

## AN APPRAISAL OF THE CONFORMITY OF THE 2007 NIGERIAN MINERALS AND MINING ACT TO THE POLLUTER PAYS PRINCIPLE<sup>1</sup>

### Abstract

The high economic potentials of solid minerals have drawn Nigeria to the exploitation of the many mineral resources found in many States of the federation particularly as revenue from oil industry is dwindling. However, these solid minerals cannot truly be beneficial if efforts are not also directed to containing the high incidence of environmental pollution and degradation associated with its exploitation. The environmental hazards include landscape destruction, air pollution from heavy dust that accompanies soil excavation, and watercourse pollution. Aware of the overall need for balancing out every economic development with environmental protection, Nigeria adopted the 'polluter pays principles' in the 1999 National Policy on the Environment (revised in 2016) as one of the principles for pollution control and prevention in the country. The 'polluter pays principle', seeks to hold a polluter responsible for the cost of remedying the injuries caused by pollution generated by him. It is believed that by holding a polluter responsible for injuries from pollution caused by him he would be very careful not to pollute the environment. Given the high incidence of environmental pollution associated with the mining industry this paper has critically inquired into how far the polluter pays principle has been applied in the regulation of the mining industry in Nigeria under the Minerals and Mining Act 2007. The finding is that though the Minerals and Mining Act 2007 contains the tenets of the 'polluter pays principle', Nigeria is yet to developed a public service that is sufficiently patriotic, and focused to sincerely actualize the 'polluter pays principle' in the administration of the mining industry. Corruption, tribalism, religious bigotry and nepotism are some of the problems that prevent the public service from rising up to the administrative demands of the 'polluter pays principle'.

**Key words:** Environmental pollution, Mining industry, Nigerian Minerals and Mining Act 2007, Polluter Pays Principle, Solid minerals

### 1. Introduction

The commitment of the present Nigerian government to exploiting the many solid minerals in different parts of the country as a viable supplement to the dwindling revenue from oil has raised concerns for environmental protection in the mining industry on account of the high incidence of environmental pollution and degradation associated with solid minerals exploitation. The concern is palpable because unlike oil-related pollution which is confined to the Niger Delta region, pollution associated with solid mineral exploitation would be pervasive because of the presence of solid minerals in all the States of the federation. Nigeria is endowed with as many as 44 solid minerals deposited in the 36 states of the federation and in quantities estimated to run into trillions of dollars annually.<sup>2</sup> Environmental hazards associated with solid mineral exploitation include landscape pollution resulting from wide and deep earth excavations, air pollution from thick plums of dust thrown into the atmosphere in the areas of mineral exploitation, and watercourse pollution from dumping of tailings. Any economic enterprise that is not balanced out with environmental protection turns out to be, in the long run, unsustainable and injurious. Aware of this Nigeria developed in 1999 the National Policy on Environment (revised in 2016) in order to see that economic ventures integrate measures for environmental protection and development. One of the principles adopted in the National Policy on Environment for this goal is the 'polluter pays principle' (PPP). The PPP seeks to hold a polluter responsible for injuries resulting from pollution caused by him. Given the great potentials solid minerals exploitation for pollution, this paper critically examines how far the PPP has been applied by the Minerals and Mining Act 2007 (MMA 2007) in regulating the exploitation of solid minerals in Nigeria. The importance of this inquiry is that if polluters are not held responsible for their actions, solid mineral exploitation would result to pervasive environmental pollution and degradation in the country. The paper first takes an overview of the PPP. It goes further to find out who a polluter is. Then it proceeds to look at what a polluter pays and how he pays for it. From this background the paper goes on to inquire into the application of the PPP in the MMA 2007. The finding of the paper is that PPP is adopted by the MMA 2007 with a lot of powers given to the public administration for its enforcement. However, Nigeria is yet to have the competent,

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<sup>2</sup> O. Iroegbu-Chikezie, 'Experts make case for solid mineral policy', *The Nation*, Online, 22<sup>nd</sup> January, 2016, <http://thenationonline.net/experts-make-case-for-solid-mineral-policy/>, accessed 3<sup>rd</sup> October, 2016.

motivated and focused civil service to enforce the PPP. Corruption, nepotism, religious bigotry and tribalism are some of the problems preventing the Nigeria public administration from rising to the position to be able to enforce the PPP diligently.

