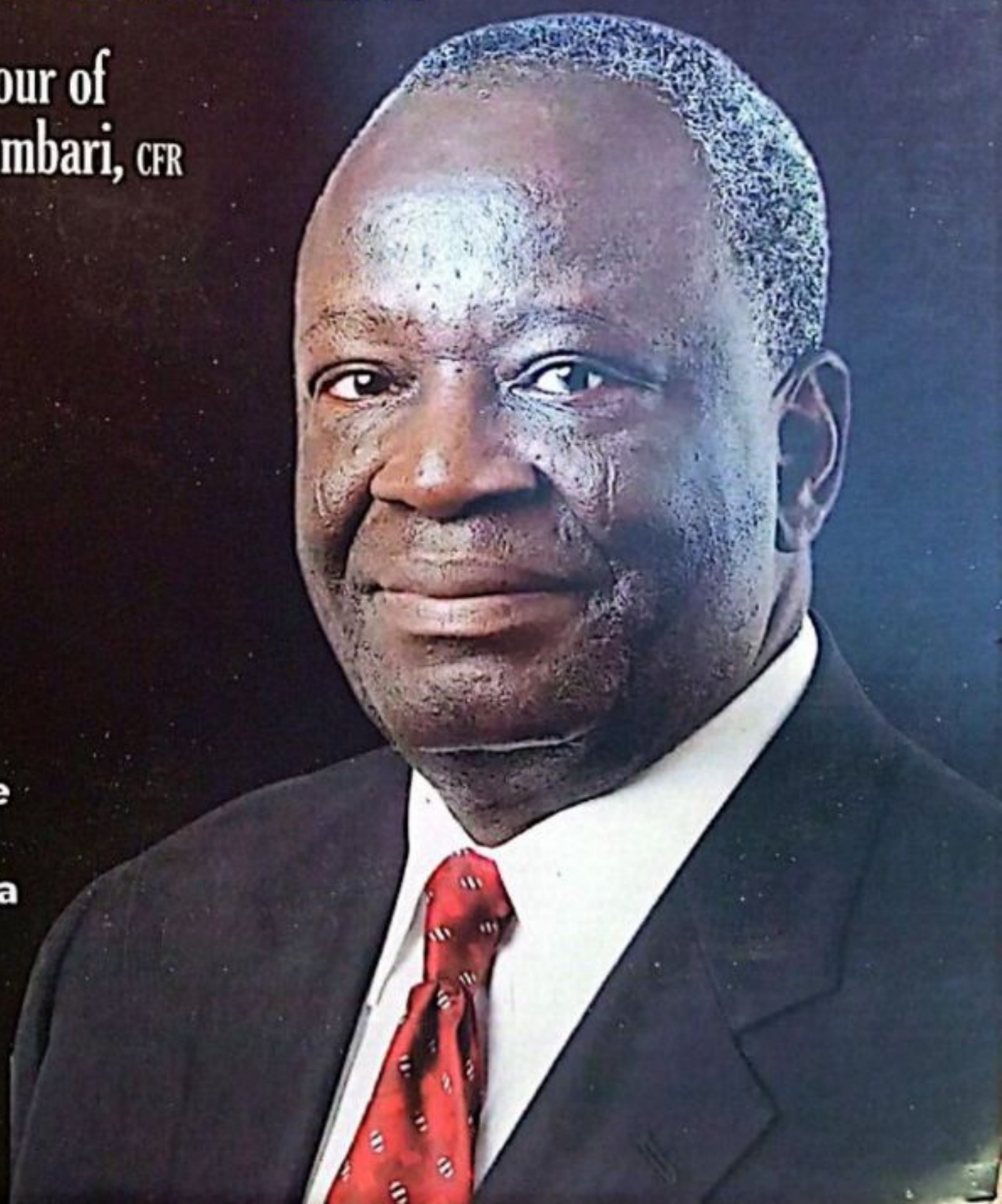




READINGS IN DIPLOMACY, DEMOCRACY, PEACE & DEVELOPMENT

A Festschrift in honour of
Ibrahim Agboola Gambari, CFR

— *Edited by* —
Olugbemiro Jegede
Bala Sani
Ruth Abiola Adimula



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STRENGTHENING MINING POLICIES FOR SUSTAINABLE DEVELOPMENT OF MINERAL RESOURCES IN NIGERIA

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Abstract

Mining involves the development of mineral resources which can contribute to sustainable development either positively or otherwise. The national government is saddled with the responsibility to control and manage the natural resources with minimal or no participation of the affected people and stakeholders. Although, there are reforms in the mining industries of some African states to ensure sustainable development, the problems caused by the exploitation of mineral resources are still cumbersome within affected communities. A problem which is the basis of the discussion in this paper is that relevant laws and policies poorly consider aspects of sustainable development such as socioeconomic and environmental dimensions including good governance. This study was carried out through desktop research, using comparative analysis to consider the relevant mining laws of selected countries in Africa to draw lessons for Nigeria. This study seeks to examine the laws particularly relevant to mining in Nigeria to find out the extent to which they contribute to minimising social and environmental impacts and promote the sustainable development goals. The study finds that mining policies barely encourages citizens to participate in the development of mineral resources on their lands and in essence, do not adequately promote sustainable development. The recommendation of the study is that relevant mining laws should be reinforced to adequately imbibe sustainable development and its principles and it suggests effective measures that can ensure governments and stakeholders contribute to all aspects of sustainable development in the act of mineral exploration and extraction.

