment in Nigeria and South Africa has continued to generate concerns. Activities within the two nations, being home to greater majority of people in sub Sahara Africa and as emerging economies is bound to have serious impact not only within their respective borders but on neighbouring countries on the continent and the world at large.

Governance has been defined by several authors to mean many things; one cannot but agree with the position of the United Nations Economic and Social Council (UN ECOSOC, 2006) that the use of the term varies according to the scope and locus of decision making power. Jon Pierre (Pierre, 2000, p.3) defines governance as ‘a conceptual or theoretical representation of co-ordination of social systems and, for the most part, the role of the state in that process.’ Governance functions are now discharged beyond government monopoly particularly in issues that affect individuals and groups.

Irrespective of the context in which the term is being used, the following have been identified (van Kersbergen & van Waarden, 2004, pp.151-152) as characteristics of governance:

1. The adoption of pluricentric (of participants) rather than unicentric approach.
2. Networks play an important role.
3. Emphasis on processes of governing or functions as against the structures of government.

4. The development of different institutions to reduce the specific risks and uncertainties posed by the relations between different actors in order to make cooperation possible or easier.
5. Many approaches are normative as they prescribe an ideal as well as an empirical reality.

Environmental governance as a concept is part of the innovations for the protection and sustainability of environment. It is a departure from the bureaucratic-administrative centred system of environmental management which is usually characterised by undue delay and reigns of technocrats. The term incorporates the 'the rules, practices, policies and institutions that shape how humans interact with the environment.'(UNEP, 2009) It is better described as the coordination of the activities of government and non-governmental organisations or institutions, local communities and stakeholders in environment related issues.

According to UNEP, attaining good environmental governance will entail recognition of the role of government, NGOs, private and public sectors, and others whose activities 'impact the environment,' (UNEP, 2005) all working together on a common goal of environmental protection and sustainability. Environmental governance deals with how environmental decisions are made and who makes them (Dunoff, 2007, p.86). In other words, how environmental law and policy are made. In assessing the success of any environmental governance system therefore, each stakeholder must be willing and encouraged to play their roles. Government's role will include creating the structures and appropriate conditions for other stakeholders to discharge their different obligations or voluntary actions. Ultimately, issues like availability of appropriate legal regimes, enforcement of laws, adequacy of the available rules, democratisation of the system- that is, active participation of the local people in the process in affected areas, and access to justice to seek remedies must be considered.

The key players in international environmental governance are identified (UNEP, 2010) as national governments; intergovernmental organisations such as the UN and its specialised bodies; civil society groups; private sector associations; and a variety of partnerships between public, private, and civil society actors. International environmental governance is carried out through a multiple of intergovernmental, non-state, and public-private processes and initiatives that vary in format, structure and membership (*Ibid*). In other words, environmental governance at this level is disjointed with different stakeholders working at cross purpose thus generating a begging problem of effective coordination. In the opinion of governance experts, James Broughton and Colin Bradford, such a 'multiplicity of actors' results in a 'wide divergence of objectives and interests.' (Cited in Moore, 2010)

The above situation has led to clamours for a restructuring of international environmental governance by world leaders and experts on environment matters. For instance, in a letter dated 21 September 2009 written to the UN Secretary-General, H.E. Ban Ki-Moon, in the build up towards the Copenhagen Conference of 2009, French President Nicolas Sarkozy and German Chancellor Angela Merkel advocated a total overhaul of environmental governance. The two leaders specifically called for the establishment of a World Environmental Organisation (UNEP, 2010) which was supported by leaders of many developing countries.

Speaking in the same vein from the developing world, the South African Minister of Environmental Affairs and Tourism identified 'burgeoning fragmentation and duplication in an overburdened system' as a major challenge to the integration of environmental concerns into macro-economic policy-making, as well as an issue of 'critical importance' to developing countries (van Schalkwyk, 2010, p.2).

The paper is an assessment of the problem of emission in South Africa and Nigeria, existing policies and legal frameworks for control of gas emission in Nigeria and South Africa. It consists of four parts including this introduction. The second part discusses the environmental problems in South Africa. The third part is on environmental concerns in Nigeria while the fourth part concludes the paper by making recommendations for improving environmental governance in both countries.

### **ENVIRONMENTAL PROBLEMS IN SOUTH AFRICA**

Aided by weak legal regimes and disjointed environmental governance system, multinational corporations are at present under severe criticism over wrong environmental practices in their activities which have resulted in serious risk to residents and ecosystem in their areas of operations in some parts of Nigeria and South Africa.

Environmental sustainability in apartheid South Africa was compounded by the regimes' concern about insulating the enclave from the effect of the disdains of 'civilized world' towards the country's racial discrimination policy. Apartheid policy began in South Africa in 1948, with the assumption of majority in the parliament by the National Party ending finally in 1994. Apartheid South Africa was subjected to severe economic sanctions imposed by different countries and international bodies on the successive regimes. To mitigate the harsh effects of these sanctions, successive regimes invested heavily in the development of the huge mineral resources in the territory without regard to the environmental consequences of these activities, one of which is carbon emission.

Post apartheid South Africa still depends heavily on mining. It is at present said to be actively mining 54 minerals with prospects for exploitation of additional two new minerals in the short to medium term, namely magnesium and rare earth metals (Shabangu, 2010). This indispensable place of mining in South Africa's economy was clearly echoed by Susan Shabangu at a forum recently when she declared that 'our mining sector belongs as much as to our past as it could drive our socio-economic development in the future (*Ibid*). As a result, democratic South Africa is saddled with different environmental burdens some of which are associated with the unmitigated emission of hazardous and sometimes poisonous gases.

#### **Gas Emission in South Africa**

The mining Industry in South Africa is a major source of environmental concern. For instance, the reliance on coal and other sources has made South Africa 'one of the most carbon intensive economies in the world (Hallowes, 2010, p.10). In 2004 alone, CO<sub>2</sub> emission was estimated at 440 million tons (*Ibid*). South Africa is reported to make up more than 40% of the African carbon emissions with only 6% of the African population (Yawitch, 2010, p.46, International Energy Agency, 2011) with its per capita carbon emissions being among the highest in the world (O'Connor and Hallowes, 2002, p.2) thus making it

a global warming hot spot. Energy related carbon emission in South Africa in 1999 was estimated at 99.4 million metric tons (*Ibid*).