## 2. The 'Polluter-Pays' Principle (PPP)

PPP was first developed in the 1920s as an economic principle in environmental management as it relates to resolving the issue of improper allocation of costs resulting from environmental pollution. The improper allocation of production costs resulted from the fact that hitherto the costs of remedying environmental pollution were not considered as integral part of the production costs of the persons or companies that caused the pollution. The costs went to the society at large but not specifically to the polluters, thereby increasing the costs of production of other members of the society who actually did not cause the pollution. An example is the case of a laundryman who could not hang washed clothes outside without them being blackened by the smoke-saturated air in England at the time due to the smoke from the chimneys of factories and industries that were powered by coal. To continue his business, the laundryman had to endure additional costs in finding alternative ways of drying clothes without having them blackened. The costs for finding and utilizing this alternative drying method were additional costs to his business and were induced by the polluter. Moreover, the additional cost raised his cost of production and possibly reduced his profit. The improper allocation of costs lies in the fact that the additional costs to the laundryman should truly be borne by the polluter. The improper allocation of costs affected trade and international investment. The PPP advocates for the internalization of the external costs by which the polluter (factory) merges both the external and private costs in order to achieve a true and realistic price for his products or services and this results to proper allocation of costs.<sup>3</sup>

In 1972 the Organization of Economic Cooperation and Development (OECD) recommended the PPP as the 'Guiding Principle concerning the International Economic Aspects of Environmental Policies'.<sup>4</sup> In 1973 the Declaration of the Council of the European Communities and of the Representatives of the Governments of the Member States on the Programme of Action of the European Communities on the Environment chose PPP as one of the principles of Community's environmental policy.<sup>5</sup> From 1973 the European Community adopted the PPP as a permanent principle in environmental legislation.<sup>6</sup> In 1987 it was raised to the status of a constitutional principle within the European Community with the new article 130 (r) of the Single European Act.<sup>7</sup> In 1992 it was confirmed by the Treaty on European Union.<sup>8</sup> The 1990 International Convention on Oil Pollution Preparedness, Response and Cooperation in London referred to PPP as '*a general principle of environmental law.*'<sup>9</sup> Affirming PPP as a general principle of environmental law the United Nations at the 1992 Rio Declaration adopted it as one of the principles for achieving sustainable environment and development. Principle 16 of the declaration states:

National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.

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<sup>3</sup> See M. Munir, 'History and Evolution of the Polluter Pays Principle: How an Economic Idea Became a Legal Principle', [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2322485](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2322485), accessed 13 January 2017.

<sup>4</sup> OECD, *Guiding Principle concerning the International Economic Aspects of Environmental Policies*, 26 May 1972 - C(72)128, A(a).

<sup>5</sup> **Declaration of the Council of the European Communities and of the representatives of the Governments of the Member States, 22 November 1973, Title II, no. 5.**

<sup>6</sup> European Communities' First Programme of Action on Environment, 1973. See C. Hey, EU 'Environmental Policies: A short history of the policy strategies', p.3, <http://www.eeb.org/publication/chapter-3.pdf>, accessed 19 January 2017.

<sup>7</sup> Single European Act 1987, O JL 069, 26/6/1987.

<sup>8</sup> See Articles 130 R.2 and 130 S.5 of the Treaty on the European Union, Maastricht, 7th February 1992.

<sup>9</sup> The Preamble of the Convention contains the following recital 'Taking account of the polluter pays principle as a general principle of international environmental law'.

As a general principle of environmental law, state-members of the international community are obliged to apply the PPP instrument in their municipal legislations that have things to do with the environment. Like other countries Nigeria adopted the PPP in the 1999 National Policy on the Environment (revised in 2016) as one of the principles that would drive Nigeria's policy on environmental protection and remediation.<sup>10</sup>

### **3. Who is a Polluter?**

The verb 'pollute' according to Oxford Dictionary means to contaminate (water, the air, etc.) with harmful or poisonous substances.<sup>11</sup> Environmental science holds that environmental contamination or pollution can result from natural and anthropogenic causes. The lavae from an active volcano for instance represent environmental pollution from a natural cause. Urban garbage represents, on the other hand, environmental pollution from anthropogenic causes. All the same, for the purposes of the PPP, nature cannot be regarded as a polluter because it cannot be held financially or in any other way responsible for the pollution it causes. So it is not a polluter for the purposes of PPP. Thus, the European Commission understands a 'polluter' in the anthropogenic sense by defining him as 'someone who directly or indirectly damages the environment or who creates condition leading to such damage.'<sup>12</sup> The OECD also understands him likewise by defining 'pollution' as '...the introduction by man, directly or indirectly, of substances or energy into the environment resulting in deleterious effects....'<sup>13</sup> However, the fact that these two definitions see a polluter as 'someone' or a 'man' does not mean that only human persons can be polluters. Legal persons like corporations are also polluters from the fact that pollution can occur from the activities of corporation. In Nigeria, corporations like the Shell have been judicially found liable in a number of cases for pollution in the Niger Delta.<sup>14</sup> Consequently, a polluter can be a physical or legal person whose activities pollute the environment.