Keywords: Sustainable Development, Mineral Resources, Mining, Socioeconomic Dimension, Environment Dimension, Governance

Introduction

The role of mining in sustainable development is as a result of criticism of Non-Governmental Organisations (NGOs) and government which is geared towards the ill manner in which mining companies treat communities and the environment (Hamann, 2003). The mining industry, because of the challenges it poses, continues to face pressure to demonstrate that it does contribute meaningfully to sustainable development. The mining industry in Africa is not an exception as it poses problems to the society and host communities.

Mining releases chemical toxic wastes into the environment that pollute waterways and soil structure, affecting crop yields. The consequences of mining activities are land degradation and loss of farmland, flooding with negative impacts on food production, and loss of vegetation (Afolabi *et al.*, 2012). Others include loss of cultural heritage, community conflicts, migration, health problems, displacement of people, population increase and increased crime rate (Onwuka *et al.*, 2013). The growth in population causes social vices, pressure on facilities, traffic congestion, increase in cost of commodities and housing problems. These problems can be divided into economic, social, environmental and governance challenges. These challenges amount to the call to promote sustainable development of mineral resources by the mining sector.

Against this background, this study focuses on discussing the problem which is related to inadequate laws and poor governance as regards sustainable development in the mining industry. The objective of this study is to examine the mining laws in Nigeria to determine the extent to which they address sustainable development in the process of the exploitation of mineral resources. In addition, the mining laws of South Africa and Kenya were examined to draw lessons for Nigeria. This study was carried out by desktop research and information sourced from journal articles, laws, reports and the internet. Comparative study was done to draw useful lessons for the mining industry in Nigeria. The article finds that the laws are inadequate to address socioeconomic, environmental and governance challenges. The recommendation of the study is that relevant mining laws be strengthened to contribute significantly to sustainable development in the mining industry.

Sustainable Development in the Mining Industry

Sustainable development became an important term during the 1980s (Jickling, 1994). Three major events contributed to the development of sustainable development (Reed, 2002). The publication of the World Conservation Strategy (WCS) presented by the International Union for the Conservation of Nature (IUCN) in 1980 introduced the concept of sustainable development; the report of the World Commission on Environment and Development commonly known as the Brundtland Report, *Our Common Future*, which provided a widely cited definition of sustainable development (Brundtland Report, 1987) and the United Nation's Conference on Environment and Development (UNCED) commonly known as the Earth Summit, held in 1992 in Rio de Janeiro contributed to the development of the concept of sustainable development. The aim of WCS was to achieve sustainable development through the conservation of living resources. The WCS linked concerns about sustainability to the concept of development. It states that "for development to be sustainable, it must take account of social and ecological factors, as well as economic ones; of the living and non-living resource base; and of the long term as well as short term advantages and disadvantages of alternative actions" (International Union for the Conservation of Nature and Natural

Resources, 1980). The broadest definition of the concept of sustainable development is included in the 27 Principles of Sustainable Development contained in a document signed at the Earth Summit held in 1992.

The concept of sustainable development is a contested one with widely divergent public policy implications (Reed, 2002). According to Lele (1991), sustainable development is "in danger of becoming a fashionable phrase that everyone pays homage to but nobody cares to define". Tolba (1984) indicated that it is "an article of faith, a shibboleth; often used, but little explained" (cited in Lele, p. 607). This implies that the term is used and defined in various ways among development experts without a specific definition. Lele stated that definition of sustainable development is often asked but without clear answers. In addition, its application in the mining industry is presented with different opinions. From the definition by WCS, sustainable development considers social, economic and ecological factors with both short-term and long-term advantages. A definition widely used is the one by the Brundtland Report which defines sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland Report, para. 27). However, it is indicated that the Brundtland Report failed to explain how sustainable development can be implemented in the mining sector (Pamukcu, 2005). Hilson and Muruck (2000) pointed out that the Brundtland Report fails to provide an effective framework for any industry to follow (p. 227). This prompted academics and industrialists including governments to present their opinions on the application of sustainable development to mining.

Asides from not having a specific definition, authors such as Filer (2011) and Cragg (1998) pointed out that 'sustainable mining' is indeed a contradiction of terms, and for that very reason, it is not a phrase normally used in mining industry circles or mineral policy circles (p. 2). However, Cragg indicated that mining is 'an industrial activity that the principles of sustainable development have a direct and meaningful application on' (p. 7). Dubiński (2013) also indicated that sustainable development is significant to mining activities which applies to non-renewable resources (p. 2). The contradiction of terms was further explained by authors like Hilson and Basu (2003) who stated that defining sustainable development within the context of the mineral and mining sector is difficult, because it requires discussion on extraction of mineral resources which by their definition of non-renewable contradicts sustainability (p. 322).

Mining is inherently unsustainable in the sense that it involves the exploitation of non renewable resources, which is why no mine lasts forever (Filer, 2011), and that it results in adverse negative impacts. For these reasons, sustainable development must be applied and promoted in the mining industry. From the recognition that the mining industry is inherently unsustainable, leaving behind scarred and ruined environments, the industry now promotes itself as practising sustainable mining (Kirsch, 2010). At the international level, the Global Mining Initiative of the industry is exploring ways in

which the mining and minerals sector can contribute to sustainable development (Hamann, 2003). For instance, the Mining Minerals and Sustainable Development (MMSD) project contributed in the transition of the global mining industry to sustainable development (International Institute for Environment and Development, 2002).