The effects of air pollution are felt in different parts of the country. In particular, concerns have been raised about health in communities such as Merebank, south of Durban and in Sasolburg near Vereeniging, Gauteng where hundreds of thousands of people live in proximity to oil refineries and other hazardous chemical generating industries. In 1989, at Island View, a petrol chemical facility at Durban Port, over 50 volatile organic chemicals were discovered to be circulating with 20% of them detectable in the garden of a nearby resident (*Ibid*, p.6). Equally, pollutants like benzene, vinyl chloride and methylene chloride, carbon disulphide, 2-butanone, toluene, ethylbenzene and xylenes suddenly emerged in the air in areas around the refineries, while the xylene levels measured under normal operating conditions at Engen in South Durban were found to be four to five times more than that found during upset conditions at United States refineries (*Ibid*).

Residents who breathe health damaging gases emitted from such industries suffer from asthma and leukemia. For instance, in Sasolburg, '[r]esidents suffer high levels of child mortality and respiratory illnesses. Workers suffering occupational diseases are retrenched and sent home to die.' (Ramatesela, 2001) Health experts describe the rate of infection as amongst the highest in the world (Legal Resources Centre, 2003-2005), p.5). The children and the elderly are the worst affected. In Durban, study carried out revealed that 'school children at a school situated next to a refinery suffered between 30%-40% more respiratory problems than children living more than 10km away.' (groundwork)

In a memorandum titled: *Ours is not perception: Environmental Injustice and Racism is a reality* (Cited in Hallows and Butler, pp.58-59) representatives of residents of major cities and localities in South Africa including residents of South Durban area, blamed the South African government and MNCs on the unhealthy state of the environment in their areas. In particular, the memorandum among others stated that the MNCs are:

- "dumping hazardous chemicals and pollution in our neighbourhoods that lead to death and injury of workers and residents, and the retardation of our population;
- driven by greed to maximise profits at the cost to community health;
- not taking responsibility for their pollution and use public platforms to shift the environmental health debates to vehicle pollution and domestic pollution;
- undermining the community environmental health concerns by using employment as a bargaining tool for their unsustainable and polluting developments, and compromising community struggles by pushing industrial led social development projects; and
- transferring dirty technology, such as incinerators to South Africa and increasing the pollution burden on poor and vulnerable communities."

It continued that government is, among others:

- "failing the people by refusing to challenge MNCs for their polluting practices;

- allowing an industrial sector to develop that is holding our democracy at ransom by its continued pollution and injury to free South Africans;
- allowing the development of a sick and malformed society because children are exposed to pollution daily in their learning as well as their living environments;
- colluding with industry to promote unsafe expansion of industrial development; and
- marginalising communities due to improper consultation processes.”

## **ENVIRONMENTAL GOVERNANCE IN SOUTH AFRICA**

Formal regulation of the environment in South Africa can be traced to the foundational works in the period between 1652 when according to the account of Muller (Muller, 2009, p.68) ‘the Dutch settlers introduced restrictions on the cutting of trees and the hunting of wildlife.’ Effective control however, commenced with the establishment of the Council for the Environment which was statutorily mandated ‘to advise on policy matters’ in the 1980s (*Ibid*).

Contemporary environmental governance policy making manifests through the constitution, government policies, laws, standard settings and regulations in South Africa. There are different sources of environmental law in South Africa and Nigeria; these include indigenous laws, legislations, international laws, judicial precedents, tort law or common law principles.

One of the post-Stockholm conference developments is the flurry of activities at national levels toward environmental protection. Actions were taken to formalise the morality of environmental protection through constitution making, release of national policies on environment and specific environmental legislations, and these activities define environmental protection today. Different policy instrument options are now employed by governments to pursue environmental protection and sustainability. These include: emissions taxes, abatement subsidies, marketable allowances, regulation based on performance standards or technology, property rights, deposit-refund schemes, information programs, liability rules, and a number of related policy tools (Richards, 2000, p.222). These policies are contained in environmental legislations or rules by administrative agencies that are tasked with environmental protection duties (*Ibid*).

The South African Constitution is one of about 100 national constitutions with clear provisions on environmental protection. It provides for the right to the environment. Section 24 provides

“Everyone has the right-

- (a) to an environment that is not harmful to their health or well-being; and
- (b) to have the environment protected, for the benefit of present and future generations through reasonable legislative and other measures that-
  - (i) prevent pollution and ecological degradation;
  - (ii) promote conservation; and
  - (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.”

The Bill of Rights is particularly important to environmental governance in several ways. Kotzé and Paterson (Kotzé and Paterson, 2009, p.560) mentioned three of these ways: entrenches an environmental right with other associated rights that are

relevant to protecting environmental matters; determines the status of various sources of law, including international law; and lays down governance mandates and establishes the dictate of cooperative governance. In other words, it provides for environmental right thus enabling the citizens to invoke the right where their well-being or health is threatened. Consequently, it greatly enhances the nature and scope of potential legal remedies to individuals seeking to enforce the right (*Ibid*, p.562).

Equally, the South African government formulated the Environmental Management Policy (Government Gazette Notice 749, 1998) as a framework which apply to 'all government institutions and to all activities that impacts on the environment.' The policy among other things addressed the following:

1. A new vision for environmental policy and the mission of the department of Environmental Affairs and Tourism with respect to the policy.
2. The policy principles that must be applied in developing and testing policy and subsequent actions including decision making, legislation and regulation.
3. Government's strategic goals and supporting objectives to begin addressing major issues facing environmental management and the sustainable use of resources and for measuring the success of policy implementation.
4. Government's approach to governance, setting out the powers and responsibilities of the different spheres and agencies of government and the regulatory approach to environmental management.