The definition of a polluter given by the European Council identifies three classes of persons who can be polluters: (a) a person who directly damages the environment; (b) a person who indirectly damages the environment; and (c) a person who creates a condition leading to such damage. An instance of a person who directly pollutes the environment would be a corporation that sends thick puffs of smoke into the air from the chimney of its factory. On the other hand, an example of a person who indirectly pollutes the environment would be a corporation whose product pollutes the environment. In Nigeria where plastics used for sachet and bottled water are grave polluters of the physical environment, makers of sachet and bottled water come into the class of indirect polluters. The situation with the third type of persons who pollute the environment is that they neither throw any pollutant into the environment by themselves nor produce any product the use of which pollutes the environment. But they create a situation that induces persons to pollute the environment either directly or indirectly. This is analogous to the situation in Nigeria where the fact that government has woefully failed to provide constant and reliable electricity has led people and corporations to run their lives and businesses on generating sets which cause air pollution with the carbon dioxide and carbon monoxide they throw into the air. In this way the Nigerian government becomes also a polluter. But how far this third class of polluters can be held liable for their acts of pollution is difficult to ascertain. The clear distinction of these classes of polluters does not however mean that the identification of the polluter in every situation of environmental pollution is that easy in order to determine what each polluter would pay. It could be difficult, and even impossible if environmental pollution arises from several simultaneous causes or from several consecutive causes.<sup>15</sup> Another class of polluters is that of persons that may be considered as 'deemed polluters'. These are persons who neither pollute the environment directly or indirectly, nor create a condition that leads to pollution. For these persons there is only an uncertain possibility that

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<sup>10</sup> 1999 National Policy on the Environment (revised in 2016), s. 1.5(3).

<sup>11</sup> <https://en.oxforddictionaries.com/definition/pollute>

<sup>12</sup> Annex to Recommendation 75/436, OJ L 194/1, 1975, Pt. III.

<sup>13</sup> OECD Council Rec. C (74) 224 of 15 November, 1974.

<sup>14</sup> See *Shell Petroleum Development Company (Nigeria) Limited v. H.R.H. Chief G.B.A. Tiebo VII and others* [1996] 4 NWLR (Pt 445) 71; *Chief Simon Onajoke v. Seismograph Service Ltd.*, suit No. SHC/28/67. Sapele High court, delivered on January 29, 1971 (Unreported); *Seismograph Services Ltd v. Onokpasa* (1972) 4 S.C. 123; *Ogiale v. Shell BPD Ltd.* (1997) NWLR (Pt 480) 148.

<sup>15</sup> M. Munir, 'History and Evolution of the Polluter Pays Principle: How an Economic Idea Became a Legal Principle'

their activities could pollute the environment and so they pay for pollution prevention measures prescribed by public administration. Their payment is solely for precautionary purposes.

#### 4. What does a Polluter Pay?

The idea ‘polluter pays’ gives an erroneous impression that the polluter intrinsically bears the costs of the externalities. All he does is to merge the externalities with his private costs but he does not actually pay for them. He passes the costs to the consumers who ultimately use his products. Munir underscored this point when he wrote that incentives were required to motivate the polluter to internalize the external cost so that the complete production cost would be reflected in the price of the goods which the consumer pays in the final analysis.<sup>16</sup> But before the consumer can pay for them, the polluter must first internalize them and it is in this sense that it is said that the polluter pays for pollution. PPP does not however mean that the polluter has to pay for the cost of abating every bit of pollution connected to his product. Though this is desirable, it is not feasible for a number of reasons. First, absolute abatement of pollution is not possible. Pollution is so part of human life and society that it cannot be eliminated completely. It is like crime which no society aims at eradicating but at curtailing it to a very low scale. What is normally talked of is keeping pollution at an acceptable level and not completely eliminating it. Second, any attempt at eliminating pollution completely bears negative implications for national economic productivity as the cost of production would be prohibitive. This would impede trade and investment. Underscoring this point, Munir wrote that ‘economic literature, however, does not accept the idea of ‘eliminating pollution’ or zero pollution’.<sup>17</sup> According to him, ‘zero pollution’ means zero economic activity.<sup>18</sup> This reality plays out within the members of the OECD where in spite of PPP being wholeheartedly adopted, still all the external costs are not fully internalized in the member states of the organization. For instance, in spite of the U.S. relying preponderantly for its energy use on imported petroleum, yet the cost of gas is far cheaper in the US than in some of the countries it imports crude oil from. The question then is, if all the external costs are not to be internalized, what does PPP truly stand for in relation to what law should make a polluter pay? To this question the OECD stated that the principal reasons for formulating the PPP were (a) ‘to encourage the rationale use of environmental resources’ and (b) ‘to avoid distortions in the international trade and investment’.<sup>19</sup> PPP therefore is not solely about environmental protection but is equally for making sure that interests of trade and international investment are not jeopardized. In the final analysis what a polluter pays has to be balanced out between these two interests. The externalities internalized by a polluter must not be such as to make production cost to be too high that trade and international investment would be disadvantaged. At the same time the societal cost not internalized by the polluter must not be so much as to drive the cost of other economic activities so high as to also disadvantage trade and international investment. This conclusion is well in line with the declaration of the OECD to the effect that the PPP is nothing more than an efficiency principle for allocating costs and does not involve bringing pollution down to an optimum level of any type, although it does not exclude the possibility of doing so.<sup>20</sup> What a polluter pays becomes ultimately what is economically convenient for the country at a given time and not necessarily what is required for eliminating pollution. Thus for Munir, what a polluter pays is what government authorities decide that is necessary to keep the environment in an acceptable state.<sup>21</sup> And what constitutes an acceptable state according to Bonus and Holgar is not necessarily the sustainability of the environment but political and economic feasibility as well.<sup>22</sup> Polluters have been held to pay for certain pollution control and prevention measures.