Sustainable development being centred on meeting the needs of the present generation without endangering that of the future ones raises the question as to what way the reserves of non-renewable resources can be regulated to ensure longevity (Hilson and Basu, 2003). The concept of sustainable development is indicated to be the result of increasing awareness of the link between environmental challenges, social and economic issues such as poverty, inequality and concerns of healthy future for humanity (Hopwood *et al.*, 2005). Laurence (2011) stated that "mining is sustainable when it is conducted in a manner that balances economic, environmental and social considerations, often referred to as the 'triple bottom-line', and that "sustainable mining practices are those that promote this balance" (p. 279). The socioeconomic dimension emphasises the responsibility of creating and sustaining mineral wealth to maximise living standards for humans. Sustainable development in this sense can be achieved where benefits from income generated from mining are reinvested in building human and social capital (Bastida, 2004). A mine can contribute to sustainable development by reducing the environmental impacts through its entire cycle from exploitation to reclamation and can be achieved through effective environmental management (Hilson and Murck, 2000). Therefore, sustainable development, generally, is the combination of enhanced socioeconomic growth and development, and improved environmental protection and pollution prevention (Hilson and Murck, 2000). However, these definitions seem not to be adequate without addressing another aspect which is the governance dimension.

A challenge the mining and mineral industry faces is realising effective governance. It is essential that governments design and enforce effective framework for effectual use and management of minerals in a manner that balances the environmental, social and economic interests to ensure that investment turns into opportunities for development (Bastida, 2004). The integration of all these aspects "maximises the contribution to the well-being of the current generation with an equitable distribution of costs and benefits without compromising the potential for satisfying the needs of multiple future generations" (Shen *et al.*, 2015). These concerns are also reflected in the MMSD project report which provided guiding principles for the four dimensions of sustainable development. In essence, sustainable development should address socioeconomic, environmental and poor governance challenges and ensure that the benefits of mining are enjoyed by both present and future generations.

The next section will examine the relevant mining laws in Nigeria, to find out how sustainable development is addressed.

Sustainable Development in the Nigerian Mining Industry

Relevant laws regulating the solid mineral industry discussed in this section include the Nigerian Minerals and Mining Act of 2007 ('the Mining Act') and the Nigerian Minerals and Mining Regulation (the 'Mining Regulations'). The Mining Act is the principal legislation that governs the mining sector in Nigeria and was passed into law in March 2007 to repeal the Minerals and Mining Act 1999. The Regulations was issued by the Minister of Mines and Steel Development by virtue of Section 21 of the NMMA. The Mining Act regulates all aspects of the exploration and exploitation of solid minerals in Nigeria while the Mining Regulations define the rules and processes in respect of matters mentioned in the Act and give effect to the implementation of the provisions of the Act. The Mining Act recognises sustainable development in some of its provisions. The Mining Act provides that it is the function of the Minister of the Federal Ministry of Mines and Steel to:

- (a) "Ensure the orderly and sustainable development of Nigeria's mineral resources;
- (b) Develop a well-planned and coherent programme of exploitation of mineral resources, taking into account the economic development, ecological and environmental factors;
- (c) Monitor compliance with Community Development Agreements by industry operators...." (Section 4).

This provision recognises sustainable development of mineral resources which is the responsibility of the minister. This provision considers economic and environmental issues which are pertinent to sustainable development. The provision mentions Community Development Agreement (CDA) and that monitoring the compliance by mining companies to CDA is the responsibility of the minister. The CDA addresses social concerns in the Act. The CDA is a prerequisite to be concluded between a host community and mining company before mining activities commence (section 116). Though, this particular provision of the Act contemplates the dimensions of sustainable development, it fails to outline or give further information on how sustainable development of mineral resources can be achieved. These dimensions can however be deduced from subsequent provisions of the Mining Act and the Mining Regulations.

The CDA ensures the transfer of social and economic benefits to the host community (section 116 (1) NMMA, and Mining regs, 193 (1)). The CDA must include social and economic contributions of the project to the sustainability of the community (s 116 (2) NMMA). The Mining Act provides a list of issues to be addressed in the CDA (ss 116 (2) and (3)(a), (b), (c), (d) NMMA and Mining regs 193 (9) (c-f)). The CDA must address issues germane to the host community such as educational scholarship, apprenticeship, technical training and employment opportunities for residents. The CDA must include financial support for infrastructural development such as education, health, community services, roads, water and electricity, assistance with development, creation and support

of small scale and micro businesses, including marketing of agricultural products. Other issues to be addressed include: environmental protection, compensation, conflict resolution, rights of the holder relating to the mining area and other necessary issues.

The CDA must also consider methods of environment and socioeconomic management including enhancement of local governance (section 116 (3) (e)). The provisions mention aspects of sustainable development in the host communities but does not provide guidelines on how to put the concept into practice. For instance, the CDA does not explain the methods as regards environment and socioeconomic management or how to enhance local governance. The CDA further encourages participation in the planning, implementation, management and monitoring of activities in the agreement (s. 117). This will mean participation of host communities in infrastructural development on their land, transfer of economic benefits, support for the locals' businesses, compensation, environmental protection and conflict resolution. These provisions do not include the involvement of host communities in the processes of the mining projects proposed to be carried out on their lands. The CDA does not provide further explanation on how to achieve the outlined activities in the agreement. Thus, there is doubt if the social and economic benefits of the project will ensure the sustainability of the affected community as provided in the CDA (s. 116 (2)).