Government undertakes through this policy to give effect to the many rights in the Constitution that relate to the environment which include those that specifically touches on environment as well as those relating to governance such as the legal standing of parties, administrative justice, accountability and public participation (*Ibid*, p.10).

Under the South African Constitution, Air quality management falls within the concurrent legislative competence of the National parliament and the provincial legislatures. Sections 40-41 of the South African Constitution promotes harmonisation of policies between the national government and the provincial governments on critical issues where the two levels of government have concurrent powers under the principle of cooperative government. Pollution control is one of those areas in which the Constitution mandates all the levels of government to among others, secure the well being of the people of South Africa; provide effective, transparent, accountable and coherent government for South Africa, cooperate with one another in mutual trust and good faith, and promote and facilitate good intergovernmental relations (sections 41 (1) (b), (c), (h) & (2)).

Also incorporating the principles above is the National Environmental Management Act 107 of 1998 (NEMA) which sections 11-16 mandates government departments at the three tiers to collaborate towards an integrated environmental management system in the country. With a clear mandate to collaborate under National Environmental Management Act, the Departments of Environment at the National and provincial levels are saddled with the responsibility of 'compiling an environmental management plan or implementation plan that must include an air quality management plan.' (Air Quality Act, section 15, Blottnitz, Fedorsky & Bray, 2009, p.585).

The National Environmental Management: Air Quality Act 39 of 2004 was enacted

- (a) to protect the environment by providing reasonable measures for-
  - (i) the protection and enhancement of the quality of air in the Republic;
  - (ii) the prevention of air pollution and ecological degradation; and
  - (iii) securing ecologically sustainable development while promoting justifiable economic and social development; and
  
- (b) generally to give effect to section 24 (b) of the Constitution in order to enhance the quality of ambient air for the sake of securing an environment that is not harmful to the health and well-being of people (section 2).

The Department of Environment and Tourism collaborate with other related departments at the provincial and municipal levels of government in South Africa to implement and enforce the provisions of the South Africa environmental laws and secure its future sustainability through the release of regulations and standards to work out the technical details of the main statute. In line with this, the department recently published revised Ambient Air Quality standards, which according to the department ‘... South Africans, regard as defining ambient air that is not harmful to health and well being.’ (South African Government Information, 2010).

The new thinking of pursuit of Green Economy as one of the key elements in South Africa’s New Growth Plan and the Industrial Policy Action Plan informed the making of a new Air Quality Act that came into effect on 1 April 2010 which according to the Department of Environment and Tourism in South Africa is anchored on ‘an ambient air that is not harmful to health and well being of all across the nation’ and will herald ‘a significant milestone for air quality management in South Africa’ (*Ibid*).

Suffice it to say that the establishment of the Environmental Management Inspectors (EMIs) or the green scorpions has impacted very well on enforcement of environmental law. As at March 2010, there were 1073 designated EMIs across all institutions (national, provincial and local level) in South Africa in order to ensure effective implementation of NEMA and the specific environmental management Acts (Molewa, 2011).

There are also regular and ongoing countrywide workshops as a platform for interaction between the Environmental Management Inspectors, the magistrates and the prosecutors to address barriers in effective enforcement of environmental legislations. In 2009, over 2547 summons and arrests were recorded for environmental offences (National Environmental Compliance and Enforcement Report 2008-2009, p.7). Bench book on environmental crimes have been developed and designed for prosecutors and magistrates respectively.

The South African government while affirming the ideals of the global transition to a low-carbon, resource-efficient and sustainable economy; has embarked on a long term plan to move towards a low carbon growth path. Under the arrangement,

the government sees moving to a green economy as an action that will contribute to the global effort at reducing greenhouse gas emissions thereby mitigating the effects of climate change (COP17/CPM7, 2011). Under the government's Long-Term Mitigation Scenarios (LTMS), South Africa action plan is to see 'its carbon emissions 34% lower in 2020 than they would have otherwise been and 43% lower in 2025.' (*Ibid*).

## **ENVIRONMENTAL CONCERNS IN NIGERIA**

One of the challenges of the past military era in Nigeria is giving the poor, the vulnerable and the marginalized people who are usually objects of the different environmental wrongs protection. The various environmental problems confronting Nigeria have been summarized by the Report of the Vision 2010 Committee published in 1997. These include (Vision 2010, 1997, p.116):

- Population pressure and the continuous exploitation of marginal lands, aggravating the process of drought and desertification in the north;
- severe gully erosion in Eastern and Northern States;
- coastal and marine erosion, and land subsidence in coastal and riverine states;
- flooding in low-lying belt of mangrove and fresh swamps along the coast, the plains of large rivers and short-lived flash floods in the inland rivers;
- uncontrolled logging with inherent problems of the destruction of bio-diversity;
- inappropriate agricultural practices;
- destruction of watersheds;
- soil-crust formation caused by loss of water;
- destruction of vast agricultural lands;
- creation of burrow pits associated with bad mining practices and road works;
- oil pollution from spillage and gas flaring-related problems; and
- industrial pollution, municipal waste generation and urban decay.

That environmental issue has continued to dominate the agenda at different forum is a pointer to the great danger that the world and its inhabitants now face as a result of improper use of the environment by man's activities. In the words of Ashworth (Ashworth, 2007) 'we can literally see environmental disasters unfolding before our eyes, we have a real fear that, in the near future, famous geographical features will disappear forever.'

Environmental degradation in Nigeria beyond being a national problem attests to the reality of global climate change and the vulnerability of the Nigerian state. There is no part or a single area of the country that is free from this menace. The tendency has always been to see environmental calamities that are associated with oil exploitation activities in the Niger Delta region as the main environmental challenge of the Nigerian nation. While the Northern part of the country is facing the looming danger of desertification, the communities in the southern part have the menace of erosion and flooding to contend with. The unfortunate trend in Nigeria now is to see building collapse even in urban areas.