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<sup>16</sup> Ibid.

<sup>17</sup> Ibid.

<sup>18</sup> M. Munir, *The Polluter Pays Principle*, chapter 2, sec. 2.5(a).

<sup>19</sup> OECD, 1972 C(72) 128.

<sup>20</sup> OECD Note on the Implementation of the PPP by the Environment Committee, OCDE/GD (92)81, p. 25. See M. Munir, ‘History and Evolution of the Polluter Pays Principle: How an Economic Idea Became a Legal Principle’

<sup>21</sup> M. Munir, ‘History and Evolution of the Polluter Pays Principle: How an Economic Idea Became a Legal Principle’

<sup>22</sup> Bonus & Holgar, ‘Implications of the Polluter Pays and the User Pays Principles for Developing Countries’, *Fair Principles for Sustainable Development*, ed. by Edward Dommen, Cambridge, 1993, p. 67.

## 5. Some Pollution Control and Prevention Measures Paid for by Polluters

### Anti-Pollution Installation and Equipment

According to the EC (European Community) Council Recommendation on Cost Allocation and Action by Public Authorities on Environmental Matters, investment in anti-pollution installations and equipment is one payment a polluter has to make pursuant to PPP.<sup>23</sup> These are installations and equipment that the polluter is compelled by regulation to put in place for environmental pollution control and prevention. It is also within the concept of PPP for a polluter to pay for anti-pollution installations that are not prescribed by public authorities but which he considers would help him reduce his externalities and by doing so reduce over time the cost of his production.<sup>24</sup>

### Administrative Costs for Implementation of Anti-pollution Measures

The EC Recommendation also makes the polluter responsible for administrative costs directly connected to the implementation of anti-pollution measures.<sup>25</sup> According to the OECD Recommendation, the administrative measures talked of here are special studies carried out prior to the issue of a license, detailed inspections of a hazardous installation, preparation of the specific emergency plan for such an installation, etc.<sup>26</sup> Special studies would cover activities like conferences and seminars aimed at acquainting polluters of the workings of given anti-pollution measures. The costs of such activities are to be borne by the polluter. However, it is not every cost generated by public authorities in pollution control and prevention that is borne by polluters. Public authorities are to bear the costs of things and services that do not go directly to pollution control and prevention. The OECD states that ‘the cost to the public authorities of constructing, buying and operating pollution monitors and supervision installations may, however, be borne by those authorities.’<sup>27</sup> A justification for this is that these installations do not control or prevent pollution. They only aid public administration in its ordinary public-service-duty of monitoring pollution and so are not strictly speaking anti-pollution installations. Therefore, their costs should be borne by the public authorities and not by the polluters.

### Measures for Preventing and Controlling Accidental Pollution

There is a wide consensus that PPP applies also to the cost of the measures decided by public authorities for preventing and controlling accidental pollution.<sup>28</sup> In a declaration adopted in 1988, the OECD acknowledged that PPP was also applicable to accidental pollution.<sup>29</sup> The OECD went further in 1989 in its Recommendation on the subject of accidental pollution and accepted that the cost of measures to prevent and control accidental pollution should be borne by potential polluters.<sup>30</sup> A polluter bears this cost even if these measures were taken by him or by the authorities.<sup>31</sup> Examples of such costs are costs of preventing accidents capable of inflicting damage to the environment as well as costs of clean-up after the accident and the costs of reinstatement of the environment.<sup>32</sup> Smets argues that ‘some of the post-accident costs initially borne by the victims (i.e. clean-up) may be charged to the polluter at the origin of the accident (*gestion d’affaire*).’<sup>33</sup> The fact that the polluter defrays *some* of the costs to the victim suggests that the victim should bear the rest of the costs. This goes against PPP since the victim would be paying for a pollution that he did not cause. This is unjust. It is humbly submitted that a just approach would be for the polluter to defray all the costs borne by the victim in cleaning up and reinstating the environment to its pre-accident state. On the other hand, if an accident occurred out of

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<sup>23</sup> Recommendation 77/436, pt. 5(a).

<sup>24</sup> Ibid.

<sup>25</sup> Ibid.

<sup>26</sup> Ibid. Note on the Implementation of the Polluter Pays Principle, OCDE/GD (92) 81.

<sup>27</sup> European Communities’ Council Recommendation of 3 March 1975 regarding cost allocation and action by public authorities on environmental matters, 5(b).

<sup>28</sup> See EC Council’s Recommendation 75/436 & O

<sup>29</sup> Concluding Statement of the OECD Conference on Accidents Involving Hazardous Substances, held in Paris on 9 and 10 Feb. 1988, C (88) 83 (Final)

<sup>30</sup> OECD, 1989, C (98) 88 final.

<sup>31</sup> M. Munir, ‘History and Evolution of the Polluter Pays Principle: How an Economic Idea Became a Legal Principle’.

<sup>32</sup> OECD, 1989, C (89) 88 final.