Sustainability of the community in this instance implies sustaining its growth during and after mining. The transfer of project benefits at some instance may be sustained during the period of mining. Once mining is over, affected persons who depend on the benefits are left on their own with nothing. The CDA however, serves as a guideline to mining companies, affected communities and relevant civil societies to know what can be included in the agreement as it affects a particular community. It also serves as a means of engagement between mining companies and affected communities. The negotiation of the CDA between the communities and the mining companies can serve as an opportunity to consult with the people about the proposed project, the impacts and benefits of the project, how the impacts will be addressed, matters of resettlement or relocation, and other necessary details. Holders of mining lease are required to consult with host communities on implementation of the CDA (Mining regs 193 (2)). The signatories to the CDA are individuals elected by the community as their representatives which list must be verified by the Ministry through its agency (Mining regs 193 (6-8)).

Furthermore, certain social concerns addressed in the Mining Regulations that particularly affect communities are displacement (reg 181(1)); loss of livelihood (reg 181(1) (j)); loss of income, traditional lands, and cultural property (reg 182(1)); health hazards (reg 182(1)); and conflict over resources such as water or sacred area in neighbouring communities (reg 182(2)). Members with loss of livelihood will be assisted with a new trade or continue in the old one and new lands will be provided for those who are farmers (reg 181(1) (j)). The Mining Regulations address issues like resettlement of persons that suffer displacement as a result of a mining project (regs 181(1) (a) (b) &

The new location must have basic amenities and infrastructures such as primary and secondary schools, hospital, water and power supply, sanitation, and drainage system (regs 181(1) (i)). However, some of these provisions lack procedures and detailed explanations. For instance, details on how to ensure that resettlement in a planned manner is carried out is lacking. The implication is that the obligations in these provisions will not be carried out effectively, leading to poor realisation of sustainable development particularly where the needs of the people are not satisfied.

Environmental concerns are addressed as the mining regulations prevent pollution of the environment which is an outcome of mining activities. The Mining Act forbids pollution of water and the environment in the process of mining activities (ss. 123 & 111 NMMA). The Act states that every person who uses water for mining purposes should ensure that the water does not contain harmful substances in quantities that will affect animals or vegetation when it leaves the mining area (s. 124). The Act provides that in the process of exercising his rights, the mining lease holder must consider the effect of mining activities on the environment and take necessary steps to prevent environmental pollution from mining activities (s. 111 NMMA and reg. 170 Mining Regulations). A mineral title holder under the Act is required to reduce, manage and mitigate environmental impact caused by mining activities (s. 118 (a) NMMA). The mining legislations require submission of Environmental Impact Assessment (EIA) which should be approved by the Federal Ministry of Environment before commencing any development or extraction of mineral resources (regs. 158 (1) (a) (b), and 159 Mining Regulations). A mineral title holder is also required to restore the excavated land to its natural state as provided for by the Act or other regulations (s. 118 (b) NMMA). Mining companies must ensure that the public and particularly the host community are protected against the risks related to tailings storage (reg. 125 Mining Regulations). However, there is no guidance on the manner in which mining lease holders should prevent pollution in the Act and the Mining Regulations.

The purpose of the Regulation is to give effect to the provisions of the Act which it fails to do in certain instances. For example, the Regulation provides that the mining lease holder must consider the effect of mining activities on the environment and take necessary steps to prevent environmental pollution from mining activities (reg. 170 Mining Regulations). A mineral title holder must give compensation to any owner of land adversely affected or damaged by mining operations (ss. 107 (a) and 110 NMMA & reg. 162 Mining Regulations). This includes destruction and removal of crop, economic tree, building, or work (ss. 107 (b) and 113 (1) & (2) NMMA). In addition, compensation is to be paid to the owner of land affected and the person who suffers damages in respect to pollution of water as a result of mining operations (s. 125 NMMA). Settlement of disputes are also considered by the regulations ((reg. 163 (7) Mining Regulations). Like the Mining Act, the provisions of the Regulations did not indicate how mining holders should prevent pollution. In addition, mining activities are required to be

conducted in a manner that does not cause degradation of land and water resources (reg. 171(1) Mining Regulations). The expectation from the Mining Regulations is that it would list the procedures to prevent pollution but there was none. The implication is that mining companies may not adequately ensure that pollution is prevented.

The mining laws may not directly provide how to achieve sustainable development but recognises certain matters like socioeconomic and environmental concerns. Social concerns were considered in the CDA and in the Mining Regulations to address the needs of communities and losses of those affected by mining operations. However, in addition to some of the challenges indicated earlier, the provisions of the legislations on mining indicate minimal participation of the society and host communities in mining projects. The CDA would have served as a platform to inform them but the agreement is to be concluded between the affected communities after a company is granted mining lease over the affected land. The mining regulations provide that prior to mining operations, the mineral title holder is required to convene a meeting with the community and their leaders to explain what the proposed project entails, possible benefits including preventive measures against hazards, pollution and environmental degradation caused by mining (reg. 13 (3) Mining Regulations). The consultation with the affected communities should happen before the mining lease over their land is granted and not afterwards. Affected communities need to be informed adequately before the decision is made to grant mineral title over their land. This is to ensure their participation in the decision-making process concerning mining activities. These challenges will lead to poor realisation of sustainable development in the industry.