## **SOME ENVIRONMENTAL PROBLEMS IN NIGERIA AND THE REALITY OF CLIMATE CHANGE**

### **Flooding**

In the past, flooding was known to be limited to some communities in the coastline states of Nigeria, where economic activities like fishing and farming are often lost to flooding. The position now is that flooding in Nigeria is no longer restricted to the coastal states. Excessive flooding in Sokoto, Kebbi and Jigawa states in 2010 led to a reduction in rice production by 50% in September 2010 as compared to the same period in 2009 (Nigerian Meteorological Agency, 2010, p.27). While at least 102 people were said to have been killed by floods in and around the south-western Nigerian city of Ibadan in the flooding that occurred in August 2011, about 500,000 people were said to be displaced nationwide in Nigeria due to the effects of flood in 2010 alone (BBC News, 2011). Apart from the displacement and death, floods results in the contamination of unprotected water sources, thereby exposing people to the risk of water-borne diseases; destroyed crops and disrupted the planting season (Chinedu).

It is important to note that while climate change may result in increase aridity and desertification in northern Nigeria, it will lead to increase in flooding in the southern part especially in the coastal regions (Uyigue and Agho).

### **Erosion**

Erosion poses another major environmental challenge to policy makers in Nigeria. The South-Eastern states of the Nigeria have constantly been a subject of distressing gully erosion which often leads to landslides. In states like Anambra that is reported to have more than 1,000 gully erosion sites out of which 550 are active and requiring over ₦22 billion to tackle (Vision 2020 Input for Anambra State, p.110) deaths of hundreds of people have been reported in addition to destruction of farmlands and homes worth several millions of naira. Indeed, increased gully erosion in the south east and coastal erosion in the southern region is seriously undermining the lives and livelihoods of over 50 million Nigerians living along the low laying coastal regions and posing grave threats to oil facilities located within these areas (Federal Ministry of Environment, p.15).

### **Desertification**

Nigeria has reportedly lost about 351,000 km<sup>2</sup> of its land to the desert, estimated to be advancing at a rate of 0.6 km per year (Ladan, 2009, p.528). The challenge of desertification is predominant in the northern part of Nigeria. Experts have estimated that an area of 75 million hectares of land in the North is threatened by desertification which portends serious danger to food security in Nigeria and in the entire ECOWAS sub-region (Danjuma, 2012). They declared that not less than 35 million people located in 11 frontline states namely; Kano, Katsina, Sokoto, Zamfara, Adamawa, Bauchi, Borno, Kebbi, Gombe, Yobe, and Jigawa, are facing serious threats of hunger, destruction of their major access roads, and extreme weather conditions due to desert encroachment on arable lands and grazing fields (*Ibid*). As noted by Fashola, the Lagos State Governor in Nigeria, 'it is so worrisome that as a result of climatic change, our country [Nigeria] loses vast areas of land to desertification. This has led to displacements in many of the affected states. Last year reports [2010], suggested that Nigeria loses about \$5.1 billion yearly to desert encroachment.' (Fashola, 2011)

This opinion of experts is worrisome when one considers the fact that greater percentage of the population in the northern part of Nigeria depends on farming and animal husbandry. It is not uncommon today now to see the traditional Fulani pastoralists coming out of the bush to hawk along highways in Nigeria to survive the loss of their traditional occupations. Thus, the pressures on the land have often led to increased incidence of pastoralists-farmers conflict and desertification (Federal Ministry of Environment of Nigeria, National Action Programme to Combat Desertification, p. 11). The grave effects of desertification in the drylands of the world led to the adoption in 1994 of the Convention to Combat Desertification (CCD) by the United Nations Organization. Nigeria signed the Convention on the 31<sup>st</sup> October, 1994 and ratified same on the 8<sup>th</sup> July, 1997 (*Ibid*, p.19). Unfortunately, not much has been done in the past by the Nigerian government to combat the scourge of desertification. Indeed, it was not until 2001 that the Obasanjo led government began to address desertification with the launching of the National Action Programme (NAP) on desertification (Olori, 2002). Tens of thousands of farmers and their families in affected communities in the Northern part of Nigeria have been forced to move off their land that has become barren. Even the nomadic Fulani people are also going even further south in the hopes of finding better grazing areas for their herds (IRIN News). Sadly, not less than 50,000 farmers in about 100 villages in the northern state of Yobe, have been displaced because of the sand dunes covering houses, farmlands and roads (Olori, 2002).

While it is generally accepted that desertification may be a result of some natural factors, poor governance in certain human activities like deforestation; bush burning; overgrazing; poor irrigation practices and excessive cultivation of land are largely responsible for the menace of desertification in Nigeria.

### **Pollution from oil operations in Nigeria**

The Niger Delta region of Nigeria today is known across the world for the violent struggle for environmental rights and protection against the unregulated exploitation of natural resources and environmental degradation that is associated with oil exploration in the region. Activities of the Nigerian National Petroleum Corporation, a state owned outfit and its joint venture partner Shell Petroleum development Company and other major oil companies, like Shell, ExxonMobil, Chevron, Total, in Nigeria have been a major source of conflicts in the Niger Delta. Oil exploration has caused severe environmental degradation and health problems in the host and neighbouring communities.

### **Gas Flaring Emission**

Gas emission from the Niger Delta region of Nigeria alone, particularly from flared associated gas (gas produced as a byproduct in oil production fields) from some 250 oil wells in the region is estimated at 2.5 billion cubic feet per day (World Bank Energy Section, 2004, p.30). This represents 40 percent of all of Africa's natural gas consumption in 2001 (Ero, 2008, p.59). In economic terms, it translates into a loss of \$2.5 billion (*Ibid*) in government revenues and \$72 billion for the period 1970-2006 (Environmental Rights Action/Friends of the Earth Nigeria, 2008). This source alone is reported to be responsible for more greenhouse gas emission than all of sub-Saharan Africa combined and a major cause of carcinogenic benzene, lung irritants NO<sub>x</sub>, SO<sub>x</sub>, H<sub>2</sub>S, and ozone (*Ibid*). According to the OPEC figures of 2001, Nigeria has the unenviable record of being the world number one gas flaring nation (Environmental Rights Action/Friends of the Earth Nigeria/Climate Justice Programme Report, 2005). However, data from the recent satellite imagery study by the World Bank in collaboration with

the US National Oceanic and Atmospheric Administration (NOAA) showed Russia displaced Nigeria as the top gas flarer in the world with 50.7 bcm as against Nigeria with 23 bcm (National Oceanic and Atmospheric Administration, 2007), thus rating Nigeria second in the World.