<sup>33</sup> H. Smets, ‘The Polluter Pays Principle in the Early 1990s’, *The Environment after Rio: International Law and Economics*, Graham & Trotman, London, 1994; p. 137.

the negligence of the operator, then the operator is liable for the damages caused by the accident.<sup>34</sup> An ‘operator’ is defined by the Council of Europe’s Convention on Civil Liability Resulting from Dangerous Activities to the Environment as ‘the person who exercises the control of a dangerous activity.’<sup>35</sup> In this case, it is not the owner of the facility that would be liable for the damages caused by the accident but rather the operator if the owner is different from the operator. In this circumstance the operator could also be deemed a polluter. In the final analysis, this head of matters to be paid for by the polluter is only a specie of the immediately preceding subheading, *Administrative Costs for Implementation of Anti-pollution Measures*.

### **Costs of Residual Damage from Residual Pollution**

Residual pollution refers to that pollution that occurs after all the anti-pollution measures specified by government have been complied with.<sup>36</sup> This is the kind of pollution at a level that government did not intend to control or prevent. Hence it can be referred to as tolerated pollution. However, a problem arises with who pays if injuries result from it. This is like accidental pollution in the sense that the injuries were not anticipated. But it differs from it because the pollution that caused the injuries was tolerated. The position of the OECD is that the polluter should bear the cost.<sup>37</sup> This position has been strongly contested on the ground that in such kind of pollution it is difficult if not impossible to establish a causal link between the injury and a particular individual polluter bearing in mind that it is a pollution that comes from many sources.<sup>38</sup> The view that the victim should sue the state for negligence since the state authorized the polluters to pollute beyond the capacity of the environment has not gained much support.<sup>39</sup> It has been suggested that state law should require the polluters to have such a fund possibly raised by polluters from which victims could be compensated. However, what some state-members of the OECD have craftily done to still hold polluters liable while avoiding the causality problem is to make laws that make a polluter liable even if he complies with existing law on pollution control and prevention.<sup>40</sup>

### **Cost of Transfrontier or Transboundary Pollution**

A polluter under the PPP also has the duty to pay for transfrontier or transboundary pollution control and prevention in accordance as provided by law. Transboundary pollution is the ‘pollution whose physical origin is situated wholly or in part within the area under the jurisdiction of one state and which has adverse effects, other than effects of a global nature, in the area under the jurisdiction of another state’.<sup>41</sup> This duty arises from the adoption of PPP by the international community in different conventions on environmental protection and development. For instance the ECE (Economic Commission for Europe) Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, March 1992) recognizes the PPP as one of the principles that would guide the operation of the convention. It provides that: ‘the parties shall be guided by ... (b) the polluter pays principle, by virtue of which costs of pollution prevention, control and reduction measures shall be borne by the polluter’.<sup>42</sup> Earlier on in 1990 the International Convention on Oil Pollution Preparedness, Response and Cooperation referred to the PPP as ‘a general principle of environmental law’.<sup>43</sup>

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<sup>34</sup> See Council of Europe Convention on Civil Liability Resulting from Dangerous Activities to the Environment, 1993, art. 6(1), Convention on Third Party Liability in the Field of Nuclear Energy, 1960, (as amended by the Additional Protocol of 28th January 1964 and by the Protocol of 16th November 1982), art. 3.

<sup>35</sup> Convention on Civil Liability Resulting from Dangerous Activities to the Environment, 1993, art. 2(5).

<sup>36</sup> See OECD Monograph, *The Polluter Pays Principle*, ‘Forward’ OGDE/GD (92) 81, p. 6; M. Munir, ‘History and Evolution of the Polluter Pays Principle: How an Economic Idea Became a Legal Principle’.

<sup>37</sup> See OECD Monograph, *The Polluter Pays Principle*, p. 6.

<sup>38</sup> See M. Munir, ‘History and Evolution of the Polluter Pays Principle....’

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<sup>40</sup> See OECD Monograph, *The Polluter Pays Principle*, p. 7.

<sup>41</sup> Agreement on Air Quality, U.S.-Can., art. I(2), Mar. 13, 1991, 30 I.L.M. 676, 679 (1991) [hereinafter Air Quality Agreement] (alteration in original).

<sup>42</sup> ECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, March 1992), art. 2(5)(b).

<sup>43</sup> The Preamble of the Convention contains the following recital ‘Taking account of the polluter pays principle as a general principle of international environmental law’.