Mining Laws and Sustainable Mining in other Selected Jurisdictions

This section examines relevant laws in other jurisdictions in Africa to determine how sustainable development is addressed. Countries such as South Africa and Kenya are considered to determine how they promote sustainable mining. These countries are considered because of their history of mining developments which is pivotal to the economic growth of these countries. For instance, mining is part of the history and the bedrock of the economy of South Africa. In addition, this article considers these countries because of the laws and other practices which were informed to promote sustainable development in the mining industry as a result of the challenges related to adverse impacts of mining operations. Therefore, these laws and other practices will be examined to draw lessons for Nigeria. These lessons are further discussed in the concluding part of the article.

Sustainable Mining in South Africa

In view of the challenges posed by mining activities, there are various legislations put in place to ensure sustainable mining in South Africa. They include South Africa's 1996 Constitution, the Mineral and Petroleum Resources Development Act 28 of 2002

(MPRDA), the Broad-Based Socioeconomic Empowerment Charter for the Mining and Minerals Industry 2018 (Mining Charter), the National Environmental Management Act (NEMA) (107 of 1998), and the Implementation Guidelines of the Charter 2018 among others. The Constitution is the supreme law of the Republic (s. 7 (1) 1996 Constitution of the Republic of South Africa) while the MPRDA is the main legislation regulating the mining industry and it came into force on 1st May 2004. The commencement of MPRDA is indicated to bring about transformation to the law overseeing rights to mineral and petroleum resources in South Africa (Schyff, 2016). Section 100 (2) (a) of the MPRDA empowers the minister to develop a Mining Charter as a regulatory instrument to effect transformation by meeting specific targets within specified timeframes. Hence, the Charter gives effect to Section 100 (2) (a) of MPRDA and Section 9 of the constitution (See vision of the Mining Charter). The Implementation Guidelines of the Charter provide procedures to give effect to the provisions of the Charter (Implementation Guidelines for Mining Charter 2018, guideline 7). These laws will be discussed to the extent which they address sustainable development.

The constitution of South Africa (1996 Constitution of the Republic of South Africa) promotes sustainable mining. Sustainable development is contained in the provision of the right to a healthy environment. The constitution affirms everyone's right "to an environment that is not harmful to their health or well-being" (s. 24 (a) 1996 Constitution of the Republic of South Africa). It further proclaims the right of everyone:

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 (s. 24(b) 1996 Constitution of the Republic of South Africa).

This provision of the 1996 Constitution is reiterated in the preamble of the National Environmental Management Act. It defines sustainable development as the integration of social, economic and environmental factors in the planning, implementation and evaluation of decisions to ensure that development serves present and future generations (s. 1 & Preamble NEMA). The courts provided further description to sustainable development in *Fuel Retailers Association of Southern Africa vs Director-General, Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province and Others*. It was held that the constitution contemplates the integration of environmental protection and socioeconomic development and envisages that the two will be balanced through the ideal of sustainable development (2007). It was further held that sustainable development provides a framework for reconciling socioeconomic development and environmental protection and thus acts as a mediating principle in reconciling environmental and developmental

considerations (Fuel Retailers case and HTF Developers case). It particularly concerns the interaction between social and economic development and the protection of the environment (Fuel Retailers case, para. 1).

Hence, in the development of natural resources, socioeconomic development should be considered alongside the protection of the environment to ensure sustainable development. The mining legislations further states what they infer in various provisions. As regards the obligation towards sustainable development, the 1996 Constitution states that the government is obligated to ensure the protection of the environment through legislative means and other measures. According to the Mining Act, the Minister of Mineral and Energy Affairs is obliged to ensure the sustainable development of the nation's resources (s. 3 (3)).

The preamble to the MPRDA states that mineral and petroleum are non-renewable natural resources and that the resources belong to the nation while the state is the custodian of the resources. The preamble affirms the obligation of the state to ensure ecological sustainable development, recognise sustainable development of the resources and promote economic and social development (Preamble & s. 2 (h) MPRDA). The Act promotes sustainable development in prospecting and mining operations. Prospecting and mining operations are required to be carried out in accordance to principles of sustainable development by integrating social, economic and environmental factors into the planning and implementation of prospecting and mining projects in order to ensure that exploitation of mineral resources serves present and future generations (s. 37 (2) MPRDA). Therefore, all plans and execution of mining projects must consider social, economic and environmental criteria in mining operations which are vital to achieving sustainable development and also gives effect to the provision of the constitution. Though, the Act did not particularly state how the state or the minister should ensure the sustainable development of mineral resources, it does recognise the need to promote local development including the social upliftment of communities affected by mining, as well as promote employment and advance the social and economic welfare of all South Africans (s. 2 (f) MPRDA). The provisions of the Act ensure equitable access to resources and recognises not only the social development of mining-affected communities but those that are disadvantaged by history including women in order for them to benefit from the exploitation of mineral resources (s. 2 (d) MPRDA).

This objective of the Mining Act promotes the socioeconomic aspect of sustainable development. The objectives of the Mining Charter further include redress of the imbalance of past injustices, giving black persons opportunities to get into the mineral industry and benefit from the exploitation of mineral resources, enhance social and economic welfare of mine communities, promote sustainable development and growth of the mining industry. Involvement of affected persons in the mining projects on their land is important. The Charter provides that a trust must be set up for the benefit of host communities by the mining right holder (s. 2(2.1.4)-2.1.4.1.1 Mining Charter), to

be handled according to the applicable legislation (s. 2.1.4.1.2 Mining Charter), and will involve representation from host communities, community-based organisations, traditional authorities and mining companies (s. 2.1.4.1.3 Mining Charter). Consultation must be held by the miner with relevant municipalities, host communities, traditional authorities and other affected stakeholders to identify development needs of host communities (s. 2.1.4.1.4 Mining Charter).