In the *Social and Economic Rights Action Center and the Center for Economic and Social Rights v. Nigeria* (Communication 155/96), called the *Ogoni case*, which went before the African Commission on Human and Peoples Rights, the complaint by the Ogonis of the Niger Delta of Nigeria was about environmental degradation and health problems foisted on the people by oil operations. One of the complaints against the Nigerian State was that it did not monitor the operation of the oil MNCs. The commission, in 2001, found that the government of Nigeria violated Articles 2 (non-discriminatory enjoyment of rights), 4 (right to life), 14 (right to property), 16 (right to health), 18 (family right), 21 (right of peoples to freely dispose of their wealth and natural resources) and 24 (right of peoples to a satisfactory environment).

Equally, in the case of *Jonah Gbemre v Shell Petroleum Development Company and Nigerian National Petroleum Corporation* (Suit No FHC/B/CS/53/05), the Court upheld the arguments of the 1<sup>st</sup> plaintiff and his community that:

“the first and second respondents who were in the oil and gas business in Nigeria were engaged in the exploration and production of crude oil and other petroleum products in Nigeria. The companies were alleged to have been engaged in massive, relentless and continuous gas flaring in the community, this activity they alleged, seriously pollutes the air, causes respiratory diseases and generally endangers and impairs their health, this they claimed gives rise to the following:-

- (a) Poisons and pollutes the environment as it leads to the emission of carbon dioxide the main green house gas; the flares contain a cocktail of toxins that affect their health, lives and livelihood.
- (b) Exposes them to risk of premature death, respiratory illness, asthma and cancer.
- (c) Contributes to adverse climate change as it emits carbon dioxide and methane which causes warming of the environment, pollutes their food and water.
- (d) Causes painful breathing, chronic bronchitis, decreased lung function and death.
- (e) Reduces crop production and adversely impacts on their food security.
- (f) Causes acid rain, their corrugated house roofs are corroded by the composition of the rain that falls as a result of gas flaring saying that the primary causes of acid rain are emission of sulphur-dioxide and nitrogen oxides which combine with atmospheric moisture to form sulphuric acid and nitric acid respectively. The acidic rain consequently acidifies their lakes and streams and damages their vegetation.”

The apocalypses presence of these noxious chemicals in the atmosphere in Nigeria has not propelled the expected crescendo in environmental governance particularly in the control of gas emission.

The Nigerian government has set several deadlines for phasing out gas flaring, the targeted dates being 1969, 1979, 1984, and 2008 (Ukala, 2011, pp.97-126). The last deadline was 2010; however the political will necessary to stop the process

appear to be missing, each agency of government in Nigeria having given different deadlines at different times. Recently, the members of the House of Representative of Nigeria adopted a report, setting 31 December 2012 as the target date for the achievement of the zero gas flaring in the country (Amanze-Nwachukwu, 2011). The bill mainly seeks to amend two sections of the Associated Gas Re-Injection Act, No 99 of 1979 and Cap A25 Laws of the Federation of Nigeria, 2004, namely sections 3 (1) and (2) and a substitution of 3 (2) (b) of the principal Act. The committee recommended that *Section 3 (1) of the principal Act which had January 1, 1984, but which later moved to December 31, 2008 as deadline date, is now amended by substituting it with December 31, 2012* (italics ours). The committee further recommended that Section 3 (2) of the principal Act is amended by substituting the expression “permitting the company to continue to flare gas in the particular field or fields if the company pays the sum of \$5.00/1000 scf of gas flared.” It is doubtful if this deadline set for zero-gas flares could be achieved considering the fact that most of the gas gathering and utilisation projects are yet to take off.

While the position is that Nigeria and South Africa are non-annex 1 signatories to the United Nations Framework Convention on Climate Change (UNFCCC, 1992) and therefore not under obligation to cut emission from their industries, the reality of the devastating impact of emission from gas flaring in oil operations within Nigeria’s boundary as discussed above and possibly on its immediate neighbours calls for appropriate policy to control environmental degradation or unhealthy industrial practices.

#### **ENVIRONMENTAL GOVERNANCE IN NIGERIA**

The presence of proper legal regime, institutions, individuals and organizations to drive the protection and sustainability of environment is crucial in the war against climate change and the quest for healthy environment. While nations in the western world may be said to have succeeded in being on top of domestic environmental problems, the reverse is the case in the developing world where different factors like weak legal frameworks, corruption, maladministration, increase in population, poverty, demand for infrastructural development among others and the conditional commitment of developing countries to control of emissions are causing greater damage to immediate environments in addition to the apocalyptic Global climate change.

The militarisation of the Niger Delta region of Nigeria and the attendant wanton loss of lives and properties in the violence that consumes the region regularly is an obvious testimony to the failure of environmental governance in Nigeria.

While the Nigerian government can be said to have been part of the euphoria for the protection of environment through participation in different conference and policy initiatives at the global level, these have not translated to effective governance of the environment. In particular, controlling gas emission in Nigeria remains an illusion to be pursued.

Different measures have been put in place in Nigeria towards reduction of emission; the question is the adequacy of these in terms of legislation or rules.

The Constitution of the Federal Republic of Nigeria unlike that of South Africa does not have any direct provision for environmental protection or sustainability. Section 20 of the Constitution of the Federal Republic of Nigeria, 1999 provides

that: 'The State shall protect and improve the environment and safeguard the water, air, and land, forest and wildlife of Nigeria.' Though section 20 of the constitution refers to an environmental objective for the Nigerian state; the fact that it is under the notorious section 6 on fundamental objectives and directive principles of state policy under chapter II of the constitution subjects the provision to the lame duck status of non-justiciable. Generally, environment matters are on the concurrent legislative lists thus giving the National Assembly and the federating State Assemblies the power to make laws on marked areas for environmental protection. Environmental issues from defence, mining, aviation, petroleum operations etc are restricted to the National Assembly. (Section 4 of the constitution and the schedule thereof).