## 6. How Does a Polluter Pay?

Two approaches have been identified on how a polluter pays: (a) the command-and-control and (b) market-based approaches.<sup>44</sup> Command-and-control approach derives from the military and it refers to the exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. In the context of the PPP, it points to government using its regulatory powers to impose environmental performance and technology standards.<sup>45</sup> Under this approach the polluter bears the cost of not only buying, installing, and maintaining the equipment necessary for pollution control and prevention, but also he pays fees for equipment installed by public administration for pollution control and prevention. This approach affords the polluter no room for initiative in addressing the pollution. He has to only meet the standard or install the technology specified by government. The market-based approach involves the use of instruments like pollution tax or ecotax (ecological tax), tradable pollution permits, and product labeling. Ecotax is charged per unit of pollution emitted. The effect is that a polluter can decide to reduce or avoid the tax by reducing or stopping pollution. According to the OECD, the polluter pays principle is not a principle of equity and as a result it is not designed to punish polluters.<sup>46</sup> Instead it is geared to putting appropriate signals in place in the economic system so that environmental costs are incorporated in the decision-making process and hence arrive at sustainable development that is environment-friendly. All the same the very fact that public administration has to set the necessary standard and regulations for attaining the sufficient level of environmental protection means that punitive sanctions could be applied to get polluters do the needful under the PPP.

## 7. PPP and the Minerals and Mining Act 2007

The principal legal instrument for applying the PPP in the mining industry is the Minerals and Mining Act 2007 (MMA 2007) which is supplemented by the Minerals and Mining Regulations 2011 (MMR 2011). However, neither of these two instruments mentions the PPP. The silence can be explained by the fact that they were made under the umbrella of the 1999 National Policy on Environment (revised 2016) which adopted PPP as a key principle for the protection and development of Nigerian environment and went further to call for its institutionalization in all regulations that have something to do with the environment.<sup>47</sup> Polluters under the MMA 2007 are mineral titleholders whose mining activities could directly or indirectly harm the environment. These are six classes of persons: holders of the reconnaissance permit, exploration licence, mining licence, quarrying licence, small scale mining licence, and water-use permit. In accordance with the character of PPP, the MMA 2007 does not oblige these title holders to zero pollution. It obliges them to prevent and remedy pollution to the acceptable standard. Regulation 212 of the MMR 2011 states that effluent water discharges are to be treated to a permissible level. Regulation 221(5) of the same instrument provides that emissions from an installation shall not exceed the values specified in the National Emission Standards.<sup>48</sup> Detailed obligations of a polluter under the MMA 2007 in conformity with the PPP can be assessed under three major headings: public administration that regulates polluters, specified pollution control and prevention measures to be complied with by polluters, and pollution control and prevention obligations of polluters.

### Public Administration and PPP

One major way polluters pay for pollution caused by them is by defraying the administrative costs for controlling and preventing environmental pollution. To make it easy to identify this kind of costs the MMA 2007 created specific administrative agencies for pollution control and prevention. These agencies are the Mines Environmental Compliance Department (MECD)<sup>49</sup> and Mineral Resources and Environmental Management Committee (MREMC).<sup>50</sup> The functions of the MECD include reviewing all plans, studies and reports required to be prepared by holders of mineral title in respect of their

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<sup>44</sup> 'Polluter Pays Principle' in Mapping Environmental Justice, <http://www.ejolt.org/2013/05/polluter-pays-principle/>, accessed January 9, 2017.

<sup>45</sup> Ibid.

<sup>46</sup> OECD Monograph, *The Polluter Pays Principle*, 'Forward' OGDE/GD (92) 81, p. 9.

<sup>47</sup> 1999 National Policy on Environment (Revised 2016), 3.3(iv).

<sup>48</sup> See Minerals and Mining Regulations, 2011, Regulation 221(6-7).

<sup>49</sup> Minerals and Mining Act 2007, s.16(1)(b).

<sup>50</sup> Ibid., s.19(1).

environmental obligations under the Act.<sup>51</sup> While the MECD operates at the national level, the MREMC operates at the state level as it is created for each state of the Federation.<sup>52</sup> The MREMC is constituted by members drawn from the MECD and government ministries such as the state ministry for land matters or mineral related matters, state ministry of agriculture or forestry, state Surveyor-General, Local Government Council of a given local government when matters affecting the said local government area are being considered by the Committee, state environmental department or agency, and Federal Ministry of Environment in the State.<sup>53</sup> For the purposes of PPP the MREMC discusses, considers and advises the Minister on the matters affecting pollution and degradation of any land on which any mineral is being extracted and how the polluter should be made responsible for the pollution and degradation.<sup>54</sup> The costs of the services provided by these administrative organs are ultimately borne by polluters through the fees they pay for the administration of the Act. The Act provides for three classes of fees: (a) fee for processing of applications for mineral titles,<sup>55</sup> (b) annual service fees established at a fixed rate per square cadastral unite for administrative and management services rendered by the Cadastre,<sup>56</sup> and (c) rehabilitation fee to be paid by small scale mining leaseholders as a way to defray further cost of rehabilitation and reclamation.<sup>57</sup> The processing fee for mineral title application is not a PPP fee since processing applications for mineral titles is not concerned with pollution prevention or control. The annual service fees and the rehabilitation fee are PPP fees because they are applied to pollution control and prevention. It is not clear why it is only small scale mining leaseholders that are required to pay additionally the rehabilitation fee when they are amongst the mineral title holders that pay into the Environmental Protection and Rehabilitation Fund (EPRF), which is used to, *inter alia*, meet the environmental obligations of mineral title holders. These obligations include rehabilitation and reclamation of mined out areas.<sup>58</sup> A mineral title shall be liable for revocation if the holder failed to pay the prescribed fees.<sup>59</sup>