A miner is required to contribute to a mine community development (MCD) in order not to lose the social license to operate (Mining Charter, s. 2.5). On the basis of the MCD, consultation is needed with the mining communities and other stakeholders to know their development needs which will be listed as social and labour plan of the title holder (Mining Charter, s. 2.5.1). A miner must invest in skill development to produce a skilled workforce (Mining Charter, s. 2.3). Participation is encouraged through submission of comments of affected or interested people with regard to the application over a land within thirty days of the notice (MPRDA, s. 10 (1)(b)). The holder of a mining right notifies the owner or occupier of a land, for at least twenty-one days, about his intention to exercise his allocated rights (MPRDA, s. 5A). Certain instances are indicated where an affected party may require remedy. The Act provides for arbitration and access to court on mining matters, particularly in the instance where the holder of a mining right and land owner or occupier fails to reach an agreement on the compensation payable for any loss or damage (MPRDA, s. 54(4)). Compensation can be determined through arbitration under the Arbitration Act 1965 or by a court where parties fail to reach an agreement (MPRDA, s. 54(4) and Arbitration Act 42 of 1965). This provision gives affected parties the access to remedy in such situation. Consultation required under these provisions is not adequate. The twenty-one days' notice to take over the land is short and may not suffice for sufficient notification. Likewise, submission of comments from concerned persons is received after the application for mining purposes over a land is accepted. The comments should be included as part of the consideration for acceptance to ensure meaningful participation. Affected parties should be adequately informed of the intention to mine before the application is considered and must be given sufficient time to participate in the discussion. The thirty days given for submission of comments may not be sufficient to accommodate the concerns of interested parties in the matter. Regarding the environmental aspect of sustainable development, the provisions recognise the protection of the environment by preventing degradation and destruction to the environment. There must be an approved environmental management programme before mining operation commences and consultation with land owner or lawful occupier of the land in question (MPRDA, s. 5 (4) (a-c)). Before the minister can grant a mining right, environmental assessment (MPRDA, s. 39(1)) and environmental management plan (MPRDA, ss. 39 (2) and 5 (4) (a)) must be provided by the miner. Mining operations must also be carried out according to accepted sustainable development principles (MPRDA, s. 37 (2)). In addition, the miner must ensure that mining will not result in

unacceptable pollution, ecological degradation or damage to the environment (MPRDA, s. 23 (1)(d)); the applicant has provided financially and otherwise for the prescribed social and labour plan (MPRDA, s. 23 (1)(e)); the applicant has the ability to comply with the relevant provisions of the Mine Health and Safety Act (MPRDA, s. 23 (1)(f) and Mine Health and Safety Act 29 of 1996); and the applicant is not in contravention of any provision of MPRDA (MPRDA, s. 23 (1)(g)). However, the Act did not provide further details on the socioeconomic conditions of persons that will likely be affected by mining operations. Mining operations adversely impact on the environment including the lives and health of people located around the mine.

Mining and Sustainable Development in Kenya

Sustainable development is discussed in the light of the constitution (Constitution of Kenya, 2010); the Mining Act (Mining Act No 12 of 2016); and the Environmental Management and Coordination Act (EMCA No 8 of 1999). In the constitution, the principle of sustainable development is embedded in the provision of the right to healthy environment. It provides that the right to a clean and healthy environment (Constitution of Kenya, 2010, art. 42) includes the right to protection of environment for the benefit of present and future generations which should be realised through legislative and other measures (Constitution of Kenya, 2010, art. 42(a)). It is the obligation of the state to ensure sustainable development through legislation and other means. The Environmental Management and Coordination Act defines sustainable development as "development that meets the needs of the present generation without compromising the ability of future generations to meet their needs by maintaining the carrying capacity of the supporting ecosystems (EMCA, s. 2)".

The environmental act listed the principles of sustainable development which should guide the High Court in exercising its jurisdiction over matters regarding contravening the right to a clean and healthy environment (EMCA, s. 5). These principles ensure public participation, cultural and social principles applied by any community in Kenya, international cooperation involved in the management of the environment; peoples' right to benefit equally from the exploitation of the environment and entitlement to a clean and healthy environment (**intragenerational equity**); maintain the health, diversity and productivity of the environment for the benefit of future generations (**intergenerational equity**); that the person convicted of pollution of the environment bears the cost of cleaning the environment, compensation of victims and other costs linked to pollution (polluter-pays principle); and refusal to use the lack of full scientific certainty as a reason to postpone cost-effective measures to prevent environmental degradation (**precautionary principle**).

The Mining Act regulating mining activities in Kenya does not spell out what sustainable development entails but states that the Cabinet Secretary, Principal Secretary

and any person that administers the Act must be guided by the values and principles listed in Article 10 of the constitution which includes sustainable development (Mining Act 2016, ss. 5 and 12(2)). The definition and principles reflect the dimensions of sustainable development. They indicate the protection of the environment, entitlement of people to the benefits accruing from the exploitation of the environment, public participation, compensation for victims on the basis of environmental pollution including the duty of the state to ensure sustainable development through legislative means and other measures.