The Court in Nigeria has however in applying the bill of right under chapter 4 of the Constitution in the *Jonah Gbemre's case* on gas emission held that:

The constitutionally guaranteed fundamental rights to life and dignity of human person provided in sections 33(1) and 34(1) of the Constitution of Federal Republic of Nigeria, 1999 and reinforced by Arts. 4, 16 and 24 of the African Charter on Human and Peoples Rights (ratification and enforcement) Act Cap A9, vol. Laws of the Federation, 2004 inevitably includes the right to a clean, pollution free and healthy environment.

In other words, notwithstanding the inadequacies in the provisions of the Nigerian Constitution in guaranteeing environmental rights for its citizens, it must not be jettisoned in championing the cause of the environment. It must be actively engaged by the civil society and the people they serve before the courts for effective and liberal interpretation of the rights contained therein. The 'cost of not using the Constitution is to lose it because the power to define the meaning of rights will be left to the conservative instincts of the state and to corporate interests.' (groundWork Report, p.74).

Different legislations are in place in Nigeria to control gas emission, the challenge however has been the adequacy of some of the laws. The section that follows is an attempt to outline some of these laws as the list is not exhaustive.

#### **The Petroleum Act (Cap. P10, LFN 2004)**

The Minister of Petroleum under the Act is empowered to make regulations to provide for issues like licensing, prevention of pollution of the atmosphere. Under regulation 42 under the Act, licensee or lessee of oil are mandated to submit to the minister any feasibility study, programme or proposal that he may have for the utilization of any natural gas, whether associated with oil or not which has been discovered in the relevant area.

#### **The Associated Gas Re-injection Act (Cap A25, LFN 2004)**

Enacted in 1979, the Act mandated the oil companies to submit detailed programme and plans for

- a. Implementation of programmes relating to the reinjection of all produced associated gas or
- b. Schemes for viable utilization of all produced associated gas.

The Act outlawed flaring of gas in Nigeria after 1<sup>st</sup> January 1984; it however spells out condition under which the minister may give license for continuous flaring of gas as 'where the minister is satisfied that utilization or reinjection of the produced gas is not appropriate or feasible in a particular field or fields.'

#### **The Associated Gas Re Injection (Continued Flaring of Gas) Regulation of 1984**

Under the regulation, new conditions were set for issuance of certificate of exemption from the ban on flaring. They are

- a. Where more than 75 percent of the produced gas is effectively utilized or conserved
- b. Where the gas is not suitable for industrial purposes
- c. Equipment failure
- d. Where the ratio of the volume of gas produced per day to the distance of the field from the nearest gas line or possible utilization point is less than 50,000 scf/km.
- e. Where Minister orders the production of oil from a field that does not satisfy any of the conditions specified in the regulation addressed by one legislation or another.

### **Federal Environmental Protection Act**

The enactment of the Federal Environmental Protection Act (Cap F10, LFN 2004) (FEPA Act) signaled the first major move towards controlling the environment in Nigeria. The Act established the Federal Environmental Protection Agency with a clear mandate to manage Nigeria's environment. FEPA Act centralized the management of the environment by making the Agency to have the final say in environment matters. The federation of Nigeria was divided into zones with a FEPA office to monitor environmental activities in each zone. Under this regime, different states of the federation established States Environmental Protection Agencies (SEPA) with FEPA providing institutional supports like development of standards and guidelines for pollution control (Effluent Limitation Regulation ((S.I.8 FEPA 1991) and Pollution Abatement in Industries and Facilities Generating Wastes Regulation (S.I.9 FEPA 1991)), training for state regulators and other ancillary supports (Adeoti). Equally, by section 63 of the Environmental Impact Assessment (EIA) Decree No. 86 of 1992 (Cap. E12, LFN 2004), the management of Environmental Impact Assessment was vested in FEPA. FEPA regime was characterized by the command-control approach to environmental governance.

Despite its status as a non annex 1 signatory, Nigeria realizing its limitation in not taking steps to address its mounting environmental challenges has put the following legislative and policy measures in place.

### **National Guidelines and Standards for Environmental Pollution Control in Nigeria**

Implemented in 1991, the standards were put in place to ensure the sustainability of Nigeria's industrial and agricultural practices. Sent to plant managers and operators to help them improve their operations, they relate to six key areas of environmental regulation: effluent limitations, water quality for industrial water uses at point of intake, industrial emission limitations, noise exposure limitations, management of solid and hazardous wastes and pollution abatement in industries. The Ministry of Environment enforces the provisions and ensures compliance with the guidelines (National Communication to the UNFCCC).

### **National Environmental (Effluent Limitation) Regulation**

Enacted in 1991, the regulation imposes binding emissions limitations in each state of Nigeria's federation. The limits are binding, but individual states may enact stricter emissions limits. Under the law, industries were allowed between 1991-1995 to upgrade their equipment and facilities in order to comply (National Communication to the UNFCCC).

### **National Environmental Protection (Pollution Abatement in Industries and Facilities Generating Wastes) Regulation**

Under the regulation implemented in 1991, industries are required to maintain pollution control units, keep records of their emissions by taking and testing samples and keeping records of it. Regulation 3 imposes obligation on the industries to test and analyse and forward report of any gaseous discharge in their facilities to the nearest FEPA office within a month.

The regulation also requires each industry to submit a list of chemicals used in production in each facility, information on chemicals that are stored in the facility and chemicals that are bought and transferred and the name of the latter buyer. The Federal Environmental Protection Agency has a duty to ensure strict compliance by industries particularly in meeting their obligations under any regulation and standards. The Agency may enter a premise and demand for all required information under the law any time.