### **Pollution Control and Prevention Measures to be complied with by Polluters**

Another way by which the PPP is actualized is by a polluter bearing the costs of complying with measures set up by public administration for pollution control and prevention. Measures established under the MMA for that purpose include the: Environmental Impact Assessment Statement (s. 119(c)(i)), Environmental Protection and Rehabilitation Program (s. 119(c)(ii)), Environmental Protection and Rehabilitation Fund (EPRF) -(s.121(1)), and Community Development Agreement (s. 116 (1)), which refers to the obligation of involving the community hosting mining activities to be involved in the control and prevention of pollution in their area. Every holder of an exploration licence, small-scale mining lease, mining lease, quarry lease and water-use permit prior to the commencement of mining operations, or upon application for an extension of the term or upon an application for the conversion of a Mineral title shall submit to the MECD an Environmental Impact Assessment Statement approved by the Federal Ministry of the Environment in respect of the exploration or mining operations to be conducted within the mineral title Area. It is a declaration of the titleholder on the satisfaction of the relevant prescriptions of the Environmental Impact Assessment Act.<sup>60</sup> Regulation 160 of the MMR 2011 gives a long list of safeguards that the polluter must satisfy. Amongst the safeguards is that the Environmental Impact Assessment must be done by experienced and qualified multi-disciplinary personnel.<sup>61</sup> The Environmental Impact Assessment should *inter alia* provide a description of the project as well as the process for matters like: mineral processing technique;<sup>62</sup> spoil disposal;<sup>63</sup> effluent

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<sup>51</sup> Ibid., s.18(a)

<sup>52</sup> Ibid., s.19(1).

<sup>53</sup> Ibid., s. 19(2)(a,b,d,e,f,g,h)

<sup>54</sup> See *ibid.*, s. 19(3)(c).

<sup>55</sup> Ibid., s. 10(a).

<sup>56</sup> Ibid., s. 10(b).

<sup>57</sup> Ibid., s. 90(2)

<sup>58</sup> Ibid., ss. 121(1& 4), 120(1).

<sup>59</sup> Ibid., s. 11.

<sup>60</sup> Minerals and Mining Regulations, Reg. 160(2).

<sup>61</sup> Ibid., Reg. 160(2).

<sup>62</sup> Ibid., Reg. 160(3)(i)

<sup>63</sup> Ibid., Reg. 160(3)(i)(j)



(air and water) discharge;<sup>64</sup> health, safety and environmental issues;<sup>65</sup> land reclamation, closure and restoration.<sup>66</sup> The potential polluter must bear the costs for securing these guarantees. Also every holder of an exploration licence, small-scale mining lease, mining lease, quarry lease and water-use permit prior to the commencement of mining operations, or upon application for an extension of the term or upon an application for the conversion of a mineral title shall submit to the MECD an Environmental Protection and Rehabilitation Program containing such details as may be prescribed by the regulations to the Act.<sup>67</sup> This is a blue-print on how the polluter would restore the environment to an environmentally healthy status when mining activities are finished or even when they are not finished but there are needs for restoration and reclamation. Section 120 of the MMA 2007 specifies the contents of this program. The program hinges on four things, namely: (a) specific rehabilitation actions, inspections and annual reports;<sup>68</sup> (b) a reasonable estimate of the total cost of rehabilitation;<sup>69</sup> (c) cost estimates for each specific rehabilitation and reclamation action;<sup>70</sup> and (d) a timetable for the orderly and efficient rehabilitation and reclamation of the mineral title area to a safe and environmentally sound condition suitable for future economic development or recreational use.<sup>71</sup> More directly the Environmental Protection and Rehabilitation Fund (EPRF) manifests the PPP. Section 121(1) of the MMA 2007 directs the Minister in charge of solid minerals to establish this Fund for the purpose of seeing that minerals titleholders discharge their environmental obligations under the Act. Section 121(4) provides that every holder of a mineral title shall commence contributing to the EPRF in accordance with the amounts specified in the approved Environmental Protection and Rehabilitation Program not later than one year from such approval. There is punishment for failure to make payment to the Fund. Section 122(3) authorizes the trustees of the Fund to, *inter alia*, sue a titleholder for the recovery of the outstanding amount after the statutory notices for payment to the Fund have been given and yet he fails to make the payment.

Another measure put out by the MMA 2007 which polluters have to comply with pursuant to the PPP is the Community Development Agreement (CDA). Section 116(1) of the MMA provides that the holder of a mining lease, small scale mining lease or quarry lease shall prior to the commencement of any development activity within the lease area conclude with the host community where the operations are to be conducted an agreement referred to as a Community Development Agreement or other such agreement that will ensure the transfer of social and economic benefits to the community. These benefits are a kind of general compensation for the environmental impact of mining activities in their community. Thus amongst the issues to be addressed by the agreement are methods and procedures of environmental management.<sup>72</sup> The costs of complying with these pollution control and prevention measures are externalities which polluters have to internalize and incorporate in the prices of their products.