Furthermore, the aspects of sustainable development are stated in other relevant laws. Issues relating to the socioeconomic aspect are considered in these laws. The constitution ensures non-discrimination in the distribution of economic benefits of mineral resources and participation in environmental governance. It provides that land must be managed in an equitable and sustainable manner and also according to the principle of sustainable and productive management of land resources (Constitution of Kenya, art. 60 (1)(c)). In addition, the state is required to ensure the sustainable exploitation of natural resources and equitable sharing of accruing benefits (Constitution of Kenya, art. 69 (1)(a)). The state must encourage public participation in the management, protection and conservation of the environment (Constitution of Kenya, art. 69 (1)(d)). All mineral agreements must be made accessible to the public subject to article 35 of the constitution and the Cabinet Secretary must ensure access to information under the Act (Mining Act, s. 119 (1) and (2)), and publish mineral agreements and other relevant information on the ministry website (Mining Act, s. 119 (3)).

A mineral right holder must exercise the right reasonably, responsibly and in a manner that does not adversely affect the interest of the owner or occupier of land (Mining Act, s. 44). As a prerequisite to the grant of mineral right, a detailed programme for the employment of citizens is encouraged to transfer skills and capacity building for citizens (Mining Act, s. 46 (1) and (2)). According to the Mining Act, a mineral right holder must give members of the community and citizens preference in employment; facilitate socially responsible investment for local communities; implement a community development agreement (Mining Act, s. 47) and ensure that preference is given to local products, services offered by the community and citizens and to businesses owned by citizens (Mining Act, s. 50). The holder of a reconnaissance licence is required to inform and consult with the government and communities about the operations (Mining Act, s. 67 (1) (g)). (1) (e)) and compensate for damage to land and property (Mining Act, s. 67 (1) (g)). Compensation can be claimed from the holder of a mineral right in instances of deprivation of the owner, occupier or user of land or part of land, damage to buildings and immovable property, damage to water table or deprivation of the owner of water supply, and loss of earnings or sustenance suffered by owner or occupier of land where land is used for cultivation or grazing (Mining Act, s. 153 (1)).

Dispute over claims of compensation can be resolved by agreement reached through negotiations in good faith and where it cannot be resolved, matter may be referred to the Cabinet Secretary for determination (Mining Act, ss. 153 (5) and (6). Communities displaced by mining operations that opts for compensation by way of resettlement will be settled on an alternate land considering their economic well-being, social and cultural values with the cost borne by the mineral right holder (Mining Act, s. 153 (8) and (9)). Dispute resolution by the Cabinet Secretary is through mediation or arbitration process or a court of competent jurisdiction (Mining Act, s. 154). Any person aggrieved by any decree, order or decision made or given under the powers vested in the Cabinet Secretary may appeal within thirty days to the High Court (Mining Act, s. 157).

Although, these provisions address the socioeconomic aspect of sustainable development, some of them seem inadequate. For instance, participation and access to information is poor. It is expected that the Mining Act should elaborate further on the provisions of the constitution like ensuring public participation in decision-making processes regarding development of mineral resources including access to necessary information. Affected communities and interested parties should not just be aware after a mineral agreement is completed but right from the time when a mining company states its intention to mine in a community. Mine communities should be recognised as an important stakeholder which will be affected by mining operations. Their interests and development needs should be taken care of adequately. Development also needs to consider the interests of future generations as well since most mines do not last forever.

The environmental dimension is also promoted in the provisions of the relevant legislations. The EMCA mentions that everyone is entitled to a clean and healthy environment; therefore must safeguard and enhance the environment which includes the access to elements of the environment for recreational, educational, health, spiritual and cultural purposes (EMCA, ss. 3(1) and (2) & ss. 42-56). An environmental impact assessment is required to find out significant impact on the environment (EMCA, s. 58(2)). Anyone who alleges that his entitlement is or likely to be contravened can seek redress in the High Court (EMCA, s. 3(3)). The High Court must be guided by principles of sustainable development (EMCA, s. 5). The Act prohibits the pollution of water and any person who does will be guilty of an offence and liable to imprisonment (EMCA, ss. 72 and 93). A mineral right may be granted based on conditions like the protection of mineral interests, protection of the environment and community development (Mining Act, s. 42).

The dimensions of governance together with its principles are stated in the constitution. The principles of governance include: democracy and participation of the people; human dignity, equality, human rights, non-discrimination and protection of the marginalised; good governance, integrity, transparency and accountability; and sustainable development (Constitution of Kenya, 2010, art. 10 (2) (a-d)). These principles are binding on all state organs, other state agents including everybody where they apply or interpret

the constitution, enact, apply or interpret any law or make or implement decisions of public policy (Constitution of Kenya, 2010, art. 10 (1) (a-c)).

Other states' obligations include: provision of systems of EIA, environmental audit and monitoring of the environment; to get rid of processes and activities with potential environmental risk; and to utilise the environment and natural resources for the benefit of the people of Kenya (Constitution of Kenya, 2010, art. 69 (1) (g-h)). It is the duty of all individuals to cooperate with state organs to protect and conserve the environment and also ensure ecologically sustainable development of natural resources (Constitution of Kenya, 2010, art. 69 (2)). The state must ensure that it fulfils these responsibilities through legislation and other measures (Constitution of Kenya, 2010, art. 42). Hence, both the state and citizens have a duty towards realising the protection of environment and sustainable development of resources.