**Nigerian Environmental Standard Regulation and Enforcement Agency (Establishment) Act** (Official Gazette, Government Notice No. 61, Act No. 25).

The creation of the Federal Ministry of Environment led to the merger of FEPA and other relevant agencies in other government ministries to form the new Ministry of Environment in 1999. The FEPA Act was later repealed by the Nigerian Environmental Standard Regulation and Enforcement Agency (Establishment) Act (NESREA). Section 36 of the Act abolished the FEPA Act of 1988 and transfers all the responsibilities of the defunct FEPA to the new agency. Equally, all previous regulations made pursuant to the old FEPA regime which are still in force were recognized under the new legal regime as enacted pursuant to the NESREA Act.

Section 8 of the Act vested the agency with powers to, among others:

- prohibit processes and use of equipment or technology that undermine environmental quality;
- conduct field follow-up of compliance with set standards and take procedures prescribed by law against any violator;
- subject to the provision of the Constitution of the Federal Republic of Nigeria, 1999, and in collaboration with relevant judicial authorities establish mobile courts to expeditiously dispense cases of violation of environmental regulation.

Equally, section 7 of the Act contains the functions of the agency, and these include:

- enforcement of compliance with laws, guidelines, policies and standards on environmental matters;
- coordination and liaising with, stakeholders, within and outside Nigeria on matters of environmental standards, regulations and enforcement;
- enforcement of compliance with the provisions of international agreements, protocols, conventions and treaties on the environment including climate change, biodiversity conservation, desertification, forestry, oil and gas, chemicals, hazardous wastes, ozone depletion, marine and wildlife, pollution, sanitation and such other environmental agreements as may from time to time come into force.

Within the period of its existence, NESREA has released eleven regulations on Nigerian environment.

### **National Policy on Environment**

This policy which came into force in 1999 clearly identified major areas requiring integration of environmental concerns and sustainability with development and provides guidelines for attaining sustainable development in toxic and hazardous substances and thirteen other areas.

### **Environment Impact Assessment Act (Cap E12, LFN 2004).**

The Act was enacted to regulate the industrial process with regards to the environment. Section 1 provides for the following objectives:

1. To subject any decision to be taken by anybody that may likely or to a significant extent affect the environment to Impact Assessment;
2. To promote implementation of policies of governments; and
3. To encourage the development of procedures for information exchange on proposed activities.

### **Gas Utilisation Policy**

As a measure to address the wanton loss of revenue through gas flaring and to reduce gas flaring, the government in Nigeria is currently promoting different measures and policies. These include the Gas Master Plan, among others.

#### **Nigerian Gas Master Plan**

The plan is to promote domestic utilization of natural gas. Accordingly, government has developed the following instruments.



- a. National gas pricing policy, which sets standards for establishing gas prices nationally.
- b. The Gas Infrastructures Blueprint which made provision for the establishment of a network of gas transmission lines to make gas available to the users in any part of the country
- c. Domestic gas supply obligation regulation.

## **REINVENTING ENVIRONMENTAL GOVERNANCE IN SOUTH AFRICA AND NIGERIA**

The fact that nations like China and India (Sify News, 2010) with weak and unenviable environmental protection culture and records are becoming major players in the foreign dominated economies of the two countries and Africa at large calls for caution. For instance, South African government recently signed an economic pact with China. This according to President Jacob Zuma was informed by fresh opportunities offered for South Africa to develop its economy. He identified a ‘shift of economic dynamism and growth’ away from developed economies to developing economies as ‘fresh opportunities for South Africa, and indeed the continent, to achieve its economic goals through new partnerships.’ (Lund). Measures must be put in place to closely monitor the operations of manufacturing firms by strengthening the enforcement capacities of the appropriate agencies. These steps are necessary to avoid reversal of whatever progress that has been made in terms of environmental protection on the continent.

South Africa and Nigeria operate the traditional forms of environmental regulation known as command and control environmental policy instrument, which by their nature are ‘inflexible, imposing uniform emissions standards or technologies, irrespective of the varying conditions confronting individual firms as well as inefficiencies and costs these differences may generate.’ (Hatch, 2005, p.2). The ineffectiveness or inappropriateness of this instrument when confronted with a fundamentally different world from that which existed at the time of environmental awakening in the late 1960s, has however not evoked the expected development of other alternative policy instruments like green taxes, tradable permits, eco-audits, eco-labelling and information strategies (*Ibid*, p.1).

### **Inadequate Penalties and Weak Enforcement Agencies**

The challenge of inadequate penalties and weak enforcement agencies remain threatening in the two countries. After the demise of Federal Environmental Protection Agency (FEPA) in Nigeria, there has been a decline in enforcement activities. In a nation like Nigeria with high incidence of emission of poisonous gases, it is unbelievable that no known conviction has been recorded against any organization or individual. The practice is the usual pursuit of income and compensation (where applicable) by government agencies and local community leaders respectively. A recent research by Corporate Social Responsibility Initiatives (CSRI) between 2004 and 2006 disclosed that emphasis in South Africa appear to be on the use of economic instruments as mechanisms to secure funding rather than influencing behavior (*Ibid*). The same incidence of low conviction rate is experienced in South Africa where according to Fourie (Fourie, 2010, p.40) ‘violators were rarely given prison sentences and the monetary fines attached to same offences were hopelessly out of date...’ In the case of Nigeria, the penalties for gas flaring have become an impetus to the polluting oil companies since the ridiculous amount of N10 (\$11 ¢) for every 1000 scf of gas flared (Malumfashi, 2007, p.116) is clearly not enough to deter the polluting MNCs.

### Development of Capacity

The existing governance structure for environment in most developing countries, including South Africa and Nigeria, can be likened to the proverbial pouring of new wine in old bottle. While new and innovative ideas and policies are being developed on emission control, the same failed structures are still saddled with the responsibilities of implementing these policies. The threats and consequences of emission demand development of the capacities of the policy makers, leaders and enforcement agents. Higher education curriculum need to be restructured to reflect this need. The policy statement by the South African Minister of Environment and Tourism that 'one of the things that we need to do is to engage the institutions of higher learning so that we can influence the curriculum ... the Green Economy is essential for this to materialize though we need skills, skills, skills' is well founded and in the right direction.