### **General Pollution Control and Prevention Obligations of Polluters**

Apart from the obligations of complying with the specific measures put out by public administration and paying for administrative costs on pollution control and prevention, there are general obligations for pollution control and prevention the costs of which polluters bear in their respective stages in the mineral exploitation process. A breach of any of these obligations gives rise to the polluter paying compensation to the victim. For instance, a holder of an exploration licence bears the obligation to conduct exploration activities in an environmentally responsible manner.<sup>73</sup> He is to maintain and restore, the land that is the subject of the licence to a safe state from any disturbance resulting from exploration activities including but not limited to filling up any shafts, wells, holes or trenches made by the

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<sup>64</sup> *Ibid.*, Reg. 160(3)(i)(k)

<sup>65</sup> *Ibid.*, Reg. 160(3)(i)(l)

<sup>66</sup> *Ibid.*, Reg. 160(3)(i)(o)

<sup>67</sup> Minerals and Mining Act 2007, s. 119(c)(ii).

<sup>68</sup> *Ibid.*, s. 120(1)(a).

<sup>69</sup> *Ibid.*, s. 120(1)(b).

<sup>70</sup> *Ibid.*, s. 120(1)(c).

<sup>71</sup> *Ibid.*, s. 120(1)(d).

<sup>72</sup> *Ibid.*, s. 116(3)(e).

<sup>73</sup> *Ibid.*, s. 61(1)(b).

titleholder.<sup>74</sup> He is to compensate users or occupiers of land for damage to land and property resulting from activities in the exploration area.<sup>75</sup> On his part, a holder of mining lease has the duty to maintain the mining lease area and mining operations in a safe manner in compliance with applicable mine health and safety regulations.<sup>76</sup> A holder of mining lease or exploration licence shall not in the course of mining or exploration or minerals pollute or cause to be polluted any water or watercourse in the area within the mining lease or beyond it.<sup>77</sup> A holder of a quarry lease shall not take any protected tree except with the consent of the proper forestry officer<sup>78</sup> and he should not make any alteration in the flow of water in any navigable water as would obstruct or interfere with or is likely to obstruct or interfere with the free and safe passage of any vessel, boat, canoe or other craft.<sup>79</sup> A holder of the small scale mining lease is obliged to carry out effective rehabilitation of the mined out areas to the satisfaction of the MECD.<sup>80</sup> It is an implied condition for the grant of a mineral title for a titleholder to pay the assessed compensation.<sup>81</sup> Failure to pay the compensation assessed by the competent authorities may result to mineral title being suspended by the Minister.<sup>82</sup> These general obligations are to be fulfilled to the standard prescribed by public administration. The MMA 2007 foresees a possibility of residual pollution injury from the exercise of the right conferred by any of the mineral titles and makes provisions for it by holding the polluter responsible for it. Section 125 (a) provides that ‘a licensee or lessee shall pay compensation to the owner or occupier whose land or interest in the land is injuriously affected by the exercise of the rights conferred by the licence or lease, for any such injurious effect not otherwise made good’. The phrase ‘for any such injurious effect not otherwise made good’ points to pollution occurring after the polluter has satisfied the measures and standards prescribed by law. Remedy for such pollution injury is not ordinarily provided for by the statute. So section 25 comes to provide for it. Such a protection should not be limited to land and interest in it but also to other media of the environment such as air and water.

## 8. Conclusion

The MMA 2007 has applied the PPP in regulating the exploitation of solid minerals. The application however adopted mainly the command-and-control approach which allows few spaces for personal initiatives in pollution control and prevention. The only clear instance of economic approach is in the administration of the Environmental Protection and Rehabilitation Fund (EPRF) where section 121(5)(a) of the MMA provides for a refund to a titleholder if the amount contributed to the EPRF is higher than the amount used for the approved environmental protection and rehabilitation. This approach is better because it elicits more personal interest and initiative in pollution control and prevention. Another problem with the application of the PPP in the MMA 2007 is that it lacks enforcement. The application of the PPP revolves mainly on a committed public administration that engages the issue of pollution control and prevention in the mining industry with patriotism and zeal. Nigeria is yet to have such a public administration. Corruption, tribalism, religious bigotry, nepotism and incompetence are a few of the major problems that have robbed public service in Nigeria of the needed cohesion and focus to enforce the PPP in the mining industry. Consequently, for the PPP to be more meaningfully applied in the mining industry, these problems need to be first attended to.

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<sup>74</sup> Ibid., s. 61(1)(d).

<sup>75</sup> Ibid., ss. 61(1)(g), 98(3), 107(a &b),

<sup>76</sup> Ibid., s. 70(1)(d).

<sup>77</sup> Ibid., s. 123.

<sup>78</sup> Ibid., s. 78(3)(b).

<sup>79</sup> Ibid., s. 78(5)

<sup>80</sup> Ibid., s. 90(2).

<sup>81</sup> Ibid., s. 110.

<sup>82</sup> Ibid., s. 109