Conclusion

This article discussed sustainable development that considers social, economic, environmental and governance concerns. This will give recognition to and address the problems encountered in the mining industry. It examined the mining laws in Nigeria and discovered the inadequacies in the laws to ensure sustainable development in the mining industry effectively. For instance, concerns like participation and involvement of affected communities or interested parties in the development of mineral resources on their lands are poorly considered in the mining laws. Access to information and level of awareness to such development is poor. The amount of time given to the public to submit their comments for publication, of the intention to mine in a community, is limited. The involvement of concerned people in the decision-making process is important and needs to be adequately considered in mining laws. For the purpose of addressing the challenges, the laws of other countries such as South Africa and Kenya were assessed to draw lessons for Nigeria, particularly the mining industry.

From the examination of the mining laws in South Africa and Kenya, sustainable development is considered in the relevant laws. Specific provisions embedding sustainable development in the laws is a lesson for Nigeria. While these are contained in the supreme law of the land which is the constitution, relevant laws give effect to the provisions of the constitution. This is lacking in Nigeria, as the constitution fails to provide a framework for sustainable development which should be given effect to by other relevant laws. In South Africa, section 24 of the 1996 Constitution promotes sustainable development which integrates socioeconomic and environmental concerns. It contemplates social concerns, economic benefits, and environmental protection. The provisions of the constitution is affirmed in the Mining Act (MPRDA, Preamble, s. 2 (h), s. 37 (2) and Environmental Act (NEMA, Preamble & s. 1).

Furthermore, sustainable development is binding on both state organs and other persons. This offers a lesson for Nigeria and the mining industry. In Nigeria, it is stated

that the sustainable development of mineral resources in Nigeria is the function of the Minister of the Federal Ministry of Mines and Steel. The Kenyan Constitution makes provision for governance and its principles include good governance and sustainable development which are binding on organs of the State and everyone in instances where they apply or interpret any law or make decisions of public policy. The obligation to ensure the sustainable development particularly in the process of the exploitation of mineral resources is usually the responsibility of the State government. However, in Kenya, aside from the state's obligation, all persons, mining companies inclusive, have a duty not only to protect the environment but to guarantee ecological sustainable development of natural resources. Another lesson is that, in South Africa and Kenya, the obligation of the State towards ensuring sustainable development must be accomplished by passing necessary laws and through other measures.

Thus, government must ensure that by all means, they attain sustainable development. The relevant mining laws made further provisions addressing social concerns, economic benefits and environmental protection that aim at achieving sustainable development in the process of mining. These provisions serve as guideline to mine operators and the public to know what to do to protect affected communities, their environment, and ensure that the benefits of the exploitation of mineral resources are transferred to both the present and future generations. The provision of a framework for sustainable development and its principles provides guidance to the court when they consider matters related to sustainable development. This will serve as a basis for further interpretation of the provision of the laws. An example is the case adjudicated by the court in South Africa, where it stated that sustainable development provides a framework that reconciles socioeconomic development and environmental protection (Fuel Retailers Case). In Kenya, the principles of sustainable development are listed to guide the High Court when it presides over matters that concern the contravention of the right to a clean and healthy environment (EMCA, s. 5).

Another important lesson for Nigeria is that human rights principles are adopted by the laws of governance. In the Kenyan Constitution, human rights are recognised as principles of governance (Constitution of Kenya, 2010, art. 10 (2)(b)). The principles of human rights guiding government agencies and state organs will curtail abuse of human rights in the industry. In South Africa, the court stated that the protection of the environment is vital to the enjoyment of other rights contained in the Bill of Rights and thus must be protected for the benefit of both present and future generations (Fuel Retailers case, para. 102 and HTF Developers case, para. 28). This implies that environmental protection which is an ideal of sustainable development must be realised to create an environment for the enjoyment of human rights. Environmental protection is affirmed in the right to an environment that is not harmful to the health or well-being (1996 Constitution of the Republic of South Africa, s 24(a)). This right is interconnected

with other rights. Hence, the realisation of the protection of this right results in the protection of other rights.

Recommendations

This study recommends that relevant laws in Nigeria must be strengthened to accommodate sustainable development and its principles. There is need for the government to improve governance for sustainable development, achievable through national framework, policies and enforcement. The framework must contemplate social, economic, environmental and governance concerns. This will require reforms in the laws. States should also promote the responsibility of other actors like mining companies and other stakeholders towards sustainable development and ensure that these groups perform their roles. In Kenya, the responsibility of the state and other individuals was provided in the constitution. Nigeria and other countries should reiterate this and further elaborate such responsibilities in relevant laws.

To be able to tackle governance challenges, human rights principles should guide governments in the manner they govern the mining industry. SDG indicates that human rights and effective governance based on the rule of law is needed to achieve sustainable development (UNDP, SDG 16 Peace, justice and strong institutions). These principles should be embedded in the mining laws and policies to address socioeconomic and environmental challenges in the mining industry in Nigeria.

Mining laws should be strengthened to consider the protection of other human rights. This will capture and address socioeconomic concerns and achieve sustainable development on the long run. The relevant laws should take cognisance of the consultation and participation of affected communities and other stakeholders in the decision making concerning mining development. They should elaborate how mining companies and governments should ensure their involvement in decision-making processes and guarantee access to necessary information regarding mining development.

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