### Fragmentation of Environmental Governance

In South Africa, the fragmentation of governance has been exacerbated by deep inequalities built into the old institutional and legal fabric of environmental policy and etched into the landscape (International Mission on Environmental Policy Report, 1995). There are occasions when the Department of Environment and Tourism, Department of Water Affairs and Forestry, and the Department of Minerals and Energy had to disagree over operations that affect the different departments. Four different instances of this type of conflict were recorded by du Plessis (du Plessis, 2009, p.87-110) like 'the grant of mining licence to a company for coal mining in lake Chrissie known for its natural lake and biodiversity; grant of mining licence in plantation area where immature trees were cut down; direct dumping of untreated sewage into lake Chrissie; grant of mining licence to a company to mine gold in the somgimvelo natural reserve all in Mpumalanga area.'

This fragmentation is not limited to South Africa. In the case of Nigeria, environment issues have always been managed by disparate agencies. Often times, there has been rivalries and cross purpose operations between different agencies on environmental issues as a result of lack of coordination among these agencies. For instance, the issue of management of telecommunication mast has continued to be a source of friction between the Nigerian Environmental Standard Regulation Enforcement Agency and the National Communication Commission (Ezekiel, 2010). Another source of conflict is the 'headmaster approach of federal agencies in their relationships with federating state agencies. For instance, it is not uncommon to see NESREA and states environmental agencies in conflict over enforcement issues at the state level. This manifest recently in Kaduna state where NESREA had to seek a court order to restrain the Kaduna State Environmental Protection Agency from managing and controlling erection of telecommunication mast in its domain. This is a hangover from the unitary style rule of the protracted military era. In the same way, the refusal of the federal government to separate revenue issues from environment matters has been one of the reasons for the gross environmental injustice in the Niger Delta of Nigeria. Since environmental issues are oil related, state courts lack jurisdiction to handle such matters. The court with jurisdiction, the federal high courts are usually not within the reach of the victims since they are usually not in all states of the federation and where they exist, they are usually in the state capitals.

### Political will

While promising and adaptable policies and initiatives abound, developments in Africa have shown clearly that the governments in most cases have been reluctant to embrace them. The persistence of the menace of gas flaring in the Niger Delta area of Nigeria remain controversial; critical observers have seen this apparent inaction or neglect on the part of the Nigerian government as an obvious ‘...lack of political will to enact or implement needed legislation and reform or abrogate existing bad legislations because of vested, personal, clique and class interests that have been elevated over and above the interests of the people.’ (Environmental Rights Action and the Nigerian Federal Ministry of Environment, 2008).

### Clean Development Mechanism

Facing the reality of the near total failure of its internal efforts in the battle against gas emission and other environmental challenges, the Nigerian government has made attempt at taking the advantage of the opportunities provided by the international efforts at reducing carbon emission and policies on climate change like the Clean Development Mechanism. However, as at 28<sup>th</sup> October 2010, statistics from the registered projects by region showed that while over 77.95 per cent of the current CDM projects are clustered in Asian and Pacific countries like China, Indonesia and India, African countries have not made any significant progress with regards to CDM (UNFCCC, 2010). Africa accounts for just 1.96 percent of current CDM investment projects (*Ibid*). As an opportunity for developing countries to directly participate in the campaign for emission reduction and as an avenue for development, Nigeria and South Africa and other African countries need to harness the opportunity afforded by the mechanism in full. While South Africa can only parade three projects under the mechanism, namely, Tugela fuel switch project, Enmosen Chlookop landfill Recovery project and the Omnia Fertilizer Limited Nitrous oxide Reduction project, Nigeria has only registered the Recovery of Associated Gas at Kwale oil gas processing plant project. The way forward according to Olawuyi (Olawuyi, 2009, p.276) is for African countries to put in place appropriate legal framework to establish Designated National Authorities, a CDM monitoring body as required by CDM rules- to assess and approve prospective CDM projects and ‘equipping it with the necessary powers and decision-making procedures to govern the CDM.’ With a functional contact body capable of overseeing the implementation of investments in projects, the establishment of Designated National Authorities will therefore go a long way in enhancing CDM investments in Africa.

### CONCLUSION

The paper contends that Nigeria and South Africa could greatly reduce their emissions at a much reduced cost if they could put in place a clear and effective legal framework, a more efficient institutional capacity and coupled with a strong political will to implement the domestic and international laws and policies towards emission reduction. Where all these are in place, it will help to attract as much as possible CDM investments that could help in providing solutions to the socio-economic and environmental problems facing them. With its current stigma of been one of the leading gas flarer nation in the world, Nigeria for example, offers a very promising opportunity for developed countries to appreciably reduce GHGs if there is an attraction for them to invest in gas flaring reduction projects (*Ibid*). Indeed, while countries like China, India, Indonesia have made substantial success in the CDM market, Nigeria which substantially flare its natural gas and South Africa widely

considered to be the highest CO<sub>2</sub> emitter in Africa and 'eighth highest global per capita emitter of CO<sub>2</sub> (Kotzé and Paterson, 2009, p.559) have not been forthcoming in this regard. Nigeria and South Africa can therefore borrow a leaf from China, India and other countries that have recorded huge success in their CDM investments by putting in place appropriate legal and institutional framework to implement measures capable of managing the environment and in particular of controlling gas emission. In both Nigeria and South Africa, the paper also revealed that the regulations and policies relating to emission reduction are scattered across various statutes, thus making them difficult to enforce. For effective emission control, both countries must develop a specific law on emission control which would encompass emission from gas flares. More investment in capacity building and technological development coupled with strong policies and enforcement would help to ensure effective emission control in both countries. Also, it posits that it is only through good and efficient environmental governance that these two countries can join the rest of the developed countries in achieving a healthy and safe environment.